

# HEADBOLTS



2012  
2013

CATPA1201



Cylinder Headbolts  
Zylinderkopfschrauben  
Viti Testa Cilindro  
Vis de Culasse  
Tornillos de culata  
Śruby głowicowe  
Болты крепления ГБЦ

 **FEDERAL  
MOGUL**



 **GLYCO**

 **GOETZE**

*Niral*

 **Payen**

# 🇬🇧 REASONS TO CHOOSE PAYEN HEADBOLTS

- ➔ HIGH PRODUCT SPECIFICATION, IN LINE WITH PAYEN GASKETS AND SEALS
- ➔ ANTI-COUNTERFEIT PACKAGING PROTECTING OUR BRAND INTEGRITY AND ASSURING YOU OF GENUINE PAYEN PARTS
- ➔ CLASS-LEADING CATALOGUE WITH WIDEST RANGE INCLUDING MANY LATE MODEL APPLICATIONS

**WHEN CHANGING A HEAD GASKET ALWAYS REPLACE THE HEADBOLTS**

## GETTING IT RIGHT – THE IMPORTANCE OF FITTING INSTRUCTIONS

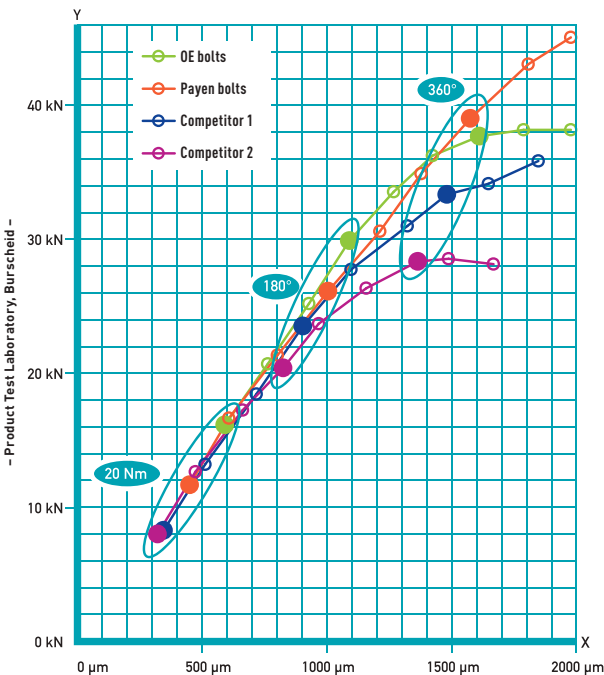
All Payen headbolts come with fitting instructions in the packaging as well in the catalogue. These instructions come directly from qualified data and refer directly to the application for which the headbolts are to be used. When followed correctly, they will ensure that the appropriate clamp load is achieved.



## PROTECTING THE HEADBOLT THROUGH UNIQUE PACKAGING



## TESTS PROVE OUR SUCCESS



### COMPARATIVE BOLT LOAD CURVE

The following bolt loads have been achieved after tightening according to the OE procedure

### CONCLUSIONS & COMMENTS

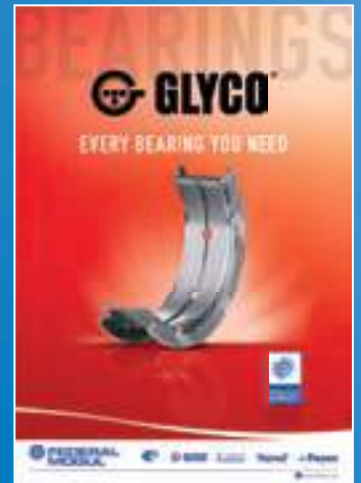
Payen bolts provide comparable loads to the OE bolts at the specified tightening levels. The competitor bolts show significantly lower loads which is indicative of an inferior quality specification, which will cause problems with the integrity and durability of the head gasket seal.

Technical investigation report -  
992UB05-005

- Bolt application: Rover K4
- Bolt dimensions: M9 x 405
- Free clamping length of bolt: 390 mm
- Bolt tightening procedure: 20Nm: +180°, +180°
- Measured bolt loads: Y
- Measured spring rates: X

Comparison of bolt load curves

# COMPLETE ENGINE EXPERTISE



FEDERAL MOGUL   AE   GLYCO   GOETZE   Niral   Payen

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# CONTENTS



Contents	II
Payen history & worldwide presence	IV
Manufacturers list	V
Terms of business	VI
Federal-Mogul latest Engine & Sealing catalogues	VIII - IX
How to use this catalogue	X
Reasons to choose Payen headbolts	XIV
Step-by-step installation guide	XXI
<b>PERFORMS UNDER PRESSURE:</b>	
A Heritage of Quality and Innovation with Payen®	XXVIII - XXIX
BER Certificate	XLII
New parts list	XLIV
Applications by manufacturer	1 - 434
Numerical parts list	436 - 439
Interchange OE -> Payen	440 - 441



Contenuti	II
Storia del marchio Payen e diffusione a livello mondiale	IV
Elenco costruttori	V
Condizioni generali	VI
Ultimi cataloghi guarnizioni e motori Federal-Mogul	VIII - IX
Come si utilizza il catalogo	XI
Perchè scegliere viti testa Payen	XIV
Guida all'installazione passo dopo passoguide	XXIII
<b>PRESTAZIONI SOTTO PRESSIONE:</b>	
Con Payen® una tradizione di qualità ed innovazione	XXXII - XXXIII
Certificazione BER	XLII
Elenco codici nuovi	XLIV
Applicazioni del costruttore	1 - 434
Elenco riferimenti	436 - 439
Interscambio OE -> Payen	440 - 441



Inhaltsverzeichnis	II
Payen Markengeschichte und globale Präsenz	IV
Herstellerliste	V
Geschäftsbedingungen	VI
Neueste Motoren- und Dichtungskataloge von Federal Mogul	VIII - IX
So benutzen Sie diesen Katalog	X
Gute Gründe für Payen-Zylinderkopfschrauben	XV
Schritt-für-Schritt-Montageanleitung	XXII
<b>LEISTUNG UNTER DRUCK:</b>	
Bewährte Qualität und Innovationen mit Payen®	XXX - XXXI
GVO-Zertifikat	XLII
Neuaufnahmen	XLIV
Anwendungen nach Hersteller	1 - 434
Numerische Teilleiste	436 - 439
Umschlüsselungsliste OE -> Payen	440 - 441



Sommaire	II
Historique et présence mondiale de Payen	IV
Liste des constructeurs	V
Conditions générales de vente	VI
Catalogues Federal-Mogul de pièces Moteur et Étanchéité les plus récents	VIII - IX
Comment utiliser ce catalogue	XI
Pourquoi choisir les vis de culasse Payen	XVII
Guide d'installation étape par étape	XXIV
<b>L'ÉTANCHÉITÉ SOUS PRESSION : la tradition de la qualité et de l'innovation avec Payen®</b>	
	XXXIV - XXXV
Certificat BER	XLII
Liste des nouvelles références	XLIV
Applications par constructeur	1 - 434
Liste des références classées par ordre alphanumérique	436 - 439
Références croisées 1ère Mont -> Payen	440 - 441



# CONTENTS



Contenido	III
Historia de Payen y presencia en todo el mundo	IV
Lista de constructores	V
Condiciones de venta	VII
Últimos catálogos de componentes de sellado y motores de Federal-Mogul	VIII - IX
Cómo utilizar este catálogo	XII
Razones para elegir los tornillos de culata de Payen	XVIII
Manual de montaje paso a paso	XXV
PRESTACIONES BAJO PRESIÓN:	
Tradición de calidad e innovación con Payen®	XXXVI - XXXVII
Homologación BER	XLII
Lista de referencias nuevas	XLIV
Aplicaciones por constructor	1 - 434
Lista de referencias numéricas	436 - 439
Cruce de referencias entre piezas de equipo original y de Payen	440 - 441

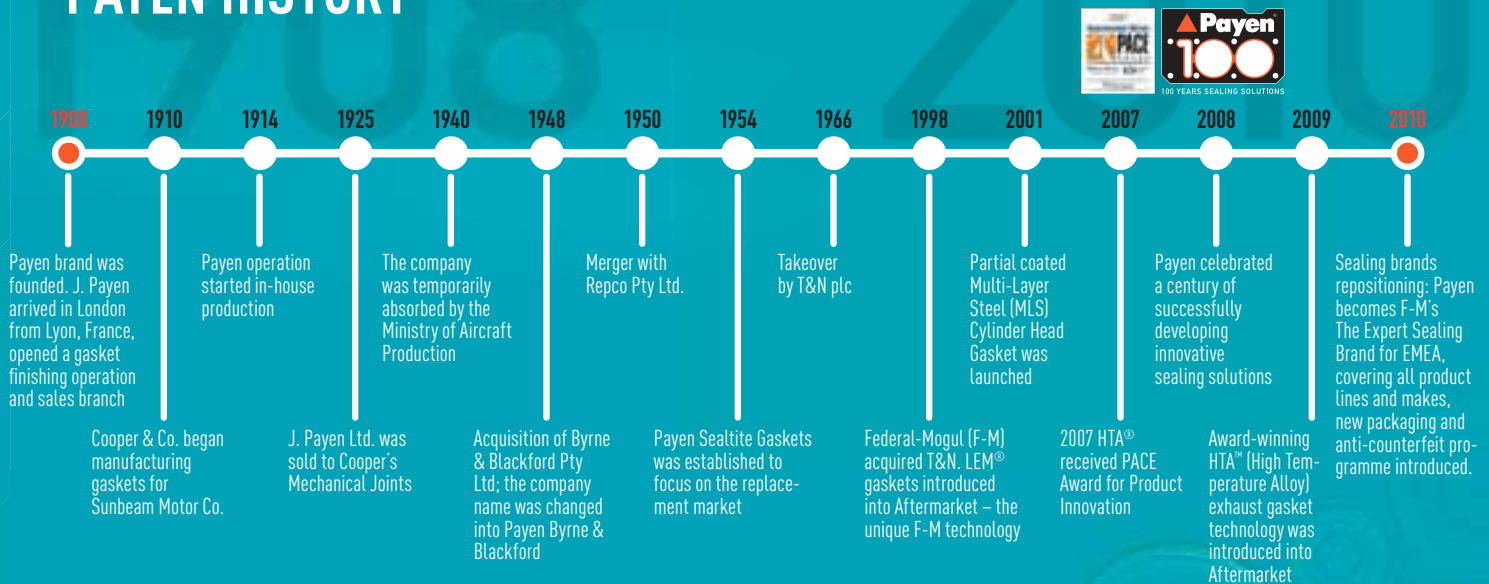


Содержание	III
Payen: история и присутствие на мировом рынке	IV
Перечень производителей автомобилей	V
Условия делового сотрудничества	VII
Новейшие каталоги Federal-Mogul для деталей двигателя и уплотнений	VIII - IX
Как пользоваться каталогом	XIII
Аргументы для выбора болтов Payen	XX
Подробное руководство по установке	XXVII
ЭФФЕКТИВНОСТЬ ПОД ДАВЛЕНИЕМ:	
Наследие качества и инноваций - Payen®	XL - XLI
Сертификат BER	XLII
Перечень новой продукции	XLIV
Модели автомобилей, сортировка по производителю	1 - 434
Перечень номеров деталей	436 - 439
Взаимозаменяемость OE -> Payen	440 - 441



Zawartość	III
Historia i obecność na rynkach światowych marki Payen	IV
Spis producentów	V
Warunki prowadzenia biznesu	VII
Najnowsze katalogi Federal-Mogul dotyczące części silnikowych i uszczelnień	VIII - IX
Jak używać tego katalogu	XII
Przyczyny dlaczego warto używać śrub głowicowych Payen	XIX
Poradnik montażowy - krok po kroku	XXVI
PEWNOŚĆ W KAŻDYCH WARUNKACH:	
Dziedzictwo jakości i innowacji z marką Payen®	XXXVIII - XXXIX
Certyfikat BER	XLII
Spis nowych części	XLIV
Lista zastosowań w kolejności producentów	1 - 434
Lista części w kolejności numerycznej	436 - 439
Lista zamienników OE -> Payen	440 - 441

# PAYEN HISTORY



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**PAYEN NA CAŁYM ŚWIECIE – DOSTARCZA CI ŚWIATOWĄ WIEDZĘ ORAZ ZNAJOMOŚĆ LOKALNYCH ZAGADNIEŃ OFERUJĄC PRODUKTY NA NAJWYŻSZYM ŚWIATOWYM POZIOMIE**

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# MANUFACTURERS LIST

ALFA ROMEO	1	MERCEDES-BENZ	172
AUDI	9	MERCEDES-BENZ COMMERCIAL	193
BMW	27	MG	208
CHEVROLET	44	MINI	210
CHRYSLER	46	MITSUBISHI	211
CITROËN	49	NISSAN	221
DACIA	72	OPEL	234
DAEWOO	74	PEUGEOT	257
DAIHATSU	78	RENAULT	278
FIAT	79	ROVER	313
FORD	105	SAAB	320
HONDA	124	SEAT	323
HYUNDAI	126	SKODA	338
ISUZU	134	SMART	342
IVECO	136	SUBARU	344
JEEP	140	SUZUKI	348
KIA	142	TOYOTA	350
LANCIA	146	VAUXHALL	362
LAND ROVER	154	VOLVO	384
MAN	156	VOLVO COMMERCIAL	404
MAZDA	165	VW	407



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## HOW TO USE THIS CATALOGUE

MERCEDES-BENZ									
1		3		KW/PS		10			
<b>I-CLASS T-Model 3.5l 4-cyls</b>							<b>5</b> 	<b>10</b> 1) 20Nm 2) 40Nm 3) 90° 4) 40Nm 5) 90° 6) 90°	<b>11</b> 
<b>2</b>	3498	6	92.90	DOHC, V6	200/272	<b>6</b> 			
<b>G-Class 230 GE (W440)</b> <b>G-Class 230 GE (W441)</b> <b>G-Class 230 GE (W443)</b>							<b>4</b> <b>HBS047</b> 	<b>10</b> 1) 40Nm 2) 70Nm 3) 90° 4) 70Nm 5) 90°	<b>11</b> 
<b>2</b>	2299	4	95.50	SOHC	90/122	<b>7</b> 			
<b>2</b>	2299	4	95.50	SOHC	90/92/	<b>7</b> 			

- 1 Model info
- 2 Engine info
- 3 Engine details
- 4 Payen reference
- 5 **New part number**
- 6 Headbolt shape
- 7 Washer
- 8 Dimensions
- 9 Number of bolts in set
- 10 Torque sequence
- 11 Tightening sequence

## HINWEISE ZUR BENUTZUNG DES KATALOGS

MERCEDES-BENZ									
1		3		KW/PS		10			
<b>I-CLASS T-Model 3.5l 4-cyls</b>							<b>5</b> 	<b>10</b> 1) 20Nm 2) 40Nm 3) 90° 4) 40Nm 5) 90° 6) 90°	<b>11</b> 
<b>2</b>	3498	6	92.90	DOHC, V6	200/272	<b>6</b> 			
<b>G-Class 230 GE (W440)</b> <b>G-Class 230 GE (W441)</b> <b>G-Class 230 GE (W443)</b>							<b>4</b> <b>HBS047</b> 	<b>10</b> 1) 40Nm 2) 70Nm 3) 90° 4) 70Nm 5) 90°	<b>11</b> 
<b>2</b>	2299	4	95.50	SOHC	90/122	<b>7</b> 			
<b>2</b>	2299	4	95.50	SOHC	90/92/	<b>7</b> 			

- 1 Modellangaben
- 2 Motorangaben
- 3 Motordetails
- 4 Payen Best.-Nr.
- 5 **Neue Teilenummer**
- 6 Zylinderkopfschrauben-Form
- 7 Unterlegscheibe
- 8 Abmessungen
- 9 Anzahl der Zylinderkopfschrauben im Satz
- 10 Montagereihenfolge
- 11 Anzugsreihenfolge

MOTORI							MOTORE			MOTORE			MOTORE		
MOTORI							MOTORE			MOTORE			MOTORE		
<b>I-CLASS T Model 3 SL 4-door</b> <sup>1</sup>							3498			92.90			200/272		
M 272.972 <sup>2</sup>							6			DOHC, V6			200/272		
<b>G-Class 230 GE (W440)</b>							2299			95.50			90/122		
G-Class 230 GE (W441)							2299			95.50			90/92/		
G-Class 230 GE (W443)							2299			95.50			90/92/		
M 102.979							4			SOHC			90/122		
M 102.987							4			SOHC			90/92/		









- 1 Informazioni modello
- 2 Informazioni motore
- 3 Dati motore
- 4 Codice Payen
- 5 Nuovo codice
- 6 Forma vite testa
- 7 Rondella
- 8 Dimensioni
- 9 Numero di viti per set
- 10 Sequenza coppie
- 11 Sequenza di serraggio

MOTORI							MOTORE			MOTORE			MOTORE		
MOTORI							MOTORE			MOTORE			MOTORE		
<b>I-CLASS T Model 3 SL 4-door</b> <sup>1</sup>							3498			92.90			200/272		
M 272.972 <sup>2</sup>							6			DOHC, V6			200/272		
<b>G-Class 230 GE (W440)</b>							2299			95.50			90/122		
G-Class 230 GE (W441)							2299			95.50			90/92/		
G-Class 230 GE (W443)							2299			95.50			90/92/		
M 102.979							4			SOHC			90/122		
M 102.987							4			SOHC			90/92/		

- 1 Modèle
- 2 Code moteur
- 3 Détails du moteur
- 4 Référence Payen
- 5 Nouveautés produits
- 6 Forme de vis de culasse
- 7 Rondelle
- 8 Dimensions
- 9 Nombre de vis par jeu
- 10 Séquence de couple
- 11 Séquence de serrage



## CÓMO USAR ESTE CATÁLOGO

       						MERCEDES-BENZ					
<b>1</b> Información del modelo <b>2</b> Información del motor <b>3</b> Datos del motor						<b>5</b> Nueva referencia <b>6</b> Forma de tornillo de culata <b>8</b> Dimensiones <b>9</b> Número de tornillos de culata del conjunto			<b>10</b> Secuencia de pares <b>11</b> Secuencia de apriete		
<b>4</b> Referencia de Payen						<b>7</b> Arandela			<b>10</b> Secuencia de pares		
<b>7</b> Arandela						<b>11</b> Secuencia de apriete					

1 Información del modelo

2 Información del motor

3 Datos del motor

4 Referencia de Payen

5 Nueva referencia

6 Forma de tornillo de culata

7 Arandela









8 Dimensiones

9 Número de tornillos de culata del conjunto

10 Secuencia de pares

11 Secuencia de apriete

## JAK UŻYWAĆ TEGO KATALOGU

       						MERCEDES-BENZ					
<b>1</b> Model pojazdu <b>2</b> Typ silnika <b>3</b> Dodatkowe dane techniczne						<b>5</b> Numer nowej części <b>6</b> Rodzaj tła śruby głowicowej <b>8</b> Wymiary <b>9</b> Liczba śrub w zestawie			<b>10</b> Kolejność i wartość momentu dokręcania <b>11</b> Kolejność dokręcania śrub		
<b>4</b> Numer referencyjny Payen						<b>7</b> Podkładka					

1 Model pojazdu

2 Typ silnika

3 Dodatkowe dane techniczne

4 Numer referencyjny Payen

5 Numer nowej części

6 Rodzaj tła śruby głowicowej

7 Podkładka

8 Wymiary

9 Liczba śrub w zestawie

10 Kolejność i wartość momentu dokręcania

11 Kolejność dokręcania śrub

I-CLASS T-Model 3.5i 4-door						MERCEDES-BENZ	
CC	3	kw/PS	6	91	5	10	11
M 272.972	3498	92.90	DOHC, V6	200/272	M11x1.50x240mm (x14)	1) 20Nm 2) 40Nm 3) 90° 4) 40Nm 5) 90° 6) 90°	8 4 2 6 7 3 1 5 7 3 1 5 8 4 2 6
G-Class 230 GE (W440)						92	
G-Class 230 GE (W441)							
G-Class 230 GE (W443)							
M 102.979	2299	95.50	SOHC	90/272	M11x1.75x120mm (x50)	1) 40Nm 2) 70Nm 3) 90° 4) 70Nm 5) 90°	8 4 2 6 10 7 3 1 5 9
M 102.987	2299	95.50	SOHC	90/92/			

- 1 Информация о модели
- 2 Информация о двигателе
- 3 Подробные сведения о двигателе
- 4 Код Рауен
- 5 **Новая позиция в ассортименте**
- 6 Форма головки болта
- 7 Шайба
- 8 Размеры
- 9 Количество болтов в наборе
- 10 Порядок затяжки
- 11 Последовательность затяжки

# REASONS TO CHOOSE PAYEN HEADBOLTS

- HIGH PRODUCT SPECIFICATION, IN LINE WITH PAYEN GASKETS AND SEALS
- ANTI-COUNTERFEIT PACKAGING PROTECTING OUR BRAND INTEGRITY AND ASSURING YOU OF GENUINE PAYEN PARTS
- CLASS-LEADING CATALOGUE WITH WIDEST RANGE INCLUDING MANY LATE MODEL APPLICATIONS

WHEN CHANGING A HEAD GASKET ALWAYS REPLACE THE HEADBOLTS

## GETTING IT RIGHT – THE IMPORTANCE OF FITTING INSTRUCTIONS

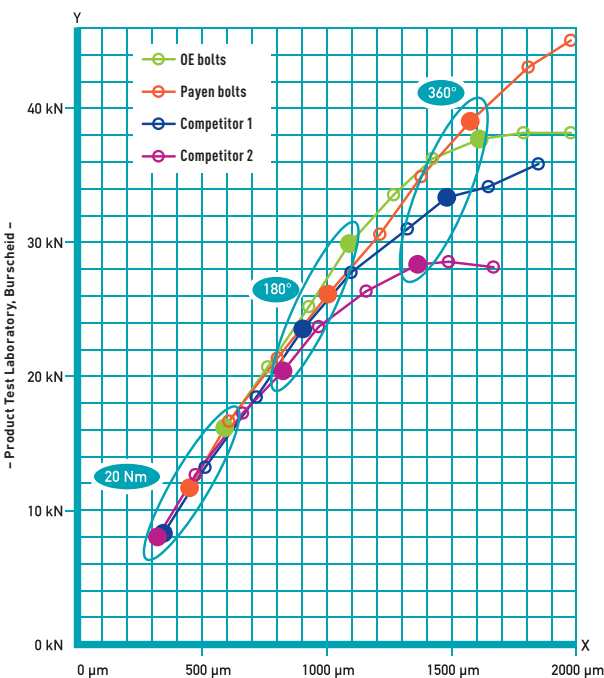
All Payen headbolts come with fitting instructions in the packaging as well in the catalogue. These instructions come directly from qualified data and refer directly to the application for which the headbolts are to be used. When followed correctly, they will ensure that the appropriate clamp load is achieved.



## PROTECTING THE HEADBOLT THROUGH UNIQUE PACKAGING



## TESTS PROVE OUR SUCCESS



### COMPARATIVE BOLT LOAD CURVE

The following bolt loads have been achieved after tightening according to the OE procedure

### CONCLUSIONS & COMMENTS

Payen bolts provide comparable loads to the OE bolts at the specified tightening levels. The competitor bolts show significantly lower loads which is indicative of an inferior quality specification, which will cause problems with the integrity and durability of the head gasket seal.

Technical investigation report -  
992UB05-005

- Bolt application: Rover K4
- Bolt dimensions: M9 x 405
- Free clamping length of bolt: 390 mm
- Bolt tightening procedure: 20Nm: +180°, +180°
- Measured bolt loads: Y
- Measured spring rates: X

Comparison of bolt load curves

# GUTE GRÜNDE FÜR ZYLINDERKOPFSCHRAUBEN VON PAYEN

- ➔ IN DER GLEICHEN QUALITÄT, DIE SIE VON PAYEN-DICHTUNGEN GEWOHNT SIND
- ➔ ANTI-FÄLSCHUNGSPROGRAMM: GARANTIERTE MARKENQUALITÄT MIT SICHERHEIT ORIGINALE PAYEN-TEILE
- ➔ ÜBERSICHTLICHER UND UMFASSENDE KATALOGE, EINSCHLIESSLICH VIELER NEUER MODELLANWENDUNGEN

**BEIM WECHSEL EINER ZYLINDERKOPFDICHTUNG SOLLTEN SIE GRUNDSÄTZLICH AUCH DIE KOPFSCHRAUBEN ERSETZEN**

## RICHTIG MACHEN - SIE FINDEN ALLES IN UNSERER MONTAGEANLEITUNG

Alle Payen-Zylinderkopfschrauben werden mit Montageanleitungen in der Verpackung geliefert. Außerdem finden sie diese im Katalog. Diese Anleitungen basieren auf qualifizierten Daten und beziehen sich direkt auf den Motor, für den die Kopfschrauben verwendet werden sollen. Die Hinweise stellen sicher, dass die richtige Vorspannung erzielt wird.



## SCHUTZ DER ZYLINDERKOPFSCHRAUBE DURCH EINZIGARTIGE VERPACKUNG

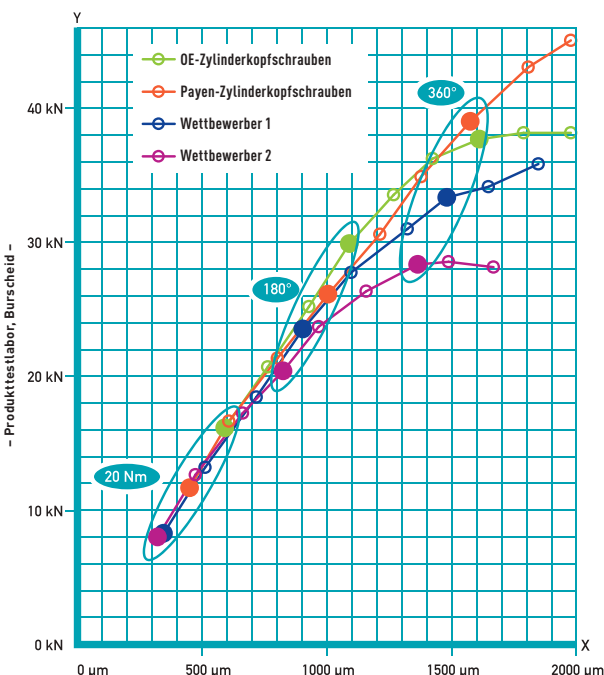
**EINZIGARTIGER ANTI-FÄLSCHUNGSSCHUTZ**

**MIT MONTAGEANLEITUNG**

**EINZELN IN SCHUTZVERPACKUNG VERSIEGELT**

**UNTERLEGESCHEIBEN INBEGRIFFEN (WO ERFORDERLICH)**

## TESTS BEWEISEN DIE ZUVERLÄSSIGKEIT



### SCHRAUBENLAST-VERGLEICHSKURVE

Folgende Schraubenlasten wurden nach dem Anziehen gemäß der OE-Vorschriften erzielt

### ERGEBNISSE UND KOMMENTARE

Payen-Schrauben halten Lasten stand, die mit denen von OE-Zylinderkopfschrauben bei den vorgegebenen Anzugsmomenten vergleichbar sind. Im Wettbewerbsvergleich halten andere Schrauben den Belastungen nicht stand, was auf eine minderwertigere Qualität hindeutet. Dies verursacht wiederum Probleme bei der Abdichtung und der Haltbarkeit.

Technischer Untersuchungsbericht - 992LUB05-005

- Zylinderkopfschraubenanwendung: Rover K4
- Zylinderkopfschraubenabmessungen: M9 x 405
- Einspannlänge der Schraube: 390 mm
- Schraubenanzugsverfahren: 20Nm: +180°; +180°
- Gemessene Schraubenlasten: Y
- Gemessene Federkonstanten: X

Schraubenlast-Vergleichskurven



# PERCHÉ SCEGLIERE VITI TESTA PAYEN

- ALTA QUALITÀ, IN LINEA CON LE GUARNIZIONI E I PARAOLIO PAYEN
- CONFEZIONE ANTI CONTRAFFAZIONE A TUTELA DEL MARCHIO E DELL'ORIGINALITÀ DEI PEZZI PAYEN
- CATALOGO DI PUNTA DEL SETTORE CHE ANNOVERA UNA VASTISSIMA GAMMA DI PRODOTTI COMPRESSE MOLTE APPLICAZIONI PER I MODELLI PIÙ RECENTI

**QUANDO SI CAMBIA UNA GUARNIZIONE DI TESTA È NECESSARIO SOSTITUIRE SEMPRE ANCHE LE VITI TESTA**

## COME ESEGUIRE UNA SOSTITUZIONE CORRETTA - L'IMPORTANZA DELLE ISTRUZIONI DI MONTAGGIO

Tutte le viti testa Payen vengono fornite con istruzioni di montaggio riportate sia nella confezione, che nel catalogo. Tali istruzioni si basano su dati affidabili e fanno riferimento direttamente alle applicazioni a cui sono destinate le viti testa. Il rispetto delle indicazioni riportate assicura un carico di serraggio adeguato.



## UNA CONFEZIONE ESCLUSIVA PER LA PROTEZIONE DELLE VITI TESTA

PROTEZIONE ESCLUSIVA ANTI-CONTRAFFAZIONE



VASCETTA PROTETTIVA DIVISA IN COMPARTI SINGOLI SIGILLATI



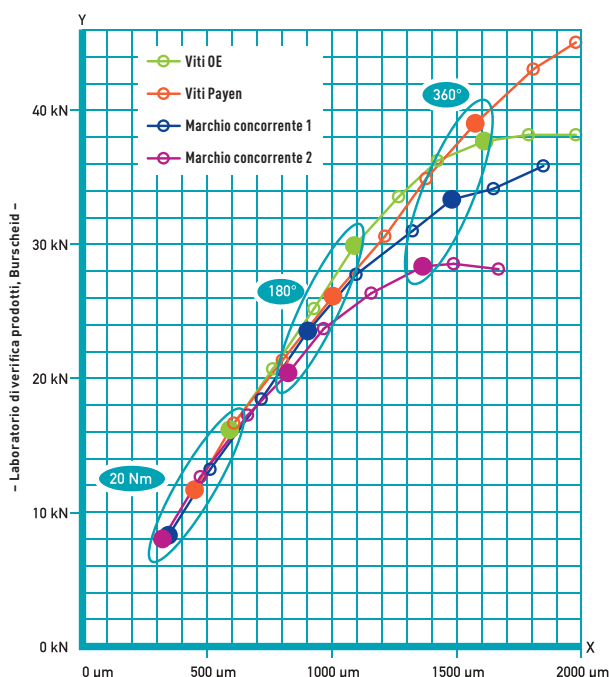
ISTRUZIONI DI MONTAGGIO INCLUSE



RONDELLE INCLUSE



## I TEST CONFERMANO IL SUCCESSO DEI NOSTRI PRODOTTI



### CURVA COMPARATIVA DEL CARICO SU BULLONE

I carichi su bullone riportati sono stati ottenuti serrando come da procedura OE.

### CONCLUSIONI E COMMENTI

Ai livelli di serraggio specificati, le viti Payen presentano carichi paragonabili a quelli delle viti OE. Le viti dei marchi concorrenti mostrano, invece, carichi notevolmente inferiori. Questo dato è indicativo di una qualità minore che comporterà problemi per l'integrità e la durata delle guarnizioni di testa.

Report tecnico di verifica - 99UB05-005

- Applicazione vite: Rover K4
- Dimensioni vite: M9 x 405
- Lunghezza di serraggio libera: 390 mm
- Procedura di serraggio vite: 20Nm +180°, +180°
- Carichi su bullone misurati: Y
- Flessibilità misurate: X

Confronto curve di carico su bullone

# POURQUOI CHOISIR DES VIS DE CULASSE PAYEN

- ➔ HAUTE QUALITÉ DU PRODUIT, CONFORME AUX JOINTS PAYEN
- ➔ EMBALLAGE ANTI-CONTREFAÇON POUR PROTÉGER L'INTÉGRITÉ DE NOTRE MARQUE ET VOUS GARANTIR DES PIÈCES PAYEN D'ORIGINE
- ➔ CATALOGUE DE PREMIÈRE CLASSE, TRÈS VARIÉ, AVEC DES APPLICATIONS POUR LES MODÈLES LES PLUS RÉCENTS

**LES VIS DE CULASSE DOIVENT ÊTRE SYSTÉMATIQUEMENT REMPLACÉES EN CAS DE CHANGEMENT DU JOINT DE CULASSE**

## LA BONNE DÉMARCHÉ : L'IMPORTANCE DES INSTRUCTIONS DE MONTAGE

Toutes les vis de culasse Payen sont livrées avec des instructions de montage (que l'on retrouve dans le catalogue). Ces instructions sont directement établies à partir de données vérifiées et correspondent à l'application à laquelle sont destinées les vis de culasse. Lorsqu'elles sont correctement suivies, ces instructions permettent d'assurer une force de serrage adéquate.



## VIS DE CULASSE PROTÉGÉES PAR UN EMBALLAGE UNIQUE

PROTECTION ANTI-CONTREFAÇON



INSTRUCTIONS DE MONTAGE



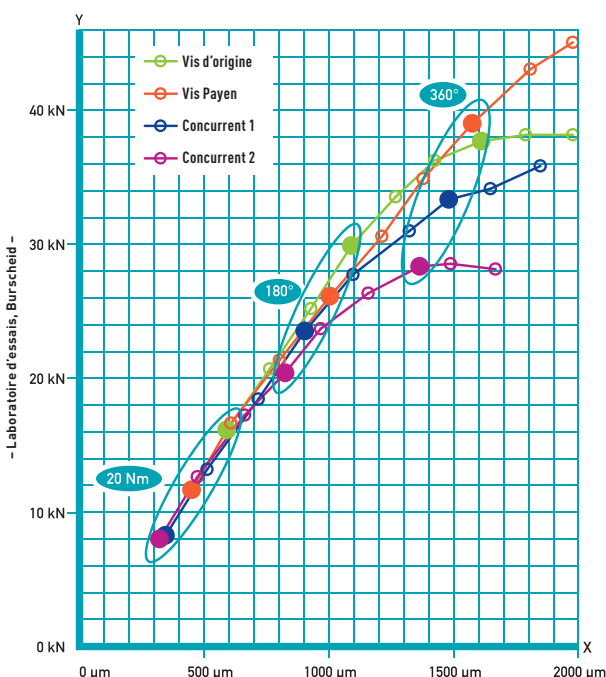
EMBALLAGE INDIVIDUEL DANS UNE BARQUETTE PROTECTRICE



RONDELLES FOURNIES



## LES ESSAIS DÉMONTRENT NOTRE HAUTE QUALITÉ



## COURBE DE COMPARAISON DES COUPLES DE SERRAGE

Les couples suivants ont été obtenus après un serrage conforme à la procédure d'origine

## CONCLUSIONS ET COMMENTAIRES

Les vis Payen sont conformes aux serrages des vis d'origine (selon les valeurs de serrage préconisées). Les vis concurrentes enregistrent des charges sensiblement inférieures, qui témoignent d'un niveau de qualité moindre, susceptible de compromettre l'intégrité et la longévité de l'étanchéité du joint de culasse.

Rapport d'enquête technique -  
992UB05-005

• Application concernée :	Rover K4
• Dimensions des vis :	M9 x 405
• Longueur libre de serrage :	390 mm
• Procédure de serrage des vis :	20Nm : +180°; +180°
• Charges de serrage mesurées :	Y
• Constantes de rappel mesurées :	X

Comparatif des courbes de charges

# RAZONES PARA ELEGIR LOS TORNILLOS DE CULATA DE PAYEN

- ➔ LOS EXIGENTES REQUISITOS QUE CUMPLEN LOS PRODUCTOS, DE LA MISMA MANERA QUE LOS COMPONENTES DE SELLADO Y LAS JUNTAS DE PAYEN
- ➔ EL EMBALAJE ANTIFALSIFICACIÓN QUE PROTEGE LA INTEGRIDAD DE NUESTRA MARCA Y LE GARANTIZA QUE SUS PIEZAS SON PRODUCTOS AUTÉNTICOS DE PAYEN
- ➔ EL MEJOR CATÁLOGO DE SU CATEGORÍA CON LA GAMA MÁS AMPLIA, EN LA QUE SE INCLUYEN NUMEROSAS APLICACIONES PARA LOS ÚLTIMOS MODELOS

**CADA VEZ QUE CAMBIE LA JUNTA DE LA CULATA, SUSTITUYA TAMBIÉN LOS TORNILLOS DE CULATA**

## EN EL ORDEN CORRECTO - LA IMPORTANCIA DE LAS INSTRUCCIONES DE MONTAJE

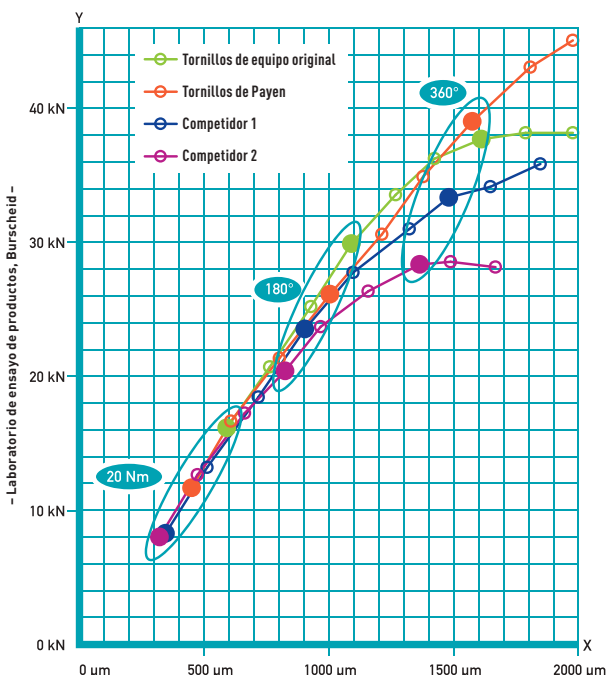
Todos y cada uno de los tornillos de culata de Payen cuentan con instrucciones de montaje tanto en el embalaje como en el catálogo. Estas instrucciones se extraen directamente de datos calificados y hacen referencia directa a la aplicación para la que se utilizarán los tornillos de culata. Cuando se siguen las pautas correctamente, conseguirá la carga de unión adecuada.



## PROTECCIÓN DE LOS TORNILLOS DE CULATA GRACIAS A UN EMBALAJE ÚNICO



## LOS TESTS DAN FE DE NUESTRO ÉXITO



### COMPARATIVA DE LA CURVA DE CARGA DE LOS TORNILLOS

Las cargas de tornillos que se indican a continuación se han obtenido después de realizar el apriete según el procedimiento de equipo original.

### CONCLUSIONES Y COMENTARIOS

Los tornillos de Payen proporcionan cargas comparables a los tornillos de equipo original con los niveles de apriete especificados. Los tornillos de la competencia muestran cargas mucho más bajas. Esto es indicativo de un producto de calidad inferior que causará problemas con la integridad y la durabilidad del sellado de la junta de culata.

Informe de investigación técnica - 99UB05-005

- Aplicación del tornillo: Rover K4
- Dimensiones del tornillo: M9 x 405
- Longitud de sujeción adicional del tornillo: 390 mm
- Procedimiento de apriete de los tornillos: 20 Nm: +180°; +180°
- Cálculo de la carga de los tornillos: Y
- Cálculo de la relación elástica: X
- Comparación de las curvas de carga de los tornillos

# PRZYCZYNY DLACZEGO WARTO UŻYWAĆ ŚRUB GŁOWICOWYCH PAYEN

- WYSOKA JAKOŚĆ PRODUKTU, DOPASOWANA DO JAKOŚCI USZCZELEK I USZCZELNIEŃ PAYEN
- OPAKOWANIE ZABEZPIEZAJĄCE PRZED PODRABIANIEM PRODUKTÓW, DBAJĄCE O RENOMĘ MARKI I ZAPEWNIAJĄCE DOSTARCZENIE ORYGINALNYCH CZĘŚCI PAYEN UŻYTKOWNIKOWI
- DOSKONAŁE KATALOGI Z NAJSZERSZYM PROGRAMEM PRODUKTÓW, ZAWIERAJĄCE WIELE ZASTOSOWAŃ DLA BARDZO STARYCH MODELI POJAZDÓW

**PRZY WYMIANIE USZCZELKI GŁOWICOWEJ ZAWSZE NALEŻY WYMIENIĆ ŚRUBY GŁOWICOWE**

## PRAWIDŁOWE WYKONANIE NAPRAWY - NALEŻY STOSOWAĆ SIĘ DO INSTRUKCJI MONTAŻOWEJ

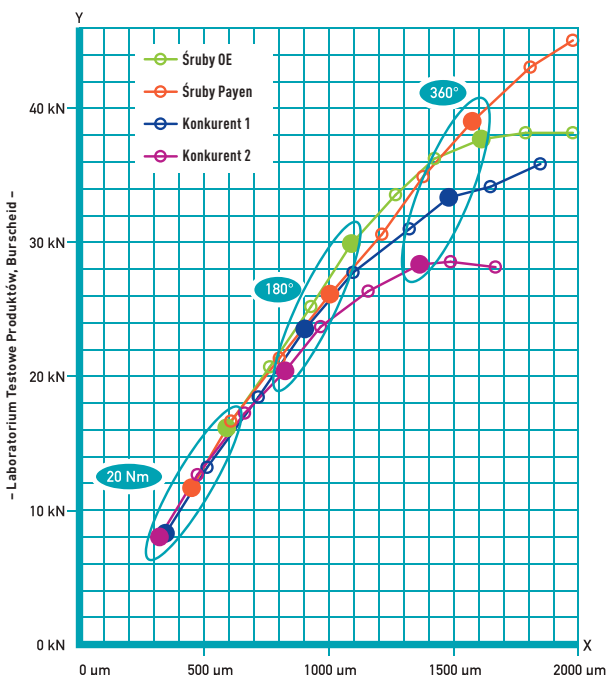
Wszystkie śruby głowicowe Payen są dostarczane z instrukcją montażową zawartą w opakowaniu, która również jest podana w katalogu. Instrukcje montażowe są tworzone na podstawie kwalifikowanych danych i odnoszą się bezpośrednio do zastosowań, do których przeznaczone są śruby. Jeśli instrukcje zostaną zastosowane prawidłowo, zapewnią uzyskanie właściwej siły docisku.



## ZABEZPIECZENIE ŚRUB GŁOWICOWYCH DZIĘKI UNIKALNEMU OPAKOWANIU



## TESTY POTWIERDZAJĄ NASZ SUKCES



## PORÓWNANIE KRZYWYCH OBCIĄŻENIA ŚRUB

Przy dokręceniu śrub wg procedury OE uzyskano następujące obciążenia śrub

## WNIOSKI I UWAGI

Śruby Payen zapewniają porównywalne obciążenia do śrub OE na określonych poziomach dokręcania. Śruby konkurentów wykazują znacznie niższe obciążenia, co jest oznaką gorszych właściwości i co może spowodować problemy ze szczelnością i trwałością uszczelki podgłowicowej.

Raport badania technicznego - 992UB05-005

• Zastosowanie śrub:	Rover K4
• Wymiary śrub:	M9 x 405
• Długość swobodna śruby:	390 mm
• Procedura dokręcania śruby:	20Nm: +180°; +180°
• Zmierzone obciążenie śruby:	Y
• Zmierzona sprężystość śruby:	X

Porównanie krzywych obciążenia śrub



# АРГУМЕНТЫ ДЛЯ ВЫБОРА БОЛТОВ PAYEN ДЛЯ ГОЛОВКИ БЛОКА ЦИЛИНДРОВ

- СПЕЦИАЛЬНАЯ УПАКОВКА С ЗАЩИТОЙ ОТ ПОДДЕЛОК ГАРАНТИРУЕТ ЦЕЛОСТНОСТЬ И ПОДЛИННОСТЬ ДЕТАЛЕЙ PAYEN
- ВЫСОКИЕ ТЕХНИЧЕСКИЕ ХАРАКТЕРИСТИКИ, СООТВЕТСТВУЮЩИЕ ПРОКЛАДКАМ И УПЛОТНЕНИЯМ PAYEN
- ЛУЧШИЙ В СВОЕМ КЛАССЕ КАТАЛОГ С ШИРОЧАЙШИМ АССОРТИМЕНТОМ, ВКЛЮЧАЯ МНОЖЕСТВО НОВИНОК

**ПРИ ЗАМЕНЕ ПРОКЛАДКИ ГОЛОВКИ БЛОКА ВСЕГДА ЗАМЕНЯЙТЕ БОЛТЫ ГОЛОВКИ**

## СДЕЛАТЬ ПРАВИЛЬНО - ВАЖНОСТЬ ИНСТРУКЦИЙ ПО УСТАНОВКЕ

Все болты Payen для ГБЦ поставляются в комплекте с инструкциями по установке, а также инструкции приведены в каталоге. Эти инструкции были написаны квалифицированными специалистами для конкретного применения болтов головки блока цилиндров. Соблюдение инструкций по установке обеспечит правильность зажимной силы прокладки головки блока.



## ЗАЩИТА БОЛТА ГОЛОВКИ БЛАГОДАря УНИКАЛЬНОЙ УПАКОВКЕ

УНИКАЛЬНАЯ  
ЗАЩИТА ОТ  
ПОДДЕЛОК



ИНСТРУКЦИИ  
ПО УСТАНОВКЕ В  
КОМПЛЕКТЕ



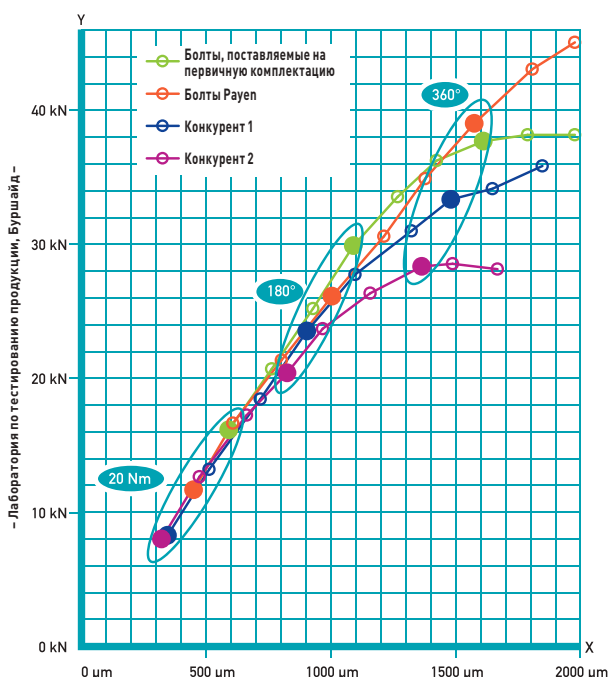
УПАКОВАНО В  
ИНДИВИДУАЛЬНЫЙ  
ЗАЩИТНЫЙ ПАКЕТ



ШАЙБЫ В  
КОМПЛЕКТЕ



## УСПЕХ, ПОДТВЕРЖДЕННЫЙ СРАВНИТЕЛЬНЫМИ ИСПЫТАНИЯМИ



### СРАВНИТЕЛЬНАЯ КРИВАЯ НАГРУЗОК НА БОЛТ

После затяжки болтов согласно процедуре автопроизводителя были достигнуты следующие нагрузки на болт

### ВЫВОДЫ И КОММЕНТАРИИ

Болты Payen выдерживают нагрузки, сравнимые с теми, что выдерживают болты, поставляемые на первичную комплектацию, при одинаковых усилиях затяжки. Болты конкурентов выдерживают существенно более низкие нагрузки, что указывает на их более низкое качество. Это может привести к сокращению срока службы и непредвиденным поломкам уплотнения прокладки головки блока.

Технический отчет -  
992UB05-005

- Применение болта: Rover K4
- Размеры болта: 16 x 405
- Свободная зажимная длина болта: 390 мм
- Процедура затяжки болта: 20 Nm; +180°; +180°
- Измеренные нагрузки на болт: Y
- Измеренная деформация болта: X

Сравнение нагрузочных характеристик на болт

# STEP-BY-STEP INSTALLATION GUIDE

## CYLINDER HEAD GASKET REPLACEMENT

1. Ensure both the head and block surfaces are clean and free from dirt, oil, coolant and old gasket material. Any debris on the surfaces could give rise to a leak path resulting in a failure of the new gasket. Avoid placing cleaned heads face down on the workbench or floor where fresh debris could be picked up.

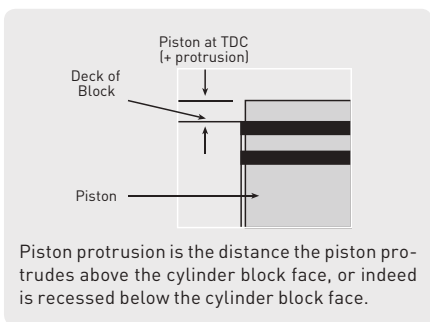


2. Take utmost care not to damage head and block surfaces if using a scraper to remove the old gasket. This is especially important with aluminium surfaces that are more easily damaged.

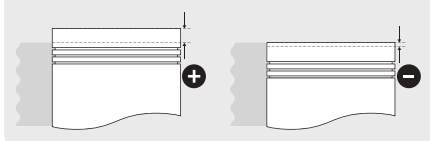
3. Ensure both head and block surface distortion is less than 0.05mm and that the surface finish is in line with the engine manufacturer's recommendations.

4. Ensure that all bolt-holes are clean from debris, coolant and oil. Avoid excessive use of lubricant especially in blind bolt-holes. This could result in a hydraulic lock adversely affecting the clamp load generated or even cracking the block.

5. For diesel engines check the piston height above the block to ensure that the correct gasket thickness is used.



**Protrusion +** top of piston crown above the cylinder block face  
**Protrusion -** Top of piston crown below the cylinder block face  
 Both measured when piston is at TDC (top dead centre)



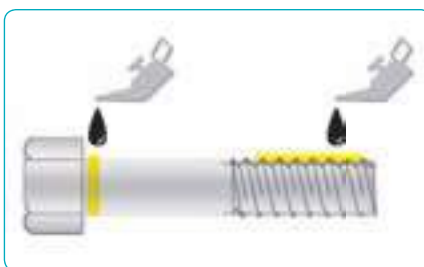
6. Avoid any form of additional sealant on a cylinder head gasket. This could lead to gasket extrusion and failure - plus it could be squeezed into the oil feed holes causing a blockage and consequent engine failure. However, there can be discrete areas where the engine manufacturer may advise the use of a sealant such as front cover 'T' joints.

7. Ensure that the gasket is fitted the right way up and correctly located on the engine and, where relevant, located on dowels prior to fitting the cylinder head.



8. Inspect all head bolts for damage, length and cleanliness. If the engine uses stretch bolts (Torque-to-Yield), then use new bolts as recommended by the engine manufacturer.

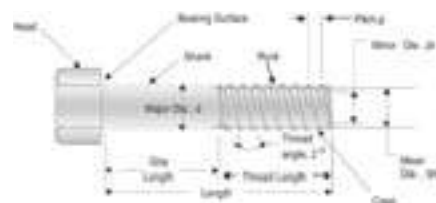
9. Lightly oil the bolt threads and the bolt head undersides. Hand-tighten all bolts ensuring the correct bolt position when different bolt lengths are present. Torque the head bolts in the sequence recommended by the engine manufacturer. Use an angle indicator where required to ensure accuracy.



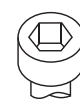
10. Where a retorque is recommended run the engine for 20 minutes. (Engines with aluminium cylinder heads should be allowed to cool to room temperature prior to a retorque).

## CYLINDER HEAD BOLT TIGHTENING TIPS

- Inspect bolts and holes for cleanliness, damage and correct length/depth.
- Ensure blind holes are free of debris.
- Replace stretch bolts in accordance with the engine manufacturer's guidelines.
- Avoid excessive use of lubricant, sealant or adhesive on bolt threads and "blind" bolt-holes to alleviate the possibility of hydraulic lock and incorrect torque.
- Ensure that the joint surfaces are clean and free of oil.
- Torque the bolts using the recommended sequence.
- Stop pulling the torque wrench when it clicks!
- Use a degree wheel when required.
- Calibrate the torque wrench regularly - especially after it has been dropped!



Male Hex



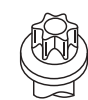
Female Hex



Male Star



Female Star



Male Torx



Female Torx



Hexagon Collar



Female Splined (Ribe-CV)\*

\*Ribe-CV® is a registered trademark of Richard Bergner GmbH & Co.

# 🇩🇪 MONTAGEANLEITUNG

## ZYLINDERKOPFDICHTUNG - AUS-/EINBAU

1. Sicherstellen, dass die Auflageflächen von Zylinderkopf und Motorblock frei von Schmutz, Öl, Kühlmittel und alten Dichtungsresten sind. Jede Verunreinigung auf den Auflageflächen kann einen Leckkanal bilden, wodurch die neue Dichtung ihre Funktion verliert. Den Zylinderkopf nicht mit der gereinigten Dichtfläche nach unten auf die Werkbank oder den Boden legen, wo neuer Schutz auf die Dichtfläche gelangen könnte.

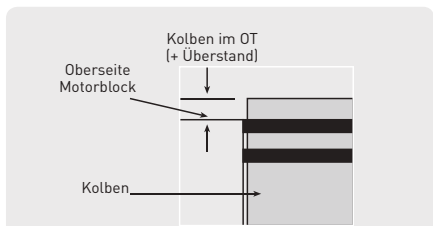


2. Bei Anwendung eines Schabers zum Entfernen von Dichtungsresten mit größter Vorsicht arbeiten, damit die Flächen von Zylinderkopf und Motorblock nicht beschädigt werden. Dies ist besonders wichtig bei Aluminiumflächen, die leichter beschädigt werden.

3. Sicherstellen, dass die Ungeradheit der Auflageflächen von Zylinderkopf und Motor nicht mehr als 0,05 mm beträgt und der Oberflächenzustand den Vorschriften des Motorenherstellers entspricht.

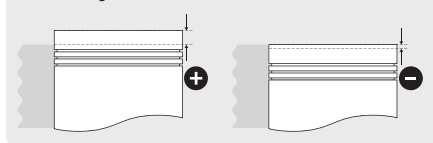
4. Alle Schraubenlöcher müssen frei von Schmutz, Kühlmittel und Öl sein. Übermäßige Anwendung von Schmiermittel, besonders in Sacklöchern, vermeiden. Andernfalls kann es zum einem hydraulischen Verschluss kommen, der die erzeugte Spannkraft herabsetzt oder sogar einen Riss im Motorblock verursacht.

5. Bei Dieselmotoren durch Kontrolle des Kolbenüberstands am Motorblock sicherstellen, dass die Dichtung die vorgeschriebene Dicke hat.



Der Kolbenüberstand ist das Maß, um das der Kolben über die Motorblockfläche hinausragt bzw. um das er unter der Motorblockfläche liegt.

**Überstand +** Oberseite des Kolbenbodens oberhalb der Motorblockfläche  
**Überstand -** Oberseite des Kolbenbodens unterhalb der Motorblockfläche  
 In beiden Fällen wird bei OT-Stellung des Kolbens gemessen



6. Niemals Dichtungsmittel bei einer Zylinderkopfdichtung verwenden! Dies könnte zu einer Ausweitung und einem Ausfall der Dichtung führen - und außerdem kann es in Ölbohrungen eindringen und den Ölfluss blockieren, was in einem Motorschaden resultiert. Es kann jedoch einzelne Stellen geben, für die der Motorenhersteller die Anwendung eines Dichtmittels empfiehlt, z. B. an 'T-Fugen' im vorderen Deckelbereich.

7. Die Dichtung mit der vorschriftsmäßigen Einbaurichtung und in der vorschriftsmäßigen Lage auf den Passstiften des Motorblockes auflegen.



8. Alle Zylinderkopfschrauben auf Schäden, Länge und Sauberkeit kontrollieren. Wenn der Motor mit Dehnschrauben (Anziehen bis zur Streckgrenze) ausgestattet ist, neue Schrauben gemäß Empfehlung des Motorenherstellers verwenden.

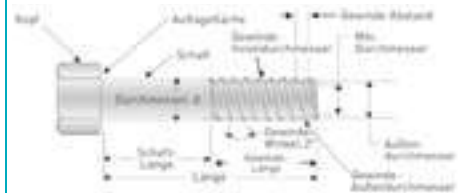
9. Die Gewinde und die Unterseiten des Schraubenkopfes anölen. Alle Schrauben unter Beachtung der Schraubenposition, wenn unterschiedliche Längen vorkommen, von Hand anziehen. Die Zylinderkopfschrauben in der vom Motorenhersteller empfohlenen Reihenfolge anziehen. Falls erforderlich für die Genauigkeit einen Winkelanzeiger benutzen.



10. Wenn ein Nachziehen empfohlen ist, den Motor 20 Minuten laufen lassen. (Motoren mit Zylinderköpfen aus Aluminium müssen vor dem Nachziehen auf Raumtemperatur abkühlen).

## ZYLINDERKOPFSCHRAUBEN TIPPS FÜR DAS ANZIEHEN

- Die Schrauben und Schraubenlöcher auf Sauberkeit, Schäden und vorschriftsmäßige Länge/Tiefe kontrollieren.
- Bei Sacklöchern sicherstellen, dass sie frei von Schmutz sind.
- Dehnschrauben gemäß den Richtlinien des Motorenherstellers erneuern.
- Jegliche übermäßige Anwendung von Schmier-, Dicht- und Haftmittel bei Schraubengewinden und Sacklöchern vermeiden, um die Möglichkeit eines hydraulischen Verschlusses und fehlerhaften Anziehmoments auszuschalten.
- Sicherstellen, dass die Trennflächen frei von Öl sind.
- Die Schrauben mit vorgeschriebenen Anziehmoment in der empfohlenen Reihenfolge anziehen.
- Wenn der Drehmomentschlüssel „klickt“, nicht weiter anziehen!
- Wenn erforderlich, eine Gradscheibe benutzen.
- Den Drehmomentschlüssel regelmäßig kontrollieren - insbesondere, wenn er auf den Boden gefallen ist!



\*Ribe-CV® ist ein eingetragenes Warenzeichen der Richard Bergner GmbH & Co.

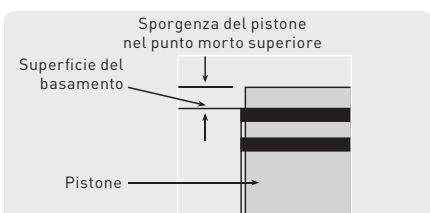
## SOSTITUZIONE DELLA GUARNIZIONE TESTA CILINDRO

1. Assicurarsi che le superfici della testata sia del monoblocco siano perfettamente pulite, libere da polvere, olio, adesivi o da residui della vecchia guarnizione. Ogni frammento sulla superficie può innescare un condotto di perdita di tenuta della nuova guarnizione.



Evitare di appoggiare le superfici pulite della testata sul banco di lavoro o sul pavimento da dove potrebbero raccogliere impurità.

2. Avere estrema cura per non danneggiare le superfici della testa e del monoblocco quando si usa il raschietto per rimuovere la vecchia guarnizione. Questo è particolarmente importante quando le superfici sono di alluminio che può essere danneggiato più facilmente.
3. Assicurarsi che la deformazione della testata e delle superfici della testata e del monoblocco siano non superiori a 0.05 mm e che siano in linea con le raccomandazioni del costruttore.
4. Assicurarsi che tutti i fori delle viti siano puliti dai detriti, adesivi e lubrificanti. Evitare l'uso eccessivo di lubrificanti specialmente nei fori ciechi. Questo deposito potrebbe provocare un'alterazione della coppia di serraggio e un blocco idraulico che può condurre anche alla rottura del monoblocco.
5. Per i motori diesel controllare che la sporgenza dei pistoni sopra il basamento sia conforme allo spessore della guarnizione testa impiegata.

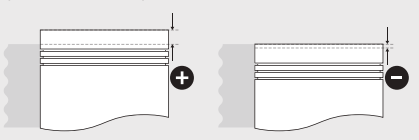


La sporgenza del pistone è la quota di quanto la testa del pistone sporge dalla superficie del monoblocco, oppure la quota di quanto il cielo del pistone è all'interno del cilindro rispetto la superficie del monoblocco.

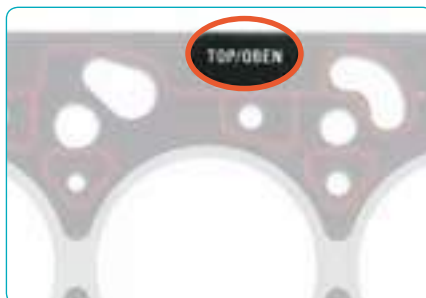
**Sporgenza +** cielo del pistone che sporge dalla superficie del monoblocco

**Sporgenza -** cielo del pistone sotto il piano del monoblocco

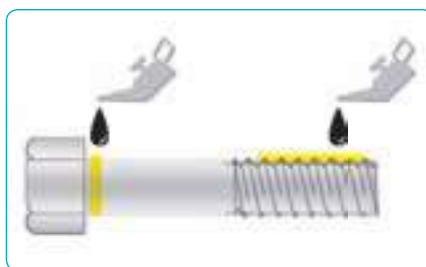
Entrambe vanno misurate con il pistone al punto morto superiore.



6. Evitare qualsiasi forma di collante o di adesivo sulla guarnizione della testata. Questo potrebbe portare all'estrusione del mastice e alla sua penetrazione nei passaggi olio con il conseguente danno all'intero motore. Ci sono però delle superfici dove il costruttore del motore può consigliare l'uso di un sigillante come nei giunti a "T" del coperchio anteriore.
7. Assicurarsi che la guarnizione sia montata con il verso corretto ovvero con la parte alta (TOP) verso l'alto. Inoltre, dove richiesto, posizionare i perni di riferimento prima di installare la guarnizione testa.



8. Controllare tutte le viti testa come lunghezza e verificarne la pulizia e l'assenza di urti o danneggiamenti. Se il motore richiede bulloni portati a stiramento, allora sostituirli sempre con viti testa nuove come raccomandato dai costruttori.
9. Oliare leggermente le filettature dei bulloni e la gola di scarico sotto la testa della vite. Avvitando i bulloni a mano si percepisce la corretta posizione quando si è in presenza di viti testa di diverse lunghezze. Serrare le viti testa secondo la sequenza raccomandata dal costruttore. Usare chiavi dinamometriche e indicatori d'angolo dove richiesto.



10. Quando è richiesto un doppio serraggio delle viti, è opportuno far funzionare il motore per circa 20 minuti. (I motori con testata in alluminio devono essere raffreddati fino a temperatura ambiente prima di procedere al riserraggio).

## CONSIGLI PER IL SERRAGGIO DELLE VITI TESTA

- Controllare la pulizia dei bulloni e dei fori e verificare che non siano danneggiati e che abbiano la lunghezza e la profondità corrette.
- Assicurarsi che i fori ciechi siano liberi da sfridi e/o detriti.
- Sostituire i bulloni portati a stiramento secondo le norme stabilite dal costruttore del motore.
- Non fare uso eccessivo di lubrificanti, collanti o adesivi sulla filettatura e all'interno dei fori ciechi al fine di evitare il blocco idraulico della vite e l'alterazione del valore della coppia di serraggio.
- Assicurarsi che le superfici di tenuta siano pulite e libere dal lubrificante.
- Applicare alle viti le coppie di serraggio come raccomandato dal costruttore.
- Arrestare la chiave dinamometrica appena fa il tipico "click".
- Usare una chiave con goniometro se richiesto.
- Calibrare con regolarità le chiavi dinamometriche specialmente quando subiscono urti o cadono sul pavimento.



Testa esagonale



Testa a dado incassato esagonale (brugola)



Testa a stella maschio



Testa a stella femmina



Torx maschio



Torx femmina



Collare esagonale



Femmina scanalata (Ribe-CV)\*

\*Ribe-CV® è un marchio registrato di Richard Bergner GmbH & Co.



## REPLACEMENT DU JOINT DE CULASSE

1. S'assurer de la parfaite propreté des surfaces de la culasse et du bloc ainsi que de l'absence d'impuretés, d'huile, de liquide de refroidissement et de fragments de l'ancien joint. La présence de résidus sur les surfaces peut former une voie de fuite susceptible de compromettre l'efficacité du nouveau joint. Eviter de poser les culasses propres sur l'établi et/ou un sol où elles pourraient être souillées par de nouvelles impuretés.
2. Utiliser le racleur avec la plus grande précaution pour déposer l'ancien joint afin de ne pas endommager les surfaces de la culasse et du bloc, tout particulièrement s'il s'agit de surfaces en aluminium plus fragiles.
3. Vérifier que la déformation de la surface de la culasse et du bloc est inférieure à 0,05 mm et que l'état de surface est conforme aux recommandations du fabricant du moteur.
4. Vérifier la propreté de tous les trous de vis, qui doivent en outre ne contenir aucun débris ou trace de liquide de refroidissement et d'huile. Eviter toute application excessive de lubrifiant, notamment dans les trous borgnes des vis. Cela pourrait provoquer un blocage hydraulique et donc affecter la force de serrage générée, ou même fissurer le bloc.
5. Pour les moteurs Diesel, mesurer le dépassement des pistons par rapport au bloc pour s'assurer que le joint de la bonne épaisseur est utilisé.



6. Eviter d'appliquer tout autre produit d'étanchéité sur le joint de culasse. Cela pourrait entraîner une extrusion et une dégradation du joint. De plus, ce produit pourrait pénétrer dans les orifices de passage d'huile, provoquant un blocage et donc une défaillance du moteur. Il peut toutefois exister des zones isolées où le fabricant du moteur peut recommander l'utilisation d'un mastic d'étanchéité, comme sur les soudures en T du carter de distribution.
7. Lors de sa pose, vérifier que le joint est bien orienté et positionné sur le moteur et, le cas échéant, qu'il est correctement disposé sur les douilles de centrage avant le montage de la culasse.



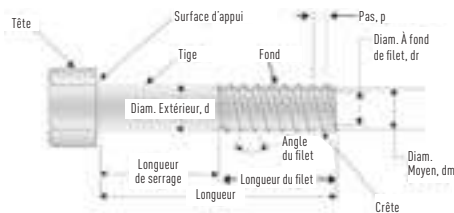
8. Contrôler la longueur de toutes les vis de culasse et veiller à ce qu'elles soient propres et en bon état. Si le moteur utilise des vis d'expansion (de type « Torque-To-Yield »), en utiliser alors des neuves conformément aux recommandations du fabricant du moteur.
9. Lubrifier légèrement le filetage et le dessous de la tête des vis de culasse. Serrer toutes les vis à la main en respectant leur position lorsqu'elles présentent différentes longueurs. Procéder ensuite au serrage des vis de culasse dans l'ordre prescrit et au couple recommandé par le fabricant du moteur. Utiliser un indicateur d'angle si nécessaire pour garantir la précision de l'angle de serrage.



10. Faire tourner le moteur pendant 20 minutes lorsqu'un resserrage est recommandé (dans le cas d'un moteur avec culasse en aluminium, il convient de laisser refroidir ce dernier à température ambiante avant de procéder au resserrage).

## CONSEILS POUR LE SERRAGE DES VIS DE CULASSE

- Vérifier que les vis et les trous sont propres, en bon état et de la bonne longueur/ profondeur.
- S'assurer que les trous borgnes sont exempts de toute impureté.
- Remplacer les vis d'expansion conformément aux directives du fabricant du moteur.
- Eviter d'utiliser une quantité excessive de lubrifiant, de produit d'étanchéité ou de produit adhésif sur les filetages et les trous borgnes des vis afin de limiter le risque de blocage hydraulique et pour pouvoir appliquer des couples de serrage corrects.
- S'assurer que les plans de joint sont bien propres et dégraissés.
- Serrer les vis à la clé dynamométrique dans l'ordre prescrit.
- Relâcher l'effort sur la clé dynamométrique lorsqu'un clic se fait entendre.
- Utiliser au besoin un rapporteur d'angles.
- Régler régulièrement la clé dynamométrique, en particulier en cas de chute !



Hexagonale



Hexagonale type "Allen"



Cannelée



Cannelée intérieure/femelle



Etoile "Torx" mâle



Etoile "Torx" intérieure/femelle

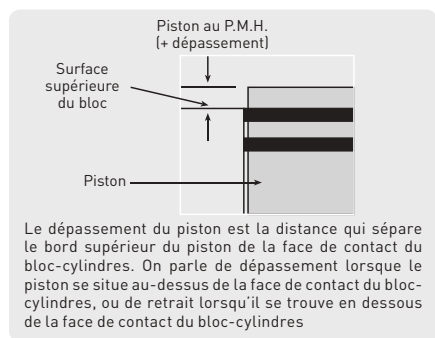


Vis hexagonale à embase

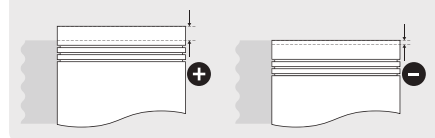


Femelle à cannelure (Ribe-CV®)\*

\*Ribe-CV® est une marque déposée de Richard Bergner GmbH & Co.



**Dépassement + :** sommet de la calotte du piston situé au-dessus de la face de contact du bloc-cylindres  
**Retrait - :** sommet de la calotte du piston situé en dessous de la face de contact du bloc-cylindres  
 Les deux distances sont mesurées lorsque le piston est au point mort haut (P.M.H.).



## CAMBIO DE LA JUNTA DE CULATA

1. Asegúrese que las superficies del bloque de cilindros y de la culata están limpias y no presentan suciedad, aceite, refrigerante ni restos de la junta antigua. En caso de que haya restos de cualquier tipo, podrían provocar que se abriera un conducto que generara fugas, lo que estropearía la nueva junta. No deje las culatas limpias boca abajo en el banco de trabajo ni en el suelo, puesto que se le podrían adherir restos.

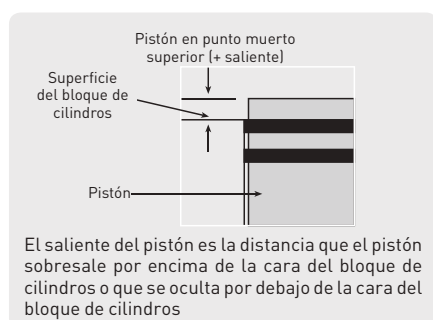


2. Si utiliza un rascador para quitar la junta antigua, preste mucha atención para no dañar las superficies del bloque y la culata, especialmente con las superficies de aluminio, que se dañan con más facilidad.

3. Asegúrese de que la deformación de la superficie del bloque y de la culata es inferior a 0,05 mm y que el acabado de la superficie sigue las recomendaciones del fabricante del motor.

4. Compruebe que en los orificios de los tornillos no hay restos, refrigerante ni aceite. Evite el uso excesivo de lubricante, especialmente en los orificios de los taladros ciegos, ya que podría derivar en un bloqueo hidráulico que afecte a la carga de la abrazadera generada o incluso produzca grietas en el bloque de cilindros.

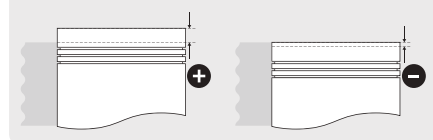
5. En los motores diésel, compruebe la altura del pistón que sobresale del bloque para asegurarse de que se utiliza el grosor correcto de la junta.



**Saliente +** parte superior de la cabeza del pistón por encima de la cara del bloque de cilindros

**Saliente -** parte superior de la cabeza del pistón por debajo de la cara del bloque de cilindros

Medidas con el pistón en punto muerto superior



6. Evite que entre cualquier tipo de sellador suplementario en una junta de la culata, ya que podría provocar la extrusión y una avería en la junta, que además se puede introducir en los orificios de alimentación de aceite, lo que provocará un bloqueo y el consiguiente fallo del motor. Sin embargo, es posible que el fabricante del motor recomiende el uso de un sellador en algunas zonas específicas, como las juntas en forma de T de la cubierta delantera.

7. Asegúrese de que la junta está colocada en la posición correcta en el motor y, cuando sea pertinente, en las clavijas antes de ajustarla a la culata.



8. Compruebe que los espárragos roscados no presentan daños, que la longitud es la correcta y que están limpios. Si el motor utiliza tornillos alargados (apriete angular), utilice tornillos nuevos tal como recomienda el fabricante del motor.

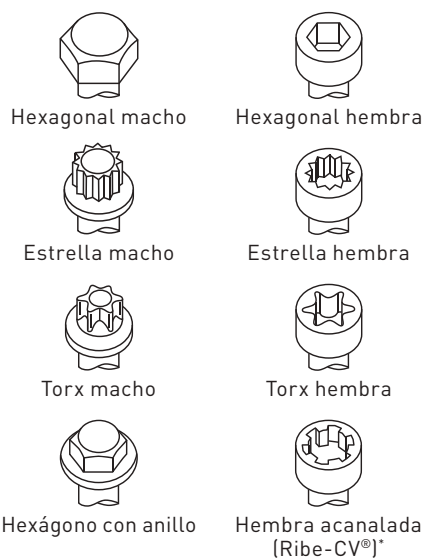
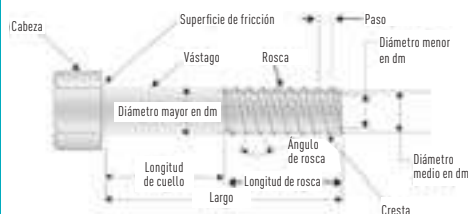
9. Lubrique ligeramente la parte inferior de la rosca y la cabeza del tornillo. Apriete a mano todos los tornillos y asegúrese de que se encuentran en la posición correcta cuando haya tornillos de diferentes longitudes. Apriete los espárragos roscados en el orden recomendado por el fabricante del motor. Si es necesario ser más precisos, utilice un indicador de ángulos.



10. Cuando sea recomendable volver a realizar el apriete, ponga en funcionamiento el motor durante 20 minutos. (Cuando se trate de un motor con culata de aluminio, deje que se enfríe a temperatura ambiente antes de volver a apretarlo).

## SUGERENCIAS PARA EL APRIETE DE LOS TORNILLOS DE LA CULATA

- Compruebe que los tornillos y sus orificios están limpios, no presentan daños y tienen una longitud o profundidad correctas.
- Asegúrese de que los taladros ciegos no presentan restos de ningún tipo.
- Cambie los tornillos alargados de acuerdo con las directrices del fabricante del motor.
- Evite el uso excesivo de lubricantes, selladores o adhesivos en los taladros ciegos y las roscas para mitigar la posibilidad de que se produzca un bloqueo hidráulico o que el par sea incorrecto.
- Asegúrese de que las superficies de la junta están limpias y no presentan aceite.
- Apriete los tornillos en el orden recomendado.
- Deje de girar la llave dinamométrica cuando haga clic.
- Cuando sea necesario, utilice una llave de grados.
- Gradúe la llave dinamométrica con regularidad, especialmente si se ha caído



\*Ribe-CV® es una marca comercial registrada de Richard Bergner GmbH & Co.

## WYMIANA USZCZELKI PODGŁOWICOWEJ

1. Upewnić się, że obie powierzchnie, głowicy i bloku cylindrów są czyste i wolne od zanieczyszczeń pochodzących z oleju, środka chłodzącego, materiału uszczelki oraz pyłu. Jakikolwiek element obecny na obu powierzchniach mogłyby spowodować powstanie przecieków, przyczyniając się do uszkodzenia nowej uszczelki. Należy unikać kładzenia oczyszczonej głowicy, powierzchnią styku z uszczelką na warsztacie lub podłodze, gdyż może to doprowadzić do ponownego zabrudzenia powierzchni.

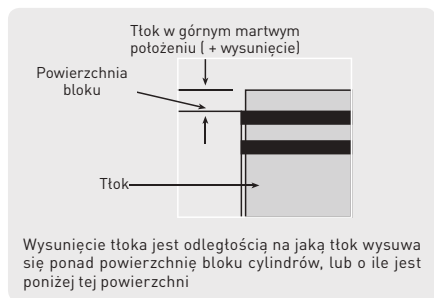


2. Należy zwracać szczególną uwagę podczas czyszczenia powierzchni z pozostałości starej uszczelki, gdyż można spowodować jej porysowanie. Jest to szczególnie ważne w przypadku powierzchni elementów aluminiowych, gdyż one łatwiej ulegają zarysowaniom.

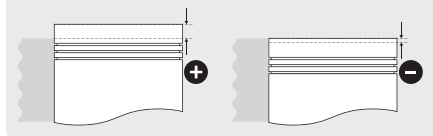
3. Należy upewnić się, że odkształcenie żadnej z powierzchni, nie przekracza 0,05 mm oraz, że wykończenie powierzchni odpowiada wymaganiom producenta silnika.

4. Należy upewnić się, że otwory pod śruby głowicowe są wolne od zanieczyszczeń oraz od obecności środka chłodzącego czy oleju. Należy unikać nadmiernego stosowania środków smarnych zwłaszcza w przypadku nieprzelotowych otworów pod śruby głowicowe. Jego obecność może doprowadzić do powstania zjawiska korka hydraulicznego, który może przeciwdziałać sile dociągającej głowicę, a w szczególnych przypadkach może doprowadzić do pęknięcia bloku.

5. W przypadku silników diesla należy sprawdzić wysokość tłoka ponad powierzchnią bloku, by upewnić się, że zastosowano uszczelkę o właściwej grubości.



**Wysunięcie dodatnie (+)** jest wtedy, gdy korona tłoka wystaje ponad powierzchnię bloku cylindrów  
**Wysunięcie ujemne (-)** jest wtedy, gdy korona tłoka jest poniżej powierzchni bloku cylindrów  
 Wysunięcie mierzy się gdy tłok znajduje się w górnym martwym położeniu



6. Należy unikać stosowania dodatkowych uszczelnień uszczelki podgłowicowej. Może to doprowadzić do odkształcenia uszczelki i jej uszkodzenia. Ponadto dodatkowe uszczelnienie może się dostać do otworów olejowych, blokując przepływ oleju, a tym samym doprowadzając do uszkodzenia silnika. Jednakowoż producent silnika może wskazać oddzielne obszary, gdzie takie uszczelnienie powinno być zastosowane – np. przednia osłona łożysk typu „T”.

7. Należy upewnić się że uszczelka jest właściwie umieszczona na bloku cylindrów i w przypadkach gdzie ma to zastosowanie, właściwie ustalona na elementach ustalających, przed zamontowaniem głowicy.



8. Należy sprawdzić wszystkie śruby głowicowe pod względem ewentualnych uszkodzeń, właściwej długości i czystości. Jeśli w silniku zastosowano śruby rozciągliwe należy zastosować nowe śruby zgodnie z zaleceniem producenta.

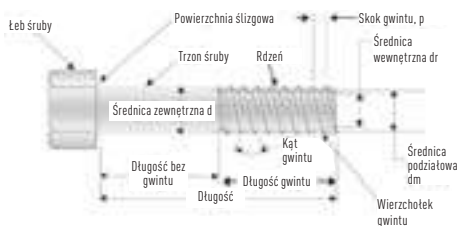
9. Należy delikatnie nasmarować olejem gwint śrub oraz powierzchnię pod łbem śruby. Ręcznie dokręcić wszystkie śruby upewniając się, że w przypadku zastosowania śrub o różnej długości są one umieszczone na właściwych miejscach. Dokręcać śruby w kolejności zalecanej przez producenta silnika. Należy użyć wskaźnika kąтового, w przypadkach gdzie to jest wymagane, by upewnić się o właściwym montażu.



10. W przypadkach, gdy zalecane jest ponowne dokręcenie śrub, należy uruchomić silnik na 20 minut (silniki z głowicą z aluminium powinny wystygnąć do temperatury pokojowej przed ponownym dokręcaniem śrub).

## ZALECENIA DOTYCZĄCE DOKRĘCANIA ŚRUB GŁOWICOWYCH

- Sprawdzić śruby i otwory pod względem czystości, uszkodzeń i właściwej długości.
- Upewnić się, że otwory nieprzelotowe nie są zanieczyszczone.
- Wymienić śruby rozciągliwe zgodnie z zaleceniem producenta silnika.
- Unikać nadmiernego stosowania smarowania, uszczelnień lub innych substancji, których obecność na gwincie śrub i powierzchniach nieprzelotowych otworów pod śruby może doprowadzić do wystąpienia „korków hydraulicznych” bądź utrudnić zastosowanie właściwego momentu dokręcającego.
- Upewnić się, że powierzchnie uszczelniane są wolne od oleju.
- Dokręcać śruby w zalecanej kolejności.
- Zaprzestać dociągania śrub, gdy klucz dynamometryczny zaczyna klikać.
- Należy użyć kąta katowego tam, gdzie jest to wymagane.
- Należy przeprowadzać regularną kalibrację klucza dynamometrycznego – zwłaszcza w przypadku, gdy upadł.



Sześciokąt męski



Sześciokąt żeński



Gwiazda męska



Gwiazda żeńska



Torx męski



Torx żeński



Sześciokąt z kołnierzem

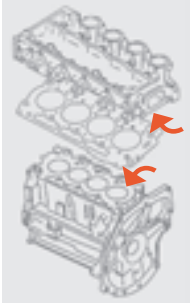


Wielowypust żeński (Ribe-CV®)\*

\*Ribe-CV® jest zastrzeżonym znakiem handlowym Richard Bergner GmbH & Co.

## ЗАМЕНА ПРОКЛАДКИ ГОЛОВКИ БЛОКА ЦИЛИНДРОВ

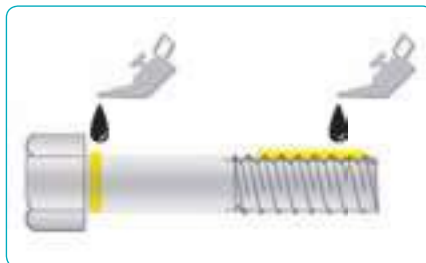
1. Очистите поверхности головки и блока от грязи, масла, охлаждающей жидкости и остатков старого уплотнения. Грязь на поверхности может стать причиной утечки, что приведет к выходу из строя новой прокладки. Не кладите чистые головки лицевой стороной вниз на верстак или на пол, где на них может налипнуть грязь.
2. Если для удаления старой прокладки используется скребок, соблюдайте особую осторожность, чтобы не повредить поверхности головки и блока. Это особенно важно в отношении алюминиевых поверхностей, которые можно легко повредить.
3. Убедитесь, что деформация поверхностей головки и блока не превышает 0,05 мм и что шероховатость поверхностей отвечает рекомендациям производителя двигателя.
4. Убедитесь, что все отверстия под болты очищены от грязи, охлаждающей жидкости и масла. Не допускайте чрезмерного применения смазок, особенно в глухих отверстиях для болтов. Это может привести к отрицательному влиянию на прижимное усилие и даже к растрескиванию блока.
5. На дизельных двигателях проверьте высоту выступа поршня над поверхностью блока цилиндров, чтобы убедиться в правильной толщине используемой прокладки.



6. Не наносите какой-либо дополнительный герметик на прокладку головки блока цилиндров. Это может привести к выдавливанию прокладки и выходу ее из строя. Кроме того, герметик может быть выдавлен в масляные каналы, что вызовет закупорку и дальнейший выход двигателя из строя. Однако могут быть некоторые места, в которых производитель двигателя может рекомендовать использовать герметик — например, в передней крышке двигателя.
7. Перед установкой головки блока цилиндров убедитесь, что прокладка установлена нужной стороной вверх, правильно расположена на двигателе и, если применимо, установлена на шпильки.



8. Осмотрите все болты головки на предмет отсутствия повреждений, проверьте их длину и чистоту. Если в двигателе применяются натяжные болты (удлиняющиеся при затяжке), используйте новые болты согласно рекомендациям производителя двигателя.
9. Слегка смажьте резьбу и нижние поверхности головок болтов. Затяните все болты от руки; если имеются болты разной длины, убедитесь, что они используются в правильных точках. Затяните болты головки в последовательности, рекомендованной производителем двигателя. Для обеспечения точности используйте угломер там, где это требуется.



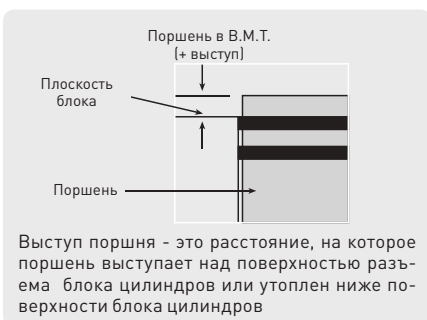
10. Если рекомендуется выполнить повторную затяжку, запустите двигатель на 20 минут. (Двигатели с алюминиевыми головками блока цилиндров перед повторной затяжкой необходимо охладить до комнатной температуры).

## РЕКОМЕНДАЦИИ ПО ЗАТЯЖКЕ БОЛТОВ ГБЦ

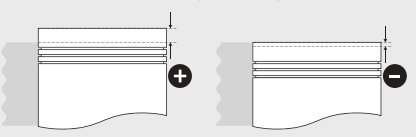
- Осмотрите болты и отверстия на предмет отсутствия загрязнений, повреждений и правильной длины/глубины.
- Убедитесь, что в отверстиях под болты нет загрязнений.
- Замените натяжные болты в соответствии с инструкциями производителя двигателя.
- Избегайте нанесения чрезмерного количества смазки, герметика или клея на резьбу болтов и в отверстия потайных болтов, чтобы уменьшить риск гидравлической пробки и неправильного момента затяжки.
- Убедитесь, что поверхности стыка чистые и не замаслены.
- Затяните болты в рекомендованной последовательности.
- Прекратите приложение нагрузки на динамометрический ключ после щелчка!
- Если необходимо, используйте угломер.
- Регулярно выполняйте калибровку динамометрического ключа - особенно если его роняли!



\*Ribe-CV® является зарегистрированной торговой маркой Richard Bergner GmbH & Co.



**Выступ +** - верх головки поршня над поверхностью блока цилиндров  
**Выступ -** - верх головки поршня ниже поверхности блока цилиндров  
 Обе величины измеряются, когда поршень находится в В.М.Т. (верхней мертвой точке)





# PERFORMS UNDER PRESSURE: A HERITAGE OF QUALITY AND INNOVATION WITH PAYEN®

**Innovation drives success in the automotive industry.** Yet, while every component of a modern light vehicle and heavy duty commercial engine is the result of continuous design and manufacturing improvement, few products have seen as much change – or as much innovation – as sealing components.

When it comes to delivering innovative gasket designs that clearly outperform the competition in both the original equipment and replacement markets, Federal-Mogul Corporation's Payen brand truly stands alone.

**Federal-Mogul is the world's leading manufacturer of OE cylinder head gaskets and static sealing components.** This OE leadership means that every Payen gasket is the result of truly world-class R&D processes and extensive insight into the demands of today's engines and manufacturing processes that ensures unsurpassed quality and performance.

The Payen range is supported by four global R&D centres, each equipped with state-of-the-art technologies and systems to ensure that the brand maintains and extends its market leadership through superior sealing solutions.

With 200 scientists and engineers addressing every element of a sealing component – from material formulation to physical design – as well as 26 engine test beds for light vehicle and commercial engines, Federal-Mogul's Payen brand provides the ideal answer to any sealing challenge.



## THRIVING IN THE WORLD'S MOST DEMANDING MARKET

Payen products from Federal-Mogul PERFORM UNDER PRESSURE in the world's most demanding business environment: the OE light and commercial vehicle engine market. Federal-Mogul's unique ability to deliver innovative, ultra-reliable sealing technologies has led to strong business relationships with most of world's premier OEM's.

The Federal-Mogul Sealing Systems facility in Herdorf, Germany, plays a vital role in serving thousands of OE and Aftermarket customers. This highly advanced operation has produced millions of innovative sealing products featuring HTA (High Temperature Alloy), MLS (Multi-Layer Steel) and LASPOT technologies. The Herdorf facility is well equipped for the challenges of the 21st century through Federal-Mogul's leadership in quality and constraint management systems. In honour of these and other achievements, Federal-Mogul Sealing Systems GmbH received the prestigious "TOP 100" Award from the German Ministry of Economic Affairs.

## CONCEPT TO REALITY: LEADERSHIP IN EVERY PART

Among the leading strengths of the Federal-Mogul Herdorf engineering team are the commitment to continuous improvement and the will to explore and validate new ideas – all while focusing on the needs of every customer. By utilising innovative materials and designs combined with leading-edge processes, Federal-Mogul and the Payen brand can meet the demands of any challenging application and business objective.

This aggressive pursuit of quality and innovation can be seen in every Payen product. As one example, Federal-Mogul engineers developed the LASPOT head gasket to address customer requests for a design in which the stopper performs the primary sealing function for applications with increased combustion pressures. Each LASPOT head gasket features the latest welded stopper technology



## LEM® (LIQUID ELASTOMER MOULDING) GASKETS

Federal-Mogul's LEM gaskets have been extremely successful in helping OEMs solve difficult sealing challenges, particularly in joints requiring significant design flexibility. More than 40 million LEM gaskets have been manufactured for OE and aftermarket since LEM was introduced in 1998. LEM gaskets are now well established in the Payen range offering.

This technology is ideally suited to the Aftermarket. The topographic sealing beads on Payen LEM gaskets can accommodate up to 30% greater flange distortion than competing technologies. This is particularly important as engine designers use lightweight flanges and lower bolt loads. LEM technology is also appropriate for tomorrow's fuel cells – and these sealing solutions will become part of the Payen range as this promising market emerges.

to meet the needs of today's most demanding diesel engines. Other key features of these gaskets are functional layers manufactured from spring stainless steel embossed with full and half beads in a specially developed "closed", or matched-tool, concept. This approach ensures a durable seal along a linear sealing zone. For exceptional micro-sealing, all layers are coated with a high-grade, permanently stable fluoroelastomer.

## MLS (MULTI-LAYER STEEL) GASKETS

Federal-Mogul has been an undisputed leader in multi-layer steel (MLS) head gasket technology for nearly 20 years. The company has produced more than 43 million OE MLS head gaskets in Herdorf, and the plant is also a leading provider to the replacement parts market. This OE success is due in part to Federal-Mogul's process experience and independence in product and tool technology. Whether concerned with the highly precise design and manufacture of embossment tools, meeting extreme gasket coating demands or developing high-performance welding equipment for applying the stopper, Federal-Mogul engineers identify and apply the best ideas and technologies to ensure the optimum products for each engine.

The dominant sealing technology used for this market segment is known as steel-elastomer. Gaskets often consist of a steel plate which is embossed around the bore area to seal combustion gas with fluid sealing being achieved by elastomeric seals normally moulded to the steel plate. This type of design provides a highly stable and efficient sealing system with excellent high temperature sealing properties.

As with smaller engines, there is a trend for lighter yet more durable engine structures and higher power densities requiring further advances in gasket design. Latest steel-elastomer designs can incorporate high-performance elastomers with bore sealing systems that can utilise topographic elements as well as MLS technology to seal combustion pressures in excess of 250 bar.

## AWARD-WINNING HTA™ (HIGH TEMPERATURE ALLOY) GASKETS

The need for higher output from smaller engines has led to increased exhaust temperatures, which can have detrimental effects on exhaust gaskets. To help engine OEMs address this issue, Federal-Mogul has developed a range of new gasket material technologies and product designs. One of these – the HTA (High Temperature Alloy) gasket – offers a step-change improvement in exhaust gas sealing.



## STEEL-ELASTOMER GASKET DESIGNS

Sealing of heavy duty diesel engines often requires a different design approach. The combustion pressures are greater than those seen on light vehicle applications and the expectations for long term durability are much higher.

This new technology, a winner of the prestigious Automotive News PACE Award for Innovation in 2007, is exceptionally resistant to thermal creep and can withstand temperatures up to 1000°C. The innovation was made possible only through Federal-Mogul's global expertise in materials science, especially in the fields of metals, coatings and surface chemistry.

Aftermarket customers of Federal-Mogul are already reaping the benefits of HTA technology via the introduction of parts into the Payen brand.

## PAYEN PERFORMS UNDER PRESSURE

Sealing components have never been more important to the overall performance and reliability of automotive engines. Increased cylinder pressures and temperatures, as well as reduced engine mass, have made the science of sealing one of the most complex and demanding areas of engine design. With an unsurpassed level of expertise within both the OE and replacement markets, Payen is the brand that PERFORMS UNDER PRESSURE for virtually any sealing challenge on any automotive engine. In short, Federal-Mogul's Payen brand is the new standard in sealing technology.





# HÖCHSTLEISTUNG UNTER DRUCK: BEWÄHRTE QUALITÄT UND INNOVATION MIT PAYEN®

In der Automobilindustrie wird der Erfolg von Innovation bestimmt. Aber obwohl jedes Teil eines modernen Pkw- und Lkw-Motors das Ergebnis fortlaufender Verbesserung bei Design und Fertigung ist, gab es bei kaum einem anderen Produkt so viele Veränderungen - und Innovationen - wie bei Dichtungskomponenten.

Als Anbieter von innovativen Dichtungsdesigns, im Serien- (OE-) als auch Ersatzgeschäft, setzt die Marke Payen von Federal-Mogul immer wieder neue Standards.

Federal-Mogul ist der weltweit führende Hersteller von OE-Zylinderkopfdichtungen und anderen Dichtungskomponenten. Dank dieser führenden Position im OE-Markt basiert jede Payen-Dichtung auf Forschungs- und Entwicklungsprozessen (F&E), die die umfassenden Anforderungen an moderner Motoren und Fertigungsprozesse abdecken.

Das Produktangebot von Payen wird durch vier globale F&E-Zentren unterstützt, die alle mit modernsten Technologien und Systemen ausgerüstet sind, um die führende Position der Marke durch erstklassige Dichtungsleistungen zu sichern und auszuweiten.

Mit 200 Wissenschaftlern und Ingenieuren, die sich von der Werkstoffzusammensetzung bis hin zur physischen Planung mit jedem Bestandteil einer Dichtung befassen, sowie 26 Motorprüfständen für Pkws und Nutzfahrzeuge bieten Federal-Mogul und die Marke Payen die perfekte Lösung für jedes Dichtungsproblem.



## ERFOLGREICH IM ANSPRUCHSVOLLSTEN MARKT DER WELT

Die Payen-Produkte von Federal-Mogul bieten HÖCHSTLEISTUNG UNTER DRUCK im weltweit anspruchsvollsten Geschäftsumfeld: Dem OE Markt für Pkw- und Nutzfahrzeugmotoren. Durch die große Kompetenz, innovative und zuverlässige Dichtungstechnologien bereitzustellen, konnte Federal-Mogul starke Geschäftsbeziehungen mit den global führenden OEM aufbauen. Federal-Moguls Fertigungsanlage für Dichtungssysteme in Herdorf leistet einen wichtigen Beitrag zur Versorgung von tausenden Kunden im OE-Markt und Aftermarket. Dieser hochmoderne Betrieb fertigt Millionen innovativer Dichtungsprodukte mit HTA- (Hochtemperatur-Legierung), MLS- (mehrlagiger Stahl) und LASPOT®- Technologien. Dank Federal-Moguls führender Position in puncto Qualität und Constraint-Management-Systemen ist das Werk in Herdorf bestens auf die Herausforderungen des 21. Jahrhunderts vorbereitet. In Anerkennung dieser und anderer Leistungen erhielt die Federal-Mogul Sealing Systems GmbH die Auszeichnung „TOP 100“ vom Bundeswirtschaftsministerium.

## VOM KONZEPT ZUR UMSETZUNG: HERVORRAGEND IN JEDEM TEIL

Zu den führenden Stärken des Teams in Herdorf zählen sein Engagement für kontinuierliche Verbesserung und sein Wille, neue Ideen zu erforschen und validieren. Gleichzeitig wird besonderes Augenmerk auf die Erfordernisse jedes einzelnen Kunden gerichtet. Durch Nutzung innovativer Werkstoffe und Designs kombiniert mit modernsten Herstellungsverfahren ist Federal-Mogul und die Marke Payen in der Lage, die Anforderungen aller anspruchsvollen Anwendungen zu erfüllen.

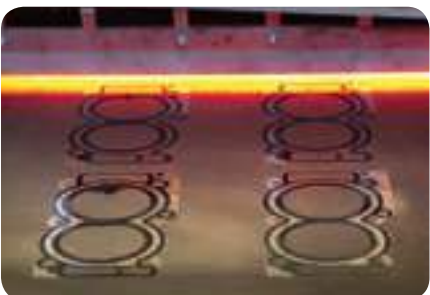
Dieser ehrgeizige Fokus auf Qualität und Innovation zeigt sich in jedem Payen-Produkt. Ingenieure bei Federal-Mogul entwickelten beispielsweise die LASPOT Zylinderkopfdichtung, um Kundenwünschen



nach einem Design gerecht zu werden, bei dem der Stopper in Anwendungen mit erhöhten Verbrennungsdrücken die primäre Dichtungsfunktion übernimmt. Jede LASPOT Zylinderkopfdichtung verfügt über die neueste, geschweißte Stopper-Technologie, um auch die höchsten Erfordernisse moderner Dieselmotoren zu erfüllen. Andere wichtige Merkmale dieser Dichtungen sind Funktionsschichten aus rostbeständigem Federbandstahl mit Voll- und Halbwülsten in einem speziell entwickelten „geschlossenen“ oder „Matched-Tool“-Konzept. Dieser Ansatz sorgt für eine haltbare Dichtung entlang einer linienförmigen Dichtzone. Um eine unübertroffene Mikrodichtung zu erreichen, werden alle Schichten mit einem hochgradigen, dauerhaft stabilen Flourelastomer beschichtet.

## MLS DICHTUNGEN (DICHTUNGEN AUS MEHRLAGIGEM STAHL)

Federal-Mogul ist seit fast 20 Jahren einer der Marktführer für MLS-Zylinderkopfdichtungstechnik. Das Unternehmen hat bis heute über 43 Millionen OE MLS-Dichtungen in Herdorf produziert und ist außerdem ein führender Zulieferer für den Ersatzteilmarkt. Dieser Erfolg im OE-Geschäft beruht teilweise auf der Prozess-erfahrung von Federal-Mogul und seiner unabhängigen Position bei Produkt- und Werkzeugtechnik. Egal ob es um hochpräzise Konzipierung und Fertigung von Prägwerkzeugen, die Erfüllung extremer Anforderungen an die Dichtungsbeschichtung oder die Entwicklung von Hochleistungs-Schweißgeräten für das Anbringen der Stopper geht - die Ingenieure von Federal-Mogul finden und realisieren die besten Ideen und Technologien, um für jeden Motor die optimalen Produkte zu liefern.



## STAHL-ELASTOMER-DICHTUNGEN

Die Abdichtung von Nutzfahrzeugdieselmotoren erfordert oftmals einen anderen Lösungsansatz, da die Verbrennungsdrücke höher sind als in Pkw-Motoren und auch die Erwartungen an die Langzeithaltbarkeit deutlich höher sind.

Die dieses Marktsegment beherrschende Dichtungstechnik ist eine Stahl-Elastomer-Konstruktion. Diese Dichtungen bestehen zumeist aus einer Stahlplatte mit Sicken um den Bohrungsbereich zur Abdichtung des Brennraums und normalerweise an die Stahlplatte geformten Elastomerdichtungen zur Abdichtung der Flüssigkeitskanäle. Mit dieser Bauweise wird eine hochstabile und effiziente Abdichtung mit ausgezeichneten Hochtemperaturdichteigenschaften erzielt. Wie bei kleineren Motoren geht auch hier der Trend zu leichteren und haltbareren Motorkonstruktionen sowie höheren Leistungsdichten - und infolgedessen neuen Anforderungen an die Dichtungen. Moderne Stahl-Elastomer-Dichtungen kombinieren unter Einsatz von sowohl topografischen Elementen als auch MLS-Technologie (Mehrlagen-Stahldichtungen), Hochleistungselastomere mit Bohrungsabdichtungssystemen für Verbrennungsdrücke über 250 bar.

## PREISGEKRÖNTE HTA™-DICHTUNGEN (HOCHTEMPERATUR-LEGIERUNG)

Mit dem Bedarf nach höheren Leistungen von zunehmend kleineren Motoren haben sich die Auspuffrohrtemperaturen erhöht, was sich nachteilig auf die Auspuffrohrdichtungen auswirken kann. Um den Motorenherstellern bei der Lösung dieses Problems zu helfen, hat Federal-Mogul eine Reihe neuer Dichtungsmaterialtechniken und Produktdesigns entwickelt. Eine dieser Technologien - die HTA-Dichtung (Hochtemperatur-Legierung) - stellt eine sprunghafte Verbesserung für Auspuffrohrdichtungen dar.

Die neue Technologie, ausgezeichnet mit dem „Automotive News PACE Award for Innovation“ (2007), weist außerordentliche Beständigkeit gegenüber thermischem Kriechen auf und hält Temperaturen bis zu 1.000° C stand. Diese Innovation wurde durch Federal-Moguls globale Expertise in den Materialwissenschaften und speziell in den Bereichen Metalle, Beschichtungen und Oberflächenchemie ermöglicht. Die Aftermarket-Kunden von Federal-Mogul profitieren durch die Einführung von Teilen im Payen-Sortiment bereits von der HTA-Technologie.



## LEM®-DICHTUNGEN (LIQUID ELASTOMER MOULDING)

Die LEM-Dichtungen von Federal-Mogul leisten einen wesentlichen Beitrag zur Lösung schwieriger Dichtungsprobleme bei den Motorenherstellern, speziell erhöhen sie die Konstruktionsfreiheit an den schwierig abzdichtenden Anschlußstellen. Über 40 Millionen LEM-Dichtungen wurden für das OE-Geschäft wie auch den Aftermarket seit der Produkteinführung im Jahr 1998 produziert. Im Payen-Produktprogramm sind die LEM-Dichtungen nun bestens für den Aftermarket platziert.

Diese Technologie eignet sich bestens für den Aftermarket. Die topografischen Dichtwülste der Payen LEM-Dichtungen können im Vergleich mit Konkurrenzprodukten eine bis zu 30 Prozent stärkere Flanschverformung aufnehmen. Dies ist besonders wichtig, da Motorenkonstruktoren die Flansche gewichtsoptimieren und niedrigere Bolzenlasten verwenden. Die LEM-Technologie eignet sich außerdem für die Brennstoffzellen der Zukunft - und diese Dichtungslösungen werden mit dem Auftauchen dieses vielversprechenden Markts in das Payen-Sortiment aufgenommen werden.



## PAYEN - HÖCHSTLEISTUNG UNTER DRUCK

Dichtungskomponenten waren noch nie zuvor so wesentlich für die Leistungsfähigkeit und Zuverlässigkeit von Fahrzeugmotoren. Durch erhöhte Zylinderdrücke und -temperaturen sowie reduzierte Motorengröße ist die Dichtungstechnik heute eine der komplexesten und anspruchsvollsten Bereiche bei der Motorenkonstruktion. Mit unübertroffener Kompetenz sowohl im OE- als auch im Ersatzgeschäft ist Payen die Marke, die für praktisch jedes Dichtungsproblem bei allen Fahrzeugmotoren HÖCHSTLEISTUNG UNTER DRUCK bietet. Kurz gesagt - Payen ist der neue Standard für die Dichtungstechnologie.





# MASSIMA TENUTA, MASSIMA PRESTAZIONE: IL PATRIMONIO PAYEN® FATTO DI QUALITÀ ED INNOVAZIONE

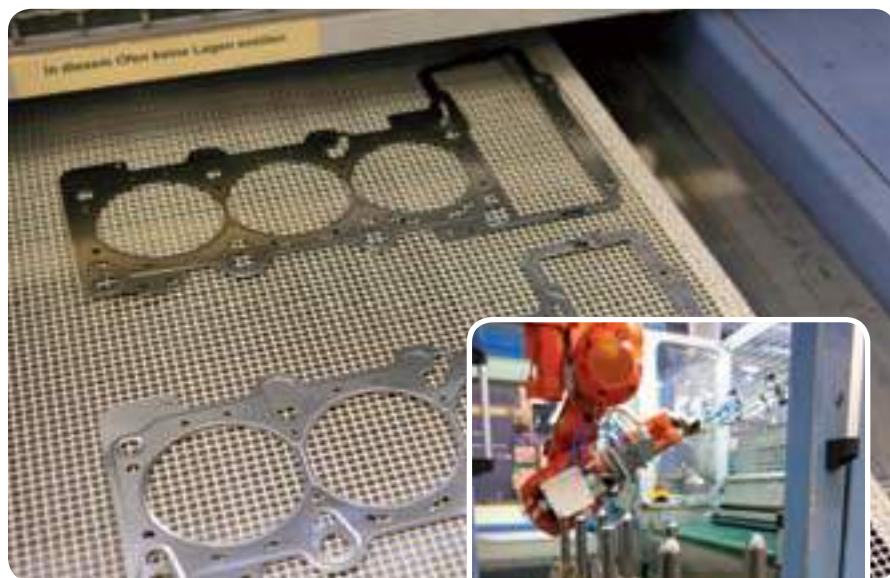
L'innovazione è il motore del settore automobilistico. Tutti i componenti dei motori moderni per veicoli leggeri e pesanti sono il risultato di continui miglioramenti nella progettazione e nella produzione, ma pochi prodotti hanno visto così tanti cambiamenti o innovazioni come i componenti di tenuta.

Quando si parla di progettare guarnizioni innovative che surclassano la concorrenza sia nel mercato dei componenti originali che in quello dei pezzi di ricambio, il marchio Payen di Federal-Mogul regna incontrastato.

**Federal-Mogul è il leader mondiale nella produzione di guarnizioni testa cilindro e componenti di tenuta statici OE.** La leadership delle guarnizioni Payen nel mercato OE nasce da processi di ricerca e sviluppo all'avanguardia e da un ampio studio delle richieste dei motori e dei processi di produzione moderni che assicura prestazioni e qualità senza pari.

Quattro centri R&D internazionali, ciascuno dotato di sistemi e tecnologie all'avanguardia, assicurano che il marchio Payen mantenga ed estenda la propria leadership di mercato attraverso soluzioni di tenuta di qualità eccellente.

Grazie all'impegno di 200 tecnici ed ingegneri, Federal-Mogul e il marchio Payen forniscono la soluzione ottimale a qualsiasi sfida inerente ai componenti di tenuta: analizzano, infatti, ogni singola fase di realizzazione del pezzo, dalla mescola alla progettazione fisica, come pure i test su 26 banchi prova per i motori dei veicoli.



## IL SUCCESSO NEL MERCATO PIÙ ESIGENTE AL MONDO

I prodotti Payen di Federal-Mogul sono sempre all'avanguardia nell'ambiente commerciale più esigente al mondo: il mercato OE dei motori per veicoli commerciali e leggeri. La capacità unica di Federal-Mogul di offrire tecnologie di tenuta innovative ed estremamente affidabili ha condotto alla nascita di saldi rapporti commerciali con i principali produttori OEM internazionali.

Lo stabilimento di Federal-Mogul a Herdorf, in Germania, gioca un ruolo fondamentale nella fornitura di prodotti a migliaia di clienti del mercato OE e dell'aftermarket. Sfruttando sistemi altamente avanzati, questo stabilimento ha prodotto milioni di componenti di tenuta innovativi basati sulle tecnologie HTA (High Temperature Alloy), MLS (Multi-Layer Steel) e LASPOT®. L'impianto di Herdorf è ben strutturato per affrontare le sfide del 21° secolo attraverso la leadership di Federal-Mogul secondo i più moderni sistemi di gestione della qualità totale. Per questi e altri obiettivi raggiunti Federal-Mogul Sealing Systems GmbH è stata insignita del prestigioso premio "TOP 100" dal Ministero degli Affari economici tedesco.

## DALLA PROGETTAZIONE ALLA REALIZZAZIONE: I PRIMI IN OGNI FASE DI PRODUZIONE

Tra i punti di forza del team di Herdorf vi sono l'impegno verso il costante miglioramento e la volontà di esplorare e verificare nuove idee, il tutto ponendo l'attenzione sulle esigenze di ciascun cliente. Grazie all'utilizzo di materiali e design innovativi uniti all'impiego di processi all'avanguardia, Federal-Mogul e il marchio Payen sono in grado di soddisfare le richieste di qualsiasi applicazione e di raggiungere obiettivi commerciali di grande impegno.

La ricerca costante di qualità e innovazione è visibile in tutti i prodotti Payen. Per fare un esempio, gli ingegneri di Federal-Mogul hanno sviluppato la guarnizione testa LASPOT® per rispondere alle richieste da parte dei clienti di una soluzione in cui il dispositivo



## DESIGN DI GUARNIZIONI IN ACCIAIO-ELASTOMERO

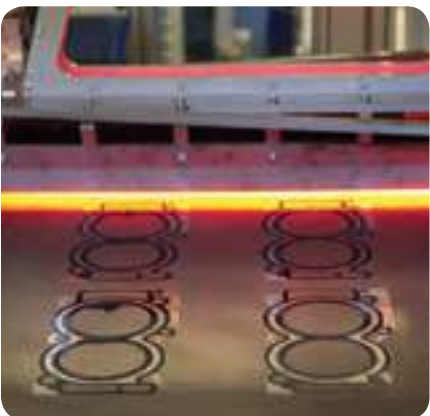
I sistemi di tenuta per motori diesel "heavy duty" esigono spesso un approccio progettuale diverso: le pressioni di combustione sono maggiori rispetto a quelle osservate nelle applicazioni di veicoli commerciali leggeri e le aspettative riguardanti la durata a lungo termine sono di gran lunga superiori. La principale tecnologia di tenuta adottata per questo segmento di mercato è nota come acciaio-elastomero. Le guarnizioni sono spesso costituite da una piastra in acciaio, sbalzata attorno all'area del foro, atta alla tenuta del gas di combustione, mentre la tenuta dei fluidi è assicurata da elementi di tenuta elastomerici solitamente uniti alla piastra in acciaio mediante formatura. Questo tipo di design crea un sistema di tenuta altamente stabile ed efficiente avente eccellenti proprietà di tenuta ad alta temperatura.

svolgesse una prima funzione di tenuta nelle applicazioni con pressioni di combustione maggiori. Ogni guarnizione testa LASPOT® sfrutta la tecnologia di ultima generazione sulla saldatura degli anelli in corrispondenza dei cilindri per rispondere alle crescenti necessità dei motori diesel moderni. Altre caratteristiche fondamentali di queste guarnizioni sono gli strati in acciaio inossidabile armonico dotati di cordoni in elastomero che garantiscono una chiusura sempre ermetica. Questo approccio garantisce un'affidabilità di tenuta su tutte le superfici interessate. Per ottenere una microsiggatura di qualità eccezionale, tutti gli strati sono rivestiti con uno speciale materiale in fluoroelastomero che permette qualità e stabilità di tenuta permanenti.

## GUARNIZIONI IN ACCIAIO MULTISTRATO

Federal-Mogul è leader indiscusso della tecnologia delle guarnizioni testa in acciaio multistrato da quasi 20 anni. L'azienda ha prodotto più di 43 milioni di guarnizioni testa OE in acciaio multistrato nello stabilimento di Herdorf e questo stesso stabilimento è anche un fornitore leader nel mercato dei pezzi di ricambio.

Il successo nel mercato OE è dovuto in parte all'esperienza ed autonomia tecnologica di Federal-Mogul negli strumenti, nei processi e nei prodotti. Che si tratti di progettazione, di produzione ad alta precisione, di goffratura, di rivestimenti rinforzati o dello sviluppo di tecnologie di saldatura ad alte prestazioni per le tenute, gli ingegneri di Federal-Mogul identificano e applicano le idee e le tecnologie migliori per assicurare la massima qualità nei prodotti per ciascun motore.



Analogamente ai motori di dimensioni minori, si preferiscono attualmente strutture del motore più leggere ma più durature e densità di potenza superiori che esigono ulteriori progressi nella progettazione delle guarnizioni. I più recenti design in acciaio-elastomero possono comprendere elastomeri ad alte prestazioni con sistemi di tenuta del foro in grado di utilizzare elementi topografici così come la tecnologia MLS per garantire la tenuta a pressioni di combustione superiori a 250 bar.

## GUARNIZIONI HTA™ (HIGH TEMPERATURE ALLOY) PREMIATE

La necessità di ottenere un rendimento superiore da motori più piccoli ha portato all'aumento delle temperature di scarico, con conseguente effetto usurante sulle guarnizioni di scarico. Per aiutare i produttori OEM di motori a risolvere questo problema, Federal-Mogul ha sviluppato una nuova gamma di tecnologie di materiali per guarnizioni e nuove progettazioni. Una di queste, la guarnizione HTA (High Temperature Alloy), offre un miglioramento sostanziale nella tenuta dei gas di scarico.

Questa nuova tecnologia, vincitrice del prestigioso Automotive News PACE Award for Innovation, presenta una resistenza eccezionale alla deformazione termica ed è in grado di sopportare temperature fino a 1000° C. L'innovazione in Federal-Mogul è stata possibile solo grazie all'abilità e alla conoscenza dei materiali metallici, e della chimica delle superfici.

I clienti aftermarket di Federal-Mogul stanno già godendo dei benefici della tecnologia HTA grazie alla sua introduzione nella gamma Payen attuale.



## GUARNIZIONI LEM® (LIQUID ELASTOMER MOULDING)

Le guarnizioni LEM di Federal-Mogul hanno contribuito notevolmente a risolvere le difficili sfide nei sistemi di tenuta che si sono presentate ai produttori OEM, in particolare per gli snodi che richiedono una notevole flessibilità di design. Dall'introduzione del marchio LEM nel 1998 sono state prodotte oltre 40 milioni di guarnizioni LEM per il settore OE e per il mercato dei ricambi. Le guarnizioni LEM si sono affermate nella gamma di prodotti Payen.

Questa tecnologia è ideale per l'impiego in aftermarket. I cordoni di tenuta, infatti, presenti sulle guarnizioni Payen LEM possono sopportare fino al 30% in più di distorsione del supporto metallico rispetto alle tecnologie concorrenti. Ciò è particolarmente importante quando i progettisti di motori utilizzano strati leggeri e carichi di serraggio minori. La tecnologia LEM è inoltre adatta alle future celle a combustibile e diverrà parte della gamma Payen con l'emergere di questo promettente mercato.



## PAYEN: MASSIMA TENUTA, MASSIMA PRESTAZIONE

I componenti di tenuta non sono mai stati così importanti per le prestazioni e l'affidabilità complessive dei motori automobilistici. L'aumento delle temperature e delle pressioni nei cilindri, nonché la riduzione della massa del motore, hanno fatto della scienza dei sistemi di tenuta una delle aree di progettazione più complesse ed impegnative. Grazie all'elevato livello di esperienza e conoscenza sia nel mercato OE/OES che Aftermarket, Payen è il marchio MASSIMA TENUTA, MASSIMA PRESTAZIONE per praticamente qualsiasi applicazione di tenuta su qualsiasi motore automobilistico. In altre parole, Payen è il nuovo standard nella tecnologia dei sistemi di tenuta.





# 🇫🇷 L'ÉTANCHÉITÉ SOUS PRESSION : LA TRADITION DE LA QUALITÉ ET DE L'INNOVATION AVEC PAYEN®

L'innovation est le moteur du succès au sein de l'industrie automobile. Toutefois, même si chaque composant des motorisations modernes pour véhicules légers ou poids-lourds est le fruit d'améliorations continues en termes de conception et de fabrication, rares sont les produits qui ont connu autant d'évolutions (ou autant d'innovations) que les composants d'étanchéité.

La marque Payen de Federal-Mogul est réellement la seule à offrir des modèles de joints innovants dont les performances sont nettement supérieures à celles de la concurrence aussi bien en première monte que sur le marché des pièces de rechange.

Federal-Mogul est le plus grand fabricant mondial de joints de culasse et d'éléments d'étanchéité statique d'origine. Ce positionnement dans le domaine des équipements de première monte est l'assurance que chaque joint Payen est le fruit de processus de R&D de dimension véritablement internationale ainsi que d'une connaissance approfondie des exigences des moteurs et des procédés de fabrication d'aujourd'hui, offrant ainsi la garantie d'une qualité et de performances inégalées.

La gamme Payen bénéficie de l'appui de quatre centres mondiaux de R&D, chacun équipé de technologies et de systèmes de pointe pour s'assurer que la marque conserve et étende son leadership sur le marché grâce à des solutions d'étanchéité hors pair.

Forts d'un effectif de 200 scientifiques et ingénieurs traitant chacun des composants d'une pièce d'étanchéité - de la formulation des matériaux à la conception physique -, ainsi que de 26 bancs d'essais pour motorisations de véhicules légers et poids-lourds, Federal-Mogul et la marque Payen apportent la réponse idéale à tous les défis en matière d'étanchéité.



## UNE MARQUE PROSPÈRE SUR LE MARCHÉ LE PLUS EXIGEANT DU MONDE

Les produits Payen de Federal-Mogul excellent sous pression au sein d'un des marchés les plus exigeants au monde : le marché première monte des moteurs pour véhicules légers et poids-lourds. La capacité unique de Federal-Mogul à fournir des technologies d'étanchéité novatrices et ultra-fiables a permis d'établir de solides relations commerciales avec les constructeurs les plus importants de la planète.

Le site de production de systèmes d'étanchéité de Federal-Mogul à Herdorf, en Allemagne, joue un rôle fondamental en répondant aux besoins de milliers de clients en première monte et en rechange. Cette usine hautement perfectionnée a fabriqué des millions de produits d'étanchéité innovants, dotés de technologies à alliage haute température HTA (High Temperature Alloy), en acier multi-feuille MLS (Multi-Layer Steel) et LASPOT®. Le site de Herdorf s'est doté des outils nécessaires pour relever les défis du 21ème siècle grâce au leadership de Federal-Mogul dans les systèmes de gestion de la qualité et des contraintes. Pour rendre hommage à ces réalisations et d'autres encore, le Ministère allemand des affaires économiques a remis le prestigieux prix « TOP 100 » au site Federal-Mogul Sealing Systems GmbH.

## DU CONCEPT À LA RÉALITÉ : UN LEADERSHIP OMNIPRÉSENT

Parmi les principaux points forts de l'équipe de Herdorf figurent une volonté d'amélioration continue et l'envie d'explorer et de valider de nouvelles idées tout en restant à l'écoute des besoins de chaque client. En exploitant des conceptions et des matériaux innovants, conjugués à des procédés d'avant-garde, Federal-Mogul et la marque Payen sont en mesure de satisfaire aux exigences les plus difficiles pour toute application et pour tout objectif commercial.

Chaque produit Payen est représentatif de cette ambitieuse quête de qualité et d'innovation. A titre d'exemple, les ingénieurs de Federal-Mogul ont mis au point le joint de culasse LASPOT® en vue de répondre aux





demandes des clients recherchant un modèle dans lequel la butée remplit la fonction principale d'étanchéité pour supporter des pressions de combustion plus élevées. Chaque joint de culasse LASPOT est doté de la dernière technologie de butée soudée au laser en vue de répondre aux besoins des moteurs Diesel les plus exigeants d'aujourd'hui. Ces joints présentent d'autres caractéristiques majeures telles que des couches fonctionnelles réalisées en acier inoxydable à ressort moulé avec des cordons complets et des demi-cordons dans un concept « fermé » (principe du moule et contre-moule spécialement développé). Cette approche assure une étanchéité durable le long d'une zone d'étanchéité linéaire. Pour une micro-étanchéité d'exception, toutes les couches sont revêtues d'un fluoroélastomère de première qualité et d'une stabilité permanente.

### JOINTS MLS (ACIER MULTI-FEUILLE)

Cela fait près de 20 ans que Federal-Mogul est le leader incontesté en matière de technologie de joint de culasse en acier multi-feuille. A Herdorf, la société a produit plus de 43 millions de joints de culasse MLS de première monte. L'usine allemande est également l'un des principaux fournisseurs du marché des pièces de rechange.

Ce succès en première monte s'explique en partie par l'expérience des procédés de Federal-Mogul et par son indépendance en matière de technologies de produits et d'outils. Qu'il s'agisse de la conception et de la fabrication d'outils d'emboutissage de haute précision, de répondre à des exigences extrêmes en matière de revêtements de joints, ou de mettre au point un matériau de soudage de haute performance pour l'application de la butée, les ingénieurs de Federal-Mogul identifient et mettent en œuvre les meilleures idées et les meilleures technologies afin de garantir des solutions optimales pour chaque moteur.

### JOINTS DE TYPE ACIER-ÉLASTOMÈRE

L'étanchéité des moteurs Diesel de poids lourds nécessite souvent une approche conceptuelle différente. Les pressions de combustion sont plus importantes que dans

un moteur de véhicule léger et les attentes quant à la durabilité à long terme sont beaucoup plus grandes.

La technologie d'étanchéité la plus répandue pour ce segment de marché est connue sous le nom de joint acier-élastomère. Ces joints sont souvent constitués d'une plaque en acier qui est nervurée au niveau des alésages afin d'assurer l'étanchéité aux gaz de combustion. L'étanchéité aux fluides est réalisée quant à elle par des joints en élastomère qui sont généralement moulés sur la plaque d'acier. Ce type de conception permet d'obtenir un système très stable et efficace qui présente d'excellentes propriétés d'étanchéité à haute température.

À l'image des moteurs de cylindrée inférieure, on peut observer une tendance d'une part à la réalisation de structures de moteur plus légères mais néanmoins durables, et d'autre part à l'augmentation de la puissance volumique. De nouvelles avancées en matière de conception de joints sont par conséquent nécessaires. Les derniers modèles de type acier-élastomère peuvent ainsi intégrer des élastomères hautes performances et disposer de systèmes d'étanchéité d'alésage faisant appel à des éléments en relief ainsi qu'à l'acier multi-feuille pour garantir l'étanchéité à des pressions de combustion supérieures à 250 bars.

### JOINTS HTA™ (ALLIAGE HAUTE TEMPÉRATURE) PRIMÉS AUX « PACE AWARD » DU MAGAZINE AUTOMOTIVE NEWS

La nécessité d'obtenir un rendement plus élevé pour les moteurs plus petits s'est traduite par une augmentation des températures d'échappement et donc par des effets néfastes potentiels sur les joints de collecteur d'échappement. Afin d'aider les motoristes à régler cette question, Federal-Mogul a mis au point une gamme de nouvelles solutions de matériaux de joint. Parmi eux, le joint HTA (High Temperature Alloy - alliage haute température) constitue une amélioration radicale en matière d'étanchéité aux gaz d'échappement. Cette nouvelle technologie, l'un des lauréats du prestigieux « Automotive News PACE Award 2007 » dans la catégorie Innovation, offre une résistance exceptionnelle au flUAGE thermique et peut supporter des températures allant jusqu'à 1 000°C. Cette innovation n'a été possible que grâce aux compétences internationales de Federal-Mogul en science des matériaux, en particulier dans les domaines des métaux, des revêtements et de la chimie des surfaces.

Grâce aux pièces introduites dans la gamme Payen, la clientèle de Federal-Mogul en deuxième monte peut d'ores et déjà mettre à profit les avantages de la technologie HTA.



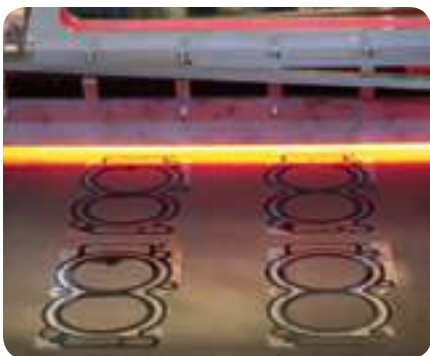
### JOINTS LEM® (ÉLASTOMÈRE LIQUIDE MOULÉ)

Les joints en élastomère liquide moulé LEM (Liquid Elastomer Moulding) de Federal-Mogul ont connu un vif succès en aidant les constructeurs à résoudre des problèmes d'étanchéité assez complexes, notamment au niveau des jonctions exigeant une souplesse de conception importante. Plus de 40 millions de joints LEM ont été fabriqués pour les marchés de l'origine et de la rechange depuis que le LEM fut introduit en 1998. Les joints LEM sont aujourd'hui des produits bien connus au sein de la gamme proposée par Payen.

Cette technologie est parfaitement adaptée aux besoins du marché de deuxième monte. Les cordons d'étanchéité topographiques des joints LEM de Payen peuvent résister à un degré de distorsion de plan jusqu'à 30 % supérieur à celui des technologies concurrentes. Cela est particulièrement important compte tenu du fait que les concepteurs de moteurs utilisent des rebords légers et des couples de serrage inférieurs. La technologie LEM est également appropriée pour les piles à combustion de demain. Aussi, dès l'émergence de ce marché prometteur, ces solutions d'étanchéité feront leur entrée dans la gamme Payen.

### PAYEN : L'ÉTANCHEITÉ SOUS PRESSION

L'importance des composants d'étanchéité pour le rendement global et la fiabilité des moteurs automobiles a atteint un niveau sans précédent. L'augmentation des pressions et des températures des cylindres ainsi que la réduction de la masse des moteurs ont fait de la science de l'étanchéité l'un des domaines de la conception de moteurs les plus complexes et les plus exigeants. Forte d'un niveau de savoir-faire inégalé tant en première monte qu'au sein du marché des pièces de rechange, la marque Payen est synonyme d'ÉTANCHEITÉ SOUS PRESSION et offre une réponse à la quasi-totalité des défis d'étanchéité des moteurs automobiles. En résumé, Payen est la nouvelle référence en matière de technologies d'étanchéité.





# **FUNCIONA BAJO PRESIÓN.** **TRADICIÓN DE CALIDAD E INNOVACIÓN CON PAYEN®**

La innovación es el motor del sector de la automoción. Todos los componentes que se utilizan en la actualidad en motores industriales de carga pesada o de vehículos industriales ligeros son el resultado de una mejora continua en el diseño y la fabricación, aunque hay pocos productos que hayan sufrido tantos cambios –o tanta innovación– como los componentes de sellado.

A la hora de elegir un diseño de junta innovador que supere claramente a la competencia tanto en el mercado de equipo original como de recambios, la marca Payen de Federal-Mogul Corporation destaca notablemente.

Federal-Mogul es el fabricante de componentes de sellado estáticos y juntas de culata de equipo original más importante del mundo, lo que significa que cada junta de Payen es el resultado de procesos de I+D de excelente calidad y del gran conocimiento de las exigencias de los procesos de fabricación y los motores actuales, que garantiza una calidad y un rendimiento insuperables.

La gama Payen está respaldada por cuatro centros de I+D en todo el mundo, cada uno de los cuales cuenta con los últimos sistemas y tecnologías para garantizar que la marca mantiene y amplía su situación dominante en el mercado mediante productos de sellado superiores.

En dichos centros, cada elemento de los componentes de sellado –desde la formulación de los materiales hasta el diseño físico– está supervisado por 200 científicos e ingenieros, y se dispone de 26 bancos de pruebas para motores industriales e industriales ligeros. Por eso, Federal-Mogul y la marca Payen son la opción ideal para cualquier necesidad que se presente relacionada con el sellado.



## **PROSPERAR EN EL MERCADO MÁS EXIGENTE DEL MUNDO**

En el entorno comercial más exigente del mundo, el mercado de motores para vehículos industriales e industriales ligeros de equipo original, los productos de Payen «funciona bajo presión». Gracias a su capacidad única de proporcionar tecnologías de sellado realmente fiables e innovadoras, Federal-Mogul han conseguido establecer y consolidar relaciones comerciales con los mejores fabricantes de equipo original del mundo.

Las modernas instalaciones de Federal-Mogul Sealing Systems en Herdorf, Alemania, tienen un papel esencial en la empresa, ya que dan servicio a miles de clientes de recambios y equipo original. En ellas se han producido millones de innovadores productos de sellado que incorporan las tecnologías HTA (aleación para altas temperaturas, del inglés, High Temperature Alloy), MLS (acero multicapa, del inglés, Multi-Layer Steel) y LASPOT. Gracias a sus sistemas de gestión de calidad y restricciones, dichas instalaciones están perfectamente preparadas para afrontar los retos del siglo XXI. En honor a estos y a otros logros, Federal-Mogul Sealing Systems GmbH ha recibido del Ministerio de Economía alemán el prestigioso galardón de «Las 100 mejores empresas».

## **LIDERAZGO EN CADA PIEZA, DESDE QUE SE CONCEBE HASTA QUE SE MATERIALIZA**

Entre los puntos fuertes más importantes del Federal-Mogul equipo de Herdorf se encuentra el compromiso por una mejora continua y la voluntad de explorar y aplicar nuevas ideas, sin olvidar las necesidades de cada cliente. Gracias al uso de innovadores materiales y diseños combinados con los procesos más novedosos, Federal-Mogul, de la mano de la marca Payen, puede satisfacer todos los objetivos comerciales y de aplicación exigentes.



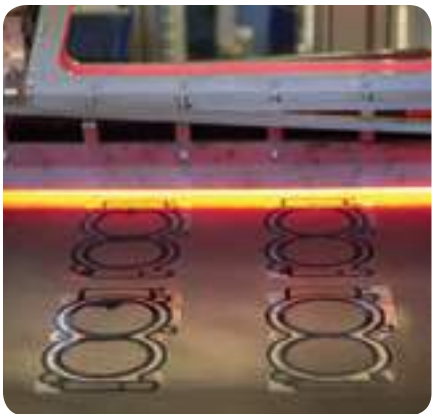


Esta imparables bú squeda de la calidad y la innovación se observa en todos y cada uno de los productos de Payen. Como ejemplo, los ingenieros de Federal-Mogul desarrollaron la junta de culata LASPOT para los clientes que querían utilizar un diseño en el que el refuerzo hiciese la función de sellado principal en las aplicaciones con mayores presiones de combustión. Con la junta de culata LASPOT, que incorpora la última tecnología de refuerzos soldados, se cubren las necesidades de los motores diésel más exigentes del mercado. Además, estas juntas presentan otras características clave como son las capas funcionales curvadas de acero inoxidable en relieve con refuerzos medios y enteros en un concepto «cerrado» desarrollado específicamente. De este modo se garantiza un sellado duradero a lo largo de una zona de sellado lineal. Para conseguir un sellado microscópico excepcional, todas las capas se revisten con un fluoroelastómero estable permanente de alta calidad.

### JUNTAS DE MLS (ACERO MULTICAPA, DEL INGLÉS, MULTI-LAYER STEEL)

Federal-Mogul lleva 20 años siendo, indiscutiblemente, el fabricante más importante en lo que se refiere a la tecnología de juntas de culata de acero multicapa (MLS). Prueba de ello es que la empresa ha producido más de 43 millones de juntas de culata de MLS para equipo original en Herdorf, una planta que también tiene un gran peso en el mercado de los recambios.

Esta importancia en el sector de equipo original en parte se debe a la experiencia y a la independencia que demuestra tener Federal-Mogul en la tecnología de las herramientas y los productos, ya que sus ingenieros se dedican a establecer y aplicar las mejores ideas y tecnologías para garantizar que cada producto es el óptimo para cada motor, ya sea en el diseño de alta precisión y la fabricación de herramientas de relieve, o en la satisfacción de las necesidades extremas de revestimiento de juntas y el desarrollo de equipos de alto rendimiento de soldadura para la aplicación del refuerzo.



### DISEÑOS DE JUNTAS DE ACERO Y ELASTÓMERO

Para el sellado de motores diésel de vehículos pesados suele ser necesario enfocar el diseño desde un punto de vista diferente. Las presiones de combustión son mucho mayores que las de las aplicaciones de vehículos comerciales, como también lo son las expectativas de durabilidad a largo plazo. La tecnología de sellado que se emplea mayoritariamente para este segmento de mercado es la que utiliza acero y elastómero. Por regla general, las juntas se componen, por una parte, de una placa de acero que se coloca alrededor del borde para sellar el gas de la combustión y, por otra parte, de juntas elastoméricas amoldadas a la placa de acero con las que se consigue el sellado de los líquidos. Con este tipo de diseño se obtiene un sistema de sellado muy estable y eficaz con excelentes propiedades de sellado a altas temperaturas. Al igual que sucede con los motores de menor tamaño, se tiende hacia unos niveles de potencia superiores y unas estructuras de motor más ligeras y con mayor durabilidad, lo que exige nuevos avances en el diseño de juntas. Los diseños en acero y elastómero más recientes pueden incorporar elastómeros de alto rendimiento con un sistema de sellado de bordes que pueden aplicar tanto elementos topográficos como la tecnología MLS (acero multicapa) para sellar presiones de combustión superiores a 250 bar.

### JUNTAS HTA™ (ALEACIÓN PARA ALTAS TEMPERATURAS, DEL INGLÉS, HIGH TEMPERATURE ALLOY) PREMIADAS

Dado que cada vez se exige más potencia en motores más pequeños, la temperatura de los gases de escape ha aumentado, lo que puede tener efectos perjudiciales para las juntas del colector de escape. Para ayudar a que los fabricantes de equipo original solucionen este problema, Federal-Mogul ha desarrollado una nueva gama de diseños de productos y tecnologías para materiales de juntas. Uno de estos productos (la junta de HTA) mejora radicalmente el sellado en los gases de escape.

Esta nueva tecnología, que ha conseguido el prestigioso premio Automotive News PACE 2007 con el que se galardona la innovación de productos, es resistente a la fluidez térmica y puede soportar temperaturas de hasta 1.000 °C. Esta innovación ha sido posible gracias a la experiencia internacional de Federal-Mogul en el ámbito de los materiales, especialmente en el campo de los metales, los recubrimientos y la química de superficie. Puesto que ya se han introducido en la gama Payen referencias que incorporan esta tecnología, los clientes de recambios de Federal-Mogul ya se están beneficiando de las ventajas que representa.



### JUNTAS LEM® (MOLDEADO DE ELASTÓMERO LÍQUIDO, EN INGLÉS, LIQUID ELASTOMER MOULDING)

Las juntas LEM de Federal-Mogul han supuesto una inestimable ayuda para los fabricantes de equipo original en la resolución de problemas de sellado complejos, en particular en las articulaciones que requieren una flexibilidad de diseño significativa. Se han fabricado más de 40 millones de juntas LEM (elastómero líquido moldeado) para equipos originales y recambios desde que apareciera esta tecnología en 1998. En la actualidad, las juntas LEM están muy consolidadas en la gama Payen.

Esta tecnología es ideal para el mercado de los recambios: el asiento de los refuerzos en zonas curvadas de sellado de las juntas LEM de Payen pueden absorber hasta un 30% más de deformación que las tecnologías de la competencia. Esta característica es importante especialmente porque los diseñadores de motores utilizan asientos ligeros y no aprietan tanto los pernos. La tecnología LEM también tendrá un peso importante en las pilas de combustible que se creen en un futuro, de hecho, estas soluciones de sellado se convertirán en parte de la gama Payen a medida que vaya emergiendo este prometedor mercado.



### PAYEN FUNCIONA BAJO PRESIÓN

Nunca antes los componentes de sellado habían sido tan importantes para el rendimiento y la fiabilidad de los motores de automoción. El aumento de las presiones y temperaturas en el cilindro, así como la reducción de la masa del motor, han hecho del sellado una de las ciencias más complejas y exigentes en lo que respecta al diseño del motor. Con un insuperable nivel de experiencia tanto en equipo original como en los recambios, Payen es la marca que FUNCIONA BAJO PRESIÓN en prácticamente todas las necesidades de sellado de cualquier motor de automóvil. En resumen, Federal-Mogul Payen marca las reglas en lo que se refiere a tecnologías de sellado.





# PEWNOŚĆ W KAŻDYCH WARUNKACH: EFEKT JAKOŚCI I INNOWACYJNOŚCI MARKI PAYEN®

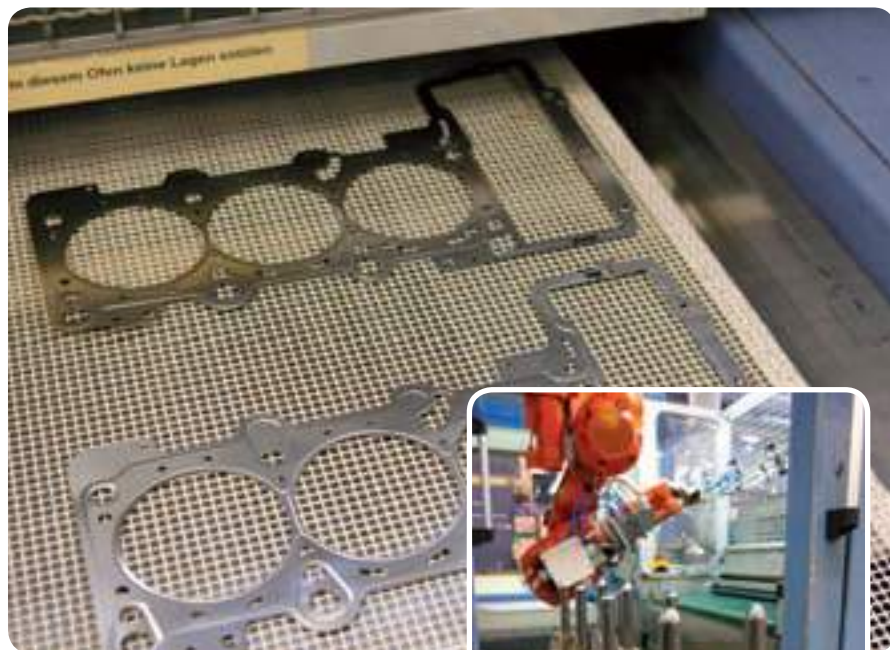
**Innowacje i rozwój technologii jest główną przyczyną sukcesu przemysłu motoryzacyjnego.** Obecnie, każdy element nowoczesnych silników samochodów osobowych lub ciężarowych jest wynikiem ciągłego udoskonalania metod konstrukcyjnych, badawczych i produkcyjnych. W takiej sytuacji niewiele elementów zmieniło się tak bardzo, jak bardzo zmieniły się elementy uszczelnienia.

W sytuacji, gdy potrzebujemy innowacyjnych rozwiązań w zakresie uszczelnień silnikowych, o właściwościach przewyższających to, co mogą zaoferować konkurenci zarówno w dostawach na montaż fabryczny OE, jak i na rynek części zamiennych wybór jest praktycznie jeden – to Payen, marka należąca do koncernu Federal-Mogul Corporation.

**Federal-Mogul jest światowym liderem w produkcji na potrzeby montażu fabrycznego OE w zakresie uszczelnień podgotowiwych i uszczelnień statycznych.** Wiodąca rola w dostawach na OE oznacza, że każda uszczelka Payen jest wynikiem doświadczeń światowej klasy ośrodków badawczych (R&D), głębokiej analizy współczesnego procesu produkcyjnego oraz wymagań nowoczesnych silników, co zapewnia osiągnięcie nowych poziomów efektywności działania i jakości.

Produkty wchodzące w skład programu Payen korzystają ze wsparcia czterech światowych centrów badawczo-rozwojowych (R&D), z których każdy dysponuje najnowocześniejszą technologią badawczą. Umożliwia to utrzymanie wiodącej pozycji dzięki zapewnieniu ciągłego podnoszenia jakości i opracowywaniu nowoczesnych rozwiązań w zakresie uszczelnień.

Dzięki ciągłemu zaangażowaniu 200 naukowców i inżynierów, pracujących nad każdym elementem w pełnym zakresie, od badań materiałowych po końcowy projekt oraz możliwością wykorzystania w badaniach 26 stanowisk testowych dla silników osobowych i ciężarowych, Federal-Mogul i marka Payen zapewniają idealne rozwiązania dla każdego wyzwania w zakresie uszczelnień.



## CIĄGŁY ROZWÓJ NA NAJBARDZIEJ WYMAGAJĄCYM RYNKU ŚWIATA

Produkty Payena z koncernu Federal-Mogul to „PEWNOŚĆ W KAŻDYCH WARUNKACH” na światowym rynku dostaw na montaż fabryczny OE silników do samochodów osobowych i ciężarowych. Unikalna zdolność Federal-Mogul do dostarczania innowacyjnych, wyjątkowo niezawodnych technologii w zakresie uszczelnień, doprowadziła do wytworzenia silnych relacji biznesowych z wiodącymi producentami samochodów.

Dział Systemów Uszczelnień Federal-Mogul w Herdorf w Niemczech gra kluczową rolę w obsłudze tysięcy klientów zarówno z grupy producentów OE, jak i rynku części zamiennych. Ten nowoczesny zakład wyprodukował miliony innowacyjnych uszczelnień wykorzystujących technologię HTA (technologia stopu wysokotemperaturowego), MLS (uszczelnienia stalowe wielowarstwowe) czy technologię LASPOT. Oddział w Herdorf jest doskonale wyposażony i przygotowany do spełniania wyzwań XXI wieku dzięki wiodącej roli jakości produktów w Federal-Mogul oraz wewnętrznym systemom utrzymania jakości. Dzięki tym oraz wielu innym osiągnięciom Federal-Mogul Sealing Systems GmbH otrzymał prestiżową nagrodę Niemieckiego Ministerstwa Gospodarki – „TOP 100”.

## POMYSŁ NA RZECZYWISTOŚĆ: BYĆ NAJLEPSZYM W KAŻDEJ CZĘŚCI

Pośród wiodących silnych stron załogi Federal-Mogul Herdorf są wiara w nieustający rozwój i determinacja w tworzeniu i stosowaniu nowych rozwiązań – za każdym razem skupiając się na tym, czego potrzebuje klient. Dzięki stosowaniu innowacyjnych materiałów i konstrukcji, wykorzystujących najbardziej zaawansowane technologie Federal-Mogul wraz z marką Payen są w stanie spełniać wymagania wszelkich pojawiających się zadań oraz realizować wszystkie założone cele.

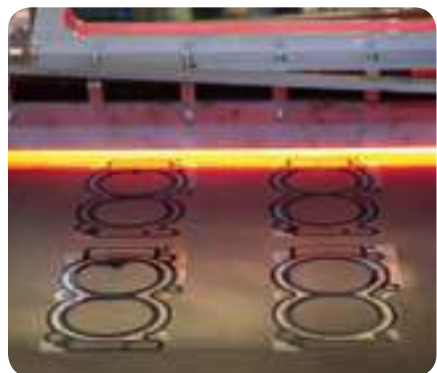


To zdecydowanie w dążeniu do najwyższej jakości jest widoczne w każdym produkcie Payen. Jako przykład może służyć opracowana przez inżynierów Federal-Mogul konstrukcja LASPOT. Ta konstrukcja uszczelki podgotowicowej została wprowadzona na życzenie klientów i polega na wprowadzeniu stopera, który realizuje wstępne uszczelnienie w przypadkach silników o zwiększonym ciśnieniu spalania. W produkcji każdej uszczelki podgotowicowej wykonanej w technologii LASPOT wykorzystuje się najnowocześniejszą technologię spawania stoperów, konieczną do spełnienia warunków panujących w najbardziej wymagających współczesnych silnikach diesla. Innymi kluczowymi właściwościami uszczelki tego typu są specjalne warstwy wytworzone z nierdzewnej stali sprężynowej ukształtowanej w specjalnie opracowanym procesie produkcyjnym. To rozwiązanie zapewnia trwałe uszczelnienie stref liniowych. Dla zapewnienia wyjątkowej szczelności wszystkie warstwy są pokrywane wysokoelastycznym, trwałym fluoroelastomerem.

### MLS (MULTI-LAYER STEEL) GASKETS - WIELOWARSTWOWE USZCZELKI STALOWE

Federal-Mogul jest niekwestionowanym liderem w produkcji uszczelki podgotowicowych MLS od niemal 20 lat. Firma wyprodukowała ponad 43 miliony uszczelki MLS na montaż fabryczny OE w samym tylko oddziale w Herdorf, który jest także liderem w zaopatrywaniu rynku części zamiennych. Sukces w dostawach na montaż fabryczny OE jest wynikiem doświadczenia Federal-Mogul oraz niezależnego rozwoju technologii produkcji i oprzyrządowania.

Inżynierowie Federal-Mogul wprowadzają najlepsze rozwiązania technologiczne, by móc produkować zaawansowane konstrukcje zawierające elementy precyzyjnego tłoczenia, zaawansowanego spawania stoperów czy stosowania specjalnych powłok powierzchni. Wszystko to, aby zapewnić optymalne dopasowanie produktów do każdego silnika.



### KONSTRUKCJA USZCZELEK STALOWO-ELASTOMEROWYCH

Uszczelnienie wysokowydajnych silników wysokoprężnych często wymaga specjalnej konstrukcji. Ciśnienia w komorze spalania są większe niż w silnikach o mniejszej wydajności, a oczekiwania dotyczące długości eksploatacji są dużo wyższe.

W tym segmencie rynku uszczelnień dominuje technologia stalowo-elastomerowa. Uszczelki często zawierają stalową płytkę, która jest specjalnie tłoczona wokół otworu cylindra. Jej zadaniem jest uszczelnienie komory spalania. Na płytce stalowej znajduje się warstwa uszczelki elastomerowej, która z kolei uszczelnia kanały, w których znajdują się cieczy. Ten rodzaj konstrukcji zapewnia stabilne i skuteczne uszczelnienie o doskonałych właściwościach w wysokich temperaturach.

W mniejszych silnikach występuje trend do zmniejszania wagi jednostki napędowej i zwiększania ilości mocy uzyskiwanej z danej objętości skokowej silnika, co wymaga bardziej zaawansowanych konstrukcyjnie uszczelki. Najnowsze uszczelki stalowo-elastomerowe zawierają wysokowydajne elastomery z układami uszczelnienia otworów, w których wykorzystano elementy odpowiedniego kształtowania powierzchni uszczelki, a także technologię MLS w celu uszczelnienia ciśnien w komorze spalania przekraczających 250 barów.

### USZCZELKI HTA™ (HIGH TEMPERATURE ALLOY – TECHNOLOGIA STOPU WYSOKOTEMPERATUROWEGO) – ZOSTAŁY WYRÓŻNIONE NAGRODĄ

Dążenia do uzyskiwania coraz większych mocy z coraz mniejszych pojemności skokowych skutkują wzrostem temperatury gazów wylotowych, co ma ogromny wpływ na uszczelnienia systemu wydechowego. By zaspokoić potrzeby producentów silników Federal-Mogul opracował nową technologię produkcji materiałów oraz nowe konstrukcje uszczelnień. Jedną z nich jest technologia HTA (wysokotemperaturowego stopu) – zapewniająca skokową poprawę w produkcji uszczelnień dla systemów wydechowych.

Ta nowa technologia, uhonorowana prestiżową nagrodą w zakresie innowacyjnych rozwiązań w przemyśle samochodowym - Automotive News PACE Award for Innovation 2007, zapewnia wyjątkową odporność termiczną i może funkcjonować w temperaturach dochodzących do 1000°C. To odkrycie było możliwe jedynie dzięki globalnemu doświadczeniu Federal-Mogul w zakresie materiałoznaw-

stwa, a konkretnie w chemii metali, powłok i powierzchni. Klienci Federal-Mogul na rynku części zamiennych korzystają z odkryć związanych z technologią HTA dzięki wprowadzaniu tych części do programu marki Payen.

### USZCZELKI LEM® (LIQUID ELASTOMER MOULDING – FORMOWANIE PŁYNNEGO ELASTOMERU)

Wielki sukces uszczelki LEM był spowodowany tym, że pomogły one zrealizować wyjątkowe wymagania ze strony producentów silników w zakresie dużej elastyczności uszczelnień. Uszczelki typu LEM zostały wprowadzone na rynek w 1998 roku. Na montaż fabryczny silników oraz na rynek części zamiennych sprzedano już ponad 40 milionów uszczelki typu LEM.

Technologia ta jest również doskonałą technologią dla rynku części zamiennych. Uszczelki Payen LEM mają zdolność dostosowania się do o 30% większego odkształcenia powierzchni w porównaniu do innych, konkurencyjnych rozwiązań. Jest to tym bardziej ważne, że konstruktorzy silników stosują metale lekkie oraz mniejsze napięcia w śrubach mocujących. Ta technologia ma również wielką przyszłość w konstrukcjach jutra – ogniach paliwowych. Oczywiście i ten rodzaj uszczelnień stanie się częścią programu Payen na tym obiecującym, rozwijającym się rynku.

### PAYEN DZIAŁA W NAJTRUDNIEJSZYCH WARUNKACH

Elementy uszczelnień jeszcze nigdy nie grały tak ogromnej roli w efektywności działania i niezawodności silników samochodowych. Wzrost ciśnien w cylindrze, wzrost temperatur przy jednoczesnym obniżeniu wymiarów i masy silnika, spowodowały że nauka związana z uszczelnieniami stała się jedną z najbardziej skomplikowanych i wymagających dziedzin w obszarze konstrukcji silnika spalinowego. Wykorzystując niespotykane doświadczenie i wiedzę zarówno w obszarze dostaw na montaż fabryczny OE, jak i na rynek części zamiennych, Payen to PEWNOŚĆ W KAŻDYCH WARUNKACH, które można spotkać w przypadku jakiegokolwiek wyzwania, w jakimkolwiek samochodowym silniku. Podsumowując, Payen jest nowym standardem w technologii uszczelnień.





# ЭФФЕКТИВНОСТЬ ПОД ДАВЛЕНИЕМ: НАСЛЕДИЕ КАЧЕСТВА И ИННОВАЦИЙ - PUYEN®

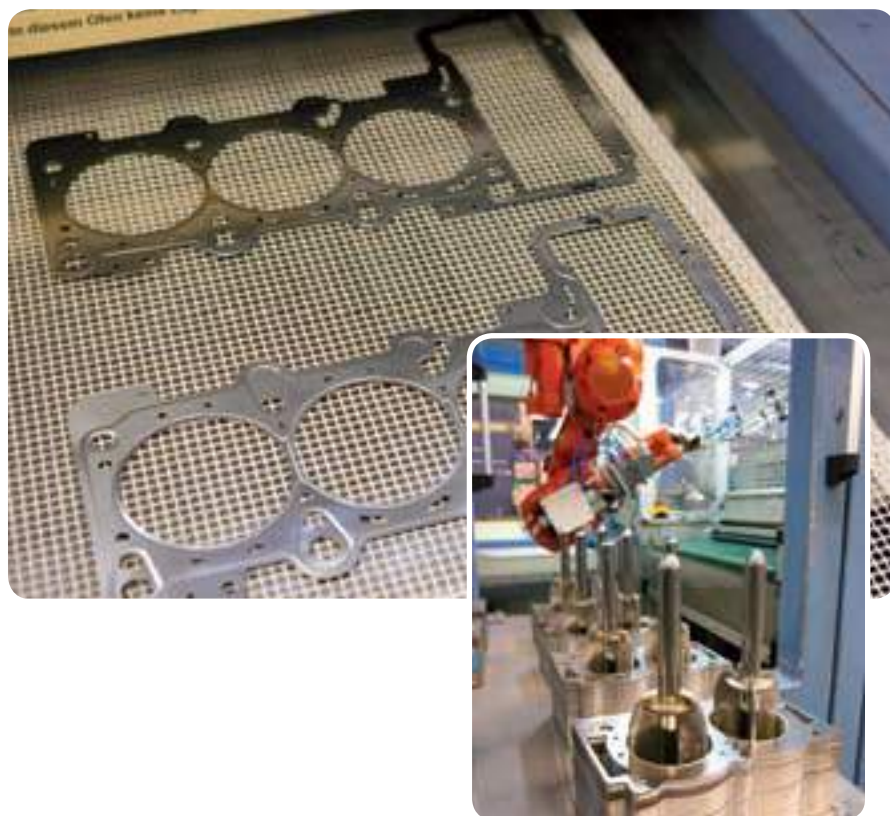
**Инновации – движущий фактор успешного развития автомобильной промышленности.** Любой компонент двигателя современного легкового автомобиля или мощного коммерческого транспортного средства является результатом непрерывных поисков конструкторов и совершенствования производства. Тем не менее, немногие продукты изменились столь кардинально и столь инновационно, как уплотнительные элементы.

Когда речь заходит об инновационном дизайне прокладок, которые легко оставляют всех конкурентов позади как на рынке оригинального оборудования, так и на рынке запчастей, марка Puyen корпорации Federal-Mogul заслуженно занимает ведущее место.

**Federal-Mogul – это ведущий мировой производитель прокладок для головок блока цилиндров и уплотнительных элементов, поставляемых на первичную комплектацию.** Лидерство на рынке поставки на первичную комплектацию означает, что каждая прокладка марки Puyen представляет собой результат новейших инновационных конструкторских разработок поистине мирового класса и внимательного изучения потребностей современных двигателей и производственных процессов, что гарантирует непревзойденное качество и эффективность.

Ассортимент продукции Puyen разрабатывается в четырех международных научных центрах, оснащенных новейшими технологиями и системами – это позволяет обеспечить сохранение и укрепление лидирующих позиций на рынке за счет предложения превосходных решений в сфере уплотнений.

200 ученых и инженеров работают над каждым элементом компонентов уплотнителей – от рецептуры материала до конструктивного исполнения, также используются 26 испытательных стендов – для легких автомобильных и мощных коммерческих двигателей. Все это позволяет корпорации Federal-Mogul и марке Puyen обеспечивать идеальное решение для любой сложной задачи с использованием уплотнений.



## ЭФФЕКТИВНОСТЬ НА РЫНКЕ

Продукты Puyen производства Federal-Mogul «эффективны под давлением» в самой требовательной бизнес-среде в мире: на рынке двигателей для легких и коммерческих автомобилей. Уникальная способность Federal-Mogul предлагать инновационные, сверхнадежные технологии уплотнений позволила построить прочные деловые связи с ведущими мировыми производителями.

Центр Federal-Mogul Sealing Systems в городе Херддорф (Германия) играет важную роль в обслуживании тысяч покупателей из числа производителей оригинальных комплектующих и запасных частей. Это суперсовременное предприятие выпустило миллионы инновационных продуктов, в которых использовались технологии НТА (высокотемпературные сплавы), MLS (многослойная сталь) и LASPOT. Предприятие в Херддорфе прекрасно оснащено для решения проблем 21-го века: это обеспечивает лидерство Federal-Mogul в качестве и системах управления. В знак признания этих и других достижений, подразделение Federal-Mogul Sealing Systems GmbH удостоилось престижной награды "TOP 100" Министерства экономики Германии.

## ОТ КОНЦЕПЦИИ К ВОПЛОЩЕНИЮ: ЭФФЕКТИВНОСТЬ В КАЖДОЙ ДЕТАЛЕ

Одной из самых сильных сторон команды Federal-Mogul из Херддорфа является приверженность постоянному совершенствованию и стремление изучать и проверять новые идеи – и при этом не упускать из виду потребности каждого клиента. Используя инновационные материалы и конструкции в сочетании с новейшими производственными процессами, Federal-Mogul и марка Puyen обеспечивают спрос в самых сложных областях и решают любые бизнес-задачи.

Такое жесткое следование принципам качества и инноваций проявляется в каждом продукте Puyen. В качестве примера можно привести прокладку головки блока цилиндров LASPOT, разработанную инженерами Federal-Mogul по запросам потребителей. Требовалось создать конструкцию, в которой прокладка выполняет основную



уплотнительную функцию в областях применения с повышенным давлением сгорания. В каждой прокладке LASPOT используется новейшая технология, обеспечивая потребности самых требовательных дизельных двигателей. К другим отличительным чертам этих прокладок можно отнести функциональные слои, изготавливаемые из пружинной нержавеющей стали с каплеобразными выпуклостями разного размера, расположенными в соответствии с «закрытой» концепцией. Такой подход обеспечивает надежное уплотнение вдоль линейной зоны герметизации. Чтобы обеспечить исключительное микроуплотнение, все слои покрыты высококачественным, стабильным фторэластомером.

### ПРОКЛАДКИ MLS (MULTI-LAYER STEEL - МНОГОСЛОЙНАЯ СТАЛЬ)

Компания Federal-Mogul является неоспоримым лидером в сфере технологий изготовления прокладок ГБЦ из многослойной стали уже почти 20 лет. Компания выпустила на предприятии в Хердорфе более 43 миллионов прокладок MLS для головок блоков цилиндров, при этом завод является также ведущим поставщиком для рынка запасных частей.

Такой успех в сегменте оригинальных комплектующих обусловлен, в частности, большим опытом Federal-Mogul в организации технологического процесса и независимостью в области технологий продуктов и инструментов. Инженеры Federal-Mogul находят и применяют наилучшие идеи и технологии, чтобы создавать оптимальные продукты для каждого двигателя - будь то прецизионная разработка и производство инструментов для проработки рельефа, выполнение самых жестких требований к покрытию прокладок или разработка высокоэффективного сварочного оборудования.



### ПРОКЛАДКИ ИЗ СТАЛИ И ЭЛАСТОМЕРА

Для герметизации дизельных двигателей, предназначенных для тяжелых условий эксплуатации, часто требуется различный подход в конструировании. Давление при сгорании больше, чем в двигателях легковых автомобилей, а ожидания относительно долгосрочной эксплуатации намного выше.

Преобладающим материалом на этом сегменте рынка является сталь с эластомером. Часто прокладки состоят из стальной пластины с буртиком вокруг отверстия цилиндра для герметизации выделяющихся при горении газов, герметизация жидкостей достигается за счет применения эластомерных прокладок, обычно впрессованных в стальную пластину. Такая конструкция обеспечивает высокие стабильности и эффективность системы герметизации, а также великолепные герметизирующие свойства при высоких температурах.

Как и в случае с двигателями меньшего размера, наблюдается тенденция по снижению веса двигателя с одновременным упрочнением его конструкции, а большая удельная мощность двигателя требует дальнейших усовершенствований конструкции прокладок. Самые современные конструкции с использованием стали и эластомера могут включать в себя высокоэффективные эластомеры с системами герметизации цилиндра, в которых для герметизации давлений свыше 250 бар, создаваемых при горении, могут применяться топографические элементы и технология MLS.

### ОТМЕЧЕННЫЕ НАГРАДАМИ ПРОКЛАДКИ HTA™ (HIGH TEMPERATURE ALLOY - ВЫСОКОТЕМПЕРАТУРНЫЙ СПЛАВ)

Потребность в повышении мощности небольших двигателей привела к увеличению температуры отработанных газов, что может отрицательно сказаться на прокладках системы выпуска. Чтобы помочь производителям двигателей решить эту проблему, корпорация Federal-Mogul разработала серию новых материалов и конструкций прокладок для ГБЦ. Одно из таких решений - прокладка HTA (высокотемпературный сплав) - на порядок улучшает уплотнение отработавших газов.

Эта новая технология, удостоенная престижной награды Automotive News RACE Award for Innovation 2007, исключительно устойчива к тепловой деформации и способна выдерживать температуры до 1000°C. Инновационного прорыва корпорация Federal-Mogul добилась исключительно за счет огромного опыта в материаловедении, особенно в области металлов, покрытий и химии поверхностей.

Клиенты Federal-Mogul на вторичном рынке уже получают огромные преимущества от технологии HTA за счет ее внедрения в производство деталей под маркой Rayen.



### ПРОКЛАДКИ LEM® (LIQUID ELASTOMER MOULDING - ЛИТЬЕ ИЗ ЖИДКОГО ЭЛАСТОМЕРА)

Прокладки LEM производства Federal-Mogul прекрасно зарекомендовали себя при решении сложных задач уплотнения, встающих перед производителями комплектного оборудования, в частности, во фланцевых соединениях, требующих значительной гибкости. С момента появления в 1998 для рынков оригинального оборудования и послепродажного обслуживания было выпущено более 40 миллионов прокладок LEM. Прокладки LEM широко представлены в ассортименте продукции Rayen.

Эта технология прекрасно подходит для рынка запасных частей. Рельефные уплотнительные валики на прокладках LEM марки Rayen компенсируют деформацию фланцев на 30% большую, чем продукция конкурентов. Это особенно важно, поскольку проектировщики двигателей применяют облегченные фланцы и сниженные нагрузки на болты. Технология LEM пригодится и в завтрашних топливных элементах - и данные решения в области уплотнений войдут в ассортимент продукции Rayen по мере развития этого многообещающего рынка.



### RAYEN ЭФФЕКТИВНОСТЬ ПОД ДАВЛЕНИЕМ

Уплотнительные элементы никогда ранее не были столь важны для повышения общей мощности и надежности автомобильных двигателей. Увеличение давления и температуры в цилиндрах, а также снижение массы двигателя превратили искусство уплотнения в одну из самых сложных и требовательных областей проектирования двигателя. Непревзойденный опыт на рынках как оригинальных комплектующих, так и запасных частей, позволяющий изделиям под маркой Rayen демонстрировать ЭФФЕКТИВНОСТЬ ПОД ДАВЛЕНИЕМ практически в любом уплотнении автомобильного двигателя. Другими словами, марка Rayen корпорации Federal-Mogul - это новый стандарт в технологиях уплотнения.



**Certificate for the use of Federal-Mogul products  
in the European Aftermarket according to  
MV BER EC 461/ 2010 and respective Guidelines**

We hereby confirm, that the Federal-Mogul products using the brand names AE<sup>®</sup>, ABEX<sup>®</sup>, BERAL<sup>®</sup>, CHAMPION<sup>®</sup>, DURON<sup>®</sup>, FERODO<sup>®</sup>, FP DIESEL<sup>®</sup>, GLYCO<sup>®</sup>, GOETZE<sup>®</sup>, MOOG<sup>®</sup>, NECTO<sup>®</sup>, NÜRAL<sup>®</sup>, PAYEN<sup>®</sup>, WAGNER<sup>™</sup> sold in the European Aftermarket fulfil the quality requirements applicable to the use of spare parts for repair or maintenance of motor vehicles by authorised repairers.

Date: 12/06/2012



Martin Hendricks  
Vice President EMEA  
Global Aftermarket  
Federal-Mogul Corporation





# Federal-Mogul ADVANCED ANTI-COUNTERFEIT PROGRAMME

The following features on all new GASKETS and HEADBOLTS packaging prove that the parts inside are Original Quality.

## CHECK THE UNIQUE CODE ONLINE AT [WWW.FMECAT.EU](http://WWW.FMECAT.EU)

Each Federal-Mogul part has a unique code which is displayed on the labels in an alphanumeric and Data Matrix format.

A Data Matrix code is a 2-dimensional (2-D) matrix barcode.

The Unique Code can be verified in 3 different ways:

- Typing in the Unique Code
- Reading the 2-D code with a 2-D scanner
- Using a mobile phone (Nokia Nseries, Eseries)

For further details please check [www.fmecat.eu](http://www.fmecat.eu)



## LOOK FOR THE HOLOSPOT®

The Holospot® label features a 4-digit alphanumeric code.

Please check it to make sure that:

- The 4-digit code appears in rainbow colours using the light of the magnifier and is different on each pack
- The Federal-Mogul logo also appears in the Holospot®. The last 4 digits of the alphanumeric code have to be the same as the ones in the Holospot®

## PROTECTION

Special label design means any attempt to remove or swap the label will result in tearing

## PERMANENT SELF-ADHESIVE LABEL









Seals the box with label detail on the front

**i** Go to [www.fmecat.eu](http://www.fmecat.eu) for verification







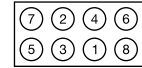
		CC			9			CC			9
160 D100	Diesel	1929	4	82.60	47	AR 36301	Petrol	1970	4	83.00	44
182 B9.000	Diesel	1910	4	82.00	17	AR 37101	Diesel	1910	4	82.00	30
192 A5.000	Diesel	1910	4	82.00	18	AR 37203	Petrol	1598	4	82.00	16
192 A5.000	Diesel	1910	4	82.00	31	AR 38201	Petrol	1598	4	82.00	5
192 B1.000	Diesel	1910	4	82.00	31	AR 38201	Petrol	1598	4	82.00	11
199 A8.000	Petrol	1368	4	72.00	57	AR 38401	Petrol	1747	4	82.00	6
839 A6.000	Diesel	2387	5	82.00	33	AR 38401	Petrol	1747	4	82.00	12
839 A6.000	Diesel	2387	5	82.00	45	AR 38501	Petrol	1371	4	82.00	4
841 C.000	Diesel	2387	5	82.00	33	AR 38501	Petrol	1371	4	82.00	10
841 C.000	Diesel	2387	5	82.00	45	AR 67106	Petrol	1747	4	82.00	6
841 G.000	Diesel	2387	5	82.00	34	AR 67106	Petrol	1747	4	82.00	12
841 G.000	Diesel	2387	5	82.00	46	AR 67106	Petrol	1747	4	82.00	21
841 H.000	Diesel	2387	5	82.00	46	AR 67201	Petrol	1995	4	84.00	25
932 A2.000	Petrol	1970	4	83.00	54	AR 67202	Petrol	1970	4	83.00	24
937 A1.000	Petrol	1970	4	83.00	19	AR 67203	Petrol	1995	4	84.00	23
937 A1.000	Petrol	1970	4	83.00	32	AR 67204	Petrol	1970	4	83.00	9
937 A1.000	Petrol	1970	4	83.00	54	AR 67204	Petrol	1970	4	83.00	15
937 A1.000	Petrol	1970	4	83.00	56	AR 67204	Petrol	1970	4	83.00	24
937 A1.000	Petrol	1970	4	83.00	59	AR 67501	Diesel	1929	4	82.60	8
937 A2.000	Diesel	1910	4	82.00	17	AR 67501	Diesel	1929	4	82.60	14
937 A2.000	Diesel	1910	4	82.00	30	AR 67501	Diesel	1929	4	82.60	22
937 A4.000	Diesel	1910	4	82.00	31	AR 67601	Petrol	1598	4	82.00	5
937 A5.000	Diesel	1910	4	82.00	18	AR 67601	Petrol	1598	4	82.00	11
937 A5.000	Diesel	1910	4	82.00	31	AR 67601	Petrol	1598	4	82.00	20
937 A5.000	Diesel	1910	4	82.00	53	AR 67601	Petrol	1598	4	82.00	27
937 A8.000	Diesel	1910	4	82.00	35	VM 07 B	Diesel	2500	4	92.00	26
937 A8.000	Diesel	1910	4	82.00	36	VM 08 B	Diesel	2500	4	92.00	43
937A7.000	Diesel	1910	4	82.00	36	VM 31 B	Diesel	2500	4	92.00	26
939 A1.000	Diesel	1910	4	82.00	38	VM 32 B	Diesel	2500	4	92.00	43
939 A2.000	Diesel	1910	4	82.00	35	VM 80 A	Diesel	1995	4	88.00	2
939 A2.000	Diesel	1910	4	82.00	37	VM 81 A	Diesel	2393	4	92.00	3
939 A3.000	Diesel	2387	5	82.00	41	VM 82 A	Diesel	1779	3	92.00	1
939 A5.000	Petrol	2198	4	86.00	40	VM 84 A	Diesel	2500	4	92.00	43
939 A6.000	Petrol	1859	4	86.00	39	VM 96 A	Diesel	1779	3	92.00	1
939 A7.000	Diesel	1910	4	82.00	36						
939 A8.000	Diesel	1910	4	82.00	36						
8140.21.200 D.I.	Diesel	2445	4	93.00	50						
8144.21.220	Diesel	2445	4	93.00	48						
8144.67.220	Diesel	2500	4	93.00	49						
8144.67.220	Diesel	2500	4	93.00	51						
AR 06476	Petrol	1995	4	84.00	42						
AR 16201	Petrol	1970	4	83.00	56						
AR 16201	Petrol	1970	4	83.00	59						
AR 32102	Petrol	1598	4	82.00	27						
AR 32103	Petrol	1598	4	82.00	28						
AR 32104	Petrol	1598	4	82.00	16						
AR 32104	Petrol	1598	4	82.00	28						
AR 32201	Petrol	1747	4	82.00	6						
AR 32201	Petrol	1747	4	82.00	12						
AR 32201	Petrol	1747	4	82.00	29						
AR 32201	Petrol	1747	4	82.00	55						
AR 32201	Petrol	1747	4	82.00	58						
AR 32205	Petrol	1747	4	82.00	29						
AR 32205	Petrol	1747	4	82.00	52						
AR 32301	Petrol	1970	4	83.00	9						
AR 32301	Petrol	1970	4	83.00	15						
AR 32301	Petrol	1970	4	83.00	32						
AR 32301	Petrol	1970	4	83.00	56						
AR 32301	Petrol	1970	4	83.00	59						
AR 32302	Diesel	1910	4	82.00	7						
AR 32302	Diesel	1910	4	82.00	13						
AR 32302	Diesel	1910	4	82.00	30						
AR 32310	Petrol	1970	4	83.00	19						
AR 32310	Petrol	1970	4	83.00	32						
AR 32310	Petrol	1970	4	83.00	56						
AR 32310	Petrol	1970	4	83.00	59						
AR 32501	Diesel	2387	5	82.00	33						
AR 33503	Petrol	1371	4	82.00	4						
AR 33503	Petrol	1371	4	82.00	10						
AR 33601	Diesel	1929	4	82.60	8						
AR 33601	Diesel	1929	4	82.60	14						
AR 34103	Petrol	1970	4	83.00	44						
AR 34202	Diesel	2387	5	82.00	45						



cc



kW/PS



33 1.8L TD Diesel		01/86 → 09/94			1			
VM 82 A/VM 96 A	1779	3	92.00		53/72	<b>HBS107</b>  M14x2x137mm (x8) M12x1.75x80mm (x3) M12x1.75x116mm (x3)	<b>A</b> 1) 30Nm 2) 70° 3) 70° 4) ⚡ 5) ✖ 6) 90° 7) 30Nm 8) 65° <b>B</b> 1) 30Nm 2) 85°	
75 2.0L TD Diesel		05/85 → 09/92			2			
VM 80 A	1995	4	88.00	SOHC	60/73/ 82/99	<b>HBS105</b>  M14x2x137mm (x10) M12x1.75x80mm (x4) M12x1.75x116mm (x4)	<b>A</b> 1) 30Nm 2) 70° 3) 70° 4) ⚡ 5) ✖ 6) 90° 7) 30Nm 8) 65° <b>B</b> 1) 30Nm 2) 85°	
75 2.4L TD Diesel		01/89 → 02/92			3			
VM 81 A	2393	4	92.00		81/110	<b>HBS105</b>  M14x2x137mm (x10) M12x1.75x80mm (x4) M12x1.75x116mm (x4)	<b>A</b> 1) 30Nm 2) 70° 3) 70° 4) ⚡ 5) ✖ 6) 90° 7) 30Nm 8) 65° <b>B</b> 1) 30Nm 2) 85°	
145 1.4L i.e. 16V T.S.		12/96 → 01/01			4			
AR 33503/AR 38501	1371	4	82.00	DOHC	76/103	<b>HBS262</b>  M10x1.25x220mm (x10)	1) 20Nm 2) 40Nm 3) ↻ 90° 4) 40Nm 5) 90° 6) 90° 7) 90°	
145 1.6L i.e. 16V T.S.		12/96 → 01/01			5			
AR 38201/AR 67601	1598	4	82.00	DOHC	88/120	<b>HBS132</b>  M10x1.25x254mm (x10)	1) 20Nm 2) 40Nm 3) 90° 4) 90° 5) 90°	
145 1.8L i.e. 16V 145 1.8L i.e. 16V T.S.		03/98 → 01/01 12/96 → 12/98			6			
AR 38401/AR 67106	1747	4	82.00	DOHC	103/140	<b>HBS132</b>  M10x1.25x254mm (x10)	1) 20Nm 2) 40Nm 3) 90° 4) 90° 5) 90°	
AR 32201	1747	4	82.00	Motronic, DOHC	106/144			
145 1.9L JTD Diesel		02/99 → 01/01			7			
AR 32302	1910	4	82.00	SOHC	77/105	<b>HBS227</b>  M12x1.25x218mm (x10)	1) 65Nm 2) 90° 3) 90° 4) 90°	
145 1.9L TD Diesel		10/94 → 02/99			8			
AR 33601/AR 67501	1929	4	82.60	SOHC	66/68/ 90/92	<b>HBS095</b>  M12x1.25x133mm (x10)	1) 30Nm 2) 50Nm 3) 100Nm 4) ↻ 90° 5) 100Nm 6) 90° 7) 90°	

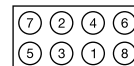




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145 2.0L 16V Quadrifoglio					03/98 → 01/01	9	 M10x1.25x254mm (x10)	1) 20Nm 2) 40Nm 3) 90° 4) 90° 5) 90°	
145 2.0L 16V T.S.					10/95 → 01/01				
AR 67204	1970	4	83.00	DOHC	110/150		 M10x1.25x254mm (x10)	1) 20Nm 2) 40Nm 3) 90° 4) 90° 5) 90°	
AR 32301	1970	4	83.00	Motronic, DOHC	110-121/ 150-165				
146 1.4L i.e. 16V T.S.					11/96 → 01/01	10	 M10x1.25x220mm (x10)	1) 20Nm 2) 40Nm 3) ↻ 90° 4) 40Nm 5) 90° 6) 90° 7) 90°	
AR 33503/AR 38501					1371	4			
146 1.6L i.e. 16V T.S.					11/96 → 01/01	11	 M10x1.25x254mm (x10)	1) 20Nm 2) 40Nm 3) 90° 4) 90° 5) 90°	
AR 38201/AR 67601					1598	4			
146 1.8L i.e. 16V T.S.					11/96 → 01/01	12	 M10x1.25x254mm (x10)	1) 20Nm 2) 40Nm 3) 90° 4) 90° 5) 90°	
AR 38401/AR 67106					1747	4			
AR 32201					1747	4	82.00	Motronic, DOHC	106/144
146 1.9L JTD Diesel					02/99 → 01/01	13	 M12x1.25x218mm (x10)	1) 65Nm 2) 90° 3) 90° 4) 90°	
AR 32302					1910	4			
146 1.9L TD Diesel					12/94 → 02/99	14	 M12x1.25x133mm (x10)	1) 30Nm 2) 50Nm 3) 100Nm 4) ↻ 90° 5) 100Nm 6) 90° 7) 90°	
AR 33601/AR 67501					1929	4			
146 2.0L 16V Quadrifoglio					03/98 → 01/01	15	 M10x1.25x254mm (x10)	1) 20Nm 2) 40Nm 3) 90° 4) 90° 5) 90°	
146 2.0L 16V T.S.					10/95 → 01/01				
AR 67204	1970	4	83.00	DOHC	110/150		 M10x1.25x254mm (x10)	1) 20Nm 2) 40Nm 3) 90° 4) 90° 5) 90°	
AR 32301	1970	4	83.00	Motronic, DOHC	110-121/ 150-165				
147 1.6L 16V T.SPARK					01/01 →	16	 M10x1.25x220mm (x10)	1) 20Nm 2) 40Nm 3) 90° 4) 90° 5) 90°	
147 1.6L 16V T.SPARK ECO					01/01 →				
AR 37203	1598	4	82.00	DOHC	76/103		 M10x1.25x220mm (x10)	1) 20Nm 2) 40Nm 3) 90° 4) 90° 5) 90°	
AR 32104	1598	4	82.00	DOHC	88/120				
147 1.9L JTD Diesel					04/01 →	17	 M12x1.25x218mm (x10)	1) 65Nm 2) 90° 3) 90° 4) 90°	
182 B9.000					1910	4			
937 A2.000					1910	4	82.00	SOHC	85/116
147 1.9L JTD 16V Diesel					11/02 →	18	 M12x1.25x225mm (x10)	1) 65Nm 2) 90° 3) 90° 4) 90°	
147 1.9L JTDM 16V Diesel					07/05 →				
192 A5.000	1910	4	82.00	DOHC	103/140		 M12x1.25x225mm (x10)	1) 65Nm 2) 90° 3) 90° 4) 90°	
937 A5.000	1910	4	82.00	DOHC	110/150				
147 2.0L					07/02 → 05/05	19	 M10x1.25x254mm (x10)	1) 20Nm 2) 40Nm 3) 90° 4) 90° 5) 90°	
147 2.0L 16V T.SPARK					01/01 →				
AR 32310	1970	4	83.00	DOHC	110/150		 M10x1.25x254mm (x10)	1) 20Nm 2) 40Nm 3) 90° 4) 90° 5) 90°	
937 A1.000	1970	4	83.00	DOHC	119-122/ 162-166				
155 16V T.S.					05/96 → 01/98	20	 M10x1.25x254mm (x10)	1) 20Nm 2) 40Nm 3) 90° 4) 90° 5) 90°	
AR 67601					1598	4			

# ALFA ROMEO



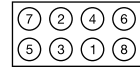
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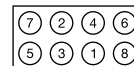
<b>155 1.7L T.S. 16V</b>						<b>21</b>	<b>HBS132</b>  M10x1.25x254mm (x10)	1) 20Nm 2) 40Nm 3) 90° 4) 90° 5) 90°	
AR 67106	1747	4	82.00	DOHC	05/96 → 12/97	103/140			
<b>155 1.9L TD Diesel</b>						<b>22</b>	<b>HBS095</b>  M12x1.25x133mm (x10)	1) 30Nm 2) 50Nm 3) 100Nm 4) ↻ 90° 5) 100Nm 6) 90° 7) 90°	
AR 67501	1929	4	82.60	SOHC	04/93 → 12/97	66/68/ 90/92			
<b>155 2.0L 16V Turbo Q4</b>						<b>23</b>	<b>HBS093</b>  M10x1.25x172mm (x10)	1) 70Nm 2) 90° 3) 90°	
AR 67203	1995	4	84.00	DOHC	01/92 → 12/97	137-140/ 186-190			
<b>155 2.0L T.S.</b>						<b>24</b>	<b>HBS132</b>  M10x1.25x254mm (x10)	1) 20Nm 2) 40Nm 3) 90° 4) 90° 5) 90°	
<b>155 2.0L T.S. 16V</b>									
AR 67202/AR 67204	1970	4	83.00	DOHC	02/92 → 02/95 03/95 → 12/97	110/150			
<b>155 2.0L T.S.</b>						<b>25</b>	<b>HBS132</b>  M10x1.25x254mm (x10)	1) 20Nm 2) 40Nm 3) 90° 4) 90° 5) 90°	
AR 67201	1995	4	84.00	DOHC	02/92 → 04/93	107/146			
<b>155 2.5L TD Diesel</b>						<b>26</b>	<b>HBS105</b> → 12/92  M14x2x137mm (x10) M12x1.75x80mm (x4) M12x1.75x116mm (x4)	<b>A</b> 1) 30Nm 2) 70° 3) 70° 4) ↓ 5) ✱ 6) 90° 7) 30Nm 8) 65° <b>B</b> 1) 30Nm 2) 85°	
VM 07 B	2500	4	92.00	SOHC	04/93 → 12/97				
VM 31 B	2500	4	92.00	DOHC		92/125			
<b>156 1.6L 16V T.SPARK</b>						<b>27</b>	<b>HBS132</b>  M10x1.25x254mm (x10)	1) 20Nm 2) 40Nm 3) 90° 4) 90° 5) 90°	
AR 32102/AR 67601	1598	4	82.00	DOHC	09/97 → 09/05				
<b>156 1.6L 16V T.SPARK</b>						<b>28</b>	<b>HBS262</b>  M10x1.25x220mm (x10)	1) 20Nm 2) 40Nm 3) 90° 4) 90° 5) 90°	
AR 32103/AR 32104	1598	4	82.00	DOHC	05/00 → 05/06				



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156 1.8L 16V T.SPARK					09/97 → 05/06	29	HBS132	1) 20Nm 2) 40Nm 3) 90° 4) 90° 5) 90°	 	
AR 32205	1747	4	82.00	DOHC	103/140	M10x1.25x254mm (x10)	 1) 65Nm 2) 90° 3) 90° 4) 90°	 		
AR 32201	1747	4	82.00	Motronic, DOHC	106/144					
156 1.9L JTD Diesel					09/97 → 05/06	30	HBS227	1) 65Nm 2) 90° 3) 90° 4) 90°	 	
AR 37101	1910	4	82.00	SOHC	73-103/ 100-140	M12x1.25x218mm (x10)				
AR 32302	1910	4	82.00	SOHC	77/105					
937 A2.000	1910	4	82.00	SOHC	85/116					
156 1.9L JTD Diesel					11/02 → 05/06	31	HBS370	1) 65Nm 2) 90° 3) 90° 4) 90°	 	
156 1.9L JTD 16V Diesel					11/02 → 05/06					
156 1.9L JTD 16V Q4 Diesel					07/04 → 05/06					
192 B1.000	1910	4	82.00	DOHC	100/136	M12x1.25x225mm (x10)				
192 A5.000/937 A4.000	1910	4	82.00	DOHC	103/140					
937 A5.000	1910	4	82.00	DOHC	110/150					
156 2.0L 16V T.SPARK					09/97 → 03/02	32	HBS132	1) 20Nm 2) 40Nm 3) 90° 4) 90° 5) 90°	 	
156 2.0L JTS					03/02 → 05/06					
AR 32310	1970	4	83.00	DOHC	110/150					M10x1.25x254mm (x10)
AR 32301	1970	4	83.00	Motronic, DOHC	110-121/ 150-165					
937 A1.000	1970	4	83.00	DOHC	119-122/ 162-166					
156 2.4L JTD Diesel					09/97 → 05/06	33	HBS257	1) 65Nm 2) 90° 3) 90° 4) 90°	 	
AR 32501	2387	5	82.00	SOHC	100/136	M12x1.25x218mm (x12)				
841 C.000	2387	5	82.00	SOHC	100-110/ 136-150					
839 A6.000	2387	5	82.00	SOHC	103/140					
156 2.4L JTD Diesel					10/03 → 05/06		34	HBS371	1) 65Nm 2) 90° 3) 90° 4) 90°	 
841 G.000	2387	5	82.00	DOHC	129/175	M12x1.25x255mm (x12)				
159 1.9L JTDM 16V Diesel					09/05 →	35	HBS370 → 07/07	1) 65Nm 2) 90° 3) 90° 4) 90°	 	
937 A8.000	1910	4	82.00	DOHC	100-100/ 136-136					M12x1.25x225mm (x10)
939 A2.000	1910	4	82.00	DOHC	110/150					
159 1.9L JTDM 16V Diesel					09/05 →	36	HBS465 08/07 →			1) 20Nm 2) 45Nm 3) 65Nm 4) 90° 5) 90° 6) 90°
159 1.9L JTDM 8V Diesel					09/05 →					
937A7.000/939 A7.000	1910	4	82.00	SOHC	85/115			M12x1.50x220mm (x10)		
939 A8.000	1910	4	82.00	DOHC	100/136					
937 A8.000	1910	4	82.00	DOHC	100-100/ 136-136					
159 1.9L JTDM 16V Diesel					03/06 →	37	HBS370 → 07/07	1) 65Nm 2) 90° 3) 90° 4) 90°	 	
939 A2.000	1910	4	82.00	DOHC	110/150					M12x1.25x225mm (x10)
						M12x1.50x220mm (x10)				
							HBS465 08/07 →			1) 20Nm 2) 45Nm 3) 65Nm 4) 90° 5) 90° 6) 90°



# ALFA ROMEO



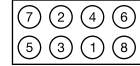
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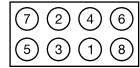
159 1.9L JTDM 8V Diesel		09/05 →			38			
939 A1.000	1910	4	82.00	SOHC	88/120	<b>HBS227</b> →Eng.5688563  M12x1.25x218mm (x10)	1) 65Nm 2) 90° 3) 90° 4) 90°	
<b>159 1.9L JTS</b>						09/05 →	39	
939 A6.000	1859	4	86.00	DOHC	118/160	<b>HBS465</b> Eng.5688564 →  M12x1.50x220mm (x10)	1) 20Nm 2) 45Nm 3) 65Nm 4) 90° 5) 90° 6) 90°	
<b>159 2.2L JTS</b>						09/05 →	40	
939 A5.000	2198	4	86.00	DOHC	136/185	<b>HBS416</b>  M11x1.50x163mm (x10)	1) 33Nm 2) 100° 3) 65°	
<b>159 2.4L JTDM Diesel</b>						09/05 →	41	
939 A3.000	2387	5	82.00	DOHC	147/200	<b>HBS371</b>  M12x1.25x255mm (x12)	1) 65Nm 2) 90° 3) 90° 4) 90°	
<b>164 2.0L Turbo</b>						10/87 → 09/98	42	
AR 06476	1995	4	84.00	DOHC	128-129/ 174-175	<b>HBS092</b>  M10x1.25x115mm (x10)	1) 20Nm 2) 40Nm 3) ↻ 90° 4) 40Nm 5) 90° 6) 90°	
<b>164 2.5L TD Diesel</b>						06/87 → 09/98	43	
VM 84 A	2500	4	92.00		85/115	<b>HBS105</b> →12/92  M14x2x137mm (x10) M12x1.75x80mm (x4) M12x1.75x116mm (x4)	<b>A</b> 1) 30Nm 2) 70° 3) 70° 4) ⚡ 5) ✖ 6) 90° 7) 30Nm 8) 65° <b>B</b> 1) 30Nm 2) 85°	
VM 08 B/VM 32 B	2500	4	92.00		92/125			
<b>166 2.0L T.Spark</b>						09/98 → 10/00	44	
AR 36301	1970	4	83.00	DOHC	110/150	<b>HBS132</b>  M10x1.25x254mm (x10)	1) 20Nm 2) 40Nm 3) 90° 4) 90° 5) 90°	
AR 34103	1970	4	83.00	Motronic, DOHC	110-121/ 150-165			



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166 2.4L JTD Diesel					09/98 → 10/00	45	HBS257	1) 65Nm 2) 90° 3) 90° 4) 90°	
AR 34202	2387	5	82.00	SOHC	100/136	M12x1.25x218mm (x12)			
841 C.000	2387	5	82.00	SOHC	100-110/ 136-150				
839 A6.000	2387	5	82.00	SOHC	103/140				
166 2.4L JTD Diesel					10/03 →	46	HBS371	1) 65Nm 2) 90° 3) 90° 4) 90°	
841 G.000/841 H.000	2387	5	82.00	DOHC	129/175	M12x1.25x255mm (x12)			
AR 6 1.9L D Diesel					04/85 → 12/89	47	HBS095	1) 30Nm 2) 50Nm 3) 100Nm 4) ↻ 90° 5) 100Nm 6) 90° 7) 90°	
160 D100	1929	4	82.60	SOHC	66/68/ 90/92	M12x1.25x133mm (x10)			
AR 6 Van 2.4L TD Diesel					09/86 → 12/89	48	HBS011	1) 20Nm 2) 40Nm 3) ↻ 90° 4) 40Nm 5) 90° 6) 90°	
8144.21.220	2445	4	93.00	SOHC	68/92	M12x1.25x160mm (x10) M12x1.25x119mm (x12)			
AR 6 Van 2.5L D Diesel					03/86 → 12/89	49	HBS011	1) 20Nm 2) 40Nm 3) ↻ 90° 4) 40Nm 5) 90° 6) 90°	
8144.67.220	2500	4	93.00	SOHC	55/75	M12x1.25x160mm (x10) M12x1.25x119mm (x12)			
AR 8 Van 2.4L TD Diesel					04/85 → 12/89	50	HBS011	1) 20Nm 2) 40Nm 3) ↻ 90° 4) 40Nm 5) 90° 6) 90°	
8140.21.200 D.I.	2445	4	93.00	SOHC	68/92	M12x1.25x160mm (x10) M12x1.25x119mm (x12)			
AR 8 2.5L D Diesel					09/86 → 12/89	51	HBS011	1) 20Nm 2) 40Nm 3) ↻ 90° 4) 40Nm 5) 90° 6) 90°	
AR 8 Van 2.5L D Diesel					09/86 → 12/89				
8144.67.220	2500	4	93.00	SOHC	55/75	M12x1.25x160mm (x10) M12x1.25x119mm (x12)			
GT Coupe 1.8L TS					11/03 →	52	HBS132	1) 20Nm 2) 40Nm 3) 90° 4) 90° 5) 90°	
AR 32205	1747	4	82.00	DOHC	103/140	M10x1.25x254mm (x10)			
GT Coupe 1.9L JTD Diesel					11/03 →	53	HBS370	1) 65Nm 2) 90° 3) 90° 4) 90°	
937 A5.000	1910	4	82.00	DOHC	110/150	M12x1.25x225mm (x10)			
GT Coupe 2.0L JTS					11/03 →	54	HBS132	1) 20Nm 2) 40Nm 3) 90° 4) 90° 5) 90°	
937 A1.000	1970	4	83.00	DOHC	119-122/ 162-166	M10x1.25x254mm (x10)			
932 A2.000	1970	4	83.00	DOHC	121/165				
GTV Coupe 1.8L 16V					05/98 →	55	HBS132	1) 20Nm 2) 40Nm 3) 90° 4) 90° 5) 90°	
AR 32201	1747	4	82.00	Motronic, DOHC	106/144	M10x1.25x254mm (x10)			

# ALFA ROMEO



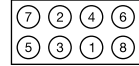
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**GTV Coupe 2.0L JTS** 04/03 → **56**  
**GTV Coupe 2.0L T.SPARK 16V** 06/95 → 08/00

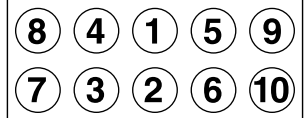
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AR 32301	1970	4	83.00	Motronic, DOHC	110-121/ 150-165
937 A1.000	1970	4	83.00	DOHC	119-122/ 162-166

**HBS132**



M10x1.25x254mm (x10)

- 1) 20Nm
- 2) 40Nm
- 3) 90°
- 4) 90°
- 5) 90°



**Mito 1.4L TB** 09/08 → **57**

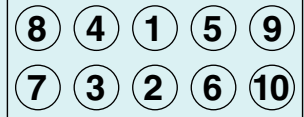
199 A8.000	1368	4	72.00	DOHC	114/155
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**HBS247**



M9x1.25x87mm (x10)

- 1) 30Nm
- 2) 90°
- 3) 90°



**Spider Convertible 1.8L 16V** 05/98 → 04/05 **58**

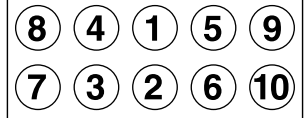
AR 32201	1747	4	82.00	Motronic, DOHC	106/144
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**HBS132**



M10x1.25x254mm (x10)

- 1) 20Nm
- 2) 40Nm
- 3) 90°
- 4) 90°
- 5) 90°



**Spider Convertible 2.0L T.SPARK 16V** 05/98 → 04/05 **59**  
**Spider Convertible 2.0L JTS** 04/03 → 04/05

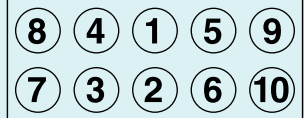
AR 16201/AR 32310	1970	4	83.00	DOHC	110/150
AR 32301	1970	4	83.00	Motronic, DOHC	110-121/ 150-165
937 A1.000	1970	4	83.00	DOHC	119-122/ 162-166

**HBS132**











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

- 1) 20Nm
- 2) 40Nm
- 3) 90°
- 4) 90°
- 5) 90°













Engine Index • Moterverzeichnis • Index de moteur • Indice motore • Indice per motor • Indeks silnika • Индекс двигателя

		CC			9			CC			9
1B	Petrol	2226	5	81.00	33	AEC	Petrol	4172	8	84.50	31
1B	Petrol	2226	5	81.00	131	AEC	Petrol	4172	8	84.50	96
1T	Diesel	2461	5	81.00	27	AEC	Petrol	4172	8	84.50	100
1Y	Diesel	1896	4	79.50	5	AEH	Petrol	1595	4	81.00	39
1Z	Diesel	1896	4	79.50	5	AEJ	Petrol	2771	6	82.50	92
1Z	Diesel	1896	4	79.50	56	AEJ	Petrol	2771	6	82.50	102
1Z	Diesel	1896	4	79.50	76	AEL	Diesel	2461	5	81.00	86
1Z	Diesel	1896	4	79.50	114	AEM	Petrol	4172	8	84.50	110
2B	Petrol	2226	5	81.00	33	AEW	Petrol	3697	8	84.50	107
3A	Petrol	1984	4	82.50	6	AFB	Diesel	2496	6	78.30	64
3A	Petrol	1984	4	82.50	121	AFB	Diesel	2496	6	78.30	87
3B	Petrol	2226	5	81.00	32	AFB	Diesel	2496	6	78.30	101
3B	Petrol	2226	5	81.00	125	AFC	Petrol	2771	6	82.50	92
3D	Diesel	2370	5	79.50	26	AFF	Diesel	1896	4	79.50	56
4B	Petrol	1781	4	81.00	18	AFN	Diesel	1896	4	79.50	56
6A	Petrol	1984	4	82.50	8	AFN	Diesel	1896	4	79.50	76
AAD	Petrol	1984	4	82.50	6	AFY	Petrol	1781	4	81.00	53
AAD	Petrol	1984	4	82.50	19	AFY	Petrol	1781	4	81.00	72
AAD	Petrol	1984	4	82.50	122	AGA	Petrol	2393	6	81.00	63
AAE	Petrol	1984	4	82.50	19	AGA	Petrol	2393	6	81.00	85
AAH	Petrol	2771	6	82.50	12	AGR	Diesel	1896	4	79.50	42
AAH	Petrol	2771	6	82.50	29	AGU	Petrol	1781	4	81.00	41
AAH	Petrol	2771	6	82.50	67	AHC	Petrol	4172	8	84.50	110
AAH	Petrol	2771	6	82.50	92	AHF	Diesel	1896	4	79.50	42
AAH	Petrol	2771	6	82.50	102	AHH	Diesel	1896	4	79.50	56
AAH	Petrol	2771	6	82.50	119	AHK	Petrol	4172	8	84.50	96
AAH	Petrol	2771	6	82.50	128	AHK	Petrol	4172	8	84.50	100
AAN	Petrol	2226	5	81.00	24	AHL	Petrol	1595	4	81.00	51
AAN	Petrol	2226	5	81.00	83	AHU	Diesel	1896	4	79.50	56
AAR	Petrol	2309	5	82.50	25	AHU	Diesel	1896	4	79.50	76
AAR	Petrol	2309	5	82.50	84	AHU	Diesel	1896	4	79.50	114
AAS	Diesel	2370	5	79.50	26	AJG	Petrol	2393	6	81.00	63
AAT	Diesel	2461	5	81.00	27	AJG	Petrol	2393	6	81.00	85
AAT	Diesel	2461	5	81.00	86	AJL	Petrol	1781	4	81.00	53
AAZ	Diesel	1896	4	79.50	5	AJL	Petrol	1781	4	81.00	72
ABB	Petrol	1595	4	81.00	1	AJM	Diesel	1896	4	79.50	57
ABC	Petrol	2598	6	82.50	11	AJM	Diesel	1896	4	79.50	77
ABC	Petrol	2598	6	82.50	28	AJP	Petrol	1781	4	81.00	73
ABC	Petrol	2598	6	82.50	65	AJQ	Petrol	1781	4	81.00	41
ABC	Petrol	2598	6	82.50	90	AJQ	Petrol	1781	4	81.00	132
ABC	Petrol	2598	6	82.50	118	AKE	Diesel	2496	6	78.30	64
ABC	Petrol	2598	6	82.50	127	AKE	Diesel	2496	6	78.30	88
ABH	Petrol	4172	8	84.50	30	AKE	Diesel	2496	6	78.30	101
ABH	Petrol	4172	8	84.50	31	AKE	Diesel	2496	6	78.30	111
ABK	Petrol	1984	4	82.50	6	AKF	Diesel	3328	8	78.30	106
ABK	Petrol	1984	4	82.50	19	AKG	Petrol	4172	8	84.50	110
ABK	Petrol	1984	4	82.50	78	AKH	Petrol	4172	8	84.50	110
ABK	Petrol	1984	4	82.50	115	AKJ	Petrol	3697	8	84.50	107
ABK	Petrol	1984	4	82.50	122	AKL	Petrol	1595	4	81.00	39
ABM	Petrol	1595	4	81.00	1	AKN	Diesel	2496	6	78.30	64
ABP	Diesel	2461	5	81.00	27	AKN	Diesel	2496	6	78.30	87
ABT	Petrol	1984	4	82.50	6	AKN	Diesel	2496	6	78.30	101
ABY	Petrol	2226	5	81.00	9	ALF	Petrol	2393	6	81.00	63
ABY	Petrol	2226	5	81.00	125	ALF	Petrol	2393	6	81.00	85
ABZ	Petrol	4172	8	84.50	110	ALH	Diesel	1896	4	79.50	42
ACE	Petrol	1984	4	82.50	7	ALT	Petrol	1984	4	82.50	58
ACE	Petrol	1984	4	82.50	22	ALT	Petrol	1984	4	82.50	79
ACE	Petrol	1984	4	82.50	80	ALW	Petrol	2393	6	81.00	85
ACE	Petrol	1984	4	82.50	116	ALZ	Petrol	1595	4	81.00	52
ACZ	Petrol	2598	6	82.50	28	AMB	Petrol	1781	4	81.00	54
ACZ	Petrol	2598	6	82.50	90	AMF	Diesel	1422	3	79.50	37
ACZ	Petrol	2598	6	82.50	118	AMK	Petrol	1781	4	81.00	41
ADA	Petrol	1595	4	81.00	1	AML	Petrol	2393	6	81.00	63
ADP	Petrol	1595	4	81.00	51	AML	Petrol	2393	6	81.00	85
ADR	Petrol	1781	4	81.00	53	AMM	Petrol	2393	6	81.00	63
ADR	Petrol	1781	4	81.00	72	AMM	Petrol	2393	6	81.00	85
ADR	Petrol	1781	4	81.00	113	AMU	Petrol	1781	4	81.00	132
ADU	Petrol	2226	5	81.00	9	ANA	Petrol	1595	4	81.00	51
AEB	Petrol	1781	4	81.00	53	ANB	Petrol	1781	4	81.00	53
AEB	Petrol	1781	4	81.00	55	ANB	Petrol	1781	4	81.00	55
AEB	Petrol	1781	4	81.00	74	ANB	Petrol	1781	4	81.00	74
AEB	Petrol	1781	4	81.00	75	ANB	Petrol	1781	4	81.00	75
AEC	Petrol	4172	8	84.50	30	ANQ	Petrol	1781	4	81.00	73

		cc			9			cc			9
ANY	Diesel	1191	3	76.50	35	AYM	Diesel	2496	6	78.30	64
APC	Petrol	2393	6	81.00	85	AYM	Diesel	2496	6	78.30	87
APF	Petrol	1595	4	81.00	39	AZV	Diesel	1968	4	81.00	45
APP	Petrol	1781	4	81.00	41	AZV	Diesel	1968	4	81.00	46
APP	Petrol	1781	4	81.00	132	BAD	Petrol	1598	4	76.50	38
APS	Petrol	2393	6	81.00	63	BAG	Petrol	1598	4	76.50	40
APS	Petrol	2393	6	81.00	85	BAM	Petrol	1781	4	81.00	41
APT	Petrol	1781	4	81.00	53	BAM	Petrol	1781	4	81.00	132
APU	Petrol	1781	4	81.00	53	BAU	Diesel	2496	6	78.30	64
APU	Petrol	1781	4	81.00	55	BAU	Diesel	2496	6	78.30	88
APU	Petrol	1781	4	81.00	74	BAU	Diesel	2496	6	78.30	111
APU	Petrol	1781	4	81.00	75	BBY	Petrol	1390	4	76.50	36
APX	Petrol	1781	4	81.00	132	BCZ	Diesel	2496	6	78.30	64
APY	Petrol	1781	4	81.00	41	BCZ	Diesel	2496	6	78.30	89
APZ	Petrol	2393	6	81.00	63	BCZ	Diesel	2496	6	78.30	112
APZ	Petrol	2393	6	81.00	85	BDB	Petrol	3189	6	84.00	50
AQA	Petrol	1781	4	81.00	41	BDG	Diesel	2496	6	78.30	64
AQE	Petrol	1781	4	81.00	73	BDG	Diesel	2496	6	78.30	89
ARG	Petrol	1781	4	81.00	53	BDH	Diesel	2496	6	78.30	64
ARH	Petrol	1781	4	81.00	73	BDH	Diesel	2496	6	78.30	88
ARJ	Petrol	2393	6	81.00	63	BDV	Petrol	2393	6	81.00	63
ARJ	Petrol	2393	6	81.00	85	BDV	Petrol	2393	6	81.00	85
ARK	Petrol	1781	4	81.00	53	BDX	Petrol	2773	6	84.50	93
ARK	Petrol	1781	4	81.00	55	BDX	Petrol	2773	6	84.50	98
ARK	Petrol	1781	4	81.00	74	BDX	Petrol	2773	6	84.50	103
ARK	Petrol	1781	4	81.00	75	BEX	Petrol	1781	4	81.00	54
ARM	Petrol	1595	4	81.00	51	BFB	Petrol	1781	4	81.00	54
ARN	Petrol	2393	6	81.00	85	BFC	Diesel	2496	6	78.30	64
ARX	Petrol	1781	4	81.00	41	BFC	Diesel	2496	6	78.30	89
ARY	Petrol	1781	4	81.00	41	BFQ	Petrol	1595	4	81.00	39
ARY	Petrol	1781	4	81.00	132	BFV	Petrol	1781	4	81.00	132
ARZ	Petrol	1781	4	81.00	41	BGU	Petrol	1595	4	81.00	39
ASB	Diesel	2967	6	83.00	68	BHC	Diesel	1422	3	79.50	37
ASB	Diesel	2967	6	83.00	94	BHE	Petrol	3189	6	84.00	134
ASB	Diesel	2967	6	83.00	104	BKB	Petrol	1781	4	81.00	54
ASE	Diesel	3936	8	81.00	108	BKC	Diesel	1896	4	79.50	43
ASM	Petrol	2393	6	81.00	85	BKD	Diesel	1968	4	81.00	49
ASV	Diesel	1896	4	79.50	42	BKE	Diesel	1896	4	79.50	57
ASZ	Diesel	1896	4	79.50	43	BKH	Petrol	3123	6	84.50	69
ATC	Petrol	1781	4	81.00	132	BKH	Petrol	3123	6	84.50	95
ATD	Diesel	1896	4	79.50	43	BKN	Diesel	2967	6	83.00	68
ATJ	Diesel	1896	4	79.50	57	BLB	Diesel	1968	4	81.00	61
ATL	Diesel	1422	3	79.50	37	BLB	Diesel	1968	4	81.00	81
AUA	Petrol	1390	4	76.50	36	BLF	Petrol	1598	4	76.50	40
AUK	Petrol	3123	6	84.50	69	BLP	Petrol	1598	4	76.50	40
AUK	Petrol	3123	6	84.50	70	BLR	Petrol	1984	4	82.50	44
AUK	Petrol	3123	6	84.50	71	BLS	Diesel	1896	4	79.50	43
AUK	Petrol	3123	6	84.50	95	BLX	Petrol	1984	4	82.50	44
AUK	Petrol	3123	6	84.50	97	BLY	Petrol	1984	4	82.50	44
AUK	Petrol	3123	6	84.50	99	BMB	Petrol	1984	4	82.50	44
AUL	Petrol	1781	4	81.00	41	BMC	Diesel	4134	8	83.00	109
AUM	Petrol	1781	4	81.00	41	BMJ	Petrol	3189	6	84.00	50
AUM	Petrol	1781	4	81.00	132	BMK	Diesel	2967	6	83.00	94
AUQ	Petrol	1781	4	81.00	41	BMM	Diesel	1968	4	81.00	47
AUQ	Petrol	1781	4	81.00	132	BMN	Diesel	1968	4	81.00	48
AVB	Diesel	1896	4	79.50	57	BNA	Diesel	1968	4	81.00	61
AVF	Diesel	1896	4	79.50	57	BNA	Diesel	1968	4	81.00	82
AVF	Diesel	1896	4	79.50	77	BND	Diesel	2496	6	78.30	88
AVG	Diesel	1896	4	79.50	56	BNG	Diesel	2967	6	83.00	94
AVG	Diesel	1896	4	79.50	76	BNG	Diesel	2967	6	83.00	104
AVJ	Petrol	1781	4	81.00	54	BPF	Petrol	3189	6	84.00	134
AVU	Petrol	1595	4	81.00	39	BPK	Petrol	3123	6	84.50	105
AVV	Petrol	1781	4	81.00	53	BPP	Diesel	2698	6	81.40	66
AWA	Petrol	1984	4	82.50	59	BPP	Diesel	2698	6	81.40	91
AWL	Petrol	1781	4	81.00	74	BPW	Diesel	1968	4	81.00	60
AWP	Petrol	1781	4	81.00	132	BPY	Petrol	1984	4	82.50	133
AWT	Petrol	1781	4	81.00	55	BRB	Diesel	1896	4	79.50	57
AWT	Petrol	1781	4	81.00	74	BRD	Diesel	1968	4	81.00	61
AWT	Petrol	1781	4	81.00	75	BRE	Diesel	1968	4	81.00	61
AWX	Diesel	1896	4	79.50	57	BRE	Diesel	1968	4	81.00	81
AWX	Diesel	1896	4	79.50	77	BRF	Diesel	1968	4	81.00	61
AXR	Diesel	1896	4	79.50	43	BRF	Diesel	1968	4	81.00	82
AXW	Petrol	1984	4	82.50	44	BSE	Petrol	1595	4	81.00	39

		CC			9			CC			9
BSF	Petrol	1595	4	81.00	39						
BSG	Diesel	2698	6	81.40	66						
BSG	Diesel	2698	6	81.40	91						
BUB	Petrol	3189	6	84.00	50						
BUB	Petrol	3189	6	84.00	134						
BUG	Diesel	2967	6	83.00	129						
BUN	Diesel	2967	6	83.00	129						
BVP	Petrol	1781	4	81.00	132						
BVR	Petrol	1781	4	81.00	132						
BVY	Petrol	1984	4	82.50	44						
BVZ	Petrol	1984	4	82.50	44						
BWA	Petrol	1984	4	82.50	133						
BXE	Diesel	1896	4	79.50	43						
BYU	Petrol	3123	6	84.50	95						
CAGB	Diesel	1968	4	81.00	82						
CANB	Diesel	2698	6	83.00	91						
CAND	Diesel	2698	6	83.00	91						
CASB	Diesel	2967	6	83.00	129						
CAWB	Petrol	1984	4	82.50	62						
CCSA	Petrol	1595	4	81.00	39						
CCTA	Petrol	1984	4	82.50	133						
CCZA	Petrol	1984	4	82.50	62						
CCZA	Petrol	1984	4	82.50	133						
CDYB	Diesel	2967	6	83.00	94						
CMXA	Petrol	1595	4	81.00	39						
CN	Diesel	1986	5	76.50	21						
DS	Petrol	1781	4	81.00	18						
DZ	Petrol	1781	4	81.00	3						
DZ	Petrol	1781	4	81.00	120						
HX	Petrol	2226	5	81.00	23						
JK	Diesel	1588	4	76.50	2						
JN	Petrol	1781	4	81.00	3						
JW	Petrol	1781	4	81.00	18						
KU	Petrol	2226	5	81.00	23						
KV	Petrol	2226	5	81.00	16						
KV	Petrol	2226	5	81.00	124						
MB	Petrol	2226	5	81.00	131						
MC	Petrol	2226	5	81.00	23						
MC	Petrol	2226	5	81.00	33						
NC	Diesel	1986	5	76.50	21						
NE	Petrol	1781	4	81.00	3						
NF	Petrol	2309	5	82.50	25						
NF	Petrol	2309	5	82.50	34						
NG	Petrol	2309	5	82.50	10						
NG	Petrol	2309	5	82.50	17						
NG	Petrol	2309	5	82.50	117						
NG	Petrol	2309	5	82.50	126						
NM	Petrol	1994	5	81.00	15						
NM	Petrol	1994	5	81.00	123						
NP	Petrol	1781	4	81.00	18						
PH	Petrol	1781	4	81.00	18						
PM	Petrol	1781	4	81.00	3						
PP	Petrol	1595	4	81.00	1						
PS	Petrol	1994	5	81.00	14						
PT	Petrol	3562	8	81.00	135						
RA	Diesel	1588	4	76.50	2						
RA	Diesel	1588	4	76.50	13						
RN	Petrol	1595	4	81.00	1						
RR	Petrol	2226	5	81.00	130						
RT	Petrol	1994	5	81.00	20						
RU	Petrol	1781	4	81.00	3						
SB	Diesel	1588	4	76.50	2						
SB	Diesel	1588	4	76.50	13						
SD	Petrol	1847	4	82.50	4						
SF	Petrol	1781	4	81.00	3						
SH	Petrol	1781	4	81.00	18						



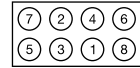
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kW/PS



80 1.6L						09/86 → 12/94	1	<b>HBS043</b>  M11x1.50x95mm (x10)	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°	
80 1.6L E						06/93 → 12/94	1595 4 81.00 SOHC 51/69 ABM 1595 4 81.00 SOHC 52/71 RN 1595 4 81.00 SOHC 55/75 ADA 1595 4 81.00 SOHC 74/100 ABB 1595 4 81.00 SOHC 75/102			
80 Avant 1.6L E						06/93 → 01/96				
80 1.6L D Diesel						09/86 → 08/91	2	<b>HBS018</b>  M12x1.75x115mm (x10)	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°	
80 1.6L TD Diesel						09/86 → 08/91				
80 1.8L						10/86 → 01/90	3	<b>HBS043</b>  M11x1.50x95mm (x10)	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°	
80 1.8L E						06/86 → 08/91	1781 4 81.00 SOHC 55/75 SF 1781 4 81.00 SOHC 64/87 JN 1781 4 81.00 KE-Jetronic, SOHC 66/89 NE 1781 4 81.00 SOHC 66/89 PM 1781 4 81.00 SOHC 66/89 DZ 1781 4 81.00 K-Jetronic, SOHC 82/111			
80 1.8L E quattro						09/86 → 08/91				
80 1.8L S						09/86 → 10/91				
80 1.8L S quattro						09/86 → 09/91				
80 1.8L quattro						09/86 → 08/90	4	<b>HBS043</b>  M11x1.50x95mm (x10)	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°	
SD						1847 4 82.50 KE-Jetronic, SOHC 83/113				
80 1.9L D Diesel						08/89 → 08/91	5	<b>HBS018</b>  M12x1.75x115mm (x10)	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°	
80 1.9L TD Diesel						09/91 → 12/94				
80 1.9L TDI Diesel						09/91 → 12/94				
80 Avant 1.9L TD Diesel						09/91 → 12/94				
80 Avant 1.9L TDI Diesel						07/92 → 01/96				
TY						1896 4 79.50 SOHC 47/64				
AAZ						1896 4 79.50 SOHC 55/75				
IZ						1896 4 79.50 SOHC 66/89				
80 2.0L						10/90 → 12/94	6	<b>HBS043</b>  M11x1.50x95mm (x10)	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°	
80 2.0L E						08/88 → 12/94				
80 2.0L E quattro						08/88 → 12/94				
80 2.0L quattro						10/90 → 08/91				
80 Avant 2.0L						07/92 → 01/96				
80 Avant 2.0L E						07/92 → 01/96				
ABT						1984 4 82.50 Motronic, SOHC 66/89				
3A						1984 4 82.50 KE-Jetronic, SOHC 83/113				
AAD						1984 4 82.50 KE-Jetronic, SOHC 85/116				
ABK						1984 4 82.50 SOHC 85/116				
80 2.0L E 16V						08/92 → 12/94	7	<b>HBS028</b> → Eng.ACE 017 543  M11x1.50x147mm (x10)	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°	
80 2.0L E 16V quattro						04/92 → 12/94				
80 Avant 2.0L E 16V quattro						12/92 → 07/95				
80 Avant 2.0L E 16V						02/93 → 01/96				
ACE						1984 4 82.50 KE-Jetronic, DOHC 103/140				
80 2.0L E 16V						03/90 → 09/91	8	<b>HBS028</b>  M11x1.50x147mm (x10)	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°	
80 2.0L E 16V quattro						03/90 → 08/91				
6A						1984 4 82.50 KE-Jetronic, DOHC 101/137				

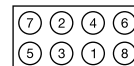




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<b>80 2.2L S2 quattro</b> <b>80 Avant 2.2L RS2 quattro</b> <b>80 Avant 2.2L S2 quattro</b>					02/93 → 12/94 03/94 → 05/95 02/93 → 07/95	<b>9</b>	<b>HBS269</b>  M11x1.50x141.5mm (x12)	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°	
ABY ADU	2226 2226	5 5	81.00 81.00	Motronic, DOHC Motronic, DOHC	169/230 232/316		<b>HBS024</b>  M11x1.50x95mm (x12)	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°	
<b>80 2.3L E</b> <b>80 2.3L E quattro</b> <b>80 Avant 2.3L E</b> <b>80 Avant 2.3L E quattro</b>					09/91 → 12/94 09/91 → 12/94 07/92 → 01/96 09/91 → 11/94	<b>10</b>	<b>HBS064</b>  M11x1.50x137mm (x16)	1) 40Nm 2) 60Nm 3) 180°	
NG	2309	5	82.50	SOHC	98-100/ 133-136		<b>HBS064</b>  M11x1.50x137mm (x16)	1) 40Nm 2) 60Nm 3) 180°	
<b>80 2.6L</b> <b>80 2.6L quattro</b> <b>80 Avant 2.6L</b> <b>80 Avant 2.6L quattro</b>					07/92 → 12/94 06/92 → 12/94 07/92 → 01/96 07/92 → 07/95	<b>11</b>	<b>HBS064</b>  M11x1.50x137mm (x16)	1) 40Nm 2) 60Nm 3) 180°	
ABC	2598	6	82.50	SOHC, V6	110/150		<b>HBS064</b>  M11x1.50x137mm (x16)	1) 40Nm 2) 60Nm 3) 180°	
<b>80 2.8L</b> <b>80 2.8L quattro</b> <b>80 Avant 2.8L</b> <b>80 Avant 2.8L quattro</b>					09/91 → 12/94 09/91 → 12/94 09/91 → 01/96 08/92 → 07/95	<b>12</b>	<b>HBS018</b>  M12x1.75x115mm (x10)	1) 40Nm 2) 60Nm 3) 180°	
AAH	2771	6	82.50	SOHC, V6	128/174		<b>HBS018</b>  M12x1.75x115mm (x10)	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°	
<b>90 1.6L TD Diesel</b>					04/87 → 09/91	<b>13</b>	<b>HBS024</b>  M11x1.50x95mm (x12)	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°	
RA/SB	1588	4	76.50	SOHC	59/80		<b>HBS024</b>  M11x1.50x95mm (x12)	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°	
<b>90 2.0L</b>					07/88 → 09/91	<b>14</b>	<b>HBS269</b>  M11x1.50x141.5mm (x12)	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°	
PS	1994	5	81.00	KE-Jetronic, SOHC	85/116		<b>HBS269</b>  M11x1.50x141.5mm (x12)	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°	
<b>90 2.0L 20 V</b> <b>90 2.0L 20 V quattro</b>					08/89 → 07/91 08/88 → 09/91	<b>15</b>	<b>HBS024</b>  M11x1.50x95mm (x12)	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°	
NM	1994	5	81.00	SOHC	118/160		<b>HBS024</b>  M11x1.50x95mm (x12)	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°	
<b>90 2.2L E</b> <b>90 2.2L E quattro</b>					04/87 → 07/91 04/87 → 09/91	<b>16</b>	<b>HBS024</b>  M11x1.50x95mm (x12)	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°	
KV	2226	5	81.00	KE-Jetronic, SOHC	100/136		<b>HBS024</b>  M11x1.50x95mm (x12)	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°	
<b>90 2.3L E</b> <b>90 2.3L E quattro</b>					04/87 → 09/91 04/87 → 09/91	<b>17</b>	<b>HBS043</b>  M11x1.50x95mm (x10)	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°	
NG	2309	5	82.50	SOHC	98-100/ 133-136		<b>HBS043</b>  M11x1.50x95mm (x10)	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°	
<b>100 1.8L</b> <b>100 1.8L CAT</b> <b>100 1.8L quattro</b> <b>100 Avant 1.8L</b> <b>100 Avant 1.8L quattro</b>					08/83 → 07/89 03/85 → 11/90 08/85 → 11/90 08/83 → 11/90 08/85 → 10/90	<b>18</b>	<b>HBS024</b>  M11x1.50x95mm (x12)	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°	
SH 4B/DS/JW/NP PH	1781 1781 1781	4 4 4	81.00 81.00 81.00	SOHC SOHC KE-Jetronic, SOHC	65/88 66/89 66/89		<b>HBS024</b>  M11x1.50x95mm (x12)	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°	



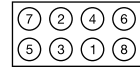
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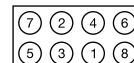
<b>100 2.0L</b>					12/90 → 06/94	<b>19</b>	<b>HBS043</b>  M11x1.50x95mm (x10)	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°	
<b>100 2.0L E</b>					12/90 → 06/94				
<b>100 Avant 2.0L E</b>					09/91 → 06/94				
AAE	1984	4	82.50	Motronic, SOHC	74/100		<b>HBS024</b>  M11x1.50x95mm (x12)	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°	
AAD	1984	4	82.50	KE-Jetronic, SOHC	85/116				
ABK	1984	4	82.50	SOHC	85/116				
<b>100 2.0L CAT</b>					01/88 → 11/90	<b>20</b>	<b>HBS021</b>  M12x1.75x115mm (x12)	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°	
<b>100 Avant 2.0L E CAT</b>					01/88 → 11/90				
RT	1994	5	81.00	KE-Jetronic, SOHC	85/116				
<b>100 2.0L D Turbo Diesel</b>					03/88 → 11/90	<b>21</b>	<b>HBS021</b>  M12x1.75x115mm (x12)	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°	
<b>100 Avant 2.0L D Diesel</b>					03/83 → 11/90				
<b>100 Avant 2.0L TD Diesel</b>					03/88 → 11/90				
CN	1986	5	76.50	SOHC	51/69		<b>HBS028</b> → Eng.ACE 017 543  M11x1.50x147mm (x10)	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°	
NC	1986	5	76.50		74/100				
<b>100 2.0L E 16V</b>					01/92 → 06/94	<b>22</b>			
<b>100 2.0L E 16V quattro</b>					07/92 → 06/94		<b>HBS028</b> → Eng.ACE 017 543  M11x1.50x147mm (x10)	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°	
ACE	1984	4	82.50	KE-Jetronic, DOHC	103/140				
<b>100 2.2L</b>					08/84 → 11/90	<b>23</b>			
<b>100 2.2L E Turbo quattro</b>					08/86 → 11/90		<b>HBS024</b>  M11x1.50x95mm (x12)	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°	
<b>100 2.2L quattro</b>					06/89 → 11/90				
<b>100 2.2L Turbo</b>					08/86 → 11/90				
<b>100 Avant 2.2L</b>					06/89 → 11/90		<b>HBS024</b>  M11x1.50x95mm (x12)	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°	
<b>100 Avant 2.2L quattro</b>					06/89 → 11/90				
<b>100 Avant 2.2L Turbo</b>					08/86 → 11/90				
<b>100 Avant 2.2L Turbo quattro</b>					08/86 → 11/90		<b>HBS024</b>  M11x1.50x95mm (x12)	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°	
HX	2226	5	81.00	SOHC	100/136				
KU	2226	5	81.00	K-Jetronic, SOHC	101-103/ 137-140				
MC	2226	5	81.00	K-Jetronic, SOHC	121/165				
<b>100 2.2L S4 Turbo quattro</b>					08/91 → 06/94	<b>24</b>	<b>HBS269</b>  M11x1.50x141.5mm (x12)	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°	
<b>100 Avant 2.2L S4 Turbo quattro</b>					09/91 → 06/94				
AAN	2226	5	81.00	Motronic, DOHC	169/230				
<b>100 2.3L</b>					03/90 → 11/90	<b>25</b>	<b>HBS024</b>  M11x1.50x95mm (x12)	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°	
<b>100 2.3L E</b>					10/86 → 06/94				
<b>100 2.3L E quattro</b>					08/86 → 06/94				
<b>100 2.3L quattro</b>					01/90 → 11/90		<b>HBS024</b>  M11x1.50x95mm (x12)	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°	
<b>100 Avant 2.3L</b>					08/86 → 11/90				
<b>100 Avant 2.3L E</b>					09/91 → 06/94				
<b>100 Avant 2.3L E quattro</b>					08/86 → 06/94		<b>HBS024</b>  M11x1.50x95mm (x12)	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°	
AAR	2309	5	82.50	KE-Jetronic, SOHC	98/133				
NF	2309	5	82.50	KE-Jetronic, SOHC	100/136				
<b>100 2.4L D Diesel</b>					08/89 → 06/94	<b>26</b>	<b>HBS021</b>  M12x1.75x115mm (x12)	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°	
<b>100 Avant 2.4L D Diesel</b>					08/89 → 06/94				
3D/AAS	2370	5	79.50	SOHC	60/81				
<b>100 2.5L TDI Diesel</b>					01/90 → 06/94	<b>27</b>	<b>HBS021</b>  M12x1.75x115mm (x12)	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°	
<b>100 Avant 2.5L TDI Diesel</b>					01/90 → 06/94				
AAT/ABP	2461	5	81.00	SOHC	85/116				
IT	2461	5	81.00	SOHC	88/120				



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<b>100 2.6L</b> 03/92 → 06/94 <b>28</b> <b>100 2.6L quattro</b> 04/92 → 06/94 <b>100 Avant 2.6L</b> 03/92 → 06/94 <b>100 Avant 2.6L quattro</b> 07/92 → 06/94					<b>HBS064</b>  M11x1.50x137mm (x16)	1) 40Nm 2) 60Nm 3) 180°	
ACZ 2598 6 82.50 SOHC, V6 102/139 ABC 2598 6 82.50 SOHC, V6 110/150							
<b>100 2.8L E</b> 12/90 → 06/94 <b>29</b> <b>100 2.8L E quattro</b> 12/90 → 06/94 <b>100 Avant 2.8L E</b> 09/91 → 06/94 <b>100 Avant 2.8L E quattro</b> 09/91 → 06/94					<b>HBS064</b>  M11x1.50x137mm (x16)	1) 40Nm 2) 60Nm 3) 180°	
AAH 2771 6 82.50 SOHC, V6 128/174							
<b>100 S4 V8 quattro</b> 10/92 → 06/94 <b>30</b>					<b>HBS514</b>  M11x1.50x158mm (x20)	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°	
ABH 4172 8 84.50 DOHC, V8 206/280 AEC 4172 8 84.50 DOHC, V8 213/290							
<b>100 Avant S4 V8 quattro</b> 10/92 → 06/94 <b>31</b>					<b>HBS514</b>  M11x1.50x158mm (x20)	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°	
ABH 4172 8 84.50 DOHC, V8 206/280 AEC 4172 8 84.50 DOHC, V8 213/290							
<b>200 2.2L 20V Turbo quattro</b> 03/89 → 12/90 <b>32</b> <b>200 Avant 2.2L 20V Turbo quattro</b> 07/89 → 12/90					<b>HBS269</b>  M11x1.50x141.5mm (x12)	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°	
3B 2226 5 81.00 DOHC 162/220							
<b>200 2.2L Turbo</b> 08/85 → 09/91 <b>33</b> <b>200 2.2L Turbo quattro</b> 01/85 → 12/91 <b>200 Avant 2.2L Turbo quattro</b> 09/83 → 12/91 <b>200 Avant 2.2L Turbo</b> 08/85 → 09/91					<b>HBS024</b>  M11x1.50x95mm (x12)	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°	
MC 2226 5 81.00 K-Jetronic, SOHC 121/165 2B 2226 5 81.00 K-Jetronic, SOHC 140/190 1B 2226 5 81.00 K-Jetronic, SOHC 147/200							
<b>200 2.3L</b> 11/86 → 09/91 <b>34</b> <b>200 Avant 2.3L</b> 11/86 → 09/91					<b>HBS024</b>  M11x1.50x95mm (x12)	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°	
NF 2309 5 82.50 KE-Jetronic, SOHC 100/136							
<b>A2 1.2L TDI Diesel</b> 03/01 → 08/05 <b>35</b>					<b>HBS311</b>  M12x1.75x115mm (x8)	1) 40Nm 2) 60Nm 3) 90° 4) 90° 5) 90° 6) 90° 7) ↻ 90°	
ANY 1191 3 76.50 SOHC 45/61							
<b>A2 1.4L</b> 02/00 → 08/05 <b>36</b>					<b>HBS249</b>  M9x1.25x138mm (x10)	1) 30Nm 2) 90° 3) 90°	
AUA/BBY 1390 4 76.50 DOHC 55/75							
<b>A2 1.4L TDI Diesel</b> 02/00 → 08/05 <b>37</b>					<b>HBS264</b>  M12x1.75x166mm (x8)	1) 40Nm 2) 60Nm 3) 90° 4) 90°	
AMF/BHC 1422 3 79.50 SOHC 55/75 ATL 1422 3 79.50 SOHC 66/89							
<b>A2 1.6L FSI</b> 05/02 → 08/05 <b>38</b>					<b>HBS316</b>  M9x1.25x97mm (x10)	1) 30Nm 2) 90° 3) 90°	
BAD 1598 4 76.50 DOHC 81/110							

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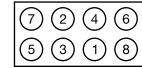
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A3 1.6L					09/96 → 08/00	39	HBS246	1) 40Nm 2) 90° 3) 90°				
AEH/AKL/APF	1595	4	81.00	SOHC	74/100	M10x1.50x120mm (x10)						
AVU/BFQ/BGU/BSE/BSF/CCSA	1595	4	81.00	SOHC	75/102							
CMXA	1595	4	81.00	Intake Manifold Injection/ Carburettor, SOHC/OHC	75/102							
A3 1.6L FSI					08/03 →	40	HBS249	1) 30Nm 2) 90° 3) 90°				
BAG/BLF	1598	4	76.50	DOHC	85/115	M9x1.25x138mm (x10)						
BLP	1598	4	76.50	DOHC	85/116							
A3 1.8L S3 quattro					03/99 →	41	HBS268	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 90° 5) 90°				
A3 1.8L T					12/96 →							
A3 1.8L T quattro					12/96 →							
AGU/AQA	1781	4	81.00	DOHC	110/150							
ARX	1781	4	81.00	Motronic, DOHC	110/150	M10x1.50x120mm (x10)						
ARZ	1781	4	81.00	DOHC	110/150							
AUM	1781	4	81.00	Motronic, DOHC	110/150							
AIQ	1781	4	81.00	Motronic, DOHC	132/180							
APP/ARY/AUQ	1781	4	81.00	DOHC	132/180							
AMK/APY	1781	4	81.00	Motronic, DOHC	154/210							
AUL	1781	4	81.00	DOHC	154/210							
BAM	1781	4	81.00	DOHC	165/224							
A3 1.9L TDI Diesel					09/96 → 07/01				42	HBS018	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°	
AGR/ALH	1896	4	79.50	SOHC	66/89				M12x1.75x115mm (x10)			
AHF/ASV	1896	4	79.50	SOHC	81/110							
A3 1.9L TDI Diesel					08/00 →	43	HBS300	1) 40Nm 2) 60Nm 3) 90° 4) 90°				
A3 1.9L TDI quattro Diesel					08/00 →							
ATD/AXR	1896	4	79.50	SOHC	74/100					M12x1.75x166mm (x10)		
BKC/BLS/BXE	1896	4	79.50	SOHC	77/105							
ASZ	1896	4	79.50	SOHC	96/131							
A3 2.0L FSI					05/03 →	44	HBS363	1) 40Nm 2) 90° 3) 90°				
AXW/BLR/BLX/BLY/BMB/BVY/BVZ	1984	4	82.50	DOHC	110/150	M10x1.50x122mm (x10)						
A3 2.0L TDI Diesel					05/03 →	45	HBS364	1) 35Nm 2) 60Nm 3) 90° 4) 90°				
AZV	1968	4	81.00	DOHC	100/136					M12x1.75x149mm (x10)		
	1968	4	81.00	DOHC, Straight	100/136							
A3 2.0L TDI Diesel					05/03 →	46	HBS364	1) 35Nm 2) 60Nm 3) 90° 4) 90°				
AZV	1968	4	81.00	DOHC	100/136					M12x1.75x149mm (x10)		
A3 2.0L TDI Diesel					06/05 →	47	HBS300	1) 40Nm 2) 60Nm 3) 90° 4) 90°				
A3 2.0L TDI quattro Diesel					01/06 →							
BMM	1968	4	81.00	SOHC	103/140	M12x1.75x166mm (x10)						
A3 2.0L TDI Diesel					03/06 →	48	HBS364	1) 35Nm 2) 60Nm 3) 90° 4) 90°				
A3 2.0L TDI quattro Diesel					03/06 →							
BMN	1968	4	81.00	DOHC	125/170	M12x1.75x149mm (x10)						
	1968	4	81.00	Direct Injection, DOHC	125/170							
A3 2.0L TDI 16V Diesel					05/03 →	49	HBS364	1) 35Nm 2) 60Nm 3) 90° 4) 90°				
BKD	1968	4	81.00	DOHC	103/140					M12x1.75x149mm (x10)		
	1968	4	81.00	Direct Injection, DOHC	103/140							

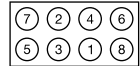




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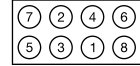
A3 3.2L V6 quattro					07/03 →	50	HBS466		1) 40Nm 2) 90° 3) 90°	
BDB/BMJ/BUB	3189	6	84.00	DOHC, V6	184/250	 M10x1.50x111mm (x13) M10x1.50x111mm (x13) M10x1.50x150mm (x7)				
A4 1.6L					01/95 → 07/00	51	HBS043		1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°	
A4 Avant 1.6L						ADP  M11x1.50x95mm (x10)				
ADP	1595	4	81.00	Motronic, SOHC	74/100	HBS246 AHL, ANA, ARM  M10x1.50x120mm (x10)		1) 40Nm 2) 90° 3) 90°		
AHL/ANA/ARM	1595	4	81.00	SOHC	74/100					
A4 1.6L					07/00 → 12/04	52	HBS246		1) 40Nm 2) 90° 3) 90°	
A4 Avant 1.6L						 M10x1.50x120mm (x10)				
ALZ	1595	4	81.00	SOHC	75/102					
A4 1.8L					01/95 → 11/00	53	HBS171		1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°	
A4 1.8L quattro						 M11x1.50x101mm (x10)				
A4 1.8L T										
A4 1.8L T quattro										
A4 Avant 1.8L										
A4 Avant 1.8L quattro										
A4 Avant 1.8L T										
A4 Avant 1.8L T quattro										
AFY	1781	4	81.00	DOHC	85/116					
ADR	1781	4	81.00	Motronic, DOHC	92/125					
APT/ARG/AVV	1781	4	81.00	DOHC	92/125					
AEB	1781	4	81.00	Motronic, DOHC	110/150					
ANB	1781	4	81.00	DOHC	110/150					
APU	1781	4	81.00	DOHC	110/150					
ARK	1781	4	81.00	DOHC	110/150					
AJL	1781	4	81.00	Motronic, DOHC	132/180					
A4 1.8L T					11/00 → 12/04	54	HBS268		1) 40Nm 2) 60Nm 3) ↻ 90° 4) 90° 5) 90°	
A4 1.8L T quattro						 M10x1.50x120mm (x10)				
A4 Convertible 1.8L T										
A4 Convertible 1.8L T quattro										
AVJ	1781	4	81.00	DOHC	110/150					
BFB/BKB	1781	4	81.00	DOHC	120/163					
AMB	1781	4	81.00	DOHC	125/170					
BEX	1781	4	81.00	DOHC	140/190					
A4 Avant 1.8L T					03/96 → 09/01	55	HBS171		1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°	
A4 Avant 1.8L T quattro						AEB, ARK, ANB, APU  M11x1.50x101mm (x10)				
AEB	1781	4	81.00	Motronic, DOHC	110/150	HBS268 AWT  M10x1.50x120mm (x10)		1) 40Nm 2) 60Nm 3) ↻ 90° 4) 90° 5) 90°		
ANB	1781	4	81.00	DOHC	110/150					
APU	1781	4	81.00	DOHC	110/150					
ARK/AWT	1781	4	81.00	DOHC	110/150					



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kW/PS



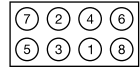
<b>A4 1.9L TDI Diesel</b> 01/95 → 11/00 <b>56</b> <b>A4 1.9L TDI quattro Diesel</b> 09/96 → 11/00 <b>A4 Avant 1.9L TDI Diesel</b> 02/96 → 09/01 <b>A4 Avant 1.9L TDI quattro Diesel</b> 09/96 → 09/01					<b>HBS018</b> M12x1.75x115mm (x10)	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°		
AFF	1896	4	79.50	SOHC				55/75
1Z/AHH/AHU	1896	4	79.50	SOHC				66/89
AFN/AVG	1896	4	79.50	SOHC				81/110
<b>A4 1.9L TDI Diesel</b> 03/00 → 12/04 <b>57</b> <b>A4 1.9L TDI quattro Diesel</b> 03/00 → 12/04 <b>A4 Avant 1.9L TDI Diesel</b> 03/00 → 09/01 <b>A4 Avant 1.9L TDI quattro Diesel</b> 03/00 → 09/01					<b>HBS300</b> M12x1.75x166mm (x10)	1) 40Nm 2) 60Nm 3) 90° 4) 90°		
AVB	1896	4	79.50	SOHC				74/100
AJM/ATJ/BKE/BRB	1896	4	79.50	SOHC				85/116
AVF/AWX	1896	4	79.50	SOHC				96/131
<b>A4 2.0L</b> 11/00 → 12/04 <b>58</b> <b>A4 Avant 2.0L</b> 09/01 → 12/04 <b>A4 Convertible 2.0L</b> 09/04 →					<b>HBS510</b> M10x1.50x131mm (x10)	1) 20Nm 2) 40Nm 3) ↻ 90° 4) 40Nm 5) 90° 6) 90°		
ALT	1984	4	82.50	DOHC				96/131
<b>A4 2.0L FSI</b> 07/02 → 07/05 <b>59</b> <b>A4 Avant 2.0L FSI</b> 01/05 → 07/05					<b>HBS363</b> M10x1.50x122mm (x10)	1) 40Nm 2) 90° 3) 90°		
AWA	1984	4	82.50	DOHC				110/150
<b>A4 2.0L TDI Diesel</b> 11/04 → <b>60</b> <b>A4 2.0L TDI quattro Diesel</b> 01/06 → <b>A4 Avant 2.0L TDI quattro Diesel</b> 01/06 → <b>A4 Convertible 2.0L TDI Diesel</b> 10/05 →					<b>HBS300</b> M12x1.75x166mm (x10)	1) 40Nm 2) 60Nm 3) 90° 4) 90°		
BPW	1968	4	81.00	SOHC				103/140
<b>A4 2.0L TDI Diesel</b> 11/04 → <b>61</b> <b>A4 2.0L TDI 16V Diesel</b> 11/04 → <b>A4 2.0L TDI quattro Diesel</b> 06/06 → <b>A4 Avant 2.0L TDi Diesel</b> 06/06 → <b>A4 Avant 2.0L TDI quattro Diesel</b> 06/06 →					<b>HBS364</b> M12x1.75x149mm (x10)	1) 35Nm 2) 60Nm 3) 90° 4) 90°		
BNA/BRF	1968	4	81.00	DOHC				100/136
BLB/BRE	1968	4	81.00	DOHC				103/140
BRD	1968	4	81.00	DOHC				
<b>A4 2.0L TFSI</b> 04/08 → <b>62</b> CAWB/CCZA					<b>HBS476</b> M10x1.50x117mm (x10)	1) 20Nm 2) 40Nm 3) 90° 4) 90°		
	1984	4	82.50	DOHC				147/200
<b>A4 2.4L</b> 03/97 → 12/04 <b>63</b> <b>A4 2.4L quattro</b> 03/97 → 11/00 <b>A4 Avant 2.4L</b> 03/97 → 09/01 <b>A4 Avant 2.4L quattro</b> 03/97 → 09/01 <b>A4 Convertible 2.4L</b> 04/02 →					<b>HBS270</b> M11x1.50x133mm (x16)	1) 40Nm 2) 60Nm 3) 90° 4) 90°		
AIG/AMM/APS	2393	6	81.00	DOHC, V6				120/163
AGA	2393	6	81.00	V6				121/165
ALF	2393	6	81.00	DOHC, V6				121/165
AML	2393	6	81.00	V6				121/165
APZ/ARJ	2393	6	81.00	DOHC, V6				121/165
BDV	2393	6	81.00	DOHC, V6				125/170



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kW/PS



<b>A4 2.5L D Diesel</b> 10/00 → 05/03 <b>64</b> <b>A4 2.5L TDI Diesel</b> 09/97 → 12/04 <b>A4 2.5L TDI quattro Diesel</b> 09/97 → 12/04 <b>A4 Avant 2.5L TDi Diesel</b> 09/97 → 05/03 <b>A4 Avant 2.5L TDI quattro Diesel</b> 09/97 → 09/01 <b>A4 Convertible 2.5L TDI Diesel</b> 08/02 →					<b>HBS265</b> AFB, AKE, AKN, AYM, BFC  M12x1.50x155mm (x16)	1) 35Nm 2) 60Nm 3) 90° 4) 90°	
AFB/AKN 2496 6 78.30 DOHC, V6 110/150 AYM 2496 6 78.30 DOHC, V6 114/155 BCZ/BDG/BFC 2496 6 78.30 DOHC, V6 120/163 AKE/BAU/BDH 2496 6 78.30 DOHC, V6 132/180					<b>HBS361</b> BAU, BCZ, BDG, BDH  M12x1.50x159mm (x16)	1) 40Nm 2) 60Nm 3) 90° 4) 90°	
<b>A4 2.6L</b> 01/95 → 11/00 <b>65</b> <b>A4 2.6L quattro</b> 01/95 → 11/00 <b>A4 Avant 2.6L</b> 02/96 → 09/01 <b>A4 Avant 2.6L quattro</b> 01/96 → 09/01					<b>HBS064</b>  M11x1.50x137mm (x16)	1) 40Nm 2) 60Nm 3) 180°	
ABC 2598 6 82.50 SOHC, V6 110/150					<b>HBS361</b>  M12x1.50x159mm (x16)	1) 40Nm 2) 60Nm 3) 90° 4) 90°	
<b>A4 2.7L TDI Diesel</b> 11/05 → <b>66</b> <b>A4 Avant 2.7L TDi Diesel</b> 11/05 → 03/08 <b>A4 Convertible 2.7L TDI Diesel</b> 06/06 →					<b>HBS064</b>  M11x1.50x137mm (x16)	1) 40Nm 2) 60Nm 3) 90° 4) 90°	
BSG 2698 6 81.40 DOHC, V6 120/163 BPP 2698 6 81.40 DOHC, V6 132/180					<b>HBS064</b>  M11x1.50x137mm (x16)	1) 40Nm 2) 60Nm 3) 180°	
<b>A4 2.8L</b> 09/95 → 07/97 <b>67</b> <b>A4 2.8L quattro</b> 01/95 → 07/97 <b>A4 Avant 2.8L</b> 03/96 → 09/96 <b>A4 Avant 2.8L quattro</b> 01/96 → 09/96					<b>HBS361</b>  M12x1.50x159mm (x16)	1) 40Nm 2) 60Nm 3) 90° 4) 90°	
AAH 2771 6 82.50 SOHC, V6 128/174					<b>HBS512</b>  M10x1.50x172mm (x16)	1) 20Nm 2) 40Nm 3) ↻ 90° 4) 40Nm 5) 90° 6) 90°	
<b>A4 3.0L TDI quattro Diesel</b> 11/04 → <b>68</b> <b>A4 Avant 3.0L TDI quattro Diesel</b> 11/04 → <b>A4 Convertible 3.0L TDI quattro Diesel</b> 10/05 →					<b>HBS512</b>  M10x1.50x172mm (x16)	1) 20Nm 2) 40Nm 3) ↻ 90° 4) 40Nm 5) 90° 6) 90°	
BKN 2967 6 83.00 SOHC 150/204 ASB 2967 6 83.00 DOHC, V6 171/232					<b>HBS512</b>  M10x1.50x172mm (x16)	1) 20Nm 2) 40Nm 3) ↻ 90° 4) 40Nm 5) 90° 6) 90°	
<b>A4 3.2 FSI</b> 01/05 → 06/08 <b>69</b> <b>A4 3.2 FSI quattro</b> 01/05 → 06/08					<b>HBS512</b>  M10x1.50x172mm (x16)	1) 20Nm 2) 40Nm 3) ↻ 90° 4) 40Nm 5) 90° 6) 90°	
AUK 3123 6 84.50 DOHC, V6 188/256 BKH 3123 6 84.50 DOHC, V6 188/256					<b>HBS512</b>  M10x1.50x172mm (x16)	1) 20Nm 2) 40Nm 3) ↻ 90° 4) 40Nm 5) 90° 6) 90°	
<b>A4 Avant 3.2 FSI</b> 01/05 → 06/08 <b>70</b> <b>A4 Avant 3.2 FSI quattro</b> 01/05 → 06/08					<b>HBS512</b>  M10x1.50x172mm (x16)	1) 20Nm 2) 40Nm 3) ↻ 90° 4) 40Nm 5) 90° 6) 90°	
AUK 3123 6 84.50 DOHC, V6 188/256					<b>HBS512</b>  M10x1.50x172mm (x16)	1) 20Nm 2) 40Nm 3) ↻ 90° 4) 40Nm 5) 90° 6) 90°	
<b>A4 Cabriolet 3.2 FSI</b> 01/06 → 03/09 <b>71</b> <b>A4 Cabriolet 3.2 FSI quattro</b> 01/06 → 03/09					<b>HBS171</b>  M11x1.50x101mm (x10)	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°	
AUK 3123 6 84.50 DOHC, V6 188/256					<b>HBS171</b>  M11x1.50x101mm (x10)	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°	
<b>A6 1.8L</b> 12/95 → 01/05 <b>72</b> <b>A6 1.8L quattro</b> 12/95 → 02/97 <b>A6 1.8L T</b> 12/97 → 01/05 <b>A6 1.8L T quattro</b> 12/97 → 01/05 <b>A6 Avant 1.8L</b> 12/95 → 01/05 <b>A6 Avant 1.8L quattro</b> 12/95 → 12/97 <b>A6 Avant 1.8L T</b> 04/99 → 01/05 <b>A6 Avant 1.8L T quattro</b> 12/97 → 01/05					<b>HBS171</b>  M11x1.50x101mm (x10)	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°	
AFY 1781 4 81.00 DOHC 85/116 ADR 1781 4 81.00 Motronic, DOHC 92/125 AJL 1781 4 81.00 Motronic, DOHC 132/180					<b>HBS171</b>  M11x1.50x101mm (x10)	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°	



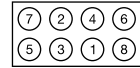
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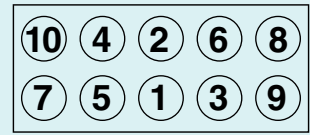
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A6 1.8L A6 Avant 1.8L					07/97 → 01/05 12/97 → 01/05	73
AIP/ANQ/AQE/ARH	1781	4	81.00	DOHC		92/125
A6 1.8L T					01/97 → 01/05	74
AEB	1781	4	81.00	Motronic, DOHC		110/150
ANB	1781	4	81.00	DOHC		110/150
APU	1781	4	81.00	DOHC		110/150
ARK	1781	4	81.00	DOHC		110/150
AWL	1781	4	81.00	DOHC		110/150
AWT	1781	4	81.00	DOHC		110/150
A6 1.8L T quattro A6 Avant 1.8L T A6 Avant 1.8L T quattro					02/97 → 01/05 12/97 → 01/05 12/97 → 01/05	75
AEB	1781	4	81.00	Motronic, DOHC		110/150
ANB	1781	4	81.00	DOHC		110/150
APU	1781	4	81.00	DOHC		110/150
ARK/AWT	1781	4	81.00	DOHC		110/150
A6 1.9L TDI Diesel A6 Avant 1.9L TDI Diesel					06/94 → 01/05 06/94 → 01/05	76
TZ/AHU	1896	4	79.50	SOHC		66/89
AFN/AVG	1896	4	79.50	SOHC		81/110
A6 1.9L TDI Diesel A6 Avant 1.9L TDI Diesel					07/00 → 01/05 07/00 → 01/05	77
AJM	1896	4	79.50	SOHC		85/116
AVF/AWX	1896	4	79.50	SOHC		96/131
A6 2.0L A6 Avant 2.0L					06/94 → 02/97 06/94 → 12/97	78
ABK	1984	4	82.50	SOHC		85/116
A6 2.0L A6 Avant 2.0L					08/01 → 01/05 08/01 → 01/05	79
ALT	1984	4	82.50	DOHC		96/131
A6 2.0L 16V A6 2.0L 16V quattro A6 Avant 2.0L 16V A6 Avant 2.0L 16V quattro					06/94 → 02/97 06/94 → 02/97 06/94 → 12/97 06/94 → 12/97	80
ACE	1984	4	82.50	KE-Jetronic, DOHC		103/140
A6 2.0L TDI Diesel					07/04 →	81
BLB/BRE	1968	4	81.00	DOHC		103/140

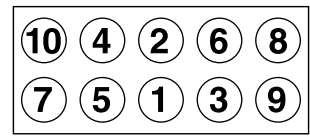
**HBS268**  
  
 M10x1.50x120mm (x10)

- 1) 40Nm
- 2) 60Nm
- 3) ↻ 90°
- 4) 90°
- 5) 90°



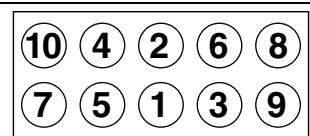
**HBS171**  
 AEB, ANB, APU, ARK  
  
 M11x1.50x101mm (x10)

- 1) 40Nm
- 2) 60Nm
- 3) ↻ 90°
- 4) 60Nm
- 5) 90°
- 6) 90°



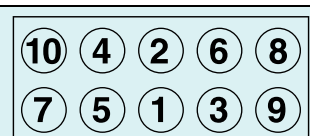
**HBS268**  
 AWL, AWT  
  
 M10x1.50x120mm (x10)

- 1) 40Nm
- 2) 60Nm
- 3) ↻ 90°
- 4) 90°
- 5) 90°



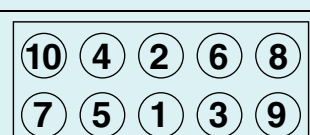
**HBS171**  
 AEB, ANB, APU, ARK  
  
 M11x1.50x101mm (x10)

- 1) 40Nm
- 2) 60Nm
- 3) ↻ 90°
- 4) 60Nm
- 5) 90°
- 6) 90°



**HBS268**  
 AWT  
  
 M10x1.50x120mm (x10)

- 1) 40Nm
- 2) 60Nm
- 3) ↻ 90°
- 4) 90°
- 5) 90°



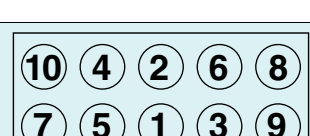
**HBS018**  
  
 M12x1.75x115mm (x10)

- 1) 40Nm
- 2) 60Nm
- 3) ↻ 90°
- 4) 60Nm
- 5) 90°
- 6) 90°



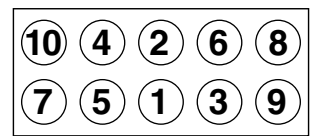
**HBS300**  
  
 M12x1.75x166mm (x10)

- 1) 40Nm
- 2) 60Nm
- 3) 90°
- 4) 90°



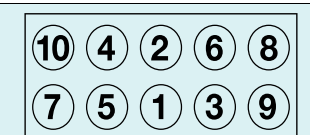
**HBS043**  
 → Ch.4AS-110 000  
  
 M11x1.50x95mm (x10)

- 1) 40Nm
- 2) 60Nm
- 3) ↻ 90°
- 4) 60Nm
- 5) 90°
- 6) 90°



**HBS510**  
  
 M10x1.50x131mm (x10)

- 1) 20Nm
- 2) 40Nm
- 3) ↻ 90°
- 4) 40Nm
- 5) 90°
- 6) 90°



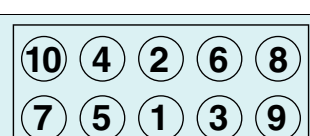
**HBS028**  
 → Eng.ACE 017 543  
  
 M11x1.50x147mm (x10)

- 1) 40Nm
- 2) 60Nm
- 3) ↻ 90°
- 4) 60Nm
- 5) 90°
- 6) 90°



**HBS364**  
  
 M12x1.75x149mm (x10)

- 1) 35Nm
- 2) 60Nm
- 3) 90°
- 4) 90°



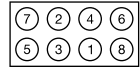




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kW/PS



A6 2.0L TDI Diesel					06/05 →	82		
BNA/BRF/CAGB	1968	4	81.00	DOHC	100/136	<b>HBS364</b> BRF, BNA M12x1.75x149mm (x10)	1) 35Nm 2) 60Nm 3) 90° 4) 90°	
A6 2.2L S6 Turbo quattro					06/94 → 02/97	83		
A6 Avant 2.2L S6 Turbo quattro						<b>HBS269</b> M11x1.50x141.5mm (x12)	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°	
AAN	2226	5	81.00	Motronic, DOHC	169/230			
A6 2.3L					06/94 → 12/95	84		
A6 2.3L quattro						<b>HBS024</b> M11x1.50x95mm (x12)	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°	
A6 Avant 2.3L								
A6 Avant 2.3L quattro								
AAR	2309	5	82.50	KE-Jetronic, SOHC	98/133			
A6 2.4L					02/97 → 01/05	85		
A6 2.4L quattro						<b>HBS270</b> M11x1.50x133mm (x16)	1) 40Nm 2) 60Nm 3) 90° 4) 90°	
A6 Avant 2.4L								
A6 Avant 2.4L quattro								
ALW/ARN/ASM	2393	6	81.00	DOHC, V6	100/136			
APC	2393	6	81.00	DOHC, V6	115/156			
AIG/AMM/APS	2393	6	81.00	DOHC, V6	120/163			
AGA	2393	6	81.00	V6	121/165			
ALF	2393	6	81.00	DOHC, V6	121/165			
AML	2393	6	81.00	V6	121/165			
APZ/ARI	2393	6	81.00	DOHC, V6	121/165			
BDV	2393	6	81.00	DOHC, V6	125/170			
A6 2.5L TDI Diesel					06/94 → 02/97	86		
A6 2.5L TDI quattro Diesel						<b>HBS021</b> M12x1.75x115mm (x12)	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°	
A6 Avant 2.5L TDI Diesel								
A6 Avant 2.5L TDI quattro Diesel								
AAT	2461	5	81.00	SOHC	85/116			
AEL	2461	5	81.00	SOHC	103/140			
A6 2.5L TDI Diesel					07/97 → 01/05	87		
A6 2.5L TDI quattro Diesel						<b>HBS265</b> M12x1.50x155mm (x16)	1) 35Nm 2) 60Nm 3) 90° 4) 90°	
A6 Avant 2.5L TDI Diesel								
A6 Avant 2.5L TDI quattro Diesel								
AFB/AKN	2496	6	78.30	DOHC, V6	110/150			
AYM	2496	6	78.30	DOHC, V6	114/155			
A6 2.5L TDI Diesel					02/00 → 01/05	88		
A6 2.5L TDI quattro Diesel						<b>HBS265</b> AKE M12x1.50x155mm (x16)	1) 35Nm 2) 60Nm 3) 90° 4) 90°	
A6 Avant 2.5L TDI Diesel								
A6 Avant 2.5L TDI quattro Diesel								
AKE/BAU/BDH/BND	2496	6	78.30	DOHC, V6	132/180	<b>HBS361</b> BAU, BDH, BND M12x1.50x159mm (x16)	1) 40Nm 2) 60Nm 3) 90° 4) 90°	



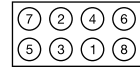
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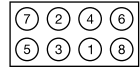
Audi Model and Variant					Year Range	Power (kW/PS)	Wrench Size		Torque Sequence	
<b>A6 2.5L TDI Diesel</b>					07/02 → 01/05	<b>89</b>				
<b>A6 Avant 2.5L TDI Diesel</b>					07/02 → 01/05					
BCZ/BDG/BFC	2496	6	78.30	DOHC, V6	120/163	<b>HBS265</b> BFC M12x1.50x155mm (x16)		1) 35Nm 2) 60Nm 3) 90° 4) 90°		
							<b>HBS361</b> BDG, BCZ M12x1.50x159mm (x16)		1) 40Nm 2) 60Nm 3) 90° 4) 90°	
<b>A6 2.6L</b>					06/94 → 02/97	<b>90</b>				
<b>A6 2.6L quattro</b>					06/94 → 02/97					
<b>A6 Avant 2.6L</b>					06/94 → 12/97					
<b>A6 Avant 2.6L quattro</b>					06/94 → 12/97					
ACZ	2598	6	82.50	SOHC, V6	102/139	<b>HBS064</b> M11x1.50x137mm (x16)		1) 40Nm 2) 60Nm 3) 180°		
ABC	2598	6	82.50	SOHC, V6	110/150					
<b>A6 2.7L TDI Diesel</b>					11/04 →	<b>91</b>				
<b>A6 2.7L TDI quattro Diesel</b>					11/04 →					
<b>A6 Avant 2.7L TDI Diesel</b>					03/05 →					
<b>A6 Avant 2.7L TDI quattro Diesel</b>					03/05 →					
BSG	2698	6	81.40	DOHC, V6	120/163	<b>HBS361</b> M12x1.50x159mm (x16)		1) 40Nm 2) 60Nm 3) 90° 4) 90°		
BPP	2698	6	81.40	DOHC, V6	132/180					
CANB/CAND	2698	6	83.00	DOHC, V6	120/163					
<b>A6 2.8L</b>					06/94 → 02/97	<b>92</b>				
<b>A6 2.8L quattro</b>					06/94 → 02/97					
<b>A6 Avant 2.8L</b>					06/94 → 12/97					
<b>A6 Avant 2.8L quattro</b>					06/94 → 12/97					
AFC	2771	6	82.50	V6	120/163	<b>HBS064</b> M11x1.50x137mm (x16)		1) 40Nm 2) 60Nm 3) 180°		
AEJ	2771	6	82.50	SOHC, V6	120-128/ 163-174					
AAH	2771	6	82.50	SOHC, V6	128/174					
<b>A6 2.8L FSI</b>					11/06 → 10/08	<b>93</b>				
<b>A6 2.8L FSI quattro</b>					06/07 → 10/08					
BDX	2773	6	84.50	DOHC, V6		<b>HBS512</b> M10x1.50x172mm (x16)		1) 20Nm 2) 40Nm 3) ↻ 90° 4) 40Nm 5) 90° 6) 90°		
<b>A6 3.0L TDI Diesel</b>					06/06 →	<b>94</b>				
<b>A6 3.0L TDI quattro Diesel</b>					05/04 →					
<b>A6 Avant 3.0L TDi Diesel</b>					06/06 →					
<b>A6 Avant 3.0L TDI quattro Diesel</b>					03/05 →					
BNG/CDYB	2967	6	83.00	DOHC, V6	155/211	<b>HBS361</b> M12x1.50x159mm (x16)		1) 40Nm 2) 60Nm 3) 90° 4) 90°		
BMK	2967	6	83.00	DOHC, V6	165/224					
ASB	2967	6	83.00	DOHC, V6	171/232					
<b>A6 3.2 FSI</b>					05/04 → 10/08	<b>95</b>				
<b>A6 3.2 FSI quattro</b>					05/04 → 10/08					
AUK	3123	6	84.50	DOHC, V6	188/256	<b>HBS512</b> M10x1.50x172mm (x16)		1) 20Nm 2) 40Nm 3) ↻ 90° 4) 40Nm 5) 90° 6) 90°		
BKH/BYU	3123	6	84.50	DOHC, V6						
<b>A6 S6 4.2L quattro</b>					06/94 → 10/97	<b>96</b>				
<b>A6 S6 Plus quattro</b>					04/96 → 10/97					
AEC	4172	8	84.50	DOHC, V8	213/290	<b>HBS514</b> M11x1.50x158mm (x20)		1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°		
AHK	4172	8	84.50	DOHC, V8	240/326					
<b>A6 Allroad 3.2 FSI quattro</b>					05/06 →	<b>97</b>				
AUK	3123	6	84.50	DOHC, V6	188/256	<b>HBS512</b> M10x1.50x172mm (x16)		1) 20Nm 2) 40Nm 3) ↻ 90° 4) 40Nm 5) 90° 6) 90°		



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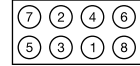
Model and Year Range					Power (kW/PS)	Wrench Type	Wrench Size	Wrench Qty	Wrench Angle	Wrench Diagram
<b>A6 Avant 2.8L FSI</b> 11/06 → 10/08					<b>98</b>	<b>HBS512</b>		M10x1.50x172mm (x16)	1) 20Nm 2) 40Nm 3) ↻ 90° 4) 40Nm 5) 90° 6) 90°	
<b>A6 Avant 2.8L FSI quattro</b> 06/07 → 10/08										
BDX	2773	6	84.50	DOHC, V6						
<b>A6 Avant 3.2 FSI</b> 03/05 → 10/08					<b>99</b>	<b>HBS512</b>		M10x1.50x172mm (x16)	1) 20Nm 2) 40Nm 3) ↻ 90° 4) 40Nm 5) 90° 6) 90°	
<b>A6 Avant 3.2 FSI quattro</b> 03/05 → 10/08										
AUK	3123	6	84.50	DOHC, V6	188/256					
<b>A6 Avant S6 4.2L quattro</b> 06/94 → 12/97					<b>100</b>	<b>HBS514</b>		M11x1.50x158mm (x20)	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°	
<b>A6 Avant S6 Plus quattro</b> 04/96 → 12/97										
AEC	4172	8	84.50	DOHC, V8	213/290					
AHK	4172	8	84.50	DOHC, V8	240/326					
<b>A8 2.5L TDI Diesel</b> 01/97 → 09/02					<b>101</b>	<b>HBS265</b>		M12x1.50x155mm (x16)	1) 35Nm 2) 60Nm 3) 90° 4) 90°	
<b>A8 2.5L TDI quattro Diesel</b> 07/97 → 09/02										
AFB/AKN	2496	6	78.30	DOHC, V6	110/150					
AKE	2496	6	78.30	DOHC, V6	132/180					
<b>A8 2.8L</b> 03/94 → 03/96					<b>102</b>	<b>HBS064</b>		M11x1.50x137mm (x16)	1) 40Nm 2) 60Nm 3) 180°	
<b>A8 2.8L quattro</b> 03/94 → 03/96										
AEJ	2771	6	82.50	SOHC, V6	120-128/ 163-174					
AAH	2771	6	82.50	SOHC, V6	128/174					
<b>A8 2.8L FSI</b> 08/07 → 07/10					<b>103</b>	<b>HBS512</b>		M10x1.50x172mm (x16)	1) 20Nm 2) 40Nm 3) ↻ 90° 4) 40Nm 5) 90° 6) 90°	
<b>A8 2.8L quattro</b> 08/07 → 07/10										
BDX	2773	6	84.50	DOHC, V6						
<b>A8 3.0L TDI quattro Diesel</b> 08/03 →					<b>104</b>	<b>HBS361</b>		M12x1.50x159mm (x16)	1) 40Nm 2) 60Nm 3) 90° 4) 90°	
<b>A8 3.0L TDI quattro Diesel</b> 08/03 →										
BNG	2967	6	83.00	DOHC, V6	155/211					
ASB	2967	6	83.00	DOHC, V6	171/232					
<b>A8 3.2 FSI</b> 06/05 → 07/10					<b>105</b>	<b>HBS512</b>		M10x1.50x172mm (x16)	1) 20Nm 2) 40Nm 3) ↻ 90° 4) 40Nm 5) 90° 6) 90°	
<b>A8 3.2 FSI quattro</b> 06/05 → 07/10										
BPK	3123	6	84.50	DOHC, V6	191/260					
<b>A8 3.3L TDI quattro Diesel</b> 06/00 → 09/02					<b>106</b>	<b>HBS470</b>		M12x1.50x159mm (x20)	1) 35Nm 2) 60Nm 3) 90° 4) 90°	
<b>A8 3.3L TDI quattro Diesel</b> 06/00 → 09/02										
AKF	3328	8	78.30	DOHC, V8	165/224					
<b>A8 3.7L</b> 07/95 → 12/98					<b>107</b>	<b>HBS514</b>		M11x1.50x158mm (x20)	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°	
<b>A8 3.7L quattro</b> 07/95 → 11/98										
AEW	3697	8	84.50	DOHC, V8	169/230					
AKJ	3697	8	84.50	V8	169/230					
<b>A8 4.0 TDI quattro Diesel</b> 03/03 →					<b>108</b>	<b>HBS470</b>		M12x1.50x159mm (x20)	1) 35Nm 2) 60Nm 3) 90° 4) 90°	
<b>A8 4.0 TDI quattro Diesel</b> 03/03 →										
ASE	3936	8	81.00	DOHC, V8	202/275					



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<b>A8 4.2 TDI quattro Diesel</b> 07/05 → <b>109</b>						<b>HBS470</b>  M12x1.50x159mm (x20)	1) 35Nm 2) 60Nm 3) 90° 4) 90°	
BMC	4134	8	83.00	DOHC, V8	235/320			
<b>A8 4.2L quattro</b> 03/94 → 11/98 <b>110</b>						<b>HBS514</b>  M11x1.50x158mm (x20)	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°	
<b>A8 S 8 quattro</b> 07/96 → 06/99								
AEM	4172	8	84.50	DOHC, V8	180/245			
ABZ/AKG	4172	8	84.50	DOHC, V8	220/299			
AHC/AKH	4172	8	84.50	DOHC, V8	250/340			
<b>Allroad 2.5L TDI quattro Diesel</b> 05/00 → 08/05 <b>111</b>						<b>HBS265</b> AKE  M12x1.50x155mm (x16)	1) 35Nm 2) 60Nm 3) 90° 4) 90°	
AKE/BAU	2496	6	78.30	DOHC, V6	132/180			
<b>Allroad 2.5L TDI quattro Diesel</b> 05/03 → 08/05 <b>112</b>						<b>HBS361</b> BAU  M12x1.50x159mm (x16)	1) 40Nm 2) 60Nm 3) 90° 4) 90°	
BCZ	2496	6	78.30	DOHC, V6	120/163			
<b>Cabriolet Convertible 1.8L</b> 01/97 → 08/00 <b>113</b>						<b>HBS171</b>  M11x1.50x101mm (x10)	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°	
ADR	1781	4	81.00	Motronic, DOHC	92/125			
<b>Cabriolet Convertible 1.9L TDI Diesel</b> 06/95 → 08/00 <b>114</b>						<b>HBS018</b>  M12x1.75x115mm (x10)	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°	
1Z/AHU	1896	4	79.50	SOHC	66/89			
<b>Cabriolet Convertible 2.0L E</b> 01/93 → 07/98 <b>115</b>						<b>HBS043</b> → Ch.86-S-009 000  M11x1.50x95mm (x10)	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°	
ABK	1984	4	82.50	SOHC	85/116			
<b>Cabriolet Convertible 2.0L 16V</b> 06/95 → 07/96 <b>116</b>						<b>HBS028</b> → Eng.ACE 017 543  M11x1.50x147mm (x10)	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°	
ACE	1984	4	82.50	KE-Jetronic, DOHC	103/140			
<b>Cabriolet Convertible 2.3L E</b> 05/91 → 07/94 <b>117</b>						<b>HBS024</b>  M11x1.50x95mm (x12)	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°	
NG	2309	5	82.50	SOHC	98-100/ 133-136			
<b>Cabriolet Convertible 2.6L</b> 06/93 → 08/00 <b>118</b>						<b>HBS064</b>  M11x1.50x137mm (x16)	1) 40Nm 2) 60Nm 3) 180°	
ACZ	2598	6	82.50	SOHC, V6	102/139			
ABC	2598	6	82.50	SOHC, V6	110/150			

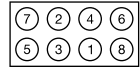




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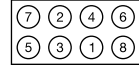
Cabriolet Convertible 2.8L				11/92 → 08/00	119				
AAH	2771	6	82.50	SOHC, V6	128/174	<b>HBS064</b>  M11x1.50x137mm (x16)	1) 40Nm 2) 60Nm 3) 180°		
Coupe 1.8L				08/89 → 07/91	120				
DZ	1781	4	81.00	K-Jetronic, SOHC	82/111	<b>HBS043</b>  M11x1.50x95mm (x10)	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°		
Coupe 2.0L				05/89 → 07/90	121				
3A	1984	4	82.50	KE-Jetronic, SOHC	83/113	<b>HBS043</b>  M11x1.50x95mm (x10)	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°		
Coupe 2.0L				05/89 → 12/96	122				
AAH	1984	4	82.50	KE-Jetronic, SOHC	85/116	<b>HBS043</b> → Ch.88-S-009 000  M11x1.50x95mm (x10)	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°		
ABK	1984	4	82.50	SOHC	85/116				
Coupe 2.0L 20 V				08/89 → 07/91	123				
Coupe 2.0L 20 V quattro				08/89 → 07/91					
NM	1994	5	81.00	SOHC	118/160	<b>HBS269</b>  M11x1.50x141.5mm (x12)	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°		
Coupe 2.2L quattro				11/88 → 07/91	124				
KV	2226	5	81.00	K-Jetronic, SOHC	100/136	<b>HBS024</b>  M11x1.50x95mm (x12)	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°		
Coupe 2.2L S2 quattro				09/90 → 12/96	125				
3B	2226	5	81.00	DOHC	162/220	<b>HBS269</b>  M11x1.50x141.5mm (x12)	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°		
ABY	2226	5	81.00	Motronic, DOHC	169/230				
Coupe 2.3L				10/88 → 12/96	126				
Coupe 2.3L quattro				11/88 → 12/96					
NG	2309	5	82.50	SOHC	98-100/ 133-136	<b>HBS024</b>  M11x1.50x95mm (x12)	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°		
Coupe 2.6L				08/92 → 12/96	127				
Coupe 2.6L quattro				08/92 → 12/96					
ABC	2598	6	82.50	SOHC, V6	110/150	<b>HBS064</b>  M11x1.50x137mm (x16)	1) 40Nm 2) 60Nm 3) 180°		
Coupe 2.8L				09/91 → 12/96	128				
Coupe 2.8L quattro				08/91 → 12/96					
AAH	2771	6	82.50	SOHC, V6	128/174	<b>HBS064</b>  M11x1.50x137mm (x16)	1) 40Nm 2) 60Nm 3) 180°		
Q7 3.0L TDI quattro Diesel				03/06 →	129				
CASB	2967	6	83.00	DOHC, V6	155/211	<b>HBS361</b>  M12x1.50x159mm (x16)	1) 40Nm 2) 60Nm 3) 90° 4) 90°		
BUG	2967	6	83.00	DOHC, V6	171/233				
BUN	2967	6	83.00	DOHC, V6					



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






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Quattro Coupe 2.2L 20V				08/89 → 07/91	130			
RR	2226	5	81.00	DOHC	162/220	<b>HBS269</b>  M11x1.50x141.5mm (x12)	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°	
<b>Quattro Coupe 2.2L Turbo</b> 08/87 → 07/89 <b>131</b>								
TB	2226	5	81.00	K-Jetronic, SOHC	147/200	<b>HBS024</b>  M11x1.50x95mm (x12)	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°	
MB	2226	5	81.00	SOHC	147/200			
<b>TT 1.8L T</b> 10/99 → <b>132</b>								
<b>TT 1.8L T quattro</b> 10/99 →								
<b>TT Coupe 1.8L T</b> 10/98 →								
<b>TT Coupe 1.8L T quattro</b> 10/98 →								
AUM	1781	4	81.00	Motronic, DOHC	110/150	<b>HBS268</b>  M10x1.50x120mm (x10)	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 90° 5) 90°	
BVP	1781	4	81.00	DOHC	120/163			
APX	1781	4	81.00	Motronic, DOHC	121/162/ 165/221			
AJQ	1781	4	81.00	Motronic, DOHC	132/180			
APP/ARY/ATC/AUQ/AWP	1781	4	81.00	DOHC	132/180			
BVR	1781	4	81.00	DOHC	140/190			
AMU/BAM	1781	4	81.00	DOHC	165/224			
BFV	1781	4	81.00	DOHC				
<b>TT 2.0L TFSI</b> 10/06 → <b>133</b>								
<b>TT 2.0L TFSI quattro</b> 06/08 →								
BPY/BWA/CCTA/CCZA	1984	4	82.50	DOHC	147/200			
<b>TT 3.2L V6 quattro</b> 10/06 → <b>134</b>								
<b>TT 3.2L VR6 quattro</b> 07/03 →								
BHE/BPF/BUB	3189	6	84.00	DOHC, V6	184/250	<b>HBS466</b>  M10x1.50x111mm (x13) M10x1.50x111mm (x13) M10x1.50x150mm (x7)	1) 40Nm 2) 90° 3) 90°	
<b>V8 3.6L quattro</b> 10/88 → 02/94 <b>135</b>								
PT	3562	8	81.00	DOHC, V8	184/250			

		CC			9			CC			9
M 10 B 18	Petrol	1766	4	89.00	8	M 52 B 28	Petrol	2793	6	84.00	96
M 20 B 20	Petrol	1991	6	80.00	15	M 52 B 28 TU	Petrol	2793	6	84.00	25
M 20 B 20	Petrol	1991	6	80.00	35	M 52 B 28 TU	Petrol	2793	6	84.00	49
M 20 B 25	Petrol	2494	6	84.00	22	M 52 B 28 TU	Petrol	2793	6	84.00	64
M 20 B 25	Petrol	2494	6	84.00	45	M 52 B 28 TU	Petrol	2793	6	84.00	96
M 20 B 25	Petrol	2494	6	84.00	91	M 54 226 S1	Petrol	2171	6	80.00	18
M 21 D 24	Diesel	2443	6	80.00	19	M 54 226 S1	Petrol	2171	6	80.00	40
M 21 D 24	Diesel	2443	6	80.00	41	M 54 226 S1	Petrol	2171	6	80.00	95
M 21 D 24 W	Diesel	2443	6	80.00	19	M 54 226 S1	Petrol	2171	6	80.00	100
M 21 D 24 WA	Diesel	2443	6	80.00	19	M 54 256 S5	Petrol	2494	6	84.00	23
M 21 D 24 WA	Diesel	2443	6	80.00	41	M 54 256 S5	Petrol	2494	6	84.00	46
M 30 B 30	Diesel	2988	6	89.00	53	M 54 256 S5	Petrol	2494	6	84.00	80
M 30 B 30	Diesel	2988	6	89.00	67	M 54 256 S5	Petrol	2494	6	84.00	102
M 30 B 35	Petrol	3430	6	92.00	56	M 54 306 S3	Petrol	2979	6	84.00	29
M 30 B 35	Petrol	3430	6	92.00	62	M 54 306 S3	Petrol	2979	6	84.00	54
M 30 B 35	Petrol	3430	6	92.00	71	M 54 306 S3	Petrol	2979	6	84.00	69
M 40 B 16	Petrol	1596	4	84.00	5	M 54 306 S3	Petrol	2979	6	84.00	83
M 40 B 18	Petrol	1796	4	84.00	10	M 54 306 S3	Petrol	2979	6	84.00	87
M 40 B 18	Petrol	1796	4	84.00	32	M 54 306 S3	Petrol	2979	6	84.00	97
M 41 D 18	Diesel	1665	4	80.00	7	M 54 306 S3	Petrol	2979	6	84.00	104
M 42 B 18	Petrol	1796	4	84.00	10	M 54 B 22	Petrol	2171	6	80.00	18
M 43 164 E3	Petrol	1895	4	85.00	11	M 54 B 22	Petrol	2171	6	80.00	39
M 43 194 E1	Petrol	1895	4	85.00	93	M 54 B 22	Petrol	2171	6	80.00	40
M 43 B 16	Petrol	1596	4	84.00	5	M 54 B 22	Petrol	2171	6	80.00	95
M 43 B 18	Petrol	1796	4	84.00	10	M 54 B 22	Petrol	2171	6	80.00	100
M 43 B 18	Petrol	1796	4	84.00	32	M 54 B 25	Petrol	2494	6	84.00	23
M 43 B 18	Petrol	1796	4	84.00	92	M 54 B 25	Petrol	2494	6	84.00	46
M 43 B 19	Petrol	1895	4	85.00	11	M 54 B 25	Petrol	2494	6	84.00	80
M 43 B 19	Petrol	1895	4	85.00	93	M 54 B 25	Petrol	2494	6	84.00	102
M 43 B 19 TU	Petrol	1895	4	85.00	11	M 54 B 30	Petrol	2979	6	84.00	29
M 43 B 19 TU	Petrol	1895	4	85.00	93	M 54 B 30	Petrol	2979	6	84.00	54
M 44 B 19	Petrol	1895	4	85.00	11	M 54 B 30	Petrol	2979	6	84.00	69
M 44 B 19	Petrol	1895	4	85.00	93	M 54 B 30	Petrol	2979	6	84.00	83
M 47 204 D1	Diesel	1951	4	84.00	12	M 54 B 30	Petrol	2979	6	84.00	87
M 47 204 D1	Diesel	1951	4	84.00	33	M 54 B 30	Petrol	2979	6	84.00	97
M 47 D 20	Diesel	1951	4	84.00	12	M 54 B 30	Petrol	2979	6	84.00	104
M 47 D 20	Diesel	1951	4	84.00	33	M 54 N 306 D2	Diesel	2993	6	84.00	82
M 47 N 204 D4	Diesel	1995	4	84.00	2	M 57 256 D1	Diesel	2497	6	80.00	44
M 47 N 204 D4	Diesel	1995	4	84.00	14	M 57 306 D1	Diesel	2926	6	84.00	28
M 47 N 204 D4	Diesel	1995	4	84.00	34	M 57 306 D1	Diesel	2926	6	84.00	65
M 47 N 204 D4	Diesel	1995	4	84.00	78	M 57 306 D1	Diesel	2926	6	84.00	85
M 47 N 204 D5	Diesel	1995	4	84.00	14	M 57 306 D3	Diesel	2993	6	84.00	26
M 47 N 204 D5	Diesel	1995	4	84.00	34	M 57 306 D3	Diesel	2993	6	84.00	50
M 50 B	Petrol	1991	6	80.00	16	M 57 306 D3	Diesel	2993	6	84.00	66
M 50 B	Petrol	1991	6	80.00	36	M 57 306 D3	Diesel	2993	6	84.00	86
M 50 B 20	Petrol	1991	6	80.00	16	M 57 306 D4	Diesel	2993	6	84.00	50
M 50 B 20	Petrol	1991	6	80.00	36	M 57 D 25	Diesel	2497	6	80.00	44
M 50 B 20 TU	Petrol	1991	6	80.00	16	M 57 D 25 TU	Diesel	2497	6	80.00	44
M 50 B 20 TU	Petrol	1991	6	80.00	36	M 57 D 30	Diesel	2926	6	84.00	28
M 50 B 25	Petrol	2494	6	84.00	21	M 57 D 30	Diesel	2926	6	84.00	52
M 50 B 25	Petrol	2494	6	84.00	42	M 57 D 30	Diesel	2926	6	84.00	65
M 50 B 25 TU	Petrol	2494	6	84.00	21	M 57 N 256 D4	Diesel	2497	6	80.00	44
M 50 B 25 TU	Petrol	2494	6	84.00	42	M 57 N 306 D2	Diesel	2993	6	84.00	26
M 51 D 25	Diesel	2498	6	80.00	24	M 57 N 306 D4	Diesel	2993	6	84.00	86
M 51 D 25	Diesel	2498	6	80.00	48	M 60 B 30	Petrol	2997	8	84.00	55
M 51 D 25	Diesel	2498	6	80.00	63	M 60 B 30	Petrol	2997	8	84.00	68
M 52 B	Petrol	1991	6	80.00	16	M 60 B 40	Petrol	3982	8	89.00	58
M 52 B	Petrol	1991	6	80.00	17	M 60 B 40	Petrol	3982	8	89.00	73
M 52 B	Petrol	1991	6	80.00	37	M 60 B 40	Petrol	3982	8	89.00	75
M 52 B	Petrol	1991	6	80.00	38	M 62 B	Petrol	3498	8	84.00	57
M 52 B	Petrol	1991	6	80.00	94	M 62 B	Petrol	3498	8	84.00	72
M 52 B 20	Petrol	1991	6	80.00	16	M 62 B 35	Petrol	3498	8	84.00	57
M 52 B 20	Petrol	1991	6	80.00	17	M 62 B 35	Petrol	3498	8	84.00	72
M 52 B 20	Petrol	1991	6	80.00	37	M 62 B 35 TU	Petrol	3498	8	84.00	57
M 52 B 20	Petrol	1991	6	80.00	94	M 62 B 44	Petrol	4398	8	92.00	59
M 52 B 25	Petrol	2494	6	84.00	21	M 62 B 44	Petrol	4398	8	92.00	74
M 52 B 25	Petrol	2494	6	84.00	42	M 62 B 44	Petrol	4398	8	92.00	76
M 52 B 25	Petrol	2494	6	84.00	47	M 62 B 44	Petrol	4398	8	92.00	89
M 52 B 25 TU	Petrol	2494	6	84.00	21	M 62 B 44 A	Petrol	4398	8	92.00	74
M 52 B 25 TU	Petrol	2494	6	84.00	42	M 62 B 44 A	Petrol	4398	8	92.00	89
M 52 B 28	Petrol	2793	6	84.00	25	M 62 B 44 TU	Petrol	4398	8	92.00	59
M 52 B 28	Petrol	2793	6	84.00	49	M 62 B 44 TU	Petrol	4398	8	92.00	74
M 52 B 28	Petrol	2793	6	84.00	64	M 62 B 44 TU	Petrol	4398	8	92.00	76

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M 62 B 44 TU	Petrol	4398	8	92.00	89	N52NB30B	Petrol	2996	6		27
M 62 B 46	Petrol	4619	8	93.00	90	N53B30A	Petrol	2996	6	85.00	4
M 67 468 S1	Petrol	4619	8	93.00	90	N53B30A	Petrol	2996	6	85.00	27
M57 TU2 D30	Diesel	2993	6	84.00	26	N53B30A	Petrol	2996	6	85.00	51
M57N2306D2	Diesel	2993	6	84.00	66	N57N306D2	Diesel	2993	6	84.00	66
M57N2306D2	Diesel	2993	6	84.00	82	N57N306D3	Diesel	2993	6	84.00	26
M62448S2	Petrol	4398	8	92.00	59	N57306D3	Diesel	2993	6	84.00	26
M62448S2	Petrol	4398	8	92.00	74	S 38 B 49	Petrol	4941	8	94.00	60
N 40 B 16 A	Petrol	1596	4	84.00	6	S 38 B 49	Petrol	4941	8	94.00	105
N 42 B 18	Petrol	1796	4	84.00	9	S 50 B 30	Petrol	2990	6	86.00	30
N 42 B 20	Petrol	1995	4	84.00	13	S 50 B 32	Petrol	3201	6	86.40	31
N 42 B 20 A	Petrol	1995	4	84.00	3	S 50 B 32	Petrol	3201	6	86.40	98
N 42 B 20 B	Petrol	1995	4	84.00	3	S 62 B 50	Petrol	4941	8	94.00	60
N 45 B 16	Petrol	1596	4	84.00	1	S 62 B 50	Petrol	4941	8	94.00	105
N 45 B 16	Petrol	1596	4	84.00	6						
N 45 B 16 A	Petrol	1596	4	84.00	1						
N 45 B 16 A	Petrol	1596	4	84.00	6						
N 45 B 16 TU2	Petrol	1596	4	84.00	1						
N 45 B 16 TU2	Petrol	1596	4	84.00	6						
N 46 B 18	Petrol	1796	4	84.00	9						
N 46 B 20	Petrol	1995	4	84.00	3						
N 46 B 20	Petrol	1995	4	84.00	13						
N 46 B 20	Petrol	1995	4	84.00	79						
N 46 B 20	Petrol	1995	4	84.00	99						
N 46 B 20 A	Petrol	1995	4	84.00	13						
N 46 B 20 A	Petrol	1995	4	84.00	79						
N 46 B 20 A	Petrol	1995	4	84.00	99						
N 46 B 20 B	Petrol	1995	4	84.00	3						
N 46 B 20 B	Petrol	1995	4	84.00	13						
N 46 B 20 B	Petrol	1995	4	84.00	77						
N 46 B 20 C	Petrol	1995	4	84.00	13						
N 46 B 20 CC	Petrol	1995	4	84.00	13						
N 47 D 20 A	Diesel	1995	4	84.00	2						
N 47 D 20 A	Diesel	1995	4	84.00	14						
N 47 D 20 A	Diesel	1995	4	84.00	34						
N 47 D 20 A	Diesel	1995	4	84.00	78						
N 52 B 25	Petrol	2497	6	82.00	20						
N 52 B 25	Petrol	2497	6	82.00	43						
N 52 B 25 A	Petrol	2497	6	82.00	20						
N 52 B 25 A	Petrol	2497	6	82.00	43						
N 52 B 25 A	Petrol	2497	6	82.00	81						
N 52 B 25 A	Petrol	2497	6	82.00	101						
N 52 B 25 C	Petrol	2497	6	82.00	20						
N 52 B 30	Petrol	2996	6	85.00	4						
N 52 B 30	Petrol	2996	6	85.00	27						
N 52 B 30	Petrol	2996	6	85.00	51						
N 52 B 30	Petrol	2996	6	85.00	61						
N 52 B 30	Petrol	2996	6	85.00	70						
N 52 B 30	Petrol	2996	6	85.00	88						
N 52 B 30	Petrol	2996	6	85.00	103						
N 52 B 30 A	Petrol	2996	6	85.00	4						
N 52 B 30 A	Petrol	2996	6	85.00	27						
N 52 B 30 A	Petrol	2996	6	85.00	51						
N 52 B 30 A	Petrol	2996	6	85.00	61						
N 52 B 30 A	Petrol	2996	6	85.00	70						
N 52 B 30 A	Petrol	2996	6	85.00	84						
N 52 B 30 A	Petrol	2996	6	85.00	88						
N 52 B 30 A	Petrol	2996	6	85.00	103						
N 53 B 30	Petrol	2996	6	85.00	27						
N 53 B 30	Petrol	2996	6	85.00	51						
N 53 B 30	Petrol	2996	6	85.00	61						
N 57 306 D 2	Diesel	2993	6	84.00	50						
N 62 B 44	Petrol	4398	8	92.00	74						
N 62 B 44	Petrol	4398	8	92.00	89						
N43B20A	Petrol	1995	4	84.00	3						
N43B20A	Petrol	1995	4	84.00	13						
N46B18A	Petrol	1796	4	84.00	9						
N46NB20B	Petrol	1995	4	84.00	13						
N47 D20 C	Diesel	1995	4	84.00	2						
N47 D20 C	Diesel	1995	4	84.00	14						
N47 D20 C	Diesel	1995	4	84.00	34						
N52NB25A	Petrol	2497	6	82.00	20						
N52NB30A	Petrol	2996	6	85.00	27						

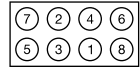




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1 116 i (E81, E87)						09/04 →	1	HBS467	1) 30Nm 2) 90° 3) 90° 4) A=25Nm	
N 45 B 16/N 45 B 16 A	1596	4	84.00	DOHC	85/115		 M10x1,5x170mm (x6) M8x1,25x95mm (x3) M8x1,25x125mm (x3)			
N 45 B 16 TU2	1596	4	84.00	DOHC	85-90/ 115-122					
1 116d Diesel						03/09 →	2	HBS121	1) 80Nm 2) ↻ 180° 3) 50Nm 4) 90° 5) 90°	
1 118d Diesel						03/07 →	 M12x1.50x146.5mm (x10)			
1 118d (E81, E87) Diesel						09/04 →				
1 120d Diesel						03/07 →				
1 120d (E81, E87) Diesel						09/04 →				
M 47 N 204 D4	1995	4	84.00	DOHC	85-120/ 116-163					
N47 D20 C	1995	4	84.00	Direct Injection, DOHC	85-135/ 116-184					
N 47 D 20 A	1995	4	84.00	DOHC	120-85/ 163-116					
1 118 i (E81, E87)						09/04 →	3	HBS467	1) 30Nm 2) 90° 3) 90° 4) A=25Nm	
1 120 i (E81, E87)						04/07 →	 M10x1,5x170mm (x6) M8x1,25x95mm (x3) M8x1,25x125mm (x3)			
1 120i						09/09 →				
1 120i (E81, E87)						09/04 →				
1 Cabriolet 120 i (E88)						03/08 →				
N 42 B 20 B/N 46 B 20 B	1995	4	84.00	DOHC	95/129					
N 46 B 20	1995	4	84.00	DOHC	95-110/ 129-150					
N43B20A	1995	4	84.00	DOHC	96-125/ 131-170					
N 42 B 20 A	1995	4	84.00	DOHC	110/150					
1 130 i (E81, E87)						09/05 →	4	HBS468	M10 1) 30Nm 2) 90° 3) 90° 4) 45° M9 1) 30Nm 2) 90° 3) 45°	
1 Cabriolet 125 i (E88)						03/08 →	 M10x1,5x125mm (x10) M9x1,25x95mm (x1) M9x1,25x125mm (x3)			
1 Coupe 125 i (E82)						10/07 →				
N53B30A	2996	6	85.00	DOHC	160-200/ 218-272					
N 52 B 30 A	2996	6	85.00	DOHC	190-195/ 258-265					
N 52 B 30	2996	6	85.00	DOHC	190-200/ 258-272					
3 316 g (E36)						12/95 →08/00	5	HBS069	1) 35Nm 2) ↻ 90° 3) 35Nm 4) 90° 5) 90°	
3 316 i (E30)						09/87 →06/94	 M10x1.50x95mm (x10)			
3 316 i (E36)						09/90 →08/00				
3 316 i (E46)						04/00 →02/05				
3 Coupe 316 Ci (E46)						04/00 →				
3 Coupe 316 i (E36)						09/93 →04/99				
M 40 B 16	1596	4		Motronic, SOHC	75/102					
M 43 B 16	1596	4	84.00	SOHC	73/99					
M 43 B 16	1596	4	84.00	SOHC	75/102					
M 43 B 16	1596	4	84.00	SOHC	77/105					
3 316 i (E46)						06/02 →02/05	6	HBS467	1) 30Nm 2) 90° 3) 90° 4) A=25Nm	
3 316 i (E90)						02/06 →	 M10x1,5x170mm (x6) M8x1,25x95mm (x3) M8x1,25x125mm (x3)			
3 316 ti						06/02 →02/05				
3 Coupe 316 Ci (E46)						06/02 →				
N 40 B 16 A	1596	4	84.00		85/115					
N 45 B 16/N 45 B 16 A	1596	4	84.00	DOHC	85/115					
N 45 B 16 TU2	1596	4	84.00	DOHC	85-90/ 115-122					
3 318 tds (E36) Diesel						01/95 →08/00	7	HBS121	1) 80Nm 2) ↻ 180° 3) 50Nm 4) 90° 5) 90° 6) ⚡ 7) ⚡ 8) 90°	
M 41 D 18	1665	4	80.00	SOHC	66/89					



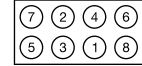
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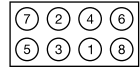
<b>3 316 (Ecotronic) (E30)</b> 09/83→12/90 <b>8</b> <b>3 316 i (E30)</b> 08/87→08/88 <b>3 318 i (E30)</b> 12/84→08/88						<b>HBS070</b> M12x1.75x157mm (x10)		1) 30Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 33° 6) ⚡ 7) ✳ 8) 25°	
M 10 B 18	1766	4	89.00	CIH	66/89				
<b>3 316 i (E46)</b> 02/02→02/05 <b>9</b> <b>3 316 ti (E46)</b> 06/01→02/05						<b>HBS467</b> M10x1,5x170mm (x6) M8x1,25x95mm (x3) M8x1,25x125mm (x3)		1) 30Nm 2) 90° 3) 90° 4) A=25Nm	
N 42 B 18/N 46 B 18/N46B18A	1796	4	84.00	DOHC	85/115				
<b>3 318 i (E30)</b> 09/87→06/94 <b>10</b> <b>3 318 i (E36)</b> 12/90→10/99 <b>3 318 is (E30)</b> 09/89→08/91 <b>3 318 is (E36)</b> 03/93→09/97 <b>3 318 ti (E36)</b> 11/94→08/95 <b>3 Convertible 318 i (E30)</b> 09/90→10/93 <b>3 Convertible 318 i (E36)</b> 01/94→04/99 <b>3 Coupe 318 is (E36)</b> 03/92→10/95						<b>HBS069</b> M10x1.50x95mm (x10)		1) 35Nm 2) ↻ 90° 3) 35Nm 4) 90° 5) 90°	
M 40 B 18	1796	4	84.00	Motronic, SOHC	83/113				
M 43 B 18	1796	4	84.00	Motronic, SOHC	85/116				
M 42 B 18	1796	4	84.00	DOHC	103/140				
<b>3 316 i (E36)</b> 12/98→08/00 <b>11</b> <b>3 316 i (E46)</b> 09/98→02/05 <b>3 318 i (E46)</b> 02/98→09/01 <b>3 318 is (E36)</b> 09/95→02/98 <b>3 318 ti (E36)</b> 07/95→08/00 <b>3 Coupe 318 Ci (E46)</b> 11/99→09/01 <b>3 Coupe 318 is (E36)</b> 09/95→04/99						<b>HBS069</b> M10x1.50x95mm (x10)		1) 35Nm 2) ↻ 90° 3) 35Nm 4) 90° 5) 90°	
M 43 164 E3	1895	4	85.00	SOHC	77/105				
M 43 B 19 TU	1895	4	85.00	SOHC	77-87/ 105-118				
M 43 B 19	1895	4	85.00	SOHC	87/118				
M 44 B 19	1895	4	85.00	Motronic, DOHC	103/140				
<b>3 318 d (E46) Diesel</b> 09/01→02/05 <b>12</b> <b>3 320 d (E46) Diesel</b> 04/98→09/01						<b>HBS121</b> M12x1.50x146.5mm (x10)		1) 80Nm 2) ↻ 180° 3) 50Nm 4) 90° 5) 90°	
M 47 204 D1	1951	4	84.00		85-100/ 116-136				
M 47 D 20	1951	4	84.00	DOHC	100/136				



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**3 2.0L (E90)** 06/05 → **13**  
**3 318 i (E46)** 09/01 → 02/05  
**3 318 i (E90)** 09/05 →  
**3 318 i (E91)** 01/06 →  
**3 318 ti (E46)** 09/01 → 02/05  
**3 320 i (E90)** 01/05 →  
**3 320 i (E91)** 01/05 →  
**3 Cabriolet 318 Ci (E46)** 02/05 →  
**3 Cabriolet 320 i (E93)** 03/07 → 08/07  
**3 Convertible 318 Ci (E46)** 09/01 →  
**3 Coupe 318 Ci (E46)** 09/01 →  
**3 Coupe 320 i (E92)** 11/06 → 06/07

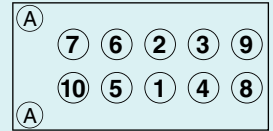
N 46 B 20 B	1995	4	84.00	DOHC	95/129
N 46 B 20	1995	4	84.00	DOHC	95-110/ 129-150
N43B20A	1995	4	84.00	DOHC	96-125/ 131-170
N 42 B 20	1995	4	84.00	DOHC	105/143
N 46 B 20	1995	4	84.00	DOHC	105-107/ 143-146
N 46 B 20 A/N 46 B 20 C	1995	4	84.00	DOHC	110/150
N46NB20B	1995	4	84.00	DOHC	110/150
N 46 B 20 CC	1995	4	84.00	DOHC	115/156

**HBS467**



M10x1,5x170mm (x6)  
M8x1,25x95mm (x3)  
M8x1,25x125mm (x3)

- 1) 30Nm
- 2) 90°
- 3) 90°
- 4) A=25Nm



**3 318 d (E46) Diesel** 03/03 → 02/05 **14**  
**3 318 d (E90) Diesel** 09/05 →  
**3 318 d (E91) Diesel** 09/05 →  
**3 318 td (E46) Diesel** 03/03 → 02/05  
**3 318d Diesel** 09/05 →  
**3 320 d (E46) Diesel** 09/01 → 02/05  
**3 320 d (E90) Diesel** 01/05 →  
**3 320 d (E91) Diesel** 01/05 →  
**3 320 td (E46) Diesel** 09/01 → 02/05  
**3 320d Diesel** 03/07 →  
**3 320xd Diesel** 03/07 →  
**3 Convertible 320 Cd (E46) Diesel** 02/05 →  
**3 Coupe 320 Cd (E46) Diesel** 11/03 →

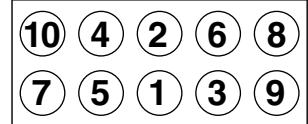
M 47 N 204 D4	1995	4	84.00	DOHC	85-120/ 116-163
N47 D20 C	1995	4	84.00	Direct Injection, DOHC	85-135/ 116-184
M 47 N 204 D5	1995	4	84.00		120/163
N 47 D 20 A	1995	4	84.00	DOHC	120-85/ 163-116

**HBS121**



M12x1.50x146.5mm (x10)

- 1) 80Nm
- 2) ↻ 180°
- 3) 50Nm
- 4) 90°
- 5) 90°



**3 320 i (E30)** 12/85 → 12/91 **15**  
**3 Convertible 320 i (E30)** 04/86 → 10/93

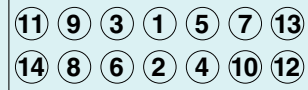
M 20 B 20	1991	6	80.00	CIH	90/122
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**HBS041**



M10x1.50x150mm (x14)

- 1) 45Nm
- 2) 65Nm
- 3) ↻ 90°
- 4) 65Nm
- 5) ⚡
- 6) ⚡
- 7) ↻ 90°
- 8) 65Nm
- 9) 25°



**3 320 i (E36)** 09/90 → 10/99 **16**  
**3 320 i (E46)** 03/98 → 09/00  
**3 Convertible 320 i (E36)** 12/93 → 04/99  
**3 Coupe 320 i (E36)** 03/92 → 04/99

M 52 B	1991	6	80.00	Motronic, DOHC	100-110/ 136-150
M 50 B	1991	6	80.00	Motronic, DOHC	110/150
M 50 B 20/M 50 B 20 TU/M 52 B 20	1991	6	80.00	DOHC	110/150

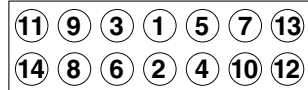
**HBS068**

Cast Steel



M10x1.50x95mm (x14)

- 1) 35Nm
- 2) ↻ 90°
- 3) 35Nm
- 4) 90°
- 5) 90°



**HBS413**

Aluminium



M10x1.50x110mm (x14)

- 1) 35Nm
- 2) ↻ 90°
- 3) 35Nm
- 4) 90°
- 5) 90°





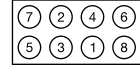
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<b>3 320 i (E46)</b> 10/99 → 09/00 <b>17</b> <b>3 Coupe 320 Ci (E46)</b> 08/99 → 09/00						<b>HBS413</b>  M10x1.50x110mm (x14)		1) 35Nm 2) ↺ 90° 3) 35Nm 4) 90° 5) 90°	
M 52 B	1991	6	80.00	Motronic, DOHC	100-110/ 136-150				
M 52 B	1991	6	80.00	Motronic, DOHC	110/150				
M 52 B 20	1991	6	80.00	DOHC	110/150				
<b>3 320 i (E46)</b> 09/00 → 02/05 <b>18</b> <b>3 Convertible 320 Ci (E46)</b> 09/00 → <b>3 Coupe 320 Ci (E46)</b> 09/00 →						<b>HBS068</b> Cast Steel  M10x1.50x95mm (x14)		1) 35Nm 2) ↺ 90° 3) 35Nm 4) 90° 5) 90°	
M 54 226 S1/M 54 B 22	2171	6	80.00	DOHC	125/170				
<b>3 320 i (E46)</b> 09/00 → 02/05 <b>18</b> <b>3 Convertible 320 Ci (E46)</b> 09/00 → <b>3 Coupe 320 Ci (E46)</b> 09/00 →						<b>HBS413</b> Aluminium  M10x1.50x110mm (x14)		1) 40Nm 2) 90° 3) 90°	
M 54 226 S1/M 54 B 22	2171	6	80.00	DOHC	125/170				
<b>3 324 d (E30) Diesel</b> 09/85 → 08/91 <b>19</b> <b>3 324 td (E30) Diesel</b> 09/87 → 06/93						<b>HBS065</b>  M11x1.50x140mm (x14)		1) 30Nm 2) 60Nm 3) ↺ 90° 4) 60Nm 5) 73° 6) ↓ 7) ✳ 8) 90°	
M 21 D 24 W	2443	6	80.00	SOHC	63/86				
M 21 D 24	2443	6	80.00	SOHC	85/115				
M 21 D 24 WA	2443	6	80.00	SOHC	85/116				
<b>3 2.5L (E90)</b> 06/05 → <b>20</b> <b>3 323 i (E90)</b> 04/06 → 06/07 <b>3 325 i (E90)</b> 01/05 → <b>3 325 xi (E90)</b> 01/05 → <b>3 525 i (E60)</b> 07/03 → <b>3 Cabriolet 323 i (E93)</b> 03/07 → <b>3 Cabriolet 325 i (E93)</b> 03/07 → <b>3 Coupe 323 i (E92)</b> 06/06 → <b>3 Coupe 325 i (E92)</b> 09/06 → <b>3 Coupe 325 xi (E92)</b> 09/06 → <b>3 Touring 323 i (E91)</b> 04/06 → 06/07 <b>3 Touring 325 i (E91)</b> 09/05 → <b>3 Touring 325 xi (E91)</b> 09/05 →						<b>HBS468</b>  M10x1,5x125mm (x10) M9x1,25x95mm (x1) M9x1,25x125mm (x3)		<b>M10</b> 1) 30Nm 2) 90° 3) 90° 4) 45° <b>M9</b> 1) 30Nm 2) 90° 3) 45°	
N52NB25A	2497	6			130/177				
N 52 B 25	2497	6	82.00	DOHC	130-160/ 177-218				
N 52 B 25 A	2497	6	82.00		130-160/ 177-218				
N 52 B 25 C	2497	6	82.00	DOHC	160/218				
<b>3 323 i (E36)</b> 03/95 → 10/99 <b>21</b> <b>3 323 i (E46)</b> 03/98 → 09/00 <b>3 323 ti (E36)</b> 08/97 → 08/00 <b>3 325 i (E36)</b> 09/90 → 09/95 <b>3 Convertible 323 i (E36)</b> 06/95 → 04/99 <b>3 Convertible 323 Ci (E46)</b> 04/00 → 09/00 <b>3 Convertible 325 i (E36)</b> 03/93 → 03/95 <b>3 Coupe 323 Ci (E46)</b> 04/99 → 09/00 <b>3 Coupe 323 i (E36)</b> 03/95 → 04/99 <b>3 Coupe 325 i (E36)</b> 03/92 → 04/99						<b>HBS067</b> Aluminium  M10x1.50x110mm (x14)		1) 35Nm 2) ↺ 90° 3) 35Nm 4) 90° 5) 90°	
M 52 B 25 TU	2494	6	84.00	DOHC	125/170				
M 52 B 25	2494	6	84.00	DOHC	125-141/ 170-192				
M 50 B 25	2494	6	84.00	Motronic, DOHC	141/192				
M 50 B 25 TU	2494	6	84.00	DOHC	141/192				
<b>3 323 i (E36)</b> 03/95 → 10/99 <b>21</b> <b>3 323 i (E46)</b> 03/98 → 09/00 <b>3 323 ti (E36)</b> 08/97 → 08/00 <b>3 325 i (E36)</b> 09/90 → 09/95 <b>3 Convertible 323 i (E36)</b> 06/95 → 04/99 <b>3 Convertible 323 Ci (E46)</b> 04/00 → 09/00 <b>3 Convertible 325 i (E36)</b> 03/93 → 03/95 <b>3 Coupe 323 Ci (E46)</b> 04/99 → 09/00 <b>3 Coupe 323 i (E36)</b> 03/95 → 04/99 <b>3 Coupe 325 i (E36)</b> 03/92 → 04/99						<b>HBS068</b> Cast Steel  M10x1.50x95mm (x14)		1) 35Nm 2) ↺ 90° 3) 35Nm 4) 90° 5) 90°	
M 52 B 25 TU	2494	6	84.00	DOHC	125/170				
M 52 B 25	2494	6	84.00	DOHC	125-141/ 170-192				
M 50 B 25	2494	6	84.00	Motronic, DOHC	141/192				
M 50 B 25 TU	2494	6	84.00	DOHC	141/192				

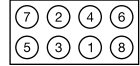




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<b>3 325 i (E30)</b> 09/83 → 10/93 <b>22</b> <b>3 Convertible 325 i (E30)</b> 09/87 → 10/93					<b>HBS041</b>  M10x1.50x150mm (x14)	1) 30Nm 2) ↻ 90° 3) 30Nm 4) 90° 5) 90°	
M 20 B 25	2494	6	84.00	CIH			
<b>3 325 i (E46)</b> 09/00 → 02/05 <b>23</b> <b>3 325 ti (E46)</b> 06/01 → 02/05 <b>3 325 xi (E46)</b> 09/00 → 02/05 <b>3 Convertible 325 Ci (E46)</b> 09/00 → <b>3 Coupe 325 Ci (E46)</b> 09/00 →					<b>HBS413</b>  M10x1.50x110mm (x14)	1) 35Nm 2) ↻ 90° 3) 35Nm 4) 90° 5) 90°	
M 54 B 25	2494	6	84.00	DOHC	125/141/ 170P/ 192S		
M 54 256 S5	2494	6	84.00	DOHC	141/192		
<b>3 325 td (E36) Diesel</b> 09/91 → 02/98 <b>24</b> <b>3 325 tds (E36) Diesel</b> 05/93 → 10/99					<b>HBS066</b>  M12x1.50x146.5mm (x14)	1) 80Nm 2) ↻ 180° 3) 80Nm 4) 90° 5) 90° 6) ↓ 7) * 8) 90°	
M 51 D 25	2498	6	80.00	SOHC	85/115		
M 51 D 25	2498	6	80.00	SOHC	105/143		
<b>3 328 i (E36)</b> 01/95 → 10/99 <b>25</b> <b>3 328 i (E46)</b> 02/98 → 06/00 <b>3 Convertible 328 i (E36)</b> 03/95 → 04/99 <b>3 Coupe 328 Ci (E46)</b> 04/99 → 06/00 <b>3 Coupe 328 i (E36)</b> 01/95 → 04/99					<b>HBS067</b> Aluminium  M10x1.50x110mm (x14)	1) 35Nm 2) ↻ 90° 3) 35Nm 4) 90° 5) 90°	
M 52 B 28	2793	6	84.00	Motronic, DOHC	142/193		
M 52 B 28 TU	2793	6	84.00	DOHC	142/193		
<b>3 325 d (E90) Diesel</b> 09/06 → <b>26</b> <b>3 330 d (E46) Diesel</b> 03/03 → 02/05 <b>3 330 d (E90) Diesel</b> 09/05 → <b>3 330 d (E91) Diesel</b> 09/05 → <b>3 330 xd (E46) Diesel</b> 03/03 → 02/05 <b>3 330 xd (E90) Diesel</b> 09/05 → <b>3 Cabriolet 325 d (E93) Diesel</b> 03/07 → <b>3 Cabriolet 330 d (E93) Diesel</b> 03/07 → <b>3 Convertible 330 Cd (E46) Diesel</b> 08/05 → <b>3 Coupe 325 d (E92) Diesel</b> 03/07 → <b>3 Coupe 330 Cd (E46) Diesel</b> 03/03 → <b>3 Coupe 330 d (E92) Diesel</b> 09/06 → <b>3 Coupe 330x d (E92) Diesel</b> 09/06 → <b>3 Touring 325 d (E91) Diesel</b> 09/06 → <b>3 Touring 330 xd (E91) Diesel</b> 09/05 →					<b>HBS066</b>  M12x1.50x146.5mm (x14)	1) 40Nm 2) 80Nm 3) ↻ 180° 4) 50Nm 5) 90° 6) 90°	
N57306D3	2993	6	84.00		145/197		
N57N306D3	2993	6	84.00		145-170/ 197-231		
M57 TU2 D30	2993	6	84.00	DOHC	145-173/ 197-235		
M 57 N 306 D2	2993	6	84.00	DOHC	150/204		
M 57 306 D3	2993	6	84.00		170/231		



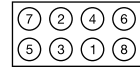
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<b>3 325 i (E90)</b>	09/07 →	<b>27</b>
<b>3 325 xi (E90)</b>	09/07 →	
<b>3 328 i (E90)</b>	07/05 →11/07	
<b>3 330 i (E90)</b>	01/05 →	
<b>3 330 xi (E90)</b>	01/05 →	
<b>3 Cabriolet 325 i (E93)</b>	03/07 →	
<b>3 Cabriolet 330 i (E93)</b>	03/07 →	
<b>3 Coupe 325 i (E92)</b>	09/07 →	
<b>3 Coupe 325xi (E92)</b>	09/07 →	
<b>3 Coupe 328 i (E92)</b>	08/06 →11/07	
<b>3 Coupe 330 i (E92)</b>	09/06 →	
<b>3 Coupe 330 xi (E92)</b>	09/06 →	
<b>3 Touring 325 i (E91)</b>	09/07 →	
<b>3 Touring 325 xi (E91)</b>	09/07 →	
<b>3 Touring 330 i (E91)</b>	09/05 →	
<b>3 Touring 330 xi (E91)</b>	09/05 →	

N52NB30B	2996	6			190/258
N 53 B 30/N53B30A	2996	6	85.00	DOHC	160-200/ 218-272
N52NB30A	2996	6	85.00		187/254
N 52 B 30 A	2996	6	85.00	DOHC	190-195/ 258-265
N 52 B 30	2996	6	85.00	DOHC	190-200/ 258-272

<b>3 330 d (E46) Diesel</b>	10/99 →02/05	<b>28</b>
<b>3 330 xd (E46) Diesel</b>	06/00 →02/05	

M 57 D 30	2926	6	84.00	SOHC	135/184
M 57 306 D1	2926	6	84.00	DOHC	135-142/ 184-193

<b>3 330 i (E46)</b>	06/00 →02/05	<b>29</b>
<b>3 330 xi (E46)</b>	06/00 →02/05	
<b>3 Convertible 330 Ci (E46)</b>	06/00 →	
<b>3 Coupe 330 Ci (E46)</b>	06/00 →	

M 54 306 S3	2979	6	84.00	DOHC	163-170/ 222-231
M 54 B 30	2979	6	84.00	DOHC	170/231

<b>3 M3 3.0L</b>	08/94 →09/95	<b>30</b>
<b>3 Cabriolet M3 3.0L</b>	01/94 →10/95	
<b>3 Coupe M3 3.0L</b>	10/92 →10/95	

S 50 B 30	2990	6	86.00	Motronic, DOHC	210/286
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<b>3 M3 3.2L</b>	09/95 →02/98	<b>31</b>
<b>3 Cabriolet M3 3.2L</b>	10/95 →04/99	
<b>3 Coupe M3 3.2L</b>	10/95 →04/99	

S 50 B 32	3201	6	86.40	Motronic, DOHC	236/321
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<b>5 518 g (E34)</b>	11/95 →06/96	<b>32</b>
<b>5 518 i (E34)</b>	08/89 →01/97	

M 40 B 18	1796	4	84.00	Motronic, SOHC	83/113
M 43 B 18	1796	4	84.00	Motronic, SOHC	85/116

<b>5 520 d (E39) Diesel</b>	02/00 →09/03	<b>33</b>
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M 47 204 D1	1951	4	84.00		85-100/ 116-136
M 47 D 20	1951	4	84.00	DOHC	100/136

<b>HBS468</b>	<b>M10</b>	
	1) 30Nm	<b>11 9 3 1 5 7 13</b>
M10x1,5x125mm (x10)	2) 90°	<b>14 8 6 2 4 10 12</b>
M9x1,25x95mm (x1)	3) 90°	
M9x1,25x125mm (x3)	4) 45°	
	<b>M9</b>	
	1) 30Nm	
	2) 90°	
	3) 45°	

<b>HBS066</b>	1) 80Nm	<b>11 9 3 1 5 7 13</b>
	2) ↻ 180°	<b>14 8 6 2 4 10 12</b>
M12x1.50x146.5mm (x14)	3) 50Nm	
	4) 90°	
	5) 90°	
	6) ⚡	
	7) ⚡	
	8) 90°	

<b>HBS413</b>	1) 40Nm	<b>11 9 3 1 5 7 13</b>
	2) 90°	<b>14 8 6 2 4 10 12</b>
M10x1.50x110mm (x14)	3) 90°	

<b>HBS507</b>	1) 30Nm	<b>11 9 3 1 5 7 13</b>
	2) ↻ 90°	<b>14 8 6 2 4 10 12</b>
M11x1.50x103mm (x14)	3) 30Nm	
	4) 90°	
	5) 90°	

<b>HBS507</b>	1) 30Nm	<b>11 9 3 1 5 7 13</b>
	2) ↻ 90°	<b>14 8 6 2 4 10 12</b>
M11x1.50x103mm (x14)	3) 30Nm	
	4) 90°	
	5) 90°	

<b>HBS069</b>	1) 35Nm	<b>10 4 2 6 8</b>
	2) ↻ 90°	<b>7 5 1 3 9</b>
M10x1.50x95mm (x10)	3) 35Nm	
	4) 90°	
	5) 90°	

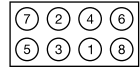
<b>HBS121</b>	1) 80Nm	<b>10 4 2 6 8</b>
	2) ↻ 180°	<b>7 5 1 3 9</b>
M12x1.50x146.5mm (x10)	3) 50Nm	
	4) 90°	
	5) 90°	



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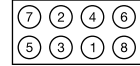
<b>5 520 d (E60) Diesel</b> 07/05 → <b>34</b> <b>5 520 d (E61) Diesel</b> 07/05 → <b>5 520d Diesel</b> 09/07 →					<b>HBS121</b>  M12x1.50x146.5mm (x10)		1) 80Nm 2) ↻ 180° 3) 50Nm 4) 90° 5) 90°	
M 47 N 204 D4	1995	4	84.00	DOHC	85-120/ 116-163			
N47 D20 C	1995	4	84.00	Direct Injection, DOHC	85-135/ 116-184			
M 47 N 204 D5	1995	4	84.00	DOHC	120/163			
N 47 D 20 A	1995	4	84.00		120-85/ 163-116			
<b>5 520 i (E28)</b> 12/86 → 06/90 <b>35</b> <b>5 520 i (E34)</b> 01/88 → 08/91					<b>HBS041</b>  M10x1.50x150mm (x14)		1) 45Nm 2) 65Nm 3) ↻ 90° 4) 65Nm 5) ↓ 6) ⚙ 7) ↻ 90° 8) 65Nm 9) 25°	
M 20 B 20	1991	6	80.00	CIH	110/150			
	1991	6			90/122			
<b>5 520 i (E34)</b> 11/91 → 01/97 <b>36</b> <b>5 520 i 24V (E34)</b> 09/89 → 09/95					<b>HBS068</b>  M10x1.50x95mm (x14)		1) 35Nm 2) ↻ 90° 3) 35Nm 4) 90° 5) 90°	
M 50 B	1991	6	80.00	Motronic, DOHC	110/150			
M 50 B 20/M 50 B 20 TU	1991	6	80.00	DOHC	110/150			
<b>5 520 i (E39)</b> 01/96 → 09/00 <b>37</b>					<b>HBS067</b> Aluminium  M10x1.50x110mm (x14)		1) 35Nm 2) ↻ 90° 3) 35Nm 4) 90° 5) 90°	
M 52 B	1991	6	80.00	Motronic, DOHC	100-110/ 136-150			
M 52 B	1991	6	80.00	Motronic, DOHC	110/150			
M 52 B 20	1991	6	80.00	DOHC	110/150			
<b>5 520 i (E39)</b> 04/99 → 05/04 <b>38</b>					<b>HBS068</b> Cast Steel  M10x1.50x95mm (x14)		1) 35Nm 2) ↻ 90° 3) 35Nm 4) 90° 5) 90°	
M 52 B	1991	6	80.00	Motronic, DOHC	100-110/ 136-150			
<b>5 520 i (E39)</b> 09/00 → 05/04 <b>39</b>					<b>HBS067</b> Aluminium  M10x1.50x110mm (x14)		1) 40Nm 2) 90° 3) 90°	
M 54 B 22	2171	6	80.00	DOHC	125/170			
<b>5 520 i (E60)</b> 07/03 → <b>40</b> <b>5 520 i (E61)</b> 06/04 →					<b>HBS068</b> Cast Steel  M10x1.50x95mm (x14)		1) 35Nm 2) ↻ 90° 3) 35Nm 4) 90° 5) 90°	
M 54 226 S1/M 54 B 22	2171	6	80.00	DOHC	125/170			
<b>5 520 i (E60)</b> 07/03 → <b>40</b> <b>5 520 i (E61)</b> 06/04 →					<b>HBS413</b>  M10x1.50x110mm (x14)		1) 40Nm 2) 90° 3) 90°	
M 54 226 S1/M 54 B 22	2171	6	80.00	DOHC	125/170			



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kW/PS



5 524 td (E34) Diesel		03/88 → 09/95			41			
M 21 D 24	2443	6	80.00	SOHC	85/115	 M11x1.50x140mm (x14)	1) 30Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 73° 6) ⚡ 7) ✳ 8) 90°	
M 21 D 24 WA	2443	6	80.00	SOHC	85/116			
5 523 i (E39) 5 525 i (E34) 5 525 i 24V (E34)		11/95 → 09/00 11/91 → 01/97 09/89 → 09/95			42			
M 52 B 25 TU	2494	6	84.00	DOHC	125/170	 Aluminium M10x1.50x110mm (x14)	1) 35Nm 2) ↻ 90° 3) 35Nm 4) 90° 5) 90°	
M 52 B 25	2494	6	84.00	DOHC	125-141/ 170-192			
M 50 B 25	2494	6	84.00	Motronic, DOHC	141/192	 Cast Steel M10x1.50x95mm (x14)	1) 35Nm 2) ↻ 90° 3) 35Nm 4) 90° 5) 90°	
M 50 B 25 TU	2494	6	84.00	DOHC	141/192			
5 523 i (E60) 5 525 i (E60) 5 525 xi (E60) 5 Touring 523 i (E61) 5 Touring 525 i (E61) 5 Touring 525 xi (E61)		07/05 → 07/05 → 07/05 → 07/05 → 07/05 → 07/05 →			43			
N 52 B 25	2497	6	82.00	DOHC	130-160/ 177-218	 M10 M10x1,5x125mm (x10) M9x1,25x95mm (x1) M9x1,25x125mm (x3) M9 1) 30Nm 2) 90° 3) 90° 4) 45° 5) 90°	1) 30Nm 2) 90° 3) 90° 4) 45° 5) 90°	
N 52 B 25 A	2497	6	82.00	DOHC	130-160/ 177-218			
5 525 d (E39) Diesel 5 525 d (E60) Diesel 5 525 d (E61) Diesel 5 Touring 525 d (E61) Diesel		02/00 → 05/04 06/04 → 06/04 → 12/04 →			44			
M 57 256 D1/M 57 D 25	2497	6	80.00	DOHC	120/163	 M12x1.50x146.5mm (x14)	1) 80Nm 2) ↻ 180° 3) 80Nm 4) 90° 5) 90° 6) ⚡ 7) ✳ 8) 90°	
M 57 D 25 TU/M 57 N 256 D4	2497	6	80.00	DOHC	130/177			
5 525 i (E34)		01/88 → 08/91			45			
M 20 B 25	2494	6	84.00	CIH	126/171	 M10x1.50x150mm (x14)	1) 30Nm 2) ↻ 90° 3) 30Nm 4) 90° 5) 90°	
5 525 i (E39) 5 525 i (E60) 5 525 i (E61)		09/00 → 05/04 09/03 → 06/04 →			46			
M 54 B 25	2494	6	84.00	DOHC	125/141/ 170P/ 192S	 M10x1.50x110mm (x14)	1) 35Nm 2) ↻ 90° 3) 35Nm 4) 90° 5) 90°	
M 54 256 S5	2494	6	84.00	DOHC	141/192			
5 525 i X 24V (E34)		10/91 → 09/95			47			
M 52 B 25	2494	6	84.00	DOHC	125-141/ 170-192	 Aluminium M10x1.50x110mm (x14)	1) 35Nm 2) ↻ 90° 3) 35Nm 4) 90° 5) 90°	

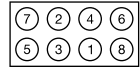




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<b>5 525 td (E34) Diesel</b> 03/93 → 01/97 <b>48</b> <b>5 525 td (E39) Diesel</b> 01/97 → 06/03 <b>5 525 tds (E34) Diesel</b> 09/91 → 01/97 <b>5 525 tds (E39) Diesel</b> 01/96 → 05/04					M12x1.50x146.5mm (x14)		1) 80Nm 2) ↻ 180° 3) 80Nm 4) 90° 5) 90° 6) ↓ 7) * 8) 90°	
M 51 D 25	2498	6	80.00	SOHC	85/115			
M 51 D 25	2498	6	80.00	SOHC	105/143			
<b>5 528 i (E39)</b> 11/95 → 09/00 <b>49</b>					M10x1.50x110mm (x14)		1) 35Nm 2) ↻ 90° 3) 35Nm 4) 90° 5) 90°	
M 52 B 28	2793	6	84.00	Motronic, DOHC	142/193			
M 52 B 28 TU	2793	6	84.00	DOHC	142/193			
<b>5 525 d (E60) Diesel</b> 01/07 → <b>50</b> <b>5 525 xd (E60) Diesel</b> 01/07 → <b>5 530 d (E60) Diesel</b> 07/03 → <b>5 530 d (E61) Diesel</b> 06/04 → <b>5 530 xd (E60) Diesel</b> 07/05 → <b>5 530 xd (E61) Diesel</b> 07/05 → <b>5 535 d (E60) Diesel</b> 09/04 → <b>5 535 d (E61) Diesel</b> 09/04 → <b>5 Touring 530 d (E61) Diesel</b> 01/07 → <b>5 Touring 530 xd (E61) Diesel</b> 01/07 →					M12x1.50x146.5mm (x14)		1) 40Nm 2) 80Nm 3) ↻ 180° 4) 50Nm 5) 90° 6) 90°	
N 57 306 D 2	2993	6	84.00		160/218			
M 57 306 D3	2993	6	84.00		170/231			
M 57 306 D4	2993	6	84.00	DOHC	200/272			
<b>5 525 i (E60)</b> 01/07 → <b>51</b> <b>5 525 xi (E60)</b> 01/07 → <b>5 530 i (E60)</b> 07/05 → <b>5 530 xi (E60)</b> 07/05 → <b>5 Touring 525 i (E61)</b> 01/07 → <b>5 Touring 525 xi (E61)</b> 01/07 → <b>5 Touring 530 i (E61)</b> 07/05 → <b>5 Touring 530 xi (E61)</b> 07/05 →					M10x1,5x125mm (x10) M9x1,25x95mm (x1) M9x1,25x125mm (x3)		<b>M10</b> 1) 30Nm 2) 90° 3) 90° 4) 45° <b>M9</b> 1) 30Nm 2) 90° 3) 45°	
N 53 B 30/N53B30A	2996	6	85.00	DOHC	160-200/ 218-272			
N 52 B 30 A	2996	6	85.00	DOHC	190-195/ 258-265			
N 52 B 30	2996	6	85.00	DOHC	190-200/ 258-272			
<b>5 530 d (E39) Diesel</b> 08/98 → 05/04 <b>52</b>					M12x1.50x146.5mm (x14)		1) 80Nm 2) ↻ 180° 3) 50Nm 4) 90° 5) 90° 6) ↓ 7) * 8) 90°	
M 57 D 30	2926	6	84.00	SOHC	135/184			
<b>5 530 i (E34)</b> 01/88 → 08/91 <b>53</b>					M12x1.75x157mm (x14)		1) 30Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 33° 6) ↓ 7) * 8) 35°	
M 30 B 30	2988	6	89.00	CIH	145/197			



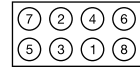
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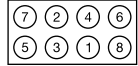
5 530 i (E39)						09/00 → 05/04	54	<b>HBS413</b>  M10x1.50x110mm (x14)	1) 40Nm 2) 90° 3) 90°		
5 530 i (E60)						07/03 →					
5 530 i (E61)						06/04 →					
M 54 306 S3	2979	6	84.00	DOHC	163-170/ 222-231						
M 54 B 30	2979	6	84.00	DOHC	170/231						
5 530 i V8 (E34)						09/92 → 01/97	55	<b>HBS067 (x2)</b>  M10x1.50x110mm (x14)	1) 35Nm 2) ↻ 90° 3) 35Nm 4) 90° 5) 90°		
M 60 B 30	2997	8	84.00	Motronic, DOHC, V8	160/218						
5 535 i (E34)						01/88 → 09/95	56	<b>HBS071</b>  M12x1.75x157mm (x14)	1) 30Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 33° 6) ↓ 7) ✱ 8) 35°		
M 30 B 35	3430	6	92.00	Motronic, CIH	185/252						
5 535 i (E39)						04/96 → 06/03	57	<b>HBS067 (x2)</b>  M10x1.50x110mm (x14)	1) 35Nm 2) ↻ 90° 3) 35Nm 4) 90° 5) 90°		
M 62 B	3498	8	84.00	Motronic, DOHC, V8	173/235						
M 62 B 35	3498	8	84.00	DOHC, V8	173/235						
M 62 B 35 TU	3498	8	84.00	DOHC, V8	175-180/ 238-245						
M 62 B	3498	8	84.00	Motronic, DOHC, V8	180/245						
5 540 i (E34)						09/93 → 01/97	58	<b>HBS067 (x2)</b>  M10x1.50x110mm (x14)	1) 35Nm 2) ↻ 90° 3) 35Nm 4) 90° 5) 90°		
5 540 i V8 (E34)						09/92 → 09/95					
M 60 B 40	3982	8	89.00	Motronic, DOHC, V8	210/286						
5 540 i (E39)						04/96 → 05/04	59	<b>HBS067 (x2)</b>  M10x1.50x110mm (x14)	1) 35Nm 2) ↻ 90° 3) 35Nm 4) 90° 5) 90°		
M 62 B 44 TU	4398	8	92.00	DOHC, V8	210/286						
M62448S2	4398	8	92.00	DOHC	210/286						
M 62 B 44	4398	8	92.00	Motronic, DOHC, V8	210/255/ 286/347						
5 M5 (E39)						10/98 → 06/03	60	<b>HBS067 (x2)</b>  M10x1.50x110mm (x14)	1) 35Nm 2) ↻ 90° 3) 35Nm 4) 90° 5) 90°		
S 38 B 49	4941	8		V8	294/400						
S 62 B 50	4941	8	94.00	DOHC, V8	294/400						
6 630 i (E63)						09/04 →	61	<b>HBS468</b>  M10x1,5x125mm (x10) M9x1,25x95mm (x1) M9x1,25x125mm (x3)	<b>M10</b> 1) 30Nm 2) 90° 3) 90° 4) 45° <b>M9</b> 1) 30Nm 2) 90° 3) 45°		
6 Cabriolet 630 i (E64)						09/04 →					
N 53 B 30	2996	6	85.00	DOHC	160-200/ 218-272						
N 52 B 30 A	2996	6	85.00	DOHC	190-195/ 258-265						
N 52 B 30	2996	6	85.00	DOHC	190-200/ 258-272						
6 Coupe 635 CSI (E24)						01/85 → 09/90	62	<b>HBS071</b>  M12x1.75x157mm (x14)	1) 30Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 33° 6) ↓ 7) ✱ 8) 35°		
M 30 B 35	3430	6	92.00	Motronic, CIH	136/185						
M 30 B 35	3430	6	92.00	Motronic, CIH	185/252						



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7 725 tds (E38) Diesel		04/96 → 11/01			63			
M 51 D 25	2498	6	80.00	SOHC	105/143	 M12x1.50x146.5mm (x14)	1) 80Nm 2) ↻ 180° 3) 80Nm 4) 90° 5) 90° 6) ↓ 7) ✳ 8) 90°	
7 728 i, iL (E38)		08/95 → 11/01			64			
M 52 B 28	2793	6	84.00	Motronic, DOHC	142/193	 M10x1.50x110mm (x14)	1) 35Nm 2) ↻ 90° 3) 35Nm 4) 90° 5) 90°	
M 52 B 28 TU	2793	6	84.00	DOHC	142/193			
						 M10x1.50x95mm (x14)	1) 35Nm 2) ↻ 90° 3) 35Nm 4) 90° 5) 90°	
7 730 d (E38) Diesel		08/98 → 11/01			65			
M 57 D 30	2926	6	84.00	SOHC	135/184	 M12x1.50x146.5mm (x14)	1) 80Nm 2) ↻ 180° 3) 50Nm 4) 90° 5) 90° 6) ↓ 7) ✳ 8) 90°	
M 57 306 D1	2926	6	84.00	DOHC	135-142/ 184-193			
7 730 d (E65, E66) Diesel		10/02 →			66			
7 730 Ld (E65, E66) Diesel		07/05 →						
M57N2306D2	2993	6	84.00	DOHC		160/218	 M12x1.50x146.5mm (x14)	1) 40Nm 2) 80Nm 3) ↻ 180° 4) 50Nm 5) 90° 6) 90°
M 57 306 D3	2993	6	84.00		170/231			
N57N306D2	2993	6	84.00	DOHC	170/231			
7 730 i, iL (E32)		12/86 → 09/94			67			
M 30 B 30	2988	6	89.00	CIH	145/197	 M12x1.75x157mm (x14)	1) 30Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 33° 6) ↓ 7) ✳ 8) 35°	
7 730 i, iL (E38)		10/94 → 11/01			68			
7 730 i, iL V8 (E32)		04/92 → 09/94						
M 60 B 30	2997	8	84.00	Motronic, DOHC, V8	160/218	 M10x1.50x110mm (x14)	1) 35Nm 2) ↻ 90° 3) 35Nm 4) 90° 5) 90°	
7 730 i, Li (E65, E66)		03/03 →			69			
M 54 306 S3	2979	6	84.00	DOHC		163-170/ 222-231	 M10x1.50x110mm (x14)	1) 40Nm 2) 90° 3) 90°
M 54 B 30	2979	6	84.00	DOHC	170/231			
7 730 i, Li (E65, E66)		03/05 →			70			
N 52 B 30 A	2996	6	85.00	DOHC		190-195/ 258-265	 M10x1,5x125mm (x10) M9x1,25x95mm (x1) M9x1,25x125mm (x3)	M10 1) 30Nm 2) 90° 3) 90° 4) 45° M9 1) 30Nm 2) 90° 3) 45°
N 52 B 30	2996	6	85.00	DOHC	190-200/ 258-272			



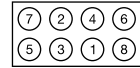
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7 735 i, iL (E32)		09/86 → 09/92			71			
M 30 B 35	3430	6	92.00	Motronic, CIH	185/252	<b>HBS071</b>  M12x1.75x157mm (x14)	1) 30Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 33° 6) ⚡ 7) ✳ 8) 35°	
7 735 i, iL (E38)		01/96 → 11/01			72			
M 62 B	3498	8	84.00	Motronic, DOHC, V8	173/235	<b>HBS067 (x2)</b>  M10x1.50x110mm (x14)	1) 35Nm 2) ↻ 90° 3) 35Nm 4) 90° 5) 90°	
M 62 B 35	3498	8	84.00	DOHC, V8	173/235			
7 740 i, iL (E38)		10/94 → 11/01			73			
7 740 i, iL V8 (E32)		04/92 → 09/94						
M 60 B 40	3982	8	89.00	Motronic, DOHC, V8	210/286	<b>HBS067 (x2)</b>  M10x1.50x110mm (x14)	1) 35Nm 2) ↻ 90° 3) 35Nm 4) 90° 5) 90°	
7 740 i, iL (E38)		01/96 → 11/01			74			
7 745 i, Li (E65, E66)		11/01 →						
M 62 B 44 TU	4398	8	92.00	DOHC, V8	210/286	<b>HBS067 (x2)</b>  M10x1.50x110mm (x14)	1) 35Nm 2) ↻ 90° 3) 35Nm 4) 90° 5) 90°	
M62448S2	4398	8	92.00	DOHC	210/286			
M 62 B 44	4398	8	92.00	Motronic, DOHC, V8	210/255/ 286/347			
M 62 B 44 A	4398	8	92.00	DOHC, V8	235-245/ 320-333			
N 62 B 44	4398	8	92.00	DOHC, V8	240/326			
8 Coupe 840 i (E31)		02/93 → 02/96			75			
M 60 B 40	3982	8	89.00	Motronic, DOHC, V8	210/286	<b>HBS067 (x2)</b>  M10x1.50x110mm (x14)	1) 35Nm 2) ↻ 90° 3) 35Nm 4) 90° 5) 90°	
8 Coupe 840 Ci (E31)		01/96 → 12/99			76			
M 62 B 44 TU	4398	8	92.00	DOHC, V8	210/286	<b>HBS067 (x2)</b>  M10x1.50x110mm (x14)	1) 35Nm 2) ↻ 90° 3) 35Nm 4) 90° 5) 90°	
M 62 B 44	4398	8	92.00	Motronic, DOHC, V8	210/255/ 286/347			
X1 sDrive18i		01/10 →			77			
N 46 B 20 B	1995	4	84.00	DOHC	95/129	<b>HBS467</b>  M10x1,5x170mm (x6) M8x1,25x95mm (x3) M8x1,25x125mm (x3)	1) 30Nm 2) 90° 3) 90° 4) A=25Nm	
X3 2.0L d Diesel		09/07 →			78			
X3 2.0L d (E83) Diesel		10/04 →						
M 47 N 204 D4	1995	4	84.00	DOHC	85-120/ 116-163	<b>HBS121</b>  M12x1.50x146.5mm (x10)	1) 80Nm 2) ↻ 180° 3) 50Nm 4) 90° 5) 90°	
N 47 D 20 A	1995	4	84.00	DOHC	120-85/ 163-116			
X3 2.0L i (E83)		07/05 →			79			
N 46 B 20	1995	4	84.00	DOHC	95-110/ 129-150	<b>HBS467</b>  M10x1,5x170mm (x6) M8x1,25x95mm (x3) M8x1,25x125mm (x3)	1) 30Nm 2) 90° 3) 90° 4) A=25Nm	
N 46 B 20 A	1995	4	84.00	DOHC	110/150			
X3 2.5L i (E83)		01/04 →			80			
M 54 B 25	2494	6	84.00	DOHC	125/141/ 170P/ 192S	<b>HBS413</b>  M10x1.50x110mm (x14)	1) 35Nm 2) ↻ 90° 3) 35Nm 4) 90° 5) 90°	
M 54 256 S5	2494	6	84.00	DOHC	141/192			

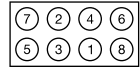




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X3 2.5L si (E83)				09/06 →		81		
N 52 B 25 A	2497	6	82.00		130-160/ 177-218	<b>HBS468</b>  M10x1,5x125mm (x10) M9x1,25x95mm (x1) M9x1,25x125mm (x3)	<b>M10</b> 1) 30Nm 2) 90° 3) 90° 4) 45° <b>M9</b> 1) 30Nm 2) 90° 3) 45°	
X3 3.0L d (E83) Diesel				01/04 →		82		
M 54 N 306 D2	2993	6	84.00		150/204	<b>HBS066</b>  M12x1.50x146.5mm (x14)	1) 40Nm 2) 80Nm 3) ↻ 180° 4) 50Nm 5) 90° 6) 90°	
M57N2306D2	2993	6	84.00	DOHC	160/218			
X3 3.0L i (E83)				01/04 →		83		
M 54 306 S3	2979	6	84.00	DOHC	163-170/ 222-231	<b>HBS413</b>  M10x1.50x110mm (x14)	1) 40Nm 2) 90° 3) 90°	
M 54 B 30	2979	6	84.00	DOHC	170/231			
X3 3.0L si (E83)				09/06 →		84		
N 52 B 30 A	2996	6	85.00	DOHC	190-195/ 258-265	<b>HBS468</b>  M10x1,5x125mm (x10) M9x1,25x95mm (x1) M9x1,25x125mm (x3)	<b>M10</b> 1) 30Nm 2) 90° 3) 90° 4) 45° <b>M9</b> 1) 30Nm 2) 90° 3) 45°	
X5 3.0L d (E53) Diesel				05/01 →		85		
M 57 306 D1	2926	6	84.00	DOHC	135-142/ 184-193	<b>HBS066</b>  M12x1.50x146.5mm (x14)	1) 80Nm 2) ↻ 180° 3) 50Nm 4) 90° 5) 90° 6) ⚡ 7) ⚡ 8) 90°	
X5 3.0L d (E53) Diesel				12/03 →		86		
X5 3.0L d (E70) Diesel				02/07 →				
M 57 N 306 D4	2993	6	84.00	DOHC	160/218	<b>HBS066</b>  M12x1.50x146.5mm (x14)	1) 40Nm 2) 80Nm 2) ↻ 180° 4) 50Nm 5) 90° 6) 90°	
M 57 306 D3	2993	6	84.00		170/231			
X5 3.0L i (E53)				05/00 →		87		
M 54 306 S3	2979	6	84.00	DOHC	163-170/ 222-231	<b>HBS413</b>  M10x1.50x110mm (x14)	1) 40Nm 2) 90° 3) 90°	
M 54 B 30	2979	6	84.00	DOHC	170/231			
X5 3.0L si (E70)				02/07 →		88		
N 52 B 30 A	2996	6	85.00	DOHC	190-195/ 258-265	<b>HBS468</b>  M10x1,5x125mm (x10) M9x1,25x95mm (x1) M9x1,25x125mm (x3)	<b>M10</b> 1) 30Nm 2) 90° 3) 90° 2) 90° <b>M9</b> 1) 30Nm 2) 90° 3) 45°	
N 52 B 30	2996	6	85.00	DOHC	190-200/ 258-272			
X5 4.4L i (E53)				05/00 →		89		
M 62 B 44 TU	4398	8	92.00	DOHC, V8	210/286	<b>HBS067 (x2)</b>  M10x1.50x110mm (x14)	1) 35Nm 2) ↻ 90° 3) 35Nm 4) 90° 5) 90°	
M 62 B 44	4398	8	92.00	Motronic, DOHC, V8	210/255/ 286/347			
M 62 B 44 A	4398	8	92.00	DOHC, V8	235-245/ 320-333			
N 62 B 44	4398	8	92.00	DOHC, V8	240/326			



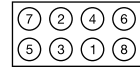
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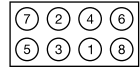
XS 4.6L is (E53)		02/02 →			90
M 62 B 46/M 67 468 S1	4619	8	93.00	DOHC, V8	255/347
HBS067 (x2)		M10x1.50x110mm (x14)		1) 35Nm 2) ↺ 90° 3) 35Nm 4) 90° 5) 90°	
Z1 Convertible 2.5L		06/88 → 06/91			91
M 20 B 25	2494	6	84.00	CIH	126/171
HBS041		M10x1.50x150mm (x14)		1) 30Nm 2) ↺ 90° 3) 30Nm 4) 90° 5) 90°	
Z3 Convertible 1.8L		10/95 → 10/98			92
M 43 B 18	1796	4	84.00	Motronic, SOHC	85/116
HBS069		M10x1.50x95mm (x10)		1) 35Nm 2) ↺ 90° 3) 35Nm 4) 90° 5) 90°	
Z3 Convertible 1.9L		10/95 → 01/03			93
M 43 B 19 TU	1895	4	85.00	SOHC	77-87/ 105-118
M 43 194 E1	1895	4	85.00	SOHC	85-87/ 116-118
M 43 B 19	1895	4	85.00	SOHC	87/118
M 44 B 19	1895	4	85.00	Motronic, DOHC	103/140
HBS069		M10x1.50x95mm (x10)		1) 35Nm 2) ↺ 90° 3) 35Nm 4) 90° 5) 90°	
Z3 Convertible 2.0L		04/99 → 01/03			94
M 52 B	1991	6	80.00	Motronic, DOHC	110/150
M 52 B 20	1991	6	80.00	DOHC	110/150
HBS413		M10x1.50x110mm (x14)		1) 35Nm 2) ↺ 90° 3) 35Nm 4) 90° 5) 90°	
Z3 Convertible 2.2L		08/00 → 01/03			95
M 54 226 S1/M 54 B 22	2171	6	80.00	DOHC	125/170
HBS068 Cast Steel		M10x1.50x95mm (x14)		1) 35Nm 2) ↺ 90° 3) 35Nm 4) 90° 5) 90°	
HBS413 Aluminium		M10x1.50x110mm (x14)		1) 40Nm 2) 90° 3) 90°	
Z3 Convertible 2.8L		04/97 → 06/00			96
Z3 Coupe 2.8L		07/97 → 06/00			
M 52 B 28	2793	6	84.00	Motronic, DOHC	142/193
M 52 B 28 TU	2793	6	84.00	DOHC	142/193
HBS067 Aluminium		M10x1.50x110mm (x14)		1) 35Nm 2) ↺ 90° 3) 35Nm 4) 90° 5) 90°	
HBS068 Cast Steel		M10x1.50x95mm (x14)		1) 35Nm 2) ↺ 90° 3) 35Nm 4) 90° 5) 90°	
Z3 Convertible 3.0L		06/00 → 01/03			97
Z3 Coupe 3.0L		06/00 → 06/03			
M 54 306 S3	2979	6	84.00	DOHC	163-170/ 222-231
M 54 B 30	2979	6	84.00	DOHC	170/231
HBS413		M10x1.50x110mm (x14)		1) 40Nm 2) 90° 3) 90°	
Z3 M 3.2L		03/97 → 06/01			98
Z3 Coupe M 3.2L		02/98 → 06/01			
S 50 B 32	3201	6	86.40	Motronic, DOHC	236/321
HBS507		M11x1.50x103mm (x14)		1) 30Nm 2) ↺ 90° 3) 30Nm 4) 90° 5) 90°	



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<b>Z4 Convertible 2.0L i (E85)</b>		04/05 →			<b>99</b>	<b>HBS467</b>	1) 30Nm 2) 90° 3) 90° 4) A=25Nm	
N 46 B 20	1995	4	84.00	DOHC	95-110/ 129-150	 M10x1,5x170mm (x6) M8x1,25x95mm (x3) M8x1,25x125mm (x3)		
N 46 B 20 A	1995	4	84.00	DOHC	110/150			
<b>Z4 Convertible 2.2L i (E85)</b>		10/03 →			<b>100</b>	<b>HBS413</b>	1) 40Nm 2) 90° 3) 90°	
M 54 226 S1/M 54 B 22	2171	6	80.00	DOHC	125/170	 M10x1,50x110mm (x14)		
<b>Z4 2.5L i (E85)</b>		01/06 →			<b>101</b>	<b>HBS468</b>	<b>M10</b> 1) 30Nm 2) 90° 3) 90° 4) 45° <b>M9</b> 1) 30Nm 2) 90° 3) 45°	
<b>Z4 2.5L si (E85)</b>						 M10x1,5x125mm (x10) M9x1,25x95mm (x1) M9x1,25x125mm (x3)		
N 52 B 25 A	2497	6	82.00		130-160/ 177-218			
<b>Z4 Convertible 2.5L i (E85)</b>		02/03 →			<b>102</b>	<b>HBS413</b>	1) 35Nm 2) ↻ 90° 3) 35Nm 4) 90° 5) 90°	
M 54 B 25	2494	6	84.00	DOHC	125/141/ 170P/ 192S	 M10x1,50x110mm (x14)		
M 54 256 S5	2494	6	84.00	DOHC	141/192			
<b>Z4 3.0L si (E85)</b>		01/06 →			<b>103</b>	<b>HBS468</b>	<b>M10</b> 1) 30Nm 2) 90° 3) 90° 4) 45° <b>M9</b> 1) 30Nm 2) 90° 3) 45°	
<b>Z4 Coupe 3.0L si</b>						 M10x1,5x125mm (x10) M9x1,25x95mm (x1) M9x1,25x125mm (x3)		
N 52 B 30 A	2996	6	85.00	DOHC	190-195/ 258-265			
N 52 B 30	2996	6	85.00	DOHC	190-200/ 258-272			
<b>Z4 Convertible 3.0L i (E85)</b>		02/03 →			<b>104</b>	<b>HBS413</b>	1) 40Nm 2) 90° 3) 90°	
M 54 306 S3	2979	6	84.00	DOHC	163-170/ 222-231	 M10x1,50x110mm (x14)		
M 54 B 30	2979	6	84.00	DOHC	170/231			
<b>Z8 4.9L</b>		06/00 → 06/03			<b>105</b>	<b>HBS067 (x2)</b>	1) 35Nm 2) ↻ 90° 3) 35Nm 4) 90° 5) 90°	
S 38 B 49	4941	8		V8	294/400	 M10x1,50x110mm (x14)		
S 62 B 50	4941	8	94.00	DOHC, V8	294/400			

# CHEVROLET



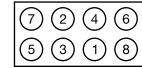
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Model						Year	Code	CC	Cyl	Power	Engine	Washer	Grid		
<b>Aveo 1.4L</b>						03/06 →	<b>1</b>								
F14D3	1399	4	77.90	DOHC	69-70/ 94-95								 M10x1.25x166mm (x10)	1) 25Nm 2) 60° 3) 60° 4) 60° 5) 10°	
<b>Aveo 1.6L Diesel</b>						03/06 →	<b>2</b>								
A16DMS	1598	4	79.00	DOHC	77/105								 M10x1.25x166mm (x10)	1) 25Nm 2) 60° 3) 60° 4) 60° 5) 10°	
<b>Chevy 1.6L SRV Diesel</b>						05/06 →	<b>3</b>								
A16DMS	1598	4	79.00	DOHC	77/105								 M10x1.25x166mm (x10)	1) 25Nm 2) 60° 3) 60° 4) 60° 5) 10°	
<b>Cruze 1.6L</b>						05/09 →	<b>4</b>								
F16D3	1598	4	79.00	DOHC	80/109								 M10x1.25x166mm (x10)	1) 25Nm 2) 60° 3) 60° 4) 60° 5) 10°	
<b>Evanda 2.0L</b>						03/05 →	<b>5</b>								
X20SED	1998	4	86.00	DOHC	89-98/ 121-133								 M11x1.25x105mm (x10)	1) 25Nm 2) 90° 3) 90° 4) 90°	
<b>Kalos 1.4L</b>						03/05 →	<b>6</b>								
F14S3	1399	4	77.90	DOHC	61/82								 M10x1.25x140mm (x10)	1) 25Nm 2) 60° 3) 60° 4) 60°	
<b>Kalos 1.4L 16V</b>						03/05 →	<b>7</b>								
F14D3	1399	4	77.90	DOHC	69-70/ 94-95								 M10x1.25x166mm (x10)	1) 25Nm 2) 60° 3) 60° 4) 60° 5) 10°	
<b>Lacetti 1.4L 16V</b>						03/05 →	<b>8</b>								
F14D3	1399	4	77.90	DOHC	69-70/ 94-95								 M10x1.25x166mm (x10)	1) 25Nm 2) 60° 3) 60° 4) 60° 5) 10°	
<b>Lacetti 1.6L</b>						03/05 →	<b>9</b>								
F16D3	1598	4	79.00	DOHC	80/109								 M10x1.25x166mm (x10)	1) 25Nm 2) 60° 3) 60° 4) 60° 5) 10°	
<b>Lacetti 1.8L</b>						03/05 →	<b>10</b>								
T18SED	1799	4	81.60	DOHC	90/122								 M11x1.25x105mm (x10)	1) 25Nm 2) 90° 3) 90° 4) 90° 5) 45°	
<b>Matiz 0.8L</b>						03/05 →	<b>11</b>								
F8CV	796	3	68.50	SOHC	38/52								 M10x1.25x97mm (x10)	1) 45Nm 2) 90Nm	
<b>Nubira 1.4L</b>						01/05 →	<b>12</b>								
F14D3	1399	4	77.90	DOHC	69-70/ 94-95								 M10x1.25x166mm (x10)	1) 25Nm 2) 60° 3) 60° 4) 60° 5) 10°	

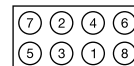




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Nubira 1.6L		03/05 →			13	 HBS285 M10x1.25x166mm (x10)	1) 25Nm 2) 60° 3) 60° 4) 60° 5) 10°	
F16D3	1598	4	79.00	DOHC	80/109			
Nubira 1.8L		03/05 →			14	 HBS054 M11x1.25x105mm (x10)	1) 25Nm 2) 90° 3) 90° 4) 90° 5) 45°	
T18SED	1799	4	81.60	DOHC	90/122			
Optra 1.6L SRV		06/06 →			15	 HBS285 M10x1.25x166mm (x10)	1) 25Nm 2) 60° 3) 60° 4) 60° 5) 10°	
F16D3	1598	4	79.00	DOHC	80/109			
Rezzo 1.6L		03/05 →			16	 HBS285 M10x1.25x166mm (x10)	1) 25Nm 2) 60° 3) 60° 4) 60° 5) 10°	
A16DMS	1598	4	79.00	DOHC	77/105			
Rezzo 2.0L		03/05 →			17	 HBS054 M11x1.25x105mm (x10)	1) 25Nm 2) 90° 3) 90° 4) 90°	
T20SED	1998	4	86.00	DOHC	89-96/ 121-131			
Spark 0.8L		09/00 →			18	 HBS377 M10x1.25x97mm (x10)	1) 45Nm 2) 90Nm	
F8CV	796	3	68.50	SOHC	38/52			



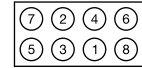
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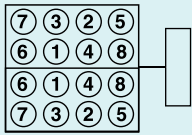

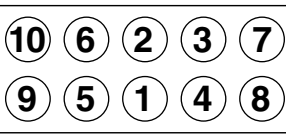

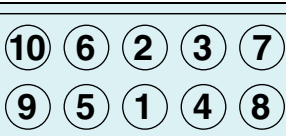

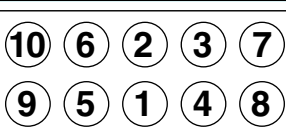

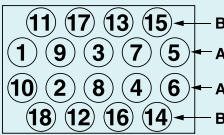

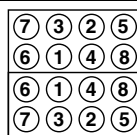

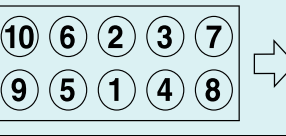

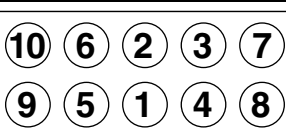

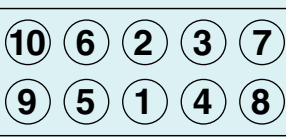

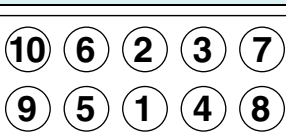


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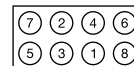
300 C 3.0L CRD Diesel		09/05 →		1	
300 C Touring 3.0L CRD Diesel		09/05 →			
M664	2987	6	83.00	DOHC, V6	160/218
<b>HBS474</b>					
					
M12x1.75x205mm (x16)					
1) 60Nm 2) 90° 3) 90° 4) 90°					
					
<b>Breeze 2.5L L</b>					
01/95 → 12/01					
2					
148	2429	4	87.50		
<b>HBS279</b>					
					
M11x1.50x154mm (x6) M11x1.50x109mm (x4)					
1) 34Nm 2) 68Nm 3) 68Nm 4) 90°					
					
<b>Cirrus 2.0L LX</b>					
05/94 → 09/97					
3					
ECB	1996	4	87.50	SOHC	96-98/ 131-133
<b>HBS391</b>					
					
M11x1.50x160mm (x4) M11x1.50x205mm (x6)					
1) 34Nm 2) 68Nm 3) 68Nm 4) 90°					
					
<b>Cirrus 2.5L L</b>					
01/95 → 12/01					
4					
148	2429	4	87.50		
<b>HBS279</b>					
					
M11x1.50x154mm (x6) M11x1.50x109mm (x4)					
1) 34Nm 2) 68Nm 3) 68Nm 4) 90°					
					
<b>Grand Voyager 2.5L TD Diesel</b>					
01/92 → 12/94					
5					
MOO (HR 425 CL)	2499	4	92.00		85-87/ 116-118
425 CLIEE	2499	4	92.00	Turbocharged	
<b>HBS108</b>					
					
M14x2x137mm (x10) M12x1.75x115mm (x4) M12x1.75x79.5mm (x4)					
A 1) 30Nm 2) 70° 3) 70° 4) ↓ 5) ✱ 6) 90° 7) 30Nm 8) 65° B 1) 30Nm 2) 85°					
					
<b>Le Baron 3.0L i V6</b>					
01/90 → 12/94					
6					
<b>Le Baron Convertible 3.0L i V6</b>					
01/90 → 12/96					
EFA	2972	6	91.10	V6	100-112/ 136-152
6672	2972	6	91.10	SOHC, V6	106/144
<b>HBS402</b>					
					
M12x1.25x102mm (x16)					
1) 40Nm 2) 70Nm 3) 113Nm					
					
<b>Neon Mk II 1.6L</b>					
11/01 →					
7					
EID	1598	4	77.00	SOHC	85/116
<b>HBS496</b>					
					
M11x1.50x103mm (x10)					
1) 20Nm 2) 40Nm 3) ↗ 90° 4) 40Nm 5) 90°					
					
<b>Neon 1.8L 16V</b>					
09/97 → 08/99					
8					
EBD	1796	4	83.00	SOHC	85/116
<b>HBS391</b>					
					
M11x1.50x160mm (x4) M11x1.50x205mm (x6)					
1) 34Nm 2) 68Nm 3) 68Nm 4) 90°					
					
<b>Neon 2.0L 16V</b>					
05/94 → 12/06					
9					
<b>Neon 2.0L 16V R/T</b>					
10/01 →					
ECB	1996	4	87.50	SOHC	96-98/ 131-133
ECB (420H)	1996	4	87.50	SOHC	98/133
ECH	1996	4	87.50	DOHC	110/150
<b>HBS391</b>					
					
M11x1.50x160mm (x4) M11x1.50x205mm (x6)					
1) 34Nm 2) 68Nm 3) 68Nm 4) 90°					
					
<b>Neon 2.0L 16V</b>					
06/94 → 08/99					
10					
ECC	1996	4	87.50	DOHC	100/104/ 136/141
420T	1996	4	87.50	DOHC	109/148
<b>HBS279</b>					
					
M11x1.50x154mm (x6) M11x1.50x109mm (x4)					
1) 34Nm 2) 68Nm 3) 68Nm 4) 90°					
					



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Model					Year	Code	Part	Specs	Diagram
<b>PT Cruiser 1.6L</b>					11/01 →	<b>11</b>	<b>HBS496</b>	1) 20Nm 2) 40Nm 3) ↻ 90° 4) 40Nm 5) 90°	
EJD	1598	4	77.00	SOHC	85/116		M11x1.50x103mm (x10)		
<b>PT Cruiser 2.0L</b>					06/00 →	<b>12</b>	<b>HBS279</b>	1) 34Nm 2) 68Nm 3) 68Nm 4) 90°	
ECC	1996	4	87.50	DOHC	100/104/ 136/141		M11x1.50x154mm (x6) M11x1.50x109mm (x4)		
<b>PT Cruiser 2.2L CRD Diesel</b>					03/02 →	<b>13</b>	<b>HBS292</b>	1) 60Nm 2) 90° 3) 90°	
EDJ	2148 2148	4 4	88.00	DOHC	110/150 89/121		M12x1.75x102mm (x10)		
<b>PT Cruiser 2.4L</b> <b>PT Cruiser Cabriolet 2.4L</b>					06/00 → 03/04 →	<b>14</b>	<b>HBS279</b>	1) 34Nm 2) 68Nm 3) 68Nm 4) 90°	
EDZ	2429	4	87.50	DOHC	105-112/ 143-152		M11x1.50x154mm (x6) M11x1.50x109mm (x4)		
<b>Sebring 2.0L</b> <b>Sebring Convertible 2.0L</b>					04/01 → 04/01 →	<b>15</b>	<b>HBS279</b>	1) 34Nm 2) 68Nm 3) 68Nm 4) 90°	
ECC	1996	4	87.50	DOHC	100/104/ 136/141		M11x1.50x154mm (x6) M11x1.50x109mm (x4)		
<b>Sebring 2.4L</b>					01/95 →12/01	<b>16</b>	<b>HBS279</b>	1) 34Nm 2) 68Nm 3) 68Nm 4) 90°	
EDZ	2429	4	87.50	DOHC	105-112/ 143-152		M11x1.50x154mm (x6) M11x1.50x109mm (x4)		
148	2429	4	87.50						
<b>Stratus 2.0L 16V</b> <b>Stratus 2.0L LE</b> <b>Stratus Convertible 2.0L LE</b>					12/95 → 12/95 →04/01 06/96 →04/01	<b>17</b>	<b>HBS391</b>	1) 34Nm 2) 68Nm 3) 68Nm 4) 90°	
COO	1996	4		SOHC	96-98/ 131-133		M11x1.50x160mm (x4) M11x1.50x205mm (x6)		
420X	1996	4	87.50	SOHC	96/131				
ECB	1996	4	87.50	SOHC	96-98/ 131-133				
<b>Stratus 2.4L</b> <b>Stratus 2.4L 16 V</b> <b>Stratus 2.4L 16V</b>					01/95 →12/01 12/95 →04/01 12/95 →	<b>18</b>	<b>HBS279</b>	1) 34Nm 2) 68Nm 3) 68Nm 4) 90°	
EDZ	2429	4	87.50	DOHC	105-112/ 143-152		M11x1.50x154mm (x6) M11x1.50x109mm (x4)		
148	2429	4	87.50						
<b>Voyager 2.0L i</b>					01/95 →03/01	<b>19</b>	<b>HBS391</b>	1) 34Nm 2) 68Nm 3) 68Nm 4) 90°	
COO	1996	4		SOHC	96-98/ 131-133		M11x1.50x160mm (x4) M11x1.50x205mm (x6)		
<b>Voyager 2.4L</b>					02/00 →	<b>20</b>	<b>HBS279</b>	1) 34Nm 2) 68Nm 3) 68Nm 4) 90°	
EDZ	2429	4	87.50	DOHC	105-112/ 143-152		M11x1.50x154mm (x6) M11x1.50x109mm (x4)		



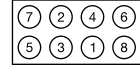
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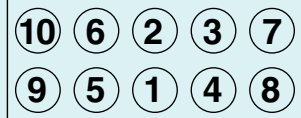
Voyager 2.4L i		01/95 → 03/01			21
B00	2429	4	87.50	DOHC	103/140
Voyager 2.5L TD Diesel		01/92 → 03/01			22
Voyager 2.5LTD Diesel		01/95 →			
09B	2499	4			87/118
425 CLRS/X	2499	4	92.00		85/116
M00 (HR 425 CL)	2499	4	92.00		85-87/ 116-118
425 CLIEE	2499	4	92.00	Turbocharged	
Voyager 3.3L AWD Mk III		02/00 →			23
Voyager 3.3L i		08/90 → 03/01			
Voyager 3.3L i AWD		08/90 → 09/95			
Voyager 3.3L Mk III		02/00 →			
Voyager I 3.3L		10/89 → 09/90			
EGA	3301	6	93.00	V6	110-128/ 150-174
R00 (201)	3301	6	93.00	V6	112/152
Voyager 3.8L i AWD Mk II		01/95 → 03/01			24
Voyager IV 3.8L		02/00 →			
Voyager IV 3.8L AWD		02/00 →			
EGH	3778	6	96.00	V6	122-160/ 166-218

HBS280



M11x1.50x145mm (x10)

- 34Nm
- 68Nm
- 68Nm
- 90°

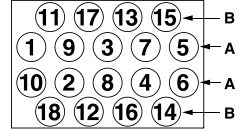


HBS108



M14x2x137mm (x10)  
M12x1.75x115mm (x4)  
M12x1.75x79.5mm (x4)

- A**
- 30Nm
  - 70°
  - 70°
  - ⊥
  - ⊗
  - 90°
  - 30Nm
  - 65°
- B**
- 30Nm
  - 85°

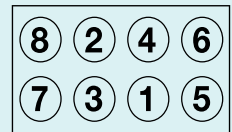


HBS503



M11x1.50x121mm (x16)

- 30Nm
- 60Nm
- 90Nm
- ↻ 90°
- 90Nm
- 90°

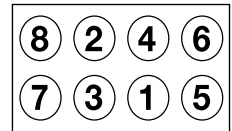


HBS503



















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




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4HT (DW12BTED4)	Diesel	2179	4	85.00	50	DW10ATED4 (RHW)	Diesel	1997	4	85.00	76
4HT (DW12BTED4)	Diesel	2179	4	85.00	52	DW10ATED4 (RHW)	Diesel	1997	4	85.00	122
4HT (DW12BTED4)	Diesel	2179	4	85.00	57	DW10BTED (RHX)	Diesel	1997	4	85.00	76
4HU	Diesel	2198	4	86.00	91	DW10BTED (RHX)	Diesel	1997	4	85.00	101
4HV	Diesel	2198	4	86.00	91	DW10BTED4	Diesel	1997	4	85.00	44
9HN (DV6ETED)	Diesel	1560	4	75.00	10	DW10BTED4	Diesel	1997	4	85.00	49
9HT (DV6BTED4)	Diesel	1560	4	75.00	10	DW10BTED4 (RHJ)	Diesel	1997	4	85.00	44
9HT (DV6BUTED4)	Diesel	1560	4	75.00	10	DW10BTED4 (RHR)	Diesel	1997	4	85.00	44
9HW (DV6ETED)	Diesel	1560	4	75.00	10	DW10BTED4 (RHR)	Diesel	1997	4	85.00	49
171C	Petrol	1580	4	83.00	19	DW10BTED4 (RHR)	Diesel	1997	4	85.00	55
220 A2.000	Petrol	1581	4	86.40	70	DW10BTED4 (RHR)	Diesel	1997	4	85.00	101
220 A2.000	Petrol	1581	4	86.40	95	DW10TD	Diesel	1997	4	85.00	15
1580 SPI	Petrol	1581	4	86.40	70	DW10TD (RHY)	Diesel	1998	4	85.00	16
1580 SPI	Petrol	1581	4	86.40	95	DW10TD (RHY)	Diesel	1998	4	85.00	48
8140.43C	Diesel	2798	4	94.40	94	DW10TD (RHY)	Diesel	1998	4	85.00	131
8140.43N	Diesel	2798	4	94.40	94	DW10TD (RHY)	Diesel	1998	4	85.00	158
8140.43N	Diesel	2798	4	94.40	109	DW10UTD (RHV)	Diesel	1997	4	85.00	88
8140.43S	Diesel	2798	4	94.40	94	DW10UTD (RHV)	Diesel	1997	4	85.00	105
8140.43S	Diesel	2798	4	94.40	109	DW10UTED4 (RHK)	Diesel	1997	4	85.00	59
8140.43	Diesel	2798	4	94.40	94	DW10UTED4 (RHK)	Diesel	1997	4	85.00	101
B25/637	Diesel	2500	4	93.00	69	DW12TED (4HY)	Diesel	2179	4	85.00	90
C1A	Petrol	954	4	70.00	2	DW12TED (4HY)	Diesel	2179	4	85.00	106
C3A (TU9)	Petrol	954	4	70.00	1	DW12TED4	Diesel	2179	4	85.00	50
CRD93L (U25/661)	Diesel	2500	4	93.00	68	DW12TED4 (4HW)	Diesel	2179	4	85.00	57
CRD93LS (U25/673)	Diesel	2500	4	93.00	68	ES9A (XFV)	Petrol	2946	6	87.00	51
DHV (XUD9BSD)	Diesel	1905	4	83.00	154	ES9A (XFV)	Petrol	2946	6	87.00	53
DJ5 (T9A)	Diesel	2446	4	92.00	92	ES9J4 (XFZ)	Petrol	2946	6	87.00	135
DJ5 (T9A)	Diesel	2446	4	92.00	107	ES9J4 (XFZ)	Petrol	2946	6	87.00	141
DJ5T (T8A)	Diesel	2446	4	92.00	92	ES9J4S	Petrol	2946	6	87.00	53
DJ5T (T8A)	Diesel	2446	4	92.00	107	ES9J4S (XFW)	Petrol	2946	6	87.00	51
DJ5TED (THX)	Diesel	2446	4	92.00	93	ES9J4S (XFW)	Petrol	2946	6	87.00	58
DJ5TED (THX)	Diesel	2446	4	92.00	108	ET3J4 (KFU)	Petrol	1360	4	75.00	28
DK5ATE (THY)	Diesel	2446	4	92.00	140	ET3J4 (KFU)	Petrol	1360	4	75.00	34
DV4D	Diesel	1398	4	73.70	25	ET3J4 (KFU)	Petrol	1360	4	75.00	38
DV4TD (8HX)	Diesel	1398	4	73.70	29	EW7A (6FY)	Petrol	1749	4	82.70	42
DV4TD (8HX)	Diesel	1398	4	73.70	35	EW7A (6FY)	Petrol	1749	4	82.70	46
DV4TD (8HX)	Diesel	1398	4	73.70	143	EW7J4 (6FZ)	Petrol	1749	4	82.70	46
DV4TED4 (8HY)	Diesel	1398	4	73.70	35	EW10A	Petrol	1997	4	85.00	43
DV6ATED4	Diesel	1560	4	75.00	10	EW10A	Petrol	1997	4	85.00	47
DV6ATED4 (9HX)	Diesel	1560	4	75.00	10	EW10A (RFJ)	Petrol	1997	4	85.00	43
DV6ATED4 (9HX)	Diesel	1560	4	75.00	37	EW10A (RFJ)	Petrol	1997	4	85.00	47
DV6ATED4 (9HX)	Diesel	1560	4	75.00	41	EW10A (RFJ)	Petrol	1997	4	85.00	54
DV6B	Diesel	1560	4	75.00	10	EW10D (RLZ)	Petrol	1997	4	85.00	47
DV6TED4	Diesel	1560	4	75.00	37	EW10J4 (RFN)	Petrol	1997	4	85.00	43
DV6TED4	Diesel	1560	4	75.00	41	EW10J4 (RFN)	Petrol	1997	4	85.00	47
DV6TED4	Diesel	1560	4	75.00	45	EW10J4 (RFN)	Petrol	1997	4	85.00	54
DV6TED4	Diesel	1560	4	75.00	148	EW10J4 (RFN)	Petrol	1997	4	85.00	74
DV6TED4 (9HY)	Diesel	1560	4	75.00	41	EW10J4 (RFN)	Petrol	1997	4	85.00	81
DV6TED4 (9HY)	Diesel	1560	4	75.00	45	EW10J4 (RFN)	Petrol	1997	4	85.00	99
DV6TED4 (9HZ)	Diesel	1560	4	75.00	10	EW10J4 (RFN)	Petrol	1997	4	85.00	119
DV6TED4 (9HZ)	Diesel	1560	4	75.00	31	EW10J4 (RFN)	Petrol	1997	4	85.00	156
DV6TED4 (9HZ)	Diesel	1560	4	75.00	37	EW10J4S	Petrol	1997	4	85.00	43
DV6TED4 (9HZ)	Diesel	1560	4	75.00	41	EW10J4S (RFK)	Petrol	1997	4	85.00	43
DV6TED4 (9HZ)	Diesel	1560	4	75.00	45	EW12J4 (3FZ)	Petrol	2230	4	86.00	56
DW8 (WJZ)	Diesel	1868	4	82.20	13	FAP (4HX)	Diesel	2179	4	85.00	50
DW8 (WJZ)	Diesel	1868	4	82.20	72	J2	Petrol	1580	4	83.00	19
DW8 (WJZ)	Diesel	1868	4	82.20	97	JA	Petrol	1580	4	83.00	19
DW8 (WJZ)	Diesel	1868	4	82.20	153	K9A (TUD3)	Diesel	1360	4	75.00	5
DW8B (WJY)	Diesel	1868	4	82.20	13	K9Y (TUD3Y)	Diesel	1360	4	75.00	5
DW8B (WJY)	Diesel	1868	4	82.20	72	K9Y (TUD3Y)	Diesel	1360	4	75.00	161
DW8B (WJY)	Diesel	1868	4	82.20	97	KFW/TU3JP	Petrol	1360	4	75.00	8
DW8B (WJY)	Diesel	1868	4	82.20	153	KFW/TU3JP	Petrol	1360	4	75.00	112
DW10ATED (RHS)	Diesel	1997	4	85.00	49	KFW/TU3JP	Petrol	1360	4	75.00	144
DW10ATED (RHZ)	Diesel	1998	4	85.00	48	NFV (TU5JP)	Petrol	1587	4	78.50	146
DW10ATED (RHZ)	Diesel	1998	4	85.00	75	TU1 (H1B)	Petrol	1124	4	72.00	3
DW10ATED (RHZ)	Diesel	1998	4	85.00	83	TU1 (H1B)	Petrol	1124	4	72.00	159
DW10ATED (RHZ)	Diesel	1998	4	85.00	100	TU1 K	Petrol	1124	4	72.00	3
DW10ATED (RHZ)	Diesel	1998	4	85.00	121	TU1 K	Petrol	1124	4	72.00	159
DW10ATED (RHZ)	Diesel	1998	4	85.00	131	TU1CP (HAZ)	Petrol	1124	4	72.00	3
DW10ATED (RHZ)	Diesel	1998	4	85.00	158	TU1JP (HFX)	Petrol	1124	4	72.00	7
DW10ATED4 (RHM)	Diesel	1997	4	85.00	55	TU1JP (HFX)	Petrol	1124	4	72.00	26
DW10ATED4 (RHT)	Diesel	1997	4	85.00	55	TU1JP (HFX)	Petrol	1124	4	72.00	32
DW10ATED4 (RHW)	Diesel	1997	4	85.00	55	TU1JP (HFX)	Petrol	1124	4	72.00	111

		cc			9			cc			9
TU1M (HDZ)	Petrol	1124	4	72.00	3	XU7JP (LFW/LFZ/L6A)		1761	4	83.00	116
TU1M (HDZ)	Petrol	1124	4	72.00	7	XU7JP (LFW/LFZ/L6A)	Petrol	1761	4	83.00	127
TU1M (HDZ)	Petrol	1124	4	72.00	17	XU7JP (LFW/LFZ/L6A)	Petrol	1761	4	83.00	150
TU1M (HDZ)	Petrol	1124	4	72.00	61	XU7JP (LFW/LFZ/L6A)		1761	4	83.00	166
TU1M (HDZ)	Petrol	1124	4	72.00	111	XU7JP4 (LFY)	Petrol	1761	4	83.00	128
TU1M (HDZ)	Petrol	1124	4	72.00	159	XU7JP4 (LFY)	Petrol	1761	4	83.00	151
TU3 (K3A)	Petrol	1360	4	75.00	62	XU7JP4 (LFY)	Petrol	1761	4	83.00	167
TU3A (K1H)	Petrol	1360	4	75.00	18	XU9J1 (DFZ)	Petrol	1905	4	83.00	22
TU3A (K1H)	Petrol	1360	4	75.00	62	XU9J2 (D6A)	Petrol	1905	4	83.00	22
TU3CP (KAY)	Petrol	1360	4	75.00	160	XU9J4 (DFW)	Petrol	1905	4	83.00	24
TU3F2 (K1F)	Petrol	1360	4	75.00	4	XU9JA (DKZ)	Petrol	1905	4	83.00	22
TU3F2 (K2B)	Petrol	1360	4	75.00	4	XU9JA (DKZ)	Petrol	1905	4	83.00	169
TU3FJ2 (K2D)	Petrol	1360	4	75.00	18	XU9M (DDZ)	Petrol	1905	4	83.00	22
TU3FJ2 (KFY)	Petrol	1360	4	75.00	4	XU9S (159A)	Petrol	1905	4	83.00	22
TU3FJ2 (KFZ)	Petrol	1360	4	75.00	4	XU10J2	Petrol	1998	4	86.00	87
TU3FM (K2A)	Petrol	1360	4	75.00	4	XU10J2	Petrol	1998	4	86.00	104
TU3FM (K2A)	Petrol	1360	4	75.00	160	XU10J2 (RFZ)	Petrol	1998	4	86.00	136
TU3FM (KDY)	Petrol	1360	4	75.00	4	XU10J2C (RFU)	Petrol	1998	4	86.00	80
TU3FM (KDY)	Petrol	1360	4	75.00	62	XU10J2C (RFU)	Petrol	1998	4	86.00	118
TU3JP	Petrol	1360	4	75.00	160	XU10J2C (RFX)	Petrol	1998	4	86.00	132
TU3JP-L4	Petrol	1360	4	75.00	27	XU10J2C (RFX)	Petrol	1998	4	86.00	171
TU3JP-L4	Petrol	1360	4	75.00	33	XU10J2TE (RGX)	Petrol	1998	4	86.00	80
TU3JP-L4	Petrol	1360	4	75.00	39	XU10J2TE (RGX)	Petrol	1998	4	86.00	118
TU3M (KDX)	Petrol	1360	4	75.00	4	XU10J2TE (RGX)	Petrol	1998	4	86.00	132
TU3M (KDX)	Petrol	1360	4	75.00	160	XU10J2TE (RGX)	Petrol	1998	4	86.00	136
TU3M (KDY)	Petrol	1360	4	75.00	4	XU10J2TE (RGX/RGY)	Petrol	1998	4	86.00	136
TU3M (KDY)	Petrol	1360	4	75.00	18	XU10J2U (RFX)	Petrol	1998	4	86.00	87
TU3M (KDY)	Petrol	1360	4	75.00	62	XU10J2U (RFX)	Petrol	1998	4	86.00	104
TU3M (KDY)	Petrol	1360	4	75.00	160	XU10J4 (RFT)	Petrol	1998	4	86.00	133
TU3M/Z (KDZ)	Petrol	1360	4	75.00	4	XU10J4 (RFT)	Petrol	1998	4	86.00	172
TU3M/Z (KDZ)	Petrol	1360	4	75.00	18	XU10J4 (RFY)	Petrol	1998	4	86.00	133
TU3M/Z (KDZ)	Petrol	1360	4	75.00	160	XU10J4 (RFY)	Petrol	1998	4	86.00	172
TU5J4 (NFX)	Petrol	1587	4	78.50	115	XU10J4R (RFV)	Petrol	1998	4	86.00	82
TU5JP (NFT)	Petrol	1587	4	78.50	114	XU10J4R (RFV)	Petrol	1998	4	86.00	120
TU5JP (NFT/NFZ)	Petrol	1587	4	78.50	114	XU10J4R (RFV)	Petrol	1998	4	86.00	133
TU5JP (NFT/NFZ)	Petrol	1587	4	78.50	146	XU10J4R (RFV)	Petrol	1998	4	86.00	137
TU5JP (NFT/NFZ)		1587	4	78.50	163	XU10J4R (RFV)	Petrol	1998	4	86.00	157
TU5JP4	Petrol	1587	4	78.50	30	XU10J4RS (RFS)	Petrol	1998	4	86.00	157
TU5JP4 (NFU/N6A)		1587	4	78.50	9	XU10J4RS (RFS)	Petrol	1998	4	86.00	172
TU5JP4 (NFU/N6A)	Petrol	1587	4	78.50	30	XU10MZ (RDZ)	Petrol	1998	4	86.00	136
TU5JP4 (NFU/N6A)		1587	4	78.50	36	XU51C (B1E)	Petrol	1580	4	83.00	19
TU5JP4 (NFU/N6A)		1587	4	78.50	40	XU52C	Petrol	1580	4	83.00	19
TU5JP4 (NFU/N6A)		1587	4	78.50	147	XU92C (D2A)	Petrol	1905	4	83.00	22
TU5JP4S (NFS)	Petrol	1587	4	78.50	30	XU92C (D2C)	Petrol	1905	4	83.00	22
TU9 (C1A)	Petrol	954	4	70.00	1	XU92C (D2F)	Petrol	1905	4	83.00	22
TU9/XV8 (108C)	Petrol	954	4	70.00	60	XU102C (R2A)	Petrol	1998	4	86.00	89
TU9M (CDY/CDZ)	Petrol	954	4	70.00	1	XU102C (R2A)	Petrol	1998	4	86.00	136
TU9M (CDY/CDZ)		954	4	70.00	110	XUD7 (161)	Diesel	1769	4	80.00	20
TUD5 (VJY)/TUD5 (VJZ)	Diesel	1527	4	77.00	6	XUD7 (161A)	Diesel	1769	4	80.00	20
TUD5 (VJY)/TUD5 (VJZ)	Diesel	1527	4	77.00	113	XUD7 (161A)	Diesel	1769	4	80.00	63
TUD5 (VJZ)	Diesel	1527	4	77.00	145	XUD7 (161A)	Diesel	1769	4	80.00	125
TUD5 (VJZ)	Diesel	1527	4	77.00	162	XUD7 (161A)	Diesel	1769	4	80.00	149
XM7T (169)	Petrol	1796	4	84.00	65	XUD7 (161A)	Diesel	1769	4	80.00	165
XN1T (170A)	Petrol	1971	4	88.00	67	XUD7 (A9A/161A)	Diesel	1769	4	80.00	12
XN1T (170B)	Petrol	1971	4	88.00	67	XUD7 (A9A/161A)	Diesel	1769	4	80.00	149
XN1T (170C)	Petrol	1971	4	88.00	67	XUD7TE (A8A)	Diesel	1769	4	80.00	21
XU5 (171A)	Petrol	1580	4	83.00	19	XUD7TE (AJZ)	Diesel	1769	4	80.00	21
XU5 (B1AA)	Petrol	1580	4	83.00	19	XUD9 (DJZ)	Diesel	1905	4	83.00	129
XU5CP (BAY/BAZ)	Petrol	1580	4	83.00	19	XUD9 (DJZ)	Diesel	1905	4	83.00	168
XU5J	Petrol	1580	4	83.00	19	XUD9A (DJY)	Diesel	1905	4	83.00	14
XU5J (180Z)	Petrol	1580	4	83.00	19	XUD9A (DJY)	Diesel	1905	4	83.00	85
XU5JA (B6D)	Petrol	1580	4	83.00	124	XUD9A (DJY)	Diesel	1905	4	83.00	154
XU5JP (BFZ)	Petrol	1580	4	83.00	126	XUD9A (DJY)	Diesel	1905	4	83.00	168
XU5JP (BFZ)	Petrol	1580	4	83.00	164	XUD9A/L (D9B)	Diesel	1905	4	83.00	14
XU5M (BDY/B4A)	Petrol	1580	4	83.00	19	XUD9A/L (D9B)	Diesel	1905	4	83.00	129
XU5M (BDY/B4A)	Petrol	1580	4	83.00	164	XUD9A/U (D9B)	Diesel	1905	4	83.00	23
XU5M (BDZ)	Petrol	1580	4	83.00	19	XUD9A/U (D9B)	Diesel	1905	4	83.00	66
XU5S (171B)	Petrol	1580	4	83.00	19	XUD9A/U (D9B)	Diesel	1905	4	83.00	71
XU5S (171D)	Petrol	1580	4	83.00	19	XUD9A/U (D9B)	Diesel	1905	4	83.00	85
XU7JB (LFX)	Petrol	1761	4	83.00	11	XUD9A/U (D9B)	Diesel	1905	4	83.00	96
XU7JB (LFX)	Petrol	1761	4	83.00	127	XUD9A/U (D9B)	Diesel	1905	4	83.00	102
XU7JB (LFX)	Petrol	1761	4	83.00	150	XUD9A/U (D9B)	Diesel	1905	4	83.00	168
XU7JP (LFW/LFZ/L6A)		1761	4	83.00	78	XUD9BTF (DHX)	Diesel	1905	4	83.00	73

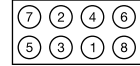
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XUD9BTF (DHX)	Diesel	1905	4	83.00	<b>79</b>						
XUD9BTF (DHX)	Diesel	1905	4	83.00	<b>86</b>						
XUD9BTF (DHX)	Diesel	1905	4	83.00	<b>98</b>						
XUD9BTF (DHX)	Diesel	1905	4	83.00	<b>103</b>						
XUD9BTF (DHX)	Diesel	1905	4	83.00	<b>117</b>						
XUD9BTF (DHX)	Diesel	1905	4	83.00	<b>130</b>						
XUD9SD (DHW)	Diesel	1905	4	83.00	<b>129</b>						
XUD9TE (DHY)	Diesel	1905	4	83.00	<b>130</b>						
XUD9TE (DHY)	Diesel	1905	4	83.00	<b>155</b>						
XUD9TE (DHY)	Diesel	1905	4	83.00	<b>170</b>						
XUD9TF (D8B)	Diesel	1905	4	83.00	<b>73</b>						
XUD9TF (D8B)	Diesel	1905	4	83.00	<b>79</b>						
XUD9TF (D8B)	Diesel	1905	4	83.00	<b>98</b>						
XUD9TF (D8B)	Diesel	1905	4	83.00	<b>117</b>						
XUD9TF (D8B)	Diesel	1905	4	83.00	<b>130</b>						
XUD9UTF (D8C)	Diesel	1905	4	83.00	<b>86</b>						
XUD9UTF (D8C)	Diesel	1905	4	83.00	<b>103</b>						
XUD11A (P9A/PJZ)	Diesel	2138	4	86.00	<b>138</b>						
XUD11ATE (P8A)	Diesel	2088	4	85.00	<b>139</b>						
XUD11ATE (PHZ)	Diesel	2088	4	85.00	<b>139</b>						
XUD11ATE (PJZ)	Diesel	2088	4	85.00	<b>139</b>						
XUD11BTE (P8C)	Diesel	2088	4	85.00	<b>84</b>						
XUD11BTE (P8C)	Diesel	2088	4	85.00	<b>123</b>						
XUD11BTE (P8C)	Diesel	2088	4	85.00	<b>134</b>						
XUD11BTE (P8C)	Diesel	2088	4	85.00	<b>139</b>						
ZPJ/Z (SFZ)	Petrol	2963	6	93.00	<b>142</b>						
ZPJ/Z (UFZ)	Petrol	2963	6	93.00	<b>142</b>						
ZPJ4 (SKZ)	Petrol	2963	6	93.00	<b>142</b>						
ZPJ4 (UKZ)	Petrol	2963	6	93.00	<b>142</b>						



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AX 10						07/86 → 12/98	1	<b>HBS039</b>  M10x1.50x175mm (x10)	1) 20Nm 2) 120° 3) 120°	
AX 10 E						12/86 → 12/88				
C3A (TU9)/TU9 (C1A)	954	4	70.00	SOHC	33/45					
TU9M (CDY/CDZ)	954	4	70.00	SOHC	40/54					
AX 10						09/86 → 06/92	2	<b>HBS039</b>  M10x1.50x175mm (x10)	1) 20Nm 2) 120° 3) 120°	
C1A	954	4	70.00	SOHC	32/45					
AX 11						09/86 → 12/97	3	<b>HBS039</b>  M10x1.50x175mm (x10)	1) 20Nm 2) 120° 3) 120°	
AX 11 4x4						06/91 → 07/92				
TU1CP (HAZ)/TU1M (HDZ)	1124	4	72.00	SOHC	40/54					
TU1 K	1124	4	72.00	SOHC	40-44/ 54-60					
TU1 (H1B)	1124	4	72.00	SOHC	40-44/ 55-60					
Ax 1.4L 4x4						09/86 → 07/92	4	<b>HBS039</b>  M10x1.50x175mm (x10)	1) 20Nm 2) 120° 3) 120°	
AX 1.4L GTi						06/91 → 12/96				
AX 14						04/87 → 04/97				
AX 14 4x4						08/91 → 12/96				
TU3F2 (K1F)	1360	4	75.00	SOHC	49/67					
TU3FM (KDY)/ TU3M (KDX)/TU3M (KDY)/TU3M/Z (KDZ)	1360	4	75.00	SOHC	55/75					
TU3F2 (K2B)/TU3FM (K2A)	1360	4	75.00	SOHC	62/84					
TU3FJ2 (KFY)	1360	4	75.00	SOHC	66/89					
TU3FJ2 (KFZ)	1360	4	75.00	SOHC	69/94					
AX 14 D Diesel						09/88 → 12/97	5	<b>HBS082</b>  M10x1.50x185mm (x10)	1) 60Nm 2) ↻ 360° 3) 20Nm 4) 160° 5) 160°	
K9A (TUD3)/K9Y (TUD3Y)	1360	4	75.00	SOHC	39/53					
AX 15 D Diesel						08/94 → 12/97	6	<b>HBS113</b>  M11x1.50x185mm (x10)	1) 40Nm 2) 300°	
TUD5 (VJY)/TUD5 (VJZ)	1527	4	77.00	SOHC	42/57					
Berlingo 1.1L i						07/96 →	7	<b>HBS039</b>  M10x1.50x175mm (x10)	1) 20Nm 2) 120° 3) 120°	
Berlingo Van 1.1L i						07/96 →				
TU1M (HDZ)	1124	4	72.00	SOHC	40/54					
TU1JP (HFX)	1124	4	72.00	SOHC	44/60					
Berlingo 1.4L i						07/96 →	8	<b>HBS039</b>  M10x1.50x175mm (x10)	1) 20Nm 2) 120° 3) 120°	
Berlingo 1.4L i Bivalent						04/03 →				
Berlingo Van 1.4L i						07/96 →				
KFW/TU3JP	1360	4	75.00	SOHC	55/75					
Berlingo 1.6L 16V						10/00 →	9	<b>HBS254</b>  M10x1.50x122mm (x10)	1) 20Nm 2) 130° 3) 130°	
Berlingo Van 1.6L 16V						10/00 →				
TU5JP4 (NFU/N6A)	1587	4	78.50	DOHC	80/109					
Berlingo 1.6L HDi 110 Diesel						04/08 →	10	<b>HBS359</b>  M11x1.50x150mm (x10)	1) 20Nm 2) 40Nm 3) 180°	
Berlingo 1.6L HDi 75 Diesel						07/05 →				
Berlingo 1.6L HDi 90 Diesel						07/05 →				
Berlingo Van 1.6L HDi 75 Diesel						07/05 →				
9HN (DV6ETED)	1560	4	75.00	Direct Injection, DOHC	55/75					
9HT (DV6BTED4)/9HT (DV6BUTED4)	1560	4	75.00	DOHC	55/75					
9HW (DV6ETED)	1560	4	75.00	Direct Injection, DOHC	55/75					
DV6B	1560	4	75.00	DOHC	55/75					
DV6ATED4/DV6ATED4 (9HX)	1560	4	75.00	DOHC	66/90					
DV6TED4 (9HZ)	1560	4	75.00	DOHC	80/109					

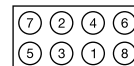




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<b>Berlingo 1.8L i 4WD</b> 04/97 → <b>11</b> <b>Berlingo 1.8L i</b> 05/97 → <b>Berlingo Van 1.8L i</b> 08/99 →10/02					<b>HBS260</b>  M11x1.50x168mm (x10)	1) 60Nm 2) ↻ 180° 3) 20Nm 4) 150°	
<b>Berlingo 1.8L D Diesel</b> 07/98 → <b>12</b> <b>Berlingo Van 1.8L D Diesel</b> 07/96 →					<b>HBS084</b> →Eng.08469  M12x1.50x123mm (x10)	1) 20Nm 2) 60Nm 3) 180°	
<b>Berlingo 1.9L D Diesel</b> 07/98 → <b>13</b> <b>Berlingo 1.9L D 4WD Diesel</b> 07/98 → <b>Berlingo Van 1.9L D 70 Diesel</b> 04/99 → <b>Berlingo Van 1.9L D 70 4WD Diesel</b> 07/98 →					<b>HBS084</b> →Eng.08469  M12x1.50x123mm (x10)	1) 20Nm 2) 60Nm 3) 180°	
<b>Berlingo 1.9L D Diesel</b> 07/96 → <b>14</b> <b>XUD9A/L (D9B)</b> 1905 4 83.00 SOHC 50/68 <b>XUD9A (DJY)</b> 1905 4 83.00 SOHC 51/70					<b>HBS084</b>  M12x1.50x123mm (x10)	1) 20Nm 2) 60Nm 3) 180°	
<b>Berlingo 2.0L HDI Diesel</b> 11/02 →10/05 <b>15</b> <b>Berlingo 2.0L HDI 4x4 Diesel</b> 11/02 →10/05 <b>DW10TD</b> 1997 4 85.00 SOHC 66/89					<b>HBS261</b>  M12x1.50x126mm (x10)	1) 20Nm 2) 60Nm 3) 220°	
<b>Berlingo 2.0L HDI Diesel</b> 11/02 →10/05 <b>16</b> <b>Berlingo 2.0L HDI 4x4 Diesel</b> 11/02 →10/05 <b>Berlingo 2.0L HDI 90 Diesel</b> 12/99 → <b>Berlingo Van 2.0L HDI 90 Diesel</b> 12/99 → <b>Berlingo Van 2.0L HDI 90 4WD Diesel</b> 11/00 → <b>DW10TD (RHY)</b> 1998 4 85.00 SOHC 63/86					<b>HBS261</b>  M12x1.50x126mm (x10)	1) 20Nm 2) 60Nm 3) 220°	
<b>BX 11</b> 10/86 →06/92 <b>17</b> <b>TU1M (HDZ)</b> 1124 4 72.00 SOHC 42/57 1124 4 72.00 SOHC 40/54					<b>HBS039</b>  M10x1.50x175mm (x10)	1) 20Nm 2) 120° 3) 120°	
<b>BX 1.4L</b> 08/91 →12/96 <b>18</b> <b>BX 14</b> 01/89 →02/93 <b>TU3A (K1H)</b> 1360 4 75.00 SOHC 47-49/ 64-67 <b>TU3F12 (K2D)/TU3M (KDY)/TU3M/Z (KDZ)</b> 1360 4 75.00 SOHC 55/75					<b>HBS039</b>  M10x1.50x175mm (x10)	1) 20Nm 2) 120° 3) 120°	



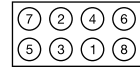
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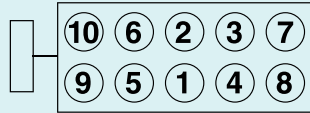


BX 16						10/82 → 12/94	19
BX 16 E						05/89 → 02/93	
XU51C (B1E)	1580	4	83.00	SOHC		53/72	
XU5CP (BAY/BAZ)	1580	4	83.00	SOHC		55/75	
XU5 (B1AA)	1580	4	83.00	SOHC		58-59/ 79-80	
XU5S (171D)	1580	4	83.00	SOHC		64/87	
XU5M (BDY/B4A)/XU5M (BDZ)	1580	4	83.00	SOHC		65/88	
171C/XU5 (171A)/XU5S (171B)	1580	4	83.00	SOHC		66/90	
XU52C	1580	4	83.00	SOHC		68/92	
XU5J (180Z)/XU5J/12/JA	1580	4	83.00	SOHC		76/103	
<b>BX 1.8L D Diesel</b>						10/85 → 09/93	20
XUD7 (161)/XUD7 (161A)	1769	4	80.00	SOHC		44/60	
<b>BX 1.8L TRD Turbo Diesel</b>						03/88 → 12/94	21
XUD7TE (A8A)/XUD7TE (AJZ)	1769	4	80.00	SOHC		66/90	
<b>BX 19</b>						07/86 → 12/94	22
<b>BX 19 E</b>						06/88 → 02/93	
<b>BX 19 GTI</b>						07/86 → 02/93	
XU92C (D2C)	1905	4	83.00	SOHC		70/95	
XU9S (159A)	1905	4	83.00	SOHC		75/102	
XU92C (D2A)	1905	4	83.00	SOHC		76/103	
XU92C (D2F)/XU9M (DDZ)	1905	4	83.00	SOHC		80/109	
XU911 (DFZ)/XU912 (D6A)/XU91A (DKZ)	1905	4	83.00	SOHC		90/122	
<b>BX 19 D Diesel</b>						03/87 → 12/94	23
XUD9A/U (D9B)	1905	4	83.00	SOHC		66/90	
<b>BX 19 GTI 16V</b>						03/88 → 02/93	24
XU914 (DFW)	1905	4	83.00	DOHC		116/158	
<b>C1 1.4L HDI Diesel</b>						06/05 →	25
DV4D	1398	4	73.70	SOHC		40/54	
<b>C2 1.1L</b>						09/03 →	26
TUT1P (HFX)	1124	4	72.00			44/60	
<b>C2 1.4L</b>						09/03 →	27
TU31P-L4	1360	4	75.00	SOHC		58/79	

**HBS038**

M11x1.50x175mm (x10)

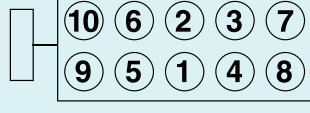
- 1) 60Nm
- 2) ↺ 180°
- 3) 20Nm
- 4) 150°



**HBS083**

M11x1.50x168mm (x10)

- 1) 60Nm
- 2) ↺ 180°
- 3) 20Nm
- 4) 120°

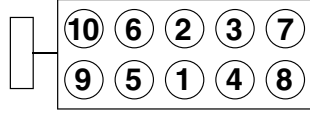


**HBS084**

→ Eng.08469

M12x1.50x123mm (x10)

- 1) 20Nm
- 2) 60Nm
- 3) 180°

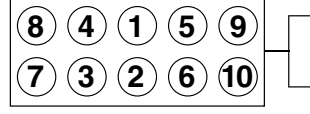


**HBS245**

Eng.08470 →

M12x1.50x125mm (x10)

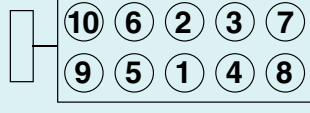
- 1) 20Nm
- 2) 60Nm
- 3) 180°



**HBS084**

M12x1.50x123mm (x10)

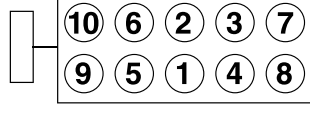
- 1) 20Nm
- 2) 60Nm
- 3) 180°



**HBS038**

M11x1.50x175mm (x10)

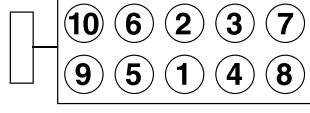
- 1) 60Nm
- 2) ↺ 180°
- 3) 20Nm
- 4) 150°



**HBS083**

M11x1.50x168mm (x10)

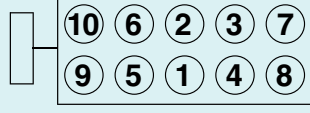
- 1) 60Nm
- 2) ↺ 180°
- 3) 20Nm
- 4) 120°



**HBS084**

M12x1.50x123mm (x10)

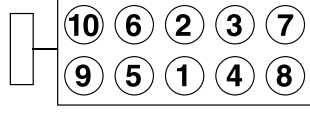
- 1) 20Nm
- 2) 60Nm
- 3) 180°



**HBS038**

M11x1.50x175mm (x10)

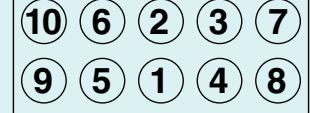
- 1) 60Nm
- 2) ↺ 180°
- 3) 20Nm
- 4) 150°



**HBS359**

M11x1.50x150mm (x10)

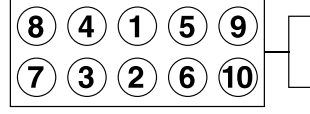
- 1) 149Nm
- 2) 20Nm
- 3) 40Nm
- 4) 230°



**HBS039**

M10x1.50x175mm (x10)

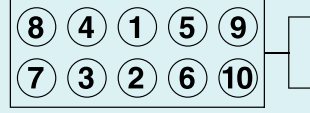
- 1) 20Nm
- 2) 120°
- 3) 120°



**HBS039**

M10x1.50x175mm (x10)

- 1) 20Nm
- 2) 120°
- 3) 120°

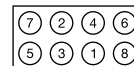




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C2 1.4L 16V					06/06 →	28	HBS489	1) 20Nm 2) 120° 3) 120°	10 6 2 3 7 9 5 1 4 8
ET3J4 (KFU)	1360	4	75.00	DOHC		65/88	M10x1,5x17mm (x10)		
C2 1.4L HDI Diesel					09/03 →	29	HBS359	1) 149Nm 2) 20Nm 3) 40Nm 4) 230°	10 6 2 3 7 9 5 1 4 8
DV4TD (8HX)	1398	4	73.70	Common Rail, SOHC		52/71	M11x1.50x150mm (x10)		
C2 1.6L					09/03 →	30	HBS254	1) 20Nm 2) 130° 3) 130°	8 4 1 5 9 7 3 2 6 10
C2 1.6L VTS					01/05 →				
TU5JP4	1587	4	78.50	DOHC		78/106	M10x1.50x122mm (x10)		
TU5JP4 (NFU/N6A)	1587	4	78.50	DOHC		80/109			
TU5JP4S (NFS)	1587	4	78.50			90/122			
C2 1.6L HDi Diesel					09/05 →	31	HBS359	1) 20Nm 2) 40Nm 3) 180°	10 6 2 3 7 9 5 1 4 8
DV6TED4 (9HZ)	1560	4	75.00	DOHC		80/109	M11x1.50x150mm (x10)		
C3 1.1L i					02/02 →	32	HBS039	1) 20Nm 2) 120° 3) 120°	8 4 1 5 9 7 3 2 6 10
TU1JP (HFX)	1124	4	72.00			44/60	M10x1.50x175mm (x10)		
C3 1.4L					05/03 →	33	HBS039	1) 20Nm 2) 120° 3) 120°	8 4 1 5 9 7 3 2 6 10
C3 1.4L i					02/02 →				
C3 1.4L i Bivalent					02/02 →				
TU3JP4	1360	4	75.00	SOHC		58/79	M10x1.50x175mm (x10)		
C3 1.4L 16V					12/03 →	34	HBS489	1) 20Nm 2) 120° 3) 120°	10 6 2 3 7 9 5 1 4 8
ET3J4 (KFU)	1360	4	75.00	DOHC		65/88	M10x1,5x17mm (x10)		
C3 1.4L 16V HDI Diesel					02/02 →	35	HBS359	1) 149Nm 2) 20Nm 3) 40Nm 4) 230°	10 6 2 3 7 9 5 1 4 8
C3 1.4L HDI Diesel					02/02 →				
DV4TD (8HX)	1398	4	73.70	Common Rail, SOHC		52/71	M11x1.50x150mm (x10)		
DV4TED4 (8HY)	1398	4	73.70	Common Rail, DOHC		66/89			
C3 1.6L					05/03 →	36	HBS254	1) 20Nm 2) 130° 3) 130°	8 4 1 5 9 7 3 2 6 10
C3 1.6L 16V					02/02 →				
TU5JP4 (NFU/N6A)	1587	4	78.50	DOHC		80/109	M10x1.50x122mm (x10)		
C3 1.6L 16V HDI Diesel					09/05 →	37	HBS359	1) 20Nm 2) 40Nm 3) 180°	10 6 2 3 7 9 5 1 4 8
C3 1.6L HDI Diesel					02/09 →				
C3 1.6V HDI Diesel					10/05 →				
DV6ATED4 (9HX)	1560	4	75.00	DOHC		66/90	M11x1.50x150mm (x10)		
DV6TED4/DV6TED4 (9HZ)	1560	4	75.00	DOHC		80/109			
C4 1.4L 16V					11/04 →	38	HBS489	1) 20Nm 2) 120° 3) 120°	10 6 2 3 7 9 5 1 4 8
C4 Coupe 1.4L 16V					11/04 →				
ET3J4 (KFU)	1360	4	75.00	DOHC		65/88	M10x1,5x17mm (x10)		
C4 1.4L Hybrid					05/05 →	39	HBS039	1) 20Nm 2) 120° 3) 120°	8 4 1 5 9 7 3 2 6 10
TU3JP4	1360	4	75.00	SOHC		58/79	M10x1.50x175mm (x10)		



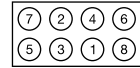
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<b>C4 1.6L 16V</b> 11/04 → <b>40</b>					<b>HBS254</b>  M10x1.50x122mm (x10)	1) 20Nm 2) 130° 3) 130°	
<b>C4 Coupe 1.6L 16V</b> 11/04 →							
TU5JP4 (NFU/N6A)	1587	4	78.50	DOHC	80/109		
<b>C4 1.6L HDI Diesel</b> 11/04 → <b>41</b>					<b>HBS359</b>  M11x1.50x150mm (x10)	1) 20Nm 2) 40Nm 3) 180°	
<b>C4 Coupe 1.6L HDI Diesel</b> 11/04 →							
DV6ATED4 (9HX)	1560	4	75.00	DOHC	66/90		
DV6TED4/DV6TED4 (9HY)/DV6TED4 (9HZ)	1560	4	75.00	DOHC	80/109		
<b>C4 Grand Picasso 1.8L i 16V</b> 10/06 → <b>42</b>					<b>HBS259</b>  M11x1.50x144.5mm (x10)	1) 15Nm 2) 50Nm 3) ↻ 360° 4) 20Nm 5) 285°	
<b>C4 Picasso 1.8L i 16V</b> 02/07 →							
EW7A (6FY)	1749	4	82.70	DOHC			
<b>C4 2.0L 16V</b> 11/04 → <b>43</b>					<b>HBS259</b>  M11x1.50x144.5mm (x10)	1) 15Nm 2) 50Nm 3) ↻ 360° 4) 20Nm 5) 285°	
<b>C4 Coupe 2.0L 16V</b> 11/04 →							
EW10J4 (RFN)	1997	4	85.00	DOHC	100/136		
EW10A	1997	4	85.00	DOHC	103/140		
EW10J4S	1997	4	85.00	DOHC	130/177		
EW10A (RFJ)/EW10J4S (RFK)	1997	4	85.00	DOHC			
<b>C4 2.0L HDI Diesel</b> 11/04 → <b>44</b>					<b>HBS261</b>  M12x1.50x126mm (x10)	1) 20Nm 2) 60Nm 3) 220°	
<b>C4 Coupe 2.0L HDI Diesel</b> 11/04 →							
DW10BTE4	1997	4	85.00	DOHC	100/136		
DW10BTE4 (RHJ)/DW10BTE4 (RHR)	1997	4	85.00	DOHC			
<b>C5 1.6L HDI Diesel</b> 09/04 → <b>45</b>					<b>HBS359</b>  M11x1.50x150mm (x10)	1) 20Nm 2) 40Nm 3) 180°	
<b>C5 Coupe 1.6L HDI Diesel</b> 09/04 →							
DV6TED4/DV6TED4 (9HY)/DV6TED4 (9HZ)	1560	4	75.00	DOHC	80/109		
<b>C5 1.8L 16V</b> 03/01 → 08/04 <b>46</b>					<b>HBS259</b>  M11x1.50x144.5mm (x10)	1) 15Nm 2) 50Nm 3) ↻ 360° 4) 20Nm 5) 285°	
<b>C5 Coupe 1.8L 16V</b> 03/01 → 08/04							
EW7J4 (6FZ)	1749	4	82.70	DOHC	85/115		
EW7A (6FY)	1749	4	82.70	DOHC			
<b>C5 2.0L 16V</b> 03/01 → 08/04 <b>47</b>					<b>HBS259</b>  M11x1.50x144.5mm (x10)	1) 15Nm 2) 50Nm 3) ↻ 360° 4) 20Nm 5) 285°	
<b>C5 Coupe 2.0L 16V</b> 03/01 → 08/04							
EW10J4 (RFN)	1997	4	85.00	DOHC	100/136		
EW10A/EW10D (RLZ)	1997	4	85.00	DOHC	103/140		
EW10A (RFJ)	1997	4	85.00	DOHC			
<b>C5 2.0L HDI Diesel</b> 03/01 → 08/04 <b>48</b>					<b>HBS261</b>  M12x1.50x126mm (x10)	1) 20Nm 2) 60Nm 3) 220°	
<b>C5 Break 2.0L HDI Diesel</b> 06/01 → 08/04							
DW10TD (RHY)	1998	4	85.00	SOHC	63/86		
DW10ATED (RHZ)	1998	4	85.00	SOHC	80/109		
<b>C5 2.0L HDI Diesel</b> 03/01 → 08/04 <b>49</b>					<b>HBS261</b>  M12x1.50x126mm (x10)	1) 20Nm 2) 60Nm 3) 220°	
<b>C5 Break 2.0L HDI Diesel</b> 02/08 →							
DW10ATED (RHS)	1997	4	85.00	DOHC	79/107		
DW10BTE4	1997	4	85.00	DOHC	100/136		
DW10BTE4 (RHR)	1997	4	85.00	DOHC			
<b>C5 2.2L HDI Diesel</b> 03/01 → 08/04 <b>50</b>					<b>HBS261</b>  M12x1.50x126mm (x10)	1) 20Nm 2) 60Nm 3) ↻ 360° 4) 60Nm 5) 220°	
<b>C5 Break 2.2L HDI Diesel</b> 03/01 → 08/04							
DW12TED4/FAP (4HX)	2179	4	85.00	DOHC	100/136		
4HT (DW12BTE4)	2179	4	85.00	DOHC	125/170		
<b>C5 3.0L V6</b> 03/01 → 08/04 <b>51</b>					<b>HBS272</b>  M10x1.50x147mm (x16)	1) 20Nm 2) ↻ 360° 3) 15Nm 4) 225°	
<b>C5 Carlsson</b> 09/03 → 08/04							
ES9A (XFV)	2946	6		DOHC	173/235		
ES9A (XFV)	2946	6	87.00	DOHC	152/207		
ES9J4S (XFW)	2946	6	87.00	DOHC, V6	152/207		

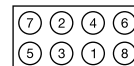




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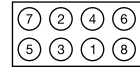
C6 2.2L HDi Diesel		06/06 →			52			
4HT (DW12BTD4)	2179	4	85.00	DOHC	125/170	 M12x1.50x126mm (x10)	1) 20Nm 2) 60Nm 3) ↻ 360° 4) 60Nm 5) 220°	
C6 3.0L V6		09/05 →			53			
ES9A (XFV)	2946	6	87.00	DOHC	152/207	 M10x1.50x147mm (x16)	1) 20Nm 2) ↻ 360° 3) 15Nm 4) 225°	
ES9J4S	2946	6	87.00	DOHC				
C8 2.0L 16V		07/02 →			54			
EW10J4 (RFN)	1997	4	85.00	DOHC	100/136	 M11x1.50x144.5mm (x10)	1) 15Nm 2) 50Nm 3) ↻ 360° 4) 20Nm 5) 285°	
EW10A (RFJ)	1997	4	85.00	DOHC				
C8 2.0L HDi Diesel		07/02 →			55			
DW10ATED4 (RHM)/DW10ATED4 (RHT)	1997	4	85.00	DOHC	79/107	 M12x1.50x126mm (x10)	1) 20Nm 2) 60Nm 3) 220°	
DW10ATED4 (RHW)	1997	4	85.00	SOHC	80/109			
DW10BTD4 (RHR)	1997	4	85.00	DOHC				
C8 2.2L		07/02 →			56			
EW12J4 (3FZ)	2230	4	86.00	DOHC	116/158	 M11x1.50x128mm (x10)	1) 15Nm 2) 50Nm 3) ↻ 360° 4) 20Nm 5) 270°	
C8 2.2L HDi Diesel		07/02 →			57			
DW12TED4 (4HW)	2179	4	85.00	DOHC	94/128	 M12x1.50x126mm (x10)	1) 20Nm 2) 60Nm 3) ↻ 360° 4) 60Nm 5) 220°	
4HT (DW12BTD4)	2179	4	85.00	DOHC	125/170			
C8 3.0L V6		07/02 →			58			
ES9J4S (XFV)	2946	6	87.00	DOHC, V6	152/207	 M10x1.50x147mm (x16)	1) 20Nm 2) ↻ 360° 3) 15Nm 4) 225°	
C9 2.0L HDi Diesel		02/07 →			59			
DW10UTED4 (RHK)	1997	4	85.00	DOHC	79/107	 M12x1.50x126mm (x10)	1) 20Nm 2) 60Nm 3) 220°	
C15 Van 1.0L		10/84 →12/97			60			
TU9/XV8 (108C)	954	4	70.00	SOHC	33/45	 M10x1.50x175mm (x10)	1) 20Nm 2) 120° 3) 120°	
C15 Van 1.1L i		07/88 →12/96			61			
TU1M (HDZ)	1124	4	72.00	SOHC	40/54	 M10x1.50x175mm (x10)	1) 20Nm 2) 120° 3) 120°	
C15 Van 1.4L		07/87 →12/96			62			
C15 Van 1.4L E		07/87 →12/96						
C15 Van 1.4L i		05/91 →12/96						
TU3 (K3A)	1360	4	75.00	SOHC	40-46/ 54-63	 M10x1.50x175mm (x10)	1) 20Nm 2) 120° 3) 120°	
TU3A (K1H)	1360	4	75.00	SOHC	47-49/ 64-67			
TU3FM (KDY)/TU3M (KDY)	1360	4	75.00	SOHC	55/75			



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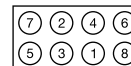
<b>C15 Van 1.8L D Diesel</b>				07/86 → 12/00	<b>63</b>			
XUD7 (161A)	1769	4	80.00	SOHC	44/60	 HBS084 → Eng.08469 M12x1.50x123mm (x10)	1) 20Nm 2) 60Nm 3) 180°	
							 HBS245 Eng.08470 → M12x1.50x125mm (x10)	1) 20Nm 2) 60Nm 3) 180°
<b>C15 Van 1.9L D Diesel</b>				12/00 →	<b>64</b>			
	1868	4			44/60	 HBS084 → Eng.08469 M12x1.50x123mm (x10)	1) 20Nm 2) 60Nm 3) 180°	
							 HBS245 Eng.08470 → M12x1.50x125mm (x10)	1) 20Nm 2) 60Nm 3) 180°
<b>C25 1.8L E</b>				07/87 → 02/94	<b>65</b>			
XM7T (169)	1796	4	84.00		51/69	 HBS038 M11x1.50x175mm (x10)	1) 60Nm 2) ↻ 180° 3) 20Nm 4) 150°	
							 HBS084 M12x1.50x123mm (x10)	1) 20Nm 2) 60Nm 3) 180°
<b>C25 1.9L D Diesel</b>				07/87 → 02/94	<b>66</b>			
XUD9A/U (D9B)	1905	4	83.00	SOHC	66/90	 HBS084 M12x1.50x123mm (x10)	1) 20Nm 2) 60Nm 3) 180°	
							 HBS038 M11x1.50x175mm (x10)	1) 60Nm 2) ↻ 180° 3) 20Nm 4) 150°
<b>C25 2.0L</b>				02/91 → 03/94	<b>67</b>			
<b>C25 2.0L E</b>				09/81 → 02/94				
<b>C25 Van 2.0L</b>				02/91 → 03/94				
<b>C25 Van 2.0L E</b>				09/81 → 03/94				
XN1T (170A)/XN1T (170B)/XN1T (170C)	1971	4	88.00		57/77	 HBS017 M12x1.50x145mm (x8) M12x1.50x118mm (x9)	1) 40Nm 2) 100° 3) 100° 4) ⚡ 5) ✳ 6) 45°	
							 HBS017 M12x1.50x145mm (x8) M12x1.50x118mm (x9)	1) 40Nm 2) 100° 3) 100° 4) ⚡ 5) ✳ 6) 45°
<b>C25 2.5L D Diesel</b>				10/85 → 02/94	<b>68</b>			
<b>C25 2.5L D 4x4 Diesel</b>				01/87 → 02/94				
<b>C25 2.5L D Turbo Diesel</b>				08/87 → 02/94				
<b>C25 2.5L D Turbo 4x4 Diesel</b>				08/87 → 02/94				
CRD93L (U25/661)	2500	4	93.00	SOHC	54-55/ 73-75	 HBS017 M12x1.50x145mm (x8) M12x1.50x118mm (x9)	1) 40Nm 2) 100° 3) 100° 4) ⚡ 5) ✳ 6) 45°	
CRD93LS (U25/673)	2500	4	93.00	SOHC	70/95		 HBS017 M12x1.50x145mm (x8) M12x1.50x118mm (x9)	1) 40Nm 2) 100° 3) 100° 4) ⚡ 5) ✳ 6) 45°
<b>C35 2.5L D Diesel</b>				02/80 → 01/94	<b>69</b>			
<b>C35 Van 2.5L D Diesel</b>				02/80 → 01/94				
B25/637	2500	4	93.00		51/69	 HBS051 M10x1.25x98mm (x5) M10x1.25x84mm (x5)	1) 40Nm 2) 90° 3) 90°	
							 HBS084 M12x1.50x123mm (x10)	1) 20Nm 2) 60Nm 3) 180°
<b>Dispatch 1.6L</b>				10/95 →	<b>70</b>			
<b>Dispatch Van 1.6L i</b>				10/95 →				
1580 SPI/220 A2.000	1581	4	86.40	SOHC	59/80	 HBS084 M12x1.50x123mm (x10)	1) 20Nm 2) 60Nm 3) 180°	
							 HBS084 M12x1.50x123mm (x10)	1) 20Nm 2) 60Nm 3) 180°
<b>Dispatch 1.9L D Diesel</b>				10/95 → 04/98	<b>71</b>			
XUD9A/U (D9B)	1905	4	83.00	SOHC	66/90	 HBS084 M12x1.50x123mm (x10)	1) 20Nm 2) 60Nm 3) 180°	
							 HBS084 M12x1.50x123mm (x10)	1) 20Nm 2) 60Nm 3) 180°


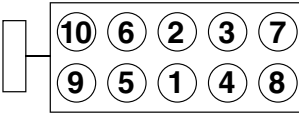

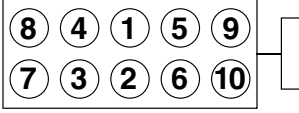

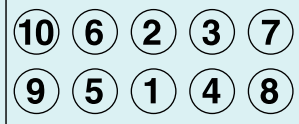

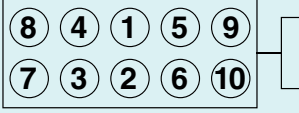

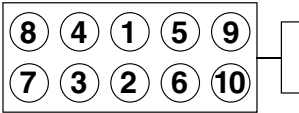

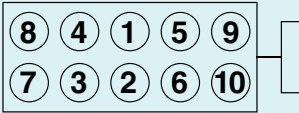

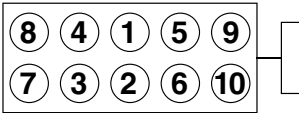

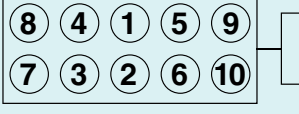

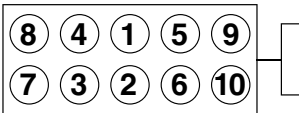


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Dispatch 1.9L D 70 Diesel					04/98 →	72
DW8 (WJZ) / DW8B (WJY)	1868	4	82.20	SOHC		51/70
<b>HBS084</b> →Eng.08469  M12x1.50x123mm (x10)						
						1) 20Nm 2) 60Nm 3) 180°
						
<b>HBS245</b> Eng.08470 →  M12x1.50x125mm (x10)						
						1) 20Nm 2) 60Nm 3) 180°
						
Dispatch 1.9L TD Diesel					10/95 →	73
XUD9BTF (DHX)	1905	4	83.00	SOHC		66/90
XUD9TF (D8B)	1905	4	83.00			66/90
<b>HBS088</b> →Eng.08574  M12x1.50x145mm (x10)						
						1) 20Nm 2) 40Nm 3) 60Nm 4) ↻ 90° 5) 60Nm 6) 110° 7) 110°
						
<b>HBS277</b> Eng.08575 →  M12x1.50x148mm (x10)						
						1) 20Nm 2) 40Nm 3) 60Nm 4) ↻ 90° 5) 60Nm 6) 110° 7) 110°
						
Dispatch 2.0L					04/00 →	74
EW10J4 (RFN)	1997	4	85.00	DOHC		100/136
<b>HBS259</b>  M11x1.50x144.5mm (x10)						
						1) 15Nm 2) 50Nm 3) ↻ 360° 4) 20Nm 5) 285°
						
Dispatch 2.0L HDI 110 Diesel					03/00 →	75
DW10ATED (RHZ)	1998	4	85.00	SOHC		80/109
<b>HBS261</b>  M12x1.50x126mm (x10)						
						1) 20Nm 2) 60Nm 3) 220°
						
Dispatch 2.0L HDi 110 Diesel					03/00 → 10/06	76
Dispatch 2.0L HDI 95 Diesel					10/99 →	
DW10BTED (RHX)	1997	4	85.00	SOHC		69/93
DW10ATED4 (RHW)	1997	4	85.00	SOHC		80/109
<b>HBS261</b>  M12x1.50x126mm (x10)						
						1) 20Nm 2) 60Nm 3) 220°
						
Dispatch 2.0L i 16V					03/00 →	77
Dispatch Van 2.0L i 16V					03/00 →	
<b>HBS259</b>  M11x1.50x144.5mm (x10)						
						1) 15Nm 2) 50Nm 3) ↻ 360° 4) 20Nm 5) 285°
						
Evasion 1.8L					05/97 → 07/02	78
XU7JP (LFW/LFZ/L6A)	1761	4	83.00	SOHC		73/99
<b>HBS260</b>  M11x1.50x168mm (x10)						
						1) 60Nm 2) ↻ 180° 3) 20Nm 4) 150°
						



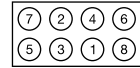
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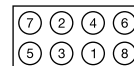
Evasion 1.9L TD Diesel					11/94→07/02	79		
XUD9BTF (DHX)	1905	4	83.00	SOHC	66/90	<b>HBS088</b> →Eng.08574 M12x1.50x145mm (x10) 1) 20Nm 2) 40Nm 3) 60Nm 4) ↻ 90° 5) 60Nm 6) 110° 7) 110°		
XUD9TF (D8B)	1905	4	83.00	SOHC	66/90			
Evasion 2.0L					06/94→07/02	80	<b>HBS277</b> Eng.08575→ M12x1.50x148mm (x10) 1) 20Nm 2) 40Nm 3) 60Nm 4) ↻ 90° 5) 60Nm 6) 110° 7) 110°	
Evasion 2.0L Turbo C.T.					06/94→07/02			
XU10J2C (RFU)	1998	4	86.00	SOHC	89/121	<b>HBS084</b> M12x1.50x123mm (x10) 1) 35Nm 2) 70Nm 3) 160°		
XU10J2TE (RGX)	1998	4	86.00	SOHC	108/147			
Evasion 2.0L 16V					05/00→07/02	81	<b>HBS259</b> M11x1.50x144.5mm (x10) 1) 15Nm 2) 50Nm 3) ↻ 360° 4) 20Nm 5) 285°	
EW10J4 (RFN)		1997	4	85.00	DOHC	100/136		
Evasion 2.0L 16V					05/98→04/00	82	<b>HBS087</b> →Eng.08581 M12x1.50x110mm (x10) 1) 35Nm 2) 70Nm 3) 160°	
XU10J4R (RFV)		1998	4	86.00	DOHC	99/135		
Evasion 2.0L HDI Diesel					08/99→07/02	83	<b>HBS261</b> M12x1.50x126mm (x10) 1) 20Nm 2) 60Nm 3) 220°	
Evasion 2.0L TD Diesel					05/97→07/02			
DW10ATED (RHZ)	1998	4	85.00	SOHC	68/92	<b>HBS125</b> M12x1.50x150.5mm (x10) 1) 30Nm 2) 70Nm 3) ↻ 90° 4) 70Nm 5) 150° 6) ⚡ 7) ⚡ 8) ↻ 90° 9) 70Nm 10) 150°		
	1998	4	85.00	SOHC	80/109			
Evasion 2.1L TD Diesel					05/96→07/02	84	<b>HBS084</b> M12x1.50x123mm (x10) 1) 20Nm 2) 60Nm 3) 180°	
XUD11BTE (P8C)		2088	4	85.00	SOHC	81/110		
Jumper 1.9L D Diesel					02/94→04/02	85	<b>HBS088</b> →Eng.08574 M12x1.50x145mm (x10) 1) 20Nm 2) 40Nm 3) 60Nm 4) ↻ 90° 5) 60Nm 6) 110° 7) 110°	
Jumper 1.9L TD 4x4 Diesel					08/96→04/02			
XUD9A (DJY)	1905	4	83.00	SOHC	51/70	<b>HBS088</b> →Eng.08574 M12x1.50x145mm (x10) 1) 20Nm 2) 40Nm 3) 60Nm 4) ↻ 90° 5) 60Nm 6) 110° 7) 110°		
XUD9A/U (D9B)	1905	4	83.00	SOHC	66/90			
XUD9BTF (DHX)	1905	4	83.00	SOHC	66/90	<b>HBS277</b> Eng.08575→ M12x1.50x148mm (x10) 1) 20Nm 2) 40Nm 3) 60Nm 4) ↻ 90° 5) 60Nm 6) 110° 7) 110°		
XUD9UTF (D8C)	1905	4	83.00	SOHC	68/92			



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Model					Year	CC	Power	Configuration	Part	Dimensions	Torque	Sequence
<b>Jumper 2.0L</b>					02/94 → 04/02		<b>87</b>		<b>HBS245</b>		1) 20Nm 2) 60Nm 3) 180°	
<b>Jumper 2.0L 4x4</b>					08/96 → 04/02					M12x1.50x125mm (x10)		
<b>Jumper 2.0L i Bivalent</b>					02/03 →							
<b>Jumper Box 2.0L</b>					03/94 → 04/02							
XU10J2U (RFW)	1998	4	86.00	SOHC	80/109							
XU10J2	1998	4	86.00	SOHC	89/121							
<b>Jumper 2.0L HDI Diesel</b>					11/01 → 04/02		<b>88</b>		<b>HBS261</b>		1) 20Nm 2) 60Nm 3) 220°	
<b>DW10UTD (RHV)</b>						1997	4	85.00	SOHC	62/84		
<b>Jumper 2.0L i</b>					02/94 →		<b>89</b>		<b>HBS084</b>		1) 35Nm 2) 70Nm 3) 160°	
<b>XU102C (R2A)</b>						1998	4	86.00	SOHC	79/107		
<b>Jumper 2.2L HDI Diesel</b>					04/02 →		<b>90</b>		<b>HBS261</b>		1) 20Nm 2) 60Nm 3) 360° 4) 60Nm 5) 220°	
<b>DW12TED (4HY)</b>						2179	4	85.00		74/100		
<b>Jumper 2.2L HDI 100 Diesel</b>					04/06 →		<b>91</b>		<b>HBS261</b>		1) 20Nm 2) 60Nm 3) 220°	
<b>Jumper 2.2L HDI 120 Diesel</b>					04/06 →							
<b>4HV</b>						2198	4	86.00	Direct Injection, DOHC	74/101		
<b>4HU</b>						2198	4	86.00	Direct Injection, DOHC	88/120		
<b>Jumper 2.5L D Diesel</b>					03/94 → 04/02		<b>92</b>		<b>HBS114</b>		1) (1-14) 50Nm 2) (15-22) 35Nm 3) 120°	
<b>Jumper 2.5L D 4x4 Diesel</b>					08/96 → 04/02							
<b>Jumper 2.5L TD Diesel</b>					03/94 → 04/02							
<b>Jumper 2.5L TD 4x4 Diesel</b>					08/96 → 04/02							
<b>Jumper 2.5L TDi 4x4 Diesel</b>					03/00 → 04/02							
<b>DJ5 (T9A)</b>						2446	4	92.00		63/86		
<b>DJ5T (T8A)</b>						2446	4	92.00		76/103		
<b>Jumper 2.5L TDi Diesel</b>					12/96 → 04/02		<b>93</b>		<b>HBS273</b>		1) (1-14) 50Nm 2) (15-22) 35Nm 3) 150°	
<b>Jumper 2.5L TDi 4x4 Diesel</b>					12/96 → 04/02							
<b>DJ5TED (THX)</b>						2446	4	92.00		79/107		
<b>Jumper 2.8L D Diesel</b>					01/99 →		<b>94</b>		<b>HBS255</b>		1) 20Nm 2) 40Nm 3) 90° 4) 40Nm 5) 90° 6) 90°	
<b>Jumper 2.8L HDI Diesel</b>					09/00 → 04/02							
<b>Jumper 2.8L HDI 4x4 Diesel</b>					09/00 → 04/02							
<b>Jumper 2.8L TD Diesel</b>					07/99 →							
<b>Jumper Box 2.8L HDI Diesel</b>					04/02 →							
<b>Jumper Box 2.8L HDI 4x4 Diesel</b>					04/02 →							
<b>8140.63</b>						2798	4	94.40	Sofim	64/87		
<b>8140.43C</b>						2798	4	94.40	Sofim, Common Rail, Turbo Intercooled	78/106		
<b>8140.43S</b>						2798	4	94.40	SOHC	92/125		
<b>8140.43N</b>						2798	4	94.40	SOHC	107/146		
<b>Jumpy 1.6L</b>					10/95 →		<b>95</b>		<b>HBS051</b>		1) 20Nm 2) 40Nm 3) 90° 4) 40Nm 5) 90° 6) 90°	
<b>Jumpy Box 1.6L i</b>					10/95 →							
<b>1580 SPI/220 A2.000</b>						1581	4	86.40	SOHC	59/80		
<b>Jumpy 1.9L D Diesel</b>					10/95 → 04/98		<b>96</b>		<b>HBS084</b>		1) 20Nm 2) 60Nm 3) 180°	
<b>XUD9A/U (D9B)</b>						1905	4	83.00	SOHC	66/90		

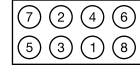




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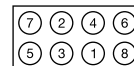
Jumpy 1.9L D 70 Diesel					04/98 →	97		
DW8 (WJZ) / DW8B (WJY)	1868	4	82.20	SOHC		51/70	<b>HBS084</b> →Eng.08469  M12x1.50x123mm (x10)	1) 20Nm 2) 60Nm 3) 180° 
							<b>HBS245</b> Eng.08470 →  M12x1.50x125mm (x10)	1) 20Nm 2) 60Nm 3) 180° 
Jumpy 1.9L TD Diesel					10/95 →	98		
XUD9BTF (DHX)	1905	4	83.00	SOHC		66/90	<b>HBS088</b> →Eng.08574  M12x1.50x145mm (x10)	1) 20Nm 2) 40Nm 3) 60Nm 4) ↻ 90° 5) 60Nm 6) 110° 7) 110° 
XUD9TF (D8B)	1905	4	83.00		66/90			
							<b>HBS277</b> Eng.08575 →  M12x1.50x148mm (x10)	1) 20Nm 2) 40Nm 3) 60Nm 4) ↻ 90° 5) 60Nm 6) 110° 7) 110° 
Jumpy 2.0L					04/00 →	99		
Jumpy 2.0L i 16V					03/00 →		<b>HBS259</b>  M11x1.50x144.5mm (x10)	1) 15Nm 2) 50Nm 3) ↻ 360° 4) 20Nm 5) 285° 
Jumpy Box 2.0L i 16V					03/00 →			
EW10I4 (RFN)	1997	4				102/138		
	1997	4	85.00	DOHC		100/136		
Jumpy 2.0L HDI 110 Diesel					03/00 →	100		
DW10ATED (RHZ)	1998	4	85.00	SOHC		80/109	<b>HBS261</b>  M12x1.50x126mm (x10)	1) 20Nm 2) 60Nm 3) 220° 
Jumpy 2.0L HDI 120 Diesel					01/07 →	101		
Jumpy 2.0L HDI 140 Diesel					01/07 →		<b>HBS261</b>  M12x1.50x126mm (x10)	1) 20Nm 2) 60Nm 3) 220° 
Jumpy 2.0L HDI 95 Diesel					10/99 →			
DW10BTED (RHX)	1997	4	85.00	SOHC		69/93		
DW10BTED (RHX)	1997	4	85.00	SOHC		69/94		
DW10UTED4 (RHK)	1997	4	85.00	DOHC		79/107		
DW10BTED4 (RHR)	1997	4	85.00	DOHC				
Relay 1.9L D Diesel					02/94 →04/02	102		
XUD9A/U (D9B)	1905	4	83.00	SOHC		66/90	<b>HBS084</b>  M12x1.50x123mm (x10)	1) 20Nm 2) 60Nm 3) 180° 
Relay 1.9L TD Diesel					02/94 →04/02	103		
Relay 1.9L TD 4x4 Diesel					08/96 →04/02		<b>HBS088</b> →Eng.08574  M12x1.50x145mm (x10)	1) 20Nm 2) 40Nm 3) 60Nm 4) ↻ 90° 5) 60Nm 6) 110° 7) 110° 
XUD9BTF (DHX)	1905	4	83.00	SOHC	66/90			
XUD9UTF (D8C)	1905	4	83.00		68/92	<b>HBS277</b> Eng.08575 →  M12x1.50x148mm (x10)	1) 20Nm 2) 40Nm 3) 60Nm 4) ↻ 90° 5) 60Nm 6) 110° 7) 110° 	



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Relay 2.0L					02/94 → 04/02	<b>104</b>	<b>HBS245</b>	1) 20Nm 2) 60Nm 3) 180°	
Relay 2.0L 4x4					08/96 → 04/02				
Relay Van 2.0L					03/94 → 04/02				
XU10J2U (RFW)	1998	4	86.00	SOHC		80/109	M12x1.50x125mm (x10)		
XU10J2	1998	4	86.00	SOHC		89/121			
Relay 2.0L HDI Diesel					04/02 →	<b>105</b>	<b>HBS261</b>	1) 20Nm 2) 60Nm 3) 220°	
DW10UTD (RHV)	1997	4	85.00	SOHC		62/84	M12x1.50x126mm (x10)		
Relay 2.2L HDI Diesel					04/02 →	<b>106</b>	<b>HBS261</b>	1) 20Nm 2) 60Nm 3) ↻ 360° 4) 60Nm 5) 220°	
DW12TED (4HY)	2179	4	85.00			74/100	M12x1.50x126mm (x10)		
Relay 2.5L D Diesel					03/94 → 04/02	<b>107</b>	<b>HBS114</b>	1) (1-14) 50Nm 2) (15-22) 35Nm 3) 120°	
Relay 2.5L D 4x4 Diesel					08/96 → 04/02				
Relay 2.5L TD Diesel					03/94 → 04/02				
Relay 2.5L TD 4x4 Diesel					08/96 → 04/02				
DJ5 (T9A)	2446	4	92.00			63/86	M12x1.50x138mm (x14)		
DJ5T (T8A)	2446	4	92.00			76/103	M10x1.50x148mm (x8)		
Relay 2.5L TDi Diesel					12/96 → 04/02	<b>108</b>	<b>HBS273</b>	1) (1-14) 50Nm 2) (15-22) 35Nm 3) 150°	
Relay 2.5L TDi 4x4 Diesel					12/96 → 04/02				
DJ5TED (THX)	2446	4	92.00			79/107	M12x1.50x163mm (x14) M10x1.50x174mm (x8)		
Relay 2.8L HDI Diesel					09/00 → 04/02	<b>109</b>	<b>HBS255</b>	1) 20Nm 2) 40Nm 3) 90° 4) 40Nm 5) 90° 6) 90°	
Relay 2.8L HDI 4x4 Diesel					09/00 → 04/02				
8140.43S	2798	4	94.40	SOHC		92/125	M12x1.25x90mm (x8)		
8140.43N	2798	4	94.40	SOHC		107/146	M12x1.25x160mm (x14)		
Saxo 1.0L X					05/96 →	<b>110</b>	<b>HBS039</b>	1) 20Nm 2) 120° 3) 120°	
TU9M (CDY/CDZ)	954	4	70.00	SOHC		40/54	M10x1.50x175mm (x10)		
Saxo 1.1L X,SX					05/96 →	<b>111</b>	<b>HBS039</b>	1) 20Nm 2) 120° 3) 120°	
TU1M (HDZ)	1124	4	72.00	SOHC		40/54			
TU1JP (HFX)	1124	4	72.00			44/60			
Saxo 1.4L VTS					05/96 →	<b>112</b>	<b>HBS039</b>	1) 20Nm 2) 120° 3) 120°	
KFW/TU3JP	1360	4	75.00	SOHC		55/75	M10x1.50x175mm (x10)		
Saxo 1.5L D Diesel					09/96 →	<b>113</b>	<b>HBS113</b>	1) 40Nm 2) 300°	
TUD5 (VIJ)/TUD5 (VIJZ)	1527	4	77.00	SOHC		42/57	M11x1.50x185mm (x10)		
Saxo 1.6L					02/96 → 06/03	<b>114</b>	<b>HBS039</b>	1) 20Nm 2) 120° 3) 120°	
Saxo 1.6L VTL,VTR					05/96 →				
Saxo 1.6L VTS					09/00 →				
TU5JP (NFT/NFZ)	1587	4	78.50	SOHC		66/89	M10x1.50x175mm (x10)		
TU5JP (NFT)	1587	4	78.50			72/98			
Saxo 1.6L VTS					06/96 →	<b>115</b>	<b>HBS254</b>	1) 20Nm 2) 130° 3) 130°	
TU5J4 (NFX)	1587	4	78.50	DOHC		87/118	M10x1.50x122mm (x10)		



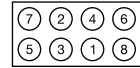
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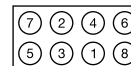
Model		Year Range	CC	Cylinders	Power (kW/PS)	Configuration	Part Number	Dimensions	Specifications	Sequence Diagram
<b>Synergy 1.8L</b> XU7JP (LFW/LFZ/L6A)		05/97 → 07/02	1761	4	83.00	SOHC	<b>HBS260</b>	M11x1.50x168mm (x10)	1) 60Nm 2) ↻ 180° 3) 20Nm 4) 150°	
<b>Synergy 1.9L TD Diesel</b> XUD9BTF (DHX) XUD9TF (D8B)		11/94 → 07/02	1905	4	83.00	SOHC	<b>HBS088</b> → Eng.08574	M12x1.50x145mm (x10)	1) 20Nm 2) 40Nm 3) 60Nm 4) ↻ 90° 5) 60Nm 6) 110° 7) 110°	
							<b>HBS277</b> Eng.08575 →	M12x1.50x148mm (x10)	1) 20Nm 2) 40Nm 3) 60Nm 4) ↻ 90° 5) 60Nm 6) 110° 7) 110°	
<b>Synergy 2.0L</b> <b>Synergy 2.0L Turbo C.T.</b> XU10J2C (RFU) XU10J2TE (RGX)		06/94 → 07/02 06/94 → 07/02	1998	4	86.00	SOHC	<b>HBS084</b>	M12x1.50x123mm (x10)	1) 35Nm 2) 70Nm 3) 160°	
<b>Synergy 2.0L 16V</b> EW10J4 (RFN)		05/00 → 07/02	1997	4	85.00	DOHC	<b>HBS259</b>	M11x1.50x144.5mm (x10)	1) 15Nm 2) 50Nm 3) ↻ 360° 4) 20Nm 5) 285°	
<b>Synergy 2.0L 16V</b> XU10J4R (RFV)		05/98 → 04/00	1998	4	86.00	DOHC	<b>HBS087</b> → Eng.08581	M12x1.50x110mm (x10)	1) 35Nm 2) 70Nm 3) 160°	
<b>Synergy 2.0L HDI Diesel</b> DW10ATED (RHZ)		08/99 → 07/02	1998	4	85.00	SOHC	<b>HBS261</b>	M12x1.50x126mm (x10)	1) 20Nm 2) 60Nm 3) 220°	
<b>Synergy 2.0L HDI 16V Diesel</b> DW10ATED4 (RHW)		09/99 → 07/02	1997	4	85.00	SOHC	<b>HBS261</b>	M12x1.50x126mm (x10)	1) 20Nm 2) 60Nm 3) 220°	
<b>Synergy 2.1L TD Diesel</b> XUD11BTE (P8C)		05/96 → 07/02	2088	4	85.00	SOHC	<b>HBS125</b>	M12x1.50x150.5mm (x10)	1) 30Nm 2) 70Nm 3) ↻ 90° 4) 70Nm 5) 150° 6) ⚡ 7) ⚡ 8) ↻ 90° 9) 70Nm 10) 150°	



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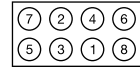
Visa 16 GTI					06/86 → 03/91	124			
XU5JA (B6D)	1580	4	83.00	SOHC	83/113	<b>HBS083</b> →Eng.03764  M11x1.50x168mm (x10)	1) 60Nm 2) ↻ 180° 3) 20Nm 4) 120°		
<b>Visa 17 D Diesel</b>									
XUD7 (161A)					04/84 → 03/91	125	<b>HBS038</b> Eng.03765 →  M11x1.50x175mm (x10)	1) 60Nm 2) ↻ 180° 3) 20Nm 4) 150°	
<b>Visa 17 D Diesel</b>									
XUD7 (161A)					04/84 → 03/91	125	<b>HBS084</b> →Eng.08469  M12x1.50x123mm (x10)	1) 20Nm 2) 60Nm 3) 180°	
<b>Xantia 1.6L i</b>									
XU5JP (BFZ)					03/93 → 01/98	126	<b>HBS038</b> →Eng.07448  M11x1.50x175mm (x10)	1) 60Nm 2) ↻ 180° 3) 20Nm 4) 150°	
<b>Xantia 1.6L i</b>									
XU5JP (BFZ)					03/93 → 01/98	126	<b>HBS260</b> Eng.07449 →  M11x1.50x168mm (x10)	1) 60Nm 2) ↻ 180° 3) 20Nm 4) 300°	
<b>Xantia 1.8L i</b>									
XU7JB (LFX) XU7JP (LFW/LFZ/L6A)					03/93 → 04/03	127	<b>HBS260</b>  M11x1.50x168mm (x10)	1) 60Nm 2) ↻ 180° 3) 20Nm 4) 150°	
<b>Xantia 1.8L i 16V</b>									
XU7JP4 (LFY)					06/95 → 04/03	128	<b>HBS089</b>  M11x1.50x159mm (x10)	1) 60Nm 2) ↻ 360° 3) 20Nm 4) 300°	
<b>Xantia 1.9L D Diesel</b>									
XUD9A/L (D9B)					06/94 → 01/98	129	<b>HBS084</b>  M12x1.50x123mm (x10)	1) 20Nm 2) 60Nm 3) 180°	
<b>Xantia 1.9L SD Diesel</b>									
XUD9 (DJZ)					02/96 → 04/03	129			
XUD9SD (DHW)									



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Xantia 1.9L Turbo D Diesel					10/94→04/03	130	HBS088 →Eng.08574		1) 20Nm 2) 40Nm 3) 60Nm 4) ↻ 90° 5) 60Nm 6) 110° 7) 110°	
XUD9TE (DHY)	1905	4	83.00	SOHC	44/66/ 60/90		 M12x1.50x145mm (x10)			
XUD9BTF (DHX)	1905	4	83.00	SOHC	66/90					
XUD9TF (D8B)	1905	4	83.00		66/90					
Xantia 2.0L HDI 109 Diesel					02/99→04/03	131	HBS277 Eng.08575→		1) 20Nm 2) 40Nm 3) 60Nm 4) ↻ 90° 5) 60Nm 6) 110° 7) 110°	
Xantia 2.0L HDI 90 Diesel					03/99→04/03		 M12x1.50x148mm (x10)			
DW10TD (RHY)	1998	4	85.00	SOHC	63/86					
DW10ATED (RHZ)	1998	4	85.00	SOHC	80/109					
Xantia 2.0L i					03/93→04/03	132	HBS084		1) 35Nm 2) 70Nm 3) 160°	
Xantia 2.0L Turbo					06/95→04/03		 M12x1.50x123mm (x10)			
XU10J2C (RFX)	1998	4	86.00	SOHC	89-90/ 120-122					
XU10J2TE (RGX)	1998	4	86.00	SOHC	108/147					
Xantia 2.0L i 16V					03/93→04/03	133	HBS087 →Eng.08581		1) 35Nm 2) 70Nm 3) 160°	
XU10J4R (RFV)	1998	4	86.00	DOHC	99/135		 M12x1.50x110mm (x10)			
XU10J4 (RFT)/XU10J4 (RFY)	1998	4	86.00	DOHC	112/152					
Xantia 2.1L Turbo D 12V Diesel					06/95→02/99	134	HBS125		1) 30Nm 2) 70Nm 3) ↻ 90° 4) 70Nm 5) 150° 6) ⚡ 7) ⚡ 8) ↻ 90° 9) 70Nm 10) 150°	
XUD11BTE (P8C)	2088	4	85.00	SOHC	81/110		 M12x1.50x150.5mm (x10)			
Xantia 3.0L i 24V					01/97→01/98	135	HBS272		1) 20Nm 2) ↻ 360° 3) 15Nm 4) 225°	
Xantia 3.0L V6					01/98→04/03		 M10x1.50x147mm (x16)			
ES9J4 (XFZ)	2946	6	87.00	DOHC, V6	152/207					
XM 2.0L					05/89→04/94	136	HBS084		1) 35Nm 2) 70Nm 3) 160°	
XM 2.0L i					05/89→06/94		 M12x1.50x123mm (x10)			
XM 2.0L i Turbo					09/92→06/94					
XM 2.0L Turbo					09/92→10/00					
XU102C (R2A)	1998	4	86.00	SOHC	84/114 79/107					
XU10MZ (RDZ)	1998	4		SOHC	81/110					
XU10J2 (RFZ)	1998	4		SOHC	89-90/ 121-122					
XU10J2TE (RGX)	1998	4	86.00	SOHC	108/147					
XU10J2TE (RGX/RGY)	1998	4	86.00	SOHC	108/147					
XM 2.0L i 16V					05/94→10/00	137	HBS087 →Eng.08581		1) 35Nm 2) 70Nm 3) 160°	
XU10J4R (RFV)	1998	4	86.00	DOHC	99/135		 M12x1.50x110mm (x10)			

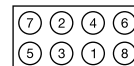




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<b>XM 2.1L D 12V Diesel</b> 05/89 → 06/94 <b>138</b>					<b>HBS115</b>  M12x1.50x145mm (x10)	1) 30Nm 2) 70Nm 3) ↻ 90° 4) 70Nm 5) 150° 6) ↓ 7) ✱ 8) ↻ 90° 9) 70Nm 10) 150°	
<b>XM 2.1L D12 Diesel</b> 07/94 → 06/96							
XUD11A (P9A/PJZ)	2138	4	86.00	SOHC			
<b>XM 2.1L TD 12V Diesel</b> 05/89 → 10/00 <b>139</b>					<b>HBS115</b> → Eng.05571  M12x1.50x145mm (x10)	1) 30Nm 2) 70Nm 3) ↻ 90° 4) 70Nm 5) 150° 6) ↓ 7) ✱ 8) ↻ 90° 9) 70Nm 10) 150°	
XUD11ATE (PJZ)	2088	4	85.00	SOHC			
XUD11ATE (P8A)/XUD11ATE (PHZ)	2088	4	85.00	SOHC	80-81/ 109-110		
XUD11BTE (P8C)	2088	4	85.00	SOHC	81/110		
<b>XM 2.5L TD Diesel</b> 05/94 → 10/00 <b>140</b>					<b>HBS114</b>  M12x1.50x138mm (x14) M10x1.50x148mm (x8)	1) (1-14) 50Nm 2) (15-22) 35Nm 3) 120°	
DK5ATE (THY)	2446	4	92.00	SOHC			
<b>XM 3.0L V6</b> 04/97 → 10/00 <b>141</b>					<b>HBS272</b>  M10x1.50x147mm (x16)	1) 20Nm 2) ↻ 360° 3) 15Nm 4) 225°	
ES9J4 (XFZ)	2946	6	87.00	DOHC, V6			
<b>XM 3.0L V6</b> 05/89 → 10/00 <b>142</b>					<b>HBS127</b>  M12x1.50x178mm (x16)	1) 30Nm 2) 60Nm 3) ↻ 180° 4) 20Nm 5) 106° 6) ↓ 7) ✱ 8) 45°	
<b>XM 3.0L V6 24V</b> 07/90 → 10/00							
ZPJ/Z (SFZ)/ZPJ/Z (UFZ)	2963	6	93.00	SOHC, V6	123-125/ 167-170		
ZPJ4 (SKZ)/ZPJ4 (UKZ)	2963	6	93.00	DOHC	147/200		
<b>Xsara 1.4L HDI Diesel</b> 01/03 → 08/05 <b>143</b>					<b>HBS359</b>  M11x1.50x150mm (x10)	1) 149Nm 2) 20Nm 3) 40Nm 4) 230°	
<b>Xsara Coupe 1.4L HDI Diesel</b> 01/03 → 03/05							
DV4TD (8HX)	1398	4	73.70	Common Rail, SOHC	52/71		
<b>Xsara 1.4L i</b> 04/97 → 08/05 <b>144</b>					<b>HBS039</b>  M10x1.50x175mm (x10)	1) 20Nm 2) 120° 3) 120°	
<b>Xsara Coupe 1.4L i</b> 03/98 → 03/05							
KFW/TU3JP	1360	4	75.00	SOHC	55/75		
<b>Xsara 1.5L D Diesel</b> 04/97 → 09/00 <b>145</b>					<b>HBS113</b>  M11x1.50x185mm (x10)	1) 40Nm 2) 300°	
TUD5 (VJZ)	1527	4	77.00	SOHC			



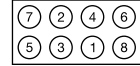
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kW/PS



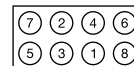
<b>Xsara 1.6L</b> 09/00 → <b>146</b> <b>Xsara 1.6L i</b> 04/97 → 09/00 <b>Xsara Coupe 1.6L i</b> 02/98 → 09/00 <b>Xsara Picasso 1.6L</b> 06/00 →						<b>HBS039</b>  M10x1.50x175mm (x10)	1) 20Nm 2) 120° 3) 120°	
TU5JP (NFT/NFZ) 1587 4 78.50 SOHC 67/91 NFV (TU5JP) 1587 4 78.50 SOHC, Straight 66/89 70/95								
<b>Xsara 1.6L 16V</b> 09/00 → 08/05 <b>147</b> <b>Xsara Coupe 1.6L 16V</b> 09/00 → 03/05 <b>Xsara Picasso 1.6L 16V</b> 09/05 →						<b>HBS254</b>  M10x1.50x122mm (x10)	1) 20Nm 2) 130° 3) 130°	
TU5JP4 (NFU/N6A) 1587 4 78.50 DOHC 80/109								
<b>Xsara 1.6L HDI Diesel</b> 09/05 → <b>148</b> <b>Xsara Picasso 1.6L HDI Diesel</b> 05/04 →						<b>HBS359</b>  M11x1.50x150mm (x10)	1) 20Nm 2) 40Nm 3) 180°	
DV6TED4 1560 4 75.00 DOHC 66/90 80/109								
<b>Xsara 1.8L D Diesel</b> 04/97 → 09/00 <b>149</b> <b>XUD7 (161A)/XUD7 (A9A/161A)</b> 1769 4 80.00 SOHC 44/60						<b>HBS084</b> → Eng.08469  M12x1.50x123mm (x10)	1) 20Nm 2) 60Nm 3) 180°	
<b>Xsara 1.8L i</b> 04/97 → 09/00 <b>150</b> <b>Xsara 1.8L i Aut.</b> 04/97 → 09/00 <b>Xsara Coupe 1.8L i</b> 02/98 → 09/00						<b>HBS245</b> Eng.08470 →  M12x1.50x125mm (x10)	1) 20Nm 2) 60Nm 3) 180°	
XU7JB (LFX) 1761 4 83.00 SOHC 66/89 XU7JP (LFW/LFZ/L6A) 1761 4 83.00 SOHC 73/99								
<b>Xsara 1.8L i 16V</b> 04/97 → 09/00 <b>151</b> <b>Xsara Coupe 1.8L i 16V</b> 02/98 → 09/00						<b>HBS089</b>  M11x1.50x159mm (x10)	1) 60Nm 2) ↻ 360° 3) 20Nm 4) 300°	
XU7JP4 (LFY) 1761 4 83.00 DOHC 66/85/ 90/116								
<b>Xsara 1.8L TD Diesel</b> 10/97 → 09/00 <b>152</b> 1761 4 66/90						<b>HBS084</b>  M12x1.50x123mm (x10)	1) 20Nm 2) 60Nm 3) 180°	
<b>Xsara 1.9L D Diesel</b> 07/98 → 08/05 <b>153</b> <b>Xsara Coupe 1.9L D Diesel</b> 02/99 → 03/05						<b>HBS084</b> → Eng.08469  M12x1.50x123mm (x10)	1) 20Nm 2) 60Nm 3) 180°	
DW8 (WJZ) / DW8B (WJY) / DW8B (WJY) 1868 4 82.20 SOHC 51/70								
<b>Xsara 1.9L D Diesel</b> 04/97 → 09/00 <b>154</b> <b>Xsara 1.9L SD Diesel</b> 01/98 → 09/00 <b>Xsara Coupe 1.9L D Diesel</b> 02/98 → 09/00						<b>HBS245</b> Eng.08470 →  M12x1.50x125mm (x10)	1) 20Nm 2) 60Nm 3) 180°	
XUD9A (DJY) 1905 4 83.00 SOHC 51/70 DHV (XUD9BSD) 1905 4 83.00 SOHC 55/75								
<b>Xsara 1.9L D Diesel</b> 04/97 → 09/00 <b>154</b> <b>Xsara 1.9L SD Diesel</b> 01/98 → 09/00 <b>Xsara Coupe 1.9L D Diesel</b> 02/98 → 09/00						<b>HBS084</b>  M12x1.50x123mm (x10)	1) 20Nm 2) 60Nm 3) 220°	
XUD9A (DJY) 1905 4 83.00 SOHC 51/70 DHV (XUD9BSD) 1905 4 83.00 SOHC 55/75								



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kW/PS



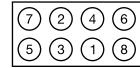
Model and Specifications					Power (kW/PS)	Part Number	Dimensions	Torque Sequence			
<b>Xsara 1.9L TD Diesel</b> 04/97 → 09/00					<b>155</b>	<b>HBS088</b> → Eng.08574	M12x1.50x145mm (x10)	1) 20Nm 2) 40Nm 3) 60Nm 4) ↻ 90° 5) 60Nm 6) 110° 7) 110°			
<b>Xsara Coupe 1.9L TD Diesel</b> 02/98 → 09/00											
XUD9TE (DHY)	1905	4	83.00	SOHC	44/66/ 60/90						
<b>Xsara 2.0L 16V</b> 09/00 → 08/05					<b>156</b>	<b>HBS277</b> Eng.08575 →	M12x1.50x148mm (x10)	1) 20Nm 2) 40Nm 3) 60Nm 4) ↻ 90° 5) 60Nm 6) 110° 7) 110°			
<b>Xsara Coupe 2.0L 16V</b> 09/00 → 03/05											
<b>Xsara Picasso 2.0L 16V</b> 01/03 →											
EW10J4 (RFN)	1997	4	85.00	DOHC	100/136						
<b>Xsara 2.0L 16V</b> 04/97 → 09/00					<b>157</b>	<b>HBS087</b> → Eng.08581	M12x1.50x110mm (x10)	1) 35Nm 2) 70Nm 3) 160°			
<b>Xsara Coupe 2.0L i 16V</b> 02/98 → 03/05											
XU10J4R (RFV)	1998	4	86.00	DOHC					99/135		
XU10J4RS (RFS)	1998	4	86.00	DOHC	120/163						
<b>Xsara 2.0L HDI 109 Diesel</b> 05/01 → 08/05					<b>158</b>	<b>HBS261</b>	M12x1.50x126mm (x10)	1) 20Nm 2) 60Nm 3) 220°			
<b>Xsara 2.0L HDI 90 Diesel</b> 02/99 → 08/05											
<b>Xsara Coupe 2.0L HDI 109 Diesel</b> 05/01 → 03/05											
<b>Xsara Coupe 2.0L HDI 90 Diesel</b> 02/99 → 03/05											
<b>Xsara Picasso 2.0L HDI Diesel</b> 12/99 →											
DW10TD (RHY)	1998	4	85.00	SOHC	63/86						
DW10ATED (RHZ)	1998	4	85.00	SOHC	80/109						
<b>ZX 1.1L</b> 03/91 → 06/97					<b>159</b>	<b>HBS039</b>	M10x1.50x175mm (x10)	1) 20Nm 2) 120° 3) 120°			
TU1M (HDZ)	1124	4	72.00	SOHC					40/54		
TU1 K	1124	4	72.00	SOHC					40-44/ 54-60		
TU1 (H1B)	1124	4	72.00	SOHC	40-44/ 55-60						
<b>ZX 1.4L</b> 09/86 → 06/97					<b>160</b>	<b>HBS039</b>	M10x1.50x175mm (x10)	1) 20Nm 2) 120° 3) 120°			
<b>ZX 1.4L i</b> 03/91 → 10/97											
TU3CP (KAY)	1360	4	75.00	SOHC					44/60		
TU3JP/ TU3M (KDX)/TU3M (KDY)/TU3M/Z (KDZ)	1360	4	75.00	SOHC					55/75		
TU3FM (K2A)	1360	4	75.00	SOHC	62/84						
<b>ZX 1.4L D Diesel</b> 09/88 → 06/92					<b>161</b>	<b>HBS082</b>	M10x1.50x185mm (x10)	1) 60Nm 2) ↻ 360° 3) 20Nm 4) 160° 5) 160°			
K9Y (TUD3Y)	1360	4	75.00	SOHC					39/53		
<b>ZX 1.5L D Diesel</b> 08/94 → 12/97					<b>162</b>	<b>HBS113</b>	M11x1.50x185mm (x10)	1) 40Nm 2) 300°			
TUD5 (VJZ)	1527	4	77.00	SOHC					42/57		
<b>ZX 1.6L</b> 05/96 →					<b>163</b>	<b>HBS039</b>	M10x1.50x175mm (x10)	1) 20Nm 2) 120° 3) 120°			
TU5JP (NFT/NFZ)	1587	4	78.50	SOHC					66/89		



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kW/PS



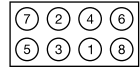
ZX 1.6L i		03/91 → 10/97			164
XU5JP (BFZ)/XU5M (BDY/B4A)	1580	4	83.00	SOHC	65/88
<b>HBS083</b> → Eng.07448  M11x1.50x168mm (x10)					
1) 60Nm 2) ↺ 180° 3) 20Nm 4) 120°					
<b>HBS260</b> Eng.07448 →  M11x1.50x168mm (x10)					
1) 60Nm 2) ↺ 180° 3) 20Nm 4) 300°					
<b>HBS038</b> Eng.07448 →  M11x1.50x175mm (x10)					
1) 60Nm 2) ↺ 180° 3) 20Nm 4) 150°					
ZX 1.8L D Diesel		06/93 → 10/97			165
XUD7 (161A)	1769	4	80.00	SOHC	44/60
<b>HBS084</b> → Eng.08469  M12x1.50x123mm (x10)					
1) 20Nm 2) 60Nm 3) 180°					
<b>HBS245</b> Eng.08470 →  M12x1.50x125mm (x10)					
1) 20Nm 2) 60Nm 3) 180°					
ZX 1.8L i		07/92 → 10/97			166
XU7JP (LFW/LFZ/L6A)	1761	4	83.00	SOHC	73/99
<b>HBS260</b>  M11x1.50x168mm (x10)					
1) 60Nm 2) ↺ 180° 3) 20Nm 4) 150°					
ZX 1.8L i 16V		01/96 → 02/98			167
XU7JP4 (LFY)	1761	4	83.00	DOHC	66/85/ 90/116
<b>HBS089</b>  M11x1.50x159mm (x10)					
1) 60Nm 2) ↺ 360° 3) 20Nm 4) 300°					
ZX 1.9L D Diesel		03/91 → 10/97			168
XUD9A (DJY)	1905	4	83.00	SOHC	51/70
XUD9 (DJZ)	1905	4	83.00	SOHC	52/71
XUD9A/U (D9B)	1905	4	83.00	SOHC	66/90
<b>HBS084</b>  M12x1.50x123mm (x10)					
1) 20Nm 2) 60Nm 3) 180°					
ZX 1.9L i		03/91 → 06/97			169
XU9JA (DKZ)	1905	4	83.00	SOHC	90/122
<b>HBS038</b> Eng.07448 →  M11x1.50x175mm (x10)					
1) 60Nm 2) ↺ 180° 3) 20Nm 4) 150°					
<b>HBS083</b> → Eng.07448  M11x1.50x168mm (x10)					
1) 60Nm 2) ↺ 180° 3) 20Nm 4) 120°					



cc



kW/PS



<b>ZX 1.9L TD Diesel</b>		07/92 → 10/97			<b>170</b>			
XUD9TE (DHY)	1905	4	83.00	SOHC	44/66/ 60/90	<b>HBS088</b> → Eng.08574  M12x1.50x145mm (x10)	1) 20Nm 2) 40Nm 3) 60Nm 4) ↻ 90° 5) 60Nm 6) 110° 7) 110°	
						<b>HBS277</b> Eng.08575 →  M12x1.50x148mm (x10)	1) 20Nm 2) 40Nm 3) 60Nm 4) ↻ 90° 5) 60Nm 6) 110° 7) 110°	
<b>ZX 2.0L i</b>		07/92 → 06/97			<b>171</b>			
XU10J2C (RFX)	1998	4	86.00	SOHC	89-90/ 120-122	<b>HBS084</b>  M12x1.50x123mm (x10)	1) 35Nm 2) 70Nm 3) 160°	
<b>ZX 2.0L i 16V</b>		07/92 → 06/97			<b>172</b>			
XU10J4 (RFT)/XU10J4 (RFY)	1998	4	86.00	DOHC	112/152	<b>HBS087</b> → Eng.08581  M12x1.50x110mm (x10)	1) 35Nm 2) 70Nm 3) 160°	
XU10J4RS (RFS)	1998	4	86.00	DOHC	120/163			



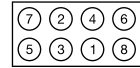
# DACIA



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kW/PS



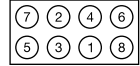
Model		Year	CC	Cyl	Power (kW/PS)	Engine Type	Part No.	Dimensions	Notes	Diagram
<b>Duster 1.5L dCi Diesel</b>		04/10 →					<b>1</b>			
K9K 796			1461	4	76.00	SOHC		63/86		<p>M11x1.50x125mm (x10)</p>
<b>Duster 1.6L 16V</b>		04/10 →					<b>2</b>			
K4M 690			1598	4	79.50	DOHC		77/105		<p>M10x1.50x117mm (x10)</p>
K4M 696			1598	4	79.50	Intake Manifold Injection/ Carburettor, DOHC		77/105		<p>M10x1.50x117mm (x10)</p>
<b>Logan 1.4L</b>		09/04 →					<b>3</b>			
<b>Logan 1.4L MPI LPG</b>		02/06 →								
K7J 714			1390	4	79.50	SOHC, Straight		53/72		<p>M10x1.50x98mm (x5) M10x1.50x113mm (x5)</p>
K7J 710			1390	4	79.50	SOHC		55/75		<p>M10x1.50x98mm (x5) M10x1.50x113mm (x5)</p>
<b>Logan 1.5L dCi Diesel</b>		09/05 →					<b>4</b>			
K9K 790			1461	4	76.00	SOHC		48/65		<p>M11x1.50x125mm (x10)</p>
K9K 792			1461	4	76.00	SOHC		50/68		<p>M11x1.50x125mm (x10)</p>
K9K 796			1461	4	76.00	SOHC		63/86		<p>M11x1.50x125mm (x10)</p>
<b>Logan 1.6L</b>		09/04 →					<b>5</b>			
<b>Logan 1.6L Bifuel</b>		11/08 →								
K7M 710			1598	4	79.50	SOHC		64/87		<p>M10x1.50x98mm (x5) M10x1.50x113mm (x5)</p>
<b>Logan 1.6L 16V</b>		02/06 →					<b>6</b>			
K4M 690			1598	4	79.50	DOHC		77/105		<p>M10x1.50x117mm (x10)</p>
K4M 696			1598	4	79.50	Intake Manifold Injection/ Carburettor, DOHC		77/105		<p>M10x1.50x117mm (x10)</p>
<b>Logan 1.6L 16V</b>		02/07 →					<b>7</b>			
<b>Logan 1.6L 16V Flexifuel</b>		11/09 →								
K4M 690			1598	4	79.50	DOHC		77/105		<p>M10x1.50x117mm (x10)</p>
K4M 694/K4M 696			1598	4	79.50	Intake Manifold Injection/ Carburettor, DOHC		77/105		<p>M10x1.50x117mm (x10)</p>
<b>Sandero 1.4L</b>		06/08 →					<b>8</b>			
K7J 710			1390	4	79.50	SOHC		55/75		<p>M10x1.50x98mm (x5) M10x1.50x113mm (x5)</p>
<b>Sandero 1.5L dCi Diesel</b>		11/08 →					<b>9</b>			
K9K 792			1461	4	76.00	SOHC		50/68		<p>M11x1.50x125mm (x10)</p>
K9K 796			1461	4	76.00	SOHC		63/86		<p>M11x1.50x125mm (x10)</p>



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kW/PS



**Sandero 1.6L**

06/08 →

**10**

K7M 710

1598

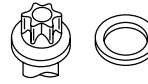
4

79.50

SOHC

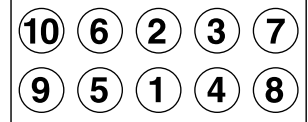
64/87

**HBS102**



M10x1.50x98mm (x5)  
M10x1.50x113mm (x5)

- 1) 20Nm
- 2) 100°
- 3) (1-2) ↻ 90°
- 4) (1-2) 20Nm
- 5) (1-2) 100°
- 6) (3-6) ↻ 90°
- 7) (3-6) 20Nm
- 8) (3-6) 100°
- 9) (7-10) ↻ 90°
- 10) (7-10) 20Nm
- 11) (7-10) 100°





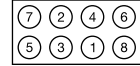
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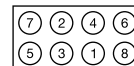
Model	Year Range	Cylinders	Displacement (cc)	Configuration	Power (kW/PS)	Washer Part Number	Dimensions	Torque Sequence
<b>Espero 1.5L</b>	02/95 → 09/99	4	1498		55/75	<b>HBS002</b>	M10x1.25x140mm (x10)	1) 25Nm 2) 60° 3) 60° 4) 60°
<b>Espero 1.5L 16V</b>	10/93 → 06/99	4	1498	76.50	65/88 66/89	<b>HBS285</b>	M10x1.25x166mm (x10)	1) 25Nm 2) 60° 3) 60° 4) 60° 5) 10°
<b>Espero 1.8L</b>	02/95 → 09/99	4	1796	84.80	66-74/ 90-100	<b>HBS053</b>	M11x1.25x140mm (x10)	1) 25Nm 2) 60° 3) 60° 4) 60° 5) ↓ 6) * 7) 30°
<b>Espero 2.0L</b>	02/95 → 06/99	4	1998	86.00	77/105	<b>HBS003</b>	M11x1.25x140mm (x10)	1) 25Nm 2) 60° 3) 60° 4) 60° 5) ↓ 6) * 7) 30°
<b>Evanda 2.0L</b>	08/02 →	4	1998	86.00	89-96/ 121-131	<b>HBS054</b>	M11x1.25x105mm (x10)	1) 25Nm 2) 90° 3) 90° 4) 90°
<b>Kalos 1.4L</b>	09/02 →	4	1399	77.90	61/83	<b>HBS002</b>	M10x1.25x140mm (x10)	1) 25Nm 2) 60° 3) 60° 4) 60°
<b>Kalos 1.4L</b>	05/03 → 12/04	4	1399	77.90	70-69/ 95-94	<b>HBS002</b>	M10x1.25x140mm (x10)	1) 25Nm 2) 60° 3) 60° 4) 60°
<b>Kalos 1.4L 16V</b>	04/03 →	4	1399	77.90	70-69/ 95-94	<b>HBS285</b>	M10x1.25x166mm (x10)	1) 25Nm 2) 60° 3) 60° 4) 60° 5) 10°
<b>Korando 2.3L</b>	01/99 →	4	2295		105/143	<b>HBS150</b>	M12x1.75x102mm (x10)	1) 55Nm 2) 90° 3) 90°
<b>Korando 2.9L D Diesel</b>	01/99 →	5	2874		72-73/ 98-99	<b>HBS059</b>	M10x1.50x80mm (x5)	1) 25Nm 2) 40Nm 3) ↻ 90° 4) 40Nm 5) 90° 6) 90°
<b>Korando 2.9L TD Diesel</b>	01/99 →	5	2874		72-73/ 98-99	<b>HBS059</b>	M10x1.50x115mm (x6)	
<b>Korando Cabrio 2.9L D Diesel</b>	02/99 →	5	2874		72-73/ 98-99	<b>HBS059</b>	M10x1.50x102mm (x11)	
<b>Korando Cabrio 2.9L TD Diesel</b>	02/99 →	5	2874		72-73/ 98-99	<b>HBS059</b>	M10x1.50x102mm (x11)	
<b>MB-OM 662</b>		5	2874		72-73/ 98-99	<b>HBS059</b>	M10x1.50x80mm (x5)	
<b>MB-OM 601 29TD</b>		5	2874		88-95/ 120-129	<b>HBS059</b>	M10x1.50x115mm (x6)	
<b>MB-OM 601 29TD</b>		5	2874		88-95/ 120-129	<b>HBS059</b>	M10x1.50x102mm (x11)	



cc



kW/PS



Model					Year	Power	Washer	Torque	Sequence
<b>Lacetti 1.4L</b>					02/04 →	<b>10</b>			
F14D3	1399	4	77.90	DOHC	70-69/ 95-94	<b>HBS002</b> →01/07	1) 25Nm 2) 60° 3) 60° 4) 60°		
<b>Lacetti 1.6L</b>					02/04 →	<b>11</b>			
F16D3	1598	4	79.00	DOHC	80-77/ 109-105	<b>HBS285</b> 01/07 →	1) 25Nm 2) 60° 3) 60° 4) 60° 5) 10°		
<b>Lanos 1.4L</b>					05/97 →	<b>12</b>			
A14SMS	1349	4	76.50	SOHC	55/75	<b>HBS002</b>	1) 25Nm 2) 60° 3) 60° 4) 60°		
<b>Lanos 1.5L</b>					05/97 →	<b>13</b>			
A15SMS Y15L	1498 1498	4 4	76.50 84.80	SOHC SOHC	63/86 55/75	<b>HBS002</b>	1) 25Nm 2) 60° 3) 60° 4) 60°		
<b>Lanos 1.6L 16V</b>					05/97 →	<b>14</b>			
A16DMS	1598	4	79.00	DOHC	78/106	<b>HBS285</b>	1) 25Nm 2) 60° 3) 60° 4) 60° 5) 10°		
<b>Leganza 2.0L 16V</b>					06/97 →12/02	<b>15</b>			
T20SED X20SED	1998 1998	4 4	86.00 86.00	DOHC DOHC	93/126 100/136	<b>HBS054</b>	1) 25Nm 2) 90° 3) 90° 4) 90°		
<b>Matiz 0.8L</b>					09/98 →	<b>16</b>			
F8CV	796	3	68.50	SOHC	38/52	<b>HBS377</b>	1) 45Nm 2) 90Nm		
<b>Matiz 1.0L</b>					01/03 →	<b>17</b>			
B10S	995	4			47/64	<b>HBS377</b>	1) 45Nm 2) 90Nm		
<b>Musso 2.2L TD Diesel</b>					09/99 →	<b>18</b>			
MB OM 601	2299	4			74/101	<b>HBS058</b>	1) 25Nm 2) 40Nm 3) 90° 4) 40Nm 5) 90° 6) 90°		
<b>Musso 2.3L</b>					01/99 →	<b>19</b>			
M 111.970	2295	4	90.90	DOHC	103-110/ 140-150	<b>HBS150</b>	1) 55Nm 2) 90° 3) 90°		



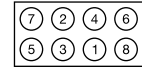
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kW/PS



Model	Year	CC	Cylinders	Configuration	Power (kW/PS)	Washer Part	Dimensions	Angles	Washer Diagram
<b>Musso 2.9L TD Diesel</b> MB-OM 601 29TD	01/99 →	2874	5	SOHC	88-95/ 120-129	<b>HBS059</b>	M10x1.50x80mm (x5) M10x1.50x115mm (x6) M10x1.50x102mm (x11)	1) 25Nm 2) 40Nm 3) ↺ 90° 4) 40Nm 5) 90° 6) 90°	
<b>Musso 3.2L</b> M 104.992	01/99 →	3199	6	DOHC	162/220	<b>HBS152</b>	M12x1.75x160mm (x14)	1) 25Nm 2) 55Nm 3) ↺ 90° 4) 55Nm 5) 90° 6) 90°	
<b>Nexia 1.5L</b> G15MF	02/95 → 08/97	1498	4	SOHC	44-55/ 55-75	<b>HBS002</b>	M10x1.25x140mm (x10)	1) 25Nm 2) 60° 3) 60° 4) 60°	
<b>Nexia 1.5L 16V NEXIA 16V</b> A15MF	02/95 → 08/97 02/95 → 08/97	1498	4	SOHC	66/89	<b>HBS285</b>	M10x1.25x166mm (x10)	1) 25Nm 2) 60° 3) 60° 4) 60° 5) 10°	
<b>Nexia 1.8L</b> C18LE	10/95 → 08/97	1796	4	SOHC	66-74/ 90-100	<b>HBS003</b>	M11x1.25x140mm (x10)	1) 25Nm 2) 60° 3) 60° 4) 60° 5) ↓ 6) * 7) 30°	
<b>Nubira 1.4L</b> F14D3	10/03 → 12/04	1399	4	DOHC	70-69/ 95-94	<b>HBS002</b> → 01/07	M10x1.25x140mm (x10)	1) 25Nm 2) 60° 3) 60° 4) 60°	
						<b>HBS285</b> 01/07 →	M10x1.25x166mm (x10)	1) 25Nm 2) 60° 3) 60° 4) 60° 5) 10°	
<b>Nubira 1.6L</b> F16D3	07/03 →	1598	4	DOHC	80-77/ 109-105	<b>HBS285</b> → 12/05	M10x1.25x166mm (x10)	1) 25Nm 2) 60° 3) 60° 4) 60° 5) 10°	
<b>Nubira 1.6L Nubira 1.6L 16V</b> A16DMS F16D3	07/03 → 05/97 →	1598 1598	4 4	DOHC DOHC	78/106 80-77/ 109-105	<b>HBS285</b>	M10x1.25x166mm (x10)	1) 25Nm 2) 60° 3) 60° 4) 60° 5) 10°	
<b>Nubira 2.0L 16V</b> T20SED X20SED Z20L	05/97 →	1998 1998 1998	4 4 4	DOHC DOHC DOHC	93/126 100/136	<b>HBS054</b>	M11x1.25x105mm (x10)	1) 25Nm 2) 90° 3) 90° 4) 90°	
<b>Rezzo 1.6L</b> A16DMS	09/00 →	1598	4	DOHC	78/106	<b>HBS285</b>	M10x1.25x166mm (x10)	1) 25Nm 2) 60° 3) 60° 4) 60° 5) 10°	

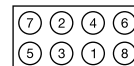








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Rezzo 2.0L					09/01 →	30	HBS054		1) 25Nm 2) 90° 3) 90° 4) 90°	<table border="1"> <tr><td>10</td><td>6</td><td>2</td><td>3</td><td>7</td></tr> <tr><td>9</td><td>5</td><td>1</td><td>4</td><td>8</td></tr> </table>	10	6	2	3	7	9	5	1	4	8
10	6	2	3	7																
9	5	1	4	8																
X20SED	1998	4	86.00	DOHC	100/136		 M11x1.25x105mm (x10)													
Tacuma 1.6L					05/97 →	31	HBS285		1) 25Nm 2) 60° 3) 60° 4) 60° 5) 10°	<table border="1"> <tr><td>10</td><td>6</td><td>2</td><td>3</td><td>7</td></tr> <tr><td>9</td><td>5</td><td>1</td><td>4</td><td>8</td></tr> </table>	10	6	2	3	7	9	5	1	4	8
10	6	2	3	7																
9	5	1	4	8																
A16DMS	1598	4	79.00	DOHC	78/106		 M10x1.25x166mm (x10)													
Tacuma Van 2.0L					06/97 →	32	HBS054		1) 25Nm 2) 90° 3) 90° 4) 90°	<table border="1"> <tr><td>10</td><td>6</td><td>2</td><td>3</td><td>7</td></tr> <tr><td>9</td><td>5</td><td>1</td><td>4</td><td>8</td></tr> </table>	10	6	2	3	7	9	5	1	4	8
10	6	2	3	7																
9	5	1	4	8																
X20SED	1998	4	86.00	DOHC	100/136		 M11x1.25x105mm (x10)													
Tico 0.8L					02/95 → 12/00	33	HBS377		1) 45Nm 2) 90Nm	<table border="1"> <tr><td>5</td><td>1</td><td>3</td><td>7</td></tr> <tr><td>6</td><td>4</td><td>2</td><td>8</td></tr> </table>	5	1	3	7	6	4	2	8		
5	1	3	7																	
6	4	2	8																	
F8C F8CV	796 796	3 3	68.50 68.50	SOHC SOHC	35/47 38/52		 M10x1.25x97mm (x10)													

# DAIHATSU



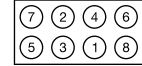
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














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




<b>Altis 2.4L VVTi SX</b> 01/06 → <b>1</b> <b>Altis 2.4L VVTi SX 4x4</b> 01/06 →						<b>HBS441</b>  M11x1.50x162mm (x10)	1) 40Nm 2) 80Nm 3) 90°	
2AZ-FE	2362	4	88.50	DOHC	116-112/ 158-152			
<b>Extol 1.3L</b> 07/00 → <b>2</b> <b>K3-VE</b>						<b>HBS312</b>  M9x1.25x84mm (x10)	1) 17Nm 2) 34Nm 3) 90°	
1298	4	72.00	DOHC	63-64/ 86-87				
<b>Materia 1.3L</b> 10/06 → <b>3</b> <b>K3-VE</b>						<b>HBS312</b>  M9x1.25x84mm (x10)	1) 17Nm 2) 34Nm 3) 90°	
1298	4	72.00	DOHC	63-64/ 86-87				
<b>Sirion 1.3L</b> 01/05 → <b>4</b> <b>Sirion 1.3L 4WD</b> 04/05 → <b>Sirion 1.3L Sport</b> 08/00 → 01/05 <b>Sirion 1.3L Sport 4WD</b> 08/00 → 01/05						<b>HBS312</b>  M9x1.25x84mm (x10)	1) 17Nm 2) 34Nm 3) 90°	
K3-VE	1298	4	72.00	DOHC	63-64/ 86-87			
K3-VE2	1298	4	72.00		75/102			
<b>Terios 1.3L</b> 09/01 → 10/05 <b>5</b> <b>Terios 1.3L 4WD</b> 10/00 → 10/05 <b>Terios 1.3L DVVT 4x4</b> 11/05 →						<b>HBS312</b>  M9x1.25x84mm (x10)	1) 17Nm 2) 34Nm 3) 90°	
K3-VE	1298	4	72.00	DOHC	63-64/ 86-87			
<b>Xenia 1.3L DVVT</b> 05/07 → <b>6</b> <b>K3-VE</b>						<b>HBS312</b>  M9x1.25x84mm (x10)	1) 17Nm 2) 34Nm 3) 90°	
1298	4	72.00	DOHC	63-64/ 86-87				
<b>YRV 1.3L</b> 02/01 → <b>7</b> <b>YRV 1.3L 4WD</b> 02/01 → <b>YRV 1.3L GT ii</b> 07/02 →						<b>HBS312</b>  M9x1.25x84mm (x10)	1) 17Nm 2) 34Nm 3) 90°	
K3-VE	1298	4	72.00	DOHC	63-64/ 86-87			
K3-VET	1298	4	72.00	DOHC	95/129			

Engine Index • Moterverzeichnis • Index de moteur • Indice motore • Indice per motor • Indeks silnika • Индекс двигателя

		CC			9			CC			9
4HW (DW12ATED4)	Diesel	2179	4	85.00	195	156 A2.246	Petrol	999	4	70.00	199
100 GL.048	Petrol	903	4	65.00	1	156 A3.100	Petrol	999	4	70.00	107
100 GL.048	Petrol	903	4	65.00	105	156 A4.000	Petrol	770	4	65.00	104
100 GL3.000	Petrol	903	4	65.00	105	156 A4.048	Petrol	770	4	65.00	104
127 A.000	Petrol	903	4	65.00	2	156 C.046	Petrol	1108	4	70.00	108
138 A4.000	Petrol	1498	4	86.40	135	156 C.046	Petrol	1108	4	70.00	200
138 B.000	Petrol	1116	4	80.00	158	159 A2.000	Petrol	1372	4	80.50	164
138 B.000	Petrol	1116	4	80.00	201	159 A2.000	Petrol	1372	4	80.50	175
138 B2.000	Petrol	1302	4	86.40	130	159 A3.000	Petrol	1581	4	86.40	62
138 C2.048	Diesel	1498	4	86.40	131	159 A3.000	Petrol	1581	4	86.40	113
138 C2.048	Diesel	1498	4	86.40	205	159 A3.000	Petrol	1581	4	86.40	165
141 B.000	Petrol	770	4	65.00	103	159 A3.046	Petrol	1585	4	86.40	166
141 C2.000	Petrol	999	4	70.00	107	159 A3.046	Petrol	1585	4	86.40	168
146 A.000	Petrol	903	4	65.00	105	159 A3.046	Petrol	1585	4	86.40	176
146 A.000	Petrol	903	4	65.00	197	159 A3.046	Petrol	1585	4	86.40	206
146 A.1000	Petrol	903	4	65.00	197	159 A3.048	Petrol	1585	4	86.40	166
146 A2.000	Petrol	1301	4	80.50	202	159 A3.048	Petrol	1585	4	86.40	179
146 A2.166	Petrol	994	4	76.00	198	159 A4.000	Petrol	1756	4	84.00	170
146 A2.246	Petrol	1301	4	80.50	202	159 A4.000	Petrol	1756	4	84.00	182
146 A4.044	Petrol	1116	4	80.00	201	159 A4.000	Petrol	1756	4	84.00	183
146 A4.048	Petrol	1116	4	80.00	201	159 A4.046	Petrol	1756	4	84.00	170
146 A5.000	Petrol	1301	4	76.10	60	159 A4.046	Petrol	1756	4	84.00	183
146 A5.000	Petrol	1301	4	76.10	64	159 A5.046	Petrol	1995	4	84.00	187
146 A6.000	Petrol	1116	4	76.00	59	159 A6.046	Petrol	1995	4	84.00	172
146 A8.000	Petrol	1372	4	80.50	203	159 A6.046	Petrol	1995	4	84.00	186
146 A8.046	Petrol	1372	4	80.50	203	159 B9.000	Petrol	1581	4	86.40	169
146 A9.000	Petrol	1116	4	76.00	63	160 A1.000	Petrol	1372	4	80.50	175
146 B.000	Diesel	1367	4	78.00	204	160 A1.046	Petrol	1372	4	80.50	164
146 B2.000	Diesel	1697	4	82.60	71	160 A1.046	Petrol	1372	4	80.50	175
146 B2.000	Diesel	1697	4	82.60	207	160 A1.046	Petrol	1372	4	80.50	203
146 B3.000	Diesel	1367	4	78.00	204	160 A1.048	Petrol	1372	4	80.50	175
146 C1.000	Petrol	1372	4	80.50	164	160 A1.048	Petrol	1372	4	80.50	203
146 C1.000	Petrol	1372	4	80.50	175	160 A2.000	Petrol	1585	4	86.40	176
146 C1.000	Petrol	1372	4	80.50	203	160 A3.000	Petrol	1108	4	70.00	174
146 C3.000	Petrol	1116	4	80.00	201	160 A3.000	Petrol	1108	4	70.00	200
146 C5.000	Petrol	1372	4	80.50	66	160 A5.000	Petrol	1756	4	84.00	184
146 C6.000	Petrol	1581	4	86.40	69	160 A6.000	Diesel	1929	4	82.60	171
146 D5.000	Petrol	1372	4	80.50	66	160 A6.000	Diesel	1929	4	82.60	185
146 D6.000	Petrol	1585	4	86.40	70	160 A6.046	Diesel	1929	4	82.60	185
146 D7.000	Diesel	1697	4	82.60	71	160 A7.000	Diesel	1929	4	82.60	13
149 A1.000	Diesel	1929	4	82.60	133	160 A7.000	Diesel	1929	4	82.60	21
149 A1.000	Diesel	1929	4	82.60	171	160 A7.000	Diesel	1929	4	82.60	171
149 A1.000	Diesel	1929	4	82.60	185	160 A7.000	Diesel	1929	4	82.60	185
149 A3.000	Petrol	1302	4	86.40	130	160 A8.046	Petrol	1995	4	84.00	186
149 A7.000	Petrol	1301	4	86.40	129	160 B6.046	Diesel	1929	4	82.60	171
149 A7.000	Petrol	1301	4	86.40	202	160 B6.046	Diesel	1929	4	82.60	185
149 B1.000	Diesel	1929	4	82.60	48	160 D1.000	Diesel	1929	4	82.60	171
149 B1.000	Diesel	1929	4	82.60	163	160 D1.000	Diesel	1929	4	82.60	185
149 B3.000	Diesel	1697	4	82.60	61	169 A1.000	Diesel	1248	4	69.60	6
149 B3.000	Diesel	1697	4	82.60	71	169 A1.000	Diesel	1248	4	69.60	110
149 B3.000	Diesel	1697	4	82.60	132	169 A3.000	Petrol	1368	4	72.00	7
149 B3.000	Diesel	1697	4	82.60	207	169 A3.000	Petrol	1368	4	72.00	111
149 B4.000	Diesel	1697	4	82.60	181	169 A4.000	Petrol	1242	4	70.80	5
149 B5.046	Diesel	1929	4	82.60	208	169 A4.000	Petrol	1242	4	70.80	109
149 C1.000	Diesel	1498	4	86.40	68	169 A4.000	Petrol	1242	4	70.80	115
149 C1.000	Diesel	1498	4	86.40	131	169 A4.000	Petrol	1242	4	70.80	125
149 C1.000	Diesel	1498	4	86.40	205	170 A1.000	Petrol	903	4	65.00	26
149 C2.046	Petrol	1585	4	84.00	180	170 A1.046	Petrol	903	4	65.00	26
154 A1.000	Petrol	1995	4	84.00	35	175 A1.000	Diesel	1995	4	84.00	30
154 A2.000	Petrol	1995	4	84.00	35	175 A3.000	Petrol	1998	5	82.00	31
154 C3.000	Petrol	1995	4	84.00	35	176 A3.000	Diesel	1697	4	82.60	101
154 C3.046	Petrol	1995	4	84.00	35	176 A3.000	Diesel	1697	4	82.60	123
154 C3.046	Petrol	1995	4	84.00	173	176 A3.000	Diesel	1697	4	82.60	161
154 C4.046	Petrol	1995	4	84.00	35	176 A4.000	Petrol	1372	4	80.50	120
154 C5.000	Petrol	1995	4	84.00	35	176 A5.000	Diesel	1697	4	82.60	123
154 C6.000	Diesel	1929	4	82.60	34	176 A6.000	Petrol	1108	4	70.00	114
154 D1.000	Diesel	1929	4	82.60	34	176 A7.000	Petrol	1242	4	70.80	115
154 E1.000	Petrol	1995	4	84.00	36	176 A8.000	Diesel	1242	4	70.80	95
156 A2.000	Petrol	999	4	70.00	199	176 A8.000	Petrol	1242	4	70.80	115
156 A2.048	Petrol	999	4	70.00	199	176 A9.000	Petrol	1581	4	86.40	121
156 A2.100	Petrol	999	4	70.00	107	176 B1.000	Petrol	1242	4	70.80	115
156 A2.100	Petrol	999	4	70.00	199	176 B2.000	Petrol	1108	4	70.00	28
156 A2.246	Petrol	999	4	70.00	107	176 B2.000	Petrol	1108	4	70.00	108

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176 B2.000	Petrol	1108	4	70.00	114	185 A8.000	Petrol	1998	5	82.00	90
176 B2.000	Petrol	1108	4	70.00	146	186 A3.000	Petrol	1581	4	86.40	93
176 B3.000	Diesel	1697	4	82.60	123	186 A4.000	Petrol	1581	4	86.40	86
176 B4.000	Petrol	1242	4	70.80	115	186 A4.000	Petrol	1581	4	86.40	93
176 B6.000	Petrol	1372	4	80.50	120	186 A6.000	Diesel	1910	4	82.00	89
176 B7.000	Diesel	1697	4	82.60	101	186 A6.000	Diesel	1910	4	82.00	94
176 B7.000	Diesel	1697	4	82.60	123	186 A8.000	Diesel	1910	4	82.00	94
176 B7.000	Diesel	1697	4	82.60	161	186A9.000	Diesel	1910	4	82.00	45
176 B9.000	Petrol	1242	4	70.80	116	186A9.000	Diesel	1910	4	82.00	94
178 B2.000	Petrol	1372	4	80.50	98	187 A1.000	Petrol	1108	4	70.00	108
178 B2.000	Petrol	1372	4	80.50	148	187 A1.000	Petrol	1108	4	70.00	146
178 B3.000	Petrol	1581	4	86.40	99	188 A2.000	Diesel	1910	4	82.00	124
178 B3.000	Petrol	1581	4	86.40	150	188 A2.000	Diesel	1910	4	82.00	162
178 B5.000	Diesel	1242	4	70.80	95	188 A3.000	Diesel	1910	4	82.00	124
178 B5.000	Petrol	1242	4	70.80	147	188 A4.000	Diesel	1242	4	70.80	95
178 B5.000	Petrol	1242	4	70.80	159	188 A4.000	Petrol	1242	4	70.80	109
178 B7.045	Diesel	1242	4	70.80	95	188 A4.000	Petrol	1242	4	70.80	115
178 C4.066	Diesel	1242	4	70.80	95	188 A4.000	Petrol	1242	4	70.80	147
178 C4.066	Petrol	1242	4	70.80	147	188 A4.000	Petrol	1242	4	70.80	159
178B2.016	Petrol	1372	4	80.50	98	188 A5.000	Petrol	1242	4	70.80	9
178B2.016	Petrol	1372	4	80.50	148	188 A5.000	Petrol	1242	4	70.80	15
178E2.000	Diesel	1242	4	70.80	95	188 A5.000	Petrol	1242	4	70.80	77
182 A1.000	Petrol	1998	5	82.00	24	188 A5.000	Petrol	1242	4	70.80	96
182 A1.000	Petrol	1998	5	82.00	31	188 A5.000	Petrol	1242	4	70.80	116
182 A1.000	Petrol	1998	5	82.00	90	188 A5.000	Petrol	1242	4	70.80	151
182 A2.000	Petrol	1747	4	82.00	12	188 A6.000	Petrol	1747	4	82.00	8
182 A2.000	Petrol	1747	4	82.00	20	188 A6.000	Petrol	1747	4	82.00	122
182 A2.000	Petrol	1747	4	82.00	88	188 A7.000	Diesel	1910	4	82.00	124
182 A3.000	Petrol	1371	4	82.00	10	188 A9.000	Diesel	1248	4	69.60	42
182 A3.000	Petrol	1371	4	82.00	17	188 A9.000	Diesel	1248	4	69.60	78
182 A3.000	Petrol	1371	4	82.00	85	188 A9.000	Diesel	1248	4	69.60	97
182 A4.000	Petrol	1581	4	86.40	11	188 A9.000	Diesel	1248	4	69.60	110
182 A4.000	Petrol	1581	4	86.40	19	188 A9.000	Diesel	1248	4	69.60	117
182 A4.000	Petrol	1581	4	86.40	86	188 B2.000	Diesel	1910	4	82.00	81
182 A4.000	Petrol	1581	4	86.40	93	188 B2.000	Diesel	1910	4	82.00	124
182 A5.000	Petrol	1371	4	82.00	10	192 A1.000	Diesel	1910	4	82.00	155
182 A5.000	Petrol	1371	4	82.00	17	192 A2.000	Petrol	2446	5	83.00	157
182 A5.000	Petrol	1371	4	82.00	85	192 A3.000	Diesel	1910	4	82.00	155
182 A6.000	Petrol	1581	4	86.40	11	192 A4.000	Petrol	1747	4	82.00	8
182 A6.000	Petrol	1581	4	86.40	19	192 A4.000	Petrol	1747	4	82.00	122
182 A7.000	Diesel	1910	4	82.00	14	192 A4.000	Petrol	1747	4	82.00	154
182 A7.000	Diesel	1910	4	82.00	22	192 A5.000	Diesel	1910	4	82.00	156
182 A7.000	Diesel	1910	4	82.00	89	192 A8.000	Diesel	1910	4	82.00	22
182 A8.000	Diesel	1910	4	82.00	14	192 A8.000	Diesel	1910	4	82.00	155
182 A8.000	Diesel	1910	4	82.00	22	192 B2.000	Petrol	1368	4	72.00	16
182 A8.000	Diesel	1910	4	82.00	89	192 B2.000	Petrol	1368	4	72.00	152
182 B2.000	Petrol	1242	4	70.80	9	192 B5.000	Diesel	1910	4	82.00	155
182 B2.000	Petrol	1242	4	70.80	15	192A9.000	Diesel	1910	4	82.00	155
182 B2.000	Petrol	1242	4	70.80	84	194A1.000	Petrol	2198	4	86.00	37
182 B3.000	Petrol	1998	5	82.00	31	198 A1.000	Petrol	1368	4	72.00	16
182 B4.000	Diesel	1910	4	82.00	14	198 A4.000	Petrol	1368	4	72.00	16
182 B4.000	Diesel	1910	4	82.00	22	198 A4.000	Petrol	1368	4	72.00	75
182 B4.000	Diesel	1910	4	82.00	89	199 A2.000	Diesel	1248	4	69.60	42
182 B4.000	Diesel	1910	4	82.00	94	199 A2.000	Diesel	1248	4	69.60	65
182 B6.000	Petrol	1596	4	80.50	18	199 A2.000	Diesel	1248	4	69.60	73
182 B6.000	Petrol	1596	4	80.50	44	199 A2.000	Diesel	1248	4	69.60	117
182 B6.000	Petrol	1596	4	80.50	87	199 A2.000	Diesel	1248	4	69.60	127
182 B6.000	Petrol	1596	4	80.50	92	199 A3.000	Diesel	1248	4	69.60	42
182 B6.000	Petrol	1596	4	80.50	100	199 A3.000	Diesel	1248	4	69.60	73
182 B6.000	Petrol	1596	4	80.50	149	199 A3.000	Diesel	1248	4	69.60	78
182 B6.000	Petrol	1596	4	80.50	153	199 A3.000	Diesel	1248	4	69.60	82
182 B7.000	Petrol	1998	5	82.00	24	199 A3.000	Diesel	1248	4	69.60	117
182 B7.000	Petrol	1998	5	82.00	90	199 A4.000	Petrol	1242	4	70.80	72
182 B9.000	Diesel	1910	4	82.00	14	199 A4.000	Petrol	1242	4	70.80	115
182 B9.000	Diesel	1910	4	82.00	22	199 A9.000	Diesel	1248	4	69.60	65
182 B9.000	Diesel	1910	4	82.00	45	199 A9.000	Diesel	1248	4	69.60	117
182 B9.000	Diesel	1910	4	82.00	89	220 A 2.000	Petrol	1581	4	86.40	69
183 A1.000	Petrol	1747	4	82.00	8	220 A 2.000	Petrol	1581	4	86.40	136
183 A1.000	Petrol	1747	4	82.00	29	220 A 2.000	Petrol	1581	4	86.40	177
183 A1.000	Petrol	1747	4	82.00	122	223 A5.000	Petrol	1242	4	70.80	41
185 A2.000	Diesel	2387	5	82.00	91	223 A6.000	Diesel	1910	4	82.00	45
185 A3.000	Petrol	1581	4	86.40	86	223 A6.000	Diesel	1910	4	82.00	102
185 A6.000	Diesel	2387	5	82.00	91	223 A6.000	Diesel	1910	4	82.00	162

Engine Index • Moterverzeichnis • Index de moteur • Indice motore • Indice per motor • Indeks silnika • Индекс двигателя

		CC			9			CC			9
223 A7.000	Diesel	1910	4	82.00	45	CRD93L (U25-661)	Diesel	2500	4	93.00	57
223 A9.000	Diesel	1248	4	69.60	42	D8B	Diesel	1905	4	83.00	140
223 A9.000	Diesel	1248	4	69.60	117	D8B	Diesel	1905	4	83.00	189
223 A9.000	Diesel	1248	4	69.60	160	D9B (XUD9/A/B/L/Y)	Diesel	1905	4	83.00	47
223 B1.000	Diesel	1910	4	82.00	45	D9B (XUD9/A/B/L/Y)	Diesel	1905	4	83.00	139
223 B2.000	Diesel	1910	4	82.00	45	D9B (XUD9A)	Diesel	1905	4	83.00	47
230 A2.000	Diesel	1929	4	82.60	48	D19AA	Diesel	1910	4	82.00	144
230 A3.000	Diesel	1929	4	82.60	48	DHX (XUD9TE)	Diesel	1905	4	83.00	49
230 A4.000	Diesel	1929	4	82.60	48	DHX (XUD9TE)	Diesel	1905	4	83.00	140
263 A2.000	Diesel	1248	4	69.60	42	DHX (XUD9TE)	Diesel	1905	4	83.00	189
280 A1.000	Diesel	1929	4	82.60	48	DJY	Diesel	1905	4	83.00	47
350 A1.000	Petrol	1368	4	72.00	43	DW10 (RHV)	Diesel	1997	4	85.00	53
350 A1.000	Petrol	1368	4	72.00	67	DW10 (RHX)	Diesel	1997	4	85.00	142
350 A1.000	Petrol	1368	4	72.00	74	DW10 (RHZ)	Diesel	1997	4	85.00	142
350 A1.000	Petrol	1368	4	72.00	79	DW10 (RHZ)	Diesel	1997	4	85.00	193
350 A1.000	Petrol	1368	4	72.00	83	DW10ATED4	Diesel	1997	4	85.00	193
350 A1.000	Petrol	1368	4	72.00	112	DW10ATED4 (RHS)	Diesel	1997	4	85.00	142
350 A1.000	Petrol	1368	4	72.00	119	DW10ATED4 (RHS)	Diesel	1997	4	85.00	193
350 A1.000	Petrol	1368	4	72.00	126	EW10J4 (RFN)	Petrol	1997	4	85.00	141
350 A1.000	Petrol	1368	4	72.00	128	EW10J4 (RFN)/RFN(EW10J4)	Petrol	1997	4	85.00	190
831 D1.000	Diesel	1929	4	82.60	133	F1AE0481C	Diesel	2286	4	88.00	54
834 B.000	Petrol	1995	4	84.00	35	LFW (XU7 JP)	Petrol	1762	4	83.00	188
834 B.048	Petrol	1995	4	84.00	35	M16A	Petrol	1586	4	78.00	143
834 B.146	Petrol	1995	4	84.00	35	P8C (XUD 11 BTE)	Diesel	2088	4	85.00	194
834 C.146	Petrol	1995	4	84.00	35	RFL (XU10)	Petrol	1998	4	86.00	52
835 C1.000	Petrol	1581	4	86.40	137	RFU (XU10 J2C)	Petrol	1998	4	86.00	191
835 C1.000	Petrol	1581	4	86.40	165	RFW (XU10J2)	Petrol	1998	4	86.00	51
835 C1.000	Petrol	1581	4	86.40	167	RGX	Petrol	1998	4	86.00	191
835 C1.000	Petrol	1581	4	86.40	178	RHK/RHR	Diesel	1997	4	85.00	142
835 C2.000	Petrol	1756	4	84.00	170	RHK/RHR	Diesel	1997	4	85.00	193
835 C2.000	Petrol	1756	4	84.00	183	Sofim-8144.61.200	Diesel	2445	4	93.00	25
835 C4.000	Petrol	1756	4	84.00	183	WJZ (DW8)	Diesel	1868	4	82.20	138
836 A3.000	Diesel	1995	4	84.00	30	XFW	Petrol	2946	6	87.00	196
836 A3.000	Petrol	1995	4	84.00	186	XN 1T	Petrol	1971	4	88.00	50
836 A4.000	Petrol	1372	4	80.50	164	XU10 (RFV)	Petrol	1998	4	86.00	192
836 A4.000	Petrol	1372	4	80.50	175	XUD9 (D9B/ DJZ/ 162)	Diesel	1905	4	83.00	139
836 A5.000	Petrol	1756	4	84.00	170	XUD9TF (DHV/ DHW)	Diesel	1905	4	83.00	47
838A3.000 - 838A7.000	Diesel	2387	4	82.00	46	XUD9TF (DHV/ DHW)	Diesel	1905	4	83.00	140
839 A5.000	Diesel	2387	5	82.00	91						
840A2/A4.000	Petrol	1371	4	82.00	17						
843 A1.000	Petrol	1368	4	72.00	80						
843 A1.000	Petrol	1368	4	72.00	118						
843 A1.000	Petrol	1368	4	72.00	152						
937A4.000	Diesel	1910	4	82.00	156						
937A5.000	Diesel	1910	4	82.00	23						
937A5.000	Diesel	1910	4	82.00	156						
937A7.000	Diesel	1910	4	82.00	155						
939 A1.000	Diesel	1910	4	82.00	32						
939 A1.000	Diesel	1910	4	82.00	76						
939A2.000	Diesel	1910	4	82.00	33						
939A3.000	Diesel	2387	5	82.00	38						
1170 A1.000	Petrol	899	4	65.00	27						
1170 A1.046	Petrol	899	4	65.00	27						
1170 A1.046	Petrol	899	4	65.00	106						
1170 A1.046	Petrol	899	4	65.00	145						
8140.27	Diesel	2500	4	93.00	57						
8140.43	Diesel	2798	4	94.40	58						
8140.43N	Diesel	2798	4	94.40	58						
8140.43S	Diesel	2798	4	94.40	58						
8140.47	Diesel	2500	4	93.00	57						
8140.47R	Diesel	2500	4	93.00	57						
8140.63	Diesel	2798	4	94.40	58						
8140.67	Diesel	2500	4	93.00	57						
8140.67.X230	Diesel	2499	4	93.00	56						
8142.61	Diesel	2445	4	93.00	55						
8144.21	Diesel	2445	4	93.00	55						
8144.21.220	Diesel	2445	4	93.00	55						
8144.61	Diesel	2445	4	93.00	55						
8144.67	Diesel	2500	4	93.00	40						
8144.67	Diesel	2500	4	93.00	57						
8144.91	Diesel	2445	4	93.00	39						
8144.97 S	Diesel	2500	4	93.00	40						
B25.637	Diesel	2176	4	90.00	4						





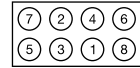
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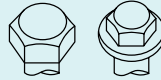
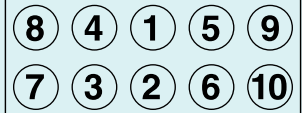
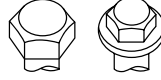
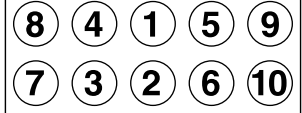

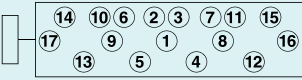

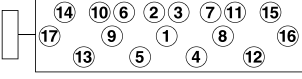

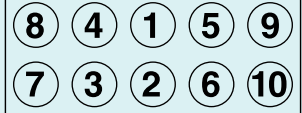

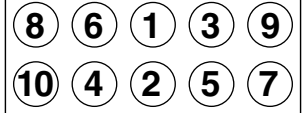

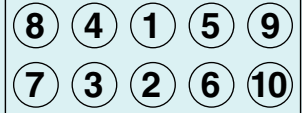

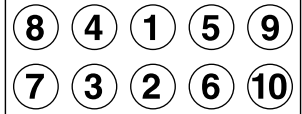

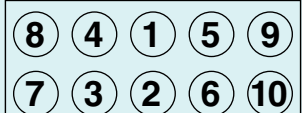

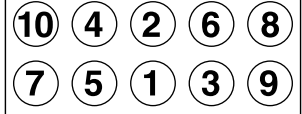

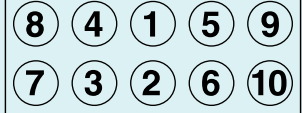


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kW/PS



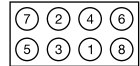
127 0.9L L/CL		01/74 →			1			
100 GL.048	903	4	65.00		34/46	<b>HBS109</b>  M9x1.25x60mm (x1) M9x1.25x95mm (x9)	1) 30Nm 2) 90° 3) 90°	
147 1.0L		10/76 → 12/95			2			
127 A.000	903	4	65.00	SOHC	34/46	<b>HBS109</b>  M9x1.25x60mm (x1) M9x1.25x95mm (x9)	1) 30Nm 2) 90° 3) 90°	
242-Serie 1.8L D Diesel		01/80 →			3			
						<b>HBS017</b>  M12x1.50x145mm (x8) M12x1.50x118mm (x9)	1) 40Nm 2) 100° 3) 100° 4) ⚡ 5) ⚡ 6) 45°	
242-Serie Van 2.2LD Diesel		01/80 →			4			
B25.637	2176	4	90.00		51/69	<b>HBS017</b>  M12x1.50x145mm (x8) M12x1.50x118mm (x9)	1) 40Nm 2) 100° 3) 100° 4) ⚡ 5) ⚡ 6) 45°	
500 1.2L		09/09 →			5			
500 1.2L LPG		12/10 →						
169 A4.000	1242	4	70.80	SOHC	51/69	<b>HBS052</b>  M9x1.25x95mm (x10)	1) 40Nm 2) 90° 3) 90°	
500 1.3L D Multijet Diesel		10/07 →			6			
169 A1.000	1248	4	69.60	DOHC		<b>HBS353</b>  M10x1.25x119mm (x10)	1) 20Nm 2) 40Nm 3) 90° 4) 90°	
500 1.4L		10/07 →			7			
169 A3.000	1368	4	72.00	DOHC		<b>HBS247</b>  M9x1.25x87mm (x10)	1) 30Nm 2) 90° 3) 90°	
Barchetta 1.7L 16V		04/95 →			8			
Barchetta 1.8i 16V		06/00 →						
Barchetta Convertible 1.8Li 16V		04/95 →						
183 A1.000/188 A6.000	1747	4	82.00	DOHC	96/131	<b>HBS132</b>  M10x1.25x254mm (x10)	1) 40Nm 2) ↻ 90° 3) 40Nm 4) 90° 5) 90° 6) 90°	
192 A4.000	1747	4	82.00	DOHC, Euro 3	96-98/ 130-133			
Brava 1.2L 16V 80		12/98 → 10/01			9			
188 A5.000	1242	4	70.80	DOHC	59/80	<b>HBS247</b>  M9x1.25x87mm (x10)	1) 30Nm 2) 90° 3) 90°	
182 B2.000	1242	4	70.80	DOHC	60/82			
Brava 1.4L		10/95 → 10/01			10			
Brava 1.4L 12V		10/95 → 10/01						
182 A3.000/182 A5.000	1371	4	82.00	SOHC	59/80	<b>HBS130</b>  M10x1.25x163mm (x10)	1) 20Nm 2) 50Nm 3) 90° 4) 90° 5) 90°	
Brava 1.6L 16V		10/95 → 10/01			11			
182 A6.000	1581	4	86.40	DOHC	66/89	<b>HBS131</b>  M10x1.25x100mm (x10)	1) 20Nm 2) 40Nm 3) 90° 4) 90°	
182 A4.000	1581	4	86.40	DOHC	76/103			



cc



kW/PS



Model					Year Range	Cylinders	Power (kW/PS)	Engine Type	Part Number	Dimensions	Torque Sequence		
<b>Brava 1.8L GT 16V</b>					10/95 → 10/01		<b>12</b>		<b>HBS132</b>		 M10x1.25x254mm (x10)	1) 40Nm 2) ↻ 90° 3) 40Nm 4) 90° 5) 90° 6) 90°	
<b>Brava 1.8Li 16V 115ELX</b>					01/95 → 08/99								
182 A2.000	1747	4	82.00	DOHC, Euro 2	96/131								
182 A2.000	1747	4	82.00	DOHC	96/131								
<b>Brava 1.9L D Diesel</b>					10/95 → 10/01		<b>13</b>		<b>HBS095</b>		 M12x1.25x133mm (x10)	1) 30Nm 2) 100Nm 3) 90° 4) 50Nm 5) 100Nm 6) ↻ 90° 7) 100Nm 8) 90° 9) 90°	
<b>160 A7.000</b>													
	1929	4	82.60	SOHC	48/65								
<b>Brava 1.9L JTD Diesel</b>					09/00 → 10/01		<b>14</b>		<b>HBS227</b>		 M12x1.25x218mm (x10)	1) 65Nm 2) 90° 3) 90° 4) 90°	
<b>Brava 1.9L JTD 105 Diesel</b>					12/98 → 10/01								
<b>Brava 1.9L TD 100 S Diesel</b>					03/96 → 10/01								
<b>Brava 1.9L TD 75 S Diesel</b>					03/96 → 10/01								
182 A7.000/182 A8.000	1910	4	82.00	SOHC	55/75								
182 B9.000	1910	4	82.00	SOHC	74-77/ 100-105								
182 B4.000	1910	4	82.00	SOHC	77/105								
<b>Bravo 1.2L 16V 80</b>					12/98 → 10/01		<b>15</b>		<b>HBS247</b>		 M9x1.25x87mm (x10)	1) 30Nm 2) 90° 3) 90°	
<b>188 A5.000</b>													
182 B2.000	1242	4	70.80	DOHC	59/80								
	1242	4	70.80	DOHC	60/82								
<b>Bravo 1.4L</b>					04/07 →		<b>16</b>		<b>HBS247</b>		 M9x1.25x87mm (x10)	1) 30Nm 2) 90° 3) 90°	
<b>Bravo 1.4L T-Jet</b>					09/07 →								
192 B2.000	1368	4	72.00	DOHC	66/89								
198 A4.000	1368	4	72.00	DOHC	88/120								
198 A1.000	1368	4	72.00	DOHC	110/150								
<b>Bravo 1.4L</b>					10/95 → 10/01		<b>17</b>		<b>HBS130</b>		 M10x1.25x163mm (x10)	1) 20Nm 2) 50Nm 3) 90° 4) 90° 5) 90°	
<b>Bravo 1.4L 12V S/SX</b>					09/95 → 11/98								
182 A3.000/182 A5.000	1371	4	82.00	SOHC	59/80								
840A2/A4.000	1371	4	82.00										
<b>Bravo 1.6L</b>					09/00 → 02/02		<b>18</b>		<b>HBS131</b>		 M10x1.25x100mm (x10)	1) 20Nm 2) 40Nm 3) 90° 4) 90°	
<b>182 B6.000</b>													
	1596	4	80.50	DOHC	76/103								
<b>Bravo 1.6L 16V</b>					10/95 → 10/01		<b>19</b>		<b>HBS131</b>		 M10x1.25x100mm (x10)	1) 20Nm 2) 40Nm 3) 90° 4) 90°	
<b>182 A6.000</b>													
182 A4.000	1581	4	86.40	DOHC	66/89								
	1581	4	86.40	DOHC	76/103								
<b>Bravo 1.8i 16V 115GT</b>					01/95 → 08/99		<b>20</b>		<b>HBS132</b>		 M10x1.25x254mm (x10)	1) 40Nm 2) ↻ 90° 3) 40Nm 4) 90° 5) 90° 6) 90°	
<b>Bravo 1.8L GT</b>					10/95 → 10/01								
182 A2.000	1747	4	82.00	DOHC, Euro 2	96/131								
182 A2.000	1747	4	82.00	DOHC	96/131								
<b>Bravo 1.9L D Diesel</b>					10/95 → 10/01		<b>21</b>		<b>HBS095</b>		 M12x1.25x133mm (x10)	1) 30Nm 2) 50Nm 3) 100Nm 4) ↻ 90° 5) 100Nm 6) 90° 7) 90°	
<b>160 A7.000</b>													
	1929	4	82.60	SOHC	48/65								



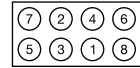
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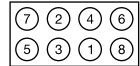
<b>Bravo 1.9L D Multijet Diesel</b> 04/07→ <b>22</b> <b>Bravo 1.9L JTD Diesel</b> 09/00→10/01 <b>Bravo 1.9L JTD 105 Diesel</b> 12/98→10/01 <b>Bravo 1.9L TD 100 S Diesel</b> 03/96→10/01 <b>Bravo 1.9L TD 75 S Diesel</b> 03/96→10/01						 M12x1.25x218mm (x10)	1) 65Nm 2) 90° 3) 90° 4) 90°	
182 A7.000/182 A8.000 182 B9.000	1910 1910	4 4	82.00 82.00	SOHC SOHC	55/75 74-77/ 100-105 77/105	 M12x1.25x225mm (x10)	1) 65Nm 2) 90° 3) 90° 4) 90°	
<b>Bravo 1.9L D Multijet Diesel</b> 04/07→ <b>23</b> 937A5.000						 M10x1.25x254mm (x12)	1) 20Nm 2) 40Nm 3) 90° 4) 90° 5) 90°	
<b>Bravo 2.0L HGT 20V</b> 10/95→10/01 <b>24</b> 182 A1.000 182 B7.000						 M12x1.25x160mm (x10) M12x1.25x119mm (x12)	1) 20Nm 2) 40Nm 3) ↙ 90° 4) 40Nm 5) 90° 6) 90°	
<b>Campagnola 2.4L D Diesel</b> 06/74→10/89 <b>25</b> Sofim-8144.61.200						 M9x1.25x91mm (x9) M9x1.25x56mm (x1)	1) 30Nm 2) 90° 3) 90°	
<b>Cinquecento 0.9L</b> 07/91→12/93 <b>26</b> <b>Cinquecento 0.9L i.e.</b> 07/91→12/93 170 A1.000/170 A1.046						 M9x1.25x91mm (x9) M9x1.25x56mm (x1)	1) 30Nm 2) 90° 3) 90°	
<b>Cinquecento 0.9L i.e. S</b> 07/91→01/98 <b>27</b> 1170 A1.000 1170 A1.046						 M9x1.25x95mm (x10)	1) 40Nm 2) 90° 3) 90°	
<b>Cinquecento 1.1L Sporting</b> 10/94→01/98 <b>28</b> 176 B2.000						 M10x1.25x254mm (x10)	1) 40Nm 2) ↙ 90° 3) 40Nm 4) 90° 5) 90° 6) 90°	
<b>Coupe 1.8L 16V</b> 03/96→08/00 <b>29</b> 183 A1.000						 M10x1.25x172mm (x10)	1) 70Nm 2) 90° 3) 90°	
<b>Coupe 2.0L 16V Turbo</b> 11/93→08/96 <b>30</b> <b>Coupe 2.0Li 16V</b> 11/93→08/96 836 A3.000 175 A1.000						 M10x1.25x254mm (x12)	1) 20Nm 2) 40Nm 3) 90° 4) 90° 5) 90°	
<b>Coupe 2.0L 20V</b> 08/96→08/00 <b>31</b> <b>Coupe 2.0L 20V Turbo</b> 08/96→08/00 182 A1.000 182 B3.000 175 A3.000						 M12x1.25x218mm (x10)	1) 65Nm 2) 90° 3) 90° 4) 90°	
<b>Croma 1.9L D Multijet Diesel</b> 06/05→ <b>32</b> 939 A1.000								



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Croma 1.9L D Multijet Diesel					06/05 →	33	 			
939A2.000	1910	4	82.00	DOHC		110/150	 M12x1.25x225mm (x10)	1) 65Nm 2) 90° 3) 90° 4) 90°		
Croma 1900 Turbo D i.d. Diesel					05/89 → 12/96	34	 M12x1.50x220mm (x10)		1) 20Nm 2) 45Nm 3) 65Nm 4) 90° 5) 90° 6) 90°	
Croma 2.0L CHT R/90					01/90 →	35	 M10x1.25x115mm (x10)		1) 20Nm 2) 40Nm 3) ↻ 90° 4) 40Nm 5) 90° 6) 90°	
Croma 2000 CHT					12/85 → 02/89					
Croma 2000 i.e.					03/86 → 08/96					
Croma 2000 i.e. Turbo					12/85 → 08/96					
154 A1.000	1995	4	84.00	DOHC	66/89					
154 C3.000/154 C3.046	1995	4	84.00	DOHC	88/120					
834 B.000/834 B.048/834 B.146	1995	4	84.00	DOHC	88/120					
834 C.146	1995	4	84.00	DOHC	110-112/ 150-152					
154 C4.046	1995	4	84.00	DOHC	113/154					
154 A2.000	1995	4	84.00	DOHC	114/155					
154 C5.000	1995	4	84.00	DOHC						
Croma 2000 16V					08/92 → 08/96	36	 M10x1.25x172mm (x10)		1) 70Nm 2) 90° 3) 90°	
154 E1.000	1995	4	84.00	DOHC	109/148					
Croma 2.2L 16V					06/05 →	37	 M11x1.50x163mm (x10)		1) 15Nm 2) 35Nm 3) 100° 4) 65°	
194A1.000	2198	4	86.00	DOHC	108/147					
Croma 2.4L D Multijet Diesel					06/05 →	38	 M12x1.25x255mm (x12)		1) 65Nm 2) 90° 3) 90° 4) 90°	
939A3.000	2387	5	82.00	DOHC	147/200					
Croma 2.5 D DS Diesel					10/85 →	39	 M12x1.25x160mm (x10)		1) 20Nm 2) 40Nm 3) ↻ 90° 4) 40Nm 5) 90° 6) 90°	
Croma 2500 TD Diesel					12/85 → 08/89					
8144.91	2445	4	93.00	Turbo Intercooled	76/103					
8144.91	2445	4	93.00	Turbo Intercooled	76/103					
Croma 2500 D Diesel					12/85 → 12/89	40	 M12x1.25x119mm (x12)		1) 20Nm 2) 40Nm 3) ↻ 90° 4) 40Nm 5) 90° 6) 90°	
Croma 2500 TD Diesel					05/89 → 08/96					
Croma 2500 TDE Diesel					12/91 → 08/96					
8144.67	2500	4	93.00	SOHC	55/75					
8144.97 S	2500	4	93.00	Sofim, SOHC, Turbo Intercooled	85/115					
8144.97 S	2500	4	93.00	SOHC	85/115					
Doblo 1.2L					03/01 →	41	 M9x1.25x95mm (x10)		1) 40Nm 2) 90° 3) 90°	
223 A5.000	1242	4	70.80	SOHC	44/60					



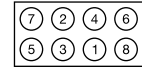
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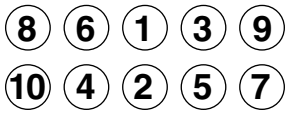

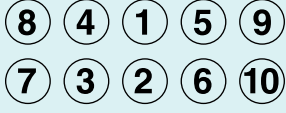

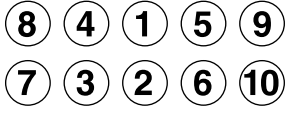

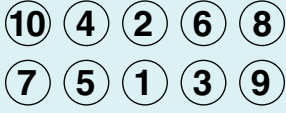

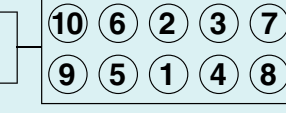

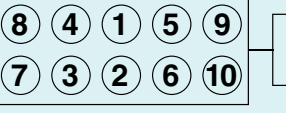


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<b>Doblo 1.3L D Multijet Diesel</b> 10/05 → <b>42</b> <b>Doblo 1.3L JTD Diesel</b> 05/05 → <b>Doblo 1.3L JTD 16V Diesel</b> 05/04 → <b>Doblo 1.3L JTD 16V Multijet Diesel</b> 08/06 →					<b>HBS353</b>  M10x1.25x119mm (x10)	1) 20Nm 2) 40Nm 3) 90° 4) 90°				
188 A9.000	1248	4	69.60	DOHC				51/70		
199 A2.000	1248	4	69.60	DOHC				55/75		
199 A3.000	1248	4	69.60	DOHC				66/90		
263 A2.000	1248	4	69.60	Direct Injection, DOHC				66/90		
223 A9.000	1248	4	69.60	DOHC						
<b>Doblo 1.4L</b> 10/05 → <b>43</b> 350 A1.000 1368 4 72.00 SOHC 57-55/78-75					<b>HBS052</b>  M9x1.25x95mm (x10)	1) 40Nm 2) 90° 3) 90°				
<b>Doblo 1.6L</b> 09/02 → <b>44</b> <b>Doblo 1.6L 16V</b> 10/01 → <b>Doblo 1.6L Natural Power</b> 09/02 → 182 B6.000 1596 4 80.50 DOHC 76/103					<b>HBS131</b>  M10x1.25x100mm (x10)	1) 20Nm 2) 40Nm 3) 90° 4) 90°				
<b>Doblo 1.9L D Diesel</b> 03/01 → <b>45</b> <b>Doblo 1.9L D Multijet Diesel</b> 10/05 → <b>Doblo 1.9L JTD Diesel</b> 10/01 → 223 A6.000 1910 4 82.00 SOHC 44/60 182 B9.000 1910 4 82.00 SOHC 74-77/100-105 223 A7.000 1910 4 82.00 SOHC 77/105 186A9.000 1910 4 82.00 SOHC 88/120 223 B1.000/223 B2.000 1910 4 82.00 SOHC					<b>HBS227</b>  M12x1.25x218mm (x10)	1) 65Nm 2) 90° 3) 90° 4) 90°				
<b>Doblo 1.9L JTD Diesel</b> 10/01 → <b>46</b> <b>Doblo 1.9L JTD Cargo Diesel</b> 10/01 → 838A3.000-838A7.000 2387 4 82.00										
<b>Ducato 1.9L D Diesel</b> 04/98 → 04/02 <b>47</b> <b>Ducato 1.9L TD Diesel</b> 04/98 → 04/02 D9B (XUD9A) 1905 4 83.00 SOHC 47-52/64-71 D9B (XUD9/A/B/L/Y) 1905 4 83.00 SOHC 49/67 DJY 1905 4 83.00 SOHC 50/68 XUD9TF (DHW/ DHW) 1905 4 83.00 Turbocharged								<b>HBS084</b>  M12x1.50x123mm (x10)	1) 20Nm 2) 60Nm 3) 180°	
<b>Ducato 1.9L D Diesel</b> 02/87 → 04/02 <b>48</b> <b>Ducato 1.9L D Combinato Diesel</b> 06/95 → 04/02 <b>Ducato 1.9L TD Diesel</b> 03/89 → 04/02 <b>Ducato 1.9L TD CAT Diesel</b> 08/94 → 04/02 <b>Ducato 1.9L TD Combinato Diesel</b> 08/94 → 04/02 <b>Ducato 1.9L TD Panorama/Combinato Diesel</b> 03/94 → 04/02 149 B1.000 1929 4 82.60 SOHC 52/71 230 A2.000/230 A3.000/230 A4.000/280 A1.000 1929 4 82.60 SOHC 60/81										
<b>Ducato 1.9L TD Diesel</b> 04/98 → 04/02 <b>49</b> DHX (XUD9TE) 1905 4 83.00 66/89										
					<b>HBS277</b> Eng.08575 →  M12x1.50x148mm (x10)	1) 20Nm 2) 40Nm 3) 60Nm 4) ↻ 90° 5) 60Nm 6) 110° 7) 110°				

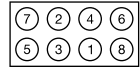




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Ducato 2.0L					01/82 → 08/90	50			
XN IT	1971	4	88.00			57/77	<b>HBS038</b> 04/89 →  M11x1.50x175mm (x10)	1) 60Nm 2) ↻ 180° 3) 20Nm 4) 150°	
Ducato 2.0L					03/94 → 04/02	51			
Ducato 2.0L Panorama/Combinato					03/94 → 04/02				
RFW (XU10J2)	1998	4	86.00	SOHC		88/120	<b>HBS084</b>  M12x1.50x123mm (x10)	1) 35Nm 2) 70Nm 3) 160°	
Ducato 2.0L					04/02 →	52			
RFL (XU10)	1998	4	86.00	SOHC		88/120	<b>HBS245</b>  M12x1.50x125mm (x10)	1) 20Nm 2) 60Nm 3) 180°	
Ducato 2.0L JTD Diesel					10/01 → 04/02	53			
DW10 (RHV)	1997	4	85.00	DOHC		81/110	<b>HBS261</b>  M12x1.50x126mm (x10)	1) 20Nm 2) 60Nm 3) 220°	
Ducato 2.3L JTD Diesel					04/02 →	54			
F1AE0481C	2286	4	88.00	DOHC		81/110	<b>HBS251</b>  M14x1.50x193mm (x6) M11x1.50x133mm (x4)	1) 100Nm 2) 90° 3) 90°	
Ducato 2.4L D Diesel					01/82 → 08/90	55			
Ducato 2.4L TD Diesel					01/89 →				
Ducato 2.4L TD 4x4 Diesel					01/89 →				
Ducato 2.4L TD id Maxi Diesel					01/85 →				
Ducato 2.4 TD Panorama Diesel					01/86 → 08/90				
Ducato 2.5L TD Diesel					01/86 → 08/90				
Ducato 2.5L TD 4x4 Diesel					01/86 → 08/90				
8142.61	2445	4	93.00			53/72	<b>HBS011</b>  M12x1.25x160mm (x10) M12x1.25x119mm (x12)	1) 20Nm 2) 40Nm 3) ↻ 90° 4) 40Nm 5) 90° 6) 90°	
8144.61	2445	4	93.00	SOHC		53/72			
8144.21	2445	4	93.00	Sofim, SOHC, Turbocharged		68/92			
8144.21	2445	4	93.00	SOHC		68/92			
8144.21.220	2445	4	93.00	SOHC, Turbocharged		68/92			
8144.21.220	2445	4	93.00	SOHC		68/92			
8144.21.220	2445	4	93.00	SOHC		68/92			
Ducato 2.5L D Diesel					01/94 → 06/96	56			
8140.67.X230	2499	4	93.00	Sofim		63/85	<b>HBS011</b>  M12x1.25x160mm (x10) M12x1.25x119mm (x12)	1) 20Nm 2) 40Nm 3) ↻ 90° 4) 40Nm 5) 90° 6) 90°	



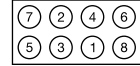
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<b>Ducato 2.5L D Diesel</b>					01/82 → 04/02	<b>57</b>
<b>Ducato 2.5L D 4x4 Diesel</b>					01/87 → 04/02	
<b>Ducato 2.5L D Combinato Diesel</b>					08/94 → 04/02	
<b>Ducato 2.5L D Maxi Diesel</b>					01/94 → 06/96	
<b>Ducato 2.5L TD Diesel</b>					07/90 → 03/94	
<b>Ducato 2.5L TD 4x4 Diesel</b>					07/90 → 03/94	
<b>Ducato 2.5L TDI Diesel</b>					03/94 → 04/02	
<b>Ducato 2.5L TDI 4x4 Diesel</b>					04/97 → 04/02	
<b>Ducato 2.5L TDI Combinato Diesel</b>					08/94 → 04/02	
<b>Ducato 2.5L TDI Maxi Diesel</b>					03/94 → 04/02	
<b>Ducato 2.5L TDI Panorama/Combinato Diesel</b>					03/94 → 04/02	

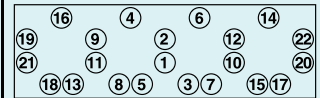
CRD93L (U25-661)	2500	4	93.00	SOHC	54-55/ 73-75
8140.67	2500	4	93.00	Turbocharged	55/75
8140.67	2500	4	93.00		55/75
8144.67	2500	4	93.00	SOHC	55/75
8140.27	2500	4	93.00	SOHC	70/95
8140.47	2500	4	93.00	SOHC	85/116
8140.47R	2500	4	93.00		85/116

### HBS011



M12x1.25x160mm (x10)  
M12x1.25x119mm (x12)

- 1) 20Nm
- 2) 40Nm
- 3) ↻ 90°
- 4) 40Nm
- 5) 90°
- 6) 90°



<b>Ducato 2.8L D Diesel</b>					02/98 → 04/02	<b>58</b>
<b>Ducato 2.8L D 4x4 Diesel</b>					08/98 → 04/02	
<b>Ducato 2.8L JTD Diesel</b>					11/00 → 04/02	
<b>Ducato 2.8L JTD 4x4 Diesel</b>					11/00 → 04/02	
<b>Ducato 2.8L JTD Power Diesel</b>					05/04 →	
<b>Ducato 2.8L TDI Diesel</b>					10/97 → 04/02	
<b>Ducato 2.8L TDI 4x4 Diesel</b>					06/99 → 04/02	

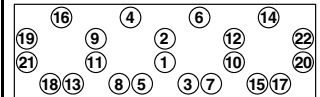
8140.63	2798	4	94.40		64/87
8140.43	2798	4	94.40	SOHC	90/122
8140.43S	2798	4	94.40	Common Rail, SOHC	94/128
8140.43N	2798	4	94.40		

### HBS255



M12x1.25x90mm (x8)  
M12x1.25x160mm (x14)

- 1) 20Nm
- 2) 40Nm
- 3) ↻ 90°
- 4) 40Nm
- 5) 90°
- 6) 90°



<b>Duna 1.1L 60</b>					01/87 → 12/91	<b>59</b>
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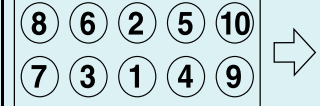
146 A6.000	1116	4	76.00	SOHC	40/54
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### HBS098



M12x1.25x140mm (x5)  
M10x1.25x116mm (x5)

- BOLT**
- 1) 65Nm
  - 2) ↻ 90°
  - 3) 65Nm
  - 4) 90°
- NUT**
- 1) 65Nm
  - 2) ↻ 90°
  - 3) 65Nm
  - 4) 40°
  - 5) 40°



<b>Duna 1.3L 70</b>					01/87 → 12/91	<b>60</b>
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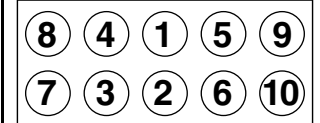
146 A5.000	1301	4	76.10	SOHC	49/53/ 67/72
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### HBS051



M10x1.25x98mm (x5)  
M10x1.25x84mm (x5)

- 1) 40Nm
- 2) 90°
- 3) 90°



<b>Duna 1.7L DS Diesel</b>					01/87 → 12/91	<b>61</b>
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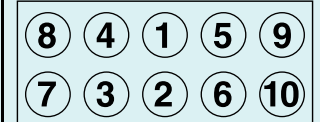
149 B3.000	1697	4	82.60	SOHC	42/57
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### HBS095



M12x1.25x133mm (x10)

- 1) 100Nm
- 2) 90°
- 3) 90°



<b>Elba 1.6L</b>					04/89 → 12/93	<b>62</b>
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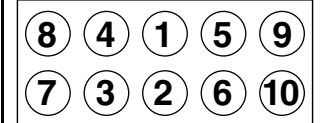
159 A3.000	1581	4	86.40	SOHC	63/86
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### HBS051



M10x1.25x98mm (x5)  
M10x1.25x84mm (x5)

- 1) 40Nm
- 2) 90°
- 3) 90°

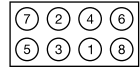




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Fiorino Van 1.1L 60		05/88 → 12/93			63	
146 A9.000	1116	4	76.00	SOHC	40/54	
				<b>HBS098</b> →12/90  M12x1.25x140mm (x5) M10x1.25x116mm (x5)	<b>BOLT</b> 1) 65Nm 2) ↻ 90° 3) 65Nm 4) 90° <b>NUT</b> 1) 65Nm 2) ↻ 90° 3) 65Nm 4) 40° 5) 40°	
				<b>HBS051</b> 12/90 →  M10x1.25x98mm (x5) M10x1.25x84mm (x5)	1) 40Nm 2) 90° 3) 90°	
Fiorino 1.3L Fiorino Van 1.3L 70		01/88 → 12/94			64	
146 A5.000	1301	4	76.10	SOHC	49/53/ 67/72	
				<b>HBS098</b>  M12x1.25x140mm (x5) M10x1.25x116mm (x5)	<b>BOLT</b> 1) 65Nm 2) ↻ 90° 3) 65Nm 4) 90° <b>NUT</b> 1) 65Nm 2) ↻ 90° 3) 65Nm 4) 40° 5) 40°	
Fiorino 1.3L D Multijet Diesel		02/08 →			65	
199 A2.000	1248	4	69.60	DOHC	55/75	
199 A9.000	1248	4	69.60	DOHC, Straight	55/75	
				<b>HBS353</b>  M10x1.25x119mm (x10)	1) 20Nm 2) 40Nm 3) 90° 4) 90°	
Fiorino 1.4L Fiorino Van 1.4L i.e. 70		05/94 → 05/01			66	
146 C5.000/146 D5.000	1372	4	80.50	SOHC	49/67	
				<b>HBS051</b>  M10x1.25x98mm (x5) M10x1.25x84mm (x5)	1) 40Nm 2) 90° 3) 90°	
Fiorino 1.4L Natural Power		10/09 →			67	
350 A1.000	1368	4	72.00	SOHC	57-55/ 78-75	
				<b>HBS052</b>  M9x1.25x95mm (x10)	1) 40Nm 2) 90° 3) 90°	
Fiorino Van 1.5L Fiorino Van 1.5L i.e. 75		01/88 → 08/93			68	
149 C1.000	1498	4	86.40	SOHC	55/75	
				<b>HBS051</b>  M10x1.25x98mm (x5) M10x1.25x84mm (x5)	1) 40Nm 2) 90° 3) 90°	
Fiorino 1.6L Fiorino 1.6L B Fiorino 1.6L i.e. 75 Fiorino Van 1.6L i.e. 75		01/94 → 05/01			69	
146 C6.000	1581	4	86.40	SOHC	55/75	
220 A 2.000	1581	4	86.40	SOHC	55/75	
				<b>HBS051</b>  M10x1.25x98mm (x5) M10x1.25x84mm (x5)	1) 20Nm 2) 40Nm 3) ↻ 90° 4) 40Nm 5) 90° 6) 90°	
Fiorino 1.6L Fiorino 1.6L i.e. 75		01/94 → 05/01			70	
146 D6.000	1585	4	86.40	SOHC	55/75	
				<b>HBS051</b>  M10x1.25x98mm (x5) M10x1.25x84mm (x5)	1) 20Nm 2) 40Nm 3) ↻ 90° 4) 40Nm 5) 90° 6) 90°	



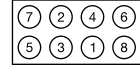
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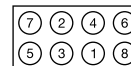
Model		Year Range	CC	Cyl	Power (kW/PS)	Engine Type	Washer Part	Dimensions	Torque	Washer Grid
<b>Fiorino 1.7L D Diesel</b>		01/88 → 10/99			<b>71</b>		<b>HBS095</b>		1) 100Nm 2) 90° 3) 90°	
Fiorino 1.7L TD Diesel		01/97 → 05/01						M12x1.25x133mm (x10)		
Fiorino Van 1.7L D Diesel		12/87 → 12/90								
Fiorino Van 1.7L D 60 Diesel		05/88 → 05/00								
Fiorino Van 1.7L TD 65 Diesel		01/97 → 05/01								
149 B3.000	1697	4	82.60	SOHC	42/57					
146 B2.000/146 D7.000	1697	4	82.60	SOHC	46/63					
<b>Grande Punto 1.2L</b>		10/05 →			<b>72</b>		<b>HBS052</b>		1) 40Nm 2) 90° 3) 90°	
199 A4.000			1242	4	70.80	SOHC		M9x1.25x95mm (x10)		
<b>Grande Punto 1.3L D Multijet Diesel</b>		10/05 →			<b>73</b>		<b>HBS353</b>		1) 20Nm 2) 40Nm 3) 90° 4) 90°	
199 A2.000			1248	4	69.60	DOHC		M10x1.25x119mm (x10)		
199 A3.000			1248	4	69.60	DOHC				
<b>Grande Punto 1.4L</b>		10/05 →			<b>74</b>		<b>HBS052</b>		1) 40Nm 2) 90° 3) 90°	
350 A1.000			1368	4	72.00	SOHC		M9x1.25x95mm (x10)		
<b>Grande Punto 1.4L T-Jet</b>		09/07 →			<b>75</b>		<b>HBS247</b>		1) 30Nm 2) 90° 3) 90°	
198 A4.000			1368	4	72.00	DOHC		M9x1.25x87mm (x10)		
<b>Grande Punto 1.9L D Multijet Diesel</b>		10/05 →			<b>76</b>		<b>HBS227</b>		1) 65Nm 2) 90° 3) 90° 4) 90°	
939 A1.000			1910	4	82.00	SOHC		M12x1.25x218mm (x10)		
<b>Idea 1.2L 16V</b>		01/04 →			<b>77</b>		<b>HBS247</b>		1) 30Nm 2) 90° 3) 90°	
188 A5.000			1242	4	70.80	DOHC		M9x1.25x87mm (x10)		
<b>Idea 1.3L D Multijet Diesel</b>		10/05 →			<b>78</b>		<b>HBS353</b>		1) 20Nm 2) 40Nm 3) 90° 4) 90°	
<b>Idea 1.3L JTD Diesel</b>		01/04 →						M10x1.25x119mm (x10)		
188 A9.000			1248	4	69.60	DOHC				
199 A3.000			1248	4	69.60	DOHC				
<b>Idea 1.4L</b>		10/05 →			<b>79</b>		<b>HBS052</b>		1) 40Nm 2) 90° 3) 90°	
<b>Idea 1.4L LPG</b>		03/09 →						M9x1.25x95mm (x10)		
350 A1.000			1368	4	72.00	SOHC				
<b>Idea 1.4L 16V</b>		01/04 →			<b>80</b>		<b>HBS247</b>		1) 30Nm 2) 90° 3) 90°	
843 A1.000			1368	4	72.00	DOHC		M9x1.25x87mm (x10)		
<b>Idea 1.9L JTD Diesel</b>		01/04 →			<b>81</b>		<b>HBS227</b>		1) 65Nm 2) 90° 3) 90° 4) 90°	
188 B2.000			1910	4	82.00	SOHC		M12x1.25x218mm (x10)		
<b>Linea 1.3L D Multijet Diesel</b>		06/07 →			<b>82</b>		<b>HBS353</b>		1) 20Nm 2) 40Nm 3) 90° 4) 90°	
199 A3.000			1248	4	69.60	DOHC		M10x1.25x119mm (x10)		



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Linea 1.4L					06/07 →	83	HBS052	1) 40Nm 2) 90° 3) 90°							
350 A1.000	1368	4	72.00	SOHC	57-55/ 78-75	M9x1.25x95mm (x10)									
Marea 1.2L 16V					10/98 →	84	HBS247	1) 30Nm 2) 90° 3) 90°							
182 B2.000	1242	4	70.80	DOHC	60/82	M9x1.25x87mm (x10)									
Marea 1.4L 12V					09/95 → 11/98	85	HBS130	1) 20Nm 2) 50Nm 3) 90° 4) 90° 5) 90°							
Marea 1.4L 12V 80					09/95 → 11/98	182 A3.000/182 A5.000	1371	4	82.00	SOHC	59/80	M10x1.25x163mm (x10)			
Marea 1.6L					03/99 → 08/00	86	HBS131	1) 20Nm 2) 40Nm 3) 90° 4) 90°							
Marea 1.6L 100 16V Bipower					04/99 →	185 A3.000	1581	4	86.40	DOHC	68-76/ 92-103	M10x1.25x100mm (x10)			
Marea 1.6L 16V 100					09/96 →	182 A4.000/186 A4.000	1581	4	86.40	DOHC	76/103				
Marea 1.6L					09/00 → 08/02	87	HBS131	1) 20Nm 2) 40Nm 3) 90° 4) 90°							
Marea 1.6L Weekend					09/00 → 08/02	182 B6.000	1596	4	80.50	DOHC	76/103	M10x1.25x100mm (x10)			
Marea 1.8i 16V 115					01/95 → 08/99	88	HBS132	1) 40Nm 2) ↺ 90° 3) 40Nm 4) 90° 5) 90° 6) 90°							
Marea 1.8L 16V 115					09/96 →	182 A2.000	1747	4	82.00	DOHC, Euro 2	96/131	M10x1.25x254mm (x10)			
182 A2.000	1747	4	82.00	DOHC	96/131										
Marea 1.9L JTD 105 Diesel					04/99 → 01/01	89	HBS227	1) 65Nm 2) 90° 3) 90° 4) 90°							
Marea 1.9L JTD 110 Diesel					01/01 →	182 A7.000/182 A8.000	1910	4	82.00	SOHC	55/75	M12x1.25x218mm (x10)			
Marea 1.9L TD 100 Diesel					09/96 →	186 A6.000	1910	4	82.00	SOHC	73/99				
Marea 1.9L TD 75 Diesel					09/96 →	182 B9.000	1910	4	82.00	SOHC	74-77/ 100-105				
182 B4.000	1910	4	82.00	SOHC	77/105										
Marea 2.0L 20V 150					09/96 → 04/99	90	HBS133	1) 20Nm 2) 40Nm 3) 90° 4) 90° 5) 90°							
Marea 2.0L 20V 155					04/99 → 01/01	182 A1.000	1998	5	82.00	DOHC	108/147	M10x1.25x254mm (x12)			
182 B7.000	1998	5	82.00	DOHC	113/154										
185 A8.000	1998	5	82.00	DOHC	113/154										
Marea 2.4L JTD 130 Diesel					04/99 →	91	HBS257	1) 65Nm 2) 90° 3) 90° 4) 90°							
Marea 2.4L TD Diesel					09/96 → 04/99	185 A2.000	2387	5	82.00	SOHC, Turbo Intercooled	91/124	M12x1.25x218mm (x12)			
Marea 2.4L TD 125 Diesel					09/96 → 04/99	185 A2.000	2387	5	82.00	SOHC	91/124				
185 A6.000	2387	5	82.00	SOHC	96/131										
839 A5.000	2387	5	82.00	SOHC	100/136										
Multipla 1.6L					09/00 → 02/01	92	HBS131	1) 20Nm 2) 40Nm 3) 90° 4) 90°							
Multipla 1.6L					03/01 → 08/05	182 B6.000	1596	4	80.50	DOHC	76/103	M10x1.25x100mm (x10)			
Multipla 1.6L 16V Bipower					10/01 →										
Multipla 1.6L 16V Blupower					04/02 →										
Multipla 1.6L 16V 100					04/99 →	93	HBS131	1) 20Nm 2) 40Nm 3) 90° 4) 90°							
Multipla 1.6L 16V Bipower					04/99 →	182 A4.000/186 A3.000/186 A4.000	1581	4	86.40	DOHC	76/103	M10x1.25x100mm (x10)			
Multipla 1.6L 16V Blupower					04/99 →										





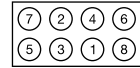
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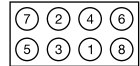
Model		Year		Cylinders		Power		Engine		Torque		Timing	
<b>Multipla 1.9L JTD Diesel</b>		04/02 →		<b>94</b>				<b>HBS227</b>		1) 65Nm 2) 90° 3) 90° 4) 90°			
Multipla 1.9L JTD 105 Diesel		04/99 →											
Multipla 1.9L JTD 110 Diesel		03/01 → 07/02						M12x1.25x218mm (x10)					
Multipla 1.9L JTD 115 Diesel		07/02 →											
186 A6.000	1910	4	82.00	SOHC		73/99							
182 B4.000	1910	4	82.00	SOHC		77/105							
186 A8.000	1910	4	82.00	SOHC		85/115							
186A9.000	1910	4	82.00	SOHC		88/120							
<b>Palio 1.2L</b>		05/95 → 08/02		<b>95</b>				<b>HBS052</b>		1) 40Nm 2) 90° 3) 90°			
Palio 1.2L Diesel		07/01 →											
178 B5.000/178 B7.045/188 A4.000	1242	4	70.80	SOHC		44/60							
176 A8.000	1242	4	70.80	SOHC		54/73							
178E2.000	1242	4	70.80	Fire, SOHC		54/73							
178E2.000	1242	4	70.80	SOHC		54/73							
178 C4.066	1242	4	70.80	SOHC									
<b>Palio 1.2L</b>		09/99 →		<b>96</b>				<b>HBS247</b>		1) 30Nm 2) 90° 3) 90°			
188 A5.000	1242	4	70.80	Fire, DOHC, Euro 3		59/80							
<b>Palio 1.3L JTD Multijet Diesel</b>		06/03 →		<b>97</b>				<b>HBS353</b>		1) 20Nm 2) 40Nm 3) 90° 4) 90°			
188 A9.000	1248	4	69.60	DOHC		51/70							
<b>Palio 1.4L</b>		04/96 →		<b>98</b>				<b>HBS051</b>		1) 40Nm 2) 90° 3) 90°			
178 B2.000/178B2.016	1372	4	80.50	SOHC		51/69							
<b>Palio 1.6L 16V</b>		04/96 → 02/01		<b>99</b>				<b>HBS131</b>		1) 20Nm 2) 40Nm 3) 90° 4) 90°			
178 B3.000	1581	4	86.40	DOHC		74-78/ 101							
<b>Palio 1.6L 16V</b>		02/01 →		<b>100</b>				<b>HBS131</b>		1) 20Nm 2) 40Nm 3) 90° 4) 90°			
182 B6.000	1596	4	80.50	DOHC		76/103							
<b>Palio 1.7L TD Diesel</b>		04/96 → 03/01		<b>101</b>				<b>HBS095</b>		1) 100Nm 2) 90° 3) 90°			
176 B7.000	1697	4	82.60	SOHC, Turbocharged		46/63							
176 A3.000	1697	4	82.60	SOHC		51-53/69							
<b>Palio 1.9L D Diesel</b>		09/00 →		<b>102</b>				<b>HBS227</b>		1) 65Nm 2) 90° 3) 90° 4) 90°			
223 A6.000	1910	4	82.00	SOHC		44/60							
<b>Panda 750</b>		01/86 → 01/95		<b>103</b>				<b>HBS297</b>		1) 30Nm 2) 90° 3) 90°			
141 B.000	770	4	65.00	SOHC		25/34							
<b>Panda 750</b>		01/86 → 12/97		<b>104</b>				<b>HBS052</b>		1) 40Nm 2) 90° 3) 90°			
156 A4.000/156 A4.048	770	4	65.00	SOHC		25/34							


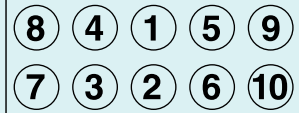

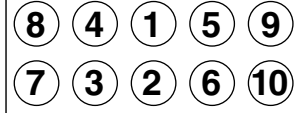

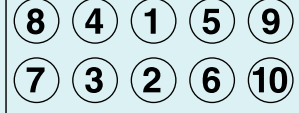

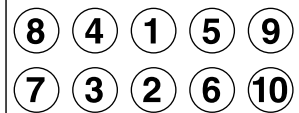

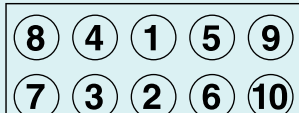



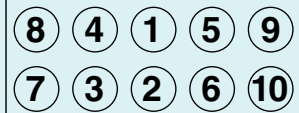

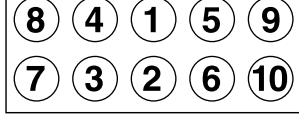

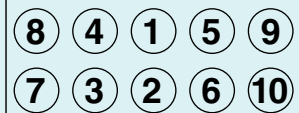


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Panda 0.9L 45 Panda 0.9L 45 Super/Young Panda 900					01/74 → 01/74 → 10/80 →06/94	105	HBS109  M9x1.25x60mm (x1) M9x1.25x95mm (x9)		1) 30Nm 2) 90° 3) 90°	
146 A.000	903	4	65.00			33/45				
100 GL.048/100 GL3.000	903	4	65.00			34/46				
Panda 900					04/92 →12/96	106	HBS297  M9x1.25x91mm (x9) M9x1.25x56mm (x1)		1) 30Nm 2) 90° 3) 90°	
1170 A1.046	899	4	65.00	SOHC		30/41				
Panda 1000 Panda 1000 4x4 Panda 1000 i.e Panda 1000 i.e.					01/86 →04/92 01/86 →07/89 08/92 →02/04 10/87 →08/98	107	HBS052  M9x1.25x95mm (x10)		1) 40Nm 2) 90° 3) 90°	
156 A3.100	999	4	70.00	SOHC		32-33/ 44-45				
141 C2.000/156 A2.246	999	4	70.00	SOHC		33/45				
156 A2.100	999	4	70.00	SOHC		41/55				
Panda 1.1L Panda 1.1Li 4x4 Panda 1.1Li Hobby Panda 1100 Panda 1100 4x4 Panda 1100 Selecta Panda 1100 Trekking 4x4					09/03 → 11/00 → 11/00 → 05/91 →09/03 02/95 →07/04 03/92 → 10/91 →07/04	108	HBS052  M9x1.25x95mm (x10)		1) 40Nm 2) 90° 3) 90°	
156 C.046	1108	4	70.00	Fire, SOHC		37-43/ 50-58				
156 C.046	1108	4	70.00	SOHC		37-43/ 50-58				
176 B2.000	1108	4	70.00	SOHC		40/54				
187 A1.000	1108	4	70.00	Fire, SOHC, Euro 3		40/54				
187 A1.000	1108	4	70.00	SOHC		40/54				
Panda 1.2L Panda 1.2L 4x4 Panda 1.2L 4x4 Panda 1.2L LPG					09/03 → 11/09 → 10/04 → 11/10 →	109	HBS052  M9x1.25x95mm (x10)		1) 40Nm 2) 90° 3) 90°	
188 A4.000	1242	4	70.80	SOHC		44/60				
169 A4.000	1242	4	70.80	SOHC		51/69				
Panda 1.3L D Multijet Diesel Panda 1.3L D Multijet 4x4 Diesel Panda 1.3L JTD Diesel Panda 1.3L JTD 4x4 Diesel					06/06 → 09/10 → 09/03 → 10/04 →	110	HBS353  M10x1.25x119mm (x10)		1) 20Nm 2) 40Nm 3) 90° 4) 90°	
188 A9.000	1248	4	69.60	DOHC		51/70				
169 A1.000	1248	4	69.60	DOHC						
Panda 1.4L					10/06 →	111	HBS247  M9x1.25x87mm (x10)		1) 30Nm 2) 90° 3) 90°	
169 A3.000	1368	4	72.00	DOHC						
Panda 1.4L Bi-Power / Natural Power Panda 1.4L Natural Power					09/10 → 10/09 →	112	HBS052  M9x1.25x95mm (x10)		1) 40Nm 2) 90° 3) 90°	
350 A1.000	1368	4	72.00	SOHC		57-55/ 78-75				
Premio 1.6L					03/85 →12/96	113	HBS051  M10x1.25x98mm (x5) M10x1.25x84mm (x5)		1) 40Nm 2) 90° 3) 90°	
159 A3.000	1581	4	86.40	SOHC		63/86				



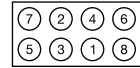
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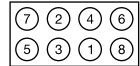
<b>Punto 1.1L</b>		04/96 → 02/00		<b>114</b>		<b>HBS052</b>  M9x1.25x95mm (x10)	1) 40Nm 2) 90° 3) 90°	
<b>Punto 1.1L 55</b>		09/93 → 09/99						
176 A6.000/176 B2.000	1108	4	70.00	SOHC	40/54			
<b>Punto 1.2L</b>		10/09 →		<b>115</b>		<b>HBS052</b>  M9x1.25x95mm (x10)	1) 40Nm 2) 90° 3) 90°	
<b>Punto 1.2L 60</b>		01/94 → 09/99						
<b>Punto 1.2L 75</b>		01/94 → 09/99						
<b>Punto 1.2L Natural Power</b>		09/03 →						
<b>Punto Convertible 1.2L 60</b>		04/94 → 06/00						
176 A7.000/176 B1.000/188 A4.000	1242	4	70.80	SOHC	44/60			
169 A4.000	1242	4	70.80	SOHC	51/69			
176 A8.000/176 B4.000	1242	4	70.80	SOHC	54/73			
199 A4.000	1242	4	70.80	SOHC				
<b>Punto 1.2L 16V 80</b>		09/99 →		<b>116</b>		<b>HBS247</b>  M9x1.25x87mm (x10)	1) 30Nm 2) 90° 3) 90°	
<b>Punto 1.2L 16V 85</b>		04/97 → 09/99						
<b>Punto Convertible 1.2L 16V 85</b>		04/97 → 06/00						
188 A5.000	1242	4	70.80	DOHC	59/80			
176 B9.000	1242	4	70.80	DOHC	63/86			
<b>Punto 1.3L D Multijet Diesel</b>		10/09 →		<b>117</b>		<b>HBS353</b>  M10x1.25x119mm (x10)	1) 20Nm 2) 40Nm 3) 90° 4) 90°	
<b>Punto 1.3L JTD 16V Diesel</b>		06/03 →						
<b>Punto 1.3L Multijet Diesel</b>		10/09 →						
188 A9.000	1248	4	69.60	DOHC	51/70			
199 A2.000	1248	4	69.60	DOHC	55/75			
199 A9.000	1248	4	69.60	DOHC, Straight	55/75			
199 A3.000	1248	4	69.60	DOHC	66/90			
223 A9.000	1248	4	69.60	DOHC				
<b>Punto 1.4L</b>		09/03 →		<b>118</b>		<b>HBS247</b>  M9x1.25x87mm (x10)	1) 30Nm 2) 90° 3) 90°	
<b>Punto 1.4L</b>								
843 A1.000	1368	4	72.00	DOHC	66-70/ 90-95			
<b>Punto 1.4L</b>		10/09 →		<b>119</b>		<b>HBS052</b>  M9x1.25x95mm (x10)	1) 40Nm 2) 90° 3) 90°	
<b>Punto 1.4L Natural Power</b>		10/09 →						
350 A1.000	1368	4	72.00	SOHC	57-55/ 78-75			
<b>Punto 1.4L GT Turbo</b>		01/94 → 09/99		<b>120</b>		<b>HBS051</b>  M10x1.25x98mm (x5) M10x1.25x84mm (x5)	1) 40Nm 2) 90° 3) 90°	
<b>Punto 1.4L GT Turbo</b>								
176 A4.000	1372	4	80.50	SOHC	98/133			
176 B6.000	1372	4	80.50	Motronic, SOHC	98/133			
<b>Punto 1.6L 90</b>		01/94 → 04/97		<b>121</b>		<b>HBS051</b>  M10x1.25x98mm (x5) M10x1.25x84mm (x5)	1) 40Nm 2) 90° 3) 90°	
<b>Punto Convertible 1.6L 90</b>		04/94 → 04/97						
176 A9.000	1581	4	86.40	SOHC	65/88			
<b>Punto 1.7L 16V 130 HGT</b>		04/95 →		<b>122</b>		<b>HBS132</b>  M10x1.25x254mm (x10)	1) 40Nm 2) ↻ 90° 3) 40Nm 4) 90° 5) 90° 6) 90°	
<b>Punto 1.8L 130 HGT</b>		09/99 →						
183 A1.000/188 A6.000	1747	4	82.00	DOHC	96/131			
192 A4.000	1747	4	82.00	DOHC, Euro 3	96-98/ 130-133			
<b>Punto 1.7L D Diesel</b>		04/94 → 02/00		<b>123</b>		<b>HBS095</b>  M12x1.25x133mm (x10)	1) 100Nm 2) 90° 3) 90°	
<b>Punto 1.7L TD Diesel</b>		01/94 → 02/00						
<b>Punto 1.7L TD 60 Diesel</b>		09/96 → 09/99						
176 B3.000	1697	4	82.60	SOHC	42/57			
176 B7.000	1697	4	82.60	SOHC, Turbocharged	46/63			
176 B7.000	1697	4	82.60	SOHC	46/63			
176 A3.000	1697	4	82.60	SOHC	51-53/69			
176 A5.000	1697	4	82.60	SOHC	52/71			



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<b>Punto 1.9L D 60 Diesel</b> 02/00 → <b>124</b> <b>Punto 1.9L DS 60 Diesel</b> 09/99 → <b>Punto 1.9L JTD Diesel</b> 02/00 → <b>Punto 1.9L JTD 80 Diesel</b> 09/99 →					<b>HBS227</b>  M12x1.25x218mm (x10)	1) 65Nm 2) 90° 3) 90° 4) 90°		
188 A3.000 188 A2.000/188 A7.000 188 B2.000	1910 1910 1910	4 4 4	82.00 82.00 82.00	SOHC SOHC SOHC	44/60 73/99 74/100	<b>HBS052</b>  M9x1.25x95mm (x10)	1) 40Nm 2) 90° 3) 90°	
<b>Punto / Grande Punto 1.2L</b> 09/10 → <b>125</b> 169 A4.000					<b>HBS052</b>  M9x1.25x95mm (x10)	1) 40Nm 2) 90° 3) 90°		
<b>Punto / Grande Punto 1.4L LPG</b> 12/08 → <b>126</b> <b>Punto / Grande Punto 1.4L Natural Power</b> 07/08 → 350 A1.000					<b>HBS052</b>  M9x1.25x95mm (x10)	1) 40Nm 2) 90° 3) 90°		
<b>Qubo 1.3L D Multijet Diesel</b> 09/08 → <b>127</b> 199 A2.000					<b>HBS353</b>  M10x1.25x119mm (x10)	1) 20Nm 2) 40Nm 3) 90° 4) 90°		
<b>Qubo 1.4L Natural Power</b> 10/09 → <b>128</b> 350 A1.000					<b>HBS052</b>  M9x1.25x95mm (x10)	1) 40Nm 2) 90° 3) 90°		
<b>Regata 1.3L 70</b> 09/83 → 07/89 <b>129</b> 149 A7.000					<b>HBS051</b>  M10x1.25x98mm (x5) M10x1.25x84mm (x5)	1) 40Nm 2) 90° 3) 90°		
<b>Regata 1.3L 70</b> 09/83 → 07/89 <b>130</b> 138 B2.000/149 A3.000					<b>HBS051</b>  M10x1.25x98mm (x5) M10x1.25x84mm (x5)	1) 40Nm 2) 90° 3) 90°		
<b>Regata 1.5L i.e. 75</b> 07/85 → 07/89 <b>131</b> 138 C2.048/149 C1.000					<b>HBS051</b>  M10x1.25x98mm (x5) M10x1.25x84mm (x5)	1) 40Nm 2) 90° 3) 90°		
<b>Regata 1.7L D 60 Diesel</b> 01/84 → 12/89 <b>132</b> 149 B3.000					<b>HBS095</b>  M12x1.25x133mm (x10)	1) 100Nm 2) 90° 3) 90°		
<b>Regata 1.9L D 65 Diesel</b> 04/84 → 07/89 <b>133</b> <b>Regata 1.9L TD 80 Diesel</b> 05/86 → 07/89 149 A1.000 831 D1.000					<b>HBS095</b>  M12x1.25x133mm (x10)	1) 30Nm 2) 50Nm 3) 100Nm 4) 90° 5) 100Nm 6) 90° 7) 90°		
<b>Ritmo 1.1L 60/60S</b> 01/83 → <b>134</b>					<b>HBS051</b>  M10x1.25x98mm (x5) M10x1.25x84mm (x5)	1) 40Nm 2) 90° 3) 90°		



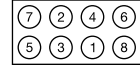
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Ritmo 1.5L 85		01/80 → 07/89			135				
138 A4.000	1498	4	86.40	SOHC	63/86	<b>HBS051</b>  M10x1.25x98mm (x5) M10x1.25x84mm (x5)	1) 40Nm 2) 90° 3) 90°		
Scudo 1.6L		02/96 →			136				
220 A 2.000	1581	4	86.40		55/75	<b>HBS092</b> →12/92  M10x1.25x115mm (x10)	1) 20Nm 2) 40Nm 3) ↻ 90° 4) 40Nm 5) 90° 6) 90°		
						<b>HBS051</b> 01/93 →  M10x1.25x98mm (x5) M10x1.25x84mm (x5)	1) 20Nm 2) 40Nm 3) ↻ 90° 4) 40Nm 5) 90° 6) 90°		
Scudo 1.6L B EL		06/92 → 08/96			137				
835 C1.000	1581	4	86.40	SOHC	55-57/ 75-78	<b>HBS051</b>  M10x1.25x98mm (x5) M10x1.25x84mm (x5)	1) 40Nm 2) 90° 3) 90°		
Scudo 1.9L D Diesel		04/98 →			138				
WJZ (DW8)	1868	4	82.20	SOHC	51/69	<b>HBS084</b> →Eng.08469  M12x1.50x123mm (x10)	1) 20Nm 2) 60Nm 3) 180°		
						<b>HBS245</b> Eng.08470 →  M12x1.50x125mm (x10)	1) 20Nm 2) 60Nm 3) 180°		
Scudo 1.9L D Diesel		02/96 → 04/02			139				
D9B (XUD9/A/B/L/Y)	1905	4	83.00	SOHC	49/67	<b>HBS084</b>  M12x1.50x123mm (x10)	1) 20Nm 2) 60Nm 3) 180°		
XUD9 (D9B/DJZ/162)	1905	4	83.00						
Scudo 1.9L TD Diesel		02/96 → 04/02			140	<b>HBS088</b> →Eng.08574  M12x1.50x145mm (x10)	1) 20Nm 2) 40Nm 3) 60Nm 4) ↻ 90° 5) 60Nm 6) 110° 7) 110°		
Scudo 1.9L TD Eco Diesel		02/96 → 04/02							
D8B	1905	4	83.00	SOHC, Turbo Intercooled					66/89
D8B	1905	4	83.00	SOHC					66/89
DHX (XUD9TE)	1905	4	83.00		66/89	<b>HBS277</b> Eng.08575 →  M12x1.50x148mm (x10)	1) 20Nm 2) 40Nm 3) 60Nm 4) ↻ 90° 5) 60Nm 6) 110° 7) 110°		
XUD9TF (DHV/DHW)	1905	4	83.00	Turbocharged					
Scudo 2.0L		09/02 →			141	<b>HBS259</b>  M11x1.50x144.5mm (x10)	1) 15Nm 2) 50Nm 3) ↻ 360° 4) 20Nm 5) 285°		
Scudo 2.0L 16V		06/00 →							
EW10J4 (RFN)	1997	4	85.00	DOHC	100/136				

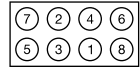




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Model and Specifications						Part Number	Dimensions	Torque	Sequence
<b>Scudo 2.0L D Multijet Diesel</b> 01/07 → <b>142</b>						<b>HBS261</b>  M12x1.50x126mm (x10)	1) 20Nm 2) 60Nm 3) 220°		
<b>Scudo 2.0L JTD Diesel</b> 12/99 →									
<b>Scudo 2.0L JTD Combinato Diesel</b> 12/99 →									
Model	Year	Cyl	CC	SOHC/DOHC	Power				
DW10 (RHZ)	1997	4	85.00	SOHC	66/89				
DW10 (RHX)	1997	4	85.00	SOHC	69/93				
DW10ATED4 (RHS)	1997	4	85.00	SOHC, Turbo Intercooled	80/109				
RHK/RHR	1997	4	85.00	DOHC					
<b>Sedici 1.6L 16V</b> 06/06 → <b>143</b>						<b>HBS497</b>  M10x1.50x149mm (x10)	1) 20Nm 2) 40Nm 3) ↺ 90° 4) 40Nm 5) 60° 6) 60°		
<b>Sedici 1.6L 16V 4x4</b> 06/06 →									
M16A	1586	4	78.00	DOHC	78-79/ 106-107				
<b>Sedici 1.9L D Multijet Diesel</b> 06/06 → <b>144</b>						<b>HBS227</b>  M12x1.25x218mm (x10)	1) 65Nm 2) 90° 3) 90° 4) 90°		
<b>D19AA</b>									
D19AA	1910	4	82.00	SOHC	88/120				
<b>Seicento 0.9L</b> 01/98 → <b>145</b>						<b>HBS297</b>  M9x1.25x91mm (x9) M9x1.25x56mm (x1)	1) 30Nm 2) 90° 3) 90°		
<b>T170 A1.046</b>									
T170 A1.046	899	4	65.00	SOHC	30/41				
<b>Seicento 1.1L</b> 01/98 → <b>146</b>						<b>HBS052</b>  M9x1.25x95mm (x10)	1) 40Nm 2) 90° 3) 90°		
<b>T76 B2.000/187 A1.000</b>									
T76 B2.000/187 A1.000	1108	4	70.00	SOHC	40/54				
<b>Siena 1.2L</b> 09/98 → <b>147</b>						<b>HBS052</b>  M9x1.25x95mm (x10)	1) 40Nm 2) 90° 3) 90°		
<b>T78 B5.000/188 A4.000</b>									
T78 C4.066	1242	4	70.80	SOHC	44/60				
<b>Siena 1.4L</b> 04/96 → <b>148</b>						<b>HBS051</b>  M10x1.25x98mm (x5) M10x1.25x84mm (x5)	1) 40Nm 2) 90° 3) 90°		
<b>T78 B2.000/178B2.016</b>									
T78 B2.000/178B2.016	1372	4	80.50	SOHC	51/69				
<b>Siena 1.6L</b> 11/00 → <b>149</b>						<b>HBS131</b>  M10x1.25x100mm (x10)	1) 20Nm 2) 40Nm 3) 90° 4) 90°		
<b>T82 B6.000</b>									
T82 B6.000	1596	4	80.50	DOHC	76/103				
<b>Siena 1.6L 16V</b> 09/98 → <b>150</b>						<b>HBS131</b>  M10x1.25x100mm (x10)	1) 20Nm 2) 40Nm 3) 90° 4) 90°		
<b>T78 B3.000</b>									
T78 B3.000	1581	4	86.40	DOHC	74-78/ 101				
<b>Stilo 1.2L 16V</b> 02/02 → <b>151</b>						<b>HBS247</b>  M9x1.25x87mm (x10)	1) 30Nm 2) 90° 3) 90°		
<b>T88 A5.000</b>									
T88 A5.000	1242	4	70.80	DOHC	59/80				
<b>Stilo 1.4L 16V</b> 01/04 → <b>152</b>						<b>HBS247</b>  M9x1.25x87mm (x10)	1) 30Nm 2) 90° 3) 90°		
<b>T92 B2.000</b>									
T843 A1.000	1368	4	72.00	DOHC	66/89 66-70/ 90-95				



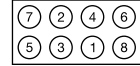
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Stilo 1.6L 16V						10/01 →	153			
182 B6.000	1596	4	80.50	DOHC	76/103		M10x1.25x100mm (x10)	1) 20Nm 2) 40Nm 3) 90° 4) 90°		
Stilo 1.8L 16V						10/01 →	154			
192 A4.000	1747	4	82.00	DOHC	96-98/ 130-133		M10x1.25x254mm (x10)	1) 40Nm 2) ↺ 90° 3) 40Nm 4) 90° 5) 90° 6) 90°		
Stilo 1.9L D Multijet Diesel						09/05 →	155			
Stilo 1.9L JTD Diesel						10/01 →				
192 B5.000	1910	4	82.00	SOHC	66/90		M12x1.25x218mm (x10)	1) 65Nm 2) 90° 3) 90° 4) 90°		
192 A3.000	1910	4	82.00	SOHC	73/99					
192A9.000	1910	4	82.00	SOHC	74/100					
192 A1.000	1910	4	82.00	SOHC	85/115					
937A7.000	1910	4	82.00	SOHC	85/115					
192 A8.000	1910	4	82.00	SOHC						
Stilo 1.9L D Multijet Diesel						09/05 →	156			
Stilo 1.9L JTD Diesel						09/03 →				
Stilo 1.9L JTD Multi Wagon Diesel						09/03 →				
937A4.000	1910	4	82.00	DOHC	93/126		M12x1.25x225mm (x10)	1) 65Nm 2) 90° 3) 90° 4) 90°		
192 A5.000	1910	4	82.00	DOHC	103/140					
937A5.000	1910	4	82.00	DOHC	110/150					
Stilo 2.4L 20V						10/01 →	157			
192 A2.000	2446	5	83.00	DOHC	125/170		M10x1.25x254mm (x12)	1) 20Nm 2) 40Nm 3) ↺ 90° 4) 40Nm 5) 90° 6) 90° 7) 90°		
Strada 1.1L 60 Comfort						01/83 →	158			
138 B.000	1116	4	80.00	SOHC	41/55		M10x1.25x98mm (x5) M10x1.25x84mm (x5)	1) 40Nm 2) 90° 3) 90°		
Strada 1.2L						06/99 →	159			
178 B5.000/188 A4.000	1242	4	70.80	SOHC	44/60		M9x1.25x95mm (x10)	1) 40Nm 2) 90° 3) 90°		
Strada 1.3L D Multijet Diesel						05/06 →	160			
223 A9.000	1248	4	69.60	DOHC			M10x1.25x119mm (x10)	1) 20Nm 2) 40Nm 3) 90° 4) 90°		
Strada 1.7L TD Diesel						04/96 →	161			
176 B7.000	1697	4	82.60	SOHC, Turbocharged	46/63		M12x1.25x133mm (x10)	1) 100Nm 2) 90° 3) 90°		
176 A3.000	1697	4	82.60	SOHC	51-53/69					
Strada 1.9L D Diesel						12/00 →	162			
Strada 1.9L JTD Diesel						04/03 →				
223 A6.000	1910	4	82.00	SOHC	44/60		M12x1.25x218mm (x10)	1) 65Nm 2) 90° 3) 90° 4) 90°		
188 A2.000	1910	4	82.00	SOHC	73/99					
Talento 1.9L D Diesel						03/89 → 03/94	163			
Talento Van 1.9L D Diesel						03/89 → 03/94				
149 B1.000	1929	4	82.60		52/71		M12x1.25x133mm (x10)	1) 100Nm 2) 90° 3) 90°		



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Tempra 1.4L i.e. Tempra 1.4Li Station					03/91 → 08/96 01/90 →	164	HBS051	1) 40Nm 2) 90° 3) 90°	
160 A1.046/836 A4.000	1372	4	80.50	SOHC	51/69	M10x1.25x98mm (x5) M10x1.25x84mm (x5)			
146 C1.000	1372	4	80.50	SOHC	51-53/ 69-72				
159 A2.000	1372	4	80.50	SOHC	53/72				
Tempra 1.6L Tempra 1.6L i.e.					03/90 → 04/93 10/92 → 08/96	165	HBS051	1) 40Nm 2) 90° 3) 90°	
835 C1.000	1581	4	86.40	SOHC	55-57/ 75-78	M10x1.25x98mm (x5) M10x1.25x84mm (x5)			
159 A3.000	1581	4	86.40	SOHC	63/86				
Tempra 1.6L i.e.					06/90 → 08/96	166	HBS051	1) 40Nm 2) 90° 3) 90°	
159 A3.046	1585	4	86.40	SOHC	57-62/ 78-84	M10x1.25x98mm (x5) M10x1.25x84mm (x5)			
159 A3.048	1585	4	86.40	SOHC	61/82				
Tempra 1.6L i.e.					10/90 → 08/96	167	HBS092 →12/92	1) 20Nm 2) 40Nm 3) ↻ 90° 4) 40Nm 5) 90° 6) 90°	
835 C1.000	1581	4	86.40	SOHC	55-57/ 75-78	M10x1.25x115mm (x10)			
						HBS051 01/93 →		1) 40Nm 2) 90° 3) 90°	
						M10x1.25x98mm (x5) M10x1.25x84mm (x5)			
Tempra 1.6L i.e.					10/90 → 08/96	168	HBS092 →12/92	1) 20Nm 2) 40Nm 3) ↻ 90° 4) 40Nm 5) 90° 6) 90°	
159 A3.046	1585	4	86.40	SOHC	57-62/ 78-84	M10x1.25x115mm (x10)			
						HBS051 01/93 →		1) 40Nm 2) 90° 3) 90°	
						M10x1.25x98mm (x5) M10x1.25x84mm (x5)			
Tempra 1.6L i.e.					06/94 → 08/96	169	HBS092	1) 20Nm 2) 40Nm 3) ↻ 90° 4) 40Nm 5) 90° 6) 90°	
159 B9.000	1581	4	86.40	SOHC	63-66/ 86-90	M10x1.25x115mm (x10)			
Tempra 1.8L i.e. Tempra 1.8Li SLX					03/92 → 08/96 01/93 →	170	HBS092	1) 20Nm 2) 40Nm 3) ↻ 90° 4) 40Nm 5) 90° 6) 90°	
836 A5.000	1756	4	84.00	DOHC	71-74/ 97-101	M10x1.25x115mm (x10)			
159 A4.000	1756	4	84.00	DOHC	76/103				
159 A4.046/835 C2.000	1756	4	84.00	SOHC	76/103				
Tempra 1.9L D Diesel Tempra 1.9L TD Diesel					07/91 → 08/96 05/90 → 08/96	171	HBS095	1) 30Nm 2) 50Nm 3) 100Nm 4) ↻ 90° 5) 100Nm 6) 90° 7) 90°	
149 A1.000/160 A7.000	1929	4	82.60	SOHC	48/65	M12x1.25x133mm (x10)			
160 A6.000	1929	4	82.60	SOHC	66/89				
160 B6.046	1929	4	82.60	SOHC	66/89				
160 D1.000	1929	4	82.60	SOHC	68/92				



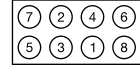
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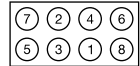
<b>Tempra 2.0L i.e.</b>					10/90 → 08/96	<b>172</b>	<b>HBS093</b>  M10x1.25x172mm (x10)	1) 70Nm 2) 90° 3) 90°	
<b>Tempra 2.0L i.e. 4X4</b>					03/92 → 03/95				
159 A6.046	1995	4	84.00			83-85/ 113-116			
<b>Tempra 2.0L SW 4x4</b>					10/87 → 08/96	<b>173</b>	<b>HBS092</b>  M10x1.25x115mm (x10)	1) 20Nm 2) 40Nm 3) ↺ 90° 4) 40Nm 5) 90° 6) 90°	
154 C3.046	1995	4	84.00	DOHC		88/120			
<b>Tipo 1.1L</b>					01/88 → 10/91	<b>174</b>	<b>HBS052</b>  M9x1.25x95mm (x10)	1) 40Nm 2) 90° 3) 90°	
160 A3.000	1108	4	70.00	SOHC		41/55			
<b>Tipo 1.4L</b>					07/87 → 12/89	<b>175</b>	<b>HBS051</b>  M10x1.25x98mm (x5) M10x1.25x84mm (x5)	1) 40Nm 2) 90° 3) 90°	
<b>Tipo 1.4L i</b>					01/90 →				
<b>Tipo 1.4L i.e.</b>					05/89 → 04/95				
160 A1.046/836 A4.000	1372	4	80.50	SOHC		51/69			
146 C1.000	1372	4	80.50	SOHC		51-53/ 69-72			
160 A1.048	1372	4	80.50	SOHC		52/71			
159 A2.000/160 A1.000	1372	4	80.50	SOHC		53/72			
<b>Tipo 1.6L</b>					01/88 → 10/91	<b>176</b>	<b>HBS051</b>  M10x1.25x98mm (x5) M10x1.25x84mm (x5)	1) 40Nm 2) 90° 3) 90°	
<b>Tipo 1.6L i.e.</b>					07/90 → 01/93				
159 A3.046	1585	4	86.40	SOHC		57-62/ 78-84			
160 A2.000	1585	4	86.40	SOHC		61/82			
<b>Tipo 1.6L i SX</b>					10/93 →	<b>177</b>	<b>HBS051</b>  M10x1.25x98mm (x5) M10x1.25x84mm (x5)	1) 20Nm 2) 40Nm 3) ↺ 90° 4) 40Nm 5) 90° 6) 90°	
220 A 2.000	1581	4	86.40			55/75			
<b>Tipo 1.6L i.e.</b>					10/92 → 04/95	<b>178</b>	<b>HBS092</b> → 12/92  M10x1.25x115mm (x10)	1) 20Nm 2) 40Nm 3) ↺ 90° 4) 40Nm 5) 90° 6) 90°	
835 C1.000	1581	4	86.40	SOHC		55-57/ 75-78			
<b>Tipo 1.6L i.e.</b>					10/92 → 04/95	<b>179</b>	<b>HBS092</b> → 12/92  M10x1.25x115mm (x10)	1) 20Nm 2) 40Nm 3) ↺ 90° 4) 40Nm 5) 90° 6) 90°	
159 A3.048	1585	4	86.40	SOHC		61/82			
<b>Tipo 1.6L i.e.</b>					10/92 → 04/95	<b>179</b>	<b>HBS051</b> 01/93 →  M10x1.25x98mm (x5) M10x1.25x84mm (x5)	1) 40Nm 2) 90° 3) 90°	
159 A3.048	1585	4	86.40	SOHC					



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Tubo 1.6L i.e.					02/88 → 05/91	180	 M10x1.25x115mm (x10)	1) 20Nm 2) 40Nm 3) ↻ 90° 4) 40Nm 5) 90° 6) 90°	
149 C2.046	1585	4	84.00	SOHC	61-77/ 83-105				
Tubo 1.7L D Diesel					01/88 → 10/94	181	 M12x1.25x133mm (x10)	1) 100Nm 2) 90° 3) 90°	
149 B4.000	1697	4	82.60		44/60				
Tubo 1.8L i.e.					10/90 → 06/93	182	 M10x1.25x98mm (x5) M10x1.25x84mm (x5)	1) 40Nm 2) 90° 3) 90°	
159 A4.000	1756	4	84.00	DOHC	76/103				
Tubo 1.8L i.e.					10/90 → 04/95	183	 M10x1.25x115mm (x10)	1) 20Nm 2) 40Nm 3) ↻ 90° 4) 40Nm 5) 90° 6) 90°	
835 C4.000	1756	4	84.00	SOHC	66/89				
159 A4.000	1756	4	84.00	DOHC	76/103				
159 A4.046/835 C2.000	1756	4	84.00	SOHC	76/103				
Tubo 1.8L i.e. 16V Sport					11/89 → 06/92	184	 M10x1.25x172mm (x10)	1) 70Nm 2) 90° 3) 90°	
160 A5.000	1756	4	84.00	DOHC	100/136				
Tubo 1.9L D Diesel					07/91 → 08/96	185	 M12x1.25x133mm (x10)	1) 100Nm 2) 90° 3) 90°	
Tubo 1.9L TD Diesel					09/90 → 04/95				
149 A1.000/160 A7.000	1929	4	82.60	SOHC	48/65				
160 A6.000/160 A6.046	1929	4	82.60	SOHC	66/89				
160 B6.046	1929	4	82.60	SOHC	66/89				
160 D1.000	1929	4	82.60	SOHC	68/92				
Tubo 2.0L 16V					07/91 → 04/95	186	 M10x1.25x172mm (x10)	1) 70Nm 2) 90° 3) 90°	
Tubo 2.0L i.e.					03/90 → 04/95				
Tubo 2.0L i.e. 16V Sport					03/93 → 04/95				
159 A6.046	1995	4	84.00		83-85/ 113-116				
160 A8.046	1995	4	84.00	DOHC	107/146				
836 A3.000	1995	4	84.00	DOHC	109/148				
Tubo 2.0L i.e.					06/90 → 03/92	187	 M10x1.25x115mm (x10)	1) 20Nm 2) 40Nm 3) ↻ 90° 4) 40Nm 5) 90° 6) 90°	
159 A5.046	1995	4	84.00		80-85/ 109-116				
Ulysse 1.8L					05/97 → 08/02	188	 M11x1.50x168mm (x10)	1) 60Nm 2) ↻ 180° 3) 20Nm 4) 150°	
LFW (XU7 JP)	1762	4	83.00	SOHC	73/99				





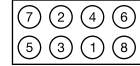
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Ulysse 1.9L TD Diesel		02/95 → 08/02			189
DHX (XUD9TE)	1905	4	83.00	SOHC, Turbo Intercooled	66/89
D8B	1905	4	83.00		66/89
Ulysse 2.0L		08/02 →			190
Ulysse 2.0L 16V		09/00 → 08/02			
EW10J4 (RFN)/RFN(EW10J4)	1997	4	85.00	DOHC	100/136
Ulysse 2.0L		06/94 → 08/02			191
Ulysse 2.0L Turbo		06/94 → 08/02			
RFU (XU10 J2C)	1998	4	86.00	SOHC	88/120
RGX	1998	4	86.00	Motronic, SOHC	108/147
Ulysse 2.0L 16V		05/98 → 09/00			192
XU10 (RFV)	1998	4	86.00	DOHC	99/135
Ulysse 2.0L D Multijet Diesel		05/06 →			193
Ulysse 2.0L JTD Diesel		10/99 → 08/02			
DW10 (RHZ)	1997	4	85.00	SOHC	66/89
DW10ATED4	1997	4	85.00	DOHC	79/107
DW10ATED4 (RHS)	1997	4	85.00	SOHC, Turbo Intercooled	80/109
DW10ATED4 (RHS)	1997	4	85.00	SOHC	80/109
RHK/RHR	1997	4	85.00	DOHC	
Ulysse 2.1L TD Diesel		03/96 → 10/99			194
P8C (XUD 11 BTE)	2088	4	85.00	SOHC	81/110
Ulysse 2.2L JTD Diesel		08/02 →			195
4HW (DW12ATED4)	2179	4	85.00	DOHC	94/128
Ulysse 3.0L V6		08/02 →			196
XFW	2946	6	87.00	DOHC, V6	150-152/ 204-207
Uno 0.9L 45		03/83 → 09/92			197
146 A.000/146 A.1000	903	4	65.00		33/45

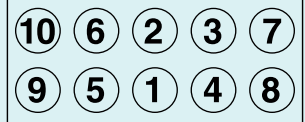
**HBS088**

→ Eng.08574



M12x1.50x145mm (x10)

- 1) 20Nm
- 2) 40Nm
- 3) 60Nm
- 4) ↻ 90°
- 5) 60Nm
- 6) 110°
- 7) 110°



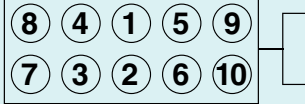
**HBS277**

Eng.08575 →



M12x1.50x148mm (x10)

- 1) 20Nm
- 2) 40Nm
- 3) 60Nm
- 4) ↻ 90°
- 5) 60Nm
- 6) 110°
- 7) 110°

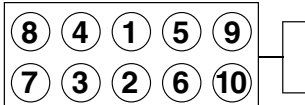


**HBS259**



M11x1.50x144.5mm (x10)

- 1) 15Nm
- 2) 50Nm
- 3) ↻ 360°
- 4) 20Nm
- 5) 285°

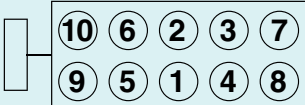


**HBS084**



M12x1.50x123mm (x10)

- 1) 35Nm
- 2) 70Nm
- 3) 160°



**HBS087**

→ Eng.08581



M12x1.50x110mm (x10)

- 1) 35Nm
- 2) 70Nm
- 3) 160°

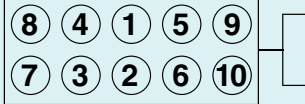


**HBS261**



M12x1.50x126mm (x10)

- 1) 20Nm
- 2) 60Nm
- 3) 220°

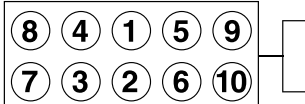


**HBS125**



M12x1.50x150.5mm (x10)

- 1) 30Nm
- 2) 70Nm
- 3) ↻ 90°
- 4) 70Nm
- 5) 150°
- 6) ↓
- 7) \*
- 8) ↻ 90°
- 9) 70Nm
- 10) 150°

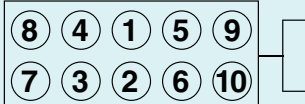


**HBS261**



M12x1.50x126mm (x10)

- 1) 20Nm
- 2) 60Nm
- 3) ↻ 360°
- 4) 60Nm
- 5) 220°

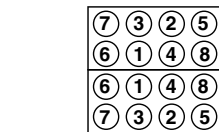


**HBS272**



M10x1.50x147mm (x16)

- 1) 20Nm
- 2) ↻ 360°
- 3) 15Nm
- 4) 225°



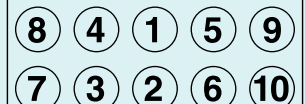
**HBS109**



M9x1.25x60mm (x1)

M9x1.25x95mm (x9)

- 1) 30Nm
- 2) 90°
- 3) 90°

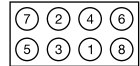




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Model					Year Range	Power (kW/PS)	Part	Dimensions	Torque	Sequence
<b>Uno 1.0L</b>					11/94 → 08/00	<b>198</b>	<b>HBS052</b>		1) 40Nm 2) 90° 3) 90°	
146 A2.166	994	4	76.00	SOHC		35/48		M9x1.25x95mm (x10)		
<b>Uno 1.0L</b>					06/89 → 02/92	<b>199</b>	<b>HBS052</b>		1) 40Nm 2) 90° 3) 90°	
<b>Uno 1.0L 45</b>					06/86 → 12/93			M9x1.25x95mm (x10)		
<b>Uno 1.0L i.e. 45</b>					04/84 → 12/94					
156 A2.048	999	4	70.00			32/44				
156 A2.246	999	4	70.00	SOHC		33/45				
156 A2.000	999	4	70.00	SOHC		33-37/ 45-50				
156 A2.100	999	4	70.00	SOHC		41/55				
<b>Uno 1.1L 50</b>					01/90 → 12/93	<b>200</b>	<b>HBS052</b>		1) 40Nm 2) 90° 3) 90°	
<b>Uno 1.1L 60</b>					04/89 → 12/92			M9x1.25x95mm (x10)		
156 C.046	1108	4	70.00	SOHC		37-43/ 50-58				
160 A3.000	1108	4	70.00	SOHC		41/55				
<b>Uno 1.1L 50</b>					01/86 → 12/89	<b>201</b>	<b>HBS051</b>		1) 40Nm 2) 90° 3) 90°	
<b>Uno 1.1L 55</b>					01/83 → 08/89			M10x1.25x98mm (x5)		
<b>Uno 1.1L 60</b>					05/85 → 08/89			M10x1.25x84mm (x5)		
<b>Uno 1.1L 60 S/SL</b>					01/83 →					
<b>Uno 1.1L i.e. 50</b>					06/92 → 12/93					
<b>Uno 1.1L Selecta</b>					01/83 →					
146 C3.000	1116	4	80.00	SOHC		36/49				
138 B.000/146 A4.044/146 A4.048	1116	4	80.00	SOHC		41/55				
<b>Uno 1.3L 70</b>					05/85 → 08/89	<b>202</b>	<b>HBS051</b>		1) 40Nm 2) 90° 3) 90°	
<b>Uno 1.3L i.e. Turbo</b>					04/85 → 03/91			M10x1.25x98mm (x5)		
146 A2.000/146 A2.246	1301	4	80.50			77/105				
149 A7.000	1301	4	86.40	SOHC		50/68				
<b>Uno 1.4L 70 Sxi</b>					01/90 →	<b>203</b>	<b>HBS051</b>		1) 40Nm 2) 90° 3) 90°	
<b>Uno 1.4L i.e. 70</b>					09/89 → 12/93			M10x1.25x98mm (x5)		
<b>Uno 1.4L i.e. Turbo</b>					09/89 → 12/96			M10x1.25x84mm (x5)		
<b>Uno 1.4L S 70</b>					09/89 → 10/92					
160 A1.046	1372	4	80.50	SOHC		51/69				
146 C1.000	1372	4	80.50	SOHC		51-53/ 69-72				
160 A1.048	1372	4	80.50	SOHC		52/71				
146 A8.046	1372	4	80.50	SOHC		82/111				
146 A8.000	1372	4	80.50	SOHC		82-87/ 112-118				
<b>Uno 1.4L TD 70 Diesel</b>					10/86 → 10/90	<b>204</b>	<b>HBS095</b>		1) 100Nm 2) 90° 3) 90°	
146 B.000/146 B3.000	1367	4	78.00			51/53/ 69/70				
<b>Uno 1.5L i.e. 75</b>					10/85 → 12/93	<b>205</b>	<b>HBS051</b>		1) 40Nm 2) 90° 3) 90°	
138 C2.048/149 C1.000	1498	4	86.40	SOHC		55/75				
<b>Uno 1.6L</b>					12/89 → 12/93	<b>206</b>	<b>HBS051</b>		1) 40Nm 2) 90° 3) 90°	
159 A3.046	1585	4	86.40	SOHC		57-62/ 78-84				

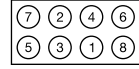
# FIAT









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






kW/PS

















Uno 1.7LD 60 Diesel		07/86 → 12/93				207	<b>HBS095</b>  M12x1.25x133mm (x10)	1) 100Nm 2) 90° 3) 90°	
149 B3.000	1697	4	82.60	SOHC	42/57				
146 B2.000	1697	4	82.60	SOHC	46/63				
Uno 1.9L D Diesel		09/89 → 03/94				208	<b>HBS095</b>  M12x1.25x133mm (x10)	1) 30Nm 2) 50Nm 3) 100Nm 4) ↺ 90° 5) 100Nm 6) 90° 7) 90°	
149 B5.046	1929	4	82.60	SOHC	44/60				

		CC			9			CC			9
4AB	Diesel	2496	4	93.67	125	CHBA	Petrol	1796	4	83.00	69
4BA	Diesel	2496	4	93.67	125	CHBB	Petrol	1796	4	83.00	69
4BC	Diesel	2496	4	93.67	125	CJBA	Petrol	1999	4	87.50	72
4CA	Diesel	2496	4	93.67	125	CJBB	Petrol	1999	4	87.50	72
4CC	Diesel	2496	4	93.67	125	CSDA	Flexfuel	1798	4	83.00	41
4DA	Diesel	2496	4	93.67	125	CSDB	Flexfuel	1798	4	83.00	41
4EA	Diesel	2496	4	93.67	125	D2FA	Diesel	2402	4	89.90	124
4EB	Diesel	2496	4	93.67	125	D2FB	Diesel	2402	4	89.90	124
4EC	Diesel	2496	4	93.67	125	D3FA	Diesel	1998	4	86.00	121
4ED	Diesel	2496	4	93.67	125	D4FA	Diesel	2402	4	89.90	124
4FA	Diesel	2496	4	93.67	125	D5BA	Diesel	1998	4	86.00	73
4FB	Diesel	2496	4	93.67	125	D6BA	Diesel	1998	4	86.00	73
4FC	Diesel	2496	4	93.67	125	DHA	Petrol	1242	4	71.90	19
4FD	Diesel	2496	4	93.67	125	DHB	Petrol	1242	4	71.90	19
4GA	Diesel	2496	4	93.67	125	DHC	Petrol	1242	4	71.90	19
4GB	Diesel	2496	4	93.67	125	DHD	Petrol	1242	4	71.90	19
4GC	Diesel	2496	4	93.67	125	DHE	Petrol	1242	4	71.90	19
4GD	Diesel	2496	4	93.67	125	DHF	Petrol	1242	4	71.90	19
4GE	Diesel	2496	4	93.67	125	DHG	Petrol	1242	4	71.90	19
4GF	Diesel	2496	4	93.67	125	DOFA	Diesel	2402	4	89.90	124
4HA	Diesel	2496	4	93.67	125	DV4TD	Diesel	1398	4	73.70	25
4HB	Diesel	2496	4	93.67	125	DV4TD	Diesel	1398	4	73.70	48
4HC	Diesel	2496	4	93.67	125	E5FA	Petrol	2295	4	89.60	122
4HD	Diesel	2496	4	93.67	125	E5FC	Petrol	2295	4	89.60	122
A9A	Petrol	1299	4	74.00	61	E5SA	Petrol	2295	4	89.60	56
A9B	Petrol	1299	4	74.00	61	E5SB	Petrol	2295	4	89.60	56
A9JA	Petrol	1299	4	74.00	21	EDBA	Petrol	1988	4	84.80	2
A9JB	Petrol	1299	4	74.00	21	EDBB	Petrol	1988	4	84.80	2
AAA	Petrol	2792	6	81.00	57	EDBC	Petrol	1988	4	84.80	2
ABFA	Diesel	1998	4	86.00	121	EDBD	Petrol	1988	4	84.80	2
AFN	Diesel	1896	4	79.50	51	EDDB	Petrol	1988	4	84.80	44
ALDA	Petrol	1988	4	84.80	44	EDDC	Petrol	1988	4	84.80	44
AMY	Petrol	2792	6	81.00	57	EDDD	Petrol	1988	4	84.80	44
AODA	Petrol	1999	4	87.50	43	EDDF	Petrol	1988	4	84.80	44
AODB	Petrol	1999	4	87.50	43	Endura E	Petrol	1299	4	74.00	22
ARD	Petrol	2394	6	84.00	98	Endura E	Petrol	1299	4	74.00	60
ASDA	Petrol	1388	4	76.00	37	EYDB	Petrol	1796	4	80.60	40
ASDB	Petrol	1388	4	76.00	37	EYDC	Petrol	1796	4	80.60	40
ASZ	Diesel	1896	4	79.50	52	EYDD	Petrol	1796	4	80.60	40
AUY	Diesel	1896	4	79.50	52	EYDE	Petrol	1796	4	80.60	40
AVG	Diesel	1896	4	79.50	51	EYDF	Petrol	1796	4	80.60	40
AYL	Petrol	2792	6	81.00	57	EYDG	Petrol	1796	4	80.60	40
AZWA	Diesel	1997	4	85.00	54	EYDI	Petrol	1796	4	80.60	40
B4A	Petrol	2935	6	93.00	115	EYDJ	Petrol	1796	4	80.60	40
B4B	Petrol	2935	6	93.00	115	EYDL	Petrol	1796	4	80.60	40
B4C	Petrol	2935	6	93.00	115	EYPA	Petrol	1796	4	80.60	116
BAA	Petrol	1299	4	74.00	60	EYPC	Petrol	1796	4	80.60	127
BAJA	Petrol	1299	4	74.00	21	EYPC	Petrol	1796	4	80.60	127
BHDA	Diesel	1753	4	82.50	42	EYPD	Petrol	1796	4	80.60	116
BHDB	Diesel	1753	4	82.50	42	EYPD	Petrol	1796	4	80.60	127
BHPA	Diesel	1753	4	82.50	117	F3FA	Diesel	1998	4	86.00	121
BHPA	Diesel	1753	4	82.50	128	F4A	Petrol	1392	4	77.24	23
BL13	Diesel	1297	4	73.94	6	F4B	Petrol	1392	4	77.24	7
BL13	Diesel	1297	4	73.94	80	F4FA	Diesel	2402	4	89.90	124
BOA	Diesel	2935	6	93.00	103	F6A	Petrol	1392	4	77.24	23
BOB	Diesel	2935	6	93.00	103	F6B	Petrol	1392	4	77.24	7
BRC	Petrol	2935	6	93.00	104	F6B	Petrol	1392	4	77.24	81
BRD	Petrol	2935	6	93.00	104	F6C	Petrol	1392	4	77.24	23
BRE	Petrol	2935	6	93.00	104	F6D	Petrol	1392	4	77.24	7
BRF	Petrol	2935	6	93.00	104	F6D	Petrol	1392	4	77.24	81
BRG	Petrol	2935	6	93.00	104	F6E	Petrol	1392	4	77.24	23
BRT	Petrol	2935	6	93.00	126	F6F	Petrol	1392	4	77.24	7
BTB	Diesel	1896	4	79.50	52	F6F	Petrol	1392	4	77.24	81
C9DA	Diesel	1753	4	82.50	42	F6G	Petrol	1392	4	77.24	7
C9DB	Diesel	1753	4	82.50	42	F6G	Petrol	1392	4	77.24	81
C9DC	Diesel	1753	4	82.50	42	F6JA	Diesel	1398	4	73.70	25
CDB	Petrol	1599	4	82.00	62	F6JA	Diesel	1398	4	73.70	48
CDC	Petrol	1599	4	82.00	62	F6JB	Diesel	1398	4	73.70	25
CDRA	Petrol	1599	4	82.00	62	F6JB	Diesel	1398	4	73.70	48
CDRB	Petrol	1599	4	82.00	62	F9DA	Diesel	1753	4	82.50	42
CFBA	Petrol	1796	4	83.00	69	F9DB	Diesel	1753	4	82.50	42
CGBA	Petrol	1796	4	83.00	69	FFDA	Diesel	1753	4	82.50	42
CGBB	Petrol	1796	4	83.00	69						

		cc			9			cc			9
FHA	Petrol	1388	4	76.00	24	HHJB	Diesel	1560	4	75.00	30
FHD	Petrol	1388	4	76.00	90	HHJB	Diesel	1560	4	75.00	50
FHE	Petrol	1388	4	76.00	24	HJBA	Diesel	1998	4	86.00	73
FHF	Petrol	1388	4	76.00	90	HJBB	Diesel	1998	4	86.00	73
FIFA	Diesel	1998	4	86.00	121	HJBC	Diesel	1998	4	86.00	73
FMBA	Diesel	1998	4	86.00	73	HMDA	Petrol	1988	4	84.80	44
FUA	Petrol	1392	4	77.24	7	HWDA	Petrol	1596	4	79.00	38
FUA	Petrol	1392	4	77.24	81	HWDB	Petrol	1596	4	79.00	38
FUAA	Petrol	1392	4	77.24	7	HXDA	Petrol	1596	4	79.00	38
FUAA	Petrol	1392	4	77.24	81	HXDB	Petrol	1596	4	79.00	38
FUB	Petrol	1392	4	77.24	23	HXJA	Petrol	1596	4	79.00	27
FUC	Petrol	1392	4	77.24	7	HXJB	Petrol	1596	4	79.00	27
FUC	Petrol	1392	4	77.24	81	HYDA	Petrol	2522	5	83.00	46
FUD	Petrol	1392	4	77.24	23	J4B	Diesel	1297	4	73.94	6
FUG	Petrol	1392	4	77.24	23	J4B	Diesel	1297	4	73.94	80
FUH	Petrol	1392	4	77.24	7	J4C	Petrol	1297	4	73.94	20
FUH	Petrol	1392	4	77.24	81	J4D	Petrol	1299	4	74.00	60
FUJ	Petrol	1392	4	77.24	23	J4J	Petrol	1299	4	74.00	22
FUJA	Petrol	1242	4	71.90	19	J4K	Petrol	1299	4	74.00	60
FUJA	Petrol	1242	4	71.90	36	J4L	Petrol	1299	4	74.00	22
FUJB	Petrol	1242	4	71.90	19	J4M	Petrol	1299	4	74.00	60
FUJB	Petrol	1242	4	71.90	36	J4N	Petrol	1299	4	74.00	60
FXDA	Petrol	1388	4	76.00	37	J4P	Petrol	1299	4	74.00	60
FXDB	Petrol	1388	4	76.00	37	J4Q	Petrol	1299	4	74.00	22
FXDC	Petrol	1388	4	76.00	37	J4R	Petrol	1299	4	74.00	22
FXDD	Petrol	1388	4	76.00	37	J4T	Petrol	1299	4	74.00	22
FXFA	Diesel	2402	4	89.90	124	J6A	Diesel	1297	4	73.94	6
FXJA	Petrol	1388	4	76.00	24	J6A	Diesel	1297	4	73.94	80
FXJA	Petrol	1388	4	76.00	47	J6B	Petrol	1297	4	73.94	20
FXJB	Petrol	1388	4	76.00	24	JBA	Diesel	1297	4	73.94	6
FXJB	Petrol	1388	4	76.00	47	JBB	Diesel	1297	4	73.94	6
FYDA	Petrol	1596	4	79.00	38	JBB	Diesel	1297	4	73.94	80
FYDB	Petrol	1596	4	79.00	38	JBC	Petrol	1297	4	73.94	20
FYDC	Petrol	1596	4	79.00	38	JBD	Diesel	1297	4	73.94	6
FYDD	Petrol	1596	4	79.00	38	JJA	Petrol	1297	4	73.94	20
FYDH	Petrol	1596	4	79.00	38	JJB	Petrol	1299	4	74.00	60
FYJA	Petrol	1596	4	76.00	27	JJC	Petrol	1299	4	74.00	22
FYJA	Petrol	1596	4	76.00	49	JJD	Petrol	1297	4	73.94	59
FYJB	Petrol	1596	4	76.00	27	JJE	Petrol	1299	4	74.00	22
FYJB	Petrol	1596	4	76.00	49	JJF	Petrol	1299	4	74.00	60
G6A	Diesel	1118	4	68.70	18	JJG	Petrol	1299	4	74.00	60
G6DA	Diesel	1997	4	85.00	45	JJH	Petrol	1299	4	74.00	60
G6DB	Diesel	1997	4	85.00	45	JJJ	Petrol	1299	4	74.00	22
G6DD	Diesel	1997	4	85.00	45	JJK	Petrol	1299	4	74.00	22
G6DG	Diesel	1997	4	85.00	45	JJL	Petrol	1299	4	74.00	60
G8DA	Diesel	1560	4	75.00	1	JJM	Petrol	1299	4	74.00	22
G8DA	Diesel	1560	4	75.00	39	JLA	Diesel	1297	4	73.94	6
G8DB	Diesel	1560	4	75.00	1	JLA	Diesel	1297	4	73.94	80
G8DB	Diesel	1560	4	75.00	39	JLB	Diesel	1297	4	73.94	6
G8DD	Diesel	1560	4	75.00	1	JLB	Diesel	1297	4	73.94	80
GLC	Diesel	1118	4	73.94	18	KA-24	Petrol	2389	4	89.00	65
GPDA	Diesel	1560	4	75.00	1	KA24-E	Petrol	2389	4	89.00	65
GPDA	Diesel	1560	4	75.00	39	KKDA	Diesel	1753	4	82.50	42
GPDC	Diesel	1560	4	75.00	39	KKDB	Diesel	1753	4	82.50	42
GSF	Diesel	1118	4	73.94	18	L1E	Petrol	1597	4	76.00	9
GSG	Petrol	1117	4	73.94	5	L1E	Petrol	1597	4	76.00	84
GSH	Diesel	1118	4	73.94	18	L1F	Diesel	1597	4	76.00	67
GUD	Diesel	1118	4	68.70	18	L1G	Petrol	1597	4	76.00	29
GUE	Diesel	1118	4	68.70	18	L1H	Petrol	1597	4	76.00	9
GZ	Petrol	2261	4	87.50	64	L1J	Diesel	1597	4	76.00	67
GZFA	Petrol	2295	4		123	L1K	Petrol	1597	4	76.00	9
GZFC	Petrol	2295	4		123	L1K	Petrol	1597	4	76.00	84
H9FA	Diesel	2402	4	89.90	124	L1L	Diesel	1597	4	76.00	67
HCPA	Diesel	1753	4	82.50	117	L1N	Diesel	1597	4	76.00	67
HCPA	Diesel	1753	4	82.50	128	L1Q	Diesel	1597	4	76.00	67
HCPB	Diesel	1753	4	82.50	117	L1T	Petrol	1596	4	79.00	27
HCPB	Diesel	1753	4	82.50	128	L1V	Petrol	1596	4	79.00	27
HHDA	Diesel	1560	4	75.00	1	L1W	Petrol	1596	4	79.00	91
HHDA	Diesel	1560	4	75.00	39	L4B	Petrol	1597	4	79.96	8
HHDB	Diesel	1560	4	75.00	1	L4B	Petrol	1597	4	79.96	82
HHDB	Diesel	1560	4	75.00	39	L6B	Diesel	1597	4	79.96	107
HHJA	Diesel	1560	4	75.00	30	LAT	Diesel	1594	4	87.65	118
HHJA	Diesel	1560	4	75.00	50	LCBB	Petrol	2495	6	81.60	3



		CC			9			CC			9
LCBC	Petrol	2495	6	81.60	3	NSG	Petrol	1998	4	86.00	120
LCBD	Petrol	2495	6	81.60	77	NSH	Petrol	1998	4	86.00	120
LCBE	Petrol	2495	6	81.60	3	P7PA	Diesel	1753	4	82.50	117
LHA	Petrol	1597	4	79.96	26	P7PA	Diesel	1753	4	82.50	128
LJB	Petrol	1597	4	79.96	8	P7PB	Diesel	1753	4	82.50	117
LJB	Petrol	1597	4	79.96	82	P7PB	Diesel	1753	4	82.50	128
LJC	Petrol	1597	4	80.00	26	PNBA	Petrol	1596	4	79.00	68
LJD	Petrol	1597	4	79.96	26	Q4BA	Diesel	2179	4	85.00	55
LJF	Petrol	1597	4	79.96	8	Q4BA	Diesel	2179	4	85.00	75
LJF	Petrol	1597	4	79.96	82	Q4WA	Diesel	2179	4	85.00	55
LNB	Petrol	1597	4	79.96	8	Q7DA	Flexfuel	1798	4	83.00	41
LP2	Petrol	1597	4	79.96	8	QJBA	Diesel	2198	4	86.00	76
LR2	Petrol	1597	4	79.96	8	QJBB	Diesel	2198	4	86.00	76
LRB	Petrol	1597	4	79.96	8	QQDA	Flexfuel	1798	4	83.00	41
LRB	Petrol	1597	4	79.96	82	QQDB	Flexfuel	1798	4	83.00	41
LSE	Diesel	1593	4	81.30	105	QXWA	Diesel	1997	4	85.00	54
LSF	Diesel	1597	4	81.30	106	QXWB	Diesel	1997	4	85.00	54
LTA	Diesel	1608	4	80.00	10	QXWC	Diesel	1997	4	85.00	54
LTB	Diesel	1608	4	80.00	28	R2C	Diesel	1769	4	79.94	108
LTC	Diesel	1608	4	80.00	10	R2PA	Diesel	1753	4	82.50	117
LTC	Diesel	1608	4	80.00	83	R2PA	Diesel	1753	4	82.50	128
LUB	Petrol	1597	4	79.96	26	R6A	Diesel	1769	4	79.94	108
LUC	Petrol	1597	4	79.96	82	RDA	Petrol	1796	4	80.60	11
LUD	Petrol	1597	4	79.96	26	RDA	Petrol	1796	4	80.60	86
LUG	Petrol	1597	4	79.96	8	RDB	Petrol	1796	4	80.60	31
LUH	Petrol	1597	4	76.00	26	REBA	Petrol	2967	6	89.00	79
LUJ	Petrol	1597	4	79.96	8	REC	Petrol	1796	4	86.20	94
LUJ	Petrol	1597	4	79.96	82	RED	Diesel	1796	4	86.20	109
LUK	Petrol	1597	4	79.96	8	REF	Diesel	1796	4	86.20	109
LUK	Petrol	1597	4	79.96	82	RFA	Diesel	1753	4	82.50	88
M7JA	Petrol	1242	4	71.90	19	RFA	Diesel	1753	4	82.50	110
M7JB	Petrol	1242	4	71.90	19	RFB	Diesel	1753	4	82.50	110
MEBA	Petrol	2967	6	89.00	79	RFD	Diesel	1753	4	82.50	13
MHA	Diesel	1679	4	80.00	92	RFD	Diesel	1753	4	82.50	87
MHB	Diesel	1679	4	80.00	92	RFK	Diesel	1753	4	82.50	13
N3A	Diesel	1998	4	86.00	96	RFK	Diesel	1753	4	82.50	87
N4A	Petrol	1993	4	90.80	111	RFL	Diesel	1753	4	82.50	33
N4B	Petrol	1993	4	90.80	111	RFL	Diesel	1753	4	82.50	110
N4I	Petrol	1993	4	90.80	111	RFL	Diesel	1753	4	82.50	71
N4JB	Petrol	1999	4	87.50	35	RFN	Diesel	1753	4	82.50	71
N5B	Petrol	1993	4	90.82	111	RFS	Diesel	1753	4	82.50	13
N5F	Petrol	1993	4	90.82	15	RHBA	Petrol	1596	4	79.00	68
N6T	Petrol	1993	4	90.80	119	RKA	Petrol	1796	4	80.60	70
N7A	Petrol	1998	4	86.00	14	RKB	Petrol	1796	4	80.60	70
N7BA	Diesel	1998	4	86.00	73	RKC	Petrol	1796	4	80.60	11
N8A	Diesel	1998	4	86.00	96	RKF	Petrol	1796	4	80.60	70
N8A	Petrol	1998	4	86.00	113	RKH	Petrol	1796	4	80.60	70
N8C	Diesel	1998	4	86.00	112	RKJ	Petrol	1796	4	80.60	70
N8D	Petrol	1993	4	90.80	95	RKK	Petrol	1796	4	80.60	70
N9B	Petrol	1998	4	86.00	113	RQB	Petrol	1796	4	80.60	11
N9C	Petrol	1998	4	86.00	113	RQB	Petrol	1796	4	80.60	86
N9D	Diesel	1998	4	86.00	96	RQC	Petrol	1796	4	80.60	31
N9E	Petrol	1998	4	86.00	113	RTA	Diesel	1753	4	82.50	12
N9F	Diesel	1998	4	86.00	96	RTA	Diesel	1753	4	82.50	85
NAE	Petrol	1993	4	90.80	89	RTB	Diesel	1753	4	82.50	12
NAT	Petrol	1993	4	90.80	119	RTB	Diesel	1753	4	82.50	85
NAV	Petrol	1993	4	90.80	119	RTC	Diesel	1753	4	82.50	32
NBA	Petrol	1993	4	90.80	119	RTD	Diesel	1753	4	82.50	32
NCA	Petrol	1993	4	90.80	119	RTE	Diesel	1753	4	82.50	12
NE5	Petrol	1993	4	90.80	111	RTE	Diesel	1753	4	82.50	13
NEJ	Petrol	1993	4	90.80	111	RTE	Diesel	1753	4	82.50	85
NEL	Petrol	1993	4	90.80	95	RTF	Diesel	1753	4	82.50	12
NES	Petrol	1993	4	90.80	111	RTF	Diesel	1753	4	82.50	13
NGA	Petrol	1988	4	84.80	74	RTF	Diesel	1753	4	82.50	85
NGB	Petrol	1988	4	84.80	74	RTG	Diesel	1753	4	82.50	32
NGC	Petrol	1988	4	84.80	74	RTH	Diesel	1753	4	82.50	12
NGD	Petrol	1988	4	84.80	74	RTH	Diesel	1753	4	82.50	13
NRA	Petrol	1993	4	90.80	95	RTH	Diesel	1753	4	82.50	85
NRC	Petrol	1993	4	90.83	95	RTJ	Diesel	1753	4	82.50	33
NRI	Petrol	1993	4	90.80	95	RTK	Diesel	1753	4	82.50	33
NSD	Diesel	1998	4	86.00	96	RTN	Diesel	1753	4	82.50	34
NSE	Petrol	1998	4	86.00	53	RTP	Diesel	1753	4	82.50	34
NSF	Petrol	1998	4	86.00	120	RTQ	Diesel	1753	4	82.50	34

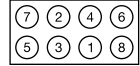
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RVA	Diesel	1753	4	82.50	13						
SCB	Diesel	2500	4	92.00	102						
SCC	Diesel	2500	4	92.00	102						
SDBA	Diesel	1998	4	86.00	73						
SEA	Petrol	2544	6	81.60	78						
SEB	Petrol	2495	6	81.60	77						
SEC	Petrol	2495	6	81.60	77						
SFA (XD3T)	Diesel	2498	4	94.00	101						
SFB (XD3T)	Diesel	2498	4	94.00	101						
SGA	Petrol	2495	6	81.60	3						
SGA	Petrol	2495	6	81.60	77						
SHDA	Petrol	1596	4	79.00	38						
SIDA	Petrol	1596	4	79.00	38						
STR (XD3/XD3P)	Diesel	2498	4	94.00	99						
STR (XD3/XD3P)	Diesel	2498	4	94.00	100						
SYDA	Petrol	1999	4	87.50	43						
TD27	Diesel	2664	4	96.00	66						
TD27E	Diesel	2664	4	96.00	66						
TKB	Petrol	957	4	73.94	16						
TLB	Petrol	999	4	68.70	17						
UC	Petrol	1416	4	77.00	4						
UFWA	Diesel	1997	4	85.00	54						
VM	Diesel	2500	4	92.00	102						
WL	Diesel	2500	4	93.00	93						
WL-T	Diesel	2500	4	93.00	93						
Y5A	Petrol	2295	4	89.60	97						
Y5B	Petrol	2295	4	89.60	56						
YF	Petrol	1988	4	84.80	63						
YTR (XD2/XD2P/XD94)	Diesel	2304	4	94.00	114						
YTT (XD2/XD2P/XD94)	Diesel	2304	4	94.00	114						
ZH10JRB	Petrol	999	4	68.70	58						
ZVSA	Petrol	1998	4	86.00	53						



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C-Max 1.6L TDCi Diesel					02/07 →	1	HBS359		1) 20Nm 2) 40Nm 3) 180°	
HHDA/HHDB	1560	4	75.00	DOHC	66/89	<b>HBS359</b>  M11x1.50x150mm (x10)	1) 20Nm 2) 40Nm 3) 180°			
GPDA	1560	4	75.00	Direct Injection, DOHC	66/90					
G8DA/G8DB	1560	4	75.00	DOHC	80/109					
G8DD	1560	4	75.00	Direct Injection, DOHC	80/109					
Cougar 2.0L 16V					08/98 → 12/01	2	HBS031		1) 25Nm 2) 45Nm 3) 110°	
EDBA/EDBB/EDBC/EDBD	1988	4	84.80	DOHC	96/100/ 131/136	<b>HBS031</b>  M10x1.50x102mm (x10)	1) 25Nm 2) 45Nm 3) 110°			
Cougar 2.5L V6 24V					06/00 → 12/01	3	HBS392		1) 40Nm 2) 90° 3) ↻ 360° 4) 40Nm 5) 90° 6) 90°	
Cougar ST 200					01/00 → 12/01	<b>HBS392</b>  M10x1.5x150mm (x16)	1) 40Nm 2) 90° 3) ↻ 360° 4) 40Nm 5) 90° 6) 90°			
LCBB/LCBC/LCBE	2495	6	81.60	DOHC, V6	107/148					
SGA	2495	6	81.60	DOHC, V6	151/205					
Econovan 1.4L					03/86 → 03/92	4	HBS056		1) 40Nm 2) 75Nm 3) 90°	
Econovan Van 1.4L					03/86 → 03/92	<b>HBS056</b>  M12x1.75x92.5mm (x10)	1) 40Nm 2) 75Nm 3) 90°			
UC	1416	4	77.00	SOHC	48/65					
Escort 1.1L					10/85 → 09/90	5	HBS050		1) 30Nm 2) 90° 3) 90°	
GSG	1117	4	73.94	OHV	37/50	<b>HBS050</b>  M11x1.50x120mm (x10)	1) 30Nm 2) 90° 3) 90°			
Escort 1.3L					01/86 → 02/99	6	HBS050		1) 30Nm 2) 90° 3) 90°	
J4B / BL13/J6A	1297	4	73.94	CFi, SOHC	44/60	<b>HBS050</b>  M11x1.50x120mm (x10)	1) 30Nm 2) 90° 3) 90°			
JBB	1297	4	73.94	HCS	44/60					
JLA/JLB	1297	4	73.94	OHV	44/60					
JBA	1297	4	73.94	SOHC	46/63					
JBD	1297	4	73.94	CFi, HCS	46/63					
Escort 1.4L					10/85 → 02/99	7	HBS001		1) 50Nm 2) 90° 3) 90°	
Escort 1.4L i					02/86 → 01/95	<b>HBS001</b>  M10x1.50x135mm (x10)	1) 50Nm 2) 90° 3) 90°			
Escort Convertible 1.4L					01/86 → 04/94					
Escort Convertible 1.4L i					07/93 → 01/95					
FJAA	1392	4	77.24	SOHC	51/69					
F6F/F6G	1392	4	77.24	SOHC	52/71					
F4B/F6B/F6D/FUA/FUC/FUH	1392	4	77.24	SOHC	55/75					
Escort 1.6L					01/86 → 12/92	8	HBS001		1) 40Nm 2) 60Nm 3) 90° 4) 90°	
Escort 1.6L i					01/86 → 07/90	<b>HBS001</b>  M10x1.50x135mm (x10)	1) 40Nm 2) 60Nm 3) 90° 4) 90°			
Escort 1.6L Mk IV					04/87 → 08/89					
Escort 1.6L Turbo RS					01/86 → 07/90					
Escort 1.6L XR3i					01/86 → 08/89					
Escort Convertible 1.6L i					01/86 → 07/90					
Escort Convertible 1.6L XR3i					01/86 → 07/90					
Escort Convertible 1.6L					07/90 → 12/92					
LP2	1597	4			60/81					
LUG	1597	4	79.96	SOHC	58/79					
L4B	1597	4	79.96	SOHC	66/88					
LWJ/LUK	1597	4	79.96	KE-Jetronic, CVH	66/90					
LJB	1597	4	79.96	SOHC	66/90					
LJF	1597	4	79.96	SOHC	75/102					
				Efi, SOHC	75-81/ 102-110					
LR2/LRB	1597	4	79.96	SOHC	77/105					
LNB	1597	4	79.96	SOHC	97/132					
Escort 1.6L 16V					01/95 → 07/00	9	HBS031		1) 25Nm 2) 45Nm 3) 110°	
Escort 1.6L 16V 4x4					01/95 → 10/98	<b>HBS031</b>  M10x1.50x102mm (x10)	1) 25Nm 2) 45Nm 3) 110°			
Escort 1.6L i 16V					09/92 → 02/99					
Escort Convertible 1.6L i 16V					02/94 → 01/95					
Escort Convertible 1.6L 16V XR3i					12/92 → 09/99					
L1H	1597	4	76.00	DOHC	65/88					
L1E/L1K	1597	4	76.00	DOHC	66/90					

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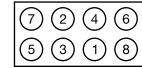
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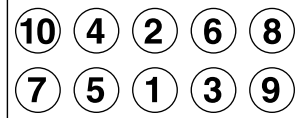


<b>Escort 1.6L D Diesel</b>				01/86 → 07/90	<b>10</b>
LTA/LTC	1608	4	80.00	SOHC	40/54
<b>Escort 1.8L 16V</b>				02/92 → 02/99	<b>11</b>
<b>Escort 1.8L i 16V</b>				09/92 → 01/95	
<b>Escort 1.8L XR3i 16V</b>				09/92 → 01/95	
<b>Escort 16V XR3i</b>				02/92 → 01/95	
<b>Escort Convertible 1.8L 16V XR3i</b>				12/92 → 08/00	
RDA	1796	4	80.60	DOHC	77/105
RKC	1796	4	80.60	DOHC	85/115
RQB	1796	4	80.60	DOHC	96/131
<b>Escort 1.8L D Diesel</b>				07/88 → 01/95	<b>12</b>
RTA/RTB/RTE/RTF/RTH	1753	4	82.50	SOHC	44/60
<b>Escort 1.8L D Diesel</b>				01/95 → 02/99	<b>13</b>
<b>Escort 1.8L TD Diesel</b>				02/93 → 07/00	
<b>Escort Convertible 1.8L TD Diesel</b>				09/95 → 08/99	
<b>Escort Van 1.8L D Diesel</b>				01/95 →	
<b>Escort Van 1.8L TD Diesel</b>				12/95 → 06/01	
RTE/RTF/RTH	1753	4	82.50	SOHC	44/60
RVA	1753	4	82.50	SOHC	51/70
RFD/RFK/RFS	1753	4	82.50	SOHC	66/89
<b>Escort RS 2000</b>				05/91 → 02/98	<b>14</b>
<b>Escort RS 2000 4x4</b>				02/95 → 10/98	
N7A	1998	4	86.00	DOHC	110/150
<b>Escort RS Cosworth</b>				09/92 → 10/98	<b>15</b>
N5F	1993	4	90.82	DOHC	162-167/ 220-227
<b>Fiesta 1.0L</b>				09/83 → 02/89	<b>16</b>
<b>Fiesta Van 1.0L</b>				08/83 → 11/89	
TKB	957	4	73.94	OHV	33/45
<b>Fiesta 1.0L</b>				09/83 → 12/95	<b>17</b>
<b>Fiesta 1.0L i</b>				02/97 → 09/99	
	999	4			33/45
	999	4			38/52
TLB	999	4	68.70	HCS	33/45
<b>Fiesta 1.1L</b>				09/83 → 12/95	<b>18</b>
G6A	1118	4	68.70	CFi, HCS	37/50
GUD/GUE	1118	4	68.70	HCS	40/55
GSH	1118	4	73.94	OHV	36/49
GLC	1118	4	73.94	OHV	37/50
GSF	1118	4	73.94	CVH	37/50
<b>Fiesta 1.25 i 16V</b>				08/95 → 01/02	<b>19</b>
M7JA/M7JB	1242	4	71.90	DOHC	51/70
DHA/DHB/DHC/DHD/DHE/DHF/DHG/ FUJA/FUJB	1242	4	71.90	DOHC	55/75



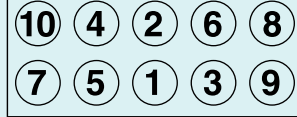
7/16" x 14Hx135mm (x10)

- 1) 30Nm
- 2) 90°
- 3) 90°



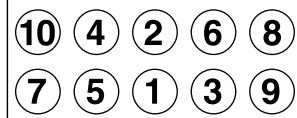
M10x1.50x102mm (x10)

- 1) 25Nm
- 2) 45Nm
- 3) 110°



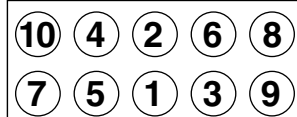
7/16" x 14Hx135mm (x10)

- 1) 30Nm
- 2) 60°
- 3) 90°
- 4) ↻ 90°
- 5) 90Nm
- 6) 90°



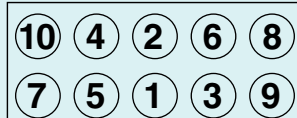
M12x1.75x136mm (x10)

- 1) 30Nm
- 2) 70Nm
- 3) 100Nm
- 4) ↻ 180°
- 5) 70Nm
- 6) 120°



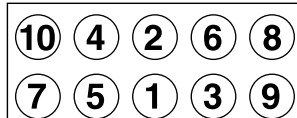
M12x1.75x136mm (x10)

- 1) 30Nm
- 2) 70Nm
- 3) 100Nm
- 4) ↻ 180°
- 5) 70Nm
- 6) 120°



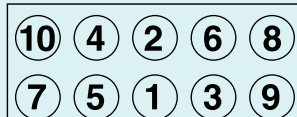
M11x1.50x178mm (x10)

- 1) 10Nm
- 2) 35Nm
- 3) 90°
- 4) 90°



M11x1.50x178mm (x10)

- 1) 10Nm
- 2) 35Nm
- 3) 90°
- 4) 90°



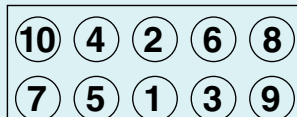
M11x1.50x120mm (x10)

- 1) 30Nm
- 2) 90°
- 3) 90°



M11x1.50x120mm (x10)

- 1) 30Nm
- 2) 90°
- 3) 90°



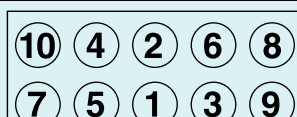
M11x1.50x120mm (x10)

- 1) 30Nm
- 2) 90°
- 3) 90°



M10x1.50x143mm (x10)

- 1) 15Nm
- 2) 30Nm
- 3) 90°

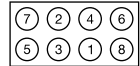




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Fiesta 1.3L Fiesta 1.3L i Fiesta Van 1.3L					03/89 → 12/95 08/95 → 01/02 09/91 → 02/96	20	HBS050 	1) 30Nm 2) 90° 3) 90°	
JJA	1297	4	73.94	EFI, OHV	37/50	M11x1.50x120mm (x10)			
J4C	1297	4	73.94	EFI, OHV	44/60				
J6B	1297	4	73.94	CFi, HCS	44/60				
JBC	1297	4	73.94	SOHC	44/46/ 60/63				
Fiesta 1.3L					11/01 →	21	HBS358 	M11 1) 40Nm M8 1) 15Nm 2) 45°	
BAJA	1299	4	74.00	SOHC	44/60	M11x1.50x158mm (x10) M8x0x45mm (x2)			
A9JA/A9JB	1299	4	74.00	SOHC	51/69				
Fiesta 1.3L i					08/95 → 01/02	22	HBS050 	1) 30Nm 2) 90° 3) 90°	
JJC/JJE/Endura E/JJJ/JJK	1299	4	74.00	OHV	37/50	M11x1.50x120mm (x10)			
JJM	1299	4	74.00	SOHC	37/50				
J4J/J4L/J4Q/J4R/J4T	1299	4	74.00	OHV	44/60				
Fiesta 1.4L					10/85 → 12/95	23	HBS001 	1) 50Nm 2) 90° 3) 90°	
F6C	1392	4	77.24	CFi, SOHC	52/71	M10x1.50x135mm (x10)			
F6E	1392	4	77.24	SOHC	52/71				
F6A	1392	4	77.24	CFi, SOHC	52-54/ 71-73				
FUD	1392	4	77.24	SOHC	54/73				
F4A/FUB/FUG/FUJ	1392	4	77.24	SOHC	55/75				
Fiesta 1.4L 16V Fiesta 1.4L i Fiesta 1.4L i 16V					11/01 → 04/96 → 10/99 04/96 → 01/02	24	HBS078 	1) 15Nm 2) 30Nm 3) 90°	
FXJA/FXJB	1388	4	76.00	DOHC	59/80	M10x1.50x143mm (x10)			
FHA/FHE	1388	4	76.00	DOHC	66/90				
Fiesta 1.4L TDCi Diesel					11/01 →	25	HBS359 	1) 20Nm 2) 40Nm 3) 180°	
F6JA / DV4TD/F6JB	1398	4	73.70	Common Rail, SOHC	50/68	M11x1.50x150mm (x10)			
Fiesta 1.6L Fiesta 1.6L Turbo Fiesta 1.6L XR2 Fiesta 1.6L XR2i					01/89 → 01/94 03/90 → 10/92 03/84 → 02/89 03/89 → 01/94	26	HBS001 	1) 40Nm 2) 60Nm 3) 90° 4) 90°	
LUH	1597	4	76.00	SOHC	65/88	M10x1.50x135mm (x10)			
LUD	1597	4	79.96	SOHC	70/95				
LUB	1597	4	79.96	SOHC	71/96				
LJD	1597	4	79.96	EFi, SOHC	75-81/ 102-110				
LHA	1597	4	79.96	K-Jetronic, SOHC	96/131				
LJC	1597	4	80.00	EFi, SOHC	81/110				
Fiesta 1.6L 16V Fiesta 1.6L 16V Sport Fiesta 1.6L Ti					11/01 → 02/00 → 01/02 10/08 →	27	HBS078 	1) 15Nm 2) 30Nm 3) 90°	
FYJB/FYJA	1596	4	76.00	DOHC	74/100	M10x1.50x143mm (x10)			
LIT/LIV	1596	4	79.00	DOHC	76/103				
HXJA/HXJB	1596	4	79.00	DOHC, Straight	88/120				
Fiesta 1.6L D Diesel					04/84 → 02/89	28	HBS007 	1) 30Nm 2) 90° 3) 90°	
LFB	1608	4	80.00	SOHC	40/54	7/16" x 14Hx135mm (x10)			
Fiesta 1.6L i 16V					01/94 → 12/95	29	HBS031 	1) 25Nm 2) 45Nm 3) 110°	
LIG	1597	4	76.00	DOHC	66/90	M10x1.50x102mm (x10)			



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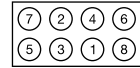
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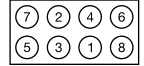
<b>Fiesta 1.6L TDCi Diesel</b>				11/04 →	<b>30</b>	<b>HBS359</b>  M11x1.50x150mm (x10)	1) 149Nm 2) 20Nm 3) 40Nm 4) 230°	
HHJA/HHJB	1560	4	75.00	DOHC	66/89			
<b>Fiesta 1.8L 16V</b>				02/92 → 12/95	<b>31</b>	<b>HBS031</b>  M10x1.50x102mm (x10)	1) 25Nm 2) 45Nm 3) 110°	
<b>Fiesta 1.8L XR2i 16V</b>				02/92 → 12/95				
RDB	1796	4	80.60	DOHC	77/105			
RQC	1796	4	80.60	DOHC	96/131			
<b>Fiesta 1.8L D Diesel</b>				03/89 → 12/95	<b>32</b>	<b>HBS007</b> → 07/92  7/16" x 14Hx135mm (x10)	1) 30Nm 2) 60° 3) 90° 4) ↻ 90° 5) 90Nm 6) 90°	
<b>Fiesta Van 1.8L D Diesel</b>				03/89 → 02/96				
RTC/RTD/RTG	1753	4	82.50	SOHC	44/60			
<b>Fiesta 1.8L D Diesel</b>				08/95 → 04/00	<b>33</b>	<b>HBS033</b> 08/92 →  M12x1.75x136mm (x10)	1) 30Nm 2) 70Nm 3) 100Nm 4) ↻ 180° 5) 70Nm 6) 120°	
<b>Fiesta 1.8L TD Diesel</b>				03/93 → 12/95				
<b>Fiesta Van 1.8L D Diesel</b>				02/96 →				
RTJ/RTK	1753	4	82.50	SOHC	44/60			
RFL	1753	4	82.50	SOHC	55/75			
<b>Fiesta 1.8L DI Diesel</b>				04/00 → 01/02	<b>34</b>	<b>HBS243</b>  M12x1.75x137mm (x2) M12x1.75x177mm (x8)	1) 20Nm 2) 55Nm 3) 90° 4) 70°	
<b>Fiesta Van 1.8L DI Diesel</b>				09/00 →				
<b>Fiesta Van 1.8L TD Diesel</b>				03/00 →				
RTN/RTP/RTQ	1753	4	82.50	SOHC	55/75			
<b>Fiesta ST150</b>				03/05 →	<b>35</b>	<b>HBS369</b>  M10x1.50x145.5mm (x10)	1) 5Nm 2) 15Nm 3) 45Nm 4) 90° 5) 90°	
N4JB	1999	4	87.50	DOHC	110/150			
<b>Focus 1.25</b>				08/04 →	<b>36</b>	<b>HBS078</b>  M10x1.50x143mm (x10)	1) 15Nm 2) 30Nm 3) 90°	
FUJA/FUJB	1242	4	71.90	DOHC	55/75			
<b>Focus 1.4L</b>				11/04 →	<b>37</b>	<b>HBS078</b>  M10x1.50x143mm (x10)	1) 15Nm 2) 30Nm 3) 90°	
<b>Focus 1.4L 16V</b>				10/98 → 11/04				
FXDA/FXDB/FXDC/FXDD	1388	4	76.00	DOHC	55/75			
ASDA/ASDB	1388	4	76.00	DOHC	59/80			
<b>Focus 1.6L</b>				11/04 →	<b>38</b>	<b>HBS078</b>  M10x1.50x143mm (x10)	1) 15Nm 2) 30Nm 3) 90°	
<b>Focus 1.6L 16V</b>				10/98 → 11/04				
<b>Focus 1.6L C-Max</b>				10/03 → 03/07				
<b>Focus 1.6L Ti</b>				11/04 →				
<b>Focus 1.6L Ti C-Max</b>				08/04 → 03/07				
<b>Focus Cabriolet 1.6L Mk II</b>				10/06 →				
SHDA	1596	4		DOHC	74/101			
FYDA/FYDB/FYDC/FYDD/FYDH/HWDA/HWDB	1596	4	79.00	DOHC	74/100			
HXDA/HXDB/SIDA	1596	4	79.00	DOHC	85/115			
<b>Focus 1.6L TDCi Diesel</b>				11/04 →	<b>39</b>	<b>HBS359</b>  M11x1.50x150mm (x10)	1) 20Nm 2) 40Nm 3) 180°	
<b>Focus C-MAX 1.6L TDCi Diesel</b>				10/03 → 03/07				
HHDA/HHDB	1560	4	75.00	DOHC	66/89			
GPDA/GPDC	1560	4	75.00	Direct Injection, DOHC	66/90			
G8DA/G8DB	1560	4	75.00	DOHC	80/109			



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				10/98 → 11/04	40						
<b>Focus 1.8L 16V</b>				10/98 → 11/04	40						
EYDB/EYDC/EYDD/EYDE/EYDF/EYDG/EYDI/EYDI/EYDL	1796	4	80.60	DOHC	85/115						
<b>Focus 1.8L C-Max</b>				04/04 → 03/07	41						
<b>Focus 1.8L Flexifuel</b>				01/06 →							
<b>Focus 1.8L Flexifuel C-Max</b>				01/06 → 03/07							
<b>Focus C-MAX 1.8L</b>				10/03 → 03/07							
CSDA/CSDB	1798	4	83.00	DOHC	88/120						
Q7DA/QQDA/QQDB	1798	4	83.00	DOHC	92/125						
<b>Focus 1.8L DI / TDDi Diesel</b>				08/99 → 11/04	42						
<b>Focus 1.8L TD / TDDi Diesel</b>				10/98 → 11/04							
<b>Focus 1.8L TDCi Diesel</b>				03/01 → 03/07							
BHDA/BHDB	1753	4	82.50	SOHC	55/75						
C9DA/C9DB/C9DC	1753	4	82.50	SOHC	66/90						
F9DA	1753	4	82.50	Common Rail, SOHC	74/100						
F9DB/FFDA	1753	4	82.50	Common Rail, SOHC	85/115						
KKDA/KKDB	1753	4	82.50	DOHC	85/115						
<b>Focus 2.0L</b>				11/04 →	43						
<b>Focus 2.0L C-Max</b>				04/04 → 03/07							
AODA/AODB	1999	4	87.50	DOHC	107/145						
SYDA	1999	4	87.50	DOHC, Straight	107/145						
<b>Focus 2.0L 16V</b>				10/98 → 11/04	44						
<b>Focus 2.0L RS</b>				10/02 → 11/04							
<b>Focus ST170</b>				03/02 → 11/04							
EDDB/EDDC/EDDF	1988	4	84.80	DOHC	96/130						
EDDD	1988	4	84.80	DOHC	96/131						
ALDA	1988	4	84.80	DOHC	127/172						
HMDA	1988	4	84.80	DOHC	158/215						
<b>Focus 2.0L TDCi Diesel</b>				10/03 → 03/07	45						
<b>Focus Cabriolet 2.0L TDCi Mk II Diesel</b>				10/06 →							
G6DA/G6DB/G6DD	1997	4	85.00	DOHC	100/136						
G6DG	1997	4	85.00	Direct Injection, DOHC	100/136						
<b>Focus 2.5L ST</b>				10/05 →	46						
HYDA	2522	5	83.00	DOHC							
<b>Fusion 1.4L</b>				08/02 →	47						
FXJA/FXJB	1388	4	76.00	DOHC	59/80						
<b>Fusion 1.4L TDCi Diesel</b>				08/02 →	48						
F6JA / DV4TD/F6JB	1398	4	73.70	Common Rail, SOHC	50/68						
<b>Fusion 1.6L</b>				08/02 →	49						
FYJB/FYJA	1596	4	76.00	DOHC	74/100						
<b>Fusion 1.6L TDCi Diesel</b>				11/04 →	50						
HHJA/HHJB	1560	4	75.00	DOHC	66/89						

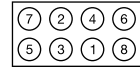
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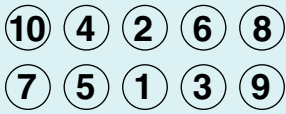

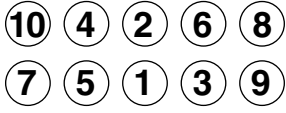

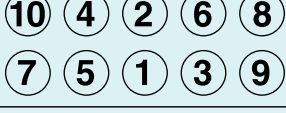

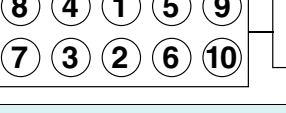

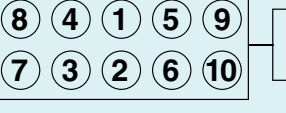



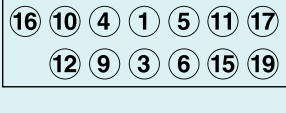

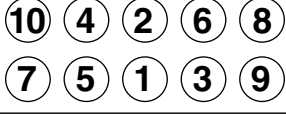

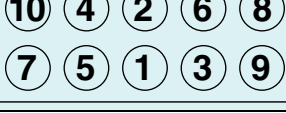

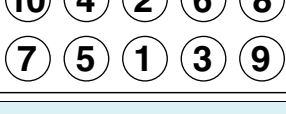

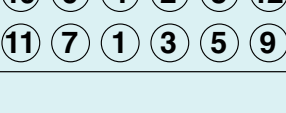


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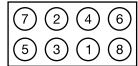
<b>Galaxy 1.9L TDI Diesel</b>				08/97 → 04/00	<b>51</b>	<b>HBS018</b>  M12x1.75x115mm (x10)	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°	
AFN/AVG	1896	4	79.50	SOHC	81/110			
<b>Galaxy 1.9L TDI Diesel</b>				04/00 →	<b>52</b>	<b>HBS300</b>  M12x1.75x166mm (x10)	1) 40Nm 2) 60Nm 3) 90° 4) 90°	
AUY	1896	4	79.50	SOHC	85/116			
ASZ	1896	4	79.50	SOHC	96/131			
BTB	1896	4	79.50	SOHC	110/150			
<b>Galaxy 2.0L i</b>				11/95 →	<b>53</b>	<b>HBS032</b>  M11x1.50x178mm (x10)	1) 10Nm 2) 35Nm 3) 90° 4) 90°	
NSE	1998	4	86.00	Efi, DOHC	85/116			
ZVSA	1998	4	86.00	Efi	85/116			
<b>Galaxy 2.0L TDCi Diesel</b>				05/06 →	<b>54</b>	<b>HBS261</b>  M12x1.50x126mm (x10)	1) 20Nm 2) 60Nm 3) 220°	
QXWC/JFWA	1997	4	85.00	Direct Injection, DOHC	103/140			
AZWA/QXWA/QXWB	1997	4	85.00	DOHC				
<b>Galaxy 2.2L TDCi Diesel</b>				03/08 →	<b>55</b>	<b>HBS261</b>  M12x1.50x126mm (x10)	1) 20Nm 2) 60Nm 3) ↻ 360° 4) 60Nm 5) 220°	
Q4BA	2179	4	85.00	DOHC	129/175			
Q4WA	2179	4	85.00	Direct Injection, DOHC	129/175			
<b>Galaxy 2.3L 16V</b>				01/97 →	<b>56</b>	<b>HBS032</b>  M11x1.50x178mm (x10)	1) 10Nm 2) 35Nm 3) 90° 4) 90°	
E5SB	2295	4	89.60	DOHC	103/140			
E5SA/Y5B	2295	4	89.60	DOHC	107/146			
<b>Galaxy 2.8L i V6</b>				11/95 → 04/00	<b>57</b>	<b>HBS077</b>  M11x1.50x85mm (x7) M11x1.50x144mm (x3) M11x1.50x119mm (x10)	1) 40Nm 2) 60Nm 3) 90° 4) 90°	
<b>Galaxy 2.8L i V6 4x4</b>				04/96 → 04/00				
<b>Galaxy 2.8L V6</b>				04/00 →				
AAA/AMY	2792	6	81.00	DOHC, V6	128/174			
AYL	2792	6	81.00	DOHC, V6	150/204			
<b>Ka 1.0L i</b>				07/97 → 09/99	<b>58</b>	<b>HBS050</b>  M11x1.50x120mm (x10)	1) 30Nm 2) 90° 3) 90°	
ZHTOJRB	999	4	68.70	Intake Manifold Injection/ Carburettor, SOHC/OHC	38/52			
<b>Ka 1.3L i</b>				06/98 →	<b>59</b>	<b>HBS050</b>  M11x1.50x120mm (x10)	1) 30Nm 2) 90° 3) 90°	
JJD	1297	4	73.94	EFI	36/49			
<b>Ka 1.3L i</b>				09/96 →	<b>60</b>	<b>HBS050</b>  M11x1.50x120mm (x10)	1) 30Nm 2) 90° 3) 90°	
JJF/JJG/JJH/JJL	1299	4	74.00		36/49			
JJB/Endura E	1299	4	74.00	OHV	37/50			
BAA	1299	4	74.00	SOHC	44/60			
J4D/Endura E/J4K/J4M/J4N/J4P/J4S	1299	4	74.00	OHV	44/60			
<b>Ka 1.3L i</b>				08/02 →	<b>61</b>	<b>HBS358</b>  M11x1.50x158mm (x10) M8x0x45mm (x2)	<b>M11</b> 1) 40Nm 2) 120° <b>M8</b> 1) 15Nm 2) 45°	
A9A/A9B	1299	4	74.00	SOHC	51/70			



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Model					Year Range	Power (kW/PS)	Part	Dimensions	Torque	Sequence
<b>Ka 1.6L i</b>					07/03 →	<b>62</b>	<b>HBS358</b>	M11	1) 40Nm 2) 120°	
<b>Ka Convertible 1.6L</b>					05/03 → 07/05					
CDB/CDC/CDRA/CDRB	1599	4	82.00	SOHC	70/95		M11x1.50x158mm (x10) M8x0x45mm (x2)	<b>M8</b> 1) 15Nm 2) 45°		
<b>Maverick 2.0L 16V</b>					02/01 →	<b>63</b>	<b>HBS031</b>	M10x1.50x102mm (x10)	1) 25Nm 2) 45Nm 3) 110°	
YF	1988	4	84.80	DOHC	91/124					
<b>Maverick 2.3L 16V</b>					03/04 →	<b>64</b>	<b>HBS369</b>	M10x1.50x145.5mm (x10)	1) 5Nm 2) 15Nm 3) 45Nm 4) 90° 5) 90°	
GZ	2261	4	87.50	DOHC						
<b>Maverick 2.4L i</b>					02/93 → 04/98	<b>65</b>	<b>HBS432</b>	M10x1.50x110mm (x10)	1) 45Nm 2) 60Nm 3) 90°	
KA-24	2389	4	89.00	SOHC	87/118					
KA24-E	2389	4	89.00	SOHC	91/124					
<b>Maverick 2.7L TD Diesel</b>					02/93 → 04/98	<b>66</b>	<b>HBS194</b>	M12x1.50x113mm (x18)	1) 30Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90°	
TD27/TD27E	2664	4	96.00		92/125					
<b>Mondeo 1.6L i</b>					09/96 → 11/00	<b>67</b>	<b>HBS031</b>	M10x1.50x102mm (x10)	1) 25Nm 2) 45Nm 3) 110°	
<b>Mondeo 1.6L i 16V</b>					02/93 → 11/00					
L1J	1597	4	76.00	DOHC	65/88					
L1F	1597	4	76.00	DOHC	66/90					
L1L/L1N/L1Q	1597	4	76.00	DOHC	70/95					
<b>Mondeo 1.6L Ti</b>					03/07 →	<b>68</b>	<b>HBS078</b>	M10x1.50x143mm (x10)	1) 15Nm 2) 30Nm 3) 90°	
RHBA	1596	4	79.00	DOHC	81/110					
PNBA	1596	4	79.00	DOHC, Straight	92/125					
<b>Mondeo 1.8L 16V</b>					11/00 → 08/07	<b>69</b>	<b>HBS369</b>	M10x1.50x145.5mm (x10)	1) 5Nm 2) 15Nm 3) 45Nm 4) 90° 5) 90°	
<b>Mondeo 1.8L SCi</b>					06/03 → 08/07					
CGBA/CGBB	1796	4	83.00	DOHC	81/110					
CHBA/CHBB	1796	4	83.00	DOHC	85/92/ 115/125					
CFBA	1796	4	83.00	DOHC	96/131					
<b>Mondeo 1.8L i</b>					09/96 → 11/00	<b>70</b>	<b>HBS031</b>	M10x1.50x102mm (x10)	1) 25Nm 2) 45Nm 3) 110°	
<b>Mondeo 1.8L i 16V</b>					02/93 → 08/96					
<b>Mondeo 1.8L i 16V 4x4</b>					02/93 → 08/96					
RKA/RKB/RKF/RKH/RKJ/RKK	1796	4	80.60	DOHC	85/115					
<b>Mondeo 1.8L TD Diesel</b>					06/93 → 11/00	<b>71</b>	<b>HBS033</b>	M12x1.75x136mm (x10)	1) 30Nm 2) 70Nm 3) 100Nm 4) ↻ 180° 5) 70Nm 6) 120°	
RFM/RFN	1753	4	82.50	SOHC	65/88					
<b>Mondeo 2.0L 16V</b>					11/00 → 08/07	<b>72</b>	<b>HBS369</b>	M10x1.50x145.5mm (x10)	1) 5Nm 2) 15Nm 3) 45Nm 4) 90° 5) 90°	
CJBA/CJBB	1999	4	87.50	DOHC	107/146					

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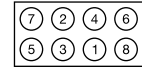
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Ford Models					Year Range	Cylinders	Power (kW/PS)	Engine Type	Part Number	Dimensions	Torque/Temp	Sequence Diagram
<b>Mondeo 2.0L 16V DI / TDDi / TDCi Diesel</b>					11/00 →				<b>HBS296</b>		1) (1-10) 10Nm 2) (11-18) 5Nm 3) (1-10) 20Nm 4) (11-18) 10Nm 5) (1-10) 40Nm 6) (11-18) 20Nm 7) (1-10) 180° 8) (11-18) 180°	
<b>Mondeo 2.0L 16V TDDi / TDCi Diesel</b>					11/00 →					M10x1.50x159mm (x10) M8x1.25x120mm (x8)		
<b>Mondeo 2.0L TDCi Diesel</b>					10/01 →							
SDBA	1998	4	86.00	DOHC			66/89					
D5BA	1998	4	86.00	DOHC			66/90					
D6BA/HJBA/HJBB/HJBC	1998	4	86.00	DOHC			85/115					
FMBA/N7BA	1998	4	86.00	DOHC			96/130					
<b>Mondeo 2.0L i</b>					09/96 →11/00				<b>HBS031</b>		1) 25Nm 2) 45Nm 3) 110°	
<b>Mondeo 2.0L i 16V</b>					02/93 →08/96					M10x1.50x102mm (x10)		
<b>Mondeo 2.0L i 16V 4x4</b>					04/93 →08/96							
NGA	1988	4	84.80	DOHC			100/136					
NGB/NGC/NGD	1988	4	84.80	DOHC			100/96/ 97/136/ 131/132					
<b>Mondeo 2.2L TDCi Diesel</b>					03/08 →				<b>HBS261</b>		1) 20Nm 2) 60Nm 3) ↻ 360° 4) 60Nm 5) 220°	
Q4BA	2179	4	85.00	DOHC			129/175					
<b>Mondeo 2.2L TDCi Diesel</b>					09/04 →				<b>HBS296</b>		1) (1-10) 10Nm 2) (11-18) 5Nm 3) (1-10) 20Nm 4) (11-18) 10Nm 5) (1-10) 40Nm 6) (11-18) 20Nm 7) (1-10) 180° 8) (11-18) 180°	
QJBA/QJBB	2198	4	86.00	DOHC			114/155					
<b>Mondeo 2.5L 24V</b>					06/00 →11/00				<b>HBS392</b>		1) 40Nm 2) 90° 3) ↻ 360° 4) 40Nm 5) 90° 6) 90°	
<b>Mondeo 2.5L ST 200</b>					05/99 →11/00					M10x1.5x150mm (x16)		
<b>Mondeo 2.5L V6 24V</b>					11/00 →							
LCBD	2495	6	81.60	DOHC			107/148					
SGA	2495	6	81.60	DOHC, V6			151/205					
SEB/SEC	2495	6	81.60	DOHC, V6								
<b>Mondeo 2.5L 24V</b>					09/96 →11/00				<b>HBS392</b>		1) 40Nm 2) 90° 3) ↻ 360° 4) 40Nm 5) 90° 6) 90°	
<b>Mondeo 2.5L i 24V</b>					07/94 →08/96					M10x1.5x150mm (x16)		
SEA	2544	6	81.60	DOHC			125/170					
<b>Mondeo 3.0L V6 24V</b>					09/04 →				<b>HBS392</b>		1) 40Nm 2) 90° 3) ↻ 360° 4) 40Nm 5) 90° 6) 90°	
<b>Mondeo ST220</b>					04/02 →					M10x1.5x150mm (x16)		
REBA	2967	6	89.00	DOHC, V6			150/204					
MEBA	2967	6	89.00	DOHC, V6			166/226					
<b>Orion 1.3L</b>					12/85 →12/93				<b>HBS050</b>		1) 30Nm 2) 90° 3) 90°	
J4B / BL13/J6A	1297	4	73.94	Cfi, SOHC			44/60					
JBB	1297	4	73.94	HCS			44/60					
JLA/JLB	1297	4	73.94	OHV			44/60					
<b>Orion 1.4L</b>					12/85 →12/93				<b>HBS001</b>		1) 50Nm 2) 90° 3) 90°	
FUAA	1392	4	77.24	SOHC			51/69					
F6F/F6G	1392	4	77.24	SOHC			52/71					
F6B/F6D/FUA/FUC/FUH	1392	4	77.24	SOHC			55/75					
<b>Orion 1.6L</b>					12/85 →12/92				<b>HBS001</b>		1) 40Nm 2) 60Nm 3) 90° 4) 90°	
<b>Orion 1.6L i</b>					03/86 →09/92					M10x1.50x135mm (x10)		
L4B	1597	4	79.96	KE-Jetronic, CVH			66/90					
LUC/LUJ/LUK	1597	4	79.96	SOHC			66/90					
LJB	1597	4	79.96	SOHC			75/102					
LJF	1597	4	79.96	Efi, SOHC			75-81/ 102-110					
LRB	1597	4	79.96	SOHC			77/105					

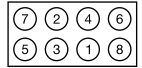




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Model		cc	Cyl	Power (kW/PS)	Configuration	Year Range	Washer Part	Washer Dimensions	Washer Instructions	Washer Grid
<b>Orion 1.6L D Diesel</b>						12/85 → 01/89	<b>83</b>			
LTC		1608	4	80.00	SOHC			40/54		
							<b>HBS007</b>	7/16" x 14Hx135mm (x10)	1) 30Nm 2) 90° 3) 90°	
<b>Orion 1.6L i 16V</b>						07/92 → 12/93	<b>84</b>			
LTE/LTK		1597	4	76.00	DOHC			66/90		
							<b>HBS031</b>	M10x1.50x102mm (x10)	1) 25Nm 2) 45Nm 3) 110°	
<b>Orion 1.8L D Diesel</b>						01/89 → 12/93	<b>85</b>			
RTA/RTB/RTE/RTF/RTH		1753	4	82.50	SOHC			44/60		
							<b>HBS007</b> → 07/92	7/16" x 14Hx135mm (x10)	1) 30Nm 2) 60° 3) 90° 4) ↻ 90° 5) 90Nm 6) 90°	
							<b>HBS033</b> 08/92 →	M12x1.75x136mm (x10)	1) 30Nm 2) 70Nm 3) 100Nm 4) ↻ 180° 5) 70Nm 6) 120°	
<b>Orion 1.8L i 16V</b>						01/92 → 12/93	<b>86</b>			
RDA		1796	4	80.60	DOHC			77/105		
RQB		1796	4	80.60	DOHC			96/131		
							<b>HBS031</b>	M10x1.50x102mm (x10)	1) 25Nm 2) 45Nm 3) 110°	
<b>Orion 1.8L TD Diesel</b>						03/92 → 12/93	<b>87</b>			
RFD/RFK		1753	4	82.50	SOHC			66/89		
							<b>HBS033</b>	M12x1.75x136mm (x10)	1) 30Nm 2) 70Nm 3) 100Nm 4) ↻ 180° 5) 70Nm 6) 120°	
<b>P 100 1.8L TD Diesel</b>						10/87 → 12/92	<b>88</b>			
RFA		1753	4	82.50	SOHC			55/75		
							<b>HBS007</b>	7/16" x 14Hx135mm (x10)	1) 30Nm 2) 60° 3) 90° 4) ↻ 90° 5) 90Nm 6) 90°	
<b>P 100 2.0L</b>						10/87 →	<b>89</b>			
NAE		1993	4	90.80	SOHC			57/77		
							<b>HBS056</b>	M12x1.75x92.5mm (x10)	1) 40Nm 2) 75Nm 3) 90°	
<b>Puma Coupe 1.4L 16V</b>						11/97 → 10/00	<b>90</b>			
FHD/FHF		1388	4	76.00	DOHC			66/90		
							<b>HBS078</b>	M10x1.50x143mm (x10)	1) 15Nm 2) 30Nm 3) 90°	
<b>Puma Coupe 1.6L 16V</b>						08/00 →	<b>91</b>			
L1W		1596	4	79.00	DOHC			76/103		
							<b>HBS078</b>	M10x1.50x143mm (x10)	1) 15Nm 2) 30Nm 3) 90°	
<b>Puma Coupe 1.7L 16V</b>						03/97 →	<b>92</b>			
MHB		1679	4	80.00	DOHC			65/88		
MHA		1679	4	80.00	DOHC			92/125		
							<b>HBS415</b>	M10x1.50x140mm (x10)	1) 15Nm 2) 30Nm 3) 90°	

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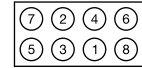
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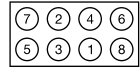
Ranger 2.5L D Diesel					10/99 → 04/02	<b>93</b>	<b>HBS288</b>  M12x1.50x113mm (x10) M10x1.25x100mm (x8)	1) 10Nm 2) 30Nm 3) 100° 4) 100°				
Ranger 2.5L D 4x4 Diesel					10/99 → 04/02							
Ranger 2.5L TD Diesel					04/02 →							
Ranger 2.5L TD 4x4 Diesel					10/99 →							
WL	2500	4			62/84							
WL-T	2500	4	93.00	SOHC	57/77							
	2500	4	93.00	SOHC	80/109							
Scorpio 1.8L					04/85 → 02/92	<b>94</b>	<b>HBS056</b>  M12x1.75x92.5mm (x10)	1) 40Nm 2) 75Nm 3) 90°				
REC	1796	4	86.20	SOHC	66/89							
Scorpio 2.0L					04/85 → 08/89	<b>95</b>	<b>HBS056</b>  M12x1.75x92.5mm (x10)	1) 40Nm 2) 75Nm 3) 90°				
Scorpio 2.0L i					04/85 → 09/94							
N8D	1993	4	90.80	DOHC	77/105							
NEL	1993	4	90.80	SOHC	77/105							
NRA/NRI	1993	4	90.80	Efi, SOHC	85/115							
NRC	1993	4	90.83	Efi, SOHC	74/100							
Scorpio 2.0L					11/88 → 10/92	<b>96</b>	<b>HBS032</b>  M11x1.50x178mm (x10)	1) 10Nm 2) 35Nm 3) 90° 4) 90°				
Scorpio 2.0L i					05/89 → 08/98							
Scorpio 2.0L i 16V					10/94 → 08/98							
N8A	1998	4		DOHC	92/125							
N9F/NSD	1998	4	86.00	Efi, DOHC	80/109							
N9D	1998	4	86.00	DOHC	85/116							
N3A	1998	4	86.00	DOHC	88/120							
100/136												
Scorpio 2.3L i 16V					06/96 → 08/98	<b>97</b>	<b>HBS032</b>  M11x1.50x178mm (x10)	1) 10Nm 2) 35Nm 3) 90° 4) 90°				
Y5A	2295	4	89.60	DOHC	108/147							
Scorpio 2.4L i					10/88 → 10/94	<b>98</b>	<b>HBS057</b>  M12x1.75x87mm (x16)	1) 40Nm 2) 70Nm 3) 75Nm 4) 90°				
ARD	2394	6	84.00	V6	92/125							
Scorpio 2.5L D Diesel					12/85 → 02/92	<b>99</b>	<b>HBS015</b> → 09/87  M11x1.50x97.5mm (x8) M11x1.50x120mm (x7) M11x1.50x107.5mm (x7)	1) 30Nm 2) 70Nm 3) ↻ 90° 4) 70Nm 5) ↓ 6) ✱ 7) ↻ 90° 8) 70Nm 9) 120°				
STR (XD3/XD3P)	2498	4	94.00		51/69							
							<b>HBS016</b> 10/87 →  M11x1.50x120mm (x7) M11x1.50x107.5mm (x15)	1) 30Nm 2) 70Nm 3) ↻ 90° 4) 70Nm 5) ↓ 6) ✱ 7) ↻ 90° 8) 70Nm 9) 120°				
Scorpio 2.5L D Diesel					12/89 → 12/94	<b>100</b>	<b>HBS016</b>  M11x1.50x120mm (x7) M11x1.50x107.5mm (x15)	1) 30Nm 2) 70Nm 3) ↻ 90° 4) 70Nm 5) ↓ 6) ✱ 7) ↻ 90° 8) 70Nm 9) 120°				
STR (XD3/XD3P)	2498	4	94.00		51/69							



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Scorpio 2.5L TD Diesel		06/88 → 07/93			101	HBS015	1) 30Nm 2) 70Nm 3) ↻ 90° 4) 70Nm 5) ↓ 6) ✱ 7) ↻ 90° 8) 70Nm 9) 120°	
SFA (XD3T)/SFB (XD3T)	2498	4	94.00		68/92	 M11x1.50x97.5mm (x8) M11x1.50x120mm (x7) M11x1.50x107.5mm (x7)		
Scorpio 2.5L TD Diesel		08/93 → 08/98			102	HBS108	A 1) 30Nm 2) 70° 3) 70° 4) ↓ 5) ✱ 6) 90° 7) 30Nm 8) 65° B 1) 30Nm 2) 85°	
SCB/SCC VM	2500 2500	4 4	92.00 92.00	SOHC	85/115 92/125	 M14x2x137mm (x10) M12x1.75x115mm (x4) M12x1.75x79.5mm (x4)		
Scorpio 2.9L 24V Scorpio 2.9L i 24V		08/93 → 09/94 04/91 → 08/98			103	HBS140	1) 40Nm 2) 70Nm 3) 75Nm 4) 90°	
BOA/BOB	2935	6	93.00	Efi, DOHC, V6	143/152/ 195/207	 M12x1.75x115mm (x16)		
Scorpio 2.9L i Scorpio 2.9L i 4x4		09/86 → 08/98 09/86 → 10/94			104	HBS057	1) 40Nm 2) 70Nm 3) 75Nm 4) 90°	
BRC	2935	6	93.00	OHV, V6	143/152/ 195/207	 M12x1.75x87mm (x16)		
BRD/BRE/BRF/BRG	2935	6	93.00	Efi, V6	143/152/ 195/207			
Sierra 1.6L		01/87 → 02/93			105	HBS056	1) 40Nm 2) 70Nm 3) 90°	
LSE	1593	4	81.30	SOHC	55/75	 M12x1.75x92.5mm (x10)		
Sierra 1.6L		01/88 → 02/93			106	HBS056	1) 70Nm 2) 70Nm 3) 90°	
LSF	1597	4	81.30	SOHC	53/72	 M12x1.75x92.5mm (x10)		
Sierra 1.6L i		10/89 → 02/93			107	HBS001	1) 30Nm 2) 85Nm 3) 90° 4) 90°	
L6B	1597	4	79.96	CFI, SOHC	59/80	 M10x1.50x135mm (x10)		
Sierra 1.8L		05/88 → 02/93			108	HBS006	1) 25Nm 2) 55Nm 3) ↻ 90° 4) 55Nm 5) 90° 6) 90°	
R6A R2C	1769 1769	4 4	79.94 79.94	SOHC SOHC	63/86 64/87	 M10x1.50x133mm (x10)		
Sierra 1.8L		10/87 → 09/89			109	HBS056	1) 40Nm 2) 75Nm 3) 90°	
RED/REF	1796	4	86.20	SOHC	66/89	 M12x1.75x92.5mm (x10)		

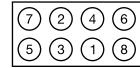
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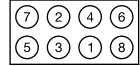
Sierra 1.8L TD Diesel		08/88 → 02/93		110	
RFA/RFB/RFL	1753	4	82.50	SOHC	55/75
<b>HBS007</b> → 07/92  7/16" x 14Hx135mm (x10) 1) 30Nm 2) 60° 3) 90° 4) ↺ 90° 5) 90Nm 6) 90°					
<b>HBS033</b> 08/92 →  M12x1.75x136mm (x10) 1) 30Nm 2) 70Nm 3) 100Nm 4) ↺ 180° 5) 70Nm 6) 120°					
Sierra 2.0L		01/87 → 02/93		111	
Sierra 2.0L i		01/87 → 02/93			
Sierra RS Cosworth		11/87 → 01/90			
N4B	1993	4	90.80	L-Jetronic, SOHC	74/100
NE5/NEJ	1993	4	90.80	SOHC	74/100
NES	1993	4	90.80	SOHC	77/105
N4A/N4I	1993	4	90.80	L-Jetronic, SOHC	85/115
N5B	1993	4	90.82	DOHC	150/204
<b>HBS056</b>  M12x1.75x92.5mm (x10) 1) 40Nm 2) 75Nm 3) 90°					
Sierra 2.0L		01/87 → 02/93		112	
N8C	1998	4	86.00	DOHC	77/105
<b>HBS056</b>  M12x1.75x92.5mm (x10) 1) 40Nm 2) 75Nm 3) 90°					
Sierra 2.0L 4x4		05/89 → 02/93		113	
Sierra 2.0L i		05/89 → 02/93			
Sierra 2.0L i DOHC		12/91 → 02/93			
N8A	1998	4	86.00	DOHC	80/109
N9E	1998	4	86.00	L-Jetronic, DOHC	85/115
N9C	1998	4	86.00	L-Jetronic, DOHC	88/120
N9B	1998	4	86.00	DOHC	92/125
<b>HBS032</b>  M11x1.50x178mm (x10) 1) 10Nm 2) 35Nm 3) 90° 4) 90°					
Sierra 2.3L D Diesel		01/87 → 02/93		114	
YTR (XD2/XD2P/XD94)	2304	4	94.00	SOHC	49/67
YTT (XD2/XD2P/XD94)	2304	4	94.00		49/67
<b>HBS015</b>  M11x1.50x97.5mm (x8) M11x1.50x120mm (x7) M11x1.50x107.5mm (x7) 1) 30Nm 2) 70Nm 3) ↺ 90° 4) 70Nm 5) ↓ 6) ✳ 7) ↺ 90° 8) 70Nm 9) 120°					
Sierra 2.9L		08/88 → 02/93		115	
Sierra 2.9L 4x4		08/88 → 02/93			
Sierra 2.9L i		08/88 → 02/93			
Sierra 2.9L i XR 4x4		08/88 → 02/93			
B4A/B4B/B4C	2935	6	93.00	Efi, V6	143/152/ 195/207
<b>HBS057</b>  M12x1.75x87mm (x16) 1) 40Nm 2) 70Nm 3) 75Nm 4) 90°					
Tourneo Connect 1.8L 16V		06/02 →		116	
EYPD	1796	4		Intake Manifold Injection/ Carburettor, DOHC	85/115
EYPA/EYPC	1796	4	80.60	DOHC	85/116
<b>HBS031</b>  M10x1.50x102mm (x10) 1) 25Nm 2) 45Nm 3) 110°					
Tourneo Connect 1.8L Di Diesel		06/02 →		117	
Tourneo Connect 1.8L Turbo Di Diesel		06/02 →			
P7PA/P7PB/R2PA	1753	4		Direct Injection, SOHC/OHC	55/75
HCPA/HCPB	1753	4	82.50	SOHC	66/89
BHPA	1753	4	82.50	SOHC	
<b>HBS243</b>  M12x1.75x137mm (x2) M12x1.75x177mm (x8) 1) 20Nm 2) 55Nm 3) 90° 4) 70°					
Transit 1.6L		09/85 → 09/92		118	
LAT	1594	4	87.65	SOHC	46-48/ 63-65
<b>HBS056</b>  M12x1.75x92.5mm (x10) 1) 40Nm 2) 70Nm 3) 90°					



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Transit 2.0L Transit 2.0L i					09/85 → 09/94 09/91 → 07/94	119	HBS056	1) 40Nm 2) 75Nm 3) 90°	
NAV	1993	4	90.80	SOHC		55-57/ 75-78	 M12x1.75x92.5mm (x10)		
N6T/NAT	1993	4	90.80	SOHC		57/77			
NBA	1993	4	90.80	SOHC		66/89			
NCA	1993	4	90.80	SOHC		72/98			
Transit 2.0L Transit 2.0L CNG					06/94 → 03/00 06/94 → 03/00	120	HBS032	1) 10Nm 2) 35Nm 3) 90° 4) 90°	
NSH	1998	4	86.00	DOHC		74-84/ 101-114	 M11x1.50x178mm (x10)		
NSF/NSG	1998	4	86.00	DOHC		84/114			
Transit 2.0L DI Diesel Transit 2.0L TDCi Diesel					08/00 → 08/02 →	121	HBS296	1) (1-10) 10Nm 2) (11-18) 5Nm 3) (1-10) 20Nm 4) (11-18) 10Nm 5) (1-10) 40Nm 6) (11-18) 20Nm 7) (1-10) 180° 8) (11-18) 180°	
ABFA/D3FA	1998	4	86.00	DOHC		55/75	 M10x1.50x159mm (x10) M8x1.25x120mm (x8)		
F3FA	1998	4	86.00	DOHC		63/86			
F1FA	1998	4	86.00	DOHC		92/125			
Transit 2.3L 16V					04/01 →	122	HBS032	1) 10Nm 2) 35Nm 3) 90° 4) 90°	
E5FA	2295	4	89.60	DOHC		107/146	 M11x1.50x178mm (x10)		
E5FC	2295	4	89.60	DOHC					
Transit 2.3L 16V					04/06 →	123	HBS369	1) 5Nm 2) 15Nm 3) 45Nm 4) 90° 5) 90°	
GZFC	2295	4		DOHC, Straight		107/145	 M10x1.50x145.5mm (x10)		
GZFA	2295	4		DOHC		107-100/ 145-136			
Transit 2.4L DI Diesel Transit 2.4L TDCi Diesel Transit 2.4L TDE Diesel					01/00 → 03/04 → 07/01 →	124	HBS296	1) (1-10) 10Nm 2) (11-18) 5Nm 3) (1-10) 20Nm 4) (11-18) 10Nm 5) (1-10) 40Nm 6) (11-18) 20Nm 7) (1-10) 180° 8) (11-18) 180°	
F4FA	2402	4	89.90	DOHC		55/75	 M10x1.50x159mm (x10) M8x1.25x120mm (x8)		
D2FA/D2FB	2402	4	89.90	DOHC		66/89			
D2FB	2402	4	89.90	DOHC		66/90			
FXFA	2402	4	89.90	DOHC		85/115			
D4FA	2402	4	89.90	DOHC		88/120			
DOFA	2402	4	89.90	DOHC		92/125			
H9FA	2402	4	89.90	DOHC		100-103/ 135-140			





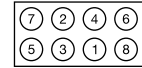
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<b>Transit 2.5L D Diesel</b>				12/85 → 09/92	<b>125</b>
<b>Transit 2.5L DI Diesel</b>				09/88 → 03/00	
<b>Transit 2.5L TD Diesel</b>				05/91 → 06/00	
<b>Transit 2.5L TDI Diesel</b>				06/94 → 03/00	

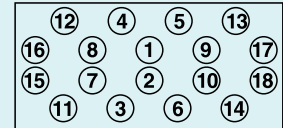
4AB	2496	4	93.67		50/68
4FD	2496	4	93.67		51/69
4FA	2496	4	93.67		51/70
4FB	2496	4	93.67	SOHC	51/70
4FC	2496	4	93.67		51/70
4BA	2496	4	93.67		52/71
4BC	2496	4	93.67	SOHC	52/71
4CA/4CC	2496	4	93.67		52/71
4HA	2496	4	93.67		55/75
4HD	2496	4	93.67	SOHC	55/75
4HB	2496	4	93.67		56/76
4HC	2496	4	93.67	SOHC	56/76
4DA	2496	4	93.67		59/80
4GA/4GB/4GC	2496	4	93.67		63/85
4GF	2496	4	93.67	SOHC	63/85
4GD	2496	4	93.67		63/86
4GE	2496	4	93.67	SOHC	63/86
4EA	2496	4	93.67		74/100
4EB	2496	4	93.67	SOHC	74/100
4EC	2496	4	93.67		74/100
4ED	2496	4	93.67	OHV	85/116

**HBS008**



M12x1.75x92mm (x18)

- 1) 70Nm
- 2) 70Nm
- 3) 90°



<b>Transit 2.9L i</b>				01/91 →	<b>126</b>
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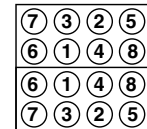
BRT	2935	6	93.00	OHV	104-107/ 141-145
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**HBS057**



M12x1.75x87mm (x16)

- 1) 40Nm
- 2) 70Nm
- 3) 75Nm
- 4) 90°



<b>Transit Connect 1.8L 16V</b>				06/02 →	<b>127</b>
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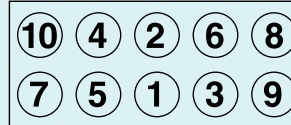
EYPD	1796	4		Intake Manifold Injection/ Carburettor, DOHC	85/115
EYPA/EYPC	1796	4	80.60	DOHC	85/116

**HBS031**



M10x1.50x102mm (x10)

- 1) 25Nm
- 2) 45Nm
- 3) 110°



<b>Transit Connect 1.8L Di Diesel</b>				06/02 →	<b>128</b>
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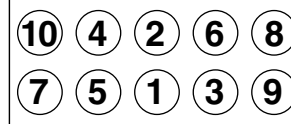
<b>Transit Connect 1.8L TDCi Diesel</b>				06/02 →	
P7PA/P7PB/R2PA	1753	4		Direct Injection, SOHC/OHC	55/75
HCPA/HCPB	1753	4	82.50	SOHC	66/89
BHPA	1753	4	82.50	SOHC	

**HBS243**



M12x1.75x137mm (x2)  
M12x1.75x177mm (x8)

- 1) 20Nm
- 2) 55Nm
- 3) 90°
- 4) 70°







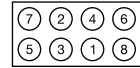
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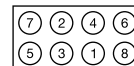
Model						Year Range	Group	Part	Dimensions	Sequence	
<b>Accord 1.8L i</b>						10/98 → 12/02	1	<b>HBS281</b>	M12x1.50x198mm (x1) M12x1.50x162mm (x9)	1) 30Nm 2) ↺ 90° 3) 30Nm 4) 90° 5) 90° 6) 90°	
F18B2	1850	4	85.00	SOHC	100/136						
<b>Accord 1.9L 16V</b>						01/93 → 12/94	2	<b>HBS284</b>	M12x1.50x198mm (x1) M12x1.50x163mm (x9)	1) 30Nm 2) 90° 3) 90° 4) 90°	
<b>Accord 1.9L i</b>						02/96 → 10/98					
F18A3	1850	4	85.00	SOHC	100/136						
<b>Accord 2.0L</b>						12/99 → 12/02	3	<b>HBS281</b>	M12x1.50x198mm (x1) M12x1.50x162mm (x9)	1) 30Nm 2) 90° 3) 90° 4) 90°	
<b>Accord 2.0L i</b>						10/98 → 01/01					
<b>Accord Coupe 2.0L i 16V</b>						02/98 → 06/03					
F20B5/F20B6/F20B7	1997	4	85.00	SOHC	108/147						
<b>Accord 2.0L 16V</b>						01/90 → 03/93	4	<b>HBS284</b>	M12x1.50x198mm (x1) M12x1.50x163mm (x9)	1) 30Nm 2) 90° 3) 90° 4) 90°	
<b>Accord 2.0L i</b>						03/93 → 01/96					
<b>Accord 2.0L i 16V</b>						01/90 → 12/93					
<b>Accord 2.0L i LS</b>						02/96 → 10/98					
<b>Accord 2.0L i S</b>						03/93 → 01/96					
<b>Accord Aerodeck 2.0L i LS 16V</b>						09/93 → 02/98					
<b>Accord Coupe 2.0L</b>						09/93 → 12/97					
F20A6	1997	4	85.00	SOHC	66/89						
F20A2/F20A3	1997	4	85.00	SOHC	81/110						
F20Z2	1997	4	85.00	SOHC	85/116						
F20Z1	1997	4	85.00	SOHC	96/131						
F20A4	1997	4	85.00	SOHC	98/133						
F20A8	1997	4	85.00	DOHC	98/133						
F20Z3	1997	4	85.00	SOHC	98/133						
F20B3	1997	4	85.00	SOHC	108/147						
<b>Accord 2.0L Tdi Diesel</b>						04/96 → 10/00	5	<b>HBS282</b>	M11x1.50x230mm (x10)	1) 30Nm 2) 65Nm 3) 90° 4) 90°	
<b>Accord 2.0L Turbo DI Diesel</b>						02/99 → 12/02					
20T2N	1994	4	84.45	SOHC	77/105						
<b>Accord 2.2L i 16V</b>						01/90 → 03/93	6	<b>HBS284</b>	M12x1.50x198mm (x1) M12x1.50x163mm (x9)	1) 30Nm 2) 90° 3) 90° 4) 90°	
<b>Accord 2.2L i 16V Automatik</b>						01/90 → 03/93					
<b>Accord 2.2L i VTEC</b>						02/96 → 10/98					
<b>Accord 2.2L Type-R</b>						02/99 → 12/02					
<b>Accord Aerodeck 2.2L i 16V</b>						01/91 → 12/93					
<b>Accord Aerodeck 2.2L i ES</b>						09/93 → 02/98					
<b>Accord Coupe 2.2L 16V Coupe</b>						01/90 → 12/93					
<b>Accord Coupe 2.2L i ES</b>						09/93 → 02/98					
F22A8	2156	4	85.00	SOHC	108/147						
F22A3	2156	4	85.00	SOHC	108-110/ 147-150						
F22A7/F22B5/F22Z2	2156	4	85.00	SOHC	110/150						
F22A	2156	4	85.00	SOHC							
H22A7	2156	4	87.00	DOHC	156/212						
<b>Accord 2.3L</b>						11/00 → 12/02	7	<b>HBS281</b>	M12x1.50x198mm (x1) M12x1.50x162mm (x9)	1) 30Nm 2) ↺ 90° 3) 30Nm 4) 90° 5) 90° 6) 90°	
<b>Accord 1.6 V</b>						02/98 →					
F23A7	2254	4	86.00	SOHC	110/150						
F23A1	2254	4	86.00	SOHC	112/152						
F23Z5	2254	4	86.00	DOHC	113/154						
<b>Accord 2.3L i SR</b>						03/93 → 01/96	8	<b>HBS284</b>	M12x1.50x198mm (x1) M12x1.50x163mm (x9)	1) 30Nm 2) 90° 3) 90° 4) 90°	
H23A3	2259	4	87.00	DOHC	116/158						











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Civic 1.4L i Mk VI					02/01 → 09/05	9	HBS300		1) 40Nm 2) 60Nm 3) 90° 4) 90°	
D14Z6	1396	4				55/75	 M12x1.75x166mm (x10)			
Civic CTDi Diesel					01/02 → 09/05	10	HBS036		1) 30Nm 2) 90° 3) 30Nm 4) 50° 5) 50° 6) 50°	
4EE-2	1686	4	79.00	SOHC		74/100	 M12x1.5x102mm (x10)			
Civic 2.0L i TD Diesel					01/97 → 02/01	11	HBS282		1) 30Nm 2) 65Nm 3) 90° 4) 90°	
Civic Aerodeck 2.0L i D Diesel					04/98 → 02/01		 M11x1.50x230mm (x10)			
20T2N	1994	4	84.45	SOHC		77/105				
20T2R	1994	4	84.50	SOHC		63/86				
Prelude Coupe 2.0L 16V					10/96 → 10/00	12	HBS284		1) 30Nm 2) 90° 3) 90° 4) 90°	
Prelude Coupe 2.0L i 16V					02/92 → 09/96		 M12x1.50x198mm (x1) M12x1.50x163mm (x9)			
F20A4	1997	4	85.00	SOHC		98/133				
Prelude Coupe 2.2L 16V					10/96 → 10/00	13	HBS284		1) 30Nm 2) 90° 3) 90° 4) 90°	
Prelude Coupe 2.2L i 16V Vtec					02/93 → 09/96		 M12x1.50x198mm (x1) M12x1.50x163mm (x9)			
H22A2/H22A5	2157	4	87.00	DOHC		136/185				
Prelude Coupe 2.3L i 16V					02/92 → 09/96	14	HBS284		1) 30Nm 2) 90° 3) 90° 4) 90°	
							 M12x1.50x198mm (x1) M12x1.50x163mm (x9)			
H23A2	2259	4	87.00	DOHC		118/160				
Shuttle 2.2L 16V					10/94 → 02/98	15	HBS284		1) 30Nm 2) 90° 3) 90° 4) 90°	
							 M12x1.50x198mm (x1) M12x1.50x163mm (x9)			
F22B8	2156	4	85.00	SOHC		110/150				
Shuttle 2.3L 16V					01/98 → 05/01	16	HBS281		1) 30Nm 2) 90° 3) 30Nm 4) 90° 5) 90° 6) 90°	
							 M12x1.50x198mm (x1) M12x1.50x162mm (x9)			
F23A7	2254	4	86.00	SOHC		110/150				

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4D56T	Diesel	2477	4	91.10	18	G4JP-G	Petrol	1997	4	85.00	46
4G61	Petrol	1596	4	82.30	9	G4JP-G	Petrol	1997	4	85.00	59
4G61	Petrol	1596	4	82.30	33	G6AT	Petrol	2972	6	91.10	19
6G72	Petrol	2972	6	91.10	19	G6AT	Petrol	2972	6	91.10	52
D3-EA	Diesel	1493	3	83.00	4	G6BA-G	Petrol	2656	6	86.70	12
D3-EA	Diesel	1493	3	83.00	23	G6BA-G	Petrol	2656	6	86.70	45
D3-EA	Diesel	1493	3	83.00	37	G6BA-G	Petrol	2656	6	86.70	51
D4BA	Diesel	2477	4	91.10	18	G6BA-G	Petrol	2656	6	86.70	61
D4BA	Diesel	2476	4	91.10	28	G6BA-G	Petrol	2656	6	86.70	64
D4BA	Diesel	2477	4	91.10	41	G6BV-G	Petrol	2493	6	84.00	50
D4BF	Diesel	2476	4	91.10	26	G15B	Petrol	1468	4	75.50	17
D4BF	Diesel	2476	4	91.10	28	G15B	Petrol	1468	4	75.50	32
D4BF	Diesel	2476	4	91.10	53	G15B	Petrol	1468	4	75.50	40
D4BH	Diesel	2477	4	91.10	18	G15B	Petrol	1468	4	75.50	42
D4BH	Diesel	2476	4	91.10	26	J3	Diesel	2902	4	97.10	55
D4BH	Diesel	2477	4	91.10	54						
D4BX	Diesel	2476	4	91.10	28						
D4CB	Diesel	2497	4	91.00	27						
D4EA	Diesel	1991	4	83.00	16						
D4EA	Diesel	1991	4	83.00	30						
D4EA	Diesel	1991	4	83.00	44						
D4EA	Diesel	1991	4	83.00	47						
D4EA	Diesel	1991	4	83.00	60						
D4EA	Diesel	1991	4	83.00	63						
DJY	Diesel	1905	4		35						
G4BB	Petrol	1795	4	82.00	14						
G4CP-D	Petrol	1997	4	85.00	48						
G4CP-DM	Petrol	1997	4	85.00	48						
G4CR	Petrol	1596	4	82.30	33						
G4CS	Petrol	2351	4	86.50	49						
G4DF	Petrol	1975	4	82.00	11						
G4DJ	Petrol	1468	4	75.50	17						
G4DJ	Petrol	1468	4	75.50	32						
G4DJ	Petrol	1468	4	75.50	40						
G4DJ	Petrol	1468	4	75.50	42						
G4E-A	Petrol	1341	4	71.50	1						
G4E-A	Petrol	1341	4	71.50	1						
G4E-A	Petrol	1341	4	71.50	21						
G4EB	Petrol	1495	4	75.50	3						
G4EC-G	Petrol	1495	4	75.50	3						
G4ED-G	Petrol	1599	4	76.50	6						
G4ED-G	Petrol	1599	4	76.50	10						
G4ED-G	Petrol	1599	4	76.50	13						
G4ED-G	Petrol	1599	4	76.50	25						
G4ED-G	Petrol	1599	4	76.50	38						
G4ED-G	Petrol	1599	4	76.50	56						
G4EE	Petrol	1399	4	75.50	2						
G4EE	Petrol	1399	4	75.50	22						
G4EH	Petrol	1341	4	71.50	1						
G4EK	Petrol	1495	4	75.50	5						
G4EK	Petrol	1495	4	75.50	31						
G4EK	Petrol	1495	4	75.50	43						
G4EK-TC	Petrol	1495	4	75.50	43						
G4ER	Petrol	1495	4	75.50	3						
G4ER	Petrol	1495	4	75.50	24						
G4GB-G	Petrol	1795	4	82.00	39						
G4GC	Petrol	1975	4	82.00	15						
G4GC	Petrol	1975	4	82.00	29						
G4GC	Petrol	1975	4	82.00	57						
G4GC	Petrol	1975	4	82.00	58						
G4GC	Petrol	1975	4	82.00	62						
G4GC-G	Petrol	1975	4	82.00	11						
G4GC-G	Petrol	1975	4	82.00	15						
G4GC-G	Petrol	1975	4	82.00	29						
G4GF	Petrol	1975	4	82.00	11						
G4GF	Petrol	1975	4	82.00	36						
G4GM	Petrol	1795	4	82.00	34						
G4GR	Petrol	1596	4	82.00	9						
G4GR	Petrol	1596	4	82.00	33						
G4HC	Petrol	999	4	66.00	7						
G4HC-E	Petrol	999	4	66.00	7						
G4HD	Petrol	1086	4	67.00	8						
G4HD	Petrol	1086	4	67.00	20						

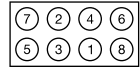




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Model					Year Range	Group	Washer	Instructions	Sequence
<b>Accent 1.3L</b>					10/94 → 01/00	<b>1</b>	<b>HBS387</b>	1) 25Nm 2) ↻ 90° 3) 25Nm 4) 60° 5) 60°	
<b>Accent 1.3L i 12V</b>					10/94 → 01/00				
G4EA	1341	4		SOHC	61/83				
G4EA	1341	4	71.50	SOHC	55-63/ 75-86				
G4EH	1341	4	71.50	SOHC	62/84				
<b>Accent 1.4L GL</b>					11/05 →	<b>2</b>	<b>HBS454</b>	1) 30Nm 2) 90° 3) ↻ 360° 4) 30Nm 5) 90°	
G4EE	1399	4	75.50	DOHC	71/97				
<b>Accent 1.5L</b>					01/00 → 11/05	<b>3</b>	<b>HBS454</b>	1) 30Nm 2) 90° 3) ↻ 360° 4) 30Nm 5) 90°	
<b>Accent 1.5L i 16V</b>					10/95 → 01/00				
G4EB	1495	4	75.50	SOHC	66/89				
G4ER	1495	4	75.50	DOHC	73/99				
G4ECG	1495	4	75.50	DOHC	75/102				
<b>Accent 1.5L CRDi Diesel</b>					01/02 →	<b>4</b>	<b>HBS483</b>	1) 25Nm 2) 50Nm 3) 120° 4) 90°	
D3-EA	1493	3	83.00	SOHC	60/81				
<b>Accent 1.5L i 12V</b>					10/94 → 01/00	<b>5</b>	<b>HBS387</b>	1) 25Nm 2) ↻ 90° 3) 25Nm 4) 60° 5) 60°	
G4EK	1495	4	75.50	SOHC	66/89				
<b>Accent 1.6L</b>					12/02 →	<b>6</b>	<b>HBS454</b>	1) 30Nm 2) 90° 3) ↻ 360° 4) 30Nm 5) 90°	
G4EDG	1599	4	76.50	DOHC	76-79/ 103-107				
<b>Atos 1.0L i</b>					02/98 → 03/02	<b>7</b>	<b>HBS378</b>	1) 56Nm 2) 69Nm	
G4HC	999	4	66.00	SOHC	40/54				
G4HCE	999	4	66.00	SOHC	43/58				
<b>Atos 1.1L</b>					06/03 → 05/05	<b>8</b>	<b>HBS378</b>	1) 56Nm 2) 69Nm	
G4HD	1086	4	67.00	SOHC	43-46/ 59-63				
<b>Coupe 1.6L 16V</b>					03/98 → 04/02	<b>9</b>	<b>HBS308</b>	1) 35Nm 2) 35Nm 3) 65° 4) 65°	
<b>Coupe 1.6L i 16V</b>					12/96 → 04/02				
G4GR	1596	4	82.00	DOHC	66-85/ 90-116				
4G61	1596	4	82.30	DOHC	84/114				
<b>Coupe 1.6L 16V</b>					03/02 →	<b>10</b>	<b>HBS454</b>	1) 30Nm 2) 90° 3) ↻ 360° 4) 30Nm 5) 90°	
G4EDG	1599	4	76.50	DOHC	76-79/ 103-107				
<b>Coupe 2.0L</b>					03/02 →	<b>11</b>	<b>HBS308</b>	1) 35Nm 2) 35Nm 3) 65° 4) 65°	
<b>Coupe 2.0L 16V</b>					08/96 → 04/02				
<b>Coupe 2.0L GLS</b>					02/03 →				
G4GC-G	1975	4	82.00	DOHC	100-102/ 136-139				
G4DF/G4GF	1975	4	82.00	DOHC	102/139				



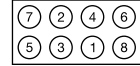
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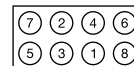
Coupe 2.7L V6		03/02 →			12			
G6BA-G	2656	6	86.70	DOHC, V6	123-127/ 167-173	 M11x1.50x147.75mm (x16)	1) 25Nm 2) 60° 3) ↻ 90° 4) 45° 5) ⚡ 6) ✖ 7) 180° 8) 25° 9) 60° 10) 45°	
Elantra 1.6L		06/00 →			13			
G4ED-G	1599	4	76.50	DOHC	76-79/ 103-107	 M10x1.25x95mm (x10)	1) 30Nm 2) 90° 3) ↻ 360° 4) 30Nm 5) 90°	
Elantra 1.8L		06/00 →			14			
G4BB	1795	4	82.00		97/132	 M10x1.25x99mm (x8) M12x1.25x151mm (x2)	1) 35Nm 2) 35Nm 3) 65° 4) 65°	
Elantra 2.0L		06/00 →			15			
Elantra 2.0L CVVT		06/06 →						
G4GC-G	1975	4	82.00	DOHC	100-102/ 136-139	 M10x1.25x99mm (x8) M12x1.25x151mm (x2)	1) 35Nm 2) 35Nm 3) 65° 4) 65°	
G4GC	1975	4	82.00	DOHC	104-105/ 141-143			
Elantra 2.0L CRDi Diesel		04/01 →			16			
D4EA	1991	4	83.00	SOHC	83/113	 M12x1.50x183mm (x10)	1) 25Nm 2) 50Nm 3) 105° 4) 105°	
Excel 1.5L		01/90 → 01/95			17			
Excel 1.5L i		01/90 → 01/95						
G15B	1468	4	75.50	SOHC	53/72	 M10x1.25x100mm (x10)	1) 35Nm 2) 55Nm 3) 75Nm 4) 30Nm	
G4DJ	1468	4	75.50	SOHC	53-63/ 72-86			
Galopper 2.5L TCi D Diesel		08/98 →			18			
Galopper 2.5L TD Diesel		08/91 → 07/98						
Galopper 2.5L TD intercooler Diesel		08/91 → 07/98						
D4BA	2477	4	91.10	SOHC	55-57/ 75-78	 M12x1.25x104mm (x18)	1) 50Nm 2) 80Nm 3) 115Nm	
4D56T	2477	4	91.10	SOHC	62-70/ 84-95			
D4BH	2477	4	91.10	SOHC	73/99			
Galopper 3.0L V6		08/91 → 07/98			19			
6G72	2972	6	91.10	SOHC, V6	104/141	 M12x1.25x102mm (x16)	1) 25Nm 2) 55Nm 3) 80Nm 4) 115Nm	
G6AT	2972	6	91.10	SOHC, V6	104-107/ 140-146			
Getz 1.1L		09/02 →			20			
G4HD	1086	4	67.00	SOHC	43-46/ 59-63	 M10x1.25x106.5mm (x10)	1) 56Nm 2) 69Nm	
Getz 1.3L		09/02 →			21			
G4EA	1341	4	71.50	SOHC	55-63/ 75-86	 M10x1.25x107mm (x10)	1) 25Nm 2) ↻ 90° 3) 25Nm 4) 60° 5) 60°	



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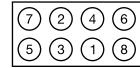
Getz 1.4L i						08/05 →	22	HBS454		1) 30Nm 2) 90° 3) ↻ 360° 4) 30Nm 5) 90°		
G4EE	1399	4	75.50	DOHC	71/97			 M10x1.25x95mm (x10)				
Getz 1.5L CRDi Diesel						01/03 →	23	HBS483		1) 25Nm 2) 50Nm 3) 120° 4) 90°		
D3-EA	1493	3	83.00	SOHC	60/81			 M12x1.50x185mm (x8)				
Getz 1.5L GL						08/02 → 07/05	24	HBS454		1) 30Nm 2) 90° 3) ↻ 360° 4) 30Nm 5) 90°		
G4ER	1495	4	75.50	DOHC	73/99			 M10x1.25x95mm (x10)				
Getz 1.6L						09/02 →	25	HBS454		1) 30Nm 2) 90° 3) ↻ 360° 4) 30Nm 5) 90°		
G4ED-G	1599	4	76.50	DOHC	76-79/ 103-107			 M10x1.25x95mm (x10)				
H-1 2.5L D Diesel						10/97 →	26	HBS295		1) 50Nm 2) 80Nm 3) 115Nm		
H-1 2.5L TD Diesel						10/97 →						
H-1 Van 2.5L TD Diesel						03/00 → 09/00						
D4BF	2476	4		SOHC	57/78			 M12x1.25x104mm (x18)				
D4BH	2476	4	91.10	SOHC	59/80							
D4BH	2476	4	91.10	SOHC	73/99							
H-1 Van 2.5L CRDi Diesel						08/03 →	27	HBS434		1) 50Nm 2) ↻ 90° 3) 50Nm 4) 120° 5) 90°		
D4CB	2497	4	91.00		103-125/ 140-170			 M12x1.25x152mm (x18)				
H100 2.5L D Diesel						07/93 → 10/01	28	HBS295		1) 50Nm 2) 80Nm 3) 115Nm		
H100 Van 2.5L D Diesel						07/93 → 03/00						
D4BX	2476	4	91.10	SOHC	54-55/ 73-75				 M12x1.25x104mm (x18)			
D4BA	2476	4	91.10	SOHC	55-57/ 75-78							
D4BF	2476	4	91.10	SOHC	59/80							
I30 2.0L						10/07 →	29	HBS308		1) 35Nm 2) 35Nm 3) 65° 4) 65°		
G4GC-G	1975	4	82.00	DOHC	100-102/ 136-139			 M10x1.25x99mm (x8) M12x1.25x151mm (x2)				
G4GC	1975	4	82.00	DOHC	104-105/ 141-143							
I30 2.0L CRDi Diesel						10/07 →	30	HBS382		1) 25Nm 2) 50Nm 3) 105° 4) 105°		
D4EA	1991	4	83.00	SOHC	83/113			 M12x1.50x183mm (x10)				
Lantra 1.5L 12V						12/96 → 09/00	31	HBS387		1) 25Nm 2) ↻ 90° 3) 25Nm 4) 60° 5) 60°		
G4EK	1495	4	75.50	SOHC	66/89			 M10x1.25x107mm (x10)				
Lantra 1.5L i.e.						10/90 → 11/95	32	HBS440		1) 35Nm 2) 55Nm 3) 75Nm 4) 30Nm		
G15B	1468	4	75.50	SOHC	53/72			 M10x1.25x100mm (x10)				
G4DJ	1468	4	75.50	SOHC	53-63/ 72-86							



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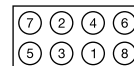
Lantra 1.6L 16V						11/95→09/00	33	<b>HBS308</b>  M10x1.25x99mm (x8) M12x1.25x151mm (x2)	1) 35Nm 2) 35Nm 3) 65° 4) 65°	
Lantra 1.6L i						11/95→09/00				
Lantra 1.6L i.e. 16V						10/90→11/95				
G4GR	1596	4	82.00	DOHC	66-85/ 90-116					
G4CR	1596	4	82.30	DOHC	78-84/ 106-114					
4G61	1596	4	82.30	DOHC	84/114					
Lantra 1.8L 16V						11/95→09/00	34	<b>HBS308</b>  M10x1.25x99mm (x8) M12x1.25x151mm (x2)	1) 35Nm 2) 35Nm 3) 65° 4) 65°	
G4GM	1795	4	82.00	DOHC	94/128					
Lantra 1.9L D Diesel						03/98→09/00	35	<b>HBS084</b>  M12x1.50x123mm (x10)	1) 20Nm 2) 60Nm 3) 180°	
DJY	1905	4		SOHC	50/68					
Lantra 2.0L 16V						08/96→09/00	36	<b>HBS308</b>  M10x1.25x99mm (x8) M12x1.25x151mm (x2)	1) 35Nm 2) 35Nm 3) 65° 4) 65°	
G4GF	1975	4	82.00	DOHC	102/139					
Matrix 1.5L CRDi Diesel						10/01→	37	<b>HBS483</b>  M12x1.50x185mm (x8)	1) 25Nm 2) 50Nm 3) 120° 4) 90°	
D3-EA	1493	3	83.00	SOHC	60/81					
Matrix 1.6L						06/01→	38	<b>HBS454</b>  M10x1.25x95mm (x10)	1) 30Nm 2) 90° 3) ↺ 360° 4) 30Nm 5) 90°	
G4ED-G	1599	4	76.50	DOHC	76-79/ 103-107					
Matrix 1.8L						06/01→	39	<b>HBS308</b>  M10x1.25x99mm (x8) M12x1.25x151mm (x2)	1) 35Nm 2) 35Nm 3) 65° 4) 65°	
G4GB-G	1795	4	82.00		90/122					
Pony 1.5L						10/85→01/95	40	<b>HBS440</b>  M10x1.25x100mm (x10)	1) 35Nm 2) 55Nm 3) 75Nm 4) 30Nm	
Pony 1.5L i						10/89→01/95				
G15B	1468	4	75.50	SOHC	53/72					
G4DJ	1468	4	75.50	SOHC	53-63/ 72-86					
Porter 2.5L TD Diesel						07/94→04/04	41	<b>HBS295</b>  M12x1.25x104mm (x18)	1) 50Nm 2) 80Nm 3) 115Nm	
D4BA	2477	4	91.10	SOHC	55-57/ 75-78					
S Coupe Coupe 1.5L i						02/90→05/96	42	<b>HBS440</b>  M10x1.25x100mm (x10)	1) 35Nm 2) 55Nm 3) 75Nm 4) 30Nm	
G15B	1468	4	75.50	SOHC	53/72					
G4DJ	1468	4	75.50	SOHC	53-63/ 72-86					
S Coupe Coupe 1.5L i						04/92→05/96	43	<b>HBS387</b>  M10x1.25x107mm (x10)	1) 25Nm 2) ↺ 90° 3) 25Nm 4) 60° 5) 60°	
S Coupe Coupe 1.5L i Turbo						04/91→05/96				
G4EK	1495	4	75.50	SOHC	66/89					
G4EK-TC	1495	4	75.50	SOHC	85/116					



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<b>Santa Fé 2.0L CRDi Diesel</b> 08/01 → <b>44</b> <b>Santa Fé 2.0L CRDi 4x4 Diesel</b> 04/01 →					<b>HBS382</b>  M12x1.50x183mm (x10)	1) 25Nm 2) 50Nm 3) 105° 4) 105°	
D4EA	1991	4	83.00	SOHC			
<b>Santa Fé 2.7L V6 4x4</b> 02/01 → <b>45</b>					<b>HBS446</b> 01/99 →  M11x1.50x147.75mm (x16)	1) 25Nm 2) 60° 3) ↻ 90° 4) 45° 5) ⚡ 6) ✖ 7) 180° 8) 25° 9) 60° 10) 45°	
G6BAG	2656	6	86.70	DOHC, V6			
<b>Sonata 2.0L 16V Mk III</b> 06/98 → 10/01 <b>46</b>					<b>HBS354</b>  M11x1.25x97mm (x10)	1) 30Nm 2) 63Nm 3) ↻ 360° 4) 20Nm 5) 90° 6) 90°	
G4JPG	1997	4	85.00	DOHC			
<b>Sonata 2.0L CRDi Diesel</b> 02/06 → <b>47</b>					<b>HBS382</b>  M12x1.50x183mm (x10)	1) 25Nm 2) 50Nm 3) 105° 4) 105°	
D4EA	1991	4	83.00	SOHC			
<b>Sonata 2.0L i 16V</b> 01/91 → 06/98 <b>48</b> <b>Sonata 2.0L i 16V Mk II</b> 05/93 → 06/98					<b>HBS307</b>  M12x1.25x104mm (x10)	1) 30Nm 2) 63Nm 3) ↻ 360° 4) 20Nm 5) 90° 6) 90°	
G4CP-DM G4CP-D	1997 1997	4 4	85.00 85.00	DOHC DOHC			
<b>Sonata 2.4L i</b> 09/88 → 08/91 <b>49</b>					<b>HBS307</b>  M12x1.25x104mm (x10)	1) 40Nm 2) 80Nm 3) ↻ 360° 4) 20Nm 5) 90° 6) 90°	
G4CS	2351	4	86.50	SOHC			
<b>Sonata 2.5L V6 24V</b> 06/98 → 10/01 <b>50</b>					<b>HBS446</b> 01/99 →  M11x1.50x147.75mm (x16)	1) 25Nm 2) 65° 3) 50°	
G6BVG	2493	6	84.00	DOHC, V6			
<b>Sonata 2.7L V6</b> 10/01 → 11/04 <b>51</b>					<b>HBS446</b> 01/99 →  M11x1.50x147.75mm (x16)	1) 25Nm 2) 65° 3) 50°	
G6BAG	2656	6	86.70	DOHC, V6			
<b>Sonata 3.0L i V6</b> 01/91 → 06/98 <b>52</b>					<b>HBS402</b>  M12x1.25x102mm (x16)	1) 25Nm 2) 55Nm 3) 80Nm 4) 115Nm	
G6AT	2972	6	91.10	SOHC, V6			
<b>Starex 2.5L TD Diesel</b> 06/97 → <b>53</b> <b>Starex 2.5L TD 4WD Diesel</b> 02/98 →					<b>HBS295</b>  M12x1.25x104mm (x18)	1) 50Nm 2) 80Nm 3) 115Nm	
D4BF	2476	4	91.10	SOHC			

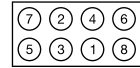




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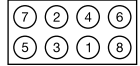
<b>Terracan 2.5L TD Diesel</b> 12/01 → <b>54</b>						<b>HBS295</b>  M12x1.25x104mm (x18)	1) 50Nm 2) 80Nm 3) 115Nm	
D4BH	2477	4	91.10	SOHC	73/99			
<b>Terracan 2.9L CRDi Diesel</b> 12/01 → <b>55</b>						<b>HBS379</b>  M12x1.25x131mm (x10) M12x1.25x92mm (x8)	<b>A</b> 1) 34Nm 2) 40° <b>B</b> 1) 34Nm 2) 45° 3) 75°	
J3	2902	4	97.10	DOHC, Turbocharged	120/163			
<b>Tiburon Coupe 1.6L CVVT</b> 10/06 → <b>56</b>						<b>HBS454</b>  M10x1.25x95mm (x10)	1) 30Nm 2) 90° 3) ↻ 360° 4) 30Nm 5) 90°	
G4ED-G	1599	4	76.50	DOHC	76-79/ 103-107			
<b>Tiburon 2.0L CVVT</b> 10/06 → <b>57</b>						<b>HBS308</b>  M10x1.25x99mm (x8) M12x1.25x151mm (x2)	1) 35Nm 2) 35Nm 3) 65° 4) 65°	
G4GC	1975	4	82.00	DOHC	104-105/ 141-143			
<b>Trajét 2.0L</b> 11/03 → <b>58</b>						<b>HBS308</b>  M10x1.25x99mm (x8) M12x1.25x151mm (x2)	1) 35Nm 2) 35Nm 3) 65° 4) 65°	
G4GC	1975	4	82.00	DOHC	104-105/ 141-143			
<b>Trajét 2.0L</b> 03/00 → <b>59</b>						<b>HBS354</b>  M11x1.25x97mm (x10)	1) 30Nm 2) 63Nm 3) ↻ 360° 4) 20Nm 5) 90° 6) 90°	
G4JPG	1997	4	85.00	DOHC	100/136			
<b>Trajét 2.0L CRDi Diesel</b> 04/01 → <b>60</b>						<b>HBS382</b>  M12x1.50x183mm (x10)	1) 25Nm 2) 50Nm 3) 105° 4) 105°	
D4EA	1991	4	83.00	SOHC	83/113			
<b>Trajét 2.7L V6</b> 09/00 → <b>61</b>						<b>HBS446</b>  M11x1.50x147.75mm (x16)	1) 25Nm 2) 65° 3) 50°	
G6BAG	2656	6	86.70	DOHC, V6	123-127/ 167-173			
<b>Tucson 2.0L</b> 08/04 → <b>62</b>						<b>HBS308</b>  M10x1.25x99mm (x8) M12x1.25x151mm (x2)	1) 35Nm 2) 35Nm 3) 65° 4) 65°	
Tucson 2.0L Allrad								
G4GC	1975	4	82.00	DOHC	104-105/ 141-143			
<b>Tucson 2.0L CRDi Diesel</b> 08/04 → <b>63</b>						<b>HBS381</b>  M12x1.50x183mm (x10)	1) 50Nm 2) 120° 3) 120°	
Tucson 2.0L CRDi All-wheel Drive 4WD Diesel								
D4EA	1991	4	83.00	SOHC	83/113			



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**Tucson 2.7L Allrad**

08/04 →

**64**

G6BAG

2656

6

86.70

DOHC, V6

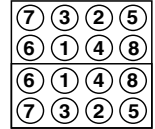
123-127/  
167-173

**HBS446**



M11x1.50x147.75mm (x16)

- 1) 25Nm
- 2) 60°
- 3) 90°
- 4) 45°
- 5) ↓
- 6) \*
- 7) 180°
- 8) 25°
- 9) 60°
- 10) 45°

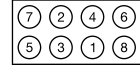




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2800 2.8L Van Diesel		01/84 →		1			
4JB1	2771	4	93.00	50-74/ 68-101	<b>HBS287</b>  M11x1.50x121mm (x18)	1) 25Nm 2) 50Nm 3) 70° 4) 70°	
Campo 2.2L D Diesel		04/86 → 12/90		2			
Campo 2.2L D 4WD Diesel		01/83 → 12/90					
C223	2238	4	88.00	45/61	<b>HBS286</b>  M11x1.50x117mm (x3) M11x1.50x116mm (x16)	1) 30Nm 2) 55Nm 3) ↻ 90° 4) 55Nm 5) 90° 6) 30°	
Elf 2.8L (WFR55) Diesel		01/84 →		3			
4JB1	2771	4	93.00	50-74/ 68-101	<b>HBS287</b>  M11x1.50x121mm (x18)	1) 25Nm 2) 50Nm 3) 70° 4) 70°	
Gemini 1.5L D Diesel		02/88 → 12/90		4			
Gemini 1.5L TD Diesel		02/88 → 12/90					
4EC1	1488	4	76.00	SOHC 37/50	<b>HBS036</b>  M12x1.5x102mm (x10)	1) 30Nm 2) 50° 3) 50° 4) 50°	
4EC1T	1488	4	76.00	SOHC 49-54/ 67-73			
Gemini 1.7L TD Diesel		01/90 → 12/93		5			
	1686	4		65/88	<b>HBS036</b>  M12x1.5x102mm (x10)	1) 30Nm 2) ↻ 90° 3) 30Nm 4) 50° 5) 50° 6) 50°	
I-Mark 1.5L Turbo Diesel		01/85 → 12/90		6			
4EC1T	1488	4	76.00	Indirect Injection Turbo 49-54/ 67-73	<b>HBS036</b>  M12x1.5x102mm (x10)	1) 30Nm 2) 50° 3) 50° 4) 50°	
Midi 2.2L D Diesel		01/89 →		7			
Midi 2.2L D 4WD Diesel		01/89 →					
Midi Van 2.2L D 4WD Diesel		09/88 →					
4FD1	2189	4	88.00	SOHC 45-54/ 61-73	<b>HBS265</b>  M12x1.50x155mm (x16)	1) 35Nm 2) 60Nm 3) 90° 4) 90°	
N 1.5L Turbo Diesel		01/85 → 12/90		8			
4EC1T	1488	4	76.00	Indirect Injection Turbo 49-54/ 67-73	<b>HBS036</b>  M12x1.5x102mm (x10)	1) 30Nm 2) 50° 3) 50° 4) 50°	
Trooper 2.2L D Diesel		05/84 → 12/89		9			
Trooper 2.2L TD Diesel		03/84 → 12/91					
C223	2238	4	88.00	45/61	<b>HBS286</b>  M11x1.50x117mm (x3) M11x1.50x116mm (x16)	1) 30Nm 2) 55Nm 3) ↻ 90° 4) 55Nm 5) 90° 6) 30°	
C223T	2238	4	88.00	SOHC 53/72			
Trooper 2.8L TD Diesel		10/87 → 12/91		10			
4JB1T	2772	4	93.00	64-74/ 87-101	<b>HBS287</b>  M11x1.50x121mm (x18)	1) 25Nm 2) 50Nm 3) 70° 4) 70°	
Trooper 2.8L TD Diesel		10/88 → 12/91		11			
4JB1TC	2752	4	93.00	SOHC, Indirect Injection 78/106	<b>HBS287</b>  M11x1.50x121mm (x18)	1) 25Nm 2) 50Nm 3) 70° 4) 70°	
Trooper 3.1L Diesel		08/91 → 07/98		12			
4JG2T	3059	4	95.40	80-85/ 109-116	<b>HBS287</b>  M11x1.50x121mm (x18)	1) 25Nm 2) 50Nm 3) 70° 4) 70°	





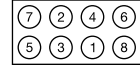
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Daily 29 L 10 Diesel					09/02→	<b>HBS251</b>  M14x1.50x193mm (x6) M11x1.50x133mm (x4)	1) 100Nm 2) 90° 3) 90°			
Daily 29 L 10 V Diesel					09/02→					
Daily 35 C 10 V, 35 S 10 V Diesel					09/02→					
Daily 35 S 10 Diesel					09/02→					
F1AE 0481 A	2287	4	88.00							
Daily 2.4L TD Diesel					01/85→12/89	<b>HBS011</b>  M12x1.25x160mm (x10) M12x1.25x119mm (x12)	1) 20Nm 2) 40Nm 3) ↻ 90° 4) 40Nm 5) 90° 6) 90°			
Daily 30.8 Diesel					01/78→12/89					
Daily 35.10 Diesel					01/85→12/89					
Daily 35.8 Diesel					01/78→12/89					
Daily 40.10 Diesel					01/85→12/89					
Daily 40.10 V Diesel					01/85→12/89					
Daily 40.8 Diesel					01/83→06/89					
Daily 40.8 V Diesel					01/83→06/89					
Daily 45.10 Diesel					01/85→12/89					
Daily 45.10 V Diesel					01/85→12/89					
Daily 49.10 Diesel					01/85→12/89					
Daily 49.10 V Diesel					01/85→12/89					
8140.61.200	2445	4	93.00							
8140.21.200/8140.27 S	2445	4	93.00							
8140.21	2445	4	93.00	Turbocharged						
Daily 30.8 Diesel					01/89→08/98	<b>HBS011</b>  M12x1.25x160mm (x10) M12x1.25x119mm (x12)	1) 20Nm 2) 40Nm 3) ↻ 90° 4) 40Nm 5) 90° 6) 90°			
Daily 35.8 Diesel					01/89→08/98					
8140.67F.	2449	4	93.00	SOHC						
Daily 2.5L D Diesel					01/89→	<b>HBS011</b>  M12x1.25x160mm (x10) M12x1.25x119mm (x12)	1) 20Nm 2) 40Nm 3) ↻ 90° 4) 40Nm 5) 90° 6) 90°			
Daily 2.5L TD Diesel					01/85→12/89					
Daily 30.8 Diesel					01/89→					
Daily 35.8 Diesel					01/89→					
Daily 35.8H Diesel					01/89→					
Daily 35.10 Diesel					01/89→08/98					
Daily 35.12 Diesel					01/90→04/96					
Daily 35.8 Diesel					01/89→08/98					
Daily 40.8 Diesel					01/89→					
Daily 40.8H Diesel					01/89→					
Daily 40.10 V Diesel					01/90→04/96					
Daily 40.12 Diesel					10/90→04/96					
Daily 40.12 V Diesel					10/90→04/96					
Daily 45.10 Diesel					01/89→04/96					
Daily 45.10 V Diesel					01/89→04/96					
Daily 49.10 Diesel					01/89→04/96					
Daily 49.10 K Diesel					01/89→04/96					
Daily 49.10 V Diesel					01/89→04/96					
Daily 49.12 Diesel					06/90→04/96					
Daily 49.12 K Diesel					06/90→04/96					
Daily 49.12 V Diesel					06/90→04/96					
Daily 59.12 Diesel					05/91→04/96					
Daily 59.12 K Diesel					05/91→04/96					
Daily 59.12 V Diesel					05/91→04/96					
Daily A 40.10 Diesel					01/91→12/96					
Daily A 45.10 Diesel					01/91→04/96					
8140.07.2700	2499	4	93.00							
8140.07.2710	2499	4	93.00	Turbocharged						
8140.07.2712	2499	4	93.00							
8140.97.2781	2499	4	93.00	SOHC						
8140.27.2700/8140.27.2720/ 8140.47R.2790	2499	4	93.00							
8140.47 R	2499	4	93.00							
8140.47.2700/8140.47.2711/ 8140.47.2721	2499	4	93.00							
8140.07.3712	2499	4	93.00	Sofim						

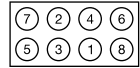




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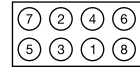
					5				
Daily 28.8 Diesel				01/89 → 12/94		<b>HBS011</b>  M12x1.25x160mm (x10) M12x1.25x119mm (x12)	1) 20Nm 2) 40Nm 3) ↻ 90° 4) 40Nm 5) 90° 6) 90°		
Daily 30.8 Diesel			01/89 → 12/94						
Daily 32.8 Diesel			01/89 → 12/94						
Daily 35.8 Diesel			01/89 → 12/94						
Daily 40.8 Diesel			01/89 → 12/94						
8144.67	2500	4	93.00	Indirect Injection, Turbocharged					
					6				
Daily 29 L 11 Diesel				05/99 →		<b>HBS011</b>  M12x1.25x160mm (x10) M12x1.25x119mm (x12)	1) 20Nm 2) 40Nm 3) ↻ 90° 4) 40Nm 5) 90° 6) 90°		
Daily 29 L 11 V Diesel				05/99 →					
Daily 29 L 13 Diesel				05/01 →					
Daily 35 S 11 V, 35 C 11 V Diesel				05/99 →					
Daily 35 S 11, 35 C 11 Diesel				05/99 →					
Daily 35 S 13 V, 35 C 13 V Diesel				05/99 →					
Daily 35 S 13, 35 C 13 Diesel				05/99 →					
Daily 50 C 11 Diesel				05/99 →					
Daily 50 C 13 Diesel				05/99 →					
8140.43B/8140.43C	2798	4	94.40						
8140.43S	2798	4	94.40	SOHC					
					7				
Daily 2.8L TD Diesel				05/96 →		<b>HBS255</b>  M12x1.25x90mm (x8) M12x1.25x160mm (x14)	1) 20Nm 2) 40Nm 3) ↻ 90° 4) 40Nm 5) 90° 6) 90°		
Daily 30.10 Diesel				01/97 → 05/99					
Daily 30.10 C Diesel				01/97 →					
Daily 35.8 Diesel				01/98 →					
Daily 35.10 Diesel				01/96 → 05/99					
Daily 40.10 4x4 Diesel				05/96 →					
Daily 40.10 W 4x4 Diesel				01/97 → 05/99					
Daily 49.10 Diesel				05/96 → 05/99					
Daily 49.10 K Diesel				05/96 →					
Daily 49.12 Diesel				05/96 → 05/99					
Daily 49.12 K Diesel				05/96 →					
Daily 49.12 V Diesel				05/96 →					
Daily 59.12 Diesel				05/96 → 05/99					
Daily 59.12 K Diesel				05/96 →					
Daily 59.12 V Diesel				05/96 →					
Daily A 45.10 Diesel				05/96 →					
Daily A 45.12 Diesel				05/96 →					
Daily EuroCargo Diesel				01/98 →					
8140.63.3700	2798	4	94.40	Sofim					
8140.23.	2798	4	94.40						
8140.43.	2798	4	94.40						
8140.23.3800	2798	4	94.40	Turbocharged					
8140.43.3900 (S9WA7)	2798	4	94.40	Sofim, Turbo Intercooled					
					8				
Daily 35S15 Unijet Diesel				11/01 →		<b>HBS255</b>  M12x1.25x90mm (x8) M12x1.25x160mm (x14)	1) 20Nm 2) 40Nm 3) ↻ 90° 4) 40Nm 5) 90° 6) 90°		
Daily 50C15 Unijet Diesel				11/01 →					
Daily 60C15 Unijet Diesel				11/01 →					
Daily 65C13 Unijet Diesel				11/01 →					
Daily 65C15 Unijet Diesel				11/01 →					
8140.43M.4320	2800	4	94.40	Common Rail, Turbo Intercooled					



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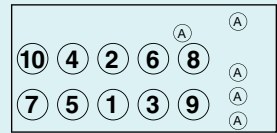
<b>Daily 35C15 Diesel</b>				05/06 →	<b>9</b>
<b>Daily 35C15 V, 35C15 V/P Diesel</b>				05/06 →	
<b>Daily 35C18 Diesel</b>				05/06 →	
<b>Daily 35C18 V, 35C18 V/P, 35S18 V, 35S18 V/P Diesel</b>				05/06 →	
<b>Daily 35C18, 35S18 Diesel</b>				05/06 →	
<b>Daily 40C15 Diesel</b>				05/06 →	
<b>Daily 40C15 V, 40C15 V/P Diesel</b>				05/06 →	
<b>Daily 40C18 Diesel</b>				05/06 →	
<b>Daily 40C18 V, 40C18 V/P Diesel</b>				05/06 →	
<b>Daily 45C15 Diesel</b>				05/06 →	
<b>Daily 45C15 V Diesel</b>				05/06 →	
<b>Daily 45C18 Diesel</b>				05/06 →	
<b>Daily 45C18, 45C18 /P, 45C18 D, 45C18 D/P Diesel</b>				05/06 →	
<b>Daily 50C15 Diesel</b>				05/06 →	
<b>Daily 50C18 Diesel</b>				05/06 →	
<b>Daily 60C15 Diesel</b>				05/06 →	
<b>Daily 60C15 V Diesel</b>				05/06 →	
<b>Daily 60C15, 60C15 /P, 60C15 D, 60C15 D/P Diesel</b>				05/06 →	
<b>Daily 60C18 Diesel</b>				05/06 →	
<b>Daily 65C15 Diesel</b>				05/06 →	
<b>Daily 65C15, 65C15 /P, 65C15 D, 65C15 D/P Diesel</b>				05/06 →	
<b>Daily 65C18 Diesel</b>				05/06 →	
F1CE 0481 FA/F1CE 0481 HC	2998	4	95.80	DOHC	107/146
F1CE 0481 HA	2998	4	95.80	DOHC	130/176

### HBS464



M15x1,5x193mm (x6)  
M8x1,25x117mm (x4)  
M12x1,5x165mm (x4)  
M8x1,25x58mm (x1)

- 1) (1-6) 130Nm  
(7-10) 65Nm
- 2) (1-10) 90°
- 3) (1-6) 60°  
(7-10) 60°
- 4) A=25Nm



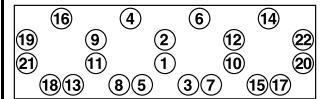
<b>Grinta Daily 2.5 TD Diesel</b>				01/85 → 12/89	<b>10</b>
8140.21	2445	4	93.00	Turbocharged	

### HBS011



M12x1.25x160mm (x10)  
M12x1.25x119mm (x12)

- 1) 20Nm
- 2) 40Nm
- 3) ↻ 90°
- 4) 40Nm
- 5) 90°
- 6) 90°



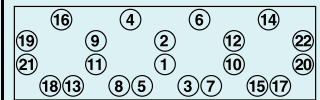
<b>Grinta Daily 2.5L D Diesel</b>				01/89 → 12/94	<b>11</b>
8144.67	2500	4	93.00	Indirect Injection, Turbocharged	

### HBS011



M12x1.25x160mm (x10)  
M12x1.25x119mm (x12)

- 1) 20Nm
- 2) 40Nm
- 3) ↻ 90°
- 4) 40Nm
- 5) 90°
- 6) 90°



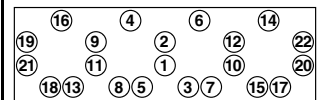
<b>Metano 35.11 Diesel</b>				07/99 →	<b>12</b>
<b>Metano 49.11 Diesel</b>				07/99 →	
8149.03.3971	2798	4	94.40	Sofim	

### HBS255



M12x1.25x90mm (x8)  
M12x1.25x160mm (x14)

- 1) 20Nm
- 2) 40Nm
- 3) ↻ 90°
- 4) 40Nm
- 5) 90°
- 6) 90°



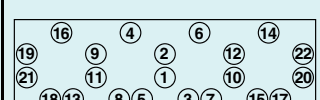
<b>S2000 2.8L D Diesel</b>				11/01 →	<b>13</b>
8140.43M.4320	2800	4	94.40	Common Rail, Turbo Intercooled	107/146

### HBS255



M12x1.25x90mm (x8)  
M12x1.25x160mm (x14)

- 1) 20Nm
- 2) 40Nm
- 3) ↻ 90°
- 4) 40Nm
- 5) 90°
- 6) 90°



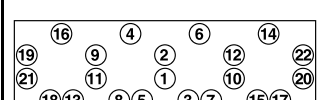
<b>Turbo Daily 40.10 4x4 Diesel</b>				12/81 →	<b>14</b>
<b>Turbo Daily 49.10 S Diesel</b>				01/89 →	
<b>Turbo Daily A 40.10 Diesel</b>					
<b>Turbo Daily A 45.10 Diesel</b>					
8140.27.213/8140.27.218	2445	4	93.00	Turbocharged	77
8140.21	2445	4	93.00	Turbocharged	
8140.21.212	2445	4	93.00	Sofim, Turbocharged	

### HBS011



M12x1.25x160mm (x10)  
M12x1.25x119mm (x12)

- 1) 20Nm
- 2) 40Nm
- 3) ↻ 90°
- 4) 40Nm
- 5) 90°
- 6) 90°



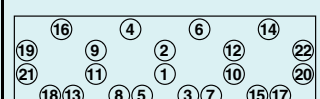
<b>Turbo Daily 2.8L TD Diesel</b>				01/96 →	<b>15</b>
8140.43.3900 (S9WA7)	2799	4	94.40	Sofim, Turbo Intercooled	84/114

### HBS255



M12x1.25x90mm (x8)  
M12x1.25x160mm (x14)

- 1) 20Nm
- 2) 40Nm
- 3) ↻ 90°
- 4) 40Nm
- 5) 90°
- 6) 90°



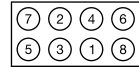




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kW/PS



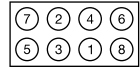
Cherokee 2.1L TD Diesel		10/84 → 03/92			1			
J85	2068	4	86.00		59-64/ 80-87	<b>HBS010</b>  M12x1.50x247mm (x2) M12x1.50x148mm (x4) M12x1.50x134mm (x8)	1) 30Nm 2) 50Nm 3) ↻ 90° 4) 20Nm 5) (1) 105° 6) (2-3) 60° 7) (4-5) 70° 8) (6-7) 60° 9) (8-9) 105° 10) (10-11) 60° 11) (12-13) 70° 12) (14-15) 60° 13) (16-17) 80° 14) (1) 105° 15) (2-3) 60° 16) (4-5) 70° 17) (6-7) 60° 18) (8-9) 105° 19) (10-11) 60° 20) (12-13) 70° 21) (14-15) 60° 22) (16-17) 80°	
Cherokee 2.5L TD Diesel		01/88 → 12/96			2			
Cherokee 2.5L TD Limited Diesel		01/95 →						
ENC	2499	4			85/116	<b>HBS108</b>  M14x2x137mm (x10) M12x1.75x115mm (x4) M12x1.75x79.5mm (x4)	<b>A</b> 1) 30Nm 2) 70° 3) 70° 4) ⚡ 5) ⚡ 6) 90° 7) 30Nm 8) 65° <b>B</b> 1) 30Nm 2) 85°	
HR 924	2499	4	92.00	Turbocharged	85/115			
425 CLRS/X	2499	4	92.00	Turbocharged				
Cherokee 2.5L TD		10/95 →			3			
	2469	4			89/121	<b>HBS108</b>  M14x2x137mm (x10) M12x1.75x115mm (x4) M12x1.75x79.5mm (x4)	<b>A</b> 1) 30Nm 2) 70° 3) 70° 4) ⚡ 5) ⚡ 6) 90° 7) 30Nm 8) 65° <b>B</b> 1) 30Nm 2) 85°	
Cherokee 4.0L i		01/88 →			4			
MX	3964	6			135-136/ 184-185	<b>HBS438</b>  M12x2x113mm (x7) M12x2x94mm (x5) M12x2x94mm (x2)	1) 30Nm 2) 61Nm 3) 61Nm 4) (1-10) 149Nm 5) (11) 136Nm 6) (12-14) 149Nm	
ERH	3964	6	98.50		131/178			
CJ7 2.0L		01/85 →			5			
CJ7 2.0L Laredo		01/85 →						
829	1995	4	88.00	Injection		<b>HBS116</b>  M12x1.50x243mm (x10)	1) 50Nm 2) 80Nm 3) ↻ 90° 4) 93Nm	
Grand Cherokee 2.5L TD Diesel		10/95 → 04/99			6			
M52	2499	4			85/115	<b>HBS280</b>  M11x1.50x145mm (x10)	1) 34Nm 2) 68Nm 3) 68Nm 4) 90°	
M51	2499	4			85-89/ 115-121			



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Grand Cherokee 2.5L TD Diesel		01/97 → 12/01		7	
Grand Cherokee 2.5L TD Limited Diesel		01/95 →			
HR 924	2499	4	92.00	Turbocharged	85/115
425 CURS/X	2499	4	92.00	Turbocharged	
<b>Grand Cherokee 2.7L CRD Diesel</b>		10/01 →		<b>8</b>	
ENF	2685	5			120/163
<b>Grand Cherokee 3.0L CRD Mk III Diesel</b>		06/05 →		<b>9</b>	
EXL	2987	6			160/218
<b>Grand Cherokee 4.0L</b>		04/99 →		<b>10</b>	
	3960	6			140/190
<b>Grand Cherokee 4.0L i</b>		09/91 → 04/99		<b>11</b>	
MX	3964	6			135-136/ 184-185
ERH	3964	6	98.50		131/178
<b>Grand Cherokee 4.7V8</b>		04/99 → 08/00		<b>12</b>	
<b>Grand Cherokee 4.7L V8</b>		08/00 →			
<b>Grand Cherokee 4.7L V8 Mk III</b>		06/05 →			
EVA	4701	8		V8	162/220
EVA	4701	8	93.00	V8	167-175/ 227-238
EVC	4701	8	93.00	DOHC, V8	190/258
<b>Wrangler 4.0L</b>		08/96 →		<b>13</b>	
S01	3960	6			124/169
	3960	6	98.45		130/177
<b>Wrangler 4.0L</b>		12/91 → 08/96		<b>14</b>	
ERH	3964	6	98.50		131/178

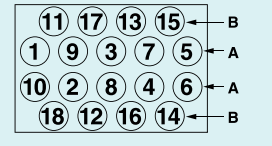
**HBS108**



- M14x2x137mm (x10)
- M12x1.75x115mm (x4)
- M12x1.75x79.5mm (x4)

**A**

- 30Nm
  - 70°
  - 70°
  - ⚡
  - ⚡
  - 90°
  - 30Nm
  - 65°
- B**
- 30Nm
  - 85°



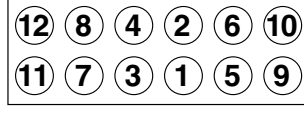
**HBS293**



- M12x1.75x102mm (x12)

1) 60Nm

- 90°
- 90°



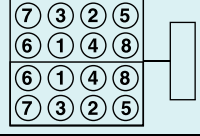
**HBS474**



- M12x1.75x205mm (x16)

1) 60Nm

- 90°
- 90°
- 90°



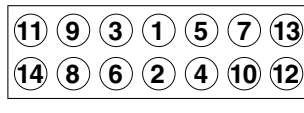
**HBS438**



- M12x2x113mm (x7)
- M12x2x94mm (x5)
- M12x2x94mm (x2)

1) 30Nm

- 61Nm
- 61Nm
- (1-10) 149Nm
- (11) 136Nm
- (12-14) 149Nm



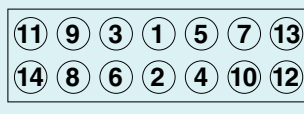
**HBS438**



- M12x2x113mm (x7)
- M12x2x94mm (x5)
- M12x2x94mm (x2)

1) 30Nm

- 61Nm
- 61Nm
- (1-10) 149Nm
- (11) 136Nm
- (12-14) 149Nm



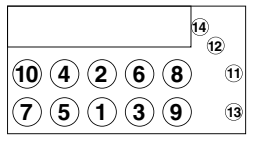
**HBS439 (x2)**



- M11x1.5x170mm (x10)
- M8x1.25x128mm (x4)

1) (1-10) 27Nm

- (1-10) 27Nm
- (11-14) 14Nm
- (1-10) 90°
- (1-10) 90°
- (14-14) 26Nm



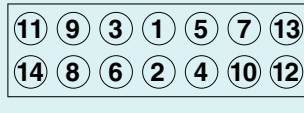
**HBS438**



- M12x2x113mm (x7)
- M12x2x94mm (x5)
- M12x2x94mm (x2)

1) 30Nm

- 61Nm
- 61Nm
- (1-10) 149Nm
- (11) 136Nm
- (12-14) 149Nm



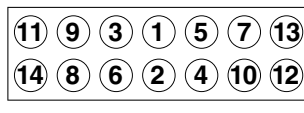
**HBS438**



- M12x2x113mm (x7)
- M12x2x94mm (x5)
- M12x2x94mm (x2)

1) 30Nm

- 61Nm
- 61Nm
- (1-10) 149Nm
- (11) 136Nm
- (12-14) 149Nm



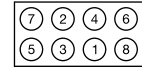




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kW/PS



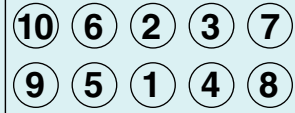
<b>Besta Van 2.2L D Diesel</b>		02/96 →		<b>1</b>	
R2	2184	4	86.00	SOHC	48/65
<b>Carens 2.0L CRDi Diesel</b>		07/02 →		<b>2</b>	
D4EA	1991	4	83.00	SOHC	83/113
<b>Carens 2.0L CRDi Mk II Diesel</b>		11/05 →		<b>3</b>	
<b>Carens 2.0L CRDi Mk III Diesel</b>		09/06 →			
D4EA	1991	4	83.00	SOHC	83/113
<b>Carens 2.0L CVVT Mk II</b>		08/04 →		<b>4</b>	
G4GC	1975	4	82.00	DOHC	104/141
<b>Carnival 2.5L V6</b>		08/99 → 10/01		<b>5</b>	
K5	2497	6	80.00	DOHC	121/165 110/150
	2497	6			
<b>Carnival 2.9L CRDi Diesel</b>		10/01 →		<b>6</b>	
<b>Carnival 2.9L TD Diesel</b>		08/99 → 10/01			
<b>Carnival 2.9L TD Mk II Diesel</b>		10/01 →			
J3	2902	4			93/144
<b>CEE'D 2.0L</b>		12/06 →		<b>7</b>	
G4GC	1975	4	82.00	DOHC	104/141
<b>Cerato 1.5L CRDi Diesel</b>		07/05 →		<b>8</b>	
D4FA	1493	4	75.00	DOHC	75/102
<b>Cerato 1.6L</b>		04/04 →		<b>9</b>	
G4ED	1599	4	76.50	DOHC	77/105
<b>Cerato 2.0L</b>		04/04 →		<b>10</b>	
G4GC	1975	4	82.00	DOHC	104/141
<b>Cerato 2.0L CRDi Diesel</b>		04/04 →		<b>11</b>	
D4EA	1991	4	83.00	SOHC	83/113

**HBS211**



M12x1.50x113mm (x10)

- 30Nm
- 90°
- 90°

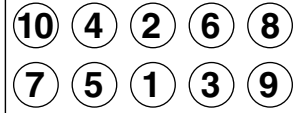


**HBS382**



M12x1.50x183mm (x10)

- 25Nm
- 50Nm
- 105°
- 105°

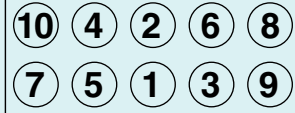


**HBS381**



M12x1.50x183mm (x10)

- 50Nm
- 120°
- 120°

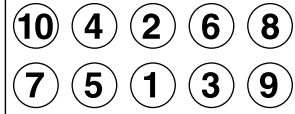


**HBS478**



M12x1.25x151mm (x2)  
M10x1.25x99mm (x8)

- M12**
- 30Nm
- M10**
- 25Nm
  - 65°
  - 65°

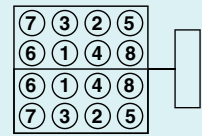


**HBS423**



M9x1.25x200mm (x16)

- 25Nm
- ↺ 90°
- 25Nm
- 90°
- 90°

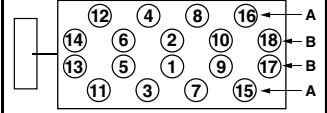


**HBS379**



M12x1.25x131mm (x10)  
M12x1.25x92mm (x8)

- A**
- 34Nm
  - 40°
- B**
- 34Nm
  - 45°
  - 75°

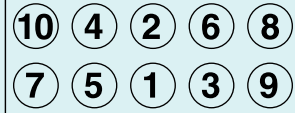


**HBS478**



M12x1.25x151mm (x2)  
M10x1.25x99mm (x8)

- M12**
- 30Nm
- M10**
- 25Nm
  - 65°
  - 65°

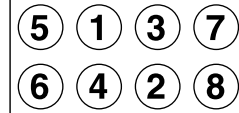


**HBS483**



M12x1.50x185mm (x8)

- 25Nm
- 50Nm
- 120°
- 90°

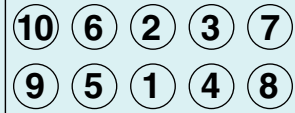


**HBS454**



M10x1.25x95mm (x10)

- 30Nm
- 90°
- ↺ 360°
- 30Nm
- 90°

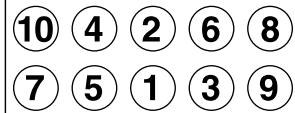


**HBS478**



M12x1.25x151mm (x2)  
M10x1.25x99mm (x8)

- M12**
- 30Nm
- M10**
- 25Nm
  - 65°
  - 65°

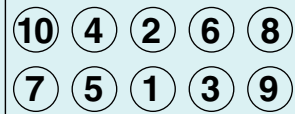


**HBS382**



M12x1.50x183mm (x10)

- 25Nm
- 50Nm
- 105°
- 105°

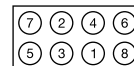




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<b>Clarus 2.0Li 16V</b> 07/96 → <b>12</b>					<b>HBS455</b>  M12x1.25x95mm (x10)	1) 22Nm 2) 43Nm 3) 86Nm	
FE (16 V)	1998	4	86.00	DOHC			
<b>Magentis 2.0L</b> 05/01 → <b>13</b>					<b>HBS354</b>  M11x1.25x97mm (x10)	1) 30Nm 2) 63Nm 3) ↻ 360° 4) 20Nm 5) 90° 6) 90°	
G4JP	1997	4	85.00	Intake Manifold Injection/ Carburettor, DOHC			
<b>Magentis 2.5L V6</b> 05/01 → <b>14</b>					<b>HBS446</b>  M11x1.50x147.75mm (x16)	<b>Fiber CHG</b> 1) 12Nm 2) 25Nm 3) 90° <b>MLS CHG</b> 1) 12Nm 2) 90° 3) 90°	
G6BV	2493	6	84.00	DOHC, V			
<b>Picanto 1.0L</b> 09/05 → <b>15</b>					<b>HBS378</b>  M10x1.25x106.5mm (x10)	1) 56Nm 2) 69Nm	
G4HE	999	4	66.00				
<b>Picanto 1.1L</b> 04/04 → <b>16</b>					<b>HBS378</b>  M10x1.25x106.5mm (x10)	1) 56Nm 2) 69Nm	
G4HG	1086	4	67.00	SOHC			
<b>Pride 1.1L i</b> 01/91 → <b>17</b>					<b>HBS406</b>  M11x1.25x136mm (x10)	1) 30Nm 2) 60Nm 3) 81Nm	
B1	1138	4	68.00	SOHC			
<b>Pride 1.3L</b> 08/99 → <b>18</b>					<b>HBS406</b>  M11x1.25x136mm (x10)	1) 30Nm 2) 60Nm 3) 81Nm	
<b>Pride 1.3L 16V</b> 01/90 →							
<b>Pride 1.3L i</b> 01/90 →							
B3	1324 1324 1324	4 4 4	71.00	SOHC	47/64 51/69 44-53/ 60-73		
<b>Pride 1.4L LX</b> 03/05 → <b>19</b>					<b>HBS454</b>  M10x1.25x95mm (x10)	1) 30Nm 2) 90° 3) ↻ 360° 4) 30Nm 5) 90°	
G4EE	1399	4	75.50	DOHC			
<b>Pride 1.6L CVVT LX</b> 03/05 → <b>20</b>					<b>HBS454</b>  M10x1.25x95mm (x10)	1) 30Nm 2) 90° 3) ↻ 360° 4) 30Nm 5) 90°	
G4ED	1599	4	76.50	DOHC			
<b>PRO CEE'D 2.0L</b> 02/08 → <b>21</b>					<b>HBS478</b>  M12x1.25x151mm (x2) M10x1.25x99mm (x8)	<b>M12</b> 1) 30Nm <b>M10</b> 1) 25Nm 2) 65° 3) 65°	
G4GC	1975	4	82.00	DOHC			
<b>Retona 2.0L 16V</b> 05/00 → <b>22</b>					<b>HBS455</b>  M12x1.25x95mm (x10)	1) 22Nm 2) 43Nm 3) 86Nm	
FE (16 V)	1998	4	86.00	DOHC			



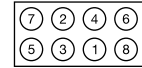
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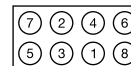
<b>Retona 2.0L TD Diesel</b>				06/99 →	<b>23</b>	 M12x1.50x113mm (x10)	1) 30Nm 2) 90° 3) 90°	
RF	1998	4	86.00	SOHC	61/83			
<b>Rio 1.3L</b>				08/00 → 02/05	<b>24</b>	 M11x1.75x105mm (x10)	1) 25Nm 2) 50Nm 3) ↻ 360° 4) 25Nm 5) 90°	
	1343	4			55/75 60/82			
<b>Rio 1.4L 16V</b>				03/05 →	<b>25</b>	 M10x1.25x95mm (x10)	1) 30Nm 2) 90° 3) ↻ 360° 4) 30Nm 5) 90°	
G4EE	1399	4	75.50	DOHC				
<b>Rio 1.5L</b>				08/00 → 02/05	<b>26</b>	 M11x1.50x95mm (x2) M11x1.5x115mm (x8)	1) 25Nm 2) 50Nm 3) ↻ 360° 4) 25Nm 5) 90°	
	1493	4			71/97 72/98			
<b>Rio 1.5L CRDi Mk II Diesel</b>				03/05 →	<b>27</b>	 M12x1.50x185mm (x8)	1) 25Nm 2) 50Nm 3) 120° 4) 90°	
D4FA	1493	4	75.00	DOHC	75/102			
<b>Rio 1.6L 16V</b>				03/05 →	<b>28</b>	 M10x1.25x95mm (x10)	1) 30Nm 2) 90° 3) ↻ 360° 4) 30Nm 5) 90°	
<b>Rio 1.6L CVVT</b>				03/05 →				
G4ED	1599	4	76.50	DOHC	77/105			
<b>Sephia 1.5L i 16V</b>				02/96 → 10/97	<b>29</b>	 M11x1.25x136mm (x10)	1) 30Nm 2) 60Nm 3) 81Nm	
B5	1498	4	78.00	SOHC	59/80			
<b>Sephia 1.6L i</b>				09/93 →	<b>30</b>	 M11x1.25x136mm (x10)	1) 30Nm 2) 60Nm 3) 81Nm	
B6	1597	4	78.00	SOHC	59/80			
<b>Shuma 1.5L</b>				03/96 → 12/98	<b>31</b>	 M11x1.25x136mm (x10)	1) 30Nm 2) 60Nm 3) 81Nm	
OK280	1498	4	78.00	SOHC	59/80			
<b>Sorento 2.5L CRDi Diesel</b>				08/02 →	<b>32</b>	 M12x1.25x152mm (x18)	1) 50Nm 2) ↻ 90° 3) 50Nm 4) 120° 5) 90°	
D4CB	2497	4	91.00					
<b>Sportage 2.0L 16V</b>				09/04 →	<b>33</b>	 M12x1.25x151mm (x2) M10x1.25x99mm (x8)	<b>M12</b> 1) 30Nm <b>M10</b> 1) 25Nm 2) 65° 3) 65°	
<b>Sportage 2.0L 16V 4WD</b>				09/04 →				
G4GC	1975	4	82.00	DOHC	104/141			
<b>Sportage 2.0L CRDi Diesel</b>				01/06 →	<b>34</b>	 M12x1.50x183mm (x10)	1) 50Nm 2) 120° 3) 120°	
<b>Sportage 2.0L CRDi 4WD Diesel</b>				01/06 →				
D4EAF/D4EAV	1991	4	83.00	SOHC				











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Sportage 2.0L CRDi 4WD Diesel				09/04 →	35	 HBS382 M12x1.50x183mm (x10)	1) 25Nm 2) 50Nm 3) 105° 4) 105°	
D4EA	1991	4	83.00	SOHC	83/113			
Sportage 2.0L i 16V				10/00 →08/03	36	 HBS455 M12x1.25x95mm (x10)	1) 22Nm 2) 43Nm 3) 86Nm	
Sportage 2.0L i 16V 4WD				04/94 →08/03				
FE (16 V)	1998	4	86.00	DOHC	94-98/ 128-133			
Sportage 2.0L TD 4WD Diesel				10/97 →08/03	37	 HBS211 M12x1.50x113mm (x10)	1) 30Nm 2) 90° 3) 90°	
RF	1998	4	86.00	SOHC	61/83			

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4HW(DW12ATED4)	Diesel	2179	4	85.00	37	836 A2.000	Petrol	1995	4	84.00	19
138 C2.048	Petrol	1498	4	86.40	40	836 A3.000	Petrol	1995	4	84.00	8
156 A 2.000	Petrol	999	4	70.00	57	836 A3.000	Petrol	1995	4	84.00	19
156 A 2.100	Petrol	999	4	70.00	57	836 A4.000	Petrol	1372	4	80.50	12
156 A2.246	Petrol	999	4	70.00	57	836 A5.000	Petrol	1756	4	84.00	6
156 C.000	Petrol	1108	4	70.00	58	836 A6.000	Petrol	1756	4	84.00	16
159 B9.000	Petrol	1581	4	86.40	4	836 C4.000	Petrol	1756	4	84.00	16
160 A1.046	Petrol	1372	4	80.50	12	838 A1.000	Petrol	1998	5	82.00	22
160 D1.000	Diesel	1929	4	82.60	7	838 A2.000	Petrol	2446	5	83.00	23
160 D1.000	Diesel	1929	4	82.60	18	838 A2.027	Petrol	2446	5	83.00	23
175 A3.000	Petrol	1998	5	82.00	22	838 A3.000	Diesel	2387	5	82.00	24
175 A4.000	Petrol	1995	4	84.00	19	838 A4.000	Petrol	1995	4	84.00	21
176 B2.000	Petrol	1108	4	70.00	53	838 A6.000	Petrol	1998	5	82.00	22
176 B2.000	Petrol	1108	4	70.00	58	838 A7.000	Diesel	2387	5	82.00	24
176 B9.000	Petrol	1242	4	70.80	55	838 A8.000	Diesel	2387	5	82.00	24
182 A2.000	Petrol	1747	4	82.00	5	838 B.000	Petrol	2959	6	93.00	25
182 A2.000	Petrol	1747	4	82.00	17	839 A4.000	Petrol	1747	4	82.00	27
182 A4.000	Petrol	1581	4	86.40	1	839 A5.000	Diesel	2387	5	82.00	30
182 A4.000	Petrol	1581	4	86.40	15	839 A6.000	Diesel	2387	5	82.00	30
182 A4.000	Petrol	1581	4	86.40	26	839 A7.000	Petrol	1747	4	82.00	27
182 A6.000	Petrol	1581	4	86.40	15	839 A9.000	Petrol	1747	4	82.00	27
182 B7.000	Petrol	1998	5	82.00	29	840 A2.000	Petrol	1370	4	82.00	56
183 A1.000	Petrol	1747	4	82.00	5	840 A3.000	Petrol	1242	4	70.80	54
183 A1.000	Petrol	1747	4	82.00	17	840 A4.000	Petrol	1370	4	82.00	56
185 A8.000	Petrol	1998	5	82.00	29	841 G.000	Diesel	2387	5	82.00	51
188 A4.000	Petrol	1242	4	70.80	54	841 P.000	Diesel	2387	5	82.00	50
188 A4.000	Petrol	1242	4	70.80	59	841A.000	Petrol	2959	6	93.00	52
188 A5.000	Petrol	1242	4	70.80	55	841C.000	Diesel	2387	5	82.00	30
188 A5.000	Petrol	1242	4	70.80	60	841C.000	Diesel	2387	5	82.00	50
188 A9.000	Diesel	1248	4	69.60	31	841D.000	Petrol	2446	5	83.00	49
188 A9.000	Diesel	1248	4	69.60	61	841E.000	Petrol	1998	5	82.00	48
188 B2.000	Diesel	1910	4	82.00	34	843 A 1.000	Petrol	1368	4	72.00	32
199 A2.000	Diesel	1248	4	69.60	61	843 A 1.000	Petrol	1368	4	72.00	62
199 A3.000	Diesel	1248	4	69.60	31	937 A2.000	Diesel	1910	4	82.00	28
199 A3.000	Diesel	1248	4	69.60	61	8140.97.2500	Diesel	2499	4	93.00	45
350 A1.000	Petrol	1368	4	72.00	33	8144. 97S	Diesel	2500	4	93.00	46
350 A1.000	Petrol	1368	4	72.00	63	8144.97	Diesel	2499	4	93.00	45
831 A2.000	Petrol	1301	4	76.10	11	8144.97 Y	Diesel	2499	4	93.00	45
831 A2.000	Petrol	1301	4	76.10	39	AR 32302	Diesel	1910	4	82.00	28
831 B1.000	Petrol	1498	4	86.40	40	AR 32501	Diesel	2387	5	82.00	30
831 B1.048	Petrol	1498	4	86.40	40	AR 37101	Diesel	1910	4	82.00	28
831 B7.000	Petrol	1585	4	84.00	41	DW10ATED (RHZ)	Diesel	1997	4	85.00	66
831 B8.000	Petrol	1116	4	80.00	10	DW10ATED4 (RHM)	Diesel	1997	4	85.00	36
831 C5.046	Petrol	1995	4	84.00	20	DW10ATED4 (RHW)	Diesel	1997	4	85.00	36
831 D.000	Diesel	1929	4	82.60	42	DW10ATED4 (RHW)	Diesel	1997	4	85.00	66
831 D1.000	Diesel	1929	4	82.60	18	ES9 J4S	Petrol	2946	6	87.00	38
831 E5.000	Petrol	1995	4	84.00	19	P 8 C	Diesel	2088	4	85.00	68
831 E5.046	Petrol	1995	4	84.00	19	RFN	Petrol	1997	4	85.00	64
834 B.146	Petrol	1995	4	84.00	44	RFN(EW10J4)	Petrol	1997	4	85.00	35
834 B1.000	Petrol	1995	4	84.00	44	RGX (XU 10)	Petrol	1998	4	86.00	67
834 B2.000	Petrol	1995	4	84.00	43	RHK/RHR	Diesel	1997	4	85.00	36
834 B2.246	Petrol	1995	4	84.00	43	XU10 (RFV)	Petrol	1998	4	86.00	65
834 C1.000	Petrol	1995	4	84.00	43						
834 F.000	Petrol	2959	6	93.00	47						
834 F1.000	Petrol	1995	4	84.00	43						
834 F2.000	Petrol	1995	4	84.00	43						
835 A1.000	Petrol	1581	4	86.40	3						
835 A1.046	Petrol	1581	4	86.40	2						
835 A2.000	Petrol	1756	4	84.00	6						
835 A2.046	Petrol	1756	4	84.00	6						
835 A4.000	Diesel	1929	4	82.60	7						
835 A4.000	Diesel	1929	4	82.60	18						
835 A4.046	Diesel	1929	4	82.60	7						
835 A5.000	Petrol	1995	4	84.00	9						
835 A5.046	Petrol	1995	4	84.00	9						
835 A7.000	Petrol	1995	4	84.00	9						
835 A7.046	Petrol	1995	4	84.00	9						
835 A8.000	Petrol	1995	4	84.00	9						
835 A8.046	Petrol	1995	4	84.00	9						
835 C1.000	Petrol	1581	4	86.40	4						
835 C1.000	Petrol	1581	4	86.40	14						
835 C2.000	Petrol	1756	4	84.00	16						
835 C4.000	Petrol	1756	4	84.00	16						

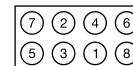




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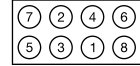
Dedra 1.6L 16V					01/96 → 07/99	1		
182 A4.000	1581	4	86.40	DOHC		<b>HBS131</b>  M10x1.25x100mm (x10)	1) 20Nm 2) 40Nm 3) 90° 4) 90°	
Dedra 1.6L i.e.					08/89 → 03/93	2		
835 A1.046	1581	4	86.40	SOHC	55/75	<b>HBS092</b>  M10x1.25x115mm (x10)	1) 20Nm 2) 40Nm 3) ↻ 90° 4) 40Nm 5) 90° 6) 90°	
Dedra 1.6L i.e.					08/89 → 06/94	3		
835 A1.000	1581	4	86.40	SOHC	55/75	<b>HBS092</b> →12/92  M10x1.25x115mm (x10)	1) 20Nm 2) 40Nm 3) ↻ 90° 4) 40Nm 5) 90° 6) 90°	
						<b>HBS051</b> 01/93 →  M10x1.25x98mm (x5) M10x1.25x84mm (x5)	1) 40Nm 2) 90° 3) 90°	
Dedra 1.6L i.e.					04/93 → 07/99	4		
Dedra 1.6L LE					07/94 → 07/99			
Dedra 1.6L SW					10/94 → 07/99			
159 B9.000	1581	4	86.40	SOHC	66/89	<b>HBS051</b>  M10x1.25x98mm (x5) M10x1.25x84mm (x5)	1) 40Nm 2) 90° 3) 90°	
835 C1.000	1581	4	86.40	SOHC	55/75			
Dedra 1.8L 16V LE					03/96 → 07/99	5		
Dedra 1.8L GT 16V					03/96 → 07/99			
182 A2.000/183 A1.000	1747	4	82.00	DOHC		<b>HBS132</b>  M10x1.25x254mm (x10)	1) 40Nm 2) ↻ 90° 3) 40Nm 4) 90° 5) 90° 6) 90°	
Dedra 1.8L i.e.					09/89 → 07/99	6		
836 A5.000	1756	4	84.00	DOHC	76/103	<b>HBS092</b>  M10x1.25x115mm (x10)	1) 20Nm 2) 40Nm 3) ↻ 90° 4) 40Nm 5) 90° 6) 90°	
835 A2.000/835 A2.046	1756	4	84.00	DOHC	79/107			
Dedra 1.9L TDS Diesel					04/89 → 07/99	7		
160 D1.000	1929	4	82.60	SOHC	66/90	<b>HBS095</b>  M12x1.25x133mm (x10)	1) 30Nm 2) 100Nm 3) 90° 4) 50Nm 5) 100Nm 6) ↻ 90° 7) 100Nm 8) 90° 9) 90°	
835 A4.000	1929	4	82.60	SOHC	68/92			
835 A4.046	1929	4	82.60	DOHC	68/92			
Dedra 2.0L 16V					07/94 → 07/99	8		
Dedra 2.0L Integrale					07/94 → 07/99			
836 A3.000	1995	4	84.00	DOHC	102/139	<b>HBS093</b>  M10x1.25x172mm (x10)	1) 70Nm 2) 90° 3) 90°	



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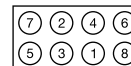
<b>Dedra 2.0L HF</b> 11/90 → 07/94 <b>9</b> <b>Dedra 2.0L i.e.</b> 09/89 → 07/99 <b>Dedra 2.0L i.e. Turbo Integrale</b> 05/90 → 07/94 <b>Dedra 2.0L i.e. Turbo</b> 04/91 → 07/99 <b>Dedra 2.0L Turbo</b> 11/90 → 06/94					<b>HBS092</b>  M10x1.25x115mm (x10)		1) 20Nm 2) 40Nm 3) ↻ 90° 4) 40Nm 5) 90° 6) 90°				
835 A5.046	1995	4	84.00	DOHC	83/113						
835 A5.000	1995	4	84.00	DOHC	88/120						
835 A8.046	1995	4	84.00	DOHC	119/162						
835 A7.000/835 A7.046	1995	4	84.00	DOHC	130/177						
835 A8.000	1995	4	84.00	DOHC	132-130/ 180-177						
<b>Delta 1.1L</b> 01/86 → 12/90 <b>10</b>					<b>HBS051</b>  M10x1.25x98mm (x5) M10x1.25x84mm (x5)		1) 40Nm 2) 90° 3) 90°				
831 B8.000	1116	4	80.00	SOHC	47/64						
<b>Delta 1.3L</b> 09/83 → 08/92 <b>11</b>					<b>HBS051</b>  M10x1.25x98mm (x5) M10x1.25x84mm (x5)				1) 40Nm 2) 90° 3) 90°		
831 A2.000	1301	4	76.10	SOHC	55/75						
<b>Delta 1.4L i.e.</b> 10/94 → 08/99 <b>12</b>					<b>HBS051</b>  M10x1.25x98mm (x5) M10x1.25x84mm (x5)		1) 40Nm 2) 90° 3) 90°				
160 A1.046/836 A4.000	1372	4	80.50	SOHC	51/69						
<b>Delta 1.6L HF Turbo</b> 08/86 → 05/93 <b>13</b>					<b>HBS092</b>  M10x1.25x115mm (x10)				1) 20Nm 2) 40Nm 3) ↻ 90° 4) 40Nm 5) 90° 6) 90°		
	1585	4			122/166						
<b>Delta 1.6L i.e.</b> 06/93 → 08/99 <b>14</b>					<b>HBS051</b>  M10x1.25x98mm (x5) M10x1.25x84mm (x5)						
835 C1.000	1581	4	86.40	SOHC	55/75						
<b>Delta 1.6L i.e.</b> 03/96 → 08/99 <b>15</b> <b>Delta 1.6L i.e. 16V</b> 01/96 → 08/99					<b>HBS131</b>  M10x1.25x100mm (x10)				1) 20Nm 2) 40Nm 3) 90° 4) 90°		
182 A4.000/182 A6.000	1581	4	86.40	DOHC							
<b>Delta 1.8L i.e.</b> 06/93 → 08/99 <b>16</b>					<b>HBS092</b>  M10x1.25x115mm (x10)		1) 20Nm 2) 40Nm 3) ↻ 90° 4) 40Nm 5) 90° 6) 90°				
835 C2.000/835 C4.000	1756	4	84.00	DOHC	76/103						
836 A6.000/836 C4.000	1756	4	84.00	SOHC	76/103						
<b>Delta 1.8L i.e. 16V</b> 03/96 → 08/99 <b>17</b> <b>Delta 1.8L i.e. 16V GT</b> 03/96 → 08/99					<b>HBS132</b>  M10x1.25x254mm (x10)		1) 40Nm 2) ↻ 90° 3) 40Nm 4) 90° 5) 90° 6) 90°				
182 A2.000/183 A1.000	1747	4	82.00	DOHC							



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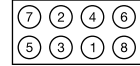
Delta 1.9L TD Diesel					10/94 → 08/99	18	HBS095	1) 30Nm 2) 100Nm 3) 90° 4) 50Nm 5) 100Nm 6) ↻ 90° 7) 100Nm 8) 90° 9) 90°	
Delta 1.9L Turbo DS Diesel					10/86 → 12/89				
831 D1.000	1929	4	82.60			62/84	M12x1.25x133mm (x10)		
160 D1.000	1929	4	82.60	SOHC	66/90				
835 A4.000	1929	4	82.60	SOHC	68/92				
Delta 2.0L 16V					06/93 → 08/99	19	HBS093	1) 70Nm 2) 90° 3) 90°	
Delta 2.0L 16V HF Evo Integrale					06/93 → 01/94				
Delta 2.0L 16V Turbo					06/93 → 08/99				
836 A3.000	1995	4	84.00	DOHC		102/139	M10x1.25x172mm (x10)		
175 A4.000/ 831 E5.000/831 E5.046/836 A2.000	1995	4	84.00	DOHC		137/186			
Delta 2.0L HF Integrale					12/86 → 12/92	20	HBS092	1) 20Nm 2) 40Nm 3) ↻ 90° 4) 40Nm 5) 90° 6) 90°	
831 C5.046	1995	4	84.00	DOHC		130/177			
Kappa 2.0L 16V Turbo					02/95 → 10/01	21	HBS093	1) 70Nm 2) 90° 3) 90°	
Kappa Coupe 2.0L 16V Turbo					11/96 → 03/01				
838 A4.000	1995	4	84.00	Motronic, DOHC		150/204	M10x1.25x172mm (x10)		
Kappa 2.0L 20V					10/94 → 10/01	22	HBS133	1) 20Nm 2) 40Nm 3) 90° 4) 90° 5) 90°	
Kappa 2.0L 20V Turbo					06/98 → 10/01				
Kappa Coupe 2.0L 20V					07/96 → 03/01				
Kappa Coupe 2.0L 20V Turbo					06/98 → 03/01				
838 A1.000	1998	5	82.00	DOHC		108/147	M10x1.25x254mm (x12)		
838 A6.000	1998	5	82.00	Motronic, DOHC		113/154			
175 A3.000	1998	5	82.00	Motronic, DOHC		162/220			
Kappa 2.4L 20V					08/94 → 10/01	23	HBS133	1) 20Nm 2) 40Nm 3) ↻ 90° 4) 40Nm 5) 90° 6) 90° 7) 90°	
Kappa Coupe 2.4L 20V					11/96 → 03/01				
838 A2.000	2446	5	83.00	Motronic, DOHC		129/175	M10x1.25x254mm (x12)		
838 A2.027	2446	5	83.00	DOHC		129/175			
Kappa 2.4L JTD Diesel					06/98 → 10/01	24	HBS257	1) 65Nm 2) 90° 3) 90° 4) 90°	
Kappa 2.4L T.DS Diesel					08/94 → 10/01				
838 A3.000/838 A7.000	2387	5	82.00	SOHC		91/124	M12x1.25x218mm (x12)		
838 A8.000	2387	5	82.00	SOHC		100/136			
Kappa 3.0L 24V					08/94 → 10/01	25	HBS272	1) 20Nm 2) ↻ 360° 3) 15Nm 4) 225°	
Kappa 3.0L 24V SW					07/96 → 10/01				
Kappa Coupe 3.0L 24V					11/96 → 03/01				
838 B.000	2959	6	93.00	Motronic, DOHC, V6			M10x1.50x147mm (x16)		
Lybra 1.6L 16V					07/99 →	26	HBS131	1) 20Nm 2) 40Nm 3) 90° 4) 90°	
182 A4.000	1581	4	86.40	DOHC					
Lybra 1.8L 16V					07/99 →	27	HBS132	1) 40Nm 2) ↻ 90° 3) 40Nm 4) 90° 5) 90° 6) 90°	
839 A4.000/839 A7.000/839 A9.000	1747	4	82.00	DOHC					



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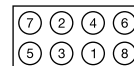
Model	Year	Cylinders	CC	Configuration	Power (kW/PS)	Wrench	Sequence																
<b>Lybra 1.9L JTD Diesel</b>	07/99 → 05/01					<b>28</b>	<b>HBS227</b>	1) 65Nm 2) 90° 3) 90° 4) 90°															
937 A2.000	1910	4	82.00	SOHC	85/116	 M12x1.25x218mm (x10)	<table border="1"> <tr><td>10</td><td>4</td><td>2</td><td>6</td><td>8</td></tr> <tr><td>7</td><td>5</td><td>1</td><td>3</td><td>9</td></tr> </table>	10	4	2	6	8	7	5	1	3	9						
10	4	2	6	8																			
7	5	1	3	9																			
AR 37101	1910	4	82.00	SOHC	85-80/ 116-109																		
AR 32302	1910	4	82.00	SOHC																			
<b>Lybra 2.0L 20V</b>	07/99 → 09/00					<b>29</b>	<b>HBS133</b>	1) 20Nm 2) 40Nm 3) 90° 4) 90° 5) 90°															
182 B7.000/185 A8.000	1998	5	82.00	DOHC	113/154	 M10x1.25x254mm (x12)	<table border="1"> <tr><td>10</td><td>6</td><td>4</td><td>2</td><td>8</td><td>12</td></tr> <tr><td>11</td><td>7</td><td>1</td><td>3</td><td>5</td><td>9</td></tr> </table>	10	6	4	2	8	12	11	7	1	3	5	9				
10	6	4	2	8	12																		
11	7	1	3	5	9																		
<b>Lybra 2.4L JTD Diesel</b>	07/99 → 05/02					<b>30</b>	<b>HBS257</b>	1) 65Nm 2) 90° 3) 90° 4) 90°															
839 A5.000	2387	5	82.00		99-96/ 135-131	 M12x1.25x218mm (x12)	<table border="1"> <tr><td>10</td><td>6</td><td>4</td><td>2</td><td>8</td><td>12</td></tr> <tr><td>11</td><td>7</td><td>1</td><td>3</td><td>5</td><td>9</td></tr> </table>	10	6	4	2	8	12	11	7	1	3	5	9				
10	6	4	2	8	12																		
11	7	1	3	5	9																		
AR 32501	2387	5	82.00	SOHC	100-99/ 136-135																		
839 A6.000	2387	5	82.00	SOHC	103/140																		
841C.000	2387	5	82.00	SOHC	110/150																		
<b>Musa 1.3L D Multijet Diesel</b>	09/06 →					<b>31</b>	<b>HBS353</b>	1) 20Nm 2) 40Nm 3) 90° 4) 90°															
<b>Musa 1.3L Multijet Diesel</b>	10/04 →						 M10x1.25x119mm (x10)	<table border="1"> <tr><td>8</td><td>6</td><td>1</td><td>3</td><td>9</td></tr> <tr><td>10</td><td>4</td><td>2</td><td>5</td><td>7</td></tr> </table>	8	6	1	3	9	10	4	2	5	7					
8	6	1	3	9																			
10	4	2	5	7																			
188 A9.000	1248	4	69.60	DOHC	51/70																		
199 A3.000	1248	4	69.60	DOHC	66/90																		
<b>Musa 1.4L</b>	10/04 →					<b>32</b>	<b>HBS247</b>	1) 30Nm 2) 90° 3) 90°															
843 A 1.000	1368	4	72.00	DOHC	70/95	 M9x1.25x87mm (x10)	<table border="1"> <tr><td>8</td><td>4</td><td>1</td><td>5</td><td>9</td></tr> <tr><td>7</td><td>3</td><td>2</td><td>6</td><td>10</td></tr> </table>	8	4	1	5	9	7	3	2	6	10						
8	4	1	5	9																			
7	3	2	6	10																			
<b>Musa 1.4L</b>	09/05 →					<b>33</b>	<b>HBS052</b>	1) 40Nm 2) 90° 3) 90°															
<b>Musa 1.4L LPG</b>	11/10 →						 M9x1.25x95mm (x10)	<table border="1"> <tr><td>8</td><td>4</td><td>1</td><td>5</td><td>9</td></tr> <tr><td>7</td><td>3</td><td>2</td><td>6</td><td>10</td></tr> </table>	8	4	1	5	9	7	3	2	6	10					
8	4	1	5	9																			
7	3	2	6	10																			
350 A1.000	1368	4	72.00	SOHC	57-55/ 78-75																		
<b>Musa 1.9L Multijet Diesel</b>	10/04 →					<b>34</b>	<b>HBS227</b>	1) 65Nm 2) 90° 3) 90° 4) 90°															
188 B2.000	1910	4	82.00	SOHC		 M12x1.25x218mm (x10)	<table border="1"> <tr><td>10</td><td>4</td><td>2</td><td>6</td><td>8</td></tr> <tr><td>7</td><td>5</td><td>1</td><td>3</td><td>9</td></tr> </table>	10	4	2	6	8	7	5	1	3	9						
10	4	2	6	8																			
7	5	1	3	9																			
<b>Phedra 2.0L</b>	09/02 →					<b>35</b>	<b>HBS259</b>	1) 15Nm 2) 50Nm 3) ↻ 360° 4) 20Nm 5) 285°															
RFN(EW10J4)	1997	4	85.00	DOHC		 M11x1.50x144.5mm (x10)	<table border="1"> <tr><td>8</td><td>4</td><td>1</td><td>5</td><td>9</td></tr> <tr><td>7</td><td>3</td><td>2</td><td>6</td><td>10</td></tr> </table>	8	4	1	5	9	7	3	2	6	10						
8	4	1	5	9																			
7	3	2	6	10																			
<b>Phedra 2.0L D Multijet Diesel</b>	07/06 →					<b>36</b>	<b>HBS261</b>	1) 20Nm 2) 60Nm 3) 220°															
<b>Phedra 2.0L JTD Diesel</b>	09/02 →						 M12x1.50x126mm (x10)	<table border="1"> <tr><td>8</td><td>4</td><td>1</td><td>5</td><td>9</td></tr> <tr><td>7</td><td>3</td><td>2</td><td>6</td><td>10</td></tr> </table>	8	4	1	5	9	7	3	2	6	10					
8	4	1	5	9																			
7	3	2	6	10																			
DW10ATED4 (RHM)	1997	4	85.00	DOHC	79/107																		
DW10ATED4 (RHW)	1997	4	85.00	SOHC	80/109																		
RHK/RHR	1997	4	85.00	DOHC																			
<b>Phedra 2.2L JTD Diesel</b>	09/02 →					<b>37</b>	<b>HBS261</b>	1) 20Nm 2) 60Nm 3) ↻ 360° 4) 60Nm 5) 220°															
4HW(DW12ATED4)	2179	4	85.00	DOHC		 M12x1.50x126mm (x10)	<table border="1"> <tr><td>8</td><td>4</td><td>1</td><td>5</td><td>9</td></tr> <tr><td>7</td><td>3</td><td>2</td><td>6</td><td>10</td></tr> </table>	8	4	1	5	9	7	3	2	6	10						
8	4	1	5	9																			
7	3	2	6	10																			
<b>Phedra 3.0L V6</b>	09/02 →					<b>38</b>	<b>HBS272</b>	1) 20Nm 2) ↻ 360° 3) 15Nm 4) 225°															
ES9 J4S	2946	6	87.00	V6		 M10x1.50x147mm (x16)	<table border="1"> <tr><td>7</td><td>3</td><td>2</td><td>5</td></tr> <tr><td>6</td><td>1</td><td>4</td><td>8</td></tr> <tr><td>6</td><td>1</td><td>4</td><td>8</td></tr> <tr><td>7</td><td>3</td><td>2</td><td>5</td></tr> </table>	7	3	2	5	6	1	4	8	6	1	4	8	7	3	2	5
7	3	2	5																				
6	1	4	8																				
6	1	4	8																				
7	3	2	5																				
<b>Prisma 1.3L</b>	01/83 → 02/92					<b>39</b>	<b>HBS051</b>	1) 40Nm 2) 90° 3) 90°															
831 A2.000	1301	4	76.10	SOHC	55/75	 M10x1.25x98mm (x5) M10x1.25x84mm (x5)	<table border="1"> <tr><td>8</td><td>4</td><td>1</td><td>5</td><td>9</td></tr> <tr><td>7</td><td>3</td><td>2</td><td>6</td><td>10</td></tr> </table>	8	4	1	5	9	7	3	2	6	10						
8	4	1	5	9																			
7	3	2	6	10																			



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Prisma 1.5L					09/85 → 02/92	40	HBS051		1) 40Nm 2) 90° 3) 90°	
831 B1.048	1498	4	86.40	SOHC	55/75		 M10x1.25x98mm (x5) M10x1.25x84mm (x5)			
831 B1.000	1498	4	86.40	DOHC	59-63/ 80-86					
138 C2.048	1498	4	86.40	SOHC						
Prisma 1.6L i.e.					05/86 → 12/89	41	HBS051		1) 40Nm 2) 90° 3) 90°	
831 B7.000	1585	4	84.00	DOHC	80/109		 M10x1.25x98mm (x5) M10x1.25x84mm (x5)			
Prisma 1.9L D Diesel					01/83 → 02/92	42	HBS095		1) 30Nm 2) 100Nm 3) 90° 4) 50Nm 5) 100Nm 6) ↻ 90° 7) 100Nm 8) 90° 9) 90°	
831 D.000	1929	4	82.60	SOHC	62/84		 M12x1.25x133mm (x10)			
Thema 2000 16V					08/92 → 12/93	43	HBS093		1) 70Nm 2) 90° 3) 90°	
Thema 2000 16V Turbo					12/88 → 07/94					
Thema 2000 i.e. 16V					05/88 → 08/92					
Thema 2000 i.e. 16V Turbo					12/88 → 06/90					
834 F1.000	1995	4	84.00	DOHC	102/139		 M10x1.25x172mm (x10)			
834 B2.000/834 B2.246	1995	4	84.00	DOHC	110/150					
834 C1.000/834 F2.000	1995	4	84.00	DOHC	136/185					
Thema 2000 i.e					09/88 → 05/92	44	HBS092		1) 20Nm 2) 40Nm 3) ↻ 90° 4) 40Nm 5) 90° 6) 90°	
Thema 2000 i.e.					09/87 → 05/92					
834 B.146/834 B1.000	1995	4	84.00	DOHC	88/120		 M10x1.25x115mm (x10)			
Thema 2.5L TD Diesel					01/92 →	45	HBS011		1) 20Nm 2) 40Nm 3) ↻ 90° 4) 40Nm 5) 90° 6) 90°	
Thema 2500 Turbo DS Diesel					06/88 → 04/97					
8144.97/8144.97 Y	2499	4	93.00	SOHC	85/115	 M12x1.25x160mm (x10) M12x1.25x119mm (x12)				
8140.97.2500	2499	4	93.00	Sofim, Turbo Intercooled	85/116					
Thema 2500 Turbo DS Diesel					05/88 → 07/92	46	HBS011		1) 20Nm 2) 40Nm 3) ↻ 90° 4) 40Nm 5) 90° 6) 90°	
8144.97S	2500	4	93.00		77/105		 M12x1.25x160mm (x10) M12x1.25x119mm (x12)			
Thema 3000 V6					08/92 → 07/94	47	HBS272		1) 20Nm 2) ↻ 360° 3) 15Nm 4) 225°	
834 F.000	2959	6	93.00	SOHC	126/171		 M10x1.50x147mm (x16)			
Thesis 2.0L Turbo					07/02 →	48	HBS133		1) 20Nm 2) 40Nm 3) 90° 4) 90° 5) 90°	
841E.000	1998	5	82.00	DOHC			 M10x1.25x254mm (x12)			
Thesis 2.4L					07/02 →	49	HBS133		1) 20Nm 2) 40Nm 3) ↻ 90° 4) 40Nm 5) 90° 6) 90° 7) 90°	
841D.000	2446	5	83.00	DOHC	125/170		 M10x1.25x254mm (x12)			

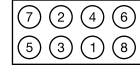




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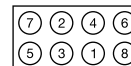
Thesis 2.4L D Multijet Diesel						04/06 →	50	<b>HBS257</b>  M12x1.25x218mm (x12)	1) 65Nm 2) 90° 3) 90° 4) 90°	
Thesis 2.4L JTD Diesel						07/02 →				
841C.000	2387	5	82.00	SOHC						
841 P.000	2387	5	82.00	DOHC						
Thesis 2.4L JTD Diesel						05/03 →	51	<b>HBS371</b>  M12x1.25x255mm (x12)	1) 65Nm 2) 90° 3) 90° 4) 90°	
841 G.000	2387	5	82.00	DOHC						
Thesis 3.0L V6						07/02 →	52	<b>HBS272</b>  M10x1.50x147mm (x16)	1) 20Nm 2) ↻ 360° 3) 15Nm 4) 225°	
841A.000	2959	6	93.00	DOHC, V6						
Y 1.1L						11/95 → 09/03	53	<b>HBS052</b>  M9x1.25x95mm (x10)	1) 40Nm 2) 90° 3) 90°	
176 B2.000	1108	4	70.00	SOHC						
Y 1.2L						03/96 → 09/03	54	<b>HBS052</b>  M9x1.25x95mm (x10)	1) 40Nm 2) 90° 3) 90°	
188 A4.000/840 A3.000	1242	4	70.80	SOHC						
Y 1.2L 16V						04/97 → 09/03	55	<b>HBS247</b>  M9x1.25x87mm (x10)	1) 30Nm 2) 90° 3) 90°	
188 A5.000	1242	4	70.80	DOHC						
176 B9.000	1242	4	70.80	DOHC						
Y 1.4L 12V						03/96 → 09/03	56	<b>HBS130</b>  M10x1.25x163mm (x10)	1) 20Nm 2) 50Nm 3) 90° 4) 90° 5) 90°	
840 A2.000/840 A4.000	1370	4	82.00	SOHC						
Y10 1.0L Fire						03/85 → 02/90	57	<b>HBS052</b>  M9x1.25x95mm (x10)	1) 40Nm 2) 90° 3) 90°	
Y10 1.0L Fire 4WD						12/86 → 02/92				
156 A 2.100	999	4	70.00	SOHC						
156 A2.246	999	4	70.00	SOHC						
156 A 2.000	999	4	70.00	SOHC						
Y10 1.1L Avenue						01/95 → 12/95	58	<b>HBS052</b>  M9x1.25x95mm (x10)	1) 40Nm 2) 90° 3) 90°	
Y10 1.1L Avenue 4WD						01/95 → 12/95				
Y10 1.1L i.e						08/89 → 06/92				
Y10 1.1L i.e 4WD						08/89 → 06/92				
176 B2.000	1108	4	70.00	SOHC						
156 C.000	1108	4	70.00	SOHC						
Ypsilon 1.2L						10/03 →	59	<b>HBS052</b>  M9x1.25x95mm (x10)	1) 40Nm 2) 90° 3) 90°	
188 A4.000	1242	4	70.80	SOHC						
Ypsilon 1.2L						10/03 →	60	<b>HBS247</b>  M9x1.25x87mm (x10)	1) 30Nm 2) 90° 3) 90°	
188 A5.000	1242	4	70.80	DOHC						
Ypsilon 1.3L D Multijet Diesel						09/06 →	61	<b>HBS353</b>  M10x1.25x119mm (x10)	1) 20Nm 2) 40Nm 3) 90° 4) 90°	
Ypsilon 1.3L JTD Diesel						10/03 →				
188 A9.000	1248	4	69.60	DOHC						
199 A3.000	1248	4	69.60	DOHC						
199 A2.000	1248	4	69.60	DOHC						



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Ypsilon 1.4L		10/03 →			62	HBS247	1) 30Nm 2) 90° 3) 90°	<table border="1"> <tr><td>8</td><td>4</td><td>1</td><td>5</td><td>9</td></tr> <tr><td>7</td><td>3</td><td>2</td><td>6</td><td>10</td></tr> </table>	8	4	1	5	9	7	3	2	6	10
8	4	1	5	9														
7	3	2	6	10														
843 A 1.000	1368	4	72.00	DOHC	70/95	M9x1.25x87mm (x10)												
Ypsilon 1.4L Ypsilon 1.4L LPG		02/06 → 11/10 →			63	HBS052	1) 40Nm 2) 90° 3) 90°	<table border="1"> <tr><td>8</td><td>4</td><td>1</td><td>5</td><td>9</td></tr> <tr><td>7</td><td>3</td><td>2</td><td>6</td><td>10</td></tr> </table>	8	4	1	5	9	7	3	2	6	10
8	4	1	5	9														
7	3	2	6	10														
350 A1.000	1368	4	72.00	SOHC	57-55/ 78-75	M9x1.25x95mm (x10)												
Zeta 2.0L 16V		07/00 →09/02			64	HBS259	1) 15Nm 2) 50Nm 3) ↻ 360° 4) 20Nm 5) 285°	<table border="1"> <tr><td>8</td><td>4</td><td>1</td><td>5</td><td>9</td></tr> <tr><td>7</td><td>3</td><td>2</td><td>6</td><td>10</td></tr> </table>	8	4	1	5	9	7	3	2	6	10
8	4	1	5	9														
7	3	2	6	10														
RFN	1997	4	85.00	DOHC		M11x1.50x144.5mm (x10)												
Zeta 2.0L 16V		05/98 →07/00			65	HBS087	1) 35Nm 2) 70Nm 3) 160°	<table border="1"> <tr><td>10</td><td>6</td><td>2</td><td>3</td><td>7</td></tr> <tr><td>9</td><td>5</td><td>1</td><td>4</td><td>8</td></tr> </table>	10	6	2	3	7	9	5	1	4	8
10	6	2	3	7														
9	5	1	4	8														
XU10 (RFV)	1998	4	86.00	DOHC	99/135	M12x1.50x110mm (x10) →Eng.08581												
Zeta 2.0L JTD Diesel		09/99 →09/02			66	HBS261	1) 20Nm 2) 60Nm 3) 220°	<table border="1"> <tr><td>8</td><td>4</td><td>1</td><td>5</td><td>9</td></tr> <tr><td>7</td><td>3</td><td>2</td><td>6</td><td>10</td></tr> </table>	8	4	1	5	9	7	3	2	6	10
8	4	1	5	9														
7	3	2	6	10														
DW10ATED (RHZ) DW10ATED4 (RHW)	1997 1997	4 4	85.00 85.00	SOHC DOHC	66/89 80/109	M12x1.50x126mm (x10)												
Zeta 2.0L Turbo		05/95 →09/02			67	HBS084	1) 35Nm 2) 70Nm 3) 160°	<table border="1"> <tr><td>10</td><td>6</td><td>2</td><td>3</td><td>7</td></tr> <tr><td>9</td><td>5</td><td>1</td><td>4</td><td>8</td></tr> </table>	10	6	2	3	7	9	5	1	4	8
10	6	2	3	7														
9	5	1	4	8														
RGX (XU 10)	1998	4	86.00	SOHC	108/147	M12x1.50x123mm (x10)												
Zeta 2.1L TD Diesel		05/96 →09/99			68	HBS125	1) 30Nm 2) 70Nm 3) ↻ 90° 4) 70Nm 5) 150° 6) ↓ 7) * 8) ↻ 90° 9) 70Nm 10) 150°	<table border="1"> <tr><td>8</td><td>4</td><td>1</td><td>5</td><td>9</td></tr> <tr><td>7</td><td>3</td><td>2</td><td>6</td><td>10</td></tr> </table>	8	4	1	5	9	7	3	2	6	10
8	4	1	5	9														
7	3	2	6	10														
P 8 C	2088	4	85.00	SOHC	80/109	M12x1.50x150.5mm (x10)												

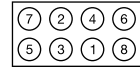
# LAND ROVER



cc



kW/PS



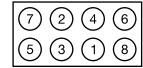
Defender 2.5L Td5 4WD Diesel		06/98 →		1	
Defender 2.5L TDI Diesel		09/90 → 12/98		2	
11 L (200Tdi)	2495	4	90.47	83-79/ 113-107	<p>M10x1.50x117mm (x4) M12x1.50x100mm (x4) M12x1.50x125mm (x10)</p>
23 L (300Tdi)	2495	4	90.47	86-83/ 117-113	
16 L (300Tdi)	2495	4	90.47		
Discovery 2.0L 16V		09/93 → 06/94		3	
20 T4H (T Series)	1994	4	84.45	99/135	<p>M11x1.50x162mm (x10)</p>
Discovery 2.5L Td5 Mk II Diesel		01/99 →		4	
10P	2495	5	Direct Injection	102/139	<p>M11x1.50x293mm (x12)</p>
Discovery 3.5L		09/89 → 06/94		5	
22 D	3528	8	88.86	V8	<p>M11x1.75x65mm (x14) M11x1.75x95mm (x6)</p>
Freelander 1.8L i 16V		02/98 → 11/00		6	
18 K4F	1796	4	80.00	DOHC	<p>M9x1.25x412mm (x10)</p>
Freelander 2.0L DI Diesel		02/98 → 11/00		7	
20 T2N (L Series)	1994	4	84.45	72/98	<p>M11x1.50x230mm (x10)</p>
Freelander 2.0L Td4 Diesel		11/00 →		8	
M47 D2OR	1951	4	84.00	80/109	<p>M12x1.50x146.5mm (x10)</p>
M47 D2OR	1951	4	84.00	82/112	
Freelander 2.5L V6		11/00 →		9	
25 K4F	2497	6	80.00	DOHC, V6	<p>M9x1.25x200mm (x16)</p>











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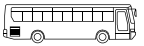
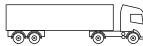
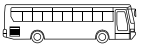
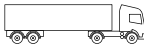
kW/PS



Range Rover 2.5L D Diesel		04/94 → 03/02			10			
17 L (300Tdi)	2495	4	90.47		83/113	<b>HBS223</b>  M10x1.50x117mm (x4) M12x1.50x100mm (x4) M12x1.50x140mm (x10)	1) 40Nm 2) 60° 3) 60° 4) 20°	
Range Rover 2.5L D Diesel		07/94 → 03/02			11			
25 6T (BMW M51D25)	2497	6	80.00	SOHC	100/136	<b>HBS066</b>  M12x1.50x146.5mm (x14)	1) 80Nm 2) ↺ 180° 3) 80Nm 4) 90° 5) 90° 6) ↓ 7) ✳ 8) 90°	
Range Rover 2.5LTDI Diesel		01/90 → 03/94			12			
12 L (200Tdi)	2495	4	90.47	Turbo Intercooled		<b>HBS224</b>  M10x1.50x117mm (x4) M12x1.50x100mm (x4) M12x1.50x125mm (x10)	1) 40Nm 2) 60° 3) 60°	
Range Rover 3.0L TD Diesel		03/02 →			13			
	2926	6			130/177	<b>HBS066</b>  M12x1.50x146.5mm (x14)	1) 80Nm 2) ↺ 180° 3) 50Nm 4) 90° 5) 90° 6) ↓ 7) ✳ 8) 90°	
Range Rover 3.5L Range Rover 3.5L Vogue		01/87 → 09/90 10/85 → 09/90			14			
31 D 24 D/25 D	3528 3528	8 8	88.86 88.86	V8 V8	107/146 120/163	<b>HBS222</b>  M11x1.75x65mm (x14) M11x1.75x95mm (x6)	1) 20Nm 2) 90° 3) 90°	

		cc			9			cc			9
217	Petrol	6870	6	108.00	4	D 0836 LF41	Diesel	6871	6	108.00	6
D 0824 FL01	Diesel	4580	4	108.00	1	D 0836 LF44	Diesel	6871	6	108.00	6
D 0824 GF	Diesel	4580	4	108.00	1	D 0836 LFL02	Diesel	6871	6	108.00	5
D 0824 GF01	Diesel	4580	4	108.00	1	D 0836 LFL03	Diesel	6871	6	108.00	5
D 0824 GFO2	Diesel	4580	4	108.00	1	D 0836 LFL05	Diesel	6871	6	108.00	5
D 0824 LFO1	Diesel	4580	4	108.00	1	D 0836 LFL40	Diesel	6871	6	108.00	6
D 0824 LFO2	Diesel	4580	4	108.00	1	D 0836 LFL41	Diesel	6871	6	108.00	6
D 0824 LFL01	Diesel	4580	4	108.00	1	D 0836 LFL44	Diesel	6871	6	108.00	6
D 0824 LFL02	Diesel	4580	4	108.00	1	D 0836 LFL50	Diesel	6871	6	108.00	6
D 0824 LFL04	Diesel	4580	4	108.00	1	D 0836 LFL51	Diesel	6871	6	108.00	6
D 0824 LFL05	Diesel	4580	4	108.00	1	D 0836 LFL52	Diesel	6871	6	108.00	6
D 0824 LFL06	Diesel	4580	4	108.00	1	D 0836 LFL53	Diesel	6871	6	108.00	6
D 0824 LFL07	Diesel	4580	4	108.00	1	D 0836 LFL54	Diesel	6871	6	108.00	6
D 0824 LFL08	Diesel	4580	4	108.00	1	D 0836 LFL55	Diesel	6871	6	108.00	6
D 0824 LFL09	Diesel	4580	4	108.00	1	D 0836 LOH02	Diesel	6871	6	108.00	5
D 0824 LFO	Diesel	4580	4	108.00	1	D 0836 LOH40	Diesel	6871	6	108.00	6
D 0824 LOH01	Diesel	4580	4	108.00	1	D 0836 LOH51	Diesel	6871	6	108.00	5
D 0826 F01	Diesel	6871	6	108.00	5	D 0836 LOH51	Diesel	6871	6	108.00	6
D 0826 F02	Diesel	6871	6	108.00	5	D 0836 LOH55	Diesel	6871	6	108.00	5
D 0826 GF	Diesel	6871	6	108.00	5	D 0836 LOH55	Diesel	6871	6	108.00	6
D 0826 GF01	Diesel	6871	6	108.00	5	D 2840 LF01	Diesel	18273	10	128.00	14
D 0826 GF03	Diesel	6871	6	108.00	5	D 2840 LF04	Diesel	18273	10	128.00	14
D 0826 LF	Petrol	6870	6	108.00	4	D 2840 LF06	Diesel	18273	10	128.00	14
D 0826 LF01	Diesel	6871	6	108.00	5	D 2840 LF20	Diesel	18273	10	128.00	14
D 0826 LF02	Diesel	6871	6	108.00	5	D 2840 LF260	Diesel	9973	5	128.00	7
D 0826 LF04	Diesel	6871	6	108.00	5	D 2865 LUH02	Diesel	9973	5	128.00	7
D 0826 LF05	Diesel	6871	6	108.00	5	D 2865 LUH05	Diesel	9973	5	128.00	7
D 0826 LF06	Diesel	6871	6	108.00	5	D 2865 LUH07	Diesel	9973	5	128.00	7
D 0826 LF07	Diesel	6871	6	108.00	5	D 2865 LUH08	Diesel	9973	5	128.00	7
D 0826 LF08	Diesel	6871	6	108.00	5	D 2865 LUH09	Diesel	9973	5	128.00	7
D 0826 LF10	Diesel	6871	6	108.00	5	D 2866 F/240	Diesel	11967	6	128.00	8
D 0826 LF11	Diesel	6871	6	108.00	5	D 2866 KF	Diesel	11967	6	128.00	8
D 0826 LF13	Diesel	6871	6	108.00	5	D 2866 KUH/360	Diesel	11967	6	128.00	8
D 0826 LF15	Diesel	6871	6	108.00	5	D 2866 KUL	Diesel	11967	6	128.00	8
D 0826 LF17	Diesel	6871	6	108.00	5	D 2866 LXF	Diesel	11967	6	128.00	9
D 0826 LF18	Diesel	6871	6	108.00	5	D 2866 LFZ/290	Diesel	11967	6	128.00	8
D 0826 LFL02	Diesel	6871	6	108.00	5	D 2866 LFZ/330	Diesel	11967	6	128.00	8
D 0826 LFL03	Diesel	6871	6	108.00	5	D 2866 LOH29	Diesel	11967	6	128.00	9
D 0826 LFL06	Diesel	6871	6	108.00	5	D 2866 LUH20	Diesel	11967	6	128.00	8
D 0826 LFL09	Diesel	6871	6	108.00	5	D 2866 LUH21	Diesel	11967	6	128.00	8
D 0826 LFL10	Diesel	6871	6	108.00	5	D 2866 LUH22	Diesel	11967	6	128.00	8
D 0826 LOH01	Diesel	6871	6	108.00	5	D 2866 LUH24	Diesel	11967	6	128.00	9
D 0826 LOH06	Diesel	6871	6	108.00	5	D 2866 LUH26	Diesel	11967	6	128.00	8
D 0826 LOH15	Diesel	6871	6	108.00	5	D 2866 LUL/330	Diesel	11967	6	128.00	8
D 0826 LUH	Petrol	6870	6	108.00	4	D 2876 LXF	Diesel	11967	6	128.00	8
D 0826 LUH	Diesel	6871	6	108.00	5	D 2876 LF02	Diesel	12816	6	128.00	10
D 0826 LUH01	Diesel	6871	6	108.00	5	D 2876 LF05	Diesel	12816	6	128.00	12
D 0826 LUH03	Diesel	6871	6	108.00	5	D 2876 LF12	Diesel	12816	6	128.00	13
D 0826 LUH05	Diesel	6871	6	108.00	5	D 2876 LF13	Diesel	12816	6	128.00	13
D 0826 LUH12	Petrol	6870	6	108.00	4	D 2876 LF25	Diesel	12816	6	128.00	13
D 0826 LUH13	Diesel	6871	6	108.00	5	D 2876 LOH01	Diesel	12816	6	128.00	11
D 0826 OH02	Diesel	6871	6	108.00	5	D 2876 LOH02	Diesel	12816	6	128.00	11
D 0826 TF	Diesel	6596	6	108.00	3	D 2876 LOH03	Diesel	12816	6	128.00	11
D 0834 LFL02	Diesel	4580	4	108.00	1	D 2876 LOH03	Diesel	12816	6	128.00	12
D 0834 LFL03	Diesel	4580	4	108.00	1	D 2876 LOH20	Diesel	12816	6	128.00	13
D 0834 LFL40	Diesel	4580	4	108.00	2	D 2876 LOH21	Diesel	12816	6	128.00	13
D 0834 LFL41	Diesel	4580	4	108.00	2	Silent	Petrol	6870	6	108.00	4
D 0834 LFL42	Diesel	4580	4	108.00	2						
D 0834 LFL50	Diesel	4580	4	108.00	2						
D 0834 LFL51	Diesel	4580	4	108.00	2						
D 0834 LFL52	Diesel	4580	4	108.00	2						
D 0834 LFL53	Diesel	4580	4	108.00	2						
D 0834 LFL54	Diesel	4580	4	108.00	2						
D 0834 LFL55	Diesel	4580	4	108.00	2						
D 0834 LFL60	Diesel	4580	4	108.00	2						
D 0834 LFL61	Diesel	4580	4	108.00	2						
D 0834 LFL63	Diesel	4580	4	108.00	2						
D 0834 LFL64	Diesel	4580	4	108.00	2						
D 0836 LFO1	Diesel	6871	6	108.00	5						
D 0836 LFO2	Diesel	6871	6	108.00	5						
D 0836 LFO3	Diesel	6871	6	108.00	5						
D 0836 LFO4	Diesel	6871	6	108.00	5						
D 0836 LFO5	Diesel	6871	6	108.00	5						



 		<b>21</b>	9	 		<b>21</b>	9
Cab-over Trucks 19.332 U,19.322 ULL	07/86→02/90	8		F 90 33.262 DFK	08/88→02/90	7	
Cab-over Trucks 19.362 U,19.362 ULL	07/86→01/91	8		F 90 33.362 DF	09/87→02/90	8	
Cab-over Trucks 24.332 UNL,24.332 UNLL	10/86→02/90	8		F 90 33.362 DFK	09/87→02/90	8	
Cab-over Trucks 24.362 UNL,24.362 UNLL	10/86→02/90	8		F 90 33.362 DFS	09/87→02/90	8	
EL EL 202,EL 222	01/93→06/97	4		F 90 33.502 DF	09/91→06/96	14	
EL EL 202,EL 222	01/93→06/97	5		F 90 33.502 DFA	09/91→06/96	14	
EL EL 202,EL 262	04/94→06/97	4		F 90 35.262 VF	02/89→02/90	7	
EL EL 202,EL 262	04/94→06/97	5		F 90 35.262 VFA	07/89→02/90	7	
EL EL 262	07/98→	8		F 90 35.262 VFK	02/89→02/90	7	
EM EM 192	10/93→06/97	5		F 90 35.292 VF	10/88→04/95	8	
EM EM 222,EM 223	02/96→	4		F 90 35.292 VFK	10/88→04/95	8	
EM EM 222,EM 223	02/96→	5		F 90 35.332 VF	10/88→04/95	8	
EM EM 223	08/87→	5		F 90 35.332 VFK	10/88→04/95	8	
F 90 19.242 F,19.242 FL,19.242 FLL	01/88→01/89	8		F 90 40.502 DFA	02/90→06/96	14	
F 90 19.242 FK	01/88→02/89	8		F 90 41.262 VF	07/89→02/90	7	
F 90 19.242 FS,19.242 FLS,19.242 FLLS	01/88→01/89	8		F 90 41.262 VFK	07/89→02/90	7	
F 90 19.262 F,19.262 FL,19.262 FLL	01/88→02/90	7		F 2000 19.414 FAC	06/98→	9	
F 90 19.262 FA	02/89→02/90	7		F 2000 19.414 FAK, FA-KI	06/98→	9	
F 90 19.262 FAK	02/89→02/90	7		F 2000 19.414 FAS	06/98→	9	
F 90 19.262 FAS	02/89→02/90	7		F 2000 19.414 FC, FLC, FLLC, FRC, FLRC, FLLRC, FLL, FLLR, F-NL	06/98→	9	
F 90 19.262 FK	01/88→02/90	7		F 2000 19.414 FK, FLK, F-KI, FL-KI	06/98→	9	
F 90 19.262 FS,19.262 FLS,19.262 FLLS	01/88→02/90	7		F 2000 19.414 FS, FLS, FLLS, FRS, FLRS, FLLRS	06/98→	9	
F 90 19.362 F,19.362 FL,19.362 FLL	07/86→02/90	8		F 2000 19.463 FAC	01/94→	10	
F 90 19.362 FK	07/86→02/90	8		F 2000 19.463 FAK, FA-KI	01/94→	10	
F 90 19.362 FS,19.362 FLS,19.362 FLLS	07/86→02/90	8		F 2000 19.463 FAS	01/94→	10	
F 90 19.502 F,19.502 FL,19.502 FLL	02/90→06/96	14		F 2000 19.463 FC, FLC, FLLC, FRC, FLRC, F-NL	01/94→	10	
F 90 19.502 FS,19.502 FLS,19.502 FLLS	02/90→06/96	14		F 2000 19.463 FK, FLK, F-KI, FL-KI	01/94→	10	
F 90 24.242 DF	01/88→07/89	8		F 2000 19.463 FS, FLS, FLLS, FRS, FLRS, FLLRS	01/94→	10	
F 90 24.242 DFK	01/88→07/89	8		F 2000 19.603 FLS, 19604 FLS	04/96→	14	
F 90 24.242 DFS	01/88→07/89	8		F 2000 23.463 FNLLC	01/94→	10	
F 90 24.242 FNL,24.242 FNLL,24.242 FVL	01/88→02/90	8		F 2000 24.463 FNLLC	01/94→	10	
F 90 24.262 DF	01/88→02/90	7		F 2000 26.463 DFC, DFCL	01/94→	10	
F 90 24.262 DFK	01/88→02/90	7		F 2000 26.463 DFK,26.463 DFLK	01/94→	10	
F 90 24.262 DFS,24.262 DFSL	01/88→02/90	7		F 2000 26.463 DFS,26.463 DFSL	01/94→	10	
F 90 24.262 FNL,24.262 FNLL,24.262 FVL	01/88→02/90	7		F 2000 26.463 FNLC, FNLLC, FVLC	01/94→	10	
F 90 24.362 DF	04/87→02/90	8		F 2000 26.463 FNLS,26.463 FVLS	01/94→	10	
F 90 24.362 DFK	04/87→02/90	8		F 2000 26.603 DFC, DFCL	06/96→	14	
F 90 24.362 DFS,24.362 DFSL	04/87→02/90	8		F 2000 26.603 DFK, DFLK	06/96→	14	
F 90 24.362 FNL,24.362 FNLL,24.362 FVL	10/86→02/90	8		F 2000 26.603 DFS, DFSL	06/96→	14	
F 90 24.362 FNLS,24.362 FVLS	10/86→02/90	8		F 2000 27.463 DFAC	01/94→	10	
F 90 24.502 DF	02/90→12/90	14		F 2000 27.463 DFAK, DFA-KI	01/94→	10	
F 90 24.502 DFK	02/90→12/90	14		F 2000 27.463 DFAS	01/94→	10	
F 90 24.502 DFS	02/90→12/90	14		F 2000 27.463 DFC	01/94→	10	
F 90 24.502 FNL	02/90→12/90	14		F 2000 27.463 DFK, DF-KI	01/94→	10	
F 90 25.502 DF	09/90→12/92	14		F 2000 27.463 DFS	01/94→	10	
F 90 25.502 DFS	09/90→12/92	14		F 2000 27.603 DFAS	01/96→	14	
F 90 25.502 FNL	09/90→12/92	14		F 2000 27.603 DFS	01/96→	14	
F 90 26.242 DF	01/88→07/89	8		F 2000 32.463 VFC	08/95→	10	
F 90 26.242 DFAK	02/89→07/89	8		F 2000 32.463 VFK	08/95→	10	
F 90 26.242 DFK	01/88→07/89	8		F 2000 33.463 DFAC	01/94→	10	
F 90 26.242 DFS	01/88→07/89	8		F 2000 33.463 DFAK, DFA-KI	01/94→	10	
F 90 26.262 DF	01/88→02/90	7		F 2000 33.463 DFAS	01/94→	10	
F 90 26.262 DFA	02/89→02/90	7		F 2000 33.463 DFC	01/94→	10	
F 90 26.262 DFAK	02/89→02/90	7		F 2000 33.463 DFK, DF-KI	01/94→	10	
F 90 26.262 DFAS	02/89→02/90	7		F 2000 33.463 DFS, DFSL	01/94→	10	
F 90 26.262 DFK	01/88→02/90	7		F 2000 33.603 DFAC	06/96→	14	
F 90 26.262 DFS	01/88→02/90	7		F 2000 33.603 DFAS	06/96→	14	
F 90 26.362 DF,26.362 DFL	09/87→02/90	8		F 2000 33.603 DFC	06/96→	14	
F 90 26.362 DFK	09/87→02/90	8		F 2000 33.603 DFS	06/96→	14	
F 90 26.362 DFS	09/87→02/90	8		F 2000 35.463 VF, VFC, VFRC	08/95→	10	
F 90 26.502 DF	02/90→06/96	14		F 2000 35.463 VFK, VF-HK, VF-KI	08/95→	10	
F 90 26.502 DFA	02/90→12/92	14		F 2000 41.463 VF, VFC, VFRC	08/95→	10	
F 90 26.502 DFAS	02/90→12/92	14		F 2000 41.463 VFK, VF-HK, VF-KI	08/95→	10	
F 90 26.502 DFS,26.502 DFSL	02/90→06/96	14		G 90 10.150 F,10.150 FL	09/87→10/93	5	
F 90 26.502 FNL,26.502 FNLL	09/91→06/96	14		G 90 10.150 FK	09/87→10/93	5	
F 90 32.262 VF	02/89→02/90	7		G 90 6.100 F	09/87→10/93	1	
F 90 32.262 VFK	02/89→02/90	7		G 90 6.100 FK	09/87→10/93	1	
F 90 32.262 VFTM	02/89→02/90	7		G 90 8.100 F	09/87→10/93	1	
F 90 33.242 DFAK	01/88→08/88	8		G 90 8.100 FK	09/87→10/93	1	
F 90 33.242 DFK	01/88→08/88	8		G 90 8.150 F,8.150 FL	09/87→10/93	5	
F 90 33.262 DF	08/88→02/90	7		G 90 8.150 FAE	05/88→05/95	5	
F 90 33.262 DFA	07/89→02/90	7		G 90 8.150 FAKO	10/92→05/95	5	
F 90 33.262 DFAK	07/89→02/90	7		G 90 8.150 FK	09/87→10/93	5	



**21** **9**

G 90 8.150 FOC	07/88→10/93	5
G 90 8.150 FS,8.150 FLS	09/87→10/93	5
G 90 9.150 F,9.150 FL	09/87→10/93	5
G 90 9.150 FAE	05/88→05/92	5
G 90 9.150 FAKO	10/92→05/95	5
G 90 9.150 FK	09/87→10/93	5
G 90 9.150 FOC	07/88→10/93	5
G 90 9.150 FS,9.150 FLS	09/87→10/93	5
HOCL 14.280 HOCL	02/00→	5
HOCL 14.280 HOCL	02/00→	6
HOCL 18.280 HOCL-NL	02/00→	5
HOCL 18.280 HOCL-NL	02/00→	6
L 2000 10.145 LC,10.145 LLC, LRC, LLRC (LE140C)	09/00→	1
L 2000 10.145 LK, LRK, L-KI, LR-KI (LE140C)	09/00→	1
L 2000 10.145 LLS, LLRS (LE140C)	09/00→	1
L 2000 10.150 FOC	02/95→01/96	1
L 2000 10.153 LAEK	10/93→06/96	1
L 2000 10.153 LC,10.153 LLC	10/93→06/96	1
L 2000 10.153 LK	10/93→06/96	1
L 2000 10.153 LLS	10/93→06/96	1
L 2000 10.163 LAC, LAEC, LARC, LAERC	05/94→	1
L 2000 10.163 LAK, LAEK, LARK, LAERK	01/95→	1
L 2000 10.163 LC,10.163 LLC	05/94→	1
L 2000 10.163 LC,10.163 LLC, LRC, LLRC (LE160C)	09/00→	1
L 2000 10.163 LK, LRK, L-KI, LR-KI	05/94→	1
L 2000 10.163 LLS, LLRS	05/94→	1
L 2000 10.185 LAC, LAEC, LARC, LAERC, LA-LA, LAE-LF (LE180C)	09/00→	1
L 2000 10.185 LAK, LAEK, LARK, LAERK (LE180C)	09/00→	1
L 2000 10.185 LC,10.185 LLC, LRC, LLRC (LE180C)	09/00→	1
L 2000 10.185 LK, LRK, L-KI, LR-KI (LE180C)	09/00→	1
L 2000 10.185 LLS, LLRS (LE180C)	09/00→	1
L 2000 10.220 FOC,10.220 FOCL	02/95→	5
L 2000 10.223 LAEC	01/95→06/96	5
L 2000 10.223 LC,10.223 LLC	10/93→06/96	5
L 2000 10.223 LK	10/93→06/96	5
L 2000 10.223 LLS	10/93→06/96	5
L 2000 10.224 LAC, LAEC, LARC, LAERC	01/95→	5
L 2000 10.224 LAK, LAEK, LARK, LAERK	01/95→	5
L 2000 10.224 LC,10.224 LLC, LRC, LLRC	05/94→	5
L 2000 10.224 LK, LRK, L-KI, LR-KI	05/94→	5
L 2000 10.224 LLS, LLRS	05/94→	5
L 2000 10.225 LAC, LAEC, LARC, LAERC, LA-LF, LAE-LF (LE220C)	09/00→	5
L 2000 10.225 LAK, LAEK, LARK, LAERK (LE220C)	09/00→	5
L 2000 10.225 LC, 10.225 LLC, LRC, LLRC (LE220C)	09/00→	5
L 2000 10.225 LK, LRK, L-KI, LR-KI(LE220C)	09/00→	5
L 2000 10.225 LLS, LLRS (LE220C)	09/00→	5
L 2000 12.185 LC, LLC (LE180C)	09/99→	1
L 2000 12.225 LC, LLC (LE220C)	09/99→	5
L 2000 8.103 LC, 8.103 LLC	10/93→06/96	1
L 2000 8.103 LK	10/93→06/96	1
L 2000 8.113 LC, 8.113 LLC	08/95→	1
L 2000 8.113 LC,8.113 LLC, LRC, LLRC, (LE110C)	09/00→	1
L 2000 8.113 LK, LRK, L-KI, LR-KI	08/95→	1
L 2000 8.145 LC,8.145 LLC, L-LF (LE140C)	09/00→	1
L 2000 8.145 LLS, LLRS (LE140C)	09/00→	1
L 2000 8.145 LRK, L-KI, LR-KILK (LE140C)	09/00→	1
L 2000 8.150 FOC,8.150 FOCL	02/95→	1
L 2000 8.153 LAEC	01/95→06/96	1
L 2000 8.153 LAEK	01/95→09/96	1
L 2000 8.153 LC,8.153 LLC	10/93→07/97	1
L 2000 8.153 LK	10/93→07/97	1
L 2000 8.153 LLS	10/93→06/96	1
L 2000 8.163 LAC, LAEC, LARC, LAERC, LA-LF, LAE-LF	01/95→	1
L 2000 8.163 LAEC	08/95→03/97	1
L 2000 8.163 LC,8.163 LLC	05/94→	1
L 2000 8.163 LC,8.163 LLC (LE160C)	09/00→	1
L 2000 8.163 LC,8.163 LLC, LRC, LLRC, L-LF	08/95→	1
L 2000 8.163 LK, LRK, L-KI, LR-KI	05/94→	1
L 2000 8.163 LLS, LLRS	05/94→	1
L 2000 8.185 LAC, LAEC, LARC, LAERC, LA-LF, LAE-LF (LE180C)	09/00→	1
L 2000 8.185 LAK, LAEK, LARK, LAERK (LE180C)	09/00→	1
L 2000 8.185 LC,8.185 LLC, LRC, LLRC, L-LF (LE180C)	09/00→	1



**21** **9**

L 2000 8.185 LK, LRK, L-KI, LR-KI (LE180C)	09/00→	1
L 2000 8.185 LLS, LLRS (LE180C)	09/00→	1
L 2000 8.220 FOC,8.220 FOCL	04/95→	5
L 2000 8.223 LAEC	01/95→06/96	5
L 2000 8.223 LC,8.223 LLC	10/93→06/96	5
L 2000 8.223 LK	10/93→06/96	5
L 2000 8.223 LLS	10/93→06/96	5
L 2000 8.224 LAC, LAEC, LARC, LAERC	01/95→	5
L 2000 8.224 LAK, LAEK, LARK, LAERK	01/95→	5
L 2000 8.224 LC,8.224 LLC, LRC, LLRC	05/94→	5
L 2000 8.224 LK, LRK, L-KI, LR-KI	05/94→	5
L 2000 8.224 LLS, LLRS	05/94→	5
L 2000 8.225 LAC, LAEC, LARC, LAERC (LE220C)	09/00→	5
L 2000 8.225 LAK, LAEK, LARK, LAERK (LE220C)	09/00→	5
L 2000 8.225 LC,8.225 LLC, LRC, LLRC (LE220C)	09/00→	5
L 2000 8.225 LK, LRK, L-KI, LR-KI (LE220C)	09/00→	5
L 2000 8.225 LLS, LLRS (LE220C)	09/00→	5
L 2000 9.145 LC,9.145 LLC, LRC, LLRC (LE140C)	09/00→	1
L 2000 9.145 LK, LRK, L-KI, LR-KI (LE140C)	09/00→	1
L 2000 9.145 LLS, LLRS (LE140C)	09/00→	1
L 2000 9.153 LC,9.153 LLC	10/93→06/96	1
L 2000 9.153 LK	10/93→06/96	1
L 2000 9.153 LLS	10/93→12/95	1
L 2000 9.163 LC	08/95→03/97	1
L 2000 9.163 LC,9.163 LLC, LRC, LLRC	05/94→	1
L 2000 9.163 LK	08/95→03/97	1
L 2000 9.163 LK, LRK, L-KI, LR-KI	05/94→	1
L 2000 9.163 LLS, LLRS	05/94→	1
L 2000 9.185 LC,9.185 LLC, LRC, LLRC (LE180C)	09/00→	1
L 2000 9.185 LK, LRK, L-KI, LR-KI (LE180C)	09/00→	1
L 2000 9.185 LLS, LLRS (LE 180C)	09/00→	1
L 2000 9.223 LC,9.223 LLC	10/93→06/96	5
L 2000 9.223 LK	10/93→06/96	5
L 2000 9.223 LLS	10/93→06/96	5
L 2000 9.224 LC,9.224 LLC, LRC, LLRC	05/94→	5
L 2000 9.224 LK, LRK, L-KI, LR-KI	05/94→	5
L 2000 9.224 LLS, LLRS	05/94→	5
L 2000 9.225 LC,9.225 LLC, LRC, LLRC (LE220C)	09/00→	5
L 2000 9.225 LK, LRK, L-KI, LR-KI (LE220C)	09/00→	5
L 2000 9.225 LLS, LLRS (LE220C)	09/00→	5
LC LC 19.280	02/00→	5
LC LC 19.280	02/00→	6
LION S COACH RH 413	01/00→	9
LION S COACH RH 463, RHC 464	01/00→	11
LION S COACH RH 463, RHC 464	01/00→	12
LION S COMFORT RN 313	09/96→	8
LION S COMFORT RN 353	06/97→	8
LION S STAR RH 464, RHS 464	03/00→	11
LION S STAR RH 464, RHS 464	03/00→	12
LION S STAR RH 464, RHS 464	01/02→	11
LION S STAR RH 464, RHS 464	01/02→	12
M 90 12.152 F,12.152 FL	12/88→05/94	5
M 90 12.152 FK	12/88→05/94	5
M 90 12.152 FS,12.152 FLS	12/88→05/94	5
M 90 12.192 F,12.192 FL	07/90→06/96	5
M 90 12.192 FA	10/92→06/96	5
M 90 12.192 FAK	10/92→06/96	5
M 90 12.192 FK	07/90→06/96	5
M 90 12.192 FS,12.192 FLS	07/90→06/96	5
M 90 12.222 F,12.222 FL	05/94→06/96	5
M 90 12.222 FA	05/94→06/96	5
M 90 12.222 FAK	05/94→06/96	5
M 90 12.222 FK	05/94→06/96	5
M 90 12.222 FLS	05/94→06/96	5
M 90 12.232 F,12.232 FL	08/88→06/96	5
M 90 12.232 FA	05/90→06/96	5
M 90 12.232 FAK	05/90→06/96	5
M 90 12.232 FK	08/88→06/96	5
M 90 12.232 FLS	08/88→06/96	5
M 90 12.262 F,12.262 FL	08/95→06/96	5
M 90 12.262 FK	08/95→06/96	5
M 90 12.262 FS,12.262 FLS	08/95→06/96	5
M 90 12.272 F,12.272 FL	10/92→06/96	5

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M 90 12.272 FA	10/93→04/95	5	M 2000 L 12.163 LK, LRK	08/95→	1				
M 90 12.272 FAK	10/93→04/95	5	M 2000 L 12.185 LC, LLC, LRC, LLRC	05/01→	1				
M 90 12.272 FK	10/92→06/96	5	M 2000 L 12.224 LC, LLC, LRC, LLRC	08/95→	5				
M 90 12.272 FS,12.272 FLS	10/92→06/96	5	M 2000 L 12.224, 12.225, LK, LRK	08/95→	5				
M 90 14.152 F,14.152 FL	12/88→04/94	5	M 2000 L 12.225 LC, LLC, LLLC, LRC, LLRC	05/01→	5				
M 90 14.152 F,14.152 FL	05/94→06/96	1	M 2000 L 14.163 LC, LLC, LRC, LLRC	08/95→	1				
M 90 14.152 FK	12/88→05/94	5	M 2000 L 14.163 LK, LRK	08/95→	1				
M 90 14.152 FK	05/94→06/96	1	M 2000 L 14.224 LAC, LARC	08/95→	5				
M 90 14.152 FS,14.152 FLS	12/88→05/94	5	M 2000 L 14.224 LAK, LARK	08/95→	5				
M 90 14.152 FS,14.152 FLS	05/94→06/96	1	M 2000 L 14.224 LC, LLC, LLLC, LRC, LLRC, LLLRC	08/95→	5				
M 90 14.162 F,14.162 FL	08/95→06/96	1	M 2000 L 14.224 LK, LRK	08/95→	5				
M 90 14.162 FK	08/95→06/96	1	M 2000 L 14.225 LAC, LARC, (LE220B)	09/00→	5				
M 90 14.162 FS,14.162 FLS	08/95→06/96	1	M 2000 L 14.225 LAK, LARK, (LE220B)	09/00→	5				
M 90 14.192 F,14.192 FL	08/88→06/90	3	M 2000 L 14.225 LC, LLC, LLLC, LRC, LLRC, LLLRC, (LE220B)	09/00→	5				
M 90 14.192 F,14.192 FL	07/90→06/96	5	M 2000 L 14.225 LK, LRK (LE220B)	09/00→	5				
M 90 14.192 FK	08/88→06/90	3	M 2000 L 14.255 LC, LLC, LLLC, LRC, LLRC, LLLRC, (LE250B)	09/00→	5				
M 90 14.192 FK	07/90→06/96	5	M 2000 L 14.263, 14.264 LAC, LARC	08/95→	5				
M 90 14.192 FS,14.192 FLS	08/88→06/90	3	M 2000 L 14.263, 14.264 LAK, LARK	08/95→	5				
M 90 14.192 FS,14.192 FLS	07/90→06/96	5	M 2000 L 14.263, 14.264 LC, LLC, LLLC, LRC, LLRC, LLLRC	08/95→	5				
M 90 14.222 F,14.222 FL	05/94→06/96	5	M 2000 L 14.263, 14.264 LK, LRK	08/95→	5				
M 90 14.222 FK	05/94→06/96	5	M 2000 L 14.284 LC, LLC, LLLC, LRC, LLRC, LLLRC	10/98→	5				
M 90 14.222 FLS	05/94→06/96	5	M 2000 L 14.284, 14.285, LAC, LARC	06/98→	5				
M 90 14.232 F,14.232 FL	08/88→06/96	5	M 2000 L 14.284, 14.285, LAK, LARK	06/98→	5				
M 90 14.232 F,14.232 FL	05/90→04/95	4	M 2000 L 14.284, 14.285, LA-LF	06/98→	5				
M 90 14.232 FK	08/88→06/96	5	M 2000 L 14.284, 14.285, LK, LRK	10/98→	5				
M 90 14.232 FS,14.232 FLS	08/88→06/96	5	M 2000 L 15.163 LC, LLC, LRC	08/95→	1				
M 90 14.232 FS,14.232 FLS	05/90→04/95	4	M 2000 L 15.163 LK, LRK	08/95→	1				
M 90 14.262 F,14.262 FL	08/95→06/96	5	M 2000 L 15.224 LC, LLC, LLLC, LRC, LLRC, LLLRC	08/95→	5				
M 90 14.262 FK	08/95→06/96	5	M 2000 L 15.224 LK, LRK	08/95→	5				
M 90 14.262 FS,14.262 FLS	08/95→06/96	5	M 2000 L 15.225 LC, LLC, LLLC, LRC, LLRC, LLLRC, (LE220B)	09/99→	5				
M 90 14.272 F,14.272 FL	10/92→06/96	5	M 2000 L 15.225 LK, LRK, (LE220B)	09/99→	5				
M 90 14.272 FK	10/92→06/96	5	M 2000 L 15.255 LC, LLC, LLLC, LRC, LLRC, LLLRC, (LE250B)	09/99→	5				
M 90 14.272 FS,14.272 FLS	12/92→06/96	5	M 2000 L 15.255 LK, LRK, (LE250B)	09/99→	5				
M 90 17.192 F,17.192 FL	08/88→06/90	3	M 2000 L 15.263, 15.264 LC, LLC, LLLC, LRC, LLRC, LLLRC	08/95→	5				
M 90 17.192 F,17.192 FL	07/90→04/95	5	M 2000 L 15.263, 15.264 LK, LRK	08/95→	5				
M 90 17.192 FA	02/89→06/90	3	M 2000 L 15.284 LC, LLC, LLLC, LRC, LLRC, LLLRC	06/98→	5				
M 90 17.192 FA	07/90→06/96	5	M 2000 L 15.284 LK, LRK	06/98→	5				
M 90 17.192 FAK	02/89→06/90	3	M 2000 L 15.285 LC, LLC, LLLC, LRC, LLRC, LLLRC, (LE280B)	09/99→	5				
M 90 17.192 FAK	07/90→06/96	5	M 2000 L 15.285 LK, LRK, (LE280B)	09/99→	5				
M 90 17.192 FK	08/88→06/90	3	M 2000 L 18.224, 18.225, LAC, LARC	08/95→	5				
M 90 17.192 FK	07/90→01/91	5	M 2000 L 18.224, 18.225, LAK, LARK	08/95→	5				
M 90 17.192 FS,17.192 FLS	08/88→06/90	3	M 2000 L 18.224, 18.225, LC, LLC, LLLC, LRC, LLRC, LLLRC	08/95→	5				
M 90 17.192 FS,17.192 FLS	07/90→04/95	5	M 2000 L 18.224, 18.225, LK, LK, LK, LK, LK, LK	08/95→	5				
M 90 17.222 FA	05/94→06/96	5	M 2000 L 18.255 LAC, LARC	05/01→	5				
M 90 17.222 FAK	05/94→06/96	5	M 2000 L 18.255 LC, LLC, LLLC, LRC, LLRC, LLLRC, (LE250B)	09/99→	5				
M 90 17.232 F,17.232 FL	08/88→04/95	5	M 2000 L 18.263, 18.264, LAC, LARC	08/95→	5				
M 90 17.232 F,17.232 FL	05/90→04/95	4	M 2000 L 18.263, 18.264, LAK, LARK	08/95→	5				
M 90 17.232 FA	02/89→06/96	5	M 2000 L 18.263, 18.264, LC, LLC, LLLC, LRC, LLRC, LLLRC	08/95→	5				
M 90 17.232 FA	05/90→04/95	4	M 2000 L 18.263, 18.264, LK, LK, LK, LK, LK, LK	08/95→	5				
M 90 17.232 FAK	02/89→06/96	5	M 2000 L 18.284 LAC, LARC	06/98→	5				
M 90 17.232 FAK	05/90→04/95	4	M 2000 L 18.284 LAK, LARK	06/98→	5				
M 90 17.232 FK	08/88→01/91	5	M 2000 L 18.284 LC, LLC, LLLC, LRC, LLRC, LLLRC	06/98→	5				
M 90 17.232 FK	05/90→01/91	4	M 2000 L 18.284, 18.285, LK, LK, LK, LK, LK, LK	06/98→	5				
M 90 17.232 FS,17.232 FLS	08/88→04/95	5	M 2000 L 18.284, 18.285, L-KO, L-R-KO	06/98→	5				
M 90 17.232 FS,17.232 FLS	05/90→04/95	4	M 2000 L 18.285 LAC, LARC (LE280B)	09/99→	5				
M 90 17.272 FLS	10/92→05/95	5	M 2000 L 18.285 LAK, LARK, (LE280B)	09/99→	5				
M 90 18.192 F,18.192 FL,18.192 FLL	09/90→06/96	5	M 2000 L 18.285 LC, LLC, LLLC, LRC, LLRC, LLLRC, (LE280B)	09/99→	5				
M 90 18.192 FK	09/90→06/96	5	M 2000 L 19.284, 19.285, LLLC	05/01→	5				
M 90 18.222 F,18.222 FL,18.222 FLL	05/94→06/96	5	M 2000 M 14.224 MAK	08/95→12/05	5				
M 90 18.222 FK	05/94→06/96	5	M 2000 M 14.224 MC, MLC, MLLC	08/95→12/05	5				
M 90 18.232 F,18.232 FL,18.232 FLL	09/90→06/96	5	M 2000 M 14.224 MK	08/95→12/05	5				
M 90 18.232 FK	09/90→06/96	5	M 2000 M 14.224 MLS, MLRS	08/95→12/05	5				
M 90 18.262 F,18.262 FL,18.262 FLL	08/95→06/96	5	M 2000 M 14.225 MC, MLC, MLLC	10/00→	5				
M 90 18.262 FK	08/95→06/96	5	M 2000 M 14.225 MLS, MLRS	02/03→	5				
M 90 18.272 F,18.272 FL,18.272 FLL	10/92→06/96	5	M 2000 M 14.255 MC, MLC, MLLC	10/00→	5				
M 90 18.272 FK	10/92→06/96	5	M 2000 M 14.255 MLS, MLRS	10/00→	5				
M 90 24.192 FNL,24.192 FNLL,24.192 FVL	07/89→06/96	5	M 2000 M 14.264 MC, MLC, MLLC	08/95→12/05	5				
M 90 24.222 FNL,24.222 FNLL,24.222 FVL	05/94→06/96	5	M 2000 M 14.264 MLS, MLRS	08/95→12/05	5				
M 90 24.232 FNL	05/90→04/95	4	M 2000 M 14.284 MAK	06/98→12/05	5				
M 90 24.232 FNL,24.232 FNLL,24.232 FVL	07/89→06/96	5	M 2000 M 14.284 MA-KO, MA-LF	06/98→12/05	5				
M 90 24.262 FNL,24.262 FNLL,24.262 FVL	08/95→06/96	5	M 2000 M 14.284 MC, MLC, MLLC	06/98→12/05	5				
M 90 24.272 FNL,24.272 FNLL,24.272 FVL	10/92→06/96	5	M 2000 M 14.284 MLS, MLRS	06/98→12/05	5				
M 2000 L 12.163 LC, LLC, LRC, LLRC	08/95→	1	M 2000 M 14.285 MLC, MLLC (ME280C)	09/99→12/05	5				



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M 2000 M 14.285 MLS, MLRS	02/03→	5	TGA 18.530 FC, FLC, FLLC, FLLC/N, FLLW, FLLRC, FLLRW	09/02→	13
M 2000 M 18.224 MAC, MARC	08/95→12/05	5	TGA 18.530 FLS, FLLS, FLLS/N	09/02→	13
M 2000 M 18.224 MAK, MARK	08/95→12/05	5	TGA 24.480 FNLLC/N, FNLLW, FNLLRC, FNLLRW	09/02→	13
M 2000 M 18.224 MC, MLC, MLLC, MRC, MLRC, MLLRC	08/95→12/05	5	TGA 24.510 FNLLC/N, FNLLW, FNLLRW	09/01→	12
M 2000 M 18.224 MK, 18.224 MLK, MRK, MLRK	08/95→12/05	5	TGA 24.530 FNLLC/N, FNLLW, FNLLRW	09/01→	13
M 2000 M 18.224 MLS, MLRS	08/95→12/05	5	TGA 26.280 FNLC, FNLLC, FNLLW	11/02→	6
M 2000 M 18.225 MAC, MARC	02/03→	5	TGA 26.330 FNLC, FNLLC, FNLLW	11/02→	6
M 2000 M 18.225 MC, MLC, MLLC, MRC, MLRC, MLLRC	10/00→	5	TGA 26.480 FDAC, FDALC, FDARC	09/02→	13
M 2000 M 18.255 MAC, MARC	10/00→	5	TGA 26.480 FDAK, FDALK	09/02→	13
M 2000 M 18.255 MC, MLC, MLLC, MLRC, MLLRC	10/00→	5	TGA 26.480 FDAS, FDALS, FDARS	09/02→	13
M 2000 M 18.255 MLS, MLRS	10/00→	5	TGA 26.480 FDC, FDLC, FDRC, FDLC/M, FDLRC-WW	09/02→	13
M 2000 M 18.264 MAC, MARC	08/95→12/05	5	TGA 26.480 FDK, FDLK, FDLRK	09/02→	13
M 2000 M 18.264 MAK, MARK	08/95→12/05	5	TGA 26.480 FDS, FDLS, FDLS/M, FDLRS-WW, FDRS	09/02→	13
M 2000 M 18.264 MC, MLC, MLLC, MRC, MLRC, MLLRC	08/95→12/05	5	TGA 26.480 FD-TM	09/02→	13
M 2000 M 18.264 MK, 18.264 MLK, MRK, MLRK	08/95→12/05	5	TGA 26.480 FNLC, FNLLC, FVLC, FNLLRC, FVLLW	09/02→	13
M 2000 M 18.264 MLS, MLRS	08/95→12/05	5	TGA 26.480 FNLS, FNLLS, FNLSR, FPLS, FVLS	09/02→	13
M 2000 M 18.284 MAC, MARC	06/98→12/05	5	TGA 26.480 FVL-KO	09/02→	13
M 2000 M 18.284 MAK, MARK	06/98→12/05	5	TGA 26.510 FDC, FDC/M, FDRC, FDLC, FDLC/M, FDLRC	01/01→	12
M 2000 M 18.284 MC, MLC, MLLC, MRC, MLRC, LLRC	06/98→12/05	5	TGA 26.510 FDS, FDLS, FDLS/M, FDRS, FDLRS	01/01→	12
M 2000 M 18.284 MK, 18.284 MLK, MRK, MLRK	06/98→12/05	5	TGA 26.510 FNLC, FNLLC, FNLLW, FNLLRC, FVLC	12/00→	12
M 2000 M 18.284 MLS, MLRS	06/98→12/05	5	TGA 26.510 FNLS, FNLLS, FNLSR, FPLS, FVLS	12/00→	12
M 2000 M 18.285 MAC, MARC	02/03→	5	TGA 26.530 FDAC, FDALC	07/06→	13
M 2000 M 18.285 MC, MLC, MLLC	06/98→12/05	5	TGA 26.530 FDAK, FDALK	09/02→	13
M 2000 M 18.285 MLS, MLRS	02/03→	5	TGA 26.530 FDAS, FDALS	07/06→	13
M 2000 M 25.224 MNLC, MNLLC, MNLRC, MNLLRC, MVLC	08/95→12/05	5	TGA 26.530 FDC, FDLC, FDLK, FDLRC	01/01→	13
M 2000 M 25.225 MNLC, MNLLC, MNLRC, MNLLRC, MVLC	02/03→	5	TGA 26.530 FDK, FDLK, FDLRK	09/02→	13
M 2000 M 25.255 MNLC, MNLLC, MNLRC, MNLLRC, MVLC	10/00→	5	TGA 26.530 FDS, FDLS, FDLS/M, FDLRS	01/01→	13
M 2000 M 25.264 MNLC, MNLLC, MNLRC, MNLLRC, MVLC	08/95→12/05	5	TGA 26.530 FNLC, FNLLC, FNLLW, FNLLRC, FVLC, FVLR	09/02→	13
M 2000 M 25.284 MNLC, MNLLC, MNLRC, MNLLRC, MVLC	02/00→	5	TGA 26.530 FNLS, FNLLS, FNLSR, FPLS, FVLS, FVLSR	09/02→	13
M 2000 M 25.285 MNLC, MNLLC, MNLRC, MNLLRC, MVLC	02/03→	5	TGA 28.390 FNLLC	07/06→	13
NG NG 262	06/97→07/98	7	TGA 28.480 FANLK	07/06→	13
NG NG 262, NG 263	07/98→	8	TGA 28.480 FNLC, FNLLC, FNLCR	09/02→	13
NG NG 262, NG 272	08/92→07/98	5	TGA 28.480 FNLS, FNLSR	09/02→	13
NG NG 312	09/95→07/98	7	TGA 28.510 FNLC, FNLLC, FNLCR	09/02→	12
NG NG 312, NG 313	07/98→	8	TGA 28.510 FNLS, FNLSR	09/02→	12
NL NL 202	09/89→04/94	4	TGA 28.530 FANLC	07/06→	13
NL NL 202	09/89→04/94	5	TGA 28.530 FANLK	07/06→	13
NL NL 202, NL 222, NL 223	08/92→	4	TGA 28.530 FNLC, FNLLC, FNLCR	09/02→	13
NL NL 202, NL 222, NL 223	08/92→	5	TGA 28.530 FNLS, FNLSR	09/02→	13
NL NL 202, NL 262, NL 263	04/91→	4	TGA 32.480 FFDC, FFDLC, FFDLRC	09/02→	13
NL NL 202, NL 262, NL 263	04/91→	5	TGA 32.480 FFDK, FFDLK	09/02→	13
NL NL 262	06/97→	7	TGA 32.480 FFD-TM	09/02→	13
NL NL 262, NL 263	07/98→	8	TGA 33.480 FDAC, FDAC-WW, FDALC, FDARC	09/02→	13
NL NL 312	11/95→07/98	7	TGA 33.480 FDAK, FDAK-WW, FDALK	09/02→	13
NL NL 313	07/98→	8	TGA 33.480 FDAS, FDAS-WW, FDARS, FDALS	09/02→	13
NM NM 152	05/90→10/93	5	TGA 33.480 FDC, FDC-WW, FDLC, FDRC-WW, FDLRC	09/02→	13
NM NM 152	04/92→03/97	1	TGA 33.480 FDK, FDK-WW, FDLK, FDRK-WW	09/02→	13
NM NM 182, NM 192	05/90→03/97	5	TGA 33.480 FDS, FDS-WW, FDLS, FDLS/M, FDRS-WW, FDLRS	09/02→	13
NM NM 222, NM 223	02/96→	4	TGA 33.480 FD-TM	09/02→	13
NM NM 222, NM 223	02/96→	5	TGA 33.510 FDC, FDC/M, FDLC, FDRC, FDLRC	09/02→	12
NM NM 223	08/87→	5	TGA 33.510 FDS, FDLS/M, FDRS, FDLRS/M	09/02→	12
NÜ NÜ 263	09/96→07/98	7	TGA 33.530 FDAK, FDALK	09/02→	13
NÜ NÜ 263	07/98→	5	TGA 33.530 FDAS, FDALS	09/02→	13
NÜ NÜ 263	07/98→	8	TGA 33.530 FDC, FDC/M, FDLC, FDRC, FDLRC	09/02→	13
NÜ NÜ 313	07/98→	8	TGA 33.530 FDK, FDLK	07/03→	13
NÜ NÜ 313 15M	07/98→	8	TGA 33.530 FDS, FDLS, FDLS/M, FDRS, FDLRS	07/03→	13
NÜ NÜ 353 15M	07/98→	8	TGA 35.480 FFDK	07/06→	13
R FRH 362	05/85→12/92	8	TGA 35.480 FFDK, FFDLK	10/03→	13
SG SG 312, SG 322	02/94→06/97	7	TGA 35.530 FFDK	07/06→	13
SM SM 152	11/87→04/94	5	TGA 35.530 FFDC, FFDLC	04/04→	13
SM SM 182, SM 192	11/87→02/95	5	TGA 35.530 FFDK, FFDLK	04/04→	13
SÜ SÜ 272	04/93→05/95	7	TGA 40.480 FDAK-WW	04/04→	13
SÜ SÜ 283	09/03→	5	TGA 40.480 FDAS-WW	04/04→	13
SÜ SÜ 283	09/03→	6	TGA 40.480 FDK-WW	04/04→	13
SÜ SÜ 313	09/03→	9	TGA 40.480 FDS-WW	04/04→	13
SÜ SÜ 322	05/95→06/97	7	TGA 41.480 FFDK	07/06→	13
TGA 18.480 FAC, FARC	09/02→	13	TGA 41.480 FFDK-WW, FFDRC	06/05→	13
TGA 18.480 FAK, FAK-L, FALK	09/02→	13	TGA 41.480 FFDK-WW	06/05→	13
TGA 18.480 FC, FLC, FLLC, FLLW, FLLRW, FLLRC	09/02→	13	TGA 41.530 FFDK	07/06→	13
TGA 18.480 FK, FLK, FK-L	09/02→	13	TGA 41.530 FVDS, FVDLS	09/02→	13
TGA 18.480 FLS, FLLS, FLLS/N, FLS-TS, FLRS-WW	09/02→	13	TGL 7.150, 8.150 FC, FRC, FLC, FLRC	04/05→	2
TGA 18.510 FC, FLC, FRC, FLLC, FLLC/N, FLLW, FLLRC, FLLRW	09/00→	12	TGL 7.180 FC, FLC, FRC, FLRC	04/05→	2
TGA 18.510 FLS, FLLS, FLLS/N, FLRS, FLLRS	04/00→	12	TGL 8.150 FK, FRK, FK-L, FRK-L	10/06→	2



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TGL 8.180 FC, FRC, FLC, FLRC	04/05→	2
TGL 8.180 FK, FK-L, FRK, FRK-L	04/05→	2
TGL 8.210 FC, FRC, FLC, FLRC	04/05→	2
TGL 8.210 FK, FK-L, FRK, FRK-L	04/05→	2
TGL 8.240 FC, FRC, FLC, FLRC	04/05→	6
TGL 8.240 FK, FK-L, FRK, FRK-L	04/05→	6
TGL 10.180 FC, FRC, FLC, FLRC	04/05→	2
TGL 10.180 FK, FRK	04/05→	2
TGL 10.210 FC, FRC, FLC, FLRC	04/05→	2
TGL 10.210 FK, FRK	04/05→	2
TGL 10.240 FC, FRC, FLC, FLRC	04/05→	6
TGL 10.240 FK, FRK	04/05→	6
TGL 12.180 FC, FRC, FLC, FLRC	04/05→	2
TGL 12.180 FK, FRK	04/05→	2
TGL 12.210 FC, FRC, FLC, FLRC	04/05→	2
TGL 12.210 FK, FRK	04/05→	2
TGL 12.240 FC, FRC, FLC, FLRC	04/05→	6
TGL 12.240 FK, FRK	04/05→	6
TGM 12.240 FLC, FLRC	10/05→	6
TGM 12.280 FC, FLC, FLRC	10/05→	6
TGM 13.240 FAL, FALC, FALRC, FAEC, FAERC, FALR	04/06→	6
TGM 13.240 FALK, FALRK, FALK-L, FALRK-L	04/06→	6
TGM 13.280 FAEC, FAERC, FAL, FALC, FALRC	04/06→	6
TGM 13.280 FALK, FALRK, FALK-L, FALRK-L	04/06→	6
TGM 15.240 FC, FLC, FLRC, FLRC	10/05→	6
TGM 15.240 FLK, FLRK	10/05→	6
TGM 15.280 FC, FLC, FLRC, FLRC	10/05→	6
TGM 15.280 FLK, FLRK	10/05→	6
TGM 15.330 FC, FLC, FRC, FLRC	10/05→	6
TGM 15.330 FLK, FLRK	10/05→	6
TGM 18.240 FAC, FARC	10/05→	6
TGM 18.240 FAK, FARK	05/06→	6
TGM 18.240 FC, FRC, FLC, FLRC, FLRC, FLRC	10/05→	6
TGM 18.240 FK, FRK, FLK, FK-L, FLRK	10/05→	6
TGM 18.280 FAC, FARC	10/05→	6
TGM 18.280 FAK, FARK	10/05→	6
TGM 18.280 FC, FRC, FLC, FLRC, FLRC, FLRC	10/05→	6
TGM 18.280 FK, FLK, FRK, FLRK, FK-L	10/05→	6
TGM 18.330 FAC, FARC	10/05→	6
TGM 18.330 FAK, FARK	10/05→	6
TGM 18.330 FC, FRC, FLC, FLRC, FLRC, FLRC	10/05→	6
TGM 18.330 FK, FLK, FRK, FLRK, FK-L	10/05→	6
TGM 26.280 FDK, FDRK-HK	04/06→	6
TGM 26.280 FDR-TM	04/06→	6
TGM 26.330 FDK, FDRK-HK	04/06→	6
TGM 26.330 FDR-TM	04/06→	6
ÜL ÜL 272	03/93→	7
ÜL ÜL 312, ÜL 322	04/92→09/96	7
ÜL ÜL 313	09/96→	8
ÜL ÜL 353	06/97→	8





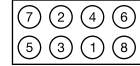
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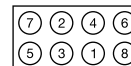
						<b>1</b>	<b>HBS473 (x2)</b>	1) 10Nm 2) 80Nm 3) 150Nm 4) 90° 5) 90° 6) 90°	
D 0824 FL01	4580	4	108.00	Euro 1/Turbo Intercooled	75/102	 M14x2x140mm (x8)	1) 10Nm 2) 80Nm 3) 150Nm 4) 90° 5) 90° 6) 90°		
D 0824 GF/D 0824 GF01	4580	4	108.00		75/102				
D 0824 GF02	4580	4	108.00	Euro 1	75/102				
D 0824 LFL04	4580	4	108.00	Euro 2/Turbo Intercooled	81/110				
D 0824 LFL08	4580	4	108.00	Euro 2/Turbo Intercooled	83/113				
D 0834 LFL02	4580	4	108.00	Euro 3/Turbo Intercooled	103/140				
D 0824 LFL07	4580	4	108.00	Euro 2/Turbo Intercooled	104/141				
D 0824 LFL01/D 0824 LFL01/ D 0824 LFL05	4580	4	108.00	Euro 1/Turbo Intercooled	114/155				
D 0824 LFL06	4580	4	108.00	Euro 2/Turbo Intercooled	114/155				
D 0824 LFL09/D 0824 LOH01	4580	4	108.00	Euro 1/Turbo Intercooled	114/155				
D 0824 LFL02/D 0824 LFL02	4580	4	108.00	Euro 2/Turbo Intercooled	118/160				
D 0824 LFO	4580	4	108.00	Euro 1/Turbo Intercooled	118/160				
D 0834 LFL03	4580	4	108.00	Euro 3/Turbo Intercooled	132/180				
									<b>2</b>
D 0834 LFL40	4580	4	108.00	Euro 3/Turbo Intercooled	110/150	 M14x2x152mm (x8)	1) 10Nm 2) 80Nm 3) 150Nm 4) 90° 5) 90° 6) 90°		
D 0834 LFL50/D 0834 LFL53	4580	4	108.00	Euro 4/Turbo Intercooled	110/150				
D 0834 LFL60	4580	4	108.00	EEV/Turbo Intercooled	110/150				
D 0834 LFL63	4580	4	108.00	Euro 5/Turbo Intercooled	110/150				
D 0834 LFL41	4580	4	108.00	Euro 3/Turbo Intercooled	132/180				
D 0834 LFL51/D 0834 LFL54	4580	4	108.00	Euro 4/Turbo Intercooled	132/180				
D 0834 LFL61	4580	4	108.00	EEV/Turbo Intercooled	132/180				
D 0834 LFL64	4580	4	108.00	Euro 5/Turbo Intercooled	132/180				
D 0834 LFL42	4580	4	108.00	Euro 3/Turbo Intercooled	151/206				
D 0834 LFL52/D 0834 LFL55	4580	4	108.00	Euro 4/Turbo Intercooled	151/206				
									<b>3</b>
D 0826 TF	6596	6	108.00	Turbo	137/186	 M14x2x140mm (x8)	1) 10Nm 2) 80Nm 3) 150Nm 4) 90° 5) 90° 6) 90°		
						<b>4</b>	<b>HBS473 (x3)</b>	1) 10Nm 2) 80Nm 3) 150Nm 4) 90° 5) 90° 6) 90°	
D 0826 LF/217/Silent	6870	6	108.00	Turbo Intercooled	160/218	 M14x2x140mm (x8)	1) 10Nm 2) 80Nm 3) 150Nm 4) 90° 5) 90° 6) 90°		
D 0826 LUH12	6870	6	108.00	Euro 1/Turbo Intercooled	162/220				
D 0826 LUH	6870	6	108.00	Euro 1/Turbo Intercooled	184/250				



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5						HBS473 (x3)	1) 10Nm 2) 80Nm 3) 150Nm 4) 90° 5) 90° 6) 90°				
D 0826 F02/D 0826 GF03	6871	6	108.00		110/150	 M14x2x140mm (x8)	1) 10Nm 2) 80Nm 3) 150Nm 4) 90° 5) 90° 6) 90°				
D 0826 F01	6871	6	108.00		110-114/ 150-155						
D 0826 GF	6871	6	108.00	Turbo	110-114/ 150-155						
D 0826 GF01	6871	6	108.00	Euro 1	110-114/ 150-155						
D 0826 OH02	6871	6	108.00		110-114/ 150-155						
D 0826 LF01/D 0826 LF05	6871	6	108.00	Turbo Intercooled	140/190						
D 0826 LF07	6871	6	108.00	Euro 1/Turbo Intercooled	140/190						
D 0826 LOH01	6871	6	108.00	Turbo Intercooled	140/190						
D 0826 LOH06	6871	6	108.00	Euro 1/Turbo Intercooled	140/190						
D 0826 LF10	6871	6	108.00	Euro 2/Turbo Intercooled	142-169/ 193-230						
D 0826 LUH	6871	6	108.00	Turbo Intercooled	157/213						
D 0826 LUH03	6871	6	108.00	Euro 1/Turbo Intercooled	157/214						
D 0826 LF11/D 0826 LF15/ D 0826 LF18	6871	6	108.00	Euro 2/Turbo Intercooled	162/220						
D 0826 LFL03/D 0826 LFL06/ D 0826 LFL10	6871	6	108.00	Euro 1/Turbo Intercooled	162/220						
D 0826 LOH15	6871	6	108.00	Euro 2/Turbo Intercooled	162/220						
D 0836 LF02/D 0836 LF04	6871	6	108.00	Euro 3/Turbo Intercooled	162/220						
D 0836 LFL02	6871	6	108.00	Euro 2/3/Turbo Intercooled	162/220						
D 0826 LF02	6871	6	108.00	Euro 1/Turbo Intercooled	169/230						
D 0826 LF06	6871	6	108.00	Turbo Intercooled	169/230						
D 0826 LF08/D 0826 LFL02/ D 0826 LUH05	6871	6	108.00	Euro 1/Turbo Intercooled	169/230						
D 0836 LF05/D 0836 LFL05	6871	6	108.00	Euro 3/Turbo Intercooled	180/245						
D 0826 LF13/ D 0826 LF17/D 0826 LFL09/ D 0826 LUH13	6871	6	108.00	Euro 2/Turbo Intercooled	191/260						
D 0826 LF04/D 0826 LUH01	6871	6	108.00	Euro 1/Turbo Intercooled	198/270						
D 0836 LF01	6871	6	108.00	Euro 2/Turbo Intercooled	206/280						
D 0836 LF03/D 0836 LFL03/ D 0836 LOH02	6871	6	108.00	Euro 3/Turbo Intercooled	206/280						
D 0836 LOH51/D 0836 LOH55	6871	6	108.00	Euro 4/Turbo Intercooled	206/280						
6									HBS472 (x3)	1) 10Nm 2) 80Nm 3) 150Nm 4) 90° 5) 90° 6) 90°	
D 0836 LFL40	6871	6	108.00	Euro 3/Turbo Intercooled	176/240				 M14x2x152mm (x8)	1) 10Nm 2) 80Nm 3) 150Nm 4) 90° 5) 90° 6) 90°	
D 0836 LFL50/D 0836 LFL53	6871	6	108.00	Euro 4/Turbo Intercooled	176/240						
D 0836 LFL52	6871	6	108.00	Euro 4/Turbo Intercooled	177/240						
D 0836 LF41/D 0836 LFL41	6871	6	108.00	Euro 3/Turbo Intercooled	206/280						
D 0836 LFL51/D 0836 LFL54	6871	6	108.00	Euro 4/Turbo Intercooled	206/280						
D 0836 LOH40	6871	6	108.00	Euro 3/Turbo Intercooled	206/280						
D 0836 LOH51/D 0836 LOH55	6871	6	108.00	Euro 4/Turbo Intercooled	206/280						
D 0836 LF44/D 0836 LFL44	6871	6	108.00	Euro 3/Turbo Intercooled	240/326						
D 0836 LFL55	6871	6	108.00	Euro 4/Turbo Intercooled	240/326						
7						HBS226 (x5)	1) 10Nm 2) 80Nm 3) 150Nm 4) 90° 5) 90° 6) 90°				
D 2865 LF/260	9973	5	128.00	Turbo Intercooled	191/260	 M15x2x168mm (x2) M15x2x144mm (x3) M15x2x109mm (x1)	1) 10Nm 2) 80Nm 3) 150Nm 4) 90° 5) 90° 6) 90°				
D 2865 LUH09	9973	5	128.00	Euro 2/Turbo Intercooled	191/260						
D 2865 LUH02/D 2865 LUH05	9973	5	128.00	Euro 1/Turbo Intercooled	198/270						
D 2865 LUH07	9973	5	128.00	Euro 2/Turbo Intercooled	228/310						
D 2865 LUH08	9973	5	128.00	Euro 1/Turbo Intercooled	235/320						



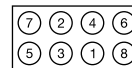
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




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8						<b>HBS226 (x6)</b>  M15x2x168mm (x2) M15x2x144mm (x3) M15x2x109mm (x1)	1) 10Nm 2) 80Nm 3) 150Nm 4) 90° 5) 90° 6) 90°	
D 2866 F/240	11967	6	128.00		177/240			
D 2866 LUH22	11967	6	128.00	Euro 2/Turbo	191/260			
D 2866 LXF	11967	6	128.00	Turbo Intercooled	198-274/ 269-372			
D 2866 LFZ/290	11967	6	128.00	Turbo Intercooled	213/290			
D 2866 LUH20	11967	6	128.00	Euro 2/Turbo Intercooled	228/310			
D 2866 LUH26	11967	6	128.00	Euro 2/Turbo	228/310			
D 2866 LFZ/330/D 2866 LUL/330	11967	6	128.00	Turbo Intercooled	243/330			
D 2866 LUH21	11967	6	128.00	Euro 2/Turbo	257/350			
D 2866 KF	11967	6	128.00	Turbo Intercooled	265/360			
D 2866 KUJ/360	11967	6	128.00	Euro 1/Turbo Intercooled	265/360			
D 2866 KUL	11967	6	128.00	Turbo Intercooled	265/360			
9						<b>HBS366 (x6)</b>  M15x2x198mm (x3) M15x2x259mm (x3)	1) 10Nm 2) 80Nm 3) 150Nm 4) 90° 5) 90° 6) 1.000 Km 7) 90° 8) 20.000-30.000 Km 9) 90° (pos. 1-4)	
D 2866 LUH24	11967	6	128.00	Euro 3/Turbo Intercooled	228/310			
D 2866 LF31	11967	6	128.00		301/409			
D 2866 LOH29	11967	6	128.00	Euro 3/Turbo Intercooled	301/410			
10						<b>HBS226 (x6)</b>  M15x2x168mm (x2) M15x2x144mm (x3) M15x2x109mm (x1)	1) 10Nm 2) 80Nm 3) 150Nm 4) 90° 5) 90° 6) 90°	
D 2876 LFO2	12816	6	128.00	Euro 2/Turbo Intercooled	338/460			
11						<b>HBS366 (x6)</b>  M15x2x198mm (x3) M15x2x259mm (x3)	1) 10Nm 2) 80Nm 3) 150Nm 4) 90° 5) 90° 6) 1.000 Km 7) 90° 8) 20.000-30.000 Km 9) 90° (pos. 1-4)	
D 2876 LOH01	12816	6	128.00	Euro 2/Turbo Intercooled	338/460			
D 2876 LOH02/D 2876 LOH03	12816	6	128.00	Euro 3/Turbo Intercooled	338/460			
12						<b>HBS366 (x6)</b>  M15x2x198mm (x3) M15x2x259mm (x3)	1) 10Nm 2) 80Nm 3) 150Nm 4) 90° 5) 90° 6) 1.000 Km 7) 90° 8) 20.000-30.000 Km 9) 90° (pos. 1-4)	
D 2876 LOH03	12816	6	128.00	Euro 3/Turbo Intercooled	338/460			
D 2876 LFO5	12816	6	128.00	Euro 3/Turbo Intercooled	375/510			
13						<b>HBS367 (x6)</b>  M16x2x287.3mm (x3) M16x2x225.8mm (x3)	1) 10Nm 2) 80Nm 3) 150Nm 4) 90° 5) 90° 6) 1.000 Km 7) 90° 8) 20.000-30.000 Km 9) 90° (pos. 1-4)	
D 2876 LF12/D 2876 LF25	12816	6	128.00	Euro 3/Turbo Intercooled	353/480			
D 2876 LF13	12816	6	128.00	Euro 3/Turbo Intercooled	390/530			
D 2876 LOH20	12816	6	128.00	Euro 3/Turbo Intercooled	353/480			
D 2876 LOH21	12816	6	128.00	Euro 3/Turbo Intercooled	390/530			
14						<b>HBS226 (x10)</b>  M15x2x168mm (x2) M15x2x144mm (x3) M15x2x109mm (x1)	1) 10Nm 2) 80Nm 3) 150Nm 4) 90° 5) 90° 6) 90°	
D 2840 LFO1	18273	10	128.00	Turbo Intercooled	368/500			
D 2840 LFO4/D 2840 LFO6	18273	10	128.00	Euro 1/Turbo Intercooled	368/500			
D 2840 LF20	18273	10	128.00	Euro 2/Turbo Intercooled	441/600			

		CC			9			CC			9
/FPY3	Petrol	1840	4		34	RF OHC	Diesel	1998	4	86.00	57
4EE1-T	Diesel	1686	4	79.00	28	RF1G	Diesel	1998	4	86.00	32
B1/B116	Petrol	1138	4	68.00	15	RF3F	Diesel	1998	4	86.00	33
B3	Petrol	1324	4	71.00	18	RF3F	Diesel	1998	4	86.00	37
B3	Petrol	1324	4	71.00	20	RF3F	Diesel	1998	4	86.00	56
B3 (16V)	Petrol	1324	4	71.00	18	RF4F	Diesel	1998	4	86.00	33
B3 (16V)	Petrol	1324	4	71.00	20	RF4F	Diesel	1998	4	86.00	37
B3 (16V)	Petrol	1324	4	71.00	42	RF4F	Diesel	1998	4	86.00	56
B3 ME	Petrol	1324	4	71.00	20	RF5C	Diesel	1999	4	86.00	13
B3 ME	Petrol	1324	4	71.00	42	RF5C	Diesel	1999	4	86.00	49
B5	Petrol	1498	4	78.00	22	RF-CX	Diesel	1998	4	86.00	36
B5 E	Petrol	1498	4	78.00	43	RFG5	Diesel	1998	4	86.00	36
B6	Petrol	1598	4	78.00	25	RF-N	Diesel	1998	4	86.00	36
B6	Petrol	1597	4	78.00	59	RTJ/RTK	Diesel	1753	4	82.50	19
B6E	Petrol	1598	4	78.00	25	WLE7	Diesel	2500	4	93.00	39
B6ZE	Petrol	1598	4	78.00	6	WL-T	Diesel	2500	4		51
B65M	Petrol	1598	4	78.00	25	Y601	Diesel	1560	4	75.00	7
B69	Petrol	1598	4	78.00	52	YF	Petrol	1989	4	84.80	58
B383/B3E	Petrol	1324	4	71.00	20	Z5-DE	Petrol	1489	4	75.30	24
BP	Diesel	1840	4	83.00	30	Z6	Petrol	1598	4	78.00	6
BP (DOHC)	Diesel	1840	4	83.00	30	ZM	Petrol	1598	4	78.00	26
BP Turbo	Diesel	1840	4	83.00	30	ZM	Petrol	1598	4	78.00	27
BP52	Diesel	1840	4	83.00	30						
BP-ZE	Diesel	1840	4	83.00	30						
DHF	Petrol	1242	4	72.00	16						
DHG	Petrol	1242	4	72.00	16						
E5	Petrol	1490	4	77.00	21						
F6JA	Diesel	1398	4	73.70	3						
F6JB	Diesel	1398	4	73.70	3						
FP	Petrol	1840	4	83.00	34						
FP	Petrol	1840	4	83.00	54						
FP9A	Petrol	1840	4	83.00	34						
FS	Petrol	1991	4	83.00	35						
FS	Petrol	1991	4	83.00	48						
FS	Petrol	1991	4	83.00	53						
FS2C	Petrol	1991	4	83.00	35						
FS7E	Petrol	1991	4	83.00	31						
FS7E	Petrol	1991	4	83.00	55						
FS7G	Petrol	1991	4	83.00	31						
FS7G	Petrol	1991	4	83.00	55						
FS-DS	Petrol	1991	4	83.00	48						
FUJA	Petrol	1242	4	71.90	1						
FXJA	Petrol	1388	4	76.00	2						
FYJA	Petrol	1596	4	79.00	4						
J4R	Petrol	1299	4	74.00	17						
J4T	Petrol	1299	4	74.00	17						
JJK	Petrol	1299	4	74.00	17						
JJM	Petrol	1299	4	74.00	17						
L3	Petrol	2261	4	87.50	50						
L3C1	Petrol	2261	4	87.50	14						
L813	Petrol	1798	4	83.00	11						
L823	Petrol	1798	4	83.00	9						
LF17	Petrol	1999	4	87.50	8						
LF17	Petrol	1999	4	87.50	12						
LF18	Petrol	1999	4	87.50	12						
LFF7	Petrol	1999	4	87.50	10						
LFF7	Petrol	1999	4	87.50	12						
MD25NA	Diesel	2500	4	94.00	39						
MD25TI	Diesel	2500	4	94.00	39						
PN	Diesel	1720	4	78.00	29						
PN	Diesel	1720	4	78.00	47						
PN26	Diesel	1720	4	78.00	29						
PN46	Diesel	1720	4	78.00	29						
PN54	Diesel	1720	4	78.00	29						
PN62	Diesel	1720	4	78.00	29						
R2	Diesel	2184	4	86.00	45						
R203	Diesel	2169	4	86.00	46						
R207	Diesel	2169	4	86.00	46						
R290	Diesel	2184	4	86.00	38						
RF OHC	Diesel	1998	4	86.00	36						
RF OHC	Diesel	1998	4	86.00	40						
RF OHC	Diesel	1998	4	86.00	41						
RF OHC	Diesel	1998	4	86.00	44						

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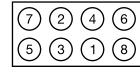
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2 1.25		04/03 →			1			
FUJA	1242	4	71.90	DOHC	55/75	<b>HBS078</b>  M10x1.50x143mm (x10)	1) 15Nm 2) 30Nm 3) 90°	
2 1.4L		04/03 →			2			
FXJA	1388	4	76.00	DOHC	59/80	<b>HBS078</b>  M10x1.50x143mm (x10)	1) 15Nm 2) 30Nm 3) 90°	
2 1.4L CD Diesel		04/03 →			3			
F6JA/F6JB	1398	4	73.70	SOHC	50/68	<b>HBS359</b>  M11x1.50x150mm (x10)	1) 20Nm 2) 40Nm 3) 180°	
2 1.6L		04/03 →			4			
FYJA	1596	4	79.00	DOHC	74/100	<b>HBS078</b>  M10x1.50x143mm (x10)	1) 15Nm 2) 30Nm 3) 90°	
3 1.4L		02/04 →			5			
	1388	4			59/80	<b>HBS078</b>  M10x1.50x143mm (x10)	1) 15Nm 2) 30Nm 3) 90°	
3 1.6L		10/03 →			6			
Z6	1598	4	78.00	DOHC	77/105	<b>HBS369</b>  M10x1.50x145.5mm (x10)	1) 5Nm 2) 15Nm 3) 45Nm 4) 90° 5) 90°	
B6ZE	1598	4	78.00	DOHC	87/118			
3 1.6L DI Turbo Diesel		06/04 →			7			
Y601	1560	4	75.00	DOHC	80-81/ 109-110	<b>HBS359</b>  M11x1.50x150mm (x10)	1) 20Nm 2) 40Nm 3) 180°	
3 2.0L		10/03 →			8			
LF17	1999	4	87.50	DOHC	104/141	<b>HBS369</b>  M10x1.50x145.5mm (x10)	1) 5Nm 2) 15Nm 3) 45Nm 4) 90° 5) 90°	
5 1.8L		03/05 →			9			
l823	1798	4	83.00	DOHC	85/116	<b>HBS369</b>  M10x1.50x145.5mm (x10)	1) 5Nm 2) 15Nm 3) 45Nm 4) 90° 5) 90°	
5 2.0L		03/05 →			10			
LFF7	1999	4	87.50	DOHC	107/146	<b>HBS369</b>  M10x1.50x145.5mm (x10)	1) 5Nm 2) 15Nm 3) 45Nm 4) 90° 5) 90°	
6 1.8L		08/02 →			11			
l813	1798	4	83.00	DOHC	88/120	<b>HBS369</b>  M10x1.50x145.5mm (x10)	1) 5Nm 2) 15Nm 3) 45Nm 4) 90° 5) 90°	
6 2.0L		06/02 →			12			
LF17/LF18	1999	4	87.50	DOHC	104/141	<b>HBS369</b>  M10x1.50x145.5mm (x10)	1) 5Nm 2) 15Nm 3) 45Nm 4) 90° 5) 90°	
LFF7	1999	4	87.50	DOHC	107/146			





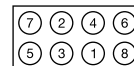
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6 2.0L DI Diesel		06/02 →			13			
RF5C	1999	4	86.00		89/121	<b>HBS494</b>  M12x1.5x160mm (x10)	1) 30Nm 2) ↻ 90° 3) 30Nm 4) 90° 5) 90°	
6 2.3L 6 2.3L AWD		06/02 → 11/02 →			14			
L3C1	2261	4	87.50	DOHC	122/166	<b>HBS369</b>  M10x1.50x145.5mm (x10)	1) 5Nm 2) 15Nm 3) 45Nm 4) 90° 5) 90°	
121 1.1L		10/87 →10/90			15			
B1/B116	1138	4	68.00	SOHC	38-42/ 52-57	<b>HBS406</b>  M11x1.25x136mm (x10)	1) 30Nm 2) 60Nm 3) 81Nm	
121 1.25		03/96 →			16			
DHF/DHG	1242	4	72.00	DOHC	55/75	<b>HBS078</b>  M10x1.50x143mm (x10)	1) 15Nm 2) 30Nm 3) 90°	
121 1.3L		03/96 →			17			
JJK	1299	4	74.00	Intake Manifold Injection/ Carburettor	37/50	<b>HBS050</b>  M11x1.50x120mm (x10)	1) 30Nm 2) 90° 3) 90°	
JJM	1299	4	74.00	Intake Manifold Injection/ Carburettor, SOHC/OHC	37/50			
J4R/J4T	1299	4	74.00	Intake Manifold Injection/ Carburettor	44/60			
121 1.3L 121 1.3L 16V		10/87 →10/90 11/90 →03/96			18			
B3 (16V)	1324	4	71.00	SOHC	39-40/ 53-54	<b>HBS406</b>  M11x1.25x136mm (x10)	1) 30Nm 2) 60Nm 3) 81Nm	
B3	1324	4	71.00	SOHC	40/54			
B3 (16V)	1324	4	71.00	SOHC	53-54/ 72-73			
121 1.8L D Diesel		03/96 →			19			
RTJ/RTK	1753	4	82.50		44/60	<b>HBS033</b>  M12x1.75x136mm (x10)	1) 10Nm 2) 100Nm 3) ↻ 360° 4) 70Nm 5) 120°	
323 1.3L 323 1.3L 16V 323 1.3L 16V 323 1.4L 323 1.4L 16V		09/89 →07/94 09/89 →07/94 01/91 →09/98 09/87 →05/04 09/98 →01/01			20			
B3 (16V)	1324	4	71.00	Injection	39-40/ 53-54	<b>HBS406</b>  M11x1.25x136mm (x10)	1) 30Nm 2) 60Nm 3) 81Nm	
B3 (16V)	1324	4	71.00	SOHC	39-40/ 53-54			
B3	1324	4	71.00	SOHC	40/54			
B383/B3E	1324	4	71.00	SOHC	49/67			
B3 (16V)	1324	4	71.00	Injection	53-54/ 72-73			
B3 (16V)	1324	4	71.00	SOHC	53-54/ 72-73			
B3 ME	1324	4	71.00	SOHC	54/73			
323 1.5L		08/85 →05/89			21			
E5	1490	4	77.00	SOHC	54-65/ 73-88	<b>HBS406</b>  M11x1.25x136mm (x10)	1) 30Nm 2) 60Nm 3) 81Nm	

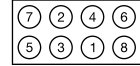
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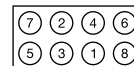
323 1.5L		09/87 → 10/89			22			
B5	1498	4	78.00	SOHC	54-55/ 73-75	 M11x1.25x136mm (x10)	1) 30Nm 2) 60Nm 3) 81Nm	
323 1.5L 16V		09/98 → 01/01			23			
	1498	4			65/88	 M11x1.50x100mm (x10)	1) 22Nm 2) 90° 3) 90°	
323 1.5L 16V		07/94 → 09/98			24			
Z5-DE	1489	4	75.30	DOHC	65/88	 M11x1.50x100mm (x10)	1) 22Nm 2) 90° 3) 90°	
323 1.6L		09/86 → 10/95			25			
323 1.6L 16V		08/89 → 10/94						
323 1.6L GT		09/87 → 10/89						
323 1.6L GT Turbo		10/85 → 11/91						
B6E	1598	4	78.00	SOHC	62-63/ 84-86	 M11x1.25x136mm (x10)	1) 30Nm 2) 60Nm 3) 81Nm	
B6	1598	4	78.00	SOHC	63/86			
B65M	1598	4	78.00	SOHC	63-66/ 86-90			
B6	1598	4	78.00	DOHC	64-65/ 87-88			
B6	1598	4	78.00	DOHC	103/140			
323 1.6L		01/01 → 05/04			26			
ZM	1598	4	78.00	DOHC	70-72/ 95-98	 M11x1.50x104.5mm (x10)	1) 22Nm 2) 90° 3) 90°	
323 1.6L Mk VI		01/01 → 05/04			27			
ZM	1598	4	78.00	DOHC	70-72/ 95-98	 M11x1.50x100mm (x10)	1) 22Nm 2) 90° 3) 90°	
323 1.6L TD Diesel		02/95 → 09/98			28			
4EE1-T	1686	4	79.00	SOHC	60-65/ 82-88	 M12x1.5x102mm (x10)	1) 30Nm 2) ↻ 90° 3) 30Nm 4) 50° 5) 50° 6) 50°	
323 1.7L D Diesel		01/87 → 07/94			29			
PN26/PN54	1720	4	78.00	SOHC	40-44/ 54-60	 M12x1.50x113mm (x10)	1) 30Nm 2) 90° 3) 90°	
PN46	1720	4	78.00	SOHC	41-42/ 56-57			
PN62	1720	4	78.00	SOHC	41-43/ 56-58			
PN	1720	4	78.00					
323 1.8L 16V		08/89 → 09/98			30			
323 1.8L 16V 4WD		11/91 → 12/93						
323 1.8L 16V GT		06/89 → 07/94						
323 1.8L 16V Turbo 4WD		09/90 → 07/94						
323 1.9L 16V		09/98 → 05/04						
BP52	1840	4	83.00	DOHC	76/103	 M11x1.50x104.5mm (x10)	1) 22Nm 2) 90° 3) 90°	
BP	1840	4	83.00	DOHC	76-78/ 103-106			
BP-ZE	1840	4	83.00	DOHC	84-103/ 114-140			
BP (DOHC)	1840	4	83.00	L-Jetronic, DOHC	94/128			
BP Turbo	1840	4	83.00	L-Jetronic, DOHC	120-132/ 163-180			



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31					01/01 → 05/04		31															
<b>323 2.0L</b>					FS7E/FS7G		1991		4		83.00		DOHC		96/131		<b>HBS136</b>  M11x1.50x104.5mm (x10)		1) 22Nm 2) 90° 3) 90°			
<b>323 2.0L D Diesel</b>					RF1G		1998		4		86.00		SOHC		52/71		<b>HBS211</b>  M12x1.50x113mm (x10)		1) 30Nm 2) 90° 3) 90°			
<b>323 2.0L TD Diesel</b>					RF3F RF4F		1998		4		86.00		SOHC		66/90 66/89 74/100		<b>HBS289</b>  M12x1.50x113mm (x10)		1) 15Nm 2) 30Nm 3) 100° 4) 100°			
<b>626 1.8L</b>					/FPY3		1840		4						66/90		<b>HBS136</b>  M11x1.50x104.5mm (x10)		1) 22Nm 2) 90° 3) 90°			
<b>626 1.8L i</b>					FP9A		1840		4		83.00				74/100							
<b>626 1.8L i</b>					FP		1840		4		83.00		DOHC		74-84/ 100-114							
<b>626 2.0L</b>					FS		1991		4		83.00		DOHC		85/116		<b>HBS136</b>  M11x1.50x104.5mm (x10)		1) 22Nm 2) 90° 3) 90°			
<b>626 2.0L H.P.</b>					FS2C		1991		4		83.00		DOHC		100/136							
<b>626 2.0L i</b>																						
<b>626 2.0L i 4WD</b>																						
<b>626 2.0L Diesel</b>					RF-N		1998		4		86.00				44/60		<b>HBS211</b>  M12x1.50x113mm (x10)		1) 30Nm 2) 90° 3) 90°			
<b>626 2.0L D Diesel</b>					RF OHC		1998		4		86.00		SOHC		55/75							
<b>626 2.0L D Complex Diesel</b>					RF-CX		1998		4		86.00				55/75							
<b>626 2.0L D GLX Complex Diesel</b>					RF65		1998		4		86.00		SOHC		55/75							
<b>626 2.0L DITD Diesel</b>					RF3F		1998		4						74/101		<b>HBS289</b>  M12x1.50x113mm (x10)		1) 15Nm 2) 30Nm 3) 100° 4) 100°			
<b>626 2.0L TD Diesel</b>					RF4F		1998		4		86.00		SOHC		66/89 74/100							
<b>626 2.0L Turbo DI Diesel</b>																						
<b>B-Serie 2.2L D Diesel</b>					R290		2184		4		86.00		SOHC		44-47/ 60-64		<b>HBS211</b>  M12x1.50x113mm (x10)		1) 30Nm 2) 90° 3) 90°			
<b>B-Serie 2.5L D Diesel</b>																	<b>HBS288</b>  M12x1.50x113mm (x10) M10x1.25x100mm (x8)		1) 10Nm 2) 30Nm 3) 100° 4) 100°			
<b>B-Serie 2.5L D 4WD Diesel</b>					WLE7		2500		4						57/78							
<b>B-Serie 2.5L TD 4WD Diesel</b>					MD25NA		2500		4		93.00		SOHC		63/86							
<b>B-Serie 2.5L TD 4WD Diesel</b>					MD25TI		2500		4		94.00		SOHC		62/84							
<b>B-Serie 2.5L TD 4WD Diesel</b>															57/77							
<b>B-Serie 2.5L TD 4WD Diesel</b>															80/109							
<b>Capella 2000 Diesel</b>					RF OHC		1998		4		86.00		SOHC		55/75		<b>HBS211</b>  M12x1.50x113mm (x10)		1) 30Nm 2) 90° 3) 90°			

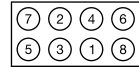
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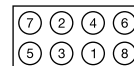
Model		Year	Cyl	CC	Engine	Power	Part	Dimensions	Notes	Diagram
<b>Cosmo 2000 Diesel</b>					01/82→	<b>41</b>	<b>HBS211</b>			
RF OHC		1998	4	86.00	SOHC	55/75		M12x1.50x113mm (x10)	1) 30Nm 2) 90° 3) 90°	
<b>Demio 1.3L 16V</b>					08/98→04/00	<b>42</b>	<b>HBS406</b>			
B3 (16V)		1324	4	71.00	SOHC	53-54/ 72-73		M11x1.25x136mm (x10)	1) 30Nm 2) 60Nm 3) 81Nm	
B3 ME		1324	4	71.00	SOHC	54/73				
<b>Demio 1.5L 16V</b>					04/00→	<b>43</b>	<b>HBS406</b>			
B5 E		1498	4	78.00	Intake Manifold Injection/ Carburettor, SOHC/OHC	55/75		M11x1.25x136mm (x10)	1) 30Nm 2) 60Nm 3) 81Nm	
<b>E 2000 2000 Diesel</b>					01/82→	<b>44</b>	<b>HBS211</b>			
E 2000 Van 2000 Diesel		1998	4	86.00	SOHC	55/75		M12x1.50x113mm (x10)	1) 30Nm 2) 90° 3) 90°	
<b>E 2200 2.2L D Diesel</b>					01/84→	<b>45</b>	<b>HBS211</b>			
E 2200 Van 2.2L D Diesel					01/84→08/02					
E 2200 Van 2.2L D 4WD Diesel					02/97→			M12x1.50x113mm (x10)	1) 30Nm 2) 90° 3) 90°	
R2		2184	4	86.00	SOHC	52/71				
<b>E 2200 Van 2.2L D Diesel</b>					03/91→	<b>46</b>	<b>HBS211</b>			
E 2200 Van 2.2L D 4WD Diesel					03/91→			M12x1.50x113mm (x10)	1) 30Nm 2) 90° 3) 90°	
R203/R207		2169	4	86.00	SOHC	46-47/ 63-64				
<b>Familia 1700 Diesel</b>					01/87→	<b>47</b>	<b>HBS211</b>			
PN		1720	4	78.00				M12x1.50x113mm (x10)	1) 30Nm 2) 90° 3) 90°	
<b>MPV 2.0L</b>					09/99→07/02	<b>48</b>	<b>HBS136</b>			
FS		1991	4	83.00	DOHC	85/116		M11x1.50x104.5mm (x10)	1) 22Nm 2) 90° 3) 90°	
FS-DS		1991	4	83.00	DOHC	90/122				
<b>MPV 2.0L DI Mk II Diesel</b>					07/02→	<b>49</b>	<b>HBS494</b>			
RF5C		1999	4	86.00		89/121		M12x1.5x1160mm (x10)	1) 30Nm 2) ↻ 90° 3) 30Nm 4) 90° 5) 90°	
<b>MPV 2.3L</b>					07/02→	<b>50</b>	<b>HBS369</b>			
L3		2261	4	87.50	Intake Manifold Injection/ Carburettor, DOHC	104/141		M10x1.50x145.5mm (x10)	1) 5Nm 2) 15Nm 3) 45Nm 4) 90° 5) 90°	
<b>MPV 2.5L TD Diesel</b>					05/96→09/99	<b>51</b>	<b>HBS288</b>			
WL-T		2500	4		SOHC, Turbo Intercooled	85/115		M12x1.50x113mm (x10) M10x1.25x100mm (x8)	1) 10Nm 2) 30Nm 3) 100° 4) 100°	
<b>MX-3 Coupe 1.6L i</b>					07/91→	<b>52</b>	<b>HBS406</b>			
B69		1598	4	78.00	SOHC	65-66/ 88-90		M11x1.25x136mm (x10)	1) 30Nm 2) 60Nm 3) 81Nm	



cc



















kW/PS



Model					Year Range	Cylinders	Power (kW/PS)	Engine Type	Washer	Torque	Sequence									
<b>MX-6 Coupe 2.0L</b>					02/92 →		<b>53</b>													
FS	1991	4	83.00	DOHC	85/116			M11x1.50x104.5mm (x10)	1) 22Nm 2) 90° 3) 90°	<table border="1"> <tr><td>8</td><td>4</td><td>1</td><td>5</td><td>9</td></tr> <tr><td>7</td><td>3</td><td>2</td><td>6</td><td>10</td></tr> </table>	8	4	1	5	9	7	3	2	6	10
8	4	1	5	9																
7	3	2	6	10																
<b>Premacy 1.8L</b>					07/99 →		<b>54</b>													
<b>Premacy 1.9L</b>					07/99 →															
FP	1840	4	83.00	DOHC	74-84/ 100-114			M11x1.50x104.5mm (x10)	1) 22Nm 2) 90° 3) 90°	<table border="1"> <tr><td>8</td><td>4</td><td>1</td><td>5</td><td>9</td></tr> <tr><td>7</td><td>3</td><td>2</td><td>6</td><td>10</td></tr> </table>	8	4	1	5	9	7	3	2	6	10
8	4	1	5	9																
7	3	2	6	10																
<b>Premacy 2.0L</b>					11/01 →		<b>55</b>													
FS7E/FS7G	1991	4	83.00	DOHC	96/131			M11x1.50x104.5mm (x10)	1) 22Nm 2) 90° 3) 90°	<table border="1"> <tr><td>8</td><td>4</td><td>1</td><td>5</td><td>9</td></tr> <tr><td>7</td><td>3</td><td>2</td><td>6</td><td>10</td></tr> </table>	8	4	1	5	9	7	3	2	6	10
8	4	1	5	9																
7	3	2	6	10																
<b>Premacy 2.0L TD Diesel</b>					10/99 → 07/00		<b>56</b>													
RF3F	1998	4	86.00	SOHC	66/89			M12x1.50x113mm (x10)	1) 15Nm 2) 30Nm 3) 100° 4) 100°	<table border="1"> <tr><td>10</td><td>6</td><td>2</td><td>3</td><td>7</td></tr> <tr><td>9</td><td>5</td><td>1</td><td>4</td><td>8</td></tr> </table>	10	6	2	3	7	9	5	1	4	8
10	6	2	3	7																
9	5	1	4	8																
RF4F	1998	4	86.00		74/100															
<b>Telester 2000 Diesel</b>					01/82 →		<b>57</b>													
RF OHC	1998	4	86.00	SOHC	55/75			M12x1.50x113mm (x10)	1) 30Nm 2) 90° 3) 90°	<table border="1"> <tr><td>10</td><td>6</td><td>2</td><td>3</td><td>7</td></tr> <tr><td>9</td><td>5</td><td>1</td><td>4</td><td>8</td></tr> </table>	10	6	2	3	7	9	5	1	4	8
10	6	2	3	7																
9	5	1	4	8																
<b>Tribute 2.0L</b>					03/00 →		<b>58</b>													
<b>Tribute 2.0L AWD</b>					03/00 →															
YF	1989	4	84.80	Intake Manifold Injection/ Carburettor, DOHC	91/124			M10x1.50x102mm (x10)	1) 25Nm 2) 45Nm 3) 110°	<table border="1"> <tr><td>10</td><td>4</td><td>2</td><td>6</td><td>8</td></tr> <tr><td>7</td><td>5</td><td>1</td><td>3</td><td>9</td></tr> </table>	10	4	2	6	8	7	5	1	3	9
10	4	2	6	8																
7	5	1	3	9																
<b>Xedos 6 1.6L 16V</b>					06/94 →		<b>59</b>													
B6	1597	4	78.00	DOHC	79/107			M11x1.25x136mm (x10)	1) 30Nm 2) 60Nm 3) 81Nm	<table border="1"> <tr><td>10</td><td>6</td><td>2</td><td>3</td><td>7</td></tr> <tr><td>9</td><td>5</td><td>1</td><td>4</td><td>8</td></tr> </table>	10	6	2	3	7	9	5	1	4	8
10	6	2	3	7																
9	5	1	4	8																



		cc			9			cc			9
M 102.910	Diesel	1797	4	89.00	2	M 111.961	Diesel	2199	4	89.90	30
M 102.922	Diesel	1997	4	89.00	60	M 111.970	Petrol	2295	4	90.90	66
M 102.924	Diesel	1997	4	89.00	3	M 111.973	Petrol	2295	4	90.90	49
M 102.942	Petrol	2298	4	95.50	140	M 111.973	Petrol	2295	4	90.90	130
M 102.945	Petrol	2298	4	95.50	140	M 111.974	Petrol	2295	4	90.90	31
M 102.946	Petrol	2298	4	95.50	140	M 111.975	Petrol	2295	4	90.90	31
M 102.961	Diesel	1997	4	89.00	3	M 111.975	Petrol	2295	4	90.90	49
M 102.962	Diesel	1997	4	89.00	3	M 111.977	Petrol	2295	4	90.90	101
M 102.962	Diesel	1997	4	89.00	60	M 111.978	Petrol	2295	4	90.90	153
M 102.963	Diesel	1997	4	89.00	60	M 111.978	Petrol	2295	4	90.90	164
M 102.979	Diesel	2299	4	95.50	87	M 111.979	Petrol	2295	4	90.90	135
M 102.981	Diesel	2299	4	95.50	87	M 111.980	Petrol	2295	4	90.90	153
M 102.982	Petrol	2299	4	95.50	67	M 111.980	Petrol	2295	4	90.90	164
M 102.983	Petrol	2299	4	95.50	6	M 111.981	Petrol	2295	4	90.90	31
M 102.985	Diesel	2299	4	95.50	5	M 111.982	Petrol	2295	4	90.90	49
M 102.987	Diesel	2299	4	95.50	87	M 111.983	Petrol	2295	4	90.90	130
M 102.989	Diesel	2299	4	95.50	87	M 111.984	Petrol	2295	4	90.90	135
M 102.990	Petrol	2499	4	95.50	8	M 112.910	Petrol	2398	6	83.20	32
M 102.991	Petrol	2499	4	95.50	8	M 112.911	Petrol	2398	6	83.20	68
M 102.992	Petrol	2499	4	95.50	8	M 112.912	Petrol	2398	6	83.20	32
M 102.996	Diesel	2299	4	95.50	87	M 112.912	Petrol	2398	6	89.90	50
M 102.997	Diesel	2299	4	95.50	87	M 112.913	Petrol	2398	6	89.90	68
M 103.940	Petrol	2599	6	82.90	72	M 112.914	Petrol	2398	6	89.90	68
M 103.941	Petrol	2599	6	82.90	109	M 112.915	Petrol	2597	6	89.90	34
M 103.942 (KAT)	Diesel	2599	6	82.90	9	M 112.916	Petrol	2597	6	89.90	34
M 103.943	Petrol	2599	6	82.90	72	M 112.917	Petrol	2597	6	89.90	69
M 103.981 (KAT)	Petrol	2962	6	88.50	112	M 112.920	Petrol	2799	6	89.90	36
M 103.982	Petrol	2962	6	88.50	122	M 112.921	Petrol	2799	6	89.90	75
M 103.983	Petrol	2962	6	88.50	78	M 112.922	Petrol	2799	6	89.90	111
M 103.984	Petrol	2962	6	88.50	122	M 112.923	Petrol	2799	6	89.90	120
M 103.985	Petrol	2962	6	88.50	78	M 112.925	Petrol	2799	6	89.90	120
M 103.987	Diesel	2962	6	88.50	93	M 112.940	Petrol	3199	6	89.90	54
M 104.900	Petrol	2792	6	89.90	155	M 112.941	Petrol	3199	6	89.90	84
M 104.941	Diesel	2799	6	89.90	37	M 112.942	Petrol	3199	6	89.90	104
M 104.941 (AMG 3.6)	Petrol	3606	6	91.00	43	M 112.943	Petrol	3199	6	89.90	125
M 104.942	Petrol	2799	6	89.90	74	M 112.944	Petrol	3199	6	89.90	116
M 104.943	Petrol	2799	6	89.90	121	M 112.945	Petrol	3199	6	89.90	97
M 104.944	Petrol	2799	6	89.90	110	M 112.946	Petrol	3199	6	89.90	41
M 104.945	Petrol	2799	6	89.90	74	M 112.947	Petrol	3199	6	89.90	131
M 104.980	Petrol	2960	6	88.50	79	M 112.949	Petrol	3199	6	89.90	84
M 104.981	Petrol	2960	6	88.50	123	M 112.951	Petrol	3199	6	89.90	158
M 104.990	Petrol	3199	6	89.90	115	M 112.951	Petrol	3199	6	89.90	165
M 104.991	Petrol	3199	6	89.90	124	M 112.953	Petrol	3199	6	89.90	41
M 104.992	Diesel	3199	6	89.90	82	M 112.954	Petrol	3199	6	89.90	84
M 104.992 (AMG 3.6)	Petrol	3606	6	91.00	86	M 112.955	Petrol	3199	6	89.90	54
M 104.994	Petrol	3199	6	89.90	115	M 112.960	Petrol	3199	6	89.90	131
M 104.995	Diesel	3199	6	89.90	82	M 112.961	Petrol	3199	6	89.90	41
M 104.996	Petrol	3199	6	89.90	96	M 112.970	Petrol	3724	6	97.00	106
M 111.920	Petrol	1799	4	85.30	23	M 112.972	Petrol	3724	6	97.00	119
M 111.921	Petrol	1799	4	85.30	23	M 112.973	Petrol	3724	6	97.00	127
M 111.940	Petrol	1998	4	89.90	61	M 112.975	Petrol	3724	6	97.00	119
M 111.941	Petrol	1998	4	89.90	25	M 112.976	Petrol	3724	6	97.00	159
M 111.941	Petrol	1998	4	89.90	47	M 112.976	Petrol	3724	6	97.00	166
M 111.942	Petrol	1998	4	89.90	61	M 166.940	Petrol	1397	4	80.00	10
M 111.943	Petrol	1998	4	89.90	129	M 166.960	Petrol	1598	4	80.00	12
M 111.944	Petrol	1998	4	89.90	25	M 166.961	Petrol	1598	4	80.00	146
M 111.944	Petrol	1998	4	89.90	47	M 166.990	Petrol	1898	4	80.00	15
M 111.945	Petrol	1998	4	89.90	25	M 166.991	Petrol	1898	4	84.00	148
M 111.945	Petrol	1998	4	89.90	47	M 166.995	Petrol	2084	4	84.00	18
M 111.946	Petrol	1998	4	89.90	129	M 266.920	Petrol	1498	4	83.00	11
M 111.947	Petrol	1998	4	89.90	61	M 266.920	Petrol	1498	4	83.00	19
M 111.948	Petrol	1998	4	89.90	151	M 266.940	Petrol	1699	4	83.00	14
M 111.948	Petrol	1998	4	89.90	160	M 266.940	Petrol	1699	4	83.00	20
M 111.950	Petrol	1998	4	89.90	151	M 266.960	Petrol	2034	4	83.00	17
M 111.950	Petrol	1998	4	89.90	160	M 266.960	Petrol	2034	4	83.00	22
M 111.951	Petrol	1998	4	89.90	25	M 266.980	Petrol	2034	4	83.00	17
M 111.952	Petrol	1998	4	89.90	25	M 266.980	Petrol	2034	4	83.00	22
M 111.955	Petrol	1998	4	89.90	25	M 271.921	Petrol	1796	4	82.00	24
M 111.956	Petrol	1998	4	89.90	25	M 271.940	Petrol	1796	4	82.50	24
M 111.956	Petrol	1998	4	89.90	47	M 271.940	Petrol	1796	4	82.50	46
M 111.957	Petrol	1998	4	89.90	61	M 271.941	Petrol	1796	4	82.00	58
M 111.958	Petrol	1998	4	89.90	129	M 271.942	Petrol	1796	4	82.00	24
M 111.960	Petrol	2199	4	89.90	65	M 271.942	Petrol	1796	4	82.00	46

		CC			9			CC			9
M 271.944	Petrol	1795	4	82.00	128	OM 611.962	Diesel	2148	4	88.00	28
M 271.946	Petrol	1796	4	82.00	24	OM 611.980	Diesel	2151	4	88.00	152
M 271.946	Petrol	1796	4	82.00	44	OM 611.980	Diesel	2151	4	88.00	162
M 271.946	Petrol	1796	4	82.00	58	OM 611.981	Diesel	2148	4	88.00	133
M 271.948	Petrol	1796	4	82.00	24	OM 611.987	Diesel	2148	4	88.00	133
M 271.950	Petrol	1796	4	82.00	24	OM 611A (60 KW CDI)	Diesel	2148	4	88.00	161
M 271.952	Petrol	1796	4	82.00	24	OM 611LA (75 KW CDI)	Diesel	2148	4	88.00	161
M 271.955	Petrol	1796	4	82.00	44	OM 612.961	Diesel	2685	5	88.00	73
M 271.955	Petrol	1796	4	82.00	46	OM 612.962	Diesel	2685	5	88.00	35
M 271.956	Petrol	1796	4	82.00	58	OM 612.962	Diesel	2685	5	88.00	51
M 272.940	Petrol	2996	6	88.00	39	OM 612.963	Diesel	2685	5	88.00	102
M 272.940	Petrol	2996	6	88.00	52	OM 612.965	Diesel	2685	5	88.00	89
M 272.941	Petrol	2996	6	88.00	39	OM 612.967	Diesel	2685	5	88.00	51
M 272.960	Petrol	3498	6	92.90	42	OM 612.981	Diesel	2685	5	88.00	136
M 272.960	Petrol	3498	6	92.90	45	OM 612.990	Diesel	2950	5	88.00	38
M 272.960	Petrol	3498	6	92.90	55	OM 613.960	Diesel	3222	6	88.00	117
M 272.962	Petrol	3498	6	92.90	105	OM 613.961	Diesel	3222	6	88.00	83
M 272.963	Petrol	3498	6	92.90	132	OM 616	Diesel	2399	4	90.90	1
M 272.964	Petrol	3498	6	92.90	57	OM 616.913	Diesel	2399	4	90.90	141
M 272.964	Petrol	3498	6	92.90	85	OM 616.914	Diesel	2399	4	90.90	144
M 272.966	Petrol	3498	6	92.90	126	OM 616.937	Diesel	2399	4	90.90	141
M 272.967	Petrol	3498	6	92.90	105	OM 616.939	Diesel	2399	4	90.90	141
M 272.967	Petrol	3498	6	92.90	108	OM 616.963	Diesel	2399	4	90.90	1
M 272.970	Petrol	3498	6	92.90	42	OM 617.913	Diesel	2998	5	90.90	143
M 272.972	Petrol	3498	6	92.90	85	OM 617.931	Diesel	3005	5	90.90	91
OM 601.911	Diesel	1978	4	87.00	4	OM 640.940	Diesel	1991	4	83.00	16
OM 601.912	Diesel	1978	4	87.00	59	OM 640.940	Diesel	1991	4	83.00	21
OM 601.913	Diesel	1997	4	87.00	26	OM 640.941	Diesel	1991	4	83.00	16
OM 601.915	Diesel	1997	4	87.00	26	OM 640.941	Diesel	1991	4	83.00	21
OM 601.940	Diesel	2299	4	89.00	139	OM 640.942	Diesel	1991	4	83.00	16
OM 601.941	Diesel	2299	4	89.00	145	OM 642.910	Diesel	2987	6	83.00	40
OM 601.942	Diesel	2299	4	89.00	163	OM 642.910	Diesel	2987	6	83.00	53
OM 601.943	Diesel	2299	4	89.00	134	OM 642.910	Diesel	2987	6	83.00	56
OM 601A.970	Diesel	2299	4	89.00	154	OM 642.910	Diesel	2987	6	83.00	80
OM 601A.970	Diesel	2299	4	89.00	163	OM 642.920	Diesel	2987	6	83.00	56
OM 602.911	Diesel	2497	5	87.00	7	OM 642.920	Diesel	2987	6	83.00	80
OM 602.911	Diesel	2497	5	87.00	70	OM 642.921	Diesel	2987	6	83.00	80
OM 602.912	Diesel	2497	5	87.00	70	OM 642.930	Diesel	2987	6	83.00	114
OM 602.930	Diesel	2497	5	87.00	88	OM 642.940	Diesel	2987	6	83.00	95
OM 602.931	Diesel	2497	5	87.00	88	OM 642.940	Diesel	2987	6	83.00	103
OM 602.939	Diesel	2497	5	87.00	88	OM 642.950	Diesel	2987	6	83.00	107
OM 602.940	Diesel	2874	5	89.00	142	OM 642.960	Diesel	2987	6	83.00	40
OM 602.942	Diesel	2874	5	89.00	90	OM 642.961	Diesel	2987	6	83.00	40
OM 602.961	Diesel	2497	5	87.00	7	OM 642.961	Diesel	2987	6	83.00	100
OM 602.980	Diesel	2874	5	89.00	137	OM 642.970	Diesel	2987	6	83.00	95
OM 602.982	Diesel	2874	5	89.00	76	OM 642.990	Diesel	2987	6	83.00	157
OM 602.983	Diesel	2874	5	89.00	90	OM 642.992	Diesel	2987	6	83.00	138
OM 602.984	Diesel	2874	5	89.00	149	OM 646.820	Diesel	2148	4	88.00	63
OM 602.985	Diesel	2874	5	89.00	149	OM 646.821	Diesel	2148	4	88.00	63
OM 602A.962	Diesel	2497	5	87.00	70	OM 646.951	Diesel	2148	4	88.00	63
OM 603.912	Diesel	2996	6	87.00	77	OM 646.961	Diesel	2148	4	88.00	63
OM 603.912	Diesel	2996	6	87.00	92	OM 646.962	Diesel	2148	4	88.00	28
OM 603.913	Diesel	2996	6	87.00	77	OM 646.963	Diesel	2148	4	88.00	28
OM 603.931	Diesel	2996	6	87.00	92	OM 646.966	Diesel	2148	4	88.00	48
OM 603A.960	Diesel	2996	6	87.00	77	OM 646.980	Diesel	2148	4	88.00	161
OM 603A.963	Diesel	2996	6	87.00	77	OM 646.982	Diesel	2148	4	88.00	156
OM 603A.971	Diesel	3449	6	89.00	118	OM 646.982	Diesel	2148	4	88.00	161
OM 603A.972	Diesel	3449	6	89.00	98	OM 646.983	Diesel	2148	4	88.00	161
OM 604.910	Diesel	2155	4	89.00	29	OM 646.984	Diesel	2148	4	88.00	133
OM 604.912	Diesel	2155	4	89.00	64	OM 646.985	Diesel	2148	4	88.00	133
OM 604.915	Diesel	1997	4	87.00	27	OM 646.986	Diesel	2148	4	88.00	133
OM 604.917	Diesel	1997	4	87.00	62	OM 646.990	Diesel	2148	4	88.00	133
OM 605.910	Diesel	2497	5	87.00	33	OM 647.961	Diesel	2685	5	88.00	73
OM 605.911	Diesel	2497	5	87.00	71	OM 648.960	Diesel	3222	6	88.00	117
OM 605.912	Diesel	2497	5	87.00	71	OM 648.961	Diesel	3222	6	88.00	83
OM 605.960	Diesel	2497	5	87.00	33	OM 668.914	Diesel	1689	4	80.00	147
OM 605.962	Diesel	2497	5	87.00	71	OM 668.940	Diesel	1689	4	80.00	13
OM 606.910	Diesel	2996	6	87.00	81	OM 668.941	Diesel	1689	4	80.00	13
OM 606.912	Diesel	2996	6	87.00	81	OM 668.942	Diesel	1689	4	80.00	13
OM 606.961	Diesel	2996	6	87.00	113	OM 904.904	Diesel	4250	4	102.00	150
OM 606.962	Diesel	2996	6	87.00	81	OM 904.908	Diesel	4250	4	102.00	150
OM 606.964	Diesel	2996	6	87.00	94	OM 904.923	Diesel	4250	4	102.00	150
OM 611.960	Diesel	2148	4	88.00	28	OM 904.964	Diesel	4250	4	102.00	150
OM 611.961	Diesel	2148	4	88.00	63						

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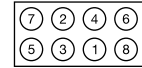
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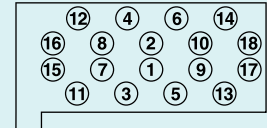
100 2.4L D (631) Diesel		02/88 → 02/96			1
OM 616	2399	4	90.90	SOHC	41-55/ 56-75
OM 616.963	2399	4	90.90	SOHC	53-56/ 72-76
190 E 1.8L (W201)		04/90 → 08/93			2
M 102.910	1797	4	89.00	KE-Jetronic, SOHC	77/80/ 105/109
190 E 2.0L (W201)		10/82 → 08/93			3
M 102.924	1997	4	89.00	SOHC	62/93/ 84/126
M 102.961	1997	4	89.00	KE-Jetronic, SOHC	62/93/ 84/126
M 102.962	1997	4	89.00	SOHC	62/93/ 84/126
190 E 2.0L D (W201) Diesel		08/83 → 08/93			4
OM 601.911	1978	4	87.00	SOHC	53-55/72
190 E 2.3L (W201)		09/86 → 08/93			5
M 102.985	2299	4	95.50	SOHC	92/100/ 125/136
190 E 2.3L-16 (W201)		09/85 → 08/88			6
M 102.983	2299	4	95.50	DOHC	92/125
190 E 2.0 D (W201) Diesel		04/85 → 08/93			7
190 E 2.5L TD (W201) Diesel		02/88 → 08/93			
OM 602.911	2497	5	87.00	SOHC	66-69/ 90-94
OM 602.961	2497	5	87.00	SOHC	90-93/ 122-126
190 E 2.5L-16 (W201)		09/88 → 08/93			8
190 E Evolution II (W201)		05/90 → 08/93			
M 102.990/M 102.991	2499	4	95.50	DOHC	143/195
M 102.992	2499	4	95.50	DOHC	173/235
190 E 2.6L (W201)		09/86 → 08/93			9
M 103.942 (KAT)	2599	6	82.90	SOHC	117/159
A-Class A 140 (W168)		07/97 → 08/04			10
M 166.940	1397	4	80.00	SOHC	60/81

HBS045



M12x1.75x105mm (x4)  
M12x1.75x145mm (x6)  
M12x1.75x120mm (x8)

- 1) 40Nm
- 2) 70Nm
- 3) ↻ 90°
- 4) 70Nm
- 5) 90°
- 6) 90°

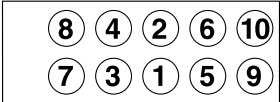


HBS047



M12x1.75x120mm (x10)

- 1) 40Nm
- 2) 70Nm
- 3) ↻ 90°
- 4) 70Nm
- 5) 90°
- 6) 90°

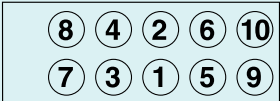


HBS047



M12x1.75x120mm (x10)

- 1) 40Nm
- 2) 70Nm
- 3) ↻ 90°
- 4) 70Nm
- 5) 90°
- 6) 90°

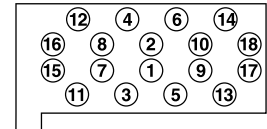


HBS058



M10x1.50x80mm (x4)  
M10x1.50x115mm (x5)  
M10x1.50x102mm (x9)

- 1) 25Nm
- 2) 40Nm
- 3) ↻ 90°
- 4) 40Nm
- 5) 90°
- 6) 90°

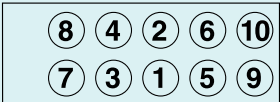


HBS047



M12x1.75x120mm (x10)

- 1) 40Nm
- 2) 70Nm
- 3) ↻ 90°
- 4) 70Nm
- 5) 90°
- 6) 90°

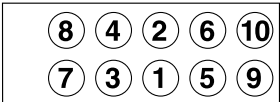


HBS149



M12x1.75x110mm (x10)

- 1) 40Nm
- 2) 70Nm
- 3) ↻ 90°
- 4) 70Nm
- 5) 90°
- 6) 90°

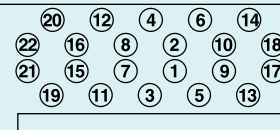


HBS059



M10x1.50x80mm (x5)  
M10x1.50x115mm (x6)  
M10x1.50x102mm (x11)

- 1) 25Nm
- 2) 40Nm
- 3) ↻ 90°
- 4) 40Nm
- 5) 90°
- 6) 90°

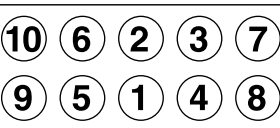


HBS150



M12x1.75x102mm (x10)

- 1) 55Nm
- 2) 90°
- 3) 90°

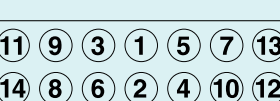


HBS146



M12x1.75x102mm (x14)

- 1) 40Nm
- 2) 70Nm
- 3) ↻ 90°
- 4) 70Nm
- 5) 90°
- 6) 90°



HBS457



M10x1.50x180mm (x10)

- 1) 35Nm
- 2) 90°
- 3) 90°

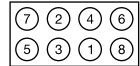




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A-Class A 150 (W169) A-Class A 160						09/04 → 04/09 →	11	HBS457	1) 35Nm 2) 90° 3) 90°	
M 266.920	1498	4	83.00	Injection, SOHC	70/95		M10x1.50x180mm (x10)			
A-Class A 140 (W168) A-Class A 160 (W168)						01/01 →08/04 07/97 →08/04	12	HBS457	1) 35Nm 2) 90° 3) 90°	
M 166.960	1598	4	80.00	SOHC	75/102		M10x1.50x180mm (x10)			
A-Class A 160 CDI (W168) Diesel A-Class A 170 CDI (W168) Diesel						07/98 →08/04 07/98 →08/04	13	HBS291	1) 60Nm 2) 180°	
OM 668.941	1689	4	80.00	DOHC	44/55/ 60/75		M12x1.75x185mm (x10)			
OM 668.940/OM 668.942	1689	4	80.00	DOHC	60-70/ 82-95					
A-Class A 170 (W169) A-Class A 180						09/04 → 04/09 →	14	HBS457	1) 35Nm 2) 90° 3) 90°	
M 266.940	1699	4	83.00	Injection, SOHC	85/116		M10x1.50x180mm (x10)			
A-Class A 190 (W168)						03/99 →08/04	15	HBS457	1) 35Nm 2) 90° 3) 90°	
M 166.990	1898	4	80.00	SOHC	92/125		M10x1.50x180mm (x10)			
A-Class A 160 CDI (W169) Diesel A-Class A 180 CDI (W169) Diesel A-Class A 200 CDI (W169) Diesel						09/04 → 09/04 → 09/04 →	16	HBS458	1) 10Nm 2) 80Nm 3) 90° 4) 90°	
OM 640.942	1991	4	83.00	DOHC	60/81		M12x1.75x115mm (x10)			
OM 640.940	1991	4	83.00	DOHC	80/109					
OM 640.941	1991	4	83.00	DOHC	103/140					
A-Class A 200 (W169)						09/04 →	17	HBS457	1) 35Nm 2) 90° 3) 90°	
M 266.960	2034	4	83.00	Injection, SOHC	100/136		M10x1.50x180mm (x10)			
M 266.980	2034	4	83.00	Injection, SOHC	142/193					
A-Class A 210 (W168)						03/02 →08/04	18	HBS457	1) 35Nm 2) 90° 3) 90°	
M 166.995	2084	4	84.00	SOHC	103/140		M10x1.50x180mm (x10)			
B-Class B 150 (W245) B-Class B 160						03/05 → 04/09 →	19	HBS457	1) 35Nm 2) 90° 3) 90°	
M 266.920	1498	4	83.00	Injection, SOHC	70/95		M10x1.50x180mm (x10)			
B-Class B 170 (W245) B-Class B 180						03/05 → 04/09 →	20	HBS457	1) 35Nm 2) 90° 3) 90°	
M 266.940	1699	4	83.00	Injection, SOHC	85/116		M10x1.50x180mm (x10)			
B-Class B 180 CDI (W245) Diesel B-Class B 200 CDI (W245) Diesel						03/05 → 03/05 →	21	HBS458	1) 10Nm 2) 80Nm 3) 90° 4) 90°	
OM 640.940	1991	4	83.00	DOHC	80/109		M12x1.75x115mm (x10)			
OM 640.941	1991	4	83.00	DOHC	103/140					
B-Class B 170 NGT B-Class B 180 NGT B-Class B 200 (W245)						04/08 → 04/08 → 03/05 →	22	HBS457	1) 35Nm 2) 90° 3) 90°	
M 266.960	2034	4	83.00	Injection, SOHC	100/136		M10x1.50x180mm (x10)			
M 266.980	2034	4	83.00	Injection, SOHC	142/193					

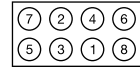
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<b>C-Class C 180 (W202)</b> 03/93→05/00 <b>23</b>						<b>HBS150</b>  M12x1.75x102mm (x10)	1) 55Nm 2) 90° 3) 90°				
<b>C-Class C 180 T (S202)</b> 06/96→09/00											
M 111.920	1799	4	85.30	DOHC	90/122						
M 111.921	1799	4	85.30	SOHC	90/122						
<b>C-Class C 180 Kompressor (S203)</b> 05/02→						<b>HBS459</b>  M10x1.50x165mm (x10)	1) 20Nm 2) 45Nm 3) 90° 4) 90°				
<b>C-Class C 180 Kompressor (W203)</b> 05/02→											
<b>C-Class C 180 Kompressor (W204)</b> 01/07→											
<b>C-Class C 180 Kompressor (S204)</b> 08/07→											
<b>C-Class C 200 CGI Kompressor (CL203)</b> 07/03→											
<b>C-Class C 200 CGI Kompressor (S203)</b> 07/03→											
<b>C-Class C 200 CGI Kompressor (W203)</b> 07/03→											
<b>C-Class C 200 Kompressor (S203)</b> 05/02→											
<b>C-Class C 200 Kompressor (W203)</b> 05/02→											
<b>C-Class C 200 Kompressor (W204)</b> 01/07→											
<b>C-Class C 200 Kompressor (S204)</b> 08/07→											
<b>C-Class C 230 Kompressor (S203)</b> 02/04→											
<b>C-Class C 230 Kompressor (W203)</b> 02/04→											
<b>C-Class Coupe C 160 Kompressor (CL203)</b> 05/02→											
<b>C-Class Coupe C 180 Kompressor (CL203)</b> 05/02→											
<b>C-Class Coupe C 200 Kompressor (CL203)</b> 05/02→											
<b>C-Class Coupe C 230 Kompressor (CL203)</b> 05/02→											
M 271.921	1796	4	82.00	Injection, DOHC	90/122						
M 271.946	1796	4	82.00	DOHC	105-125/ 143-170						
M 271.942	1796	4	82.00	DOHC	125/170						
M 271.948	1796	4	82.00	Injection, DOHC	141/192						
M 271.950/M 271.952	1796	4	82.00	DOHC							
M 271.940	1796	4	82.50	DOHC	120/163						
<b>C-Class C 180 (S203)</b> 03/01→05/02 <b>25</b>						<b>HBS150</b>  M12x1.75x102mm (x10)	1) 55Nm 2) 90° 3) 90°				
<b>C-Class C 180 (W203)</b> 10/00→05/02											
<b>C-Class C 180 T (S202)</b> 09/00→03/01											
<b>C-Class C 200 (W202)</b> 01/94→05/00											
<b>C-Class C 200 Kompressor (W202)</b> 10/95→05/00											
<b>C-Class C 200 Kompressor (W203)</b> 05/00→05/02											
<b>C-Class C 200 Kompressor (S203)</b> 03/01→05/02											
<b>C-Class C 200 T (S202)</b> 06/96→03/01											
<b>C-Class C 200 T Kompressor (S202)</b> 11/96→03/01											
<b>C-Class Coupe C 180 (CL203)</b> 03/01→05/02											
<b>C-Class Coupe C 200 Kompressor (CL203)</b> 03/01→05/02											
M 111.951/M 111.952	1998	4	89.90	DOHC	95/129						
M 111.941/M 111.945	1998	4	89.90	DOHC	100/136						
M 111.955	1998	4	89.90	Motronic, DOHC	120/163						
M 111.956	1998	4	89.90	DOHC	120/163						
M 111.944	1998	4	89.90	Motronic, DOHC	132-141/ 180-192						
<b>C-Class C 200 D Diesel</b> 03/93→05/00 <b>26</b>						<b>HBS058</b>  M10x1.50x80mm (x4) M10x1.50x115mm (x5) M10x1.50x102mm (x9)	1) 25Nm 2) 40Nm 3) 90° 4) 40Nm 5) 90° 6) 90°				
<b>C-Class C 200 D (W202) Diesel</b> 03/93→05/00											
OM 601.913/OM 601.915	1997	4	87.00	SOHC	55/75						
<b>C-Class C 200 D (W202) Diesel</b> 10/96→05/00 <b>27</b>						<b>HBS061</b>  M10x1.50x115mm (x4) M10x1.50x102mm (x14)	1) 15Nm 2) 35Nm 3) 90° 4) 90°				
<b>C-Class C 200 T D (S202) Diesel</b> 10/96→03/01											
OM 604.915	1997	4	87.00	DOHC	65/88						

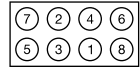




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<b>C-Class C 200 CDI (S203) Diesel</b> 03/01 → <b>28</b> <b>C-Class C 200 CDI (W202) Diesel</b> 03/98 → 05/00 <b>C-Class C 200 CDI (W203) Diesel</b> 09/00 → <b>C-Class C 200 T CDI (S202) Diesel</b> 03/98 → 03/01 <b>C-Class C 220 CDI (S203) Diesel</b> 03/01 → <b>C-Class C 220 CDI (W202) Diesel</b> 09/97 → 05/00 <b>C-Class C 220 CDI (W203) Diesel</b> 05/00 → <b>C-Class C 220 T CDI (S202) Diesel</b> 09/97 → 03/01 <b>C-Class Coupe C 200 CDI (CL203) Diesel</b> 07/03 → <b>C-Class Coupe C 220 CDI (CL203) Diesel</b> 03/01 →						M12x1.75x102mm (x10)		1) 60Nm 2) 90° 3) 90°	
OM 646.962	2148	4	88.00	DOHC	75-90/ 102-122				
OM 611.960	2148	4	88.00	Common Rail, DOHC	85/115/ 116/156				
OM 611.962	2148	4	88.00	DOHC	85-105/ 116-143				
OM 646.963	2148	4	88.00	DOHC	110/150				
<b>C-Class C 220 D (W202) Diesel</b> 08/93 → 05/00 <b>29</b> <b>C-Class C 220 T D (S202) Diesel</b> 06/96 → 03/01						M10x1.50x115mm (x4) M10x1.50x102mm (x14)		1) 15Nm 2) 35Nm 3) 90° 4) 90°	
OM 604.910	2155	4	89.00	DOHC	55-70/ 75-95				
<b>C-Class C 220 (W202)</b> 03/93 → 05/00 <b>30</b>						M12x1.75x102mm (x10)		1) 55Nm 2) 90° 3) 90°	
M 111.961	2199	4	89.90	DOHC	110/150				
<b>C-Class C 230 (W202)</b> 06/96 → 06/97 <b>31</b> <b>C-Class C 230 Kompressor (W202)</b> 10/95 → 05/00 <b>C-Class C 230 T (S202)</b> 06/96 → 06/98 <b>C-Class C 230 T Kompressor (S202)</b> 06/97 → 09/00 <b>C-Class Coupe C 230 Kompressor (CL203)</b> 03/01 → 05/02						M12x1.75x102mm (x10)		1) 55Nm 2) 90° 3) 90°	
M 111.974	2295	4	90.90	DOHC	110/150				
M 111.975	2295	4	90.90	Motronic, DOHC	142/193				
M 111.981	2295	4	90.90	DOHC	145/197				
<b>C-Class C 240 (W202)</b> 06/97 → 05/00 <b>32</b> <b>C-Class C 240 T (S202)</b> 06/97 → 09/00 <b>C-Class C 240 (S203)</b> 03/01 → <b>C-Class C 240 (W203)</b> 05/00 →						M11x1.5x141mm (x8)		1) 10Nm 2) 30Nm 3) 90° 4) 90°	
M 112.910/M 112.912	2398	6	83.20	DOHC, V6	125/170				
<b>C-Class C 250 D (W202) Diesel</b> 05/93 → 05/00 <b>33</b> <b>C-Class C 250 T Turbo-D (S202) Diesel</b> 06/96 → 03/01 <b>C-Class C 250 Turbo-D (W202) Diesel</b> 10/95 → 05/00						M10x1.50x115mm (x5) M10x1.50x102mm (x17)		1) 25Nm 2) 40Nm 3) ↻ 90° 4) 40Nm 5) 90° 6) 90°	
OM 605.910	2497	5	87.00	DOHC	83/113				
OM 605.960	2497	5	87.00	SOHC	110/150				
<b>C-Class C 240 (S203)</b> 07/02 → <b>34</b> <b>C-Class C 240 (W203)</b> 07/02 → <b>C-Class C 240 T (S202)</b> 09/00 → 03/01						M11x1.5x141mm (x8)		1) 10Nm 2) 30Nm 3) 90° 4) 90°	
M 112.915/M 112.916	2597	6	89.90	SOHC, V6	125/170				
<b>C-Class C 270 CDI (S203) Diesel</b> 03/01 → <b>35</b> <b>C-Class C 270 CDI (W203) Diesel</b> 12/00 →						M12x1.75x102mm (x12)		1) 60Nm 2) 90° 3) 90°	
OM 612.962	2685	5	88.00	DOHC	125/170				
<b>C-Class C 280 (W202)</b> 06/97 → 05/00 <b>36</b> <b>C-Class C 280 T (S202)</b> 06/97 → 03/01						M11x1.5x141mm (x8)		1) 10Nm 2) 30Nm 3) 90° 4) 90°	
M 112.920	2799	6	89.90	DOHC, V6	145-150/ 197-204				

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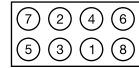
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<b>C-Class C 280 (W202)</b> 05/93→05/00 <b>37</b>						<b>HBS152</b> M12x1.75x160mm (x14)	1) 25Nm 2) 55Nm 3) ↻ 90° 4) 55Nm 5) 90° 6) 90°	
M 104.941	2799	6	89.90	DOHC	142/193			
<b>C-Class C 30 CDI AMG (S203) Diesel</b> 01/03→ <b>C-Class C 30 CDI AMG (W203) Diesel</b> 01/03→ <b>C-Class Coupe C 30 CDI AMG (CL203) Diesel</b> 09/02→						<b>HBS293</b> M12x1.75x102mm (x12)	1) 60Nm 2) 90° 3) 90°	
OM 612.990	2950	5	88.00	DOHC	170/231			
<b>C-Class C 280 (S203)</b> 01/05→ <b>C-Class C 280 (W203)</b> 01/05→ <b>C-Class C 280 4-matic</b> 01/05→ <b>C-Class T-Model C 280 4-matic</b> 01/05→08/07						<b>HBSS11 (x2)</b> M11x1.50x260mm (x16)	1) 20Nm 2) 40Nm 3) ↻ 90° 4) 40Nm 5) 90° 6) 90°	
M 272.940/M 272.941	2996	6	88.00	DOHC, V6	170/231			
<b>C-Class C 320 CDI (S203) Diesel</b> 06/05→ <b>C-Class C 320 CDI (S204) Diesel</b> 08/07→ <b>C-Class C 320 CDI (W203) Diesel</b> 01/05→ <b>C-Class C 320 CDI (W204) Diesel</b> 01/07→ <b>C-Class C 320 CDI 4-matic (W204) Diesel</b> 07/07→ <b>C-Class C 320 CDI 4-matic (S204) Diesel</b> 08/07→						<b>HBS474</b> M12x1.75x205mm (x16)	1) 60Nm 2) 90° 3) 90° 4) 90°	
OM 642.910	2987	6	83.00	DOHC	165/224			
OM 642.961	2987	6	83.00	DOHC, V6	165/224			
OM 642.960	2987	6	83.00	DOHC, V6	165/224			
<b>C-Class C 32 AMG Kompressor (W203)</b> 02/01→ <b>C-Class C 32 AMG Kompressor (S203)</b> 03/01→ <b>C-Class C 320 (S203)</b> 03/01→ <b>C-Class C 320 (W203)</b> 05/00→ <b>C-Class Coupe C 32 AMG Kompressor (CL203)</b> 05/02→ <b>C-Class Coupe C 320 (CL203)</b> 09/02→						<b>HBS463</b> M11x1.5x141mm (x8)	1) 10Nm 2) 30Nm 3) 90° 4) 90°	
M 112.946	3199	6	89.90	DOHC, V6	160/218			
M 112.953	3199	6	89.90	SOHC, V6	160/218			
M 112.961	3199	6	89.90	DOHC, V6	260/354			
<b>C-Class C 350 (CL203)</b> 01/05→ <b>C-Class C 350 (S203)</b> 01/05→ <b>C-Class C 350 (W203)</b> 01/05→ <b>C-Class C 350 4-matic (S203)</b> 01/05→ <b>C-Class C 350 4-matic (W203)</b> 01/05→						<b>HBSS11 (x2)</b> M11x1.50x260mm (x16)	1) 20Nm 2) 40Nm 3) ↻ 90° 4) 40Nm 5) 90° 6) 90°	
M 272.960/M 272.970	3498	6	92.90	DOHC, V6	200/272			
<b>C-Class C 36 AMG (W202)</b> 05/94→05/00 <b>43</b>						<b>HBS152</b> M12x1.75x160mm (x14)	1) 25Nm 2) 55Nm 3) ↻ 90° 4) 55Nm 5) 90° 6) 90°	
M 104.941 (AMG 3.6)	3606	6	91.00	DOHC	206/280			
<b>CLC 180 Kompressor</b> 05/08→ <b>CLC-Class CLC 200 Kompressor</b> 05/08→						<b>HBS459</b> M10x1.50x165mm (x10)	1) 20Nm 2) 45Nm 3) 90° 4) 90°	
M 271.946	1796	4	82.00	DOHC	105-125/ 143-170			
M 271.955	1796	4	82.00	DOHC	135/184			
<b>CLC-Class CLC 350</b> 05/08→ <b>45</b>						<b>HBSS11 (x2)</b> M11x1.50x260mm (x16)	1) 20Nm 2) 40Nm 3) ↻ 90° 4) 40Nm 5) 90° 6) 90°	
M 272.960	3498	6	92.90	DOHC, V6	200/272			



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Model		Year		Power		Torque		Wrench		Torque Wrench	
<b>CLK Convertible 200 CGI (A209)</b>		07/03 →		<b>46</b>		<b>HBS459</b>		1) 20Nm 2) 45Nm 3) 90° 4) 90°			
<b>CLK Convertible 200 Kompressor (A209)</b>		02/03 →									
<b>CLK Coupe 200 CGI (C209)</b>		07/03 →									
<b>CLK Coupe 200 Kompressor (C209)</b>		09/02 →									
M 271.942	1796	4	82.00	DOHC	125/170	M10x1.50x165mm (x10)					
M 271.955	1796	4	82.00	DOHC	135/184						
M 271.940	1796	4	82.50	DOHC	120/163						
<b>CLK Convertible 200 (A208)</b>		03/98 → 03/02		<b>47</b>		<b>HBS150</b>		1) 55Nm 2) 90° 3) 90°			
<b>CLK Convertible 200 Kompressor (A208)</b>		03/98 → 03/02									
<b>CLK Coupe 200 (C208)</b>		06/97 → 06/02									
<b>CLK Coupe 200 Kompressor (C208)</b>		06/97 → 06/02									
M 111.941/M 111.945	1998	4	89.90	DOHC	100/136	M12x1.75x102mm (x10)					
M 111.956	1998	4	89.90	DOHC	120/163						
M 111.944	1998	4	89.90	Motronic, DOHC	132-141/ 180-192						
<b>CLK 220 CDI (C209) Diesel</b>		01/05 →		<b>48</b>		<b>HBS292</b>		1) 60Nm 2) 90° 3) 90°			
OM 646.966	2148	4	88.00	DOHC	110/150	M12x1.75x102mm (x10)					
<b>CLK Convertible 230 Kompressor (A208)</b>		03/98 → 03/02		<b>49</b>		<b>HBS150</b>		1) 55Nm 2) 90° 3) 90°			
<b>CLK Coupe 230 Kompressor (C208)</b>		06/97 → 06/02									
M 111.973/M 111.975	2295	4	90.90	Motronic, DOHC	142/193	M12x1.75x102mm (x10)					
M 111.982	2295	4	90.90	DOHC	142/193						
<b>CLK Convertible 240 (A209)</b>		02/03 →		<b>50</b>		<b>HBS463</b>		1) 10Nm 2) 30Nm 3) 90° 4) 90°			
<b>CLK Coupe 240 (C209)</b>		06/02 →									
M 112.912	2398	6	89.90	DOHC, V6	125/170	M11x1.5x141mm (x8)					
<b>CLK Coupe 270 CDI (C209) Diesel</b>		10/02 →		<b>51</b>		<b>HBS293</b>		1) 60Nm 2) 90° 3) 90°			
OM 612.962/OM 612.967	2685	5	88.00	DOHC	125/170	M12x1.75x102mm (x12)					
<b>CLK 280 (209.354)</b>		01/05 →		<b>52</b>		<b>HBS511 (x2)</b>		1) 20Nm 2) 40Nm 3) ↻ 90° 4) 40Nm 5) 90° 6) 90°			
<b>CLK Cabriolet 280</b>		01/05 →									
M 272.940	2996	6	88.00	DOHC, V6	170/231	M11x1.50x260mm (x16)					
<b>CLK 320 CDI (A209) Diesel</b>		03/05 →		<b>53</b>		<b>HBS474</b>		1) 60Nm 2) 90° 3) 90° 4) 90°			
<b>CLK 320 CDI (C209) Diesel</b>		01/05 →									
OM 642.910	2987	6	83.00	DOHC	165/224	M12x1.75x205mm (x16)					
<b>CLK Convertible 320 (A208)</b>		03/98 → 03/02		<b>54</b>		<b>HBS463</b>		1) 10Nm 2) 30Nm 3) 90° 4) 90°			
<b>CLK Convertible 320 (A209)</b>		02/03 →									
<b>CLK Coupe 320 (C208)</b>		06/97 → 06/02									
<b>CLK Coupe 320 (C209)</b>		06/02 →									
M 112.955	3199	6	89.90	SOHC, V6	160/218	M11x1.5x141mm (x8)					
M 112.940	3199	6	89.90	Motronic, SOHC, V6	160-162/ 218-220						
<b>CLK Convertible 350 (A209)</b>		01/05 →		<b>55</b>		<b>HBS511 (x2)</b>		1) 20Nm 2) 40Nm 3) ↻ 90° 4) 40Nm 5) 90° 6) 90°			
<b>CLK Coupe 350 (C209)</b>		01/05 →									
M 272.960	3498	6	92.90	DOHC, V6	200/272	M11x1.50x260mm (x16)					
<b>CLS 320 CDI (C219) Diesel</b>		01/05 →		<b>56</b>		<b>HBS474</b>		1) 60Nm 2) 90° 3) 90° 4) 90°			
OM 642.920	2987	6	83.00	DOHC, V6	140-165/ 190-224	M12x1.75x205mm (x16)					
OM 642.910	2987	6	83.00	DOHC	165/224						

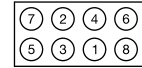
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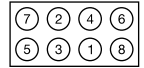
<b>CLS 350 (C219)</b> 10/04 → <b>57</b>						<b>HBS511 (x2)</b> M11x1.50x260mm (x16)	1) 20Nm 2) 40Nm 3) ↻ 90° 4) 40Nm 5) 90° 6) 90°	
M 272.964	3498	6	92.90	DOHC, V6	200/272			
<b>E-Class E 200 (W211)</b> 11/02 → <b>58</b> <b>E-Class E 200 (W211)</b> 03/04 → <b>E-Class E 200 Kompressor (W211)</b> 11/02 →						<b>HBS459</b> M10x1.50x165mm (x10)	1) 20Nm 2) 45Nm 3) 90° 4) 90°	
M 271.946	1796	4	82.00	DOHC	105-125/ 143-170			
M 271.941	1796	4	82.00	DOHC	120/163			
M 271.956	1796	4	82.00	DOHC	135/184			
<b>E-Class 200 D (W124) Diesel</b> 12/84 → 06/93 <b>59</b> <b>E-Class 200 T D (S124) Diesel</b> 09/85 → 08/91 <b>E-Class E 200 D (W124) Diesel</b> 06/93 → 06/95						<b>HBS058</b> M10x1.50x80mm (x4) M10x1.50x115mm (x5) M10x1.50x102mm (x9)	1) 25Nm 2) 40Nm 3) ↻ 90° 4) 40Nm 5) 90° 6) 90°	
OM 601.912	1978	4	87.00	SOHC	53-55/72			
<b>E-Class 200 E (W124)</b> 12/85 → 08/92 <b>60</b> <b>E-Class 200 T (S124)</b> 09/85 → 05/90 <b>E-Class 200 TE (S124)</b> 09/88 → 08/92								
M 102.922/M 102.962	1997	4	89.00	SOHC	62/93/ 84/126			
M 102.963	1997	4	89.00	KE-Jetronic, SOHC	62/93/ 84/126			
<b>E-Class 200 E (W124)</b> 10/92 → 06/93 <b>61</b> <b>E-Class 200 TE (S124)</b> 10/92 → 06/93 <b>E-Class Convertible E 200 (A124)</b> 06/93 → 03/98 <b>E-Class Coupe E 200 (C124)</b> 06/93 → 06/97 <b>E-Class E 200 (W124)</b> 06/93 → 06/95 <b>E-Class E 200 (W210)</b> 06/95 → 08/00 <b>E-Class E 200 Kompressor (W210)</b> 06/97 → 03/02 <b>E-Class E 200 T (S124)</b> 06/93 → 06/96 <b>E-Class E 200 T (S210)</b> 06/96 → 08/00 <b>E-Class E 200 T Kompressor (S210)</b> 06/97 → 03/03						<b>HBS150</b> M12x1.75x102mm (x10)	1) 55Nm 2) 90° 3) 90°	
M 111.940/M 111.942	1998	4	89.90	DOHC	100/136			
M 111.957	1998	4	89.90	DOHC	120/163			
M 111.947	1998	4	89.90	Motronic, DOHC	137/186			
<b>E-Class E 200 D (W210) Diesel</b> 01/96 → 03/02 <b>62</b>						<b>HBS061</b> M10x1.50x115mm (x4) M10x1.50x102mm (x14)	1) 15Nm 2) 35Nm 3) 90° 4) 90°	
OM 604.917	1997	4	87.00	DOHC	65/88			
<b>E-Class E 220 CDI (W211) Diesel</b> 03/02 → <b>63</b> <b>E-Class E 220 T CDI (S211) Diesel</b> 03/03 → <b>E-Class E 200 CDI (W210) Diesel</b> 06/98 → 03/02 <b>E-Class E 200 CDI (W211) Diesel</b> 07/02 → <b>E-Class E 220 CDI (W210) Diesel</b> 06/98 → 03/02 <b>E-Class E 220 T CDI (S210) Diesel</b> 06/98 → 03/03						<b>HBS292</b> M12x1.75x102mm (x10)	1) 60Nm 2) 90° 3) 90°	
OM 611.961	2148	4	88.00	DOHC	75-105/ 102-143			
OM 646.951	2148	4	88.00	DOHC	75-90/ 102-122			
OM 646.821	2148	4	88.00	DOHC	100/136			
OM 646.961	2148	4	88.00	DOHC	110/150			
OM 646.820	2148	4	88.00	DOHC				



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E-Class E 220 D (W210) Diesel				06/95 → 03/02	64	HBS061	1) 15Nm 2) 35Nm 3) 90° 4) 90°	
OM 604.912	2155	4	89.00	DOHC	55-70/ 75-95	 M10x1.50x115mm (x4) M10x1.50x102mm (x14)		
E-Class 220 E (W124)				10/92 → 06/93	65	HBS150  M12x1.75x102mm (x10)	1) 55Nm 2) 90° 3) 90°	
E-Class 220 TE (S124)				10/92 → 05/93				
E-Class Convertible E 220 (A124)				06/93 → 03/98				
E-Class Coupe 220 CE (C124)				10/92 → 05/93				
E-Class Coupe E 220 (C124)				06/93 → 06/97				
E-Class E 220 (W124)				06/93 → 06/95				
E-Class E 220 T (S124)				06/93 → 06/96				
M 111.960	2199	4	89.90	DOHC	110/150			
E-Class E 230 (W210)				06/95 → 06/97	66	HBS150  M12x1.75x102mm (x10)	1) 55Nm 2) 90° 3) 90°	
E-Class E 230 T (S210)				06/96 → 06/97				
M 111.970	2295	4	90.90	DOHC	110/150			
E-Class 230 E (W124)				12/84 → 06/93	67	HBS047  M12x1.75x120mm (x10)	1) 40Nm 2) 70Nm 3) ↻ 90° 4) 70Nm 5) 90° 6) 90°	
E-Class 230 TE (S124)				09/85 → 08/92				
E-Class Coupe 230 CE (C124)				03/87 → 12/92				
M 102.982	2299	4	95.50	KE-Jetronic, SOHC				
E-Class E 240 (W210)				06/97 → 03/02	68	HBS463  M11x1.5x141mm (x8)	1) 10Nm 2) 30Nm 3) 90° 4) 90°	
E-Class E 240 (W211)				03/02 →				
E-Class E 240 T (S210)				06/97 → 03/03				
E-Class E 240 T (S211)				03/03 →				
M 112.911	2398	6	83.20	DOHC, V6				
M 112.913	2398	6	89.90	SOHC, V6	125/170			
M 112.914	2398	6	89.90	DOHC, V6	125/170			
E-Class E 240 (W211)				03/02 →	69	HBS463  M11x1.5x141mm (x8)	1) 10Nm 2) 30Nm 3) 90° 4) 90°	
E-Class E 240 T (S211)				07/03 →				
M 112.917	2597	6	89.90	SOHC, V6	130/177			
E-Class 250 D (W124) Diesel				04/85 → 06/93	70	HBS059  M10x1.50x80mm (x5) M10x1.50x115mm (x6) M10x1.50x102mm (x11)	1) 25Nm 2) 40Nm 3) ↻ 90° 4) 40Nm 5) 90° 6) 90°	
E-Class 250 E Diesel				01/85 → 12/95				
E-Class 250 T D (S124) Diesel				09/85 → 06/93				
E-Class 250 Turbo-D (W124) Diesel				09/88 → 06/93				
E-Class 250 Turbo D (S124) Diesel				06/93 → 06/96				
E-Class E 250 Turbo-D (W124) Diesel				06/93 → 06/95				
OM 602.911/OM 602.912	2497	5	87.00	SOHC				
OM 602A.962	2497	5	87.00	SOHC	93/126			
E-Class E 250 D (W124) Diesel				07/93 → 06/95	71	HBS062  M10x1.50x115mm (x5) M10x1.50x102mm (x17)	1) 25Nm 2) 40Nm 3) ↻ 90° 4) 40Nm 5) 90° 6) 90°	
E-Class E 250 D (W210) Diesel				06/95 → 07/99				
E-Class E 250 T D (S124) Diesel				06/93 → 06/96				
E-Class E 250 T D (S210) Diesel				06/96 → 07/99				
E-Class E 250 T Turbo-D (S210) Diesel				06/97 → 07/99				
E-Class E 250 Turbo-D (W210) Diesel				06/97 → 07/99				
OM 605.911/OM 605.912	2497	5	87.00	DOHC				
OM 605.962	2497	5	87.00	DOHC	110/150			
E-Class 260 E (W124)				09/85 → 08/92	72	HBS146  M12x1.75x102mm (x14)	1) 40Nm 2) 70Nm 3) ↻ 90° 4) 70Nm 5) 90° 6) 90°	
E-Class 260 TE FGST. (S124)				09/85 → 08/92				
M 103.940	2599	6	82.90	SOHC				
M 103.943	2599	6	82.90	SOHC	118/160			



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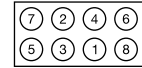
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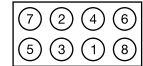
<b>E-Class E 270 CDI (W210) Diesel</b> 07/99→03/02 <b>73</b>						<b>HBS293</b>  M12x1.75x102mm (x12)	1) 60Nm 2) 90° 3) 90°	
<b>E-Class E 270 CDI (W211) Diesel</b> 03/02→ <b>E-Class E 270 T CDI (S210) Diesel</b> 07/99→03/03 <b>E-Class E 270 T CDI (S211) Diesel</b> 03/03→								
OM 612.961	2685	5	88.00	DOHC	125/170	<b>HBS152</b>  M12x1.75x160mm (x14)	1) 25Nm 2) 55Nm 3) ↻ 90° 4) 55Nm 5) 90° 6) 90°	
OM 647.961	2685	5	88.00	DOHC	130/177			
<b>E-Class 280 E (W124)</b> 10/92→06/93 <b>74</b> <b>E-Class 280 TE (S124)</b> 10/92→06/93 <b>E-Class E 280 (W124)</b> 06/93→06/95 <b>E-Class E 280 (W210)</b> 01/96→06/97 <b>E-Class E 280 long (W124)</b> 06/93→06/95 <b>E-Class E 280 T (S124)</b> 06/93→06/96						<b>HBS463</b>  M11x1.5x141mm (x8)	1) 10Nm 2) 30Nm 3) 90° 4) 90°	
M 104.945	2799	6	89.90	DOHC	142/193			
M 104.942	2799	6	89.90	DOHC	142-145/ 193-197			
<b>E-Class E 280 (W210)</b> 12/96→03/02 <b>75</b> <b>E-Class E 280 T (S210)</b> 12/96→03/03						<b>HBS059</b>  M10x1.50x80mm (x5) M10x1.50x115mm (x6) M10x1.50x102mm (x11)	1) 25Nm 2) 40Nm 3) ↻ 90° 4) 40Nm 5) 90° 6) 90°	
M 112.921	2799	6	89.90	DOHC, V6	150/204			
<b>E-Class E 290 T Turbo-D (S210) Diesel</b> 06/96→07/99 <b>76</b> <b>E-Class E 290 Turbo-D (W210) Diesel</b> 03/96→07/99						<b>HBS060</b>  M10x1.50x80mm (x6) M10x1.50x115mm (x7) M10x1.50x102mm (x13)	1) 25Nm 2) 40Nm 3) ↻ 90° 4) 40Nm 5) 90° 6) 90°	
OM 602.982	2874	5	89.00	SOHC	95/129			
<b>E-Class 300 D (W124) Diesel</b> 12/84→06/93 <b>77</b> <b>E-Class 300 E 4-Matic Diesel</b> 09/86→01/89 <b>E-Class 300 T D (S124) Diesel</b> 09/86→06/93 <b>E-Class 300 T Turbo-D (S124) Diesel</b> 09/86→06/93 <b>E-Class 300 Turbo-D (W124) Diesel</b> 01/88→06/93 <b>E-Class E 300 T Turbo-D (S124) Diesel</b> 06/93→06/96 <b>E-Class E 300 Turbo-D (W124) Diesel</b> 06/93→06/95						<b>HBS146</b>  M12x1.75x102mm (x14)	1) 40Nm 2) 70Nm 3) ↻ 90° 4) 70Nm 5) 90° 6) 90°	
OM 603.912/OM 603.913	2996	6	87.00	SOHC	80/83/ 109/113			
OM 603A.960	2996	6	87.00	SOHC, Turbocharged	105-108/ 143-147			
OM 603A.960/OM 603A.963	2996	6	87.00	SOHC	105-108/ 143-147			
<b>E-Class 300 E (W124)</b> 06/85→06/93 <b>78</b> <b>E-Class 300 TE (S124)</b> 01/86→06/93 <b>E-Class Coupe 300 CE (C124)</b> 03/87→05/93 <b>E-Class E 300 (W124)</b> 06/93→06/95 <b>E-Class E 300 T (S124)</b> 06/93→06/96						<b>HBS152</b>  M12x1.75x160mm (x14)	1) 25Nm 2) 55Nm 3) ↻ 90° 4) 55Nm 5) 90° 6) 90°	
M 103.983/M 103.985	2962	6	88.50	SOHC	132/140/ 180/190			
<b>E-Class 300 E-24 (W124)</b> 09/88→08/92 <b>79</b> <b>E-Class 300 TE-24 (S124)</b> 09/89→08/92 <b>E-Class Convertible 300 CE-24 (A124)</b> 04/92→06/93 <b>E-Class Coupe 300 CE-24 (C124)</b> 09/89→12/92 <b>E-Class E 300 TE-24 AMG (S124)</b> 06/93→06/96						<b>HBS152</b>  M12x1.75x160mm (x14)	1) 25Nm 2) 55Nm 3) ↻ 90° 4) 55Nm 5) 90° 6) 90°	
M 104.980	2960	6	88.50	DOHC	162/170/ 220/231			



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<b>E-Class E 280 CDI (W211) Diesel</b> 03/05 → <b>80</b> <b>E-Class E 280 CDI 4-matic (W211) Diesel</b> 03/05 → <b>E-Class E 280 T CDI (S211) Diesel</b> 03/05 → <b>E-Class E 280 T CDI 4-matic (S211) Diesel</b> 03/05 → <b>E-Class E 300 (W211) Diesel</b> 09/07 → <b>E-Class E 320 CDI (W211) Diesel</b> 03/05 → <b>E-Class E 320 CDI 4-matic (W211) Diesel</b> 03/05 → <b>E-Class E 320 T CDI (S211) Diesel</b> 03/05 → <b>E-Class E 320 T CDI 4-matic (S211) Diesel</b> 03/05 →					<b>HBS474</b>  M12x1.75x205mm (x16)	1) 60Nm 2) 90° 3) 90° 4) 90°		
<b>OM 642.921</b> 2987 6 83.00 DOHC, V6 140/190 <b>OM 642.920</b> 2987 6 83.00 DOHC, V6 140-165/ 190-224 <b>OM 642.910</b> 2987 6 83.00 DOHC 165/224								
<b>E-Class E 300 D (W124) Diesel</b> 07/93 →06/95 <b>81</b> <b>E-Class E 300 D (W210) Diesel</b> 06/95 →06/97 <b>E-Class E 300 T D (S124) Diesel</b> 06/93 →06/96 <b>E-Class E 300 T Turbo-D (S210) Diesel</b> 12/96 →07/99 <b>E-Class E 300 Turbo-D (W210) Diesel</b> 12/96 →07/99					<b>HBS063</b>  M10x1.50x102mm (x20) M10x1.50x115mm (x6)	1) 25Nm 2) 40Nm 3) ↻ 90° 4) 40Nm 5) 90° 6) 90°		
<b>OM 606.912</b> 2996 6 87.00 DOHC 100/136 <b>OM 606.910/OM 606.962</b> 2996 6 87.00 DOHC 130/177								
<b>E-Class 320 E (W124)</b> 10/92 →06/93 <b>82</b> <b>E-Class 320 TE (S124)</b> 10/92 →06/93 <b>E-Class Convertible E 320 (A124)</b> 06/93 →03/98 <b>E-Class Coupe 320 CE (C124)</b> 10/92 →05/93 <b>E-Class Coupe E 320 (C124)</b> 06/93 →06/97 <b>E-Class E 320 (W124)</b> 06/93 →06/95 <b>E-Class E 320 (W210)</b> 06/95 →06/97 <b>E-Class E 320 T (S124)</b> 06/93 →06/96					<b>HBS152</b>  M12x1.75x160mm (x14)	1) 25Nm 2) 55Nm 3) ↻ 90° 4) 55Nm 5) 90° 6) 90°		
<b>M 104.992/M 104.995</b> 3199 6 89.90 DOHC 162/220								
<b>E-Class E 280 CDI (W211) Diesel</b> 05/04 → <b>83</b> <b>E-Class E 280 T CDI (S211) Diesel</b> 05/04 → <b>E-Class E 320 CDI (W210) Diesel</b> 07/99 →03/02 <b>E-Class E 320 CDI (W211) Diesel</b> 11/02 → <b>E-Class E 320 T CDI (S210) Diesel</b> 07/99 →03/03 <b>E-Class E 320 T CDI (S211) Diesel</b> 03/03 →					<b>HBS294</b>  M12x1.75x102mm (x14)	1) 60Nm 2) 90° 3) 90°		
<b>OM 648.961</b> 3222 6 88.00 DOHC 130-150/ 177-204 <b>OM 613.961</b> 3222 6 88.00 DOHC 145/197								
<b>E-Class E 320 (W210)</b> 06/97 →03/02 <b>84</b> <b>E-Class E 320 (W211)</b> 03/02 → <b>E-Class E 320 T (S210)</b> 12/96 →03/03 <b>E-Class E 320 T (S211)</b> 03/03 →					<b>HBS463</b>  M11x1.5x141mm (x8)	1) 10Nm 2) 30Nm 3) 90° 4) 90°		
<b>M 112.941/M 112.949</b> 3199 6 89.90 DOHC, V6 165/224 <b>M 112.954</b> 3199 6 89.90 SOHC, V6 165/224								
<b>E-Class 3.5L 4-matic</b> 08/04 →08/06 <b>85</b> <b>E-Class E 350 (W211)</b> 03/05 → <b>E-Class E 350 4-matic (W211)</b> 03/05 → <b>E-Class E 350 T (S211)</b> 03/05 → <b>E-Class E 350 T 4-matic (S211)</b> 03/05 → <b>E-Class T-Model 3.5L 4-matic</b> 08/04 →08/06					<b>HBS511 (x2)</b>  M11x1.50x260mm (x16)	1) 20Nm 2) 40Nm 3) ↻ 90° 4) 40Nm 5) 90° 6) 90°		
<b>M 272.964/M 272.972</b> 3498 6 92.90 DOHC, V6 200/272								
<b>E-Class Convertible E 36 AMG (A124)</b> 05/94 →03/98 <b>86</b> <b>E-Class Coupe E 36 AMG (C124)</b> 06/93 →06/97 <b>E-Class E 36 T AMG (S124)</b> 05/94 →06/96					<b>HBS152</b>  M12x1.75x160mm (x14)	1) 25Nm 2) 55Nm 3) ↻ 90° 4) 55Nm 5) 90° 6) 90°		
<b>M 104.992 (AMG 3.6)</b> 3606 6 91.00 DOHC 195-200/ 265-272								

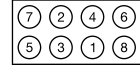
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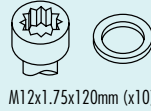


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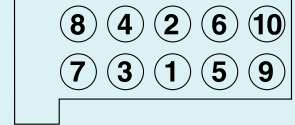
G-Class 230 GE (W460)					04/82→08/92	87
G-Class 230 GE (W461)					02/93→	
G-Class 230 GE (W463)					06/90→06/93	
M 102.979	2299	4	95.50	SOHC	90/122	
M 102.987	2299	4	95.50	SOHC	90-92/ 122-125	
M 102.981/M 102.996/M 102.997	2299	4	95.50	SOHC	92/125	
M 102.989	2299	4	95.50	SOHC	93/126	
G-Class 250 GD (W460) Diesel					10/87→12/92	88
G-Class 250 GD (W461) Diesel					02/90→	
G-Class 250 GD (W463) Diesel					06/90→	
OM 602.930	2497	5	87.00	SOHC	62-69/ 84-94	
OM 602.939	2497	5	87.00	OHV	68/92	
OM 602.931	2497	5	87.00	SOHC	69/93	
G-Class G 270 CDI (W463) Diesel					10/01→	89
OM 612.965	2685	5	88.00	DOHC	115-120/ 156-163	
G-Class 290 GD/G 290 D (W461) Diesel					04/92→	90
G-Class G 290 TD (W461) Diesel					07/97→	
OM 602.942	2874	5	89.00	SOHC	70-72/ 95-98	
OM 602.983	2874	5	89.00	SOHC	88/120	
G-Class 300 GD (W460) Diesel					12/79→12/91	91
OM 617.931	3005	5	90.90	SOHC	65/88	
G-Class 300 GD (W460) Diesel					03/79→07/93	92
G-Class 300 GD (W463) Diesel					09/89→09/97	
OM 603.912/OM 603.931	2996	6	87.00	SOHC	80/83/ 109/113	
G-Class 300 GE (W463)					09/89→09/97	93
M 103.987	2962	6	88.50	KE-Jetronic, SOHC	132/140/ 180/190	
G-Class G 300 TD (W463) Diesel					08/96→	94
OM 606.964	2996	6	87.00	DOHC	130/177	
G-Class G 320 CDI (W463) Diesel					09/06→	95
G-Class GL 320 CDI (X164) Diesel					09/06→	
OM 642.940	2987	6	83.00	DOHC, V6	140-165/ 190-224	
OM 642.970	2987	6	83.00	DOHC, V6	165/224	
G-Class 320 GE (W463)					09/94→11/97	96
G-Class G 320 (W463)					09/94→12/97	
M 104.996	3199	6	89.90	DOHC	155/211	

HBS047



M12x1.75x120mm (x10)

- 1) 40Nm
- 2) 70Nm
- 3) ↻ 90°
- 4) 70Nm
- 5) 90°
- 6) 90°

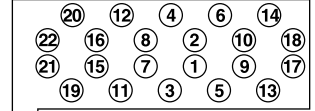


HBS059



M10x1.50x80mm (x5)  
M10x1.50x115mm (x6)  
M10x1.50x102mm (x11)

- 1) 25Nm
- 2) 40Nm
- 3) ↻ 90°
- 4) 40Nm
- 5) 90°
- 6) 90°

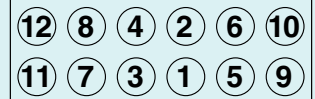


HBS293



M12x1.75x102mm (x12)

- 1) 60Nm
- 2) 90°
- 3) 90°

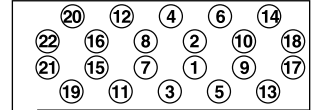


HBS059

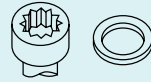


M10x1.50x80mm (x5)  
M10x1.50x115mm (x6)  
M10x1.50x102mm (x11)

- 1) 25Nm
- 2) 40Nm
- 3) ↻ 90°
- 4) 40Nm
- 5) 90°
- 6) 90°

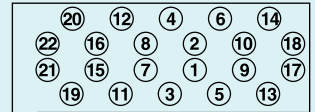


HBS046



M12x1.75x145mm (x8)  
M12x1.75x120mm (x9)  
M12x1.75x105mm (x5)

- 1) 40Nm
- 2) 70Nm
- 3) ↻ 90°
- 4) 70Nm
- 5) 90°
- 6) 90°

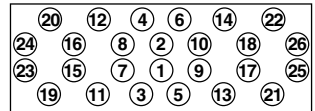


HBS060



M10x1.50x80mm (x6)  
M10x1.50x115mm (x7)  
M10x1.50x102mm (x13)

- 1) 25Nm
- 2) 40Nm
- 3) ↻ 90°
- 4) 40Nm
- 5) 90°
- 6) 90°

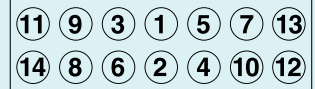


HBS146



M12x1.75x102mm (x14)

- 1) 40Nm
- 2) 70Nm
- 3) ↻ 90°
- 4) 70Nm
- 5) 90°
- 6) 90°

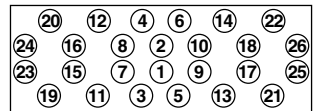


HBS063



M10x1.50x102mm (x20)  
M10x1.50x115mm (x6)

- 1) 25Nm
- 2) 40Nm
- 3) ↻ 90°
- 4) 40Nm
- 5) 90°
- 6) 90°



HBS474



M12x1.75x205mm (x16)

- 1) 60Nm
- 2) 90°
- 3) 90°
- 4) 90°



HBS152



M12x1.75x160mm (x14)

- 1) 25Nm
- 2) 55Nm
- 3) ↻ 90°
- 4) 55Nm
- 5) 90°
- 6) 90°

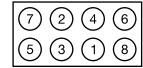




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G-Class G 320 (W463)				07/97 →	97	HBS463		1) 10Nm 2) 30Nm 3) 90° 4) 90°	
M 112.945	3199	6	89.90	DOHC, V6	158/215	 M11x1.5x141mm (x8)			
G-Class 350 G Turbo D (W463) Diesel				09/91 →	98	HBS060		1) 25Nm 2) 40Nm 3) ↻ 90° 4) 40Nm 5) 90° 6) 90°	
G-Class 350 G Turbo-D (W463) Diesel				09/91 → 09/97		 M10x1.50x80mm (x6) M10x1.50x115mm (x7) M10x1.50x102mm (x13)			
OM 603A.972				3449	6	89.00	SOHC	100/136	
G-Class G 36 AMG (W463)				01/95 →	99	HBS152		1) 25Nm 2) 55Nm 3) ↻ 90° 4) 55Nm 5) 90° 6) 90°	
	3606	6			200/272	 M12x1.75x160mm (x14)			
GLK-Class 320 CDI 4-matic (X204) Diesel				06/08 →	100	HBS474		1) 60Nm 2) 90° 3) 90° 4) 90°	
OM 642.961				2987	6	83.00	DOHC, V6	165/224	
M-Class ML 230 (W163)				02/98 → 06/05	101	HBS150		1) 55Nm 2) 90° 3) 90°	
M 111.977				2295	4	90.90	DOHC	110/150	
M-Class ML 270 CDI (W163) Diesel				12/99 → 06/05	102	HBS293		1) 60Nm 2) 90° 3) 90°	
OM 612.963				2685	5	88.00	DOHC	120/163	
M-Class ML 280 CDI 4-matic (W164) Diesel				07/05 →	103	HBS474		1) 60Nm 2) 90° 3) 90° 4) 90°	
M-Class ML 320 CDI 4-matic (W164) Diesel				07/05 →		 M12x1.75x205mm (x16)			
OM 642.940				2987	6	83.00	DOHC, V6	140-165/ 190-224	
M-Class ML 320 (W163)				02/98 → 08/02	104	HBS463		1) 10Nm 2) 30Nm 3) 90° 4) 90°	
M 112.942				3199	6	89.90	DOHC, V6	160/218	
M-Class ML 350 4-matic (W164)				07/05 →	105	HBS511 (x2)		1) 20Nm 2) 40Nm 3) ↻ 90° 4) 40Nm 5) 90° 6) 90°	
M 272.962/M 272.967				3498	6	92.90	DOHC, V6	200/272	
M-Class ML 350 (W163)				08/02 → 06/05	106	HBS463		1) 10Nm 2) 30Nm 3) 90° 4) 90°	
M 112.970				3724	6	97.00	SOHC, V6	173-180/ 235-245	
R-Class R 280 CDI (W251) Diesel				05/06 →	107	HBS474		1) 60Nm 2) 90° 3) 90° 4) 90°	
R-Class R 280 CDI 4-matic (W251) Diesel				05/06 →		 M12x1.75x205mm (x16)			
R-Class R 320 CDI 4-matic (W251) Diesel				01/06 →					
OM 642.950				2987	6	83.00	DOHC, V6	140/190	

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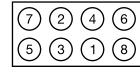
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<b>R-Class R 350</b>		01/07 →		<b>108</b>		<b>HBS511 (x2)</b>  M11x1.50x260mm (x16)	1) 20Nm 2) 40Nm 3) ↻ 90° 4) 40Nm 5) 90° 6) 90°	
<b>R-Class R 350 4-matic</b>		01/06 →						
M 272.967	3498	6	92.90	DOHC, V6	200/272			
<b>S-Class 260 SE (W126)</b>		09/85 → 06/91		<b>109</b>		<b>HBS146</b>  M12x1.75x102mm (x14)	1) 40Nm 2) 70Nm 3) ↻ 90° 4) 70Nm 5) 90° 6) 90°	
M 103.941	2599	6	82.90	SOHC	117/159			
<b>S-Class 300 SE (W140)</b>		01/93 → 10/98		<b>110</b>		<b>HBS152</b>  M12x1.75x160mm (x14)	1) 25Nm 2) 55Nm 3) ↻ 90° 4) 55Nm 5) 90° 6) 90°	
<b>S-Class S 280 (W140)</b>		02/93 → 10/98						
M 104.944	2799	6	89.90	DOHC	142-145/ 193-197			
<b>S-Class S 280 (W220)</b>		10/98 → 08/05		<b>111</b>		<b>HBS463</b>  M11x1.5x141mm (x8)	1) 10Nm 2) 30Nm 3) 90° 4) 90°	
M 112.922	2799	6	89.90	SOHC, V6	150/204			
<b>S-Class 300 SE,SEL (W126)</b>		09/85 → 06/91		<b>112</b>		<b>HBS046</b>  M12x1.75x145mm (x8) M12x1.75x120mm (x9) M12x1.75x105mm (x5)	1) 40Nm 2) 70Nm 3) ↻ 90° 4) 70Nm 5) 90° 6) 90°	
M 103.981 (KAT)	2962	6	88.50	KE-Jetronic, SOHC	132/140/ 180/190			
<b>S-Class S 300 Turbo-D (W140) Diesel</b>		05/96 → 10/98		<b>113</b>		<b>HBS063</b>  M10x1.50x102mm (x20) M10x1.50x115mm (x6)	1) 25Nm 2) 40Nm 3) ↻ 90° 4) 40Nm 5) 90° 6) 90°	
OM 606.961	2996	6	87.00	DOHC	130/177			
<b>S-Class S 320 CDI (W221) Diesel</b>		12/05 →		<b>114</b>		<b>HBS474</b>  M12x1.75x205mm (x16)	1) 60Nm 2) 90° 3) 90° 4) 90°	
<b>S-Class S 320 CDI 4-matic (W221) Diesel</b>		10/06 →						
OM 642.930	2987	6	83.00	DOHC, V6	173/235			
<b>S-Class 300 SE,SEL/S320 (W140)</b>		03/91 → 10/98		<b>115</b>		<b>HBS152</b>  M12x1.75x160mm (x14)	1) 25Nm 2) 55Nm 3) ↻ 90° 4) 55Nm 5) 90° 6) 90°	
M 104.990 M 104.994	3199 3199	6 6	89.90 89.90	DOHC Motronic, DOHC	170/231 170/231			
<b>S-Class S 320 (W220)</b>		10/98 → 08/05		<b>116</b>		<b>HBS463</b>  M11x1.5x141mm (x8)	1) 10Nm 2) 30Nm 3) 90° 4) 90°	
M 112.944	3199	6	89.90	SOHC, V6	165/224			
<b>S-Class S 320 CDI (W220) Diesel</b>		08/99 → 08/05		<b>117</b>		<b>HBS294</b>  M12x1.75x102mm (x14)	1) 60Nm 2) 90° 3) 90°	
OM 613.960 OM 648.960	3222 3222	6 6	88.00 88.00	DOHC DOHC	145/197 150/204			
<b>S-Class S 350 Turbo-D (W140) Diesel</b>		01/93 → 10/98		<b>118</b>		<b>HBS060</b>  M10x1.50x80mm (x6) M10x1.50x115mm (x7) M10x1.50x102mm (x13)	1) 25Nm 2) 40Nm 3) ↻ 90° 4) 40Nm 5) 90° 6) 90°	
OM 603A.971	3449	6	89.00	SOHC	110/150			

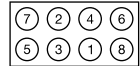




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S-Class S 350 (W220) S-Class S 350 4-matic (W220)					09/02 → 08/05 06/03 → 08/05	119	HBS463	1) 10Nm 2) 30Nm 3) 90° 4) 90°	
M 112.972/M 112.975	3724	6	97.00	DOHC, V6	180/245		 M11x1.5x141mm (x8)		
SL Convertible 280 SL (R129)					05/98 → 10/01	120	HBS463	1) 10Nm 2) 30Nm 3) 90° 4) 90°	
M 112.923 M 112.925	2799 2799	6 6	89.90 89.90	Motronic, SOHC, V6 DOHC, V6	150/204 150/204		 M11x1.5x141mm (x8)		
SL Convertible 280 SL (R129)					08/93 → 10/01	121	HBS152	1) 25Nm 2) 55Nm 3) ↻ 90° 4) 55Nm 5) 90° 6) 90°	
M 104.943	2799	6	89.90	DOHC	142-150/ 193-204		 M12x1.75x160mm (x14)		
SL Convertible 300 SL (R107) SL Convertible 300 SL (R129)					09/85 → 08/89 03/89 → 08/93	122	HBS146	1) 40Nm 2) 70Nm 3) ↻ 90° 4) 70Nm 5) 90° 6) 90°	
M 103.982/M 103.984	2962	6	88.50	SOHC	132/140/ 180/190		 M12x1.75x102mm (x14)		
SL Convertible 300 SL-24 (R129)					03/89 → 07/93	123	HBS152	1) 25Nm 2) 55Nm 3) ↻ 90° 4) 55Nm 5) 90° 6) 90°	
M 104.981	2960	6	88.50	DOHC	162/170/ 220/231		 M12x1.75x160mm (x14)		
SL Convertible 320 SL (R129)					09/93 → 10/01	124	HBS152	1) 25Nm 2) 55Nm 3) ↻ 90° 4) 55Nm 5) 90° 6) 90°	
M 104.991	3199	6	89.90	DOHC	170/231		 M12x1.75x160mm (x14)		
SL Convertible 320 SL (R129)					05/98 → 10/01	125	HBS463	1) 10Nm 2) 30Nm 3) 90° 4) 90°	
M 112.943	3199	6	89.90	Motronic, SOHC, V6	165/224		 M11x1.5x141mm (x8)		
SL 350					03/06 →	126	HBS511 (x2)	1) 20Nm 2) 40Nm 3) ↻ 90° 4) 40Nm 5) 90° 6) 90°	
M 272.966	3498	6	92.90	DOHC, V6	200/272		 M11x1.50x260mm (x16)		
SL Convertible 350 (R230)					03/03 →	127	HBS463	1) 10Nm 2) 30Nm 3) 90° 4) 90°	
M 112.973	3724	6	97.00	SOHC, V6	180/245		 M11x1.5x141mm (x8)		
SLK Convertible 200 Kompressor (R171)					03/04 →	128	HBS459	1) 20Nm 2) 45Nm 3) 90° 4) 90°	
M 271.944	1795	4	82.00	DOHC	120/163		 M10x1.50x165mm (x10)		
SLK Convertible 200 (R170) SLK Convertible 200 Kompressor (R170)					09/96 → 03/00 10/96 → 04/04	129	HBS150	1) 55Nm 2) 90° 3) 90°	
M 111.946 M 111.958 M 111.943	1998 1998 1998	4 4 4	89.90 89.90 89.90	DOHC Motronic, DOHC DOHC	100/136 120/163 132-141/ 180-192		 M12x1.75x102mm (x10)		

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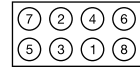
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<b>SLK Convertible 230 Kompressor (R170)</b>				09/96 → 04/04	<b>130</b>
M 111.973	2295	4	90.90	Motronic, DOHC	142/193
M 111.983	2295	4	90.90	Motronic, DOHC	145/197

**HBS150**

M12x1.75x102mm (x10)

1) 55Nm  
2) 90°  
3) 90°

<b>SLK Convertible 32 AMG Kompressor (R170)</b>				03/01 → 04/04	<b>131</b>
<b>SLK Convertible 320 (R170)</b>				03/00 → 04/04	
M 112.947	3199	6	89.90	SOHC, V6	160/218
M 112.960	3199	6	89.90	DOHC, V6	260/354

**HBS463**

M11x1.5x141mm (x8)

1) 10Nm  
2) 30Nm  
3) 90°  
4) 90°

<b>SLK Convertible 350 (R171)</b>				06/04 →	<b>132</b>
M 272.963	3498	6	92.90	DOHC, V6	200/272

**HBS511 (x2)**

M11x1.50x260mm (x16)

1) 20Nm  
2) 40Nm  
3) ↻ 90°  
4) 40Nm  
5) 90°  
6) 90°

<b>Sprinter 208 CDI (901, 902) Diesel</b>				04/00 → 05/06	<b>133</b>
<b>Sprinter 211 CDI (901, 902) Diesel</b>				04/00 → 05/06	
<b>Sprinter 213 CDI (901, 902) Diesel</b>				04/00 → 05/06	
<b>Sprinter 308 CDI (903) Diesel</b>				04/00 → 05/06	
<b>Sprinter 311 CDI (903) Diesel</b>				04/00 → 05/06	
<b>Sprinter 311 CDI 4x4 (903) Diesel</b>				08/02 → 05/06	
<b>Sprinter 313 CDI (903) Diesel</b>				04/00 → 05/06	
<b>Sprinter 313 CDI 4x4 (903) Diesel</b>				08/02 → 05/06	
<b>Sprinter 408 CDI (904) Diesel</b>				04/00 → 05/06	
<b>Sprinter 411 CDI (904) Diesel</b>				04/00 → 05/06	
<b>Sprinter 411 CDI 4x4 (904) Diesel</b>				04/00 → 05/06	
<b>Sprinter 413 CDI (904) Diesel</b>				04/00 → 05/06	
<b>Sprinter 413 CDI 4x4 (904) Diesel</b>				04/00 → 05/06	
<b>Sprinter 209 CDI (906) Diesel</b>				06/06 →	
<b>Sprinter 211 CDI (906) Diesel</b>				06/06 →	
<b>Sprinter 213 CDI (906) Diesel</b>				06/06 →	
<b>Sprinter 215 CDI (906) Diesel</b>				06/06 →	
<b>Sprinter 309 CDI (906) Diesel</b>				06/06 →	
<b>Sprinter 311 CDI (906) Diesel</b>				06/06 →	
<b>Sprinter 315 CDI (906) Diesel</b>				06/06 →	
<b>Sprinter 509 CDI (906) Diesel</b>				06/06 →	
<b>Sprinter 511 CDI (906) Diesel</b>				06/06 →	
<b>Sprinter 515 CDI (906) Diesel</b>				06/06 →	
OM 611.987	2148	4	88.00	DOHC	60/81
OM 646.984	2148	4	88.00	DOHC	65/88
OM 646.985	2148	4	88.00	DOHC	80/109
OM 611.981	2148	4	88.00	DOHC	80-95/ 109-129
OM 646.986	2148	4	88.00	Direct Injection, DOHC	95-110/ 129-150
OM 646.990	2148	4	88.00	Direct Injection, DOHC	110/150

**HBS292**

M12x1.75x102mm (x10)

1) 60Nm  
2) 90°  
3) 90°

<b>Sprinter 208 D (901, 902) Diesel</b>				01/95 → 04/00	<b>134</b>
<b>Sprinter 308 D (903) Diesel</b>				02/95 → 04/00	
<b>Sprinter 308 D 2.3L (903) Diesel</b>				02/95 → 04/00	
<b>Sprinter 408 D (904) Diesel</b>				02/96 → 05/06	
OM 601.943	2299	4	89.00	SOHC	58/79

**HBS058**

M10x1.50x80mm (x4)  
M10x1.50x115mm (x5)  
M10x1.50x102mm (x9)

1) 25Nm  
2) 40Nm  
3) ↻ 90°  
4) 40Nm  
5) 90°  
6) 90°

<b>Sprinter 214 (901, 902)</b>				02/95 → 05/06	<b>135</b>
<b>Sprinter 214 NGT (901, 902)</b>				04/00 → 05/06	
<b>Sprinter 314 (903)</b>				02/95 → 05/06	
<b>Sprinter 314 4x4 (903)</b>				08/02 → 05/06	
<b>Sprinter 314 NGT (903)</b>				04/00 → 05/06	
<b>Sprinter 414 (904)</b>				02/96 → 05/06	
<b>Sprinter 414 4x4 (904)</b>				05/97 → 05/06	
M 111.984	2295	4	90.90	DOHC	92-105/ 125-143
M 111.979	2295	4	90.90	DOHC	105/143

**HBS150**

M12x1.75x102mm (x10)

1) 55Nm  
2) 90°  
3) 90°



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<b>Sprinter 216 CDI (901, 902) Diesel</b> 04/00 → 05/06 <b>136</b> <b>Sprinter 316 CDI (903) Diesel</b> 04/00 → 05/06 <b>Sprinter 316 CDI 4x4 (903) Diesel</b> 08/02 → 05/06 <b>Sprinter 416 CDI (904) Diesel</b> 04/00 → 05/06 <b>Sprinter 416 CDI 4x4 (904) Diesel</b> 04/00 → 05/06 <b>Sprinter 616 CDI Diesel</b> 04/01 →					<b>HBS293</b>  M12x1.75x102mm (x12)	1) 60Nm 2) 90° 3) 90°	
OM 612.981	2685	5	88.00	DOHC	110-115/ 150-156		
<b>Sprinter 210 D (901, 902) Diesel</b> 01/97 → 04/00 <b>137</b> <b>Sprinter 212 D (901, 902) Diesel</b> 02/95 → 04/00 <b>Sprinter 310 D (903) Diesel</b> 02/95 → 08/02 <b>Sprinter 310 D 2.9L (903) Diesel</b> 01/97 → 04/00 <b>Sprinter 312 D (903) Diesel</b> 02/95 → 04/00 <b>Sprinter 312 D 2.9L (903) Diesel</b> 02/95 → 08/02 <b>Sprinter 312 D 2.9L 4x4 (903) Diesel</b> 05/97 → 08/02 <b>Sprinter 410 D (904) Diesel</b> 02/96 → 05/06 <b>Sprinter 410 D 4x4 (904) Diesel</b> 05/97 → 05/06 <b>Sprinter 412 D (904) Diesel</b> 02/96 → 05/06 <b>Sprinter 412 D 4x4 (904) Diesel</b> 05/97 → 05/06					<b>HBS059</b>  M10x1.50x80mm (x5) M10x1.50x115mm (x6) M10x1.50x102mm (x11)	1) 25Nm 2) 40Nm 3) ↻ 90° 4) 40Nm 5) 90° 6) 90°	
OM 602.980	2874	5	89.00	SOHC	75-90/ 102-122		
<b>Sprinter 218 CDI (906) Diesel</b> 06/06 → <b>138</b> <b>Sprinter 318 CDI (906) Diesel</b> 06/06 → <b>Sprinter 518 CDI (906) Diesel</b> 06/06 →					<b>HBS474</b>  M12x1.75x205mm (x16)	1) 60Nm 2) 90° 3) 90° 4) 90°	
OM 642.992	2987	6	83.00	DOHC, V6	135/184		
<b>T1 Box 208 D (601) Diesel</b> 10/88 → 02/96 <b>139</b> <b>T1 Box 308 D (602) Diesel</b> 11/88 → 02/96 <b>T1 Bus 208 D (601) Diesel</b> 10/88 → 02/96 <b>T1 Bus 308 D (602) Diesel</b> 06/89 → 02/96 <b>T1 Flatbed 208 D (601) Diesel</b> 11/88 → 02/96 <b>T1 Flatbed 308 D (602) Diesel</b> 06/89 → 02/96 <b>T1/Tn 408 D Diesel</b> 11/88 → 06/95					<b>HBS058</b>  M10x1.50x80mm (x4) M10x1.50x115mm (x5) M10x1.50x102mm (x9)	1) 25Nm 2) 40Nm 3) ↻ 90° 4) 40Nm 5) 90° 6) 90°	
OM 601.940	2299	4	89.00	SOHC	58-60/ 79-82		
<b>T1 Box 210 (601)</b> 07/82 → 02/96 <b>140</b> <b>T1 Bus 210 (601)</b> 07/82 → 02/96 <b>T1 Flatbed 210 (601)</b> 04/77 → 10/89					<b>HBS047</b>  M12x1.75x120mm (x10)	1) 40Nm 2) 70Nm 3) ↻ 90° 4) 70Nm 5) 90° 6) 90°	
M 102.942/M 102.946 M 102.945	2298 2298	4 4	95.50 95.50	SOHC SOHC	70/95 77/105		
<b>T1 Box 207 D (601) Diesel</b> 06/82 → 01/90 <b>141</b> <b>T1 Box 307 D (602) Diesel</b> 10/82 → 01/90 <b>T1 Flatbed 207 D (601) Diesel</b> 12/77 → 10/89 <b>T1 Flatbed 307 D (602) Diesel</b> 06/82 → 01/90 <b>T1/Tn 407 D Diesel</b> 07/81 → 01/89					<b>HBS045</b>  M12x1.75x105mm (x4) M12x1.75x145mm (x6) M12x1.75x120mm (x8)	1) 40Nm 2) 70Nm 3) ↻ 90° 4) 70Nm 5) 90° 6) 90°	
OM 616.913/OM 616.937/ OM 616.939	2399	4	90.90	SOHC	53/72		
<b>T1 Box 210 D (601) Diesel</b> 10/88 → 02/96 <b>142</b> <b>T1 Bus 210 D (601) Diesel</b> 11/88 → 02/96 <b>T1 Box 310 D (602) Diesel</b> 06/89 → 02/96 <b>T1 Bus 310 D (602) Diesel</b> 06/89 → 02/96 <b>T1 Flatbed 210 D (601) Diesel</b> 11/88 → 02/96 <b>T1 Flatbed 310 D (602) Diesel</b> 06/89 → 02/96 <b>T1/Tn 410 D Diesel</b> 11/88 → 06/95					<b>HBS059</b>  M10x1.50x80mm (x5) M10x1.50x115mm (x6) M10x1.50x102mm (x11)	1) 25Nm 2) 40Nm 3) ↻ 90° 4) 40Nm 5) 90° 6) 90°	
OM 602.940	2874	5	89.00		70-72/ 95-98		
<b>T1 Box 209 D (601) Diesel</b> 12/82 → 01/90 <b>143</b> <b>T1 Bus 209 D (601) Diesel</b> 12/82 → 01/90 <b>T1 Flatbed 209 D (601) Diesel</b> 12/82 → 01/90 <b>T1 Box 309 D (602) Diesel</b> 10/82 → 01/90 <b>T1 Flatbed 309 D (602) Diesel</b> 10/82 → 01/90					<b>HBS046</b>  M12x1.75x145mm (x8) M12x1.75x120mm (x9) M12x1.75x105mm (x5)	1) 40Nm 2) 70Nm 3) ↻ 90° 4) 70Nm 5) 90° 6) 90°	
OM 617.913	2998	5	90.90	SOHC	65/88		

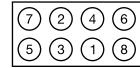
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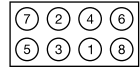
<b>T2/Ln1 507 D Diesel</b> 04/86→04/89 <b>144</b> <b>T2/Ln3 507 DK Diesel</b> 04/86→04/89 <b>T2/Ln5 507 D Diesel</b> 04/86→04/89						<b>HBS045</b>  M12x1.75x105mm (x4) M12x1.75x145mm (x6) M12x1.75x120mm (x8)		1) 40Nm 2) 70Nm 3) ↻ 90° 4) 70Nm 5) 90° 6) 90°			
<b>OM 616.914</b> 2399 4 90.90 SOHC 53/72											
<b>T2/Ln2 508 D Diesel</b> 03/89→12/94 <b>145</b> <b>T2/Ln4 508 D Diesel</b> 03/89→12/94						<b>HBS058</b>  M10x1.50x80mm (x4) M10x1.50x115mm (x5) M10x1.50x102mm (x9)		1) 25Nm 2) 40Nm 3) ↻ 90° 4) 40Nm 5) 90° 6) 90°			
<b>OM 601.941</b> 2299 4 89.00 SOHC 58-60/79-82											
<b>Vaneo 1.6L (414)</b> 02/02→ <b>146</b>						<b>HBS457</b>  M10x1.50x180mm (x10)		1) 35Nm 2) 90° 3) 90°			
<b>M 166.961</b> 1598 4 80.00 SOHC 60-75/82-102											
<b>Vaneo 1.7L CDI (414) Diesel</b> 02/02→ <b>147</b>						<b>HBS291</b>  M12x1.75x185mm (x10)		1) 60Nm 2) 180°			
<b>OM 668.914</b> 1689 4 80.00 DOHC 55-67/75-91											
<b>Vaneo 1.9L (414)</b> 02/02→ <b>148</b>						<b>HBS457</b>  M10x1.50x180mm (x10)		1) 35Nm 2) 90° 3) 90°			
<b>M 166.991</b> 1898 4 84.00 SOHC 92/125											
<b>Vario 512 D Diesel</b> 09/96→ <b>149</b> <b>Vario 612 D Diesel</b> 09/96→ <b>Vario 812 D Diesel</b> 09/96→ <b>Vario O 812 Diesel</b> 09/96→						<b>HBS059</b>  M10x1.50x80mm (x5) M10x1.50x115mm (x6) M10x1.50x102mm (x11)		1) 25Nm 2) 40Nm 3) ↻ 90° 4) 40Nm 5) 90° 6) 90°			
<b>OM 602.984/OM 602.985</b> 2874 5 89.00 SOHC 90/122											
<b>Vario 618 D Diesel</b> 09/06→ <b>150</b> <b>Vario 818 D Diesel</b> 09/06→ <b>Vario 818 DA 4x4 Diesel</b> 09/06→ <b>Vario 613 D, 614 D Diesel</b> 09/96→ <b>Vario 615 D, 616 D Diesel</b> 09/98→ <b>Vario 812 DT Diesel</b> 09/96→ <b>Vario 813 D, 814 D Diesel</b> 09/96→ <b>Vario 813 DA, 814 DA 4x4 Diesel</b> 09/96→ <b>Vario 815 D, 816 D Diesel</b> 09/96→ <b>Vario 815 DA, 816 DA 4x4 Diesel</b> 09/96→ <b>Vario O 810 Diesel</b> 09/96→ <b>Vario O 814 Diesel</b> 09/96→ <b>Vario O 815 Diesel</b> 09/96→						<b>HBS351</b>  M16x2x149mm (x10)		1) 70Nm 2) 170Nm 3) 280Nm 4) 90° 5) 90°			
<b>OM 904.904</b> 4250 4 102.00 75/102 <b>OM 904.908</b> 4250 4 102.00 100/136 <b>OM 904.923</b> 4250 4 102.00 112/152 <b>OM 904.964</b> 4250 4 102.00 130/177											
<b>V-Class V 200 (638/2)</b> 02/97→07/03 <b>151</b>						<b>HBS150</b>  M12x1.75x102mm (x10)		1) 55Nm 2) 90° 3) 90°			
<b>M 111.948/M 111.950</b> 1998 4 89.90 DOHC 95/129											
<b>V-Class V 200 CDI (638/2) Diesel</b> 03/99→07/03 <b>152</b> <b>V-Class V 220 CDI (638/2) Diesel</b> 03/99→07/03						<b>HBS292</b>  M12x1.75x102mm (x10)		1) 60Nm 2) 90° 3) 90°			
<b>OM 611.980</b> 2151 4 88.00 Common Rail, DOHC 85/115/116/156											



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V-Class V 230 (638/2)					10/96 → 07/03	153	 M12x1.75x102mm (x10)	1) 55Nm 2) 90° 3) 90°	
M 111.978/M 111.980	2295	4	90.90	DOHC	105/143				
V-Class V 230 TD (638/2) Diesel					09/96 → 07/03	154	 M10x1.50x80mm (x4) M10x1.50x115mm (x5) M10x1.50x102mm (x9)	1) 25Nm 2) 40Nm 3) 90° 4) 40Nm 5) 90° 6) 90°	
OM 601A.970	2299	4	89.00	SOHC	72/98				
V-Class V 280 (638/2)					08/97 → 07/03	155	 M11x1.50x85mm (x7) M11x1.50x144mm (x3) M11x1.50x119mm (x10)	1) 40Nm 2) 60Nm 3) 90° 4) 90°	
M 104.900	2792	6	89.90	SOHC	128/174				
Viano CDI (W639) Diesel					09/03 →	156	 M12x1.75x102mm (x10)	1) 60Nm 2) 90° 3) 90°	
Viano CDI 2.2L 4-matic (W639) Diesel					07/05 →				
OM 646.982	2148	4	88.00	DOHC	80-110/ 109-150				
Viano 3.0L CDI (W639) Diesel					03/06 →	157	 M12x1.75x205mm (x16)	1) 60Nm 2) 90° 3) 90° 4) 90°	
OM 642.990	2987	6	83.00	DOHC, V6	150/204				
Viano 3.2L (W639)					09/03 →	158	 M11x1.5x141mm (x8)	1) 10Nm 2) 30Nm 3) 90° 4) 90°	
M 112.951	3199	6	89.90	DOHC, V6	140-160/ 190-218				
Viano 3.7L (W639)					06/04 →	159	 M11x1.5x141mm (x8)	1) 10Nm 2) 30Nm 3) 90° 4) 90°	
M 112.976	3724	6	97.00	DOHC, V6	170/231				
Vito 113 (638)					02/96 → 07/03	160	 M12x1.75x102mm (x10)	1) 55Nm 2) 90° 3) 90°	
M 111.948/M 111.950	1998	4	89.90	DOHC	95/129				
Vito 108 CDI (638) Diesel					03/99 → 07/03	161	 M12x1.75x102mm (x10)	1) 60Nm 2) 90° 3) 90°	
Vito 109 CDI (W639) Diesel					09/03 →				
Vito 109 CDI 2.2L (W639) Diesel					09/06 →				
Vito 110 CDI (638) Diesel					03/99 → 07/03				
Vito 111 CDI (W639) Diesel					09/03 →				
Vito 115 CDI (W639) Diesel					09/03 →				
OM 611A (60 kW CDI)	2148	4	88.00	DOHC	60/81				
OM 646.983	2148	4	88.00	DOHC	65/88				
OM 646.980	2148	4	88.00	Direct Injection, DOHC	70/95				
OM 611LA (75 kW CDI)	2148	4	88.00	DOHC	75-110/ 102-150				
OM 646.982	2148	4	88.00	DOHC	80-110/ 109-150				
Vito 112 CDI (638) Diesel					03/99 → 07/03	162	 M12x1.75x102mm (x10)	1) 60Nm 2) 90° 3) 90°	
OM 611.980	2151	4	88.00	Common Rail, DOHC	85/115/ 116/156				



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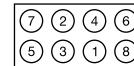
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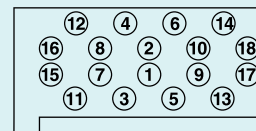
Vito 108 D (638) Diesel		02/96 → 07/03		<b>163</b>	
Vito 110 D (638) Diesel		03/97 → 07/03			
Vito 110 TD (638) Diesel		02/96 → 07/03			
OM 601.942	2299	4	89.00	SOHC	58/79
OM 601A.970	2299	4	89.00	SOHC	72/98
<b>Vito 114 (638)</b>		12/96 → 07/03		<b>164</b>	
M 111.978/M 111.980	2295	4	90.90	DOHC	105/143
<b>Vito 119 (W639)</b>		09/03 →		<b>165</b>	
<b>Vito 122 (W639)</b>		09/03 →			
M 112.951	3199	6	89.90	DOHC, V6	140-160/ 190-218
<b>Vito 123 (W639)</b>		06/04 →		<b>166</b>	
M 112.976	3724	6	97.00	DOHC, V6	170/231

**HBS058**



M10x1.50x80mm (x4)  
M10x1.50x115mm (x5)  
M10x1.50x102mm (x9)

- 1) 25Nm
- 2) 40Nm
- 3) ↻ 90°
- 4) 40Nm
- 5) 90°
- 6) 90°

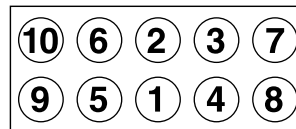


**HBS150**



M12x1.75x102mm (x10)

- 1) 55Nm
- 2) 90°
- 3) 90°

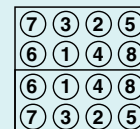


**HBS463**



M11x1.5x141mm (x8)

- 1) 10Nm
- 2) 30Nm
- 3) 90°
- 4) 90°

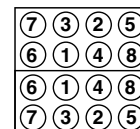










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




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- 1) 10Nm
- 2) 30Nm
- 3) 90°
- 4) 90°



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OM 401.909	Diesel	9572	6	125.00	6	OM 407.918	Diesel	11413	6	125.00	11
OM 401.912	Diesel	9572	6	125.00	6	OM 407.919	Diesel	11413	6	125.00	11
OM 401.914	Diesel	9572	6	125.00	6	OM 407.951	Diesel	11413	6	125.00	11
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OM 541.940	Diesel	11946	6	130.00	12	OM 909.911	Diesel	6374	6	102.00	4
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OM 541.943	Diesel	11946	6	130.00	12	OM 924.920	Diesel	4801	4	106.00	3
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OM 900.913	Diesel	4249	4	102.00	2						
OM 900.917	Diesel	4249	4	102.00	2						
OM 900.918	Diesel	4249	4	102.00	2						
OM 900.920	Diesel	4249	4	102.00	2						
OM 902.916	Diesel	6374	6	102.00	4						
OM 902.918	Diesel	6374	6	102.00	4						

# MERCEDES-BENZ COMMERCIAL

Model Index • Modelverzeichnis • Index de modele • Indice motore • Índice de Modelo • Indeks modelu • Модель автомобиля



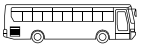
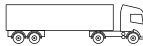
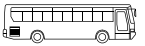
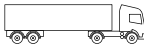
21 9



21 9

ACCELO 915, 915 C	05/03→	2	ATEGO 823, 823 L	01/98→10/04	4
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ACTROS 1831 K	04/97→10/02	12	ATEGO 917 K	01/98→10/04	2
ACTROS 1831 S, 1831 LS	04/96→10/02	12	ATEGO 917 KO	01/98→10/04	2
ACTROS 1831, 1831 L	04/96→10/02	12	ATEGO 917, 917 L	01/98→10/04	2
ACTROS 1835 AK	04/97→10/02	12	ATEGO 923 K	01/98→10/04	4
ACTROS 1835 K	04/97→10/02	12	ATEGO 923, 923 L	01/98→10/04	4
ACTROS 1835 S, 1835 LS	04/96→10/02	12	ATEGO 925 AF	01/98→10/04	4
ACTROS 1835, 1835 L	04/96→10/02	12	ATEGO 1017 A	01/98→10/04	2
ACTROS 1843 AK	04/97→10/02	12	ATEGO 1017 AK	01/98→10/04	2
ACTROS 1843 K	04/97→10/02	12	ATEGO 1017 K	01/98→10/04	2
ACTROS 1843 S, 1843 LS	04/96→10/02	12	ATEGO 1017 KO, 1018 KO	01/98→10/04	2
ACTROS 1843, 1843 L	04/96→10/02	12	ATEGO 1017, 1017 L	01/98→10/04	2
ACTROS 1848 K	04/97→10/02	19	ATEGO 1023, 1023 L	01/98→10/04	4
ACTROS 1848 S, 1848 LS	04/96→10/02	19	ATEGO 1214, 1214 L	01/98→10/04	2
ACTROS 1848, 1848 L	04/96→10/02	19	ATEGO 1217 K	01/98→10/04	2
ACTROS 1853 S, 1853 LS	04/96→10/02	19	ATEGO 1217 KO	01/98→10/04	2
ACTROS 1853, 1853 L	04/96→10/02	19	ATEGO 1217, 1217 L	01/98→10/04	2
ACTROS 2531 LS	09/96→10/02	12	ATEGO 1223, 1223 L	01/98→10/04	4
ACTROS 2531, 2531 L	09/96→10/02	12	ATEGO 1225 AF	01/98→10/04	4
ACTROS 2535 L	09/96→10/02	12	ATEGO 1225 F	01/98→10/04	4
ACTROS 2535 LS	09/96→10/02	12	ATEGO 1228, 1228 L	01/98→10/04	4
ACTROS 2543 LS	09/96→10/02	12	ATEGO 1317 A	01/98→10/04	2
ACTROS 2543, 2543 L	09/96→10/02	12	ATEGO 1317 AK	01/98→10/04	2
ACTROS 2548, 2548 L	09/96→10/02	19	ATEGO 1317 K	01/98→10/04	2
ACTROS 2553 LS	09/96→10/02	19	ATEGO 1317 KO, 1317 LKO, 1318 KO, 1318 LKO	01/98→10/04	2
ACTROS 2553, 2553 L	09/96→10/02	19	ATEGO 1317, 1317 L	01/98→10/04	2
ACTROS 3343 AK	04/97→10/02	12	ATEGO 1323 KO, 1323 LKO	01/98→10/04	4
ACTROS 4143 AK	04/97→10/02	12	ATEGO 1323 LS	01/98→10/04	4
ATEGO 2 1015 K, 1016 K	10/04→	2	ATEGO 1323, 1323 L	01/98→10/04	4
ATEGO 2 1022 K	10/04→	3	ATEGO 1325 AF	01/98→10/04	4
ATEGO 2 1022, 1022 L	10/04→	3	ATEGO 1325 F	01/98→10/04	4
ATEGO 2 1023 A, 1024 A	10/04→	4	ATEGO 1328 AF	01/98→10/04	4
ATEGO 2 1023, 1023 L, 1024, 1024 L	10/04→	4	ATEGO 1328 F	01/98→10/04	4
ATEGO 2 1222 K	10/04→	3	ATEGO 1328 LS	01/98→10/04	4
ATEGO 2 1222, 1222 L	10/04→	3	ATEGO 1328, 1328 L	01/98→10/04	4
ATEGO 2 1223, 1223 L, 1224, 1224 L	10/04→	4	ATEGO 1517 A	01/98→10/04	2
ATEGO 2 1228, 1228 L, 1229, 1229 L	10/04→	4	ATEGO 1517 K	01/98→10/04	2
ATEGO 2 1322 K	10/04→	3	ATEGO 1517, 1517 L	01/98→10/04	2
ATEGO 2 1322 LS	10/04→	3	ATEGO 1523 A	01/98→10/04	4
ATEGO 2 1322, 1322 L	10/04→	3	ATEGO 1523 AK	01/98→10/04	4
ATEGO 2 1323 A, 1324 A	10/04→	4	ATEGO 1523 K	01/98→10/04	4
ATEGO 2 1323 LS, 1324 LS	10/04→	4	ATEGO 1523 KO	01/98→10/04	4
ATEGO 2 1323, 1323 L, 1324, 1324 L	10/04→	4	ATEGO 1523, 1523 L	01/98→10/04	4
ATEGO 2 1328 LS, 1329 LS	10/04→	4	ATEGO 1525 AF	01/98→10/04	4
ATEGO 2 1328, 1328 L, 1329, 1329 L	10/04→	4	ATEGO 1528 AF	01/98→10/04	4
ATEGO 2 1522 K	10/04→	3	ATEGO 1528 F	01/98→10/04	4
ATEGO 2 1522, 1522 L	10/04→	3	ATEGO 1528, 1528 L	01/98→10/04	4
ATEGO 2 1523 A, 1524 A	10/04→	4	ATEGO 1823 AK	05/98→09/04	4
ATEGO 2 1523, 1523 L, 1524, 1524 L	10/04→	4	ATEGO 1823 K	05/98→09/04	4
ATEGO 2 1528, 1528 L, 1529, 1529 L	10/04→	4	ATEGO 1823 LS	05/98→09/04	4
ATEGO 2 712, 713	10/04→	2	ATEGO 1823, 1823 L	01/98→09/04	4
ATEGO 2 715, 715 L, 716, 716 L	10/04→	2	ATEGO 1828 A	05/98→09/04	4
ATEGO 2 815 K, 816 K	10/04→	2	ATEGO 1828 AK	05/98→09/04	4
ATEGO 2 815, 815 L, 816, 816 L	10/04→	2	ATEGO 1828 K	05/98→09/04	4
ATEGO 2 822 K	10/04→	3	ATEGO 1828 LS	05/98→09/04	4
ATEGO 2 822, 822 L	10/04→	3	ATEGO 1828, 1828 L	05/98→09/04	4
ATEGO 2 823, 823 L, 824, 824 L	10/04→	4	ATEGO 2523 L	05/98→09/04	4
ATEGO 2 915, 915 L, 916, 916 L	10/04→	2	ATEGO 2528 L	05/98→09/04	4
ATEGO 2 922 K	10/04→	3	ATEGO 2628	05/98→09/04	4
ATEGO 2 922, 922 L	10/04→	3	ATEGO 2628 B	05/98→09/04	4
ATEGO 2 923, 923 L, 924, 924 L	10/04→	4	ATEGO 2628 K	05/98→09/04	4
ATEGO 712	01/98→10/04	2	AXOR 2 1828 A, 1829 A	10/04→	4
ATEGO 714 K	01/98→10/04	2	AXOR 2 1828 AK, 1829 AK	10/04→	4
ATEGO 714, 714 L	01/98→10/04	2	AXOR 2 1833 A	10/04→	5
ATEGO 717 K	01/98→10/04	2	AXOR 2 1833 AK	10/04→	5
ATEGO 717, 717 L	01/98→10/04	2	AXOR 2 1833 K	10/04→	5
ATEGO 812	01/98→10/04	2	AXOR 2 1833 LS	10/04→	5
ATEGO 814 K	01/98→10/04	2	AXOR 2 1833, 1833 L, LL	10/04→	5
ATEGO 814, 814 L	01/98→10/04	2	AXOR 2 1836 LS, LLS	10/04→	14
ATEGO 817 K	01/98→10/04	2	AXOR 2 1840 LS, LLS	10/04→	14
ATEGO 817, 817 L	01/98→10/04	2	AXOR 2 1843 LS, LLS	10/04→	14
ATEGO 823 K	01/98→10/04	4	AXOR 2 2533, 2533 L	10/04→	5



 		<b>21</b>	9	 		<b>21</b>	9
AXOR 2 2535 L, 2536 L, 2536 LL	10/04→	14		LK/LN2 917	03/96→12/98	2	
AXOR 2 2540 L, LL	10/04→	14		LK/LN2 917 K	03/96→12/98	2	
AXOR 2 2543 L, LL	10/04→	14		LK/LN2 917 KO	03/96→12/98	2	
AXOR 2 2633	10/04→	5		MK 1222	07/89→08/94	8	
AXOR 2 2633 B	10/04→	5		MK 1222 A, 1222 LA	09/89→07/94	8	
AXOR 2 2633 K	10/04→	5		MK 1222 A, 1222 LA	09/89→07/94	10	
AXOR 2 2636 B	10/04→	14		MK 1222 AF	09/89→09/93	8	
AXOR 2 2636 K	10/04→	14		MK 1222 F	07/89→08/94	8	
AXOR 2 2640 B	10/04→	14		MK 1222 S, 1222 LS	07/89→08/94	8	
AXOR 2 2640 K	10/04→	14		MK 1224 AF	02/93→09/96	6	
AXOR 2 2643 B	10/04→	14		MK 1226 AF	02/90→09/93	17	
AXOR 2 2643 K	10/04→	14		MK 1226 AF	02/93→09/96	6	
AXOR 2 3236 B	10/04→	14		MK 1226 AF	02/93→09/96	8	
AXOR 2 3236 K	10/04→	14		MK 1227 A	01/92→07/92	6	
AXOR 2 3240	03/05→	14		MK 1227 AF, 1227 LAF	01/92→07/92	8	
AXOR 2 3240 B	10/04→	14		MK 1231 AF	01/92→09/96	6	
AXOR 2 3240 K	10/04→	14		MK 1234 AF	01/92→09/96	8	
AXOR 2 3243	03/05→	14		MK 1422	02/93→08/94	6	
AXOR 2 3243 B	10/04→	14		MK 1422 F	07/89→09/93	8	
AXOR 2 3243 K	10/04→	14		MK 1422 F	02/93→08/94	6	
AXOR 2 3335	10/04→	14		MK 1422 LS	02/93→08/94	6	
AXOR 2 3340	10/04→	14		MK 1422 S,1422 LS	12/87→09/96	8	
AXOR 2 3340 K	10/04→	14		MK 1422,1422 L	12/87→09/96	8	
AXOR 2 3343	10/04→	14		MK 1424 S,1424 LS	12/87→09/96	6	
AXOR 2 3343 B	10/04→	14		MK 1424 S,1424 LS	12/87→09/96	8	
AXOR 1823	01/02→10/04	4		MK 1424,1424 L	12/87→09/96	6	
AXOR 1823 K	01/02→10/04	4		MK 1424,1424 L	12/87→09/96	8	
AXOR 1835 LS	01/02→10/04	14		MK 1426 S,1426 LS	12/87→09/96	17	
AXOR 1840 LS	01/02→10/04	14		MK 1427 F	02/93→09/96	6	
AXOR 1843 LS	01/02→10/04	14		MK 1429 AF	01/92→09/96	17	
AXOR 2523	01/02→10/04	4		MK 1627 AF	01/92→09/96	17	
AXOR 2523 K	01/02→10/04	4		MK 1722	12/88→08/94	17	
AXOR 2528	01/02→10/04	4		MK 1722 AK	12/88→08/94	6	
AXOR 2535 LS	01/02→10/04	14		MK 1722 AK	12/88→08/94	8	
AXOR 2540 LS	01/02→10/04	14		MK 1722 AK	12/88→08/94	10	
AXOR 2543 LS	01/02→10/04	14		MK 1722 K	12/88→08/94	6	
AXOR 2623 L	01/02→10/04	4		MK 1722 K	12/88→08/94	8	
AXOR 2628 L	01/02→10/04	4		MK 1722 K	12/88→08/94	10	
CITARO (O 530) Citaro G	01/99→	4		MK 1722 S	12/88→08/94	8	
CITARO (O 530) Citaro L	01/99→	4		MK 1722 S	12/88→08/94	10	
CITARO (O 530) Citaro N	01/98→	4		MK 1722,1722 L, 1722 LL	12/87→09/96	8	
CITARO (O 530) Citaro N	01/98→	14		MK 1722,1722 L, 1722 LL	12/87→09/96	10	
CITARO (O 530) Citaro N	04/99→	4		MK 1726 AK	06/89→08/94	17	
CITO (O 520) 130 kW	06/99→	2		MK 1726 K	12/88→08/94	17	
CONECTO (O 345) CONECTO C, H, M, UE	11/01→	14		MK 1726 L, 1726 LL	12/88→08/94	8	
CONECTO (O 345) CONECTO C, H, UE	11/01→	4		MK 1726 S,1726 LS	12/87→09/96	17	
ECONIC 1823 L, 1823 LL	03/98→	4		MK 1726,1726 L, 1726 LL	12/87→09/96	17	
ECONIC 1828 L, 1828 LL	03/98→	4		MK 1727 L	12/88→08/94	6	
ECONIC 2628 LL	01/98→	4		MK 1733 S,1733 LS	12/87→09/96	8	
ECONIC 2628 LL	03/98→	4		MK 1733,1733 L, 1734 L	12/87→09/96	8	
INTEGRO (O 550) Integro L	01/06→	14		MK 1824	01/94→09/96	8	
INTEGRO (O 550) Integro, Integro M	01/06→	14		MK 1824 AK	08/92→09/96	6	
LK/LN2 1117 K	03/96→12/98	2		MK 1824 AK	01/94→09/96	8	
LK/LN2 1117 LO	03/96→12/98	2		MK 1824 K	08/92→09/96	6	
LK/LN2 1117 S	03/96→12/98	2		MK 1824 K	01/94→09/96	8	
LK/LN2 1117,1117 L	03/96→12/98	2		MK 1824,1824 L	12/87→09/96	8	
LK/LN2 1317 K	03/96→12/98	2		MK 1827 K	01/94→09/96	8	
LK/LN2 1317 KO	03/96→12/98	2		MK 1827 S,1827 LS	12/87→09/96	6	
LK/LN2 1317 LS	03/96→12/98	2		MK 1827 S,1827 LS	12/87→09/96	8	
LK/LN2 1317,1317 L	03/96→12/98	2		MK 1827,1827 L	12/87→09/96	6	
LK/LN2 711	03/96→12/98	2		MK 1827,1827 L	12/87→09/96	8	
LK/LN2 811	03/96→12/98	2		MK 1831 S,1831 LS	12/87→09/96	6	
LK/LN2 811 K	03/96→12/98	2		MK 1831 S,1831 LS	12/87→09/96	8	
LK/LN2 814 F	03/96→12/98	2		MK 1831,1831 L	12/87→09/96	6	
LK/LN2 814 K	03/96→12/98	2		MK 1831,1831 L	12/87→09/96	8	
LK/LN2 814 LO	03/96→12/98	2		MK 1834 S,1834 LS	12/87→09/96	8	
LK/LN2 814 S	03/96→12/98	2		MK 1834,1834 L	12/87→09/96	8	
LK/LN2 814,814L	03/96→12/98	2		MK 2422	09/89→08/94	8	
LK/LN2 817 F	03/96→12/98	2		MK 2422 B	09/89→08/94	10	
LK/LN2 817 K	03/96→12/98	2		MK 2422 K	09/89→08/94	8	
LK/LN2 817 LO	03/96→12/98	2		MK 2422 K	09/89→08/94	10	
LK/LN2 817 S,817 LS	03/96→12/98	2		MK 2422,2422 L	12/87→09/96	8	
LK/LN2 817,817 L	03/96→12/98	2		MK 2422,2422 L	12/87→09/96	10	

# MERCEDES-BENZ COMMERCIAL

Model Index • Modelverzeichnis • Index de modele • Indice motore • Índice de Modelo • Indeks modelu • Модель автомобиля



21

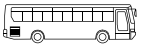
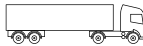
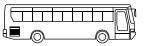
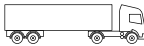
9



21

9

MK 2426	01/90→08/94	17	NG 1624,1624 L	08/73→09/96	15
MK 2426 B	02/90→08/94	17	NG 1625 AK	10/80→11/89	16
MK 2426 L	02/90→08/94	6	NG 1625 K	05/80→11/89	16
MK 2426 L	02/90→08/94	8	NG 1625 S,1625 LS	08/73→09/96	16
MK 2426, 2426 L	02/90→08/94	17	NG 1625,1625 L	08/73→09/96	16
MK 2433 K	09/89→07/92	8	NG 1626 AK	08/73→12/80	15
MK 2433 S,2433 LS	12/87→09/96	8	NG 1626 AS	05/74→12/80	15
MK 2433,2433 L, 2434 L	12/87→09/96	8	NG 1626 K	08/73→12/80	15
MK 2524	06/92→09/96	6	NG 1626 S,1626 LS	08/73→09/96	15
MK 2524	01/94→09/96	8	NG 1626,1626 L	08/73→09/96	15
MK 2524 K	06/92→09/96	6	NG 1628 A	01/80→05/89	16
MK 2524 K	01/94→09/96	8	NG 1628 S,1628 LS	08/73→09/96	16
MK 2524,2524 L	12/87→09/96	6	NG 1628,1628 L	08/73→09/96	16
MK 2524,2524 L	12/87→09/96	8	NG 1632 AK	08/73→08/82	18
MK 2527	10/93→09/96	6	NG 1632 AS	05/74→09/83	18
MK 2527	01/94→09/96	8	NG 1632 K	08/73→08/82	18
MK 2527 B	03/91→09/96	6	NG 1632 S,1632 LS	08/73→09/96	18
MK 2527 B	01/94→09/96	8	NG 1632,1632 L	08/73→09/96	18
MK 2527 K	10/93→09/96	6	NG 1633 S,1633 LS	08/73→09/96	16
MK 2527 K	01/94→09/96	8	NG 1633,1633 L	08/73→09/96	16
MK 2527 L	03/91→08/94	17	NG 1635 K	02/86→07/89	16
MK 2527 L	09/92→09/96	6	NG 1635 S,1635 LS	08/73→09/96	16
MK 2527 L	01/94→09/96	8	NG 1635,1635 L	08/73→09/96	16
MK 2531,2531 L	12/87→09/96	6	NG 1636 S,1636 LS	08/73→09/96	20
MK 2531,2531 L	12/87→09/96	8	NG 1636,1636 L	08/73→09/96	20
MK 2534 K	01/91→09/96	8	NG 1638	11/80→12/86	16
MK 2534 S, 2534 LS	12/87→09/96	8	NG 1638 S,1638 LS	08/73→09/96	16
MK 2534,2534 L	12/87→09/96	8	NG 1644	06/86→08/89	16
NG 1019 AF	01/79→12/82	6	NG 1644 S,1644 LS	08/73→09/96	16
NG 1019 AF	01/79→12/82	7	NG 1719	09/73→08/82	6
NG 1019 F	01/79→12/82	6	NG 1719 AK	09/73→08/82	6
NG 1219	09/75→09/84	6	NG 1719 K	09/73→08/82	6
NG 1219 A	09/75→12/82	6	NG 1719 S	09/73→08/82	6
NG 1219 AF	09/75→09/84	6	NG 1919	05/74→08/82	6
NG 1219 AK	09/75→12/84	6	NG 1919 AK	05/74→08/82	6
NG 1219 F	09/75→09/84	6	NG 1919 K	05/74→08/82	6
NG 1219 K	09/75→09/84	6	NG 1919 S	05/74→08/82	6
NG 1219 S	09/75→09/84	6	NG 1922	10/81→10/90	8
NG 1222	07/82→02/90	8	NG 1922 AK	10/81→03/91	8
NG 1222 A	05/82→10/90	8	NG 1922 K	10/81→03/91	8
NG 1222 AF	05/82→12/91	8	NG 1922 S	10/81→03/91	8
NG 1222 F	05/82→12/91	8	NG 1926	05/74→12/80	15
NG 1222 S	07/82→02/90	8	NG 1926 A	05/74→12/80	15
NG 1225 AF	05/82→12/91	16	NG 1926 AK	08/73→12/80	15
NG 1228 AF	05/82→12/91	16	NG 1926 AS	05/74→12/80	15
NG 1419 AK	05/75→12/84	6	NG 1926 K	08/73→12/80	15
NG 1419 AS	05/75→12/82	6	NG 1926 S,1926 LS	08/73→09/96	15
NG 1419 F	05/75→12/82	6	NG 1928 A	01/80→03/91	16
NG 1419 K	05/75→12/82	6	NG 1928 AK	01/80→03/91	16
NG 1419 S,1419 LS	08/73→09/96	6	NG 1928 AS	01/80→03/91	16
NG 1419,1419 L	08/73→09/96	6	NG 1928 K	01/80→03/91	16
NG 1422 F	05/82→10/90	8	NG 1928 S,1928 LS	08/73→09/96	16
NG 1422 S, 1422 LS	08/73→09/96	8	NG 1928,1928 L	08/73→09/96	16
NG 1422,1422 L	08/73→09/96	8	NG 1932	05/74→03/83	18
NG 1424 F	07/75→01/87	15	NG 1932 A	05/74→03/83	18
NG 1424 K	07/75→01/87	15	NG 1932 AK	08/73→09/83	18
NG 1424 S,1424 LS	08/73→09/96	15	NG 1932 AS	05/74→12/82	18
NG 1424,1424 L	08/73→09/96	15	NG 1932 K	08/73→08/82	18
NG 1425 AF	08/73→09/96	16	NG 1932 S,1932 LS	08/73→09/96	18
NG 1425 S,1425 LS	08/73→09/96	16	NG 1933	11/80→03/91	16
NG 1428 AF	08/73→09/96	16	NG 1933 S,1933 LS	08/73→09/96	16
NG 1429 AF	08/73→09/96	17	NG 1935	02/86→09/89	16
NG 1619 AK	11/74→12/82	6	NG 1935 AK	09/87→03/91	16
NG 1619 K	11/74→12/82	6	NG 1935 S,1935 LS	08/73→09/96	16
NG 1619 KO	11/74→01/87	6	NG 1936	10/81→03/91	20
NG 1619 S	11/74→12/84	6	NG 1936 AK	10/81→03/91	20
NG 1619,1619 L	08/73→09/96	6	NG 1936 AS	10/81→03/91	20
NG 1622 AK	05/82→10/89	8	NG 1936 K	10/81→03/91	20
NG 1622 K	05/82→10/89	8	NG 1936 S,1936 LS	08/73→09/96	20
NG 1622 S	05/82→03/91	8	NG 1938	11/80→06/90	16
NG 1622,1622 L	08/73→09/96	8	NG 1938 S,1938 LS	08/73→09/96	16
NG 1624 K	07/75→08/82	15	NG 1944	10/85→12/89	16
NG 1624 S,1624 LS	08/73→09/96	15	NG 1944 S,1944 LS	08/73→09/96	16

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NG 2025 S	08/83→03/91	16	NG 2635 AS	09/87→03/91	16
NG 2026 S	10/76→10/80	15	NG 2635 S	04/86→03/91	16
NG 2028 A	01/80→06/89	16	NG 2636	11/81→03/91	20
NG 2028 LS	01/80→06/89	16	NG 2636 A	11/81→03/91	20
NG 2032 S	08/75→09/83	18	NG 2636 AK	11/81→03/91	20
NG 2033 LS	12/81→05/87	16	NG 2636 AS	11/81→03/91	20
NG 2035 S,2035 LS	08/73→09/96	16	NG 2636 K	11/81→03/91	20
NG 2036 A	01/80→06/89	16	NG 2636 S	11/81→03/91	20
NG 2036 LS	03/84→03/91	20	NG 2638	01/81→12/86	16
NG 2219	06/76→01/87	6	NG 2638 S	01/81→12/86	16
NG 2219 K	06/76→01/87	6	NG 2644	08/73→09/96	16
NG 2219 KO	06/76→01/87	6	NG 2644 S	10/85→02/90	16
NG 2219,2219 L	08/73→09/96	6	NG 3025 B	12/85→07/87	16
NG 2222	05/82→03/91	8	NG 3025 K	12/85→07/87	16
NG 2222 B	05/82→03/91	8	NG 3028	02/80→03/91	16
NG 2222 K	05/82→03/91	8	NG 3033	05/82→05/87	16
NG 2222,2222 L	08/73→09/96	8	NG 3036	11/81→03/91	20
NG 2224	04/76→12/82	15	NG 3038	01/81→12/86	16
NG 2224 B	05/75→03/84	15	NG 3228 B	07/87→03/91	16
NG 2224 K	04/76→12/82	15	NG 3228 K	07/87→03/91	16
NG 2224 S	07/76→12/82	15	NG 3235	07/88→08/94	16
NG 2225	04/85→03/91	16	NG 3250 A	09/85→08/94	20
NG 2225 B	08/83→03/91	16	NG 3250 AF	09/85→08/94	20
NG 2226	09/75→12/80	15	NG 3328 B	07/82→07/87	16
NG 2226 S,2226 LS	08/73→09/96	15	NG 3328 K	07/82→07/87	16
NG 2226,2226 L	08/73→09/96	15	NG 3333	12/82→11/91	16
NG 2228	12/79→03/91	16	NG 3333 B	12/82→11/91	16
NG 2228 S	12/79→03/91	16	NG 3333 K	12/82→11/91	16
NG 2228,2228 L	08/73→09/96	16	NG 3335	04/86→03/91	16
NG 2232	05/74→09/83	18	NG 3336	12/82→11/91	20
NG 2232 S,2232 LS	08/73→09/96	18	NG 3336 AK	09/86→11/91	20
NG 2232,2232 L	08/73→09/96	18	NG 3336 K	12/82→11/91	20
NG 2233	11/80→05/87	16	NG 3336 S	12/82→11/91	20
NG 2233 S	11/80→05/87	16	NG 3535 AK	09/87→02/90	16
NG 2233,2233 L	08/73→09/96	16	NG 3535 K	09/87→01/89	16
NG 2235 K	03/86→07/89	16	NG 3544	08/73→09/96	16
NG 2235 S, 2235 LS	08/73→09/96	16	NG 3850 A	09/85→08/94	20
NG 2235,2235 L	08/73→09/96	16	O 100 City	01/94→	1
NG 2236	09/82→03/91	20	O 303 O 303	10/74→06/83	6
NG 2236 S	12/84→03/91	20	O 303 O 303	03/75→06/83	15
NG 2238 S	01/81→12/86	16	O 303 O 303	07/75→06/83	18
NG 2238,2238 L	08/73→09/96	16	O 303 O 303	01/80→09/87	16
NG 2244 S	10/85→07/89	16	O 303 O 303	01/80→01/89	8
NG 2244,2244 L	08/73→09/96	16	O 303 O 303	01/80→09/92	8
NG 2433	10/80→09/96	16	O 303 O 303	08/80→09/87	16
NG 2438	08/73→09/96	16	O 303 O 303	11/85→04/89	8
NG 2626	06/75→03/81	15	O 303 O 303	09/87→09/92	16
NG 2626 A	06/75→03/81	15	O 303 O 303	09/87→09/92	17
NG 2626 AB	05/74→12/80	15	O 303 O 303	12/87→09/92	8
NG 2626 AK	08/73→12/81	15	O 305 O 305 G	02/78→05/87	11
NG 2626 AS	06/75→03/81	15	O 305 O 305 G	02/79→05/87	11
NG 2626 B	05/74→12/80	15	O 305 O 305 ST	04/73→07/77	9
NG 2626 K	08/73→03/81	15	O 305 O 305 ST	11/76→05/87	11
NG 2626 S	06/75→03/81	15	O 305 O 305 ST	02/79→05/87	11
NG 2628	02/80→03/91	16	O 307 O 307	04/73→07/77	9
NG 2628 A	02/80→03/91	16	O 307 O 307	04/73→07/77	11
NG 2628 A	01/90→03/91	20	O 307 O 307	11/76→07/87	11
NG 2628 AK	02/80→03/91	16	O 307 O 307	11/76→08/87	11
NG 2628 AS	02/80→03/91	16	O 340 O 340	01/91→06/95	8
NG 2628 B	02/80→08/89	16	O 340 Turismo	08/92→08/95	15
NG 2628 K	02/80→03/91	16	O 403 O 403 SHD	09/03→	14
NG 2628 S	02/80→03/91	16	O 404 O 404	09/91→01/92	10
NG 2632	05/74→09/83	18	O 404 O 404	09/91→01/92	17
NG 2632 A	05/74→09/83	18	O 404 O 404	09/91→10/99	6
NG 2632 AK	08/73→09/83	18	O 404 O 404	09/91→10/99	8
NG 2632 AS	05/74→09/83	18	O 404 O 404	09/91→10/99	15
NG 2632 K	08/73→09/83	18	O 404 O 404	09/94→10/99	8
NG 2632 S	05/74→09/83	18	O 404 O 404	09/94→10/99	16
NG 2633	05/82→05/87	16	O 405 O 405 G, O 405 GN, O 405 GTD	11/85→	13
NG 2633 S	05/82→05/87	16	O 405 O 405 G, O 405 GN, O 405 GTD, O 405 GNTD, O 405 GNDE	09/91→	13
NG 2635	04/86→03/91	16	O 405 O 405 G, O 405 GTD	01/86→	13
NG 2635 A	09/87→03/91	16	O 405 O 405 ST	11/85→	13
NG 2635 AK	09/87→03/91	16	O 405 O 405 ST, O 405 N	12/84→	13

# MERCEDES-BENZ COMMERCIAL

Model Index • Modelverzeichnis • Index de modele • Indice motore • Índice de Modelo • Indeks modelu • Модель автомобиля



21

9

O 405 O 405 ST, O 405 N	11/85→	13
O 405 O 405 ST, O 405 N	11/91→	13
O 407 O 407	03/87→11/01	13
O 407 O 407	11/91→11/01	13
O 408 O 408	01/91→12/98	13
O 408 O 408	08/92→12/98	13
SK 1728, 1729, 1729 L	07/87→09/96	17
SK 1729 AK	07/88→09/93	17
SK 1729 K	07/88→08/94	17
SK 1729 S, 1729 LS	07/87→09/96	17
SK 1735 AK	08/89→08/94	16
SK 1735 K	07/88→08/94	16
SK 1735 L	07/88→08/94	17
SK 1735 S, 1735 LS	07/87→09/96	16
SK 1735, 1735 L	07/87→09/96	16
SK 1748 S, 1748 LS	07/87→09/96	16
SK 1748, 1748 L	07/87→09/96	16
SK 1831 AK	05/91→09/96	6
SK 1831 AK	01/94→09/96	8
SK 1831 K	07/92→09/96	6
SK 1831 K	07/92→09/96	8
SK 1831 S, 1831 LS	07/87→09/96	6
SK 1831 S, 1831 LS	07/87→09/96	8
SK 1831, 1831 L	07/87→09/96	6
SK 1831, 1831 L	07/87→09/96	8
SK 1834 S, 1834 LS	07/87→09/96	8
SK 1834, 1834 L	07/87→09/96	8
SK 1838 AK	12/92→09/96	15
SK 1838 AK	12/92→09/96	16
SK 1838 AK	01/94→09/96	16
SK 1838 K	12/90→09/96	15
SK 1838 K	06/95→09/96	16
SK 1838 S, 1838 LS	07/87→09/96	15
SK 1838 S, 1838 LS	07/87→09/96	16
SK 1838, 1838 L	07/87→09/96	15
SK 1838, 1838 L	07/87→09/96	16
SK 1840 LS	07/91→07/92	15
SK 1844 S, 1844 LS	07/87→09/96	16
SK 1844, 1844 L	07/87→09/96	16
SK 1850 S, 1850 LS	07/87→09/96	16
SK 1850, 1850 L	07/87→09/96	16
SK 1853 AK	01/96→09/96	16
SK 1853 S, 1853 LS	07/87→09/96	16
SK 1853, 1853 L	07/87→09/96	16
SK 1922	05/89→08/94	8
SK 1922	05/89→08/94	10
SK 1922 AK	08/89→08/94	8
SK 1922 AK	08/89→08/94	10
SK 1922 K	05/89→08/94	8
SK 1922 K	05/89→08/94	10
SK 1922 S	05/89→08/94	8
SK 1922 S	05/89→08/94	10
SK 1929 A	07/88→08/94	17
SK 1929 A	07/88→08/94	20
SK 1929 AK	07/88→08/94	17
SK 1929 AS	07/88→08/94	17
SK 1929 K	07/88→08/94	17
SK 1929 S	07/88→08/94	17
SK 1929, 1929 L	07/87→09/96	17
SK 1935	05/89→08/94	16
SK 1935 AK	05/89→08/94	16
SK 1935 AS	05/89→08/94	16
SK 1935 K	05/89→08/94	16
SK 1935 S	05/89→08/94	16
SK 1948	09/88→07/92	16
SK 2024	02/93→09/96	6
SK 2024	01/94→09/96	8
SK 2024 AK	02/93→09/96	6
SK 2024 AK	01/94→09/96	8
SK 2024 K	02/93→09/96	6
SK 2024 K	01/94→09/96	8
SK 2031	03/92→09/96	6
SK 2031 A	03/92→09/96	6



21

9

SK 2031 A	03/92→09/96	15
SK 2031 A	01/94→09/96	8
SK 2031 A	01/94→09/96	16
SK 2031 AS	03/92→09/96	6
SK 2031 K	03/92→09/96	6
SK 2031 K	03/92→09/96	8
SK 2031 S	03/92→09/96	6
SK 2038	11/91→09/96	15
SK 2038	12/92→	16
SK 2038 AS	12/92→09/96	15
SK 2038 AS	12/92→09/96	16
SK 2038 AS	01/94→09/96	16
SK 2038 S	11/91→09/96	15
SK 2044	01/92→09/96	16
SK 2044 S	01/92→09/96	16
SK 2050	01/91→09/96	16
SK 2050 S	01/91→09/96	16
SK 2429	07/88→08/94	17
SK 2429 K	07/88→08/94	17
SK 2429 S	07/88→08/94	17
SK 2429 S, 2429 LS	07/87→09/96	17
SK 2429, 2429 L	07/87→09/96	17
SK 2435	07/88→08/94	16
SK 2435 K	07/88→08/94	16
SK 2435 S	07/88→08/94	16
SK 2435 S, 2435 LS	07/87→09/96	16
SK 2435, 2435 L	07/87→09/96	16
SK 2448 LS	07/88→07/92	16
SK 2448 S	07/88→07/92	16
SK 2448, 2448 L	07/87→09/96	16
SK 2538	03/91→09/96	15
SK 2538	03/91→09/96	16
SK 2538	01/94→09/96	16
SK 2538 K, 2538 LK	03/91→09/96	15
SK 2538 K, 2538 LK	03/91→09/96	16
SK 2538 K, 2538 LK	01/94→09/96	16
SK 2538 S	03/91→09/96	16
SK 2538 S, 2538 LS	07/87→09/96	15
SK 2538 S, 2538 LS	07/87→09/96	16
SK 2538, 2538 L	07/87→09/96	15
SK 2538, 2538 L	07/87→09/96	16
SK 2544 S, LS	01/92→09/96	16
SK 2544, 2544 L	07/87→09/96	16
SK 2550 S, 2550 LS	01/91→09/96	16
SK 2550, 2550 L	07/87→09/96	16
SK 2553 S, 2553 LS	01/96→09/96	16
SK 2553, 2553 L	07/87→09/96	16
SK 2629	07/88→08/94	16
SK 2629	07/88→08/94	17
SK 2629 A	07/88→08/94	15
SK 2629 A	07/88→08/94	16
SK 2629 A	07/88→08/94	17
SK 2629 A	07/88→08/94	20
SK 2629 AK	07/88→08/94	16
SK 2629 AK	07/88→08/94	17
SK 2629 AS	07/88→08/94	16
SK 2629 AS	07/88→08/94	17
SK 2629 B	07/88→08/94	17
SK 2629 K	07/88→08/94	6
SK 2629 K	07/88→08/94	16
SK 2629 K	07/88→08/94	17
SK 2629 S	07/88→08/94	17
SK 2631	06/92→09/96	6
SK 2631	06/92→09/96	8
SK 2631 A	06/92→09/96	6
SK 2631 A	01/94→09/96	8
SK 2631 AK, 2634 AK	06/92→09/96	6
SK 2631 AK, 2634 AK	01/94→09/96	8
SK 2631 AS	06/92→09/96	6
SK 2631 B	06/92→09/96	6
SK 2631 S	06/92→09/96	6
SK 2631 S	06/92→09/96	8
SK 2635	07/88→08/94	16



21

9



21

9

SK 2635	07/88→08/94	17
SK 2635	01/91→08/94	16
SK 2635 A	02/90→08/94	16
SK 2635 A	12/91→08/94	16
SK 2635 AK	02/90→08/94	16
SK 2635 AS	02/90→09/96	16
SK 2635 AS	02/92→08/94	16
SK 2635 K	07/88→08/94	16
SK 2635 K	01/91→08/94	15
SK 2635 K	07/91→08/94	16
SK 2635 S	07/88→08/94	16
SK 2638 A, LA	09/91→09/96	15
SK 2638 A, LA	09/91→09/96	16
SK 2638 AK	09/91→09/96	16
SK 2638 AK	07/92→09/96	15
SK 2638 AK	07/92→09/96	16
SK 2638 AK	01/94→09/96	16
SK 2638 AS	07/92→09/96	15
SK 2638 AS	07/92→09/96	16
SK 2638 AS	01/94→09/96	16
SK 2638 K	09/91→09/96	15
SK 2638 K	09/91→09/96	16
SK 2638 S	09/91→09/96	16
SK 2638, 2638 L	09/91→09/96	15
SK 2638, 2638 L	09/91→09/96	16
SK 2644 A	01/92→09/96	16
SK 2644 S	01/92→09/96	16
SK 2644, 2644 L	01/92→09/96	16
SK 2648 S	12/88→07/92	16
SK 2650 S	07/92→09/96	16
SK 2650, 2650 L	07/92→09/96	16
SK 3050	01/94→09/96	16
SK 3053 S	12/93→09/96	16
SK 3229	09/89→08/94	17
SK 3229 B	09/89→07/92	17
SK 3229 K	09/89→01/92	17
SK 3233 B	10/90→07/92	8
SK 3233 K	10/90→07/92	8
SK 3234 B	02/92→09/96	8
SK 3234 K	02/92→09/96	8
SK 3235	10/88→07/92	16
SK 3235 K	07/87→07/92	16
SK 3236 A	07/87→09/96	20
SK 3238	10/90→09/96	15
SK 3238	10/90→09/96	16
SK 3238, 3238 L	10/90→09/96	16
SK 3238, 3238 L	01/94→09/96	16
SK 3253, 3253 L	01/96→09/96	16
SK 3534 K	10/93→09/96	8
SK 3535 AK	02/90→08/94	16
SK 3535 AK	03/91→08/94	15
SK 3535 B	10/88→08/94	16
SK 3535 K	10/88→08/94	16
SK 3535 K	03/91→08/94	15
SK 3538 AK	03/91→09/96	15
SK 3538 AK	03/91→09/96	16
SK 3538 AK	01/94→09/96	16
SK 3538 K	03/91→09/96	15
SK 3538 K	03/91→09/96	16
SK 3538 K	01/94→09/96	16
SK 3550 S, 3553 S	05/92→09/96	16
SK 3553 S	04/92→	16
SK 3553, 3553 L	01/94→09/96	16
SK 4050 A	07/87→	16
SK 4050 A	07/87→	20
SK 4850 A	07/87→	20
TOURINO (O 510) TOURINO	10/03→	4
TOURISMO (O 350) Turismo	08/95→	15
TOURISMO (O 350) Turismo	08/95→	16
TOURISMO (O 350) Turismo RHD, SHD	08/95→	8
TOURISMO (O 350) Turismo RHD, SHD	09/03→	14
TOURO (O 500) Touro	10/01→	14
TRAVEGO (O 580) O 580-15 RH/RHD	10/99→	14

TRAVEGO (O 580) O 580-17 RHD	10/99→	14
UNIMOG U 90	11/92→	1
UNIMOG U 90	07/96→	1
UNIMOG U 100L	11/92→	1
UNIMOG U 100L	07/96→	1
UNIMOG U 300	03/00→	2
UNIMOG U 400	03/00→	2
UNIMOG U 400	03/00→	4
UNIMOG U 500, UGN NA	10/00→	4
UNIMOG U 3000	09/02→	2
UNIMOG U 4000	09/02→	2
UNIMOG U 4000	09/02→	3
UNIMOG U 5000	09/02→	3
UNIMOG UX 100H, UX 100M	09/96→	1



# MERCEDES-BENZ COMMERCIAL



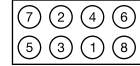
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						1								
OM 602.941	2874	5	89.00		65-70/ 88-95	<b>HBS059</b>  M10x1.50x80mm (x5) M10x1.50x115mm (x6) M10x1.50x102mm (x11)	1) 25Nm 2) 40Nm 3) ↻ 90° 4) 40Nm 5) 90° 6) 90°							
OM 602.940	2874	5	89.00		70-72/ 95-98									
OM 602.948	2874	5	89.00		71/96									
OM 602.981/OM 602.989	2874	5	89.00	Euro 2/Turbo Intercooled	85-90/ 116-122									
						2								
OM 904.905/OM 904.909/OM 904.915	4249	4	102.00	Euro 2/Turbo Intercooled	90/122	<b>HBS351</b>  M16x2x149mm (x10)	1) 70Nm 2) 170Nm 3) 280Nm 4) 90° 5) 90°							
OM 900.911/OM 900.917	4249	4	102.00	Euro 4/Turbo Intercooled	95/129									
OM 904.906/OM 904.910/ OM 904.916/OM 904.930	4249	4	102.00	Euro 2/Turbo Intercooled	100/136									
OM 904.927/OM 904.953/ OM 904.957/OM 904.965/ OM 904.966	4249	4	102.00	Euro 3/Turbo Intercooled	110/150									
OM 904.970	4249	4	102.00		110/150									
OM 904.922/OM 904.943	4249	4	102.00	Euro 2/Turbo Intercooled	112/152									
OM 900.912/OM 900.918/OM 900.920	4249	4	102.00	Euro 4/Turbo Intercooled	115/156									
OM 904.907/OM 904.911/OM 904.917	4249	4	102.00	Euro 2/Turbo Intercooled	125/170									
OM 904.949	4249	4	102.00	Euro 2/Turbo Intercooled	128/174									
OM 900.913	4249	4	102.00	Euro 4/Turbo Intercooled	130/177									
OM 904.928/OM 904.942/OM 904.952	4249	4	102.00	Euro 3/Turbo Intercooled	130/177									
										3				
OM 924.916/OM 924.920	4801	4	106.00	Euro 3/Turbo Intercooled	160/218					<b>HBS351</b>  M16x2x149mm (x10)	1) 70Nm 2) 170Nm 3) 280Nm 4) 90° 5) 90°			
OM 924.922/OM 924.923	4801	4	106.00	Euro 4/Turbo Intercooled	160/218									
OM 924.930	4801	4	106.00		160/218									
						4								
OM 906.910/OM 906.915/ OM 906.920/OM 906.922/ OM 906.924	6374	6	102.00	Euro 2/Turbo Intercooled	170/231	<b>HBS352</b>  M16x2x149mm (x14)	1) 20Nm 2) 70Nm 3) 170Nm 4) 280Nm 5) 90° 6) 90°							
OM 906.925	6374	6	102.00	Euro 3/Turbo Intercooled	170/231									
OM 906.931	6374	6	102.00	Euro 2/Turbo Intercooled	170/231									
OM 906.935	6374	6	102.00	Euro 3/Turbo Intercooled	170/231									
OM 906.940	6374	6	102.00	Euro 2/Turbo Intercooled	170/231									
OM 906.951/OM 909.900/OM 909.911	6374	6	102.00	Turbo Intercooled	170/231									
OM 902.916	6374	6	102.00	Euro 4/Turbo Intercooled	175/231									
OM 906.919	6374	6	102.00	Euro 2/Turbo Intercooled	180/245									
OM 906.939/OM 906.962/OM 906.963	6374	6	102.00	Euro 3/Turbo Intercooled	180/245									
OM 906.911/OM 906.916/ OM 906.921/OM 906.923	6374	6	102.00	Euro 2/Turbo Intercooled	205/279									
OM 906.926/OM 906.928	6374	6	102.00	Euro 3/Turbo Intercooled	205/279									
OM 906.930/OM 906.941	6374	6	102.00	Euro 2/Turbo Intercooled	205/279									
OM 906.952/OM 906.960/OM 906.961	6374	6	102.00	Euro 3/Turbo Intercooled	205/279									
OM 909.901/OM 909.921	6374	6	102.00	Turbo Intercooled	205/279									
OM 902.918	6374	6	102.00	Euro 4/Turbo Intercooled	210/286									
OM 902.932	6374	6	102.00	Euro 4/Turbo Intercooled										
										5				
OM 926.913/OM 926.917	7201	6	106.00	Euro 3/Turbo Intercooled	240/326					<b>HBS352</b>  M16x2x149mm (x14)	1) 20Nm 2) 70Nm 3) 170Nm 4) 280Nm 5) 90° 6) 90°			
OM 926.919	7201	6	106.00	Euro 4/Turbo Intercooled	240/326									
OM 926.921	7201	6	106.00	Euro 3/Turbo Intercooled	240/326									
OM 926.937	7201	6	106.00	Euro 4/Turbo Intercooled	240/326									
OM 926.945/OM 926.990	7201	6	106.00		240/326									

# MERCEDES-BENZ COMMERCIAL



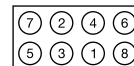
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6						HBS226 (x6)	1) 10Nm 2) 80Nm 3) 150Nm 4) 90° 5) 90° 6) 90°				
OM 401.905/OM 401.906/ OM 401.907/OM 401.908/ OM 401.909/OM 401.912/ OM 401.914/OM 401.915/ OM 401.916/OM 401.918/ OM 401.919/OM 401.922/ OM 401.923/OM 401.925 OM 401.926/OM 401.927 OM 401.975	9572	6	125.00		141/192	 M15x2x168mm (x2) M15x2x144mm (x3) M15x2x109mm (x1)	1) 10Nm 2) 80Nm 3) 150Nm 4) 90° 5) 90° 6) 90°				
OM 401.984/OM 401.990/OM 401.994	9572	6	125.00	Euro 1/Turbo Intercooled	180/245						
OM 401.973/OM 401.985/OM 401.991	9572	6	125.00	Turbo Intercooled	180/245						
OM 401.974/OM 401.977/ OM 401.978/OM 401.980	9572	6	125.00	Turbo Intercooled	200/272						
OM 401.989	9572	6	125.00	Euro 1/Turbo Intercooled	200/272						
OM 401.970	9572	6	125.00	Turbo Intercooled	200/272						
OM 401.972	9572	6	125.00	Turbo Intercooled	213/290						
OM 401.979/OM 401.981	9572	6	125.00	Turbo Intercooled	230/313						
OM 401.986/OM 401.987/OM 401.993	9572	6	125.00	Euro 1/Turbo Intercooled	230/313						
OM 401.986/OM 401.987/OM 401.993	9572	6	125.00	Turbo Intercooled	230/313						
7									HBS226 (x6)	1) 10Nm 2) 80Nm 3) 150Nm 4) 90° 5) 90° 6) 90°	
OM 401.924	10456	6	125.00		144/196				 M15x2x168mm (x2) M15x2x144mm (x3) M15x2x109mm (x1)	1) 10Nm 2) 80Nm 3) 150Nm 4) 90° 5) 90° 6) 90°	
8									HBS226 (x6)	1) 10Nm 2) 80Nm 3) 150Nm 4) 90° 5) 90° 6) 90°	
OM 421.905/OM 421.906/ OM 421.907/OM 421.908/ OM 421.909	10964	6	128.00		159/216				 M15x2x168mm (x2) M15x2x144mm (x3) M15x2x109mm (x1)	1) 10Nm 2) 80Nm 3) 150Nm 4) 90° 5) 90° 6) 90°	
OM 445.924/OM 445.925/ OM 445.938/OM 445.941	10964	6	128.00	Euro 2/Turbo Intercooled	180/245						
OM 421.951	10964	6	128.00	Turbo	184/250						
OM 441.953	10964	6	128.00	Turbo	191-200/ 260-272						
OM 441.950	10964	6	128.00	Turbo	200/272						
OM 445.926/OM 445.927/ OM 445.933/OM 445.936/ OM 445.940	10964	6	128.00	Euro 2/Turbo Intercooled	200/272						
OM 445.935	10964	6	128.00	Euro 2/Turbo Intercooled	213/290						
OM 441.998	10964	6	128.00	Euro 1/Turbo Intercooled	230/313						
OM 445.929/OM 445.930/ OM 445.931/OM 445.937	10964	6	128.00	Euro 2/Turbo Intercooled	230/313						
OM 441.960/OM 441.962/ OM 441.981/OM 441.983	10964	6	128.00	Turbo Intercooled	243-249/ 330-340						
OM 441.980/OM 441.982/OM 441.985	10964	6	128.00	Turbo Intercooled	250/340						
OM 441.986/OM 441.987/ OM 441.988/OM 441.989/ OM 441.990/OM 441.991/ OM 441.992/OM 441.993/ OM 441.994/OM 441.995/ OM 441.996	10964	6	128.00	Euro 1/Turbo Intercooled	250/340						
OM 445.920/OM 445.921/ OM 445.922/OM 445.923/ OM 445.934/OM 445.939	10964	6	128.00	Euro 2/Turbo Intercooled	250/340						
OM 441.906/OM 441.907	10964	6	130.00		150/204						
OM 441.917/OM 441.923/ OM 441.925/OM 441.926	10964	6	130.00		160/218						
OM 441.908/OM 441.909/OM 441.911	10964	6	130.00		160-165/ 218-224						
OM 441.905/OM 441.913/OM 441.915	10964	6	130.00		165/224						

# MERCEDES-BENZ COMMERCIAL



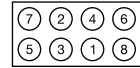
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						9				
OM 407.905/OM 407.908		11000	6	125.00		132/180	<b>HBS226</b> (x6)		1) 10Nm 2) 80Nm 3) 150Nm 4) 90° 5) 90° 6) 90°	
						10				
OM 441.922		11309	6	130.00	Euro 1	151/205	<b>HBS226</b> (x6)		1) 10Nm 2) 80Nm 3) 150Nm 4) 90° 5) 90° 6) 90°	
OM 441.932		11309	6	130.00		151/205				
OM 441.933		11309	6	130.00	Euro 1	151/205				
OM 441.916/OM 441.920		11309	6	130.00		153/208	M15x2x168mm (x2)			
OM 441.924		11309	6	130.00		160/218	M15x2x144mm (x3)			
OM 441.912/OM 441.914		11309	6	130.00		165/224	M15x2x109mm (x1)			
						11				
OM 407.913/OM 407.914/OM 407.915		11413	6	125.00		147/200	<b>HBS226</b> (x6)		1) 10Nm 2) 80Nm 3) 150Nm 4) 90° 5) 90° 6) 90°	
OM 407.916/OM 407.918/OM 407.919		11413	6	125.00		177/240				
OM 407.951/OM 407.955		11413	6	125.00	Turbo	206/280	M15x2x168mm (x2)			
						12				
OM 541.920/OM 541.926		11946	6	130.00	Turbo Intercooled	230/313	<b>HBS350</b> (x6)		1) 50Nm 2) 100Nm 3) 200Nm 4) 90° 5) 90°	
OM 541.940/OM 541.941		11946	6	130.00	Turbo Intercooled	230-235/ 313-320				
OM 541.922		11946	6	130.00	Turbo Intercooled	260/354	M18x2x210mm (x4)			
OM 541.927		11946	6	130.00	Euro 2/Turbo Intercooled	260/354				
OM 541.942/OM 541.943		11946	6	130.00	Euro 3/Turbo Intercooled	260-265/ 354-360				
OM 541.921		11946	6	130.00	Euro 2/Turbo Intercooled	315/428				
OM 541.925		11946	6	130.00	Turbo Intercooled	315/428				
OM 541.946/OM 541.947		11946	6	130.00	Euro 3/Turbo Intercooled	315-320/ 428-435				
						13				
OM 427.905/OM 447.905/OM 447.911		11967	6	128.00		150/204	<b>HBS226</b> (x6)		1) 10Nm 2) 80Nm 3) 150Nm 4) 90° 5) 90° 6) 90°	
OM 447.913/OM 447.914		11967	6	128.00	Euro 1	157/214				
OM 447.970/OM 447.973		11967	6	128.00	Euro 2/Turbo Intercooled	157/214	M15x2x168mm (x2)			
OM 427.910/OM 427.911/ OM 447.907/OM 447.908/ OM 447.910		11967	6	128.00		177/240	M15x2x144mm (x3)			
OM 447.906		11967	6	128.00		177-184/ 240-250	M15x2x109mm (x1)			
OM 447.912		11967	6	128.00		184/250				
OM 447.954/OM 447.955/ OM 447.956/OM 447.957/ OM 447.958/OM 447.959		11967	6	128.00	Euro 1/Turbo	184/250				
OM 447.971/OM 447.974/OM 447.976		11967	6	128.00	Euro 2/Turbo Intercooled	184/250				
OM 447.978		11967	6	128.00	Turbo Intercooled	184/250				
OM 447.990/OM 447.992		11967	6	128.00	Euro 2/Turbo Intercooled	184/250				
OM 427.950/OM 447.950/OM 447.951		11967	6	128.00	Turbo	206/280				
OM 447.972		11967	6	128.00	Euro 2/Turbo Intercooled	220/299				
OM 447.975		11967	6	128.00	Euro 1/Turbo Intercooled	220/299				
OM 447.977/OM 447.979		11967	6	128.00	Euro 2/Turbo Intercooled	220/299				
OM 447.980/OM 447.985		11967	6	128.00	Euro 1/Turbo Intercooled	220/299				
OM 447.991/OM 447.993/OM 447.998		11967	6	128.00	Euro 2/Turbo Intercooled	220/299				
OM 447.981/OM 447.984/ OM 447.986/OM 447.987		11967	6	128.00	Euro 1/Turbo Intercooled	220/300				

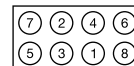
# MERCEDES-BENZ COMMERCIAL



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					14								
OM 457.942	11967	6	128.00	Euro 3/Turbo Intercooled	185-260/ 252-354	<b>HBS475 (x6)</b>  M15x2x210mm (x4)	1) 10Nm 2) 60Nm 3) 120Nm 4) 180Nm 5) 90° 6) 90°						
OM 457.964	11967	6	128.00	Euro 4/Turbo Intercooled	220-260/ 299-408								
OM 457.940	11967	6	128.00	Euro 3/Turbo Intercooled	260/354								
OM 457.944	11967	6	128.00	Euro 3/Turbo Intercooled	260-310/ 354-422								
OM 457.910	11967	6	128.00		260-315/ 354-428								
OM 457.937	11967	6	128.00	Euro 3/Turbo Intercooled	260-315/ 354-428								
OM 457.980/OM 457.981	11967	6	128.00		260-315/ 354-428								
OM 457.952	11967	6	128.00	Euro 4/Turbo Intercooled	300-220/ 408-299								
OM 457.917	11967	6	128.00	Turbo Intercooled	315-260/ 428-354								
OM 457.948/ OM 457.955/OM 457.956/OM 457.957	11967	6	128.00	Euro 3/Turbo Intercooled	315-260/ 428-354								
OM 457.918	11967	6	128.00	Euro 3/Turbo Intercooled									
					15								
OM 402.910/OM 402.911/ OM 402.914/OM 402.919/ OM 402.923/OM 402.927/ OM 402.928	12763	8	125.00		176/240					<b>HBS226 (x8)</b>  M15x2x168mm (x2) M15x2x144mm (x3) M15x2x109mm (x1)	1) 10Nm 2) 80Nm 3) 150Nm 4) 90° 5) 90° 6) 90°		
OM 402.906/OM 402.907/ OM 402.912/OM 402.916 OM 402.924/OM 402.926	12763	8	125.00		188/256								
OM 402.970/OM 402.971	12763	8	125.00	Euro 1/Turbo Intercooled	280/381								
OM 402.972	12763	8	125.00	Turbo Intercooled	280/381								
OM 402.973/OM 402.975/ OM 402.977/OM 402.978/ OM 402.982/OM 402.983/ OM 402.984/OM 402.985/ OM 402.986/OM 402.987/ OM 402.989/OM 402.990	12763	8	125.00	Euro 1/Turbo Intercooled	280/381								
OM 402.995	12763	8	125.00	Turbo Intercooled	280/381								
OM 402.996	12763	8	125.00	Euro 1/Turbo Intercooled	280/381								

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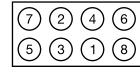
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OM 422.909/OM 422.912/OM 422.920	14618	8	128.00		184/250
OM 422.905/OM 422.906/	14618	8	128.00		206/280
OM 422.907/OM 422.908/					
OM 422.910/OM 422.911/					
OM 422.913/OM 422.914/					
OM 422.916/OM 422.919/					
OM 422.921/OM 422.923					
OM 422.951/OM 422.952/	14618	8	128.00	Turbo	243/330
OM 422.954/OM 422.956/					
OM 422.957/OM 422.958/					
OM 422.963					
OM 440.940/OM 440.941/	14618	8	128.00	Turbo	250/340
OM 440.942/OM 442.977/					
OM 442.978					
OM 442.950/OM 442.952/OM 442.958	14618	8	128.00	Turbo	260/354
OM 442.960/OM 442.961	14618	8	128.00	Turbo	260-269/ 354-365
OM 442.942/OM 442.944/	14618	8	128.00	Turbo	260-269/ 354-366
OM 442.962/OM 442.963/					
OM 442.964/OM 442.965/					
OM 442.966/OM 442.968/					
OM 442.976					
OM 442.946/OM 442.957	14618	8	128.00	Turbo	266/366
OM 442.943/OM 442.945/	14618	8	128.00	Turbo	269/366
OM 442.954/OM 442.955/					
OM 442.959/OM 442.971/					
OM 442.972					
OM 422.953/OM 422.955	14618	8	128.00	Turbo Intercooled	276/375
OM 422.959	14618	8	128.00	Turbo	276/375
OM 440.990	14618	8	128.00	Euro 1/Turbo Intercooled	280/381
OM 446.924/OM 446.925/	14618	8	128.00	Euro 2/Turbo Intercooled	280/381
OM 446.926/OM 446.927/					
OM 446.928/OM 446.929/					
OM 446.930/OM 446.931/					
OM 446.938					
OM 440.970/OM 440.972/	14618	8	128.00	Euro 1/Turbo Intercooled	320/435
OM 440.978/OM 440.979/					
OM 440.980/OM 440.984/					
OM 440.985					
OM 442.951/OM 442.953/OM 442.980	14618	8	128.00	Turbo Intercooled	320/435
OM 446.922/OM 446.936/	14618	8	128.00	Euro 2/Turbo Intercooled	320/435
OM 446.939/OM 446.940					
OM 442.983	14618	8	128.00	Turbo Intercooled	329/447
OM 442.982/OM 442.984/	14618	8	128.00	Turbo Intercooled	353-362/ 480-492
OM 442.985/OM 442.992					
OM 442.989/OM 442.993	14618	8	128.00	Turbo Intercooled	362/492
OM 440.971/OM 440.973/	14618	8	128.00	Euro 1/Turbo Intercooled	370/503
OM 440.975/OM 440.976/					
OM 440.981/OM 442.997/					
OM 442.998					
OM 446.920/OM 446.933/	14618	8	128.00	Euro 2/Turbo Intercooled	390/530
OM 446.945/OM 446.946					

**HBS226 (x8)**

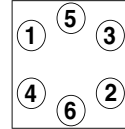


M15x2x168mm (x2)

M15x2x144mm (x3)

M15x2x109mm (x1)

- 1) 10Nm
- 2) 80Nm
- 3) 150Nm
- 4) 90°
- 5) 90°
- 6) 90°





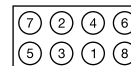
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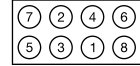
					17				
OM 440.909/OM 442.914/ OM 442.920/OM 442.921/ OM 442.922/OM 442.931 OM 442.932/OM 442.933/ OM 442.934/OM 442.935	15080	8	130.00		195/265	 <b>HBS226 (x8)</b> M15x2x168mm (x2) M15x2x144mm (x3) M15x2x109mm (x1)	1) 10Nm 2) 80Nm 3) 150Nm 4) 90° 5) 90° 6) 90°		
OM 442.908/OM 442.909/ OM 442.923/OM 442.924	15080	8	130.00	210/286					
OM 442.907/OM 442.925/ OM 442.926/OM 442.927/ OM 442.928/OM 442.929	15080	8	130.00	213/290					
OM 442.910/OM 442.918/OM 442.939	15080	8	130.00	213-218/ 290-296					
OM 442.906/OM 442.911/ OM 442.915/OM 442.916/ OM 442.917	15080	8	130.00		218/296				
					18				
OM 403.918/OM 403.931/OM 403.932 OM 403.916/OM 403.935	15900 15900	10 10	125.00 125.00		235/320 236/320	 <b>HBS226 (x10)</b> M15x2x168mm (x2) M15x2x144mm (x3) M15x2x109mm (x1)	1) 10Nm 2) 80Nm 3) 150Nm 4) 90° 5) 90° 6) 90°		
					19				
OM 542.921 OM 542.940 OM 542.920 OM 542.942	15928 15928 15928 15928	8 8 8 8	130.00 130.00 130.00 130.00	Turbo Intercooled Euro 3/Turbo Intercooled Turbo Intercooled Euro 3/Turbo Intercooled	350/476 350/476 390/530 390-395/ 530-537	 <b>HBS350 (x8)</b> M18x2x210mm (x4)	1) 50Nm 2) 100Nm 3) 200Nm 4) 90° 5) 90°		
					20				
OM 423.905/OM 423.906/ OM 423.907/OM 423.908/ OM 423.909 OM 443.940 OM 423.950/OM 423.951	18273 18273 18273	10 10 10	128.00 128.00 128.00	Turbo Turbo Intercooled	261/355 340/462 368/500	 <b>HBS226 (x10)</b> M15x2x168mm (x2) M15x2x144mm (x3) M15x2x109mm (x1)	1) 10Nm 2) 80Nm 3) 150Nm 4) 90° 5) 90° 6) 90°		



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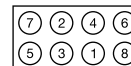
MG TF Convertible 115						03/02 →	1	
16 K4F	1589	4	80.00	DOHC	81/110	<b>HBS005</b>  M9x1.25x412mm (x10)	1) 20Nm 2) 90° 3) 90° 4) 90° 5) 90°	
MG TF Convertible 120						03/02 →	2	
MG TF Convertible 135						03/02 →		
MG TF Convertible 160						03/02 →		
18 K4F	1796	4	80.00	DOHC	88/120	<b>HBS005</b>  M9x1.25x412mm (x10)	1) 20Nm 2) 90° 3) 90° 4) 90° 5) 90°	
18 K4K (VVC)	1796	4	80.00	DOHC	107-118/ 146-160			
MG ZR 105						06/01 →	3	
14 K4F	1396	4	75.00	DOHC	76/103	<b>HBS005</b>  M9x1.25x412mm (x10)	1) 20Nm 2) 90° 3) 90° 4) 90° 5) 90°	
MG ZR 120						06/01 →	4	
MG ZR 160						06/01 →		
18 K4F	1796	4	80.00	DOHC	88/120	<b>HBS005</b>  M9x1.25x412mm (x10)	1) 20Nm 2) 90° 3) 90° 4) 90° 5) 90°	
18 K4K (VVC)	1796	4	80.00	DOHC	107-118/ 146-160			
MG ZR 2.0L CDTi Diesel						06/01 →	5	
20 T2N	1994	4	84.50	Direct Injection, SOHC/OHC	74-83/ 101-113	<b>HBS282</b>  M11x1.50x230mm (x10)	1) 30Nm 2) 65Nm 3) 90° 4) 90°	
MG ZS 110						07/01 →	6	
16 K4F	1589	4	80.00	K Series, DOHC	81/110	<b>HBS005</b>  M9x1.25x412mm (x10)	1) 20Nm 2) 90° 3) 90° 4) 90° 5) 90°	
MG ZS 120						07/01 →	7	
18 K4F	1796	4	80.00	DOHC	88/120	<b>HBS005</b>  M9x1.25x412mm (x10)	1) 20Nm 2) 90° 3) 90° 4) 90° 5) 90°	
MG ZS 180						07/01 →	8	
25 K4F	2497	6	80.00	DOHC, V6	118-140/ 160-190	<b>HBS423</b>  M9x1.25x200mm (x16)	1) 25Nm 2) 25Nm 3) 25Nm 4) 180°	
MG ZT 1.8L 16V						01/03 →	9	
MG ZT 1.8L T 16V						01/03 →		
18 K4F	1796	4	80.00	DOHC	118/160 88/120	<b>HBS005</b>  M9x1.25x412mm (x10)	1) 20Nm 2) 90° 3) 90° 4) 90° 5) 90°	
MG ZT 2.0L						03/99 →	10	
20 K4F	1997	6	80.00	DOHC, V6	110/150	<b>HBS423</b>  M9x1.25x200mm (x16)	1) 25Nm 2) 25Nm 3) 25Nm 4) 180°	
MG ZT 2.0L CDTi Diesel						06/02 → 09/03	11	
M 47D 20R	1951	4	84.00	Common Rail, Turbocharged	85/96/ 116/131	<b>HBS121</b>  M12x1.50x146.5mm (x10)	1) 80Nm 2) ↻ 180° 3) 50Nm 4) 90° 5) 90°	
204D2	1951	4	84.00		85-96/ 116-131			
MG ZT 160						06/01 →	12	
MG ZT 190						06/01 →		
25 K4F	2497	6	80.00	DOHC, V6	118-140/ 160-190	<b>HBS423</b>  M9x1.25x200mm (x16)	1) 25Nm 2) 25Nm 3) 25Nm 4) 180°	



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MGF 1.6L MGF Convertible 1.6L						09/01 → 01/02 02/00 → 03/02	13	HBS005	1) 20Nm 2) 90° 3) 90° 4) 90° 5) 90°	
16 K4F	1589	4	80.00	K Series, DOHC	81/110	 M9x1.25x412mm (x10)	 HBS005	1) 20Nm 2) 90° 3) 90° 4) 90° 5) 90°		
16 K4F	1589	4	80.00	DOHC	81/110					
MGF 1.8 i VVC MGF Convertible 1.8L i 16V MGF Convertible 1.8L i VVC						10/01 → 03/02 03/95 → 03/02 03/95 → 03/02	14	HBS005	1) 20Nm 2) 90° 3) 90° 4) 90° 5) 90°	
18 K4F	1796	4	80.00	DOHC	88/120	 M9x1.25x412mm (x10)	 HBS005	1) 20Nm 2) 90° 3) 90° 4) 90° 5) 90°		
18 K4K (VVC)	1796	4	80.00	DOHC	107-118/ 146-160					

# MINI



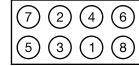
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<b>Mini Cabriolet Works</b>	07/04 →	<b>1</b>
<b>Mini Convertible Cooper</b>	07/04 →	
<b>Mini Convertible Cooper S</b>	07/04 →	
<b>Mini Convertible One</b>	07/04 →	
<b>Mini Cooper</b>	06/01 →	
<b>Mini Cooper S</b>	03/02 →	
<b>Mini One</b>	06/01 →	
<b>Mini Works</b>	11/03 →	

N14 B16 A	1598	4		Intake Manifold Injection/ Carburettor, DOHC	120-128/ 163-174
W10B16A	1598	4	77.00		66/85/ 90/116
N12B16A	1598	4	77.00	DOHC	85-88/ 116-120
W11B16A	1598	4	77.00		120/125/ 163/170

**HBS496**

M11x1.50x103mm (x10)

1) 20Nm  
2) 40Nm  
3) ↻ 90°  
4) 40Nm  
5) 90°









<b>Mini Clubman 1.6L D Diesel</b>	10/07 →	<b>2</b>
<b>Mini Cooper D Diesel</b>	03/07 →	

9HZ (DV6TED4)	1560	4	75.00	DOHC	80/109
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**HBS359**

M11x1.50x150mm (x10)

1) 20Nm  
2) 40Nm  
3) 180°

		CC			9			CC			9
4 D 56	Diesel	2476	4	91.10	28	4M41	Diesel	3200	4	98.50	75
4 D 56	Diesel	2476	4	91.10	34	6 G 72	Petrol	2972	6	91.10	1
4 D 56 T	Diesel	2476	4	91.10	12	6 G 72	Petrol	2972	6	91.10	55
4 D 56 T	Diesel	2476	4	91.10	28	6A12	Petrol	1999	6	78.40	22
4 D 56 T	Diesel	2476	4	91.10	34	6A13	Petrol	2498	6	81.00	24
4 D 56 T	Diesel	2476	4	91.10	36	6G72	Petrol	2972	6	91.10	55
4 D 56 T	Diesel	2476	4	91.10	53	6G72 (SOHC 24V)	Petrol	2972	6	91.10	55
4 D 56 T	Diesel	2476	4	91.10	59	BSY	Diesel	1968	4	81.00	26
4 D 56 TD	Diesel	2476	4	91.10	53	D4BF	Diesel	2476	4	91.10	25
4 D 56 TD	Diesel	2476	4	91.10	59	D4BH	Diesel	2476	4	91.10	25
4 D 65	Diesel	1796	4	80.60	10	F8QT	Diesel	1870	4	80.00	5
4 D 65	Diesel	1796	4	80.60	44	F9Q1	Diesel	1870	4	80.00	4
4 D 65 T	Diesel	1796	4	80.60	17	F9Q1	Diesel	1870	4	80.00	66
4 D 65 T	Diesel	1796	4	80.60	69	F9Q2	Diesel	1870	4	80.00	5
4 D 68	Diesel	1998	4	82.70	46	F9Q2	Diesel	1870	4	80.00	67
4 D 68 T	Diesel	1998	4	82.70	20	G13B	Petrol	1299	4	71.00	37
4 D 68 T	Diesel	1998	4	82.70	62	G54B	Petrol	2555	4	91.10	29
4 D 68 T	Diesel	1998	4	82.70	72	G63B	Petrol	1997	4	85.00	31
4 G 13	Petrol	1299	4	71.00	6	G64B	Petrol	2350	4	86.50	33
4 G 13	Petrol	1299	4	71.00	37						
4 G 13 (16 V)	Petrol	1299	4	71.00	7						
4 G 13 (16 V)	Petrol	1299	4	71.00	38						
4 G 13 (16 V)	Petrol	1299	4	71.00	63						
4 G 13 (BJ90-92, 12V)	Petrol	1299	4	71.00	7						
4 G 13 (BJ90-92, 12V)/	Petrol	1299	4	71.00	6						
4 G 13 (BJ92-..., 12V)											
4 G 13 (BJ90-92, 12V)/	Petrol	1299	4	71.00	37						
4 G 13 (BJ92-..., 12V)											
4 G 37	Petrol	1755	4	80.60	15						
4 G 37	Petrol	1755	4	80.60	42						
4 G 63	Petrol	1997	4	85.00	13						
4 G 63	Petrol	1997	4	85.00	14						
4 G 63	Petrol	1997	4	85.00	18						
4 G 63	Petrol	1997	4	85.00	19						
4 G 63	Petrol	1997	4	85.00	21						
4 G 63	Petrol	1997	4	85.00	27						
4 G 63	Petrol	1997	4	85.00	31						
4 G 63	Petrol	1997	4	85.00	32						
4 G 63	Petrol	1997	4	85.00	35						
4 G 63	Petrol	1997	4	85.00	45						
4 G 63	Petrol	1997	4	85.00	48						
4 G 63	Petrol	1997	4	85.00	58						
4 G 63	Petrol	1997	4	85.00	61						
4 G 63	Petrol	1997	4	85.00	70						
4 G 63	Petrol	1997	4	85.00	71						
4 G 64	Petrol	2350	4	86.50	33						
4 G 64	Petrol	2350	4	86.50	52						
4 G 64	Petrol	2350	4	86.50	57						
4 G 92	Petrol	1597	4	81.00	2						
4 G 92	Petrol	1597	4	81.00	9						
4 G 92	Petrol	1597	4	81.00	41						
4 G 93	Petrol	1834	4	81.00	3						
4 G 93	Petrol	1834	4	81.00	11						
4 G 93	Petrol	1834	4	81.00	16						
4 G 93	Petrol	1834	4	81.00	43						
4 G 93	Petrol	1834	4	81.00	50						
4 G 93	Petrol	1834	4	81.00	60						
4 G 93	Petrol	1834	4	81.00	65						
4 G 93	Petrol	1834	4	81.00	68						
4D68 SOHC	Diesel	1998	4	82.70	20						
4G15	Petrol	1468	4	75.50	8						
4G15	Petrol	1468	4	75.50	39						
4G18	Petrol	1584	4	76.00	40						
4G18	Petrol	1584	4	76.00	64						
4G32	Petrol	1597	4	76.90	30						
4G64 (GDI)	Petrol	2351	4	86.50	23						
4G64 (SOHC 16V)	Petrol	2351	4	86.50	49						
4G64 (SOHC 16V)	Petrol	2351	4	86.50	73						
4G64 (SOHC 16V)	Petrol	2351	4	86.50	74						
4G94	Petrol	1999	4	81.50	47						
4G94	Petrol	1999	4	81.50	51						
4M40-T	Diesel	2835	4	95.00	54						
4M41	Diesel	3200	4	98.50	56						





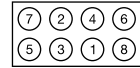
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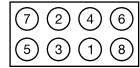
3000 GT Coupe 3.0L i 24V 4x4		06/92 → 08/99			1			
6 G 72	2972	6	91.10	DOHC, V6	123-151/ 167-205	 M12x1.25x102mm (x16)	1) 40Nm 2) 70Nm 3) 113Nm	
Carisma 1.6L		07/95 → 06/06			2			
4 G 92	1597	4	81.00	SOHC	66/89 73/99 83/113	 M10x1.25x95mm (x10)	1) 30Nm 2) 50Nm 3) 75Nm 4) ↻ 180° 5) 20Nm 6) 90° 7) 90°	
4 G 92	1597	4	81.00					
4 G 92	1597	4	81.00					
Carisma 1.8L		07/95 → 06/06			3			
Carisma 1.8L 16V		07/95 → 06/06						
Carisma 1.8L 16V GDI		09/97 → 06/06						
Carisma 1.8L GDI		10/00 → 06/06						
4 G 93	1834	4	81.00	DOHC	85-110/ 116-150	 M10x1.25x95mm (x10)	1) 30Nm 2) 50Nm 3) 75Nm 4) ↻ 180° 5) 20Nm 6) 90° 7) 90°	
Carisma 1.9L DI-D Diesel		09/00 → 06/06			4			
F9Q1	1870	4	80.00	SOHC	75/102	 M12x1.50x121mm (x10)	1) 35Nm 2) 100° 3) (1-2) ↻ 90° 4) (1-2) 25Nm 5) (1-2) 213° 6) (3-4) ↻ 90° 7) (3-4) 25Nm 8) (3-4) 213° 9) (5-6) ↻ 90° 10) (5-6) 25Nm 11) (5-6) 213° 12) (7-8) ↻ 90° 13) (7-8) 25Nm 14) (7-8) 213° 15) (9-10) ↻ 90° 16) (9-10) 25Nm 17) (9-10) 213°	
Carisma 1.9L DI-D Diesel		09/00 → 06/06			5			
Carisma 1.9L TD Diesel		10/96 → 09/00						
F8QT	1870	4	80.00	SOHC		66/89	 M12x1.50x118mm (x10)	1) 30Nm 2) 100° 3) (1-2) ↻ 90° 4) (1-2) 25Nm 5) (1-2) 213° 6) (3-4) ↻ 90° 7) (3-4) 25Nm 8) (3-4) 213° 9) (5-6) ↻ 90° 10) (5-6) 25Nm 11) (5-6) 213° 12) (7-8) ↻ 90° 13) (7-8) 25Nm 14) (7-8) 213° 15) (9-10) ↻ 90° 16) (9-10) 25Nm 17) (9-10) 213°
F9Q2	1870	4	80.00	SOHC	85/116			
Colt 1.3L		04/88 → 05/92			6			
Colt 1.3L 12V		04/88 → 05/92						
Colt 1.3L GL		04/88 → 12/90						
Colt 1.3L GLi 12V		04/92 → 04/96						
4 G 13	1299	4	71.00	SOHC	44/60	 M10x1.25x100mm (x10)	1) 35Nm 2) 55Nm 3) 75Nm	
4 G 13 (BJ90-92, 12V)"/	1299	4	71.00	SOHC	55/75			
4 G 13 (BJ92-., 12V)								



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Colt 1300 Colt 1300 GL, GLX					09/00 → 07/05 05/96 → 09/00	7	HBS477	1) 49Nm 2) ↻ 360° 3) 20Nm 4) 90° 5) 90°	
4 G 13 (BJ90-92, 12V)	1299	4	71.00	SOHC	55/75	M9x1.25x99mm (x10)			
4 G 13 (16 V)	1299	4	71.00	SOHC	63/86				
Colt 1.5L Colt 1.5L GLXi					07/90 → 05/92 04/88 → 05/92	8	HBS440	1) 35Nm 2) 55Nm 3) 75Nm	
4G15	1468	4	75.50	SOHC	61-66/ 83-90	M10x1.25x100mm (x10)			
Colt 1.6L Colt 1.6L GLXi 16V Colt 1600 Colt 1600 GLX					02/94 → 04/96 04/92 → 04/96 09/00 → 07/05 05/96 → 09/00	9	HBS215	1) 30Nm 2) 50Nm 3) 75Nm 4) ↻ 180° 5) 20Nm 6) 90° 7) 90°	
4 G 92	1597	4	81.00	SOHC	66/89	M10x1.25x95mm (x10)			
4 G 92	1597	4	81.00		83/113				
Colt 1.8L GLX Diesel					04/88 → 05/92	10	HBS307	1) 30Nm 2) 63Nm 3) ↻ 360° 4) 20Nm 5) 90° 6) 90°	
4 D 65	1796	4	80.60	SOHC	43-44/ 58-60	M12x1.25x104mm (x10)			
Colt 1.8L GTi 16V					04/92 → 04/96	11	HBS215	1) 30Nm 2) 50Nm 3) 75Nm 4) ↻ 180° 5) 20Nm 6) 90° 7) 90°	
4 G 93	1834	4	81.00	DOHC	85-110/ 116-150	M10x1.25x95mm (x10)			
Delica 2.5L TD Diesel					03/86 →	12	HBS295	1) 50Nm 2) 80Nm 3) 115Nm	
4 D 56 T	2476	4	91.10	SOHC, Turbocharged	63/85	M12x1.25x104mm (x18)			
Eclipse 2000 GS 16V					12/95 → 04/99	13	HBS307	1) 30Nm 2) 63Nm 3) ↻ 360° 4) 20Nm 5) 90° 6) 90°	
4 G 63	1997	4	85.00	DOHC	83-110/ 113-150	M12x1.25x104mm (x10)			
Eclipse Coupe 2.0L i 16V Eclipse Coupe 2.0L i 16V 4x4					04/91 → 11/95 04/91 → 11/95	14	HBS307 →12/91	1) 30Nm 2) 63Nm 3) ↻ 360° 4) 20Nm 5) 90° 6) 90°	
4 G 63	1997	4	85.00	DOHC	83-110/ 113-150		M12x1.25x104mm (x10)		
Eclipse Coupe 2.0L i 16V					01/92 →	14	HBS354	1) 30Nm 2) 63Nm 3) ↻ 360° 4) 20Nm 5) 90° 6) 90°	
							M11x1.25x97mm (x10)		
Galant 1.8L					11/87 → 10/92	15	HBS440	1) 35Nm 2) 55Nm 3) 75Nm	
4 G 37	1755	4	80.60	SOHC	63-71/ 86-97	M10x1.25x100mm (x10)			



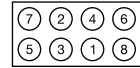
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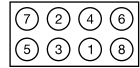
Galant 1.8L		02/94→08/96		16				
Galant 1.8L GLSI		11/92→08/96						
4 G 93	1834	4	81.00	DOHC	85-110/ 116-150	<b>HBS215</b>  M10x1.25x95mm (x10)	1) 30Nm 2) 50Nm 3) 75Nm 4) ↺ 180° 5) 20Nm 6) 90° 7) 90°	
<b>Galant 1.8L Turbo-D Diesel</b>		12/87→10/92		17				
4 D 65T	1796	4	80.60	SOHC	55-60/ 75-82	<b>HBS307</b>  M12x1.25x104mm (x10)	1) 30Nm 2) 63Nm 3) ↺ 360° 4) 20Nm 5) 90° 6) 90°	
<b>Galant 2.0L</b>		11/87→10/04		18				
<b>Galant 2.0L 4x4</b>		12/88→10/92						
<b>Galant 2.0L GTi 16V</b>		11/88→10/92						
<b>Galant 2.0L Mk VI</b>		09/96→09/00						
4 G 63	1997	4	85.00	SOHC	66-101/ 90-137	<b>HBS307</b>  M12x1.25x104mm (x10)	1) 30Nm 2) 63Nm 3) ↺ 360° 4) 20Nm 5) 90° 6) 90°	
4 G 63	1997	4	85.00	DOHC	83-110/ 113-150			
<b>Galant 2.0L GLSI</b>		11/92→08/96		19				
<b>Galant 2.0L GLSI 4x4</b>		11/92→08/96						
4 G 63	1997	4	85.00	SOHC	66-101/ 90-137	<b>HBS354</b>  M11x1.25x97mm (x10)	1) 30Nm 2) 63Nm 3) ↺ 360° 4) 20Nm 5) 90° 6) 90°	
<b>Galant 2.0L GLSTD Diesel</b>		11/92→08/96		20				
<b>Galant 2.0L TDI Diesel</b>		09/96→10/04						
4D68 SOHC	1998	4	82.70	SOHC	66/89	<b>HBS421</b>  M11x1.25x118mm (x10)	1) 90Nm 2) ↺ 360° 3) 40Nm 4) 90° 5) 90°	
4 D 68 T	1998	4	82.70	SOHC	66/90			
<b>Galant 2.0L GTi 16V</b>		11/87→10/92		21				
<b>Galant 2.0L GTi 16V 4x4</b>		06/88→12/92						
<b>Galant 2.0L GTi 16V CAT 4x4</b>		09/91→10/92						
4 G 63	1997	4	85.00	DOHC	83-110/ 113-150	<b>HBS307</b> →12/91  M12x1.25x104mm (x10)	1) 30Nm 2) 63Nm 3) ↺ 360° 4) 20Nm 5) 90° 6) 90°	
						<b>HBS354</b> 01/92→  M11x1.25x97mm (x10)	1) 30Nm 2) 63Nm 3) ↺ 360° 4) 20Nm 5) 90° 6) 90°	
<b>Galant 2.0L V6 24V</b>		11/92→08/96		22				
6A12	1999	6	78.40	SOHC, V6	108-110/ 147-150	<b>HBS217</b>  M10x1.25x95mm (x16)	1) 35Nm 2) 75Nm 3) ↺ 360° 4) 20Nm 5) 90° 6) 90°	
<b>Galant 2.4L GDI</b>		02/99→09/00		23				
4G64 (GDI)	2351	4	86.50	DOHC	110/150	<b>HBS354</b>  M11x1.25x97mm (x10)	1) 40Nm 2) 80Nm 3) ↺ 360° 4) 20Nm 5) 90° 6) 90°	
<b>Galant 2.5L V6 24V</b>		09/96→10/04		24				
6A13	2498	6	81.00	DOHC, V6	120/163	<b>HBS217</b>  M10x1.25x95mm (x16)	1) 35Nm 2) 75Nm 3) ↺ 360° 4) 20Nm 5) 90° 6) 90°	



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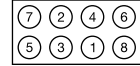
Galloper 2.5L TD Diesel					02/99 →	25	HBS295  M12x1.25x104mm (x18)	1) 50Nm 2) 80Nm 3) 115Nm				
Galloper 2.5L TD intercooler Diesel					02/99 →							
D4BF	2476	4				65/88						
D4BH	2476	4	91.10	SOHC		59/78/ 80-106						
Grandis 2.0L DI-D Diesel					09/05 →	26	HBS364  M12x1.75x149mm (x10)	1) 35Nm 2) 60Nm 3) 90° 4) 90°				
BSY	1968	4	81.00	DOHC		100/136						
L200 2.0L					01/85 → 12/93	27	HBS307  M12x1.25x104mm (x10)	1) 30Nm 2) 63Nm 3) ↻ 360° 4) 20Nm 5) 90° 6) 90°				
4 G 63	1997	4	85.00	SOHC		66-101/ 90-137						
L200 2.5L D Diesel					11/86 → 08/96	28	HBS295  M12x1.25x104mm (x18)	1) 50Nm 2) 80Nm 3) 115Nm				
L200 2.5L D 4WD Diesel					12/87 → 05/93							
L200 2.5L TD Diesel					08/03 →							
L200 2.5L TD 4WD Diesel					11/92 → 08/96							
4 D 56	2476	4	91.10	SOHC		51-54/ 69-73						
4 D 56 T	2476	4	91.10	SOHC		63/85						
L200 2.6L 4WD (K33T)					11/89 → 05/95	29	HBS403  M12x1.25x120mm (x10)	1) 40Nm 2) 80Nm 3) 105Nm 4) ↻ 90° 5) 105Nm 6) ⚡ 7) ⚡ 8) ↻ 90° 9) 105Nm				
G54B	2555	4	91.10	SOHC		76-114/ 103-155						
L300 1.6L					04/83 → 04/94	30	HBS440  M10x1.25x100mm (x10)	1) 35Nm 2) 55Nm 3) 75Nm				
L300 Van 1.6L					11/90 →							
4632	1597	4	76.90	SOHC		48-55/ 65-75						
L300 2.0L					11/86 →	31	HBS307  M12x1.25x104mm (x10)	1) 30Nm 2) 63Nm 3) ↻ 360° 4) 20Nm 5) 90° 6) 90°				
L300 2.0L 4WD					11/86 →							
G63B	1997	4	85.00	SOHC						62-75/ 84-102		
4 G 63	1997	4	85.00	SOHC						66-101/ 90-137		
4 G 63	1997	4	85.00	DOHC		83-110/ 113-150						
L300 2.0L					07/94 →	32	HBS354  M11x1.25x97mm (x10)	1) 30Nm 2) 63Nm 3) ↻ 360° 4) 20Nm 5) 90° 6) 90°				
4 G 63	1997	4	85.00	DOHC		83-110/ 113-150						
L300 2.4L					11/90 →	33	HBS307  M12x1.25x104mm (x10)	1) 40Nm 2) 80Nm 3) ↻ 360° 4) 20Nm 5) 90° 6) 90°				
L300 2.4L 4WD					11/86 → 12/90							
G64B	2350	4	86.50	SOHC						80-82/ 109-112		
4 G 64	2350	4	86.50	DOHC		82/111						
L300 2.5L D Diesel					11/86 → 04/94	34	HBS295  M12x1.25x104mm (x18)	1) 50Nm 2) 80Nm 3) 115Nm				
L300 2.5L TD 4WD Diesel					11/88 →							
L300 Van 2.5L D Diesel					11/86 →							
4 D 56	2476	4	91.10	SOHC		51-54/ 69-73						
4 D 56 T	2476	4	91.10	SOHC		63/85						



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<b>1400 2.0L</b>				09/95 → 10/02	<b>35</b>				
4 G 63	1997	4	85.00	DOHC	83-110/ 113-150	<b>HBS354</b>  M11x1.25x97mm (x10)	1) 30Nm 2) 63Nm 3) ↻ 360° 4) 20Nm 5) 90° 6) 90°		
<b>1400 2500 TD Diesel</b>				06/96 →	<b>36</b>				
<b>1400 Van 2500 TD Diesel</b>				09/96 →	<b>36</b>				
4 D 56 T	2476	4	91.10	SOHC	63/85	<b>HBS295</b>  M12x1.25x104mm (x18)	1) 50Nm 2) 80Nm 3) 115Nm		
<b>Lancer 1.3L</b>				04/88 → 05/92	<b>37</b>				
<b>Lancer 1.3L 12V</b>				01/91 → 05/94	<b>37</b>				
<b>Lancer 1.3L 12V GL, GLX</b>				12/95 → 08/03	<b>37</b>				
<b>Lancer 1.3L Mk V</b>				06/92 → 02/95	<b>37</b>				
4 G 13	1299	4	71.00	SOHC	44/60	<b>HBS440</b>  M10x1.25x100mm (x10)	1) 35Nm 2) 55Nm 3) 75Nm		
G13B	1299	4	71.00	SOHC	49-57/ 67-78		<b>HBS440</b>  M10x1.25x100mm (x10)	1) 35Nm 2) 55Nm 3) 75Nm	
4 G 13 (BJ90-92, 12V)/ 4 G 13 (BJ92-..., 12V)	1299	4	71.00	SOHC	55/75				
<b>Lancer 1.3L</b>				09/03 →	<b>38</b>				
4 G 13 (16 V)	1299	4	71.00	SOHC	63/86	<b>HBS477</b>  M9x1.25x99mm (x10)	1) 49Nm 2) ↻ 360° 3) 20Nm 4) 90° 5) 90°		
<b>Lancer 1.5L</b>				04/88 → 10/03	<b>39</b>				
<b>Lancer 1.5L 12V</b>				05/89 → 05/92	<b>39</b>				
4G15	1468	4	75.50	SOHC	61-66/ 83-90	<b>HBS440</b>  M10x1.25x100mm (x10)	1) 35Nm 2) 55Nm 3) 75Nm		
4G15	1468	4	75.50	SOHC	66/90				
<b>Lancer 1.6L</b>				09/03 →	<b>40</b>				
4G18	1584	4	76.00	DOHC	72/98	<b>HBS477</b>  M9x1.25x99mm (x10)	1) 49Nm 2) ↻ 360° 3) 20Nm 4) 90° 5) 90°		
<b>Lancer 1.6L</b>				02/94 →	<b>41</b>				
<b>Lancer 1.6L 16V</b>				06/92 → 08/03	<b>41</b>				
<b>Lancer 1.6L 16V 4WD</b>				06/92 →	<b>41</b>				
<b>Lancer 1.6L GLi 16V</b>				06/92 → 05/94	<b>41</b>				
<b>Lancer 1.6L GLXi 16V</b>				12/92 → 10/03	<b>41</b>				
<b>Lancer 1.6L GLXi 16V 4WD</b>				12/92 → 10/03	<b>41</b>				
4 G 92	1597	4	81.00		66/89	<b>HBS215</b>  M10x1.25x95mm (x10)	1) 30Nm 2) 50Nm 3) 75Nm 4) ↻ 180° 5) 20Nm 6) 90° 7) 90°		
4 G 92	1597	4	81.00	SOHC	83/113				
<b>Lancer 1.8L 4x4</b>				03/89 → 06/92	<b>42</b>				
<b>Lancer 1.8L GTi</b>				06/92 → 07/93	<b>42</b>				
4 G 37	1755	4	80.60	SOHC	63-71/ 86-97	<b>HBS440</b>  M10x1.25x100mm (x10)	1) 35Nm 2) 55Nm 3) 75Nm		
<b>Lancer 1.8L 16V</b>				06/92 → 12/93	<b>43</b>				
<b>Lancer 1.8L GTi 16V</b>				06/92 → 12/93	<b>43</b>				
<b>Lancer 1.8L i</b>				03/95 → 10/03	<b>43</b>				
4 G 93	1834	4	81.00	DOHC	85-110/ 116-150	<b>HBS215</b>  M10x1.25x95mm (x10)	1) 30Nm 2) 50Nm 3) 75Nm 4) ↻ 180° 5) 20Nm 6) 90° 7) 90°		
<b>Lancer 1.8L D Diesel</b>				08/86 → 06/92	<b>44</b>				
<b>Lancer 1.8L GLX D Diesel</b>				04/88 → 05/92	<b>44</b>				
4 D 65	1796	4	80.60	SOHC	43-44/ 58-60	<b>HBS307</b>  M12x1.25x104mm (x10)	1) 30Nm 2) 63Nm 3) ↻ 360° 4) 20Nm 5) 90° 6) 90°		

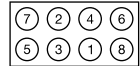




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Model					Year	Cyl	CC	Power	Engine	Part No.	Dimensions	Notes	Sequence
<b>Lancer 2.0L</b>					09/03 →			<b>45</b>		<b>HBS307</b>	M12x1.25x104mm (x10)	1) 30Nm 2) 63Nm 3) ↻ 360° 4) 20Nm 5) 90° 6) 90°	
4 G 63					1997	4	85.00	DOHC	83-110/ 113-150				
<b>Lancer 2.0L D Diesel</b>					06/92 →			<b>46</b>		<b>HBS421</b>	M11x1.25x118mm (x10)	1) 90Nm 2) ↻ 360° 3) 40Nm 4) 90° 5) 90°	
Lancer 2.0L D Mk IV Diesel					06/92 → 07/93								
Lancer 2.0L GLX D Diesel					12/92 → 10/03								
4 D 68					1998	4	82.70	SOHC	50/68				
<b>Lancer 2.0L GDi</b>					09/03 →			<b>47</b>		<b>HBS215</b>	M10x1.25x95mm (x10)	1) 30Nm 2) 50Nm 3) 75Nm 4) ↻ 180° 5) 20Nm 6) 90° 7) 90°	
4G94					1999	4	81.50	DOHC	95/129				
<b>Outlander 2.0L</b>					05/03 →			<b>48</b>		<b>HBS307</b>	M12x1.25x104mm (x10)	1) 30Nm 2) 63Nm 3) ↻ 360° 4) 20Nm 5) 90° 6) 90°	
Outlander 2.0L 4WD					05/03 →								
Outlander 2.0L 4WD					05/03 →								
4 G 63					1997	4	85.00	DOHC	83-110/ 113-150				
<b>Outlander 2.4L 4WD</b>					05/03 →			<b>49</b>		<b>HBS354</b>	M11x1.25x97mm (x10)	1) 40Nm 2) 80Nm 3) ↻ 360° 4) 20Nm 5) 90° 6) 90°	
4G64 (SOHC 16V)					2351	4	86.50	Intake Manifold Injection/ Carburettor, SOHC/OHC	85-105/ 116-143				
<b>Pajero 1.8L</b>					11/01 →			<b>50</b>		<b>HBS215</b>	M10x1.25x95mm (x10)	1) 30Nm 2) 50Nm 3) 75Nm 4) ↻ 180° 5) 20Nm 6) 90° 7) 90°	
Pajero 1.8L GDI					06/98 → 04/00								
4 G 93					1834	4	81.00	DOHC	85-110/ 116-150				
<b>Pajero 2.0L GDI</b>					10/00 →			<b>51</b>		<b>HBS215</b>	M10x1.25x95mm (x10)	1) 30Nm 2) 50Nm 3) 75Nm 4) ↻ 180° 5) 20Nm 6) 90° 7) 90°	
4G94					1999	4	81.50	DOHC	95/129				
<b>Pajero 2.4L</b>					04/91 → 04/00			<b>52</b>		<b>HBS307</b>	M12x1.25x104mm (x10)	1) 40Nm 2) 80Nm 3) ↻ 360° 4) 20Nm 5) 90° 6) 90°	
4 G 64					2350	4	86.50	DOHC	82/111				
<b>Pajero 2.5L TD Diesel</b>					03/86 → 04/00			<b>53</b>		<b>HBS295</b>	M12x1.25x104mm (x18)	1) 65Nm 2) 95Nm 3) 125Nm	
4 D 56 T					2476	4	91.10	SOHC, Turbocharged	63/85				
4 D 56 T					2476	4	91.10	SOHC	63/85				
4 D 56 TD					2476	4	91.10	SOHC	73/99				



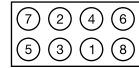
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Pajero 2.8L TD Diesel		06/94 → 04/00		54	
4M40-T	2835	4	95.00	SOHC	92-85/ 125-116
<b>HBS216</b>		<b>M12</b>			
 M12x1.25x124mm (x4) M8x1.25x90mm (x2) M12x1.25x104mm (x14)		1) 30Nm 2) 60Nm 3) 100Nm 4) ↻ 180° 5) 50Nm 6) 90° 7) 90°		<b>M8</b> 1) 30Nm 2) 60Nm 3) 100Nm 4) ↻ 180° 5) 25Nm 6) 90° 7) 90°	
<b>Pajero 3.0L</b>		12/90 →		55	
<b>Pajero 3.0L V6</b>		11/88 → 12/95			
<b>Pajero 3.0L V6 24V</b>		06/94 → 04/00			
6 G 72	2972	6	91.10		104-108/ 141-147
6 G 72	2972	6	91.10	V6	104-108/ 141-147
6 G 72	2972	6	91.10	V6	110/150
6G72	2972	6	91.10	SOHC, V6	110/150
6G72 (SOHC 24V)	2972	6	91.10	Intake Manifold Injection/ Carburettor, SOHC/OHC, V	114-150/ 155-204
6 G 72	2972	6	91.10	DOHC, V6	123-151/ 167-205
<b>HBS402</b>		<b>M12</b>			
 M12x1.25x102mm (x16)		1) 40Nm 2) 70Nm 3) 113Nm			
<b>Pajero 3.2L DiD Diesel</b>		09/99 →		56	
<b>Pajero 3.2L DI-D Diesel</b>		04/00 → 10/01			
<b>Pajero 3.2L DI-D Classic Diesel</b>		05/05 →			
<b>Pajero 3.2L DI-D Mk IV Diesel</b>		02/07 →			
<b>Pajero 3.2L TDi Diesel</b>		11/98 →			
4M41	3200	4	98.50	DOHC	118/160
<b>HBS491</b>		<b>M12</b>			
 M12x1.25x118mm (x14) M12x1.25x133mm (x4)		1) 49Nm 2) 98Nm 3) ↻ 180° 4) 49Nm 5) 90° 6) 90°			
<b>Sapporo Coupe 2.4L</b>		06/87 → 08/90		57	
4 G 64	2350	4	86.50	SOHC	91-97/ 124-132
<b>HBS307</b>		<b>M12</b>			
 M12x1.25x104mm (x10)		1) 40Nm 2) 80Nm 3) ↻ 360° 4) 20Nm 5) 90° 6) 90°			
<b>Space Gear 2.0L 16V</b>		05/95 → 05/00		58	
4 G 63	1997	4	85.00	DOHC	83-110/ 113-150
<b>HBS307</b>		<b>M12</b>			
 M12x1.25x104mm (x10)		1) 30Nm 2) 63Nm 3) ↻ 360° 4) 20Nm 5) 90° 6) 90°			
<b>Space Gear 2.5L TD Diesel</b>		05/95 → 05/00		59	
<b>Space Gear 2.5L TD 4x4 Diesel</b>		05/95 → 05/00			
4 D 56 T	2476	4	91.10	SOHC	63/85
4 D 56 TD	2476	4	91.10	SOHC	73/99
<b>HBS295</b>		<b>M12</b>			
 M12x1.25x104mm (x18)		1) 50Nm 2) 80Nm 3) 115Nm			
<b>Space Runner 1.8L</b>		10/91 → 08/99		60	
<b>Space Runner 1.8L 4x4</b>		10/91 → 08/99			
4 G 93	1834	4	81.00	DOHC	85-110/ 116-150
<b>HBS215</b>		<b>M10</b>			
 M10x1.25x95mm (x10)		1) 30Nm 2) 50Nm 3) 75Nm 4) ↻ 180° 5) 20Nm 6) 90° 7) 90°			



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Space Runner 2.0L					08/99 →	61	HBS307		1) 30Nm 2) 63Nm 3) ↻ 360° 4) 20Nm 5) 90° 6) 90°	<table border="1"> <tr><td>8</td><td>6</td><td>1</td><td>3</td><td>9</td></tr> <tr><td>10</td><td>4</td><td>2</td><td>5</td><td>7</td></tr> </table>	8	6	1	3	9	10	4	2	5	7
8	6	1	3	9																
10	4	2	5	7																
Space Runner 2.0L 16V					06/97 → 08/99		 M12x1.25x104mm (x10)													
4 G 63	1997	4	85.00	DOHC		83-110/ 113-150														
Space Runner 2.0L TD GLX Diesel					10/92 → 08/99	62	HBS421		1) 90Nm 2) ↻ 360° 3) 40Nm 4) 90° 5) 90°	<table border="1"> <tr><td>7</td><td>5</td><td>1</td><td>3</td><td>9</td></tr> <tr><td>10</td><td>4</td><td>2</td><td>6</td><td>8</td></tr> </table>	7	5	1	3	9	10	4	2	6	8
7	5	1	3	9																
10	4	2	6	8																
4 D 68 T	1998	4	82.70	SOHC		66/90	 M11x1.25x118mm (x10)													
Space Star 1.3L 16V					06/98 →	63	HBS477		1) 49Nm 2) ↻ 360° 3) 20Nm 4) 90° 5) 90°	<table border="1"> <tr><td>10</td><td>4</td><td>2</td><td>6</td><td>8</td></tr> <tr><td>7</td><td>5</td><td>1</td><td>3</td><td>9</td></tr> </table>	10	4	2	6	8	7	5	1	3	9
10	4	2	6	8																
7	5	1	3	9																
4 G 13 (16 V)	1299	4	71.00	SOHC		63/86	 M9x1.25x99mm (x10)													
Space Star 1.6L 16V					09/01 →	64	HBS477		1) 49Nm 2) ↻ 360° 3) 20Nm 4) 90° 5) 90°	<table border="1"> <tr><td>10</td><td>4</td><td>2</td><td>6</td><td>8</td></tr> <tr><td>7</td><td>5</td><td>1</td><td>3</td><td>9</td></tr> </table>	10	4	2	6	8	7	5	1	3	9
10	4	2	6	8																
7	5	1	3	9																
4G18	1584	4	76.00	DOHC		72/98	 M9x1.25x99mm (x10)													
Space Star 1.8L GDI					06/98 →	65	HBS215		1) 30Nm 2) 50Nm 3) 75Nm 4) ↻ 180° 5) 20Nm 6) 90° 7) 90°	<table border="1"> <tr><td>8</td><td>6</td><td>1</td><td>3</td><td>9</td></tr> <tr><td>10</td><td>4</td><td>2</td><td>5</td><td>7</td></tr> </table>	8	6	1	3	9	10	4	2	5	7
8	6	1	3	9																
10	4	2	5	7																
4 G 93	1834	4	81.00	DOHC		85-110/ 116-150	 M10x1.25x95mm (x10)													
Space Star 1.9L DI-D Diesel					02/01 →	66	HBS372		1) 35Nm 2) 100° 3) (1-2) ↻ 90° 4) (1-2) 25Nm 5) (1-2) 213° 6) (3-4) ↻ 90° 7) (3-4) 25Nm 8) (3-4) 213° 9) (5-6) ↻ 90° 10) (5-6) 25Nm 11) (5-6) 213° 12) (7-8) ↻ 90° 13) (7-8) 25Nm 14) (7-8) 213° 15) (9-10) ↻ 90° 16) (9-10) 25Nm 17) (9-10) 213°	<table border="1"> <tr><td>8</td><td>4</td><td>1</td><td>5</td><td>9</td></tr> <tr><td>7</td><td>3</td><td>2</td><td>6</td><td>10</td></tr> </table>	8	4	1	5	9	7	3	2	6	10
8	4	1	5	9																
7	3	2	6	10																
F9Q1	1870	4	80.00	SOHC		75/102	 M12x1.50x121mm (x10)													
Space Star 1.9L DI-D Diesel					10/02 →	67	HBS120		1) 30Nm 2) 100° 3) (1-2) ↻ 90° 4) (1-2) 25Nm 5) (1-2) 213° 6) (3-4) ↻ 90° 7) (3-4) 25Nm 8) (3-4) 213° 9) (5-6) ↻ 90° 10) (5-6) 25Nm 11) (5-6) 213° 12) (7-8) ↻ 90° 13) (7-8) 25Nm 14) (7-8) 213° 15) (9-10) ↻ 90° 16) (9-10) 25Nm 17) (9-10) 213°	<table border="1"> <tr><td>8</td><td>4</td><td>1</td><td>5</td><td>9</td></tr> <tr><td>7</td><td>3</td><td>2</td><td>6</td><td>10</td></tr> </table>	8	4	1	5	9	7	3	2	6	10
8	4	1	5	9																
7	3	2	6	10																
F9Q2	1870	4	80.00	SOHC		85/116	 M12x1.50x118mm (x10)													

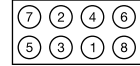
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




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Space Wagon 1.8L Space Wagon 1.8L 4x4					10/91 → 10/98	68	<b>HBS215</b>  M10x1.25x95mm (x10)	1) 30Nm 2) 50Nm 3) 75Nm 4) ↻ 180° 5) 20Nm 6) 90° 7) 90°	
4 G 93	1834	4	81.00	DOHC	85-110/ 116-150				
Space Wagon 1.8L D Diesel Space Wagon 1.8L TD Diesel					01/84 → 12/89	69	<b>HBS307</b>  M12x1.25x104mm (x10)	1) 30Nm 2) 63Nm 3) ↻ 360° 4) 20Nm 5) 90° 6) 90°	
4 D 65 T	1796	4	80.60	SOHC, Turbocharged	55-60/ 75-82				
4 D 65 T	1796	4	80.60	SOHC	55-60/ 75-82				
Space Wagon 2.0L 4x4 Space Wagon 2.0L GDI					03/85 → 04/91	70	<b>HBS307</b>  M12x1.25x104mm (x10)	1) 30Nm 2) 63Nm 3) ↻ 360° 4) 20Nm 5) 90° 6) 90°	
4 G 63	1997	4	85.00	SOHC	66-101/ 90-137				
4 G 63	1997	4	85.00	DOHC	83-110/ 113-150				
Space Wagon 2.0L GLXi Space Wagon 2.0L GLXi 4x4					10/92 → 10/98	71	<b>HBS307</b> → 12/91  M12x1.25x104mm (x10)	1) 30Nm 2) 63Nm 3) ↻ 360° 4) 20Nm 5) 90° 6) 90°	
4 G 63	1997	4	85.00	DOHC	83-110/ 113-150				
Space Wagon 2.0L TD GLX Diesel					10/92 → 10/98	72	<b>HBS354</b> 01/92 →  M11x1.25x97mm (x10)	1) 30Nm 2) 63Nm 3) ↻ 360° 4) 20Nm 5) 90° 6) 90°	
4 D 68 T	1998	4	82.70	SOHC	60/81				
Space Wagon 2.4L i					10/92 → 10/98	73	<b>HBS354</b>  M11x1.25x97mm (x10)	1) 40Nm 2) 80Nm 3) ↻ 360° 4) 20Nm 5) 90° 6) 90°	
4G64 (SOHC 16V)	2351	4	86.50	Intake Manifold Injection/ Carburettor, SOHC/OHC	85-105/ 116-143				
Triton 2.4L i					03/07 →	74	<b>HBS354</b>  M11x1.25x97mm (x10)	1) 40Nm 2) 80Nm 3) ↻ 360° 4) 20Nm 5) 90° 6) 90°	
4G64 (SOHC 16V)	2351	4	86.50	Intake Manifold Injection/ Carburettor, SOHC/OHC	85-105/ 116-143				
Triton 3.2L DI-D 4x4 Diesel					07/06 → 12/09	75	<b>HBS491</b>  M12x1.25x118mm (x14) M12x1.25x133mm (x4)	1) 49Nm 2) 98Nm 3) ↻ 180° 4) 49Nm 5) 90° 6) 90°	
4M41	3200	4	98.50	DOHC	118/160				

		CC			9			CC			9
CA18D	Petrol	1809	4	83.00	19	QG16DE	Petrol	1597	4	76.00	73
CA18D	Petrol	1809	4	83.00	95	QG18DE	Petrol	1769	4	80.00	12
CA18DE	Petrol	1809	4	83.00	3	QG18DE	Petrol	1769	4	80.00	74
CD20	Diesel	1974	4	84.50	14	QR20DE	Petrol	1998	4	89.00	17
CD20	Diesel	1974	4	84.50	78	QR20DE	Petrol	1998	4	89.00	77
CD20	Diesel	1974	4	84.50	96	QR20DE	Petrol	1998	4	89.00	107
CD20T	Diesel	1974	4	84.50	18	QR25DE	Petrol	2488	4	89.00	16
CD20T	Diesel	1974	4	84.50	79	QR25DE	Petrol	2488	4	89.00	27
CG10DE	Petrol	998	4	71.00	41	QR25DE	Petrol	2488	4	89.00	81
CG12DE	Petrol	1240	4	71.00	42	QR25DE	Petrol	2488	4	89.00	87
CG13DE	Petrol	1275	4	71.00	43	QR25DE	Petrol	2488	4	89.00	109
CGA3DE	Petrol	1348	4	82.80	25	RD28	Diesel	2826	6	85.00	23
CGA3DE	Petrol	1348	4	82.80	45	RD28	Diesel	2826	6	85.00	29
CR12DE	Petrol	1240	4	71.00	42	RD28	Diesel	2826	6	85.00	57
CR14DE	Petrol	1386	4	73.00	26	RD28T	Diesel	2825	6	85.00	24
CR14DE	Petrol	1386	4	73.00	44	RD28T	Diesel	2825	6	85.00	58
CR14DE	Petrol	1386	4	73.00	50	RD28Ti	Diesel	2826	6	85.00	57
D4F 712	Petrol	1149	4	69.00	33	SR20DE	Petrol	1998	4	86.00	2
D7F 764	Petrol	1149	4	69.00	32	SR20DE	Petrol	1998	4	86.00	4
E13	Petrol	1269	4	76.00	91	SR20DE	Petrol	1998	4	86.00	13
E13S	Petrol	1269	4	76.00	91	SR20DE	Petrol	1998	4	86.00	76
E16i	Petrol	1597	4	76.00	94	SR20DE	Petrol	1998	4	86.00	86
F4R 720	Petrol	1998	4	82.70	69	SR20DE	Petrol	1998	4	86.00	89
F4R 722	Petrol	1998	4	82.70	69	SR20DE	Petrol	1998	4	86.00	97
F9Q 760	Diesel	1870	4	80.00	67	SR20DET	Petrol	1998	4	86.00	4
F9Q 762	Diesel	1870	4	80.00	68	SR20DET	Petrol	1998	4	86.00	97
F9Q 772	Diesel	1870	4	80.00	30	SR20DI (SPI)	Petrol	1998	4	86.00	76
G9T 722	Diesel	2188	4	87.00	31	TB42E	Petrol	4169	6	96.00	60
G9U 730	Diesel	2463	4	89.00	71	TD15 (TUD5)	Diesel	1527	4	77.00	46
GA14DE	Petrol	1392	4	73.60	8	TD23	Diesel	2289	4	89.00	102
GA14DE	Petrol	1392	4	73.60	92	TD25	Diesel	2494	4	92.90	62
GA14DS	Petrol	1392	4	73.60	92	TD25	Diesel	2494	4	92.90	103
GA14S	Petrol	1392	4	73.60	92	TD27	Diesel	2663	4	96.00	64
GA15DE	Petrol	1498	4	73.60	9	TD27	Diesel	2663	4	96.00	101
GA16DE	Petrol	1597	4	76.00	1	TD27	Diesel	2663	4	96.00	104
GA16DE	Petrol	1597	4	76.00	11	TD27T	Diesel	2663	4	96.00	21
GA16DE	Petrol	1597	4	76.00	72	TD27T	Diesel	2663	4	96.00	99
GA16DE	Petrol	1597	4	76.00	88	TD27Ti	Diesel	2663	4	96.00	99
GA16DE	Petrol	1597	4	76.00	93	VG30E	Petrol	2960	6	87.00	5
GA16DE	Petrol	1597	4	76.00	105	VG30E	Petrol	2960	6	87.00	39
GA16DEL	Petrol	1597	4	76.00	93	VG30E	Petrol	2960	6	87.00	65
GA16DS	Petrol	1597	4	76.00	1	VG30E	Petrol	2960	6	87.00	100
GA16DS	Petrol	1597	4	76.00	72	VG30ET	Petrol	2960	6	87.00	6
GA16DS	Petrol	1597	4	76.00	85	VG30T	Petrol	2960	6	87.00	6
GA16DS	Petrol	1597	4	76.00	93	VG33E	Petrol	3275	6	91.50	54
K4M 752	Petrol	1598	4	79.50	35	VQ20DE	Petrol	1995	6	76.00	37
K9K 276	Diesel	1461	4	76.00	34	VQ30DE	Petrol	2988	6	93.00	38
K9K 276	Diesel	1461	4	76.00	47	VQ35	Petrol	3498	6	95.50	55
K9K 276	Diesel	1461	4	76.00	51	VQ35DE	Petrol	3498	6	95.50	7
K9K 700	Diesel	1461	4	76.00	34	VQ35DE	Petrol	3498	6	95.50	48
K9K 700	Diesel	1461	4	76.00	51	YD22DDT	Diesel	2184	4	86.00	15
K9K 704	Diesel	1461	4	76.00	34	YD22DDT	Diesel	2184	4	86.00	80
K9K 704	Diesel	1461	4	76.00	47	YD22DDTi	Diesel	2184	4	86.00	15
K9K 722	Diesel	1461	4	76.00	10	YD22DDTi	Diesel	2184	4	86.00	108
K9K 722	Diesel	1461	4	76.00	34	YD22ETi	Diesel	2184	4	86.00	108
K9K 722	Diesel	1461	4	76.00	47	YD25DDTi	Diesel	2488	4	89.00	49
KA24DE	Petrol	2389	4	89.00	61	YD25DDTi	Diesel	2488	4	89.00	52
KA24E	Petrol	2389	4	89.00	61	YD25DDTi	Diesel	2488	4	89.00	53
KA24E	Petrol	2389	4	89.00	66	YD25DDTi	Diesel	2488	4	89.00	63
KA24E	Petrol	2389	4	89.00	98	ZD30DDTi	Diesel	2953	4	96.00	59
L28	Petrol	2753	6	86.00	56						
L28E	Petrol	2753	6	86.00	22						
L28E	Petrol	2753	6	86.00	28						
L28E	Petrol	2753	6	86.00	36						
LD23	Diesel	2283	4	84.50	90						
LD23	Diesel	2283	4	84.50	106						
M1D	Diesel	1994	4	84.00	83						
M9R	Diesel	1995	4	84.00	84						
M9R 780	Diesel	1995	4	84.00	70						
M9R 780	Diesel	1995	4	84.00	70						
MA10	Petrol	988	4	68.00	40						
MA10S	Petrol	988	4	68.00	40						
QG15DE	Petrol	1498	4	73.60	9						





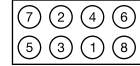
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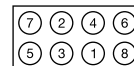
100 NX Coupe 1.6L						03/90 → 10/94	1		
100 NX Coupe 1.6L SR						09/93 → 10/94			
GAI6DE	1597	4	76.00	DOHC	66-75/ 90-102		<b>HBS187</b>  M10x1.50x97mm (x10)	1) 30Nm 2) 60Nm 3) ↻ 180° 4) 30Nm 5) 55°	
GAI6DS	1597	4	76.00	DOHC					
100 NX Coupe 2.0L GTI						03/91 → 10/94	2		
SR20DE	1998	4	86.00	DOHC	92-118/ 125-160		<b>HBS188</b>  M11x1.50x157mm (x10)	1) 40Nm 2) 80Nm 3) ↻ 180° 4) 40Nm 5) 90° 6) 90°	
200 Sx 1.8L						09/88 → 03/94	3		
CA18DE	1809	4	83.00	DOHC	99/135		<b>HBS495</b>  M11x1.50x103mm (x10)	1) 30Nm 2) 70Nm 3) 105Nm 4) ↻ 180° 5) 30Nm 6) 90°	
200 SX Coupe 2.0L i 16V						10/93 → 12/99	4		
200 SX Coupe 2.0L i 16V Turbo						10/93 → 12/99			
SR20DE	1998	4	86.00	DOHC	92-118/ 125-160		<b>HBS188</b>  M11x1.50x157mm (x10)	1) 40Nm 2) 80Nm 3) ↻ 180° 4) 40Nm 5) 90° 6) 90°	
SR20DET	1998	4	86.00	DOHC	147/200				
200 SX 3.0L SX						01/86 →	5		
VG30E	2960	6	87.00	SOHC	95-125/ 129-170		<b>HBS404 (x2)</b>  1.25x1.25x120mm (x8)	1) 49Nm 2) 98Nm 3) ↻ 360° 4) 44Nm 5) 95° 6) 95°	
300 ZX 3.0L Turbo						04/84 → 10/90	6		
VG30ET	2960	6	87.00	SOHC, V6	149/203		<b>HBS404 (x2)</b>  1.25x1.25x120mm (x8)	1) 49Nm 2) 98Nm 3) ↻ 360° 4) 44Nm 5) 95° 6) 95°	
VG30T	2960	6	87.00	SOHC, V6	169/230				
350 Z 3.5L						03/05 →	7		
350 Z Coupe 3.5L						10/03 →			
VQ35DE	3498	6	95.50	DOHC, V6	206/280		<b>HBS404 (x2)</b>  1.25x1.25x120mm (x8)	1) 49Nm 2) 98Nm 3) ↻ 360° 4) 44Nm 5) 95° 6) 95°	
Almera 1.4L						09/95 → 07/00	8		
Almera 1.4L GX, LX						09/95 → 07/00			
Almera 1.4L S, GX, LX						09/95 → 03/00			
GAI4DE	1392	4	73.60	DOHC	55-64/ 75-87		<b>HBS187</b>  M10x1.50x97mm (x10)	1) 30Nm 2) 60Nm 3) ↻ 180° 4) 30Nm 5) 55°	
Almera 1.5L						03/00 →	9		
Almera 1.5L XL						03/01 →			
QG15DE	1498	4	73.60	DOHC	66-80/ 90-109		<b>HBS422</b>  M10x1.50x92mm (x10)	1) 29Nm 2) 59Nm 3) ↻ 90° 4) 29Nm 5) 55°	
GAI5DE	1498	4	73.60	DOHC	77/105				
Almera 1.5L dCi Diesel						01/03 →	10		
K9K 722	1461	4	76.00	SOHC	60/82		<b>HBS299</b>  M11x1.50x125mm (x10)	1) 25Nm 2) 25Nm 3) 255°	
Almera 1.6L						09/95 → 07/00	11		
Almera 1.6L SLX						09/95 → 07/00			
Almera 1.6L SR, SLX						09/95 → 03/00			
GAI6DE	1597	4	76.00	DOHC	66-75/ 90-102		<b>HBS187</b>  M10x1.50x97mm (x10)	1) 30Nm 2) 60Nm 3) ↻ 180° 4) 30Nm 5) 55°	



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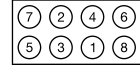
Almera 1.8L					03/00 →	12	HBS422		1) 29Nm 2) 59Nm 3) ↻ 90° 4) 29Nm 5) 55°	
QG18DE	1769	4	80.00	DOHC		84-93/ 114-126		M10x1.50x92mm (x10)		
Almera 2.0L					08/00 →	13	HBS188		1) 40Nm 2) 80Nm 3) ↻ 180° 4) 40Nm 5) 90° 6) 90°	
Almera 2.0L GTi					07/96 → 03/00			M11x1.50x157mm (x10)		
SR20DE	1998	4	86.00	DOHC		92-118/ 125-160				
Almera 2.0L D Diesel					11/95 → 07/00	14	HBS111		1) 30Nm 2) 60Nm 3) 90° 4) ↻ 180° 5) 40Nm 6) 80°	
CD20	1974	4	84.50	SOHC		55/75		M11x1.50x119mm (x10)		
Almera 2.2L dCi Diesel					09/03 →	15	HBS374		1) 38Nm 2) 185° 3) ↻ 360° 4) 44Nm 5) 95° 6) 95°	
Almera 2.2L Di Diesel					03/00 →			M11x1.25x109mm (x18)		
YD22DDT	2184	4	86.00	DOHC		81-102/ 110-139				
YD22DDTi	2184	4	86.00	DOHC		84-100/ 114-136				
Altimra 2.5L					08/01 → 09/06	16	HBS504		1) 50Nm 2) 100Nm 3) ↻ 180° 4) 40Nm 5) 80° 6) 80°	
QR25DE	2488	4	89.00	DOHC		121/165		M12x1.75x125mm (x10)		
Avenir 2.0L					09/01 →	17	HBS504		1) 50Nm 2) 100Nm 3) ↻ 180° 4) 40Nm 5) 80° 6) 80°	
Avenir 2.0L 4x4					09/01 →			M12x1.75x125mm (x10)		
QR20DE	1998	4	89.00	DOHC		103-110/ 140-150				
Avenir 2.0L TD Diesel					11/97 → 09/99	18	HBS505		1) 50Nm 2) 100Nm 3) ↻ 180° 4) 35Nm 5) 95° 6) 95°	
CD20T	1974	4	84.50	SOHC		66/90		M12x1.50x117mm (x10)		
Bluebird 1.8L i 16V					02/89 → 12/90	19	HBS495		1) 30Nm 2) 70Nm 3) 105Nm 4) ↻ 180° 5) 30Nm 6) 90°	
CA18D	1809	4	83.00	DOHC		92-95/ 125-129		M11x1.50x103mm (x10)		→
Cabstar 2.5L D F22 Diesel					10/82 → 06/92	20	HBS188		1) 40Nm 2) 80Nm 3) ↻ 180° 4) 40Nm 5) 90° 6) 90°	
								M11x1.50x157mm (x10)		
Cabstar 90.32 Diesel					10/98 → 10/06	21	HBS194		1) 30Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90°	
TD27T	2663	4	96.00			66-74/ 90-101		M12x1.50x113mm (x18)		



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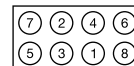
Cedric 2.0		04/82 →			22			
L28E	2753	6	86.00	SOHC	103-110/ 140-150	<b>HBS189</b>  M12x1.75x105.5mm (x18)	1) 40Nm 2) 80Nm 3) ↓ 4) ↺ 5) 80Nm	
Cedric 2.8L Diesel		01/83 →			23			
RD28	2826	6	85.00	SOHC	66/89	<b>HBS190</b>  M12x1.75x112mm (x14)	1) 40Nm 2) 80Nm 3) ↺ 180° 4) 30Nm 5) 105°	
Cedric 2.8L Turbo Diesel		08/92 → 12/96			24			
RD28T	2825	6	85.00	SOHC, Turbocharged	85/116	<b>HBS190</b>  M12x1.75x112mm (x14)	1) 40Nm 2) 80Nm 3) ↺ 180° 4) 30Nm 5) 105°	
Cube 1.3L Cube 1.3L Allrad		09/00 → 12/02			25			
CGA3DE	1348	4	82.80	DOHC	60/81	<b>HBS506</b>  M10x1.50x116mm (x10)		
Cube 1.4L Cube 1.4L 4x4		01/03 → 09/05			26			
CR14DE	1386	4	73.00	DOHC	65/88	<b>HBS506</b>  M10x1.50x116mm (x10)		
ELGRAND 2.5L		11/10 →			27			
QR25DE	2488	4	89.00	DOHC	121/165	<b>HBS504</b>  M12x1.75x125mm (x10)	1) 50Nm 2) 100Nm 3) ↺ 180° 4) 40Nm 5) 80° 6) 80°	
Fairlady 2.8L		09/82 →			28			
L28E	2753	6	86.00	SOHC	103-110/ 140-150	<b>HBS189</b>  M12x1.75x105.5mm (x18)	1) 40Nm 2) 80Nm 3) ↓ 4) ↺ 5) 80Nm	
Gloria 2.8L Diesel		01/83 →			29			
RD28	2826	6	85.00	SOHC	66/89	<b>HBS190</b>  M12x1.75x112mm (x14)	1) 40Nm 2) 80Nm 3) ↺ 180° 4) 30Nm 5) 105°	
Interstar 1.9L dCi 80 Diesel		07/02 →			30			
F9Q 772	1870	4	80.00	SOHC	60/82	<b>HBS120</b>  M12x1.50x118mm (x10)	1) 30Nm 2) 100° 3) (1-2) ↺ 90° 4) (1-2) 25Nm 5) (1-2) 213° 6) (3-4) ↺ 90° 7) (3-4) 25Nm 8) (3-4) 213° 9) (5-6) ↺ 90° 10) (5-6) 25Nm 11) (5-6) 213° 12) (7-8) ↺ 90° 13) (7-8) 25Nm 14) (7-8) 213° 15) (9-10) ↺ 90° 16) (9-10) 25Nm 17) (9-10) 213°	
Interstar 2.2L dCi 90 Diesel		07/02 →			31			
G9T 722	2188	4	87.00	DOHC	66/90	<b>HBS373</b>  M12x1.50x131mm (x10)	1) 30Nm 2) 150° 3) 150°	



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Kubistar 1.2L					08/03 →	32	HBS241		1) 20Nm 2) 90° 3) (1-2) ↻ 90° 4) (1-2) 20Nm 5) (1-2) 200° 6) (3-6) ↻ 90° 7) (3-6) 20Nm 8) (3-6) 200° 9) (7-10) ↻ 90° 10) (7-10) 20Nm 11) (7-10) 200°	  	
D7F 764	1149	4	69.00	SOHC		44/60	M9x1.25x103mm (x10)		  		
Kubistar 1.2L 16V					04/06 →	33	HBS283		1) 20Nm 2) 230°	 	
D4F 712	1149	4	69.00			55/75	M9x1.25x122mm (x10)		 		
Kubistar 1.5L dCi Diesel					08/03 →	34	HBS299		1) 25Nm 2) 25Nm 3) 255°	 	
Kubistar 1.5L dCi 70 Diesel					04/06 →			HBS299		1) 25Nm 2) 25Nm 3) 255°	 
Kubistar 1.5L dCi 85 Diesel					04/06 →			HBS299		1) 25Nm 2) 25Nm 3) 255°	 
K9K 704	1461	4	76.00	SOHC			48/65	M11x1.50x125mm (x10)		 	
K9K 700	1461	4	76.00	SOHC		48-50/ 65-68					
K9K 722	1461	4	76.00	SOHC		60/82					
K9K 276	1461	4	76.00	Direct Injection, SOHC/OHC		62-63/ 84-86					
Kubistar 1.6L 16V					08/03 →	35	HBS299		1) 25Nm 2) 25Nm 3) 255°	 	
K4M 752	1598	4	79.50	DOHC		70/95	M11x1.50x125mm (x10)		 		
Laurel 2.8L					09/82 →	36	HBS189		1) 40Nm 2) 80Nm 3) ⚡ 4) ↻ 5) 80Nm	 	
L28E	2753	6	86.00	SOHC		103-110/ 140-150	M12x1.75x105.5mm (x18)		 		
Maxima 2.0L					02/95 → 08/00	37	HBS404 (x2)		1) 49Nm 2) 98Nm 3) ↻ 360° 4) 44Nm 5) 95° 6) 95°	 	
Maxima 2.0L QX					10/97 →			HBS404 (x2)		1) 49Nm 2) 98Nm 3) ↻ 360° 4) 44Nm 5) 95° 6) 95°	 
Maxima 2.0L V6 24V					03/00 →			HBS404 (x2)		1) 49Nm 2) 98Nm 3) ↻ 360° 4) 44Nm 5) 95° 6) 95°	 
VQ20DE	1995	6	76.00	DOHC, V6		103/140	1.25x1.25x120mm (x8)		 		
Maxima 3.0L					01/95 → 08/00	38	HBS404 (x2)		1) 49Nm 2) 98Nm 3) ↻ 360° 4) 44Nm 5) 95° 6) 95°	 	
Maxima 3.0L QX					10/97 →			HBS404 (x2)		1) 49Nm 2) 98Nm 3) ↻ 360° 4) 44Nm 5) 95° 6) 95°	 
Maxima 3.0L V6 24V					03/00 →			HBS404 (x2)		1) 49Nm 2) 98Nm 3) ↻ 360° 4) 44Nm 5) 95° 6) 95°	 
VQ30DE	2988	6	93.00	DOHC, V6		142-147/ 193-200	1.25x1.25x120mm (x8)		 		
Maxima 3.0L i					10/88 → 06/94	39	HBS404 (x2)		1) 49Nm 2) 98Nm 3) ↻ 360° 4) 44Nm 5) 95° 6) 95°	 	
VG30E	2960	6	87.00	SOHC		95-125/ 129-170	1.25x1.25x120mm (x8)		 		
Micra 1.0L					01/82 → 12/93	40	HBS110		1) 40Nm 2) 80Nm 3) ↻ 180° 4) 35Nm 5) 60°	 	
MATOS	988	4	68.00	SOHC			37-40/ 50-54	M10x1.50x146mm (x10)		 	
MA10	988	4	68.00	SOHC		38/52			 		
Micra 1.0L 16V					01/03 →	41	HBS110		1) 40Nm 2) 80Nm 3) ↻ 180° 4) 35Nm 5) 60°	 	
Micra 1.0L i 16V					08/92 → 02/03			HBS110		1) 40Nm 2) 80Nm 3) ↻ 180° 4) 35Nm 5) 60°	 
CG10DE	998	4	71.00	DOHC		40/54	M10x1.50x146mm (x10)		 		

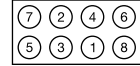
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Model		CC	Cyl	Power (kW/PS)	Year Range	Engine Type	Part No.	Dimensions	Specifications	Sequence
<b>Micra 1.2L 16V</b>					01/03 →		<b>42</b>			
CRT2DE		1240	4	71.00		DOHC		48-59/ 65-80		
CG12DE		1240	4	71.00		Intake Manifold Injection/ Carburettor, DOHC		48-66/ 65-90		
<b>Micra 1.3L i 16V</b>					08/92 → 09/00		<b>43</b>			
CG13DE		1275	4	71.00		DOHC		55/75		
<b>Micra 1.4L 16V</b>					01/03 →		<b>44</b>			
CRT14DE		1386	4	73.00		DOHC		65/88		
<b>Micra 1.4L i 16V</b>					09/00 → 02/03		<b>45</b>			
CGA3DE		1348	4	82.80		DOHC		60/81		
<b>Micra 1.5L D Diesel</b>					02/98 → 02/03		<b>46</b>			
TD15 (TUD5)		1527	4	77.00				42/57		
<b>Micra 1.5L dCi Diesel</b>					01/03 →		<b>47</b>			
K9K 704		1461	4			SOHC		50/68		
K9K 722		1461	4	76.00		SOHC		48/65		
K9K 276		1461	4	76.00		Direct Injection, SOHC/OHC		60/82		
<b>Murano 3.5L</b>					11/07 →		<b>48</b>			
<b>Murano 3.5L 4x4</b>					03/05 →					
VQ35DE		3498	6	95.50		DOHC, V6		206/280		
<b>Navara 2.5L dCi Diesel</b>					07/05 →		<b>49</b>			
<b>Navara 2.5L dCi 4WD Diesel</b>					07/05 →					
<b>Navara 2.5L Di Diesel</b>					01/08 →					
<b>Navara 2.5L Di 4WD Diesel</b>					01/08 →					
YD25DDTi		2488	4	89.00		DOHC		98-110/ 133-150		
<b>Note 1.4L</b>					03/06 →		<b>50</b>			
CRT14DE		1386	4	73.00		DOHC		65/88		
<b>Note 1.5L dCi Diesel</b>					03/06 →		<b>51</b>			
K9K 700		1461	4	76.00		SOHC		48-50/ 65-68		
K9K 276		1461	4	76.00		Direct Injection, SOHC/OHC		62-63/ 84-86		
<b>Np300 2.5L dCi 4x4 Diesel</b>					04/08 →		<b>52</b>			
YD25DDTi		2488	4	89.00		DOHC		98-110/ 133-150		

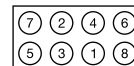




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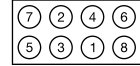
<b>Pathfinder 2.5L dCi Diesel</b> 01/05 → <b>53</b> <b>Pathfinder 2.5L dCi 4WD Diesel</b> 03/05 →					<b>HBS374</b>  M11x1.25x109mm (x18)	1) 38Nm 2) 185° 3) ↻ 360° 4) 44Nm 5) 95° 6) 95°	
YD25DDTi	2488	4	89.00	DOHC 98-110/ 133-150			
<b>Pathfinder 3.3L V6 4WD</b> 09/97 → 12/04 <b>54</b>					<b>HBS443</b>  M10x1.50x116mm (x9)	1) 30Nm 2) 60Nm 3) ↻ 90° 4) 10Nm 5) 30Nm 6) 60°	
VG33E	3275	6	91.50	SOHC, V6 110-125/ 150-170			
<b>Pathfinder 3.5L V6 4WD</b> 11/00 → 12/04 <b>55</b>					<b>HBS404 (x2)</b>  1.25x1.25x120mm (x8)	1) 49Nm 2) 98Nm 3) ↻ 360° 4) 44Nm 5) 95° 6) 95°	
VQ35	3498	6	95.50	DOHC, V6 162/220			
<b>Patrol 2.8L</b> 05/86 → 06/90 <b>56</b>					<b>HBS189</b>  M12x1.75x105.5mm (x18)	1) 40Nm 2) 80Nm 3) ↓ 4) ↻ 5) 80Nm	
L28	2753	6	86.00	SOHC 88-89/ 120-121			
<b>Patrol 2.8L Diesel</b> 01/83 → <b>57</b> <b>Patrol 2.8L TD Diesel</b> 06/97 → 05/00					<b>HBS190</b>  M12x1.75x112mm (x14)	1) 40Nm 2) 80Nm 3) ↻ 180° 4) 30Nm 5) 105°	
RD28 RD28Ti	2826 2826	6 6	85.00 85.00	SOHC SOHC 66/89 95/129			
<b>Patrol 2.8L TD Diesel</b> 05/86 → 06/97 <b>58</b>					<b>HBS190</b>  M12x1.75x112mm (x14)	1) 40Nm 2) 80Nm 3) ↻ 180° 4) 30Nm 5) 105°	
RD28T	2825	6	85.00	SOHC 85/116			
<b>Patrol 3.0L DTi Diesel</b> 05/00 → <b>59</b>					<b>HBS492</b>  M12x1.50x132mm (x18)	1) 25Nm 2) 49Nm 3) 98Nm 4) ↻ 180° 5) 39Nm 6) 90° 7) 90°	
ZD30DDTi	2953	4	96.00	DOHC 116-125/ 158-170			
<b>Patrol 4.2L</b> 11/88 → 06/97 <b>60</b>					<b>HBS433</b>  M12x1.50x113mm (x26)	1) 45Nm 2) 60Nm 3) 90°	
TB42E	4169	6	96.00	121-129/ 165-175			
<b>Pick Up 2.4L i</b> 02/98 → <b>61</b> <b>Pick Up 2.4L i 12V</b> 04/92 → 02/98 <b>Pick Up 2.4L i 12V 4WD</b> 04/92 → 02/98 <b>Pick Up 2.4L i 4WD</b> 02/98 →					<b>HBS432</b>  M10x1.50x110mm (x10)	1) 45Nm 2) 60Nm 3) 90°	
KA24E KA24DE	2389 2389	4 4	89.00 89.00	SOHC DOHC 85-98/ 116-133 98-110/ 133-150			
<b>Pick Up 2.5L D Diesel</b> 09/87 → 02/98 <b>62</b> <b>Pick Up 2.5L D 4WD Diesel</b> 08/87 → 02/98					<b>HBS194</b>  M12x1.50x113mm (x18)	1) 45Nm 2) 60Nm 3) 90°	
TD25	2494	4	92.90	55-61/ 75-83			
<b>Pick Up 2.5L Di Diesel</b> 03/02 → <b>63</b>					<b>HBS374</b>  M11x1.25x109mm (x18)	1) 38Nm 2) 185° 3) ↻ 360° 4) 44Nm 5) 95° 6) 95°	
YD25DDTi	2488	4	89.00	DOHC 98-110/ 133-150			



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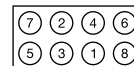
Pick Up 2.7L D 4WD Diesel		08/87 → 02/98			64			
TD27	2663	4	96.00		58-73/ 79-99	<b>HBS194</b>  M12x1.50x113mm (x18)	1) 30Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90°	
Pick Up 3.0L i V6 4WD		09/90 → 02/98			65			
VG30E	2960	6	87.00	SOHC	95-125/ 129-170	<b>HBS404 (x2)</b>  1.25x1.25x120mm (x8)	1) 49Nm 2) 98Nm 3) ↻ 360° 4) 44Nm 5) 95° 6) 95°	
Prairie Pro 2.4L i		04/92 → 07/94			66			
KA24E	2389	4	89.00	SOHC	85-98/ 116-133	<b>HBS432</b>  M10x1.50x110mm (x10)	1) 45Nm 2) 60Nm 3) 90°	
Primastar 1.9L dCi 100 Diesel		03/01 →			67			
F9Q 760	1870	4	80.00	SOHC	74/101	<b>HBS120</b> → Eng.C000156  M12x1.50x118mm (x10)	1) 30Nm 2) 100° 3) (1-2) ↻ 90° 4) (1-2) 25Nm 5) (1-2) 213° 6) (3-4) ↻ 90° 7) (3-4) 25Nm 8) (3-4) 213° 9) (5-6) ↻ 90° 10) (5-6) 25Nm 11) (5-6) 213° 12) (7-8) ↻ 90° 13) (7-8) 25Nm 14) (7-8) 213° 15) (9-10) ↻ 90° 16) (9-10) 25Nm 17) (9-10) 213°	
						<b>HBS372</b> Eng.C000156 →  M12x1.50x121mm (x10)	1) 35Nm 2) 100° 3) (1-2) ↻ 90° 4) (1-2) 25Nm 5) (1-2) 213° 6) (3-4) ↻ 90° 7) (3-4) 25Nm 8) (3-4) 213° 9) (5-6) ↻ 90° 10) (5-6) 25Nm 11) (5-6) 213° 12) (7-8) ↻ 90° 13) (7-8) 25Nm 14) (7-8) 213° 15) (9-10) ↻ 90° 16) (9-10) 25Nm 17) (9-10) 213°	



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kW/PS



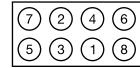
Primastar 1.9L dCi 80 Diesel				03/01 →	68			
F9Q 762	1870	4	80.00	SOHC	60/82	<b>HBS120</b>  M12x1.50x118mm (x10)	1) 30Nm 2) 100° 3) (1-2) ↻ 90° 4) (1-2) 25Nm 5) (1-2) 213° 6) (3-4) ↻ 90° 7) (3-4) 25Nm 8) (3-4) 213° 9) (5-6) ↻ 90° 10) (5-6) 25Nm 11) (5-6) 213° 12) (7-8) ↻ 90° 13) (7-8) 25Nm 14) (7-8) 213° 15) (9-10) ↻ 90° 16) (9-10) 25Nm 17) (9-10) 213°	
Primastar 2.0L				03/01 →	69			
F4R 720/F4R 722	1998	4	82.70	DOHC	88/120	<b>HBS310</b>  M12x1.50x117mm (x10)	1) 20Nm 2) 165°	
Primastar 2.0L dCi 120 Diesel				09/06 →	70			
M9R 780	1995	4		DOHC, Turbo Intercooled, Euro 4	84/114	<b>HBS310</b>  M12x1.50x117mm (x10)	1) 20Nm 2) 165°	
M9R 780	1995	4	84.00	DOHC	66-84/ 90-114			
Primastar 2.5 dCi 140 Diesel				09/03 →	71			
G9U 730	2463	4	89.00	DOHC	99/135	<b>HBS373</b>  M12x1.50x131mm (x10)	1) 30Nm 2) 150° 3) 150°	
Primera 1.6L				06/90 → 01/96	72	<b>HBS187</b>  M10x1.50x97mm (x10)	1) 30Nm 2) 60Nm 3) ↻ 180° 4) 30Nm 5) 55°	
Primera 1.6L 16V				09/96 → 07/02				
Primera 1.6L i				07/90 → 03/98				
GA16DE	1597	4	76.00	DOHC	66-75/ 90-102	<b>HBS422</b>  M10x1.50x92mm (x10)	1) 29Nm 2) 59Nm 3) ↻ 90° 4) 29Nm 5) 55°	
GA16DS	1597	4	76.00	DOHC				
Primera 1.6L				01/02 →	73	<b>HBS422</b>  M10x1.50x92mm (x10)	1) 29Nm 2) 59Nm 3) ↻ 90° 4) 29Nm 5) 55°	
Primera 1.6L 16V				04/98 → 07/02				
Primera 1.6L Visia				01/02 →				
QG16DE	1597	4	76.00	DOHC	78-80/ 106-109	<b>HBS422</b>  M10x1.50x92mm (x10)	1) 29Nm 2) 59Nm 3) ↻ 90° 4) 29Nm 5) 55°	
Primera 1.8L				03/02 →				
Primera 1.6V				08/99 → 07/02				
QG18DE	1769	4	80.00	DOHC	84-93/ 114-126	<b>HBS422</b>  M10x1.50x92mm (x10)	1) 29Nm 2) 59Nm 3) ↻ 90° 4) 29Nm 5) 55°	

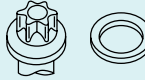
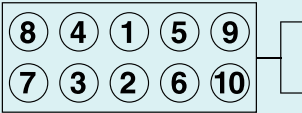

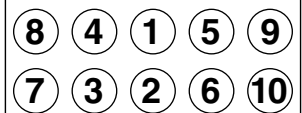

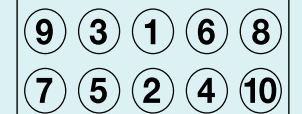

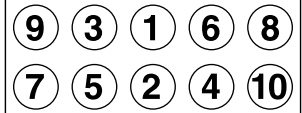

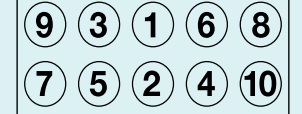

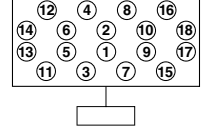

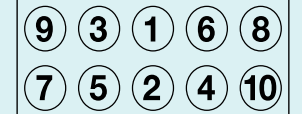

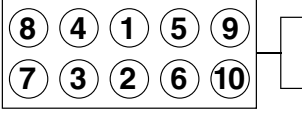


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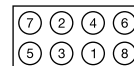
Primera 1.9L dCi Diesel		04/03 →		75	
	1870	4			88/120
<b>HBS120</b>  M12x1.50x118mm (x10)					
1) 30Nm 2) 100° 3) (1-2) ↻ 90° 4) (1-2) 25Nm 5) (1-2) 213° 6) (3-4) ↻ 90° 7) (3-4) 25Nm 8) (3-4) 213° 9) (5-6) ↻ 90° 10) (5-6) 25Nm 11) (5-6) 213° 12) (7-8) ↻ 90° 13) (7-8) 25Nm 14) (7-8) 213° 15) (9-10) ↻ 90° 16) (9-10) 25Nm 17) (9-10) 213°					
					
Primera 2.0L Primera 2.0L 16V Primera 2.0L 16V 4x4 Primera 2.0L GT Primera 2.0L i		06/90 → 01/98 06/90 → 07/02 04/91 → 06/96 06/90 → 01/96 07/90 → 03/98		76	
SR20DE/SR20DI (SPI) SR20DE	1998 1998	4 4	86.00 86.00	DOHC DOHC	85/115 92-118/ 125-160
<b>HBS188</b>  M11x1.50x157mm (x10)					
1) 40Nm 2) 80Nm 3) ↻ 180° 4) 40Nm 5) 90° 6) 90°					
					
Primera 2.0L		03/02 →		77	
QR20DE	1998	4	89.00	DOHC	103-110/ 140-150
<b>HBS504</b>  M12x1.75x125mm (x10)					
1) 50Nm 2) 100Nm 3) ↻ 180° 4) 40Nm 5) 80° 6) 80°					
					
Primera 2.0L D Diesel		07/90 → 01/96		78	
CD20	1974	4	84.50	SOHC	55/75
<b>HBS111</b>  M11x1.50x119mm (x10)					
1) 30Nm 2) 60Nm 3) 90° 4) ↻ 180° 5) 40Nm 6) 80°					
					
Primera 2.0L TD Diesel		09/96 → 07/02		79	
CD20T	1974	4	84.50	SOHC	66/90
<b>HBS505</b>  M12x1.50x117mm (x10)					
1) 50Nm 2) 100Nm 3) ↻ 180° 4) 35Nm 5) 95° 6) 95°					
					
Primera 2.2L dCi Diesel Primera 2.2L Di Diesel		04/03 → 03/02 →		80	
YD22DDT	2184	4	86.00	DOHC	81-102/ 110-139
<b>HBS374</b>  M11x1.25x109mm (x18)					
1) 38Nm 2) 185° 3) ↻ 360° 4) 44Nm 5) 95° 6) 95°					
					
Primera 2.5L		01/02 →		81	
QR25DE	2488	4	89.00	DOHC	121/165
<b>HBS504</b>  M12x1.75x125mm (x10)					
1) 50Nm 2) 100Nm 3) ↻ 180° 4) 40Nm 5) 80° 6) 80°					
					
Qashqai 1.5L dCi Diesel		02/07 →		82	
	1461	4			78/106
<b>HBS299</b>  M11x1.50x125mm (x10)					
1) 25Nm 2) 25Nm 3) 255°					
					



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kW/PS



Qashqai 2.0L dCi Diesel		02/07 →			83
M1D	1994	4	84.00	SOHC	110/150
M12x1.50x131mm (x10)					
1) 30Nm 2) 150° 3) 150°					
10 6 2 3 7 9 5 1 4 8					
Qashqai 2.0L dCi Diesel		02/07 →			84
M9R	1995	4	84.00		110/150
M12x1.50x131mm (x10)					
1) 30Nm 2) 150° 3) 150°					
10 6 2 3 7 9 5 1 4 8					
Sentra 1.6L 16V		01/91 → 12/94			85
GA16DS	1597	4	76.00	DOHC	
M10x1.50x97mm (x10)					
1) 30Nm 2) 60Nm 3) ↻ 180° 4) 30Nm 5) 55°					
9 3 1 6 8 7 5 2 4 10					
Sentra 2.0L		01/91 → 12/93			86
SR20DE	1998	4	86.00	DOHC	85/115
M11x1.50x157mm (x10)					
1) 40Nm 2) 80Nm 3) ↻ 180° 4) 40Nm 5) 90° 6) 90°					
8 4 1 5 9 7 3 2 6 10					
Sentra 2.5L		06/02 → 08/06			87
QR25DE	2488	4	89.00	DOHC	121/165
M12x1.75x125mm (x10)					
1) 50Nm 2) 100Nm 3) ↻ 180° 4) 40Nm 5) 80° 6) 80°					
9 3 1 6 8 7 5 2 4 10					
Serena 1.6L 16V		02/93 →			88
GA16DE	1597	4	76.00	DOHC	66-75/ 90-102
M10x1.50x97mm (x10)					
1) 30Nm 2) 60Nm 3) ↻ 180° 4) 30Nm 5) 55°					
9 3 1 6 8 7 5 2 4 10					
Serena 2.0L 16V		11/92 →			89
SR20DE	1998	4	86.00	DOHC	92-118/ 125-160
M11x1.50x157mm (x10)					
1) 40Nm 2) 80Nm 3) ↻ 180° 4) 40Nm 5) 90° 6) 90°					
8 4 1 5 9 7 3 2 6 10					
Serena 2.3L D Diesel		01/95 →			90
LD23	2283	4	84.50	SOHC	55/75
M12x1.75x165mm (x4) M12x1.75x135mm (x6)					
1) 30Nm 2) 70Nm 3) 100Nm 4) ↻ 90° 5) 100Nm 6) 90° 7) 90°					
9 3 1 6 8 7 5 2 4 10					
Sunny 1.3L		08/82 → 10/91			91
E13/E13S	1269	4	76.00	SOHC	44/60
M10x1,5x100mm (x1) M10x1,5x70mm (x4) M10x1,5x85mm (x5)					
1) 29Nm 2) 69Nm 3) 29Nm 4) 74Nm					
10 6 2 3 7 9 5 1 4 8					
Sunny 1.4L i		10/90 → 05/95			92
Sunny 1.4L i 16V		10/90 → 06/95			
Sunny 1.4L LX		10/88 → 08/91			
GA14DS	1392	4	73.60	DOHC	55/75
GA14S	1392	4	73.60	SOHC	55-60/ 75-82
GA14DE	1392	4	73.60	DOHC	55-64/ 75-87
M10x1.50x97mm (x10)					
1) 30Nm 2) 60Nm 3) ↻ 180° 4) 30Nm 5) 55°					
9 3 1 6 8 7 5 2 4 10					





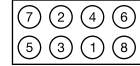
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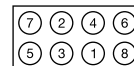
<b>Sunny 1.6L 16V 4x4</b> 11/90→05/95 <b>93</b> <b>Sunny 1.6L i</b> 10/90→03/00 <b>Sunny 1.6L i 16V</b> 10/92→05/95 <b>Sunny 1.6L i 16V 4WD 4WD</b> 10/90→05/95 <b>Sunny 1.6L i 16V 4x4</b> 10/92→03/00 <b>Sunny Van 1.6L i 16V</b> 10/92→03/00					<b>HBS187</b>  M10x1.50x97mm (x10)	1) 30Nm 2) 60Nm 3) ↻ 180° 4) 30Nm 5) 55°	
GA16DE 1597 4 76.00 DOHC 66-75/ 90-102 GA16DEL/GA16DS 1597 4 76.00 DOHC							
<b>Sunny 1.6L i</b> 06/86→10/90 <b>94</b> <b>Sunny 1.6L i 4x4</b> 06/86→10/90					<b>HBS409</b>  M10x1.5x100mm (x1) M10x1.5x70mm (x4) M10x1.5x85mm (x5)	1) 29Nm 2) 69Nm 3) 29Nm 4) 74Nm	
ET6i 1597 4 76.00 SOHC 54/73							
<b>Sunny 1.8L GTI 16V</b> 01/89→06/91 <b>95</b> <b>Sunny Coupe 1.8L GTI 16V</b> 01/89→06/91					<b>HBS495</b>  M11x1.50x103mm (x10)	1) 30Nm 2) 70Nm 3) 105Nm 4) ↻ 180° 5) 30Nm 6) 90°	
CA18D 1809 4 83.00 DOHC 92-95/ 125-129							
<b>Sunny 2.0L D Diesel</b> 10/90→03/00 <b>96</b>					<b>HBS111</b>  M11x1.50x119mm (x10)	1) 30Nm 2) 60Nm 3) 90° 4) ↻ 180° 5) 40Nm 6) 80°	
CD20 1974 4 84.50 SOHC 55/75							
<b>Sunny 2.0L GTI 16V</b> 10/90→05/95 <b>97</b> <b>Sunny 2.0L GTI-R 4x4</b> 10/90→05/95 <b>Sunny 2.0L i 16V</b> 10/90→05/95					<b>HBS188</b>  M11x1.50x157mm (x10)	1) 40Nm 2) 80Nm 3) ↻ 180° 4) 40Nm 5) 90° 6) 90°	
SR20DE 1998 4 86.00 DOHC 92-118/ 125-160 SR20DET 1998 4 86.00 DOHC 147/200							
<b>Terrano 2.4L 4WD</b> 05/96→01/02 <b>98</b> <b>Terrano 2.4L i 12V 4WD</b> 02/93→06/96					<b>HBS432</b>  M10x1.50x110mm (x10)	1) 45Nm 2) 60Nm 3) 90°	
KA24E 2389 4 89.00 SOHC 85-98/ 116-133							
<b>Terrano 2.7L TD 4WD Diesel</b> 02/89→01/02 <b>99</b> <b>Terrano 2.7L TDi 4WD Diesel</b> 05/96→					<b>HBS194</b>  M12x1.50x113mm (x18)	1) 30Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90°	
TD27T 2663 4 96.00 66-74/ 90-101 TD27TI 2663 4 96.00 SOHC 92/125							
<b>Terrano 3.0L i 4WD</b> 01/90→12/95 <b>100</b>					<b>HBS404 (x2)</b>  1.25x1.25x120mm (x8)	1) 49Nm 2) 98Nm 3) ↻ 360° 4) 44Nm 5) 95° 6) 95°	
VG30E 2960 6 87.00 SOHC 95-125/ 129-170							
<b>UK 2.7L D Taxis-Blackcab Diesel</b> 01/87→ <b>101</b>					<b>HBS194</b>  M12x1.50x113mm (x18)	1) 30Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90°	
TD27 2663 4 96.00 58-73/ 79-99							
<b>Urvan 2.3L D Diesel</b> 01/88→05/97 <b>102</b>					<b>HBS194</b>  M12x1.50x113mm (x18)	1) 30Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90°	
TD23 2289 4 89.00 51-56/ 69-76							











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














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Urvan 2.5L D Diesel		12/88 → 05/97			103	<b>HBS194</b>  M12x1.50x113mm (x18)	1) 45Nm 2) 60Nm 3) 90°	
TD25	2494	4	92.90		55-61/ 75-83			
Van 2.7L Diesel		01/87 →			104	<b>HBS194</b>  M12x1.50x113mm (x18)	1) 30Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90°	
TD27	2663	4	96.00		58-73/ 79-99			
Vanette 1.6L i		01/95 →			105	<b>HBS187</b>  M10x1.50x97mm (x10)	1) 30Nm 2) 60Nm 3) ↻ 180° 4) 30Nm 5) 55°	
GA16DE	1597	4	76.00	DOHC	66-75/ 90-102			
Vanette 2.3L D Diesel		01/95 →			106	<b>HBS195</b>  M12x1.75x165mm (x4) M12x1.75x135mm (x6)	1) 30Nm 2) 70Nm 3) 100Nm 4) ↻ 90° 5) 100Nm 6) 90° 7) 90°	
LD23	2283	4	84.50	SOHC	55/75			
X-Trail 2.0L		07/01 →			107	<b>HBS504</b>  M12x1.75x125mm (x10)	1) 50Nm 2) 100Nm 3) ↻ 180° 4) 40Nm 5) 80° 6) 80°	
X-Trail 2.0L 4x4		07/01 →						
QR20DE	1998	4	89.00	DOHC	103-110/ 140-150			
X-Trail 2.2L dCi 4x4 Diesel		12/03 →			108	<b>HBS374</b>  M11x1.25x109mm (x18)	1) 38Nm 2) 185° 3) ↻ 360° 4) 44Nm 5) 95° 6) 95°	
X-Trail 2.2L Di 4x4 Diesel		07/01 →						
YD22ETi	2184	4	86.00		84/114			
YD22DDTi	2184	4	86.00	DOHC	84-100/ 114-136			
X-Trail 2.5L		06/07 →			109	<b>HBS504</b>  M12x1.75x125mm (x10)	1) 50Nm 2) 100Nm 3) ↻ 180° 4) 40Nm 5) 80° 6) 80°	
X-Trail 2.5L 4x4		11/02 →						
QR25DE	2488	4	89.00	DOHC	121/165			

		cc			9			cc			9
4 JG2T	Diesel	3059	4	95.40	36	C 14 SE	Petrol	1389	4	77.60	41
4 JG2TC	Diesel	3059	4	93.00	89	C 14 SE	Petrol	1389	4	77.60	57
4 JX1	Diesel	2999	4	95.40	88	C 14 SE	Petrol	1389	4	77.60	72
10 S	Diesel	993	4	72.00	47	C 14 SEL	Petrol	1389	4	77.60	57
12 NC	Diesel	1196	4	79.00	48	C 16 LZ	Petrol	1598	4	80.00	74
12 NV	Petrol	1196	4	77.80	53	C 16 NZ	Petrol	1598	4	79.00	16
12 NZ	Petrol	1195	4	72.00	51	C 16 NZ	Petrol	1598	4	79.00	60
12 S	Diesel	1196	4	79.00	48	C 16 NZ	Petrol	1598	4	79.00	74
12 ST	Petrol	1196	4	77.80	53	C 16 NZ	Petrol	1598	4	79.00	133
13 N	Petrol	1297	4	75.00	71	C 16 NZ2	Petrol	1598	4	80.00	133
13 NB	Petrol	1297	4	75.00	54	C 16 SE	Petrol	1598	4	79.00	16
13 NB	Petrol	1297	4	75.00	71	C 16 SE	Petrol	1598	4	79.00	60
13 S	Petrol	1297	4	75.00	8	C 16 SEI	Petrol	1598	4	79.00	60
13 S	Petrol	1297	4	75.00	71	C 16 SEL	Petrol	1598	4	79.00	60
13 SB	Petrol	1297	4	75.00	54	C 16 SEL	Petrol	1598	4	79.00	130
14 NV	Petrol	1389	4	77.60	14	C 16 XE	Petrol	1598	4	79.00	61
14 NV	Petrol	1389	4	77.60	57	C 18 NT	Petrol	1796	4	84.80	77
14 NV	Petrol	1389	4	77.60	72	C 18 NZ	Petrol	1796	4	84.80	77
14 NV	Diesel	1389	4	77.60	132	C 18 NZ	Petrol	1796	4	84.80	140
14 SE	Petrol	1389	4	77.60	14	C 18 XE	Petrol	1796	4	81.60	21
15 D (4EC1)	Diesel	1488	4	76.00	59	C 18 XEL	Petrol	1796	4	81.60	21
15 D (4EC1)	Diesel	1488	4	76.00	73	C 20 LET	Petrol	1998	4	86.00	32
15 DT (T4EC1)	Diesel	1488	4	76.00	59	C 20 LET	Petrol	1998	4	86.00	149
15 DT (T4EC1)	Diesel	1488	4	76.00	73	C 20 NE	Petrol	1998	4	86.00	28
16 D/16 DA	Diesel	1598	4	80.00	75	C 20 NE	Petrol	1998	4	86.00	31
16 LZ2	Petrol	1598	4	79.00	135	C 20 NE	Petrol	1998	4	86.00	64
16 SV	Petrol	1598	4	79.00	9	C 20 NE	Diesel	1998	4	86.00	78
16 SV	Petrol	1598	4	79.00	74	C 20 NE	Diesel	1998	4	86.00	97
16 SV	Petrol	1598	4	79.00	133	C 20 NE	Diesel	1998	4	86.00	144
17 D	Diesel	1699	4	82.50	19	C 20 NEF	Diesel	1998	4	86.00	97
17 D	Diesel	1699	4	82.50	76	C 20 NEF	Diesel	1998	4	86.00	144
17 D	Diesel	1699	4	82.50	136	C 20 NEJ	Diesel	1998	4	86.00	97
17 D (4EE1)	Diesel	1686	4	79.00	44	C 20 SEL	Petrol	1998	4	86.00	150
17 D (4EE1)	Diesel	1686	4	79.00	62	C 20 XE	Petrol	1998	4	86.00	27
17 DR	Diesel	1699	4	82.50	19	C 20 XE	Petrol	1998	4	86.00	32
17 DR	Diesel	1699	4	82.50	76	C 20 XE	Petrol	1998	4	86.00	81
17 DR	Diesel	1699	4	82.50	136	C 20 XE	Petrol	1998	4	86.00	149
17 DT (TC4EE1)	Diesel	1686	4	79.00	18	C 24 NE	Petrol	2410	4	95.00	68
17 DT (TC4EE1)	Diesel	1686	4	79.00	137	C 24 NE	Petrol	2410	4	95.00	105
18 E	Petrol	1796	4	84.80	77	C 25 XE	Diesel	2498	6	81.60	34
18 SEH	Petrol	1796	4	84.80	96	C 25 XE	Diesel	2498	6	81.60	153
18 SV	Petrol	1796	4	84.80	96	C 30 SE	Petrol	2969	6	95.00	109
18 SV	Petrol	1796	4	84.80	140	C 30 SE	Petrol	2969	6	95.00	112
20 NE	Diesel	1998	4	86.00	78	C 30 SEJ	Petrol	2969	6	95.00	109
20 NEJ	Diesel	1998	4	86.00	144	C223	Diesel	2238	4	88.00	35
20 SE	Diesel	1998	4	86.00	97	E 12 GV	Diesel	1196	4	79.00	48
20 SE	Petrol	1998	4	86.00	98	E 16 NZ	Petrol	1598	4	79.00	74
20 SEH	Diesel	1998	4	86.00	78	E 16 NZ	Petrol	1598	4	79.00	133
20 SEH	Diesel	1998	4	86.00	144	E 16 SE	Petrol	1598	4	79.00	60
20 XE	Petrol	1998	4	86.00	80	E 18 NV	Petrol	1796	4	84.80	77
20 XEJ	Diesel	1984	4	86.00	79	E 18 NVR	Petrol	1796	4	84.80	96
20 XEJ	Diesel	1984	4	86.00	145	E 18 NVR	Petrol	1796	4	84.80	140
23 DTR	Diesel	2260	4	92.00	67	F4R 720	Petrol	1998	4	82.70	159
23 DTR	Diesel	2260	4	92.00	104	F8Q 600	Diesel	1870	4	80.00	6
23 YD	Diesel	2260	4	92.00	103	F8Q 606	Diesel	1870	4	80.00	6
25 DT	Diesel	2498	6	80.00	106	F9Q 760	Diesel	1870	4	80.00	157
25 TDS (VM41B)	Diesel	2500	4	92.00	69	F9Q 770	Diesel	1870	4	80.00	90
28 TDI (4JB1T)	Diesel	2771	4	93.00	70	F9Q 774	Diesel	1870	4	80.00	157
8140.43.3700	Diesel	2800	4	94.40	94	F9Q762	Diesel	1870	4	80.00	158
A 13 DTC	Diesel	1248	4	69.60	55	G9T 720	Diesel	2188	4	87.00	91
A 16 LER	Petrol	1598	4	79.00	61	G9T 722	Diesel	2188	4	87.00	91
A 16 XER	Petrol	1598	4	79.00	17	G9T 750	Diesel	2188	4	87.00	91
A 16 XER	Petrol	1598	4	79.00	161	G9U 630	Diesel	2464	4	89.00	160
C 12 NZ	Petrol	1187	4	72.00	37	G9U 720	Diesel	2463	4	89.00	93
C 12 NZ	Petrol	1187	4	72.00	52	G9U 724	Diesel	2463	4	89.00	93
C 13 N	Petrol	1297	4	75.00	54	G9U 730	Diesel	2464	4	89.00	160
C 13 N	Petrol	1297	4	75.00	71	G9U 750	Diesel	2463	4	89.00	93
C 14 NZ	Petrol	1389	4	77.60	14	G9U 754	Diesel	2463	4	89.00	93
C 14 NZ	Petrol	1389	4	77.60	41	S 18 NV	Petrol	1796	4	84.80	77
C 14 NZ	Petrol	1389	4	77.60	57	S8U 758	Diesel	2499	4	93.00	7
C 14 NZ	Petrol	1389	4	77.60	72	S8U 770	Diesel	2499	4	93.00	92
C 14 SE	Petrol	1389	4	77.60	14	S8U 772	Diesel	2499	4	93.00	92
						S8U 780	Diesel	2499	4	93.00	7

		CC			9			CC			9
S8U 782	Diesel	2499	4	93.00	7	Y 22 DTH	Diesel	2172	4	84.00	102
S9W 700	Diesel	2799	4	94.40	95	Y 22 DTR	Diesel	2172	4	84.00	29
S9W 702	Diesel	2799	4	94.40	95	Y 22 DTR	Diesel	2172	4	84.00	119
X 10 XE	Petrol	973	3	72.50	45	Y 22 DTR	Diesel	2172	4	84.00	152
X 12 SZ	Petrol	1195	4	72.00	38	Y 22 DTR	Diesel	2172	4	84.00	170
X 12 SZ	Petrol	1195	4	72.00	51	Y 22 SE	Petrol	2198	4	86.00	66
X 12 XE	Petrol	1199	4	72.50	11	Y 22 XE	Petrol	2198	4	86.00	101
X 12 XE	Petrol	1199	4	72.50	49	Y 25 DT	Diesel	2498	6	80.00	106
X 14 NZ	Petrol	1389	4	77.60	14	Y 26 SE	Petrol	2597	6	83.20	108
X 14 SZ	Petrol	1389	4	77.60	41	Y 26 SE	Petrol	2597	6	83.20	154
X 14 SZ	Petrol	1389	4	77.60	57	Y 30 DT	Diesel	2958	6	87.50	120
X 14 XE	Petrol	1389	4	77.60	15	Y 30 DT	Diesel	2958	6	87.50	155
X 14 XE	Petrol	1389	4	77.60	42	Y 32 SE	Petrol	3175	6	87.50	111
X 14 XE	Petrol	1389	4	77.60	56	Z 10 XE	Petrol	973	3	72.50	2
X 14 XE	Petrol	1389	4	77.60	129	Z 10 XE	Petrol	973	3	72.50	45
X 15 DT (T4EC1)	Diesel	1488	4	76.00	59	Z 10 XEP	Petrol	998	3	73.40	1
X 16 SZ	Petrol	1598	4	79.00	16	Z 10 XEP	Petrol	998	3	73.40	46
X 16 SZ	Petrol	1598	4	79.00	133	Z 12 XE	Petrol	1199	4	72.50	3
X 16 SZR	Petrol	1598	4	79.00	16	Z 12 XE	Petrol	1199	4	72.50	11
X 16 SZR	Petrol	1598	4	79.00	133	Z 12 XE	Petrol	1199	4	72.50	49
X 16 XE	Petrol	1598	4	79.00	61	Z 12 XEP	Petrol	1229	4	73.40	4
X 16 XE	Petrol	1598	4	79.00	130	Z 12 XEP	Petrol	1229	4	73.40	10
X 16 XEL	Petrol	1598	4	79.00	17	Z 12 XEP	Petrol	1229	4	73.40	50
X 16 XEL	Petrol	1598	4	79.00	134	Z 13 DT	Diesel	1248	4	69.60	5
X 16 XEL	Petrol	1598	4	79.00	161	Z 13 DT	Diesel	1248	4	69.60	39
X 17 D (4EE1)	Diesel	1686	4	79.00	44	Z 13 DT	Diesel	1248	4	69.60	55
X 17 D (4EE1)	Diesel	1686	4	79.00	62	Z 13 DT	Diesel	1248	4	69.60	82
X 17 DT (TC4EE1)	Diesel	1686	4	79.00	18	Z 13 DT	Diesel	1248	4	69.60	127
X 17 DT (TC4EE1)	Diesel	1686	4	79.00	137	Z 13 DTH	Diesel	1248	4	69.60	12
X 17 DTL	Diesel	1699	4	82.50	19	Z 13 DTJ	Diesel	1248	4	69.60	5
X 18 XE	Petrol	1796	4	81.60	21	Z 13 DTJ	Diesel	1248	4	69.60	39
X 18 XE1	Petrol	1796	4	80.50	20	Z 13 DTJ	Diesel	1248	4	69.60	55
X 18 XE1	Petrol	1796	4	80.50	141	Z 13 DTJ	Diesel	1248	4	69.60	82
X 18 XE1	Petrol	1796	4	80.50	162	Z 14 XE	Petrol	1389	4	77.60	15
X 20 DTH	Diesel	1995	4	84.00	26	Z 14 XE	Petrol	1389	4	77.60	56
X 20 DTH	Diesel	1995	4	84.00	100	Z 14 XEL	Petrol	1364	4	77.00	13
X 20 DTH	Diesel	1995	4	84.00	148	Z 14 XEP	Petrol	1364	4	73.40	13
X 20 DTL	Diesel	1896	4	84.00	25	Z 14 XEP	Petrol	1364	4	73.40	40
X 20 DTL	Diesel	1896	4	84.00	147	Z 14 XEP	Petrol	1364	4	73.40	58
X 20 DTL	Diesel	1896	4	84.00	167	Z 14 XEP	Petrol	1364	4	73.40	83
X 20 SE	Petrol	1998	4	86.00	64	Z 14 XEP	Petrol	1364	4	73.40	128
X 20 SE	Diesel	1998	4	86.00	97	Z 16 LER	Petrol	1598	4	79.00	61
X 20 XER	Petrol	1998	4	86.00	24	Z 16 SE	Petrol	1598	4	79.00	16
X 20 XEV	Petrol	1998	4	86.00	24	Z 16 SE	Petrol	1598	4	79.00	43
X 20 XEV	Petrol	1998	4	86.00	33	Z 16 SE	Petrol	1598	4	79.00	84
X 20 XEV	Petrol	1998	4	86.00	99	Z 16 XE	Petrol	1598	4	79.00	17
X 20 XEV	Petrol	1998	4	86.00	150	Z 16 XE	Petrol	1598	4	79.00	85
X 22 DTH	Diesel	2172	4	84.00	65	Z 16 XE	Petrol	1598	4	79.00	134
X 22 DTH	Diesel	2172	4	84.00	122	Z 16 XE	Petrol	1598	4	79.00	161
X 22 SE	Petrol	2198	4	86.00	66	Z 16 XE1	Petrol	1598	4	79.00	17
X 22 XE	Petrol	2198	4	86.00	66	Z 16 XE1	Petrol	1598	4	79.00	161
X 22 XE	Petrol	2198	4	86.00	123	Z 16 XEP	Petrol	1598	4	79.00	17
X 25 TD	Diesel	2498	6	80.00	106	Z 16 XEP	Petrol	1598	4	79.00	85
X 25 XE	Diesel	2498	6	81.60	34	Z 16 XEP	Petrol	1598	4	79.00	134
X 25 XE	Diesel	2498	6	81.60	107	Z 16 XEP	Petrol	1598	4	79.00	161
X 25 XE	Diesel	2498	6	81.60	153	Z 16 XER	Petrol	1598	4	79.00	17
X 30 XE	Diesel	2962	6	86.00	110	Z 16 XER	Petrol	1598	4	79.00	161
X 30 XE	Diesel	2962	6	86.00	124	Z 16 YNG	Petrol	1598	4	79.00	17
Y 13 DT	Diesel	1248	4	69.60	39	Z 16 YNG	Petrol	1598	4	79.00	161
Y 13 DT	Diesel	1248	4	69.60	82	Z 17 DTH	Diesel	1686	4	79.00	18
Y 16 XE	Petrol	1598	4	79.00	134	Z 17 DTH	Diesel	1686	4	79.00	62
Y 17 DT	Diesel	1686	4	79.00	18	Z 17 DTH	Diesel	1686	4	79.00	86
Y 17 DT	Diesel	1686	4	79.00	44	Z 17 DTL	Diesel	1686	4	79.00	18
Y 17 DT	Diesel	1686	4	79.00	62	Z 18 XE	Petrol	1799	4	80.50	63
Y 17 DT	Diesel	1686	4	79.00	86	Z 18 XE	Petrol	1799	4	80.50	87
Y 17 DTL	Diesel	1686	4	79.00	44	Z 18 XE	Petrol	1799	4	80.50	113
Y 17 DTL	Diesel	1686	4	79.00	62	Z 18 XE	Petrol	1799	4	80.50	131
Y 20 DTH	Diesel	1995	4	84.00	26	Z 18 XE	Petrol	1799	4	80.50	139
Y 20 DTH	Diesel	1995	4	84.00	116	Z 18 XE	Petrol	1799	4	80.50	163
Y 20 DTH	Diesel	1995	4	84.00	148	Z 18 XEL	Petrol	1796	4	80.50	138
Y 20 DTH	Diesel	1995	4	84.00	168	Z 19 DT	Diesel	1910	4	82.00	23
Y 20 DTL	Diesel	1995	4	84.00	26	Z 19 DT	Diesel	1910	4	82.00	114
Y 22 DTH	Diesel	2172	4	84.00	65	Z 19 DT	Diesel	1910	4	82.00	142

		cc			9			cc			9
Z 19 DT	Diesel	1910	4	82.00	165						
Z 19 DTH	Diesel	1910	4	82.00	22						
Z 19 DTH	Diesel	1910	4	82.00	115						
Z 19 DTH	Diesel	1910	4	82.00	143						
Z 19 DTH	Diesel	1910	4	82.00	164						
Z 19 DTJ	Diesel	1910	4	82.00	23						
Z 19 DTL	Diesel	1910	4	82.00	23						
Z 19 DTL	Diesel	1910	4	82.00	142						
Z 19 DTL	Diesel	1910	4	82.00	165						
Z 20 LEH	Petrol	1998	4	86.00	24						
Z 20 LEH	Petrol	1998	4	86.00	166						
Z 20 LEL	Petrol	1998	4	86.00	24						
Z 20 LER	Petrol	1998	4	86.00	24						
Z 20 LER	Petrol	1998	4	86.00	166						
Z 20 LET	Petrol	1998	4	86.00	24						
Z 20 LET	Petrol	1998	4	86.00	125						
Z 20 LET	Petrol	1998	4	86.00	166						
Z 20 NET	Petrol	1998	4	86.00	117						
Z 20 NET	Petrol	1998	4	86.00	146						
Z 22 SE	Petrol	2198	4	86.00	30						
Z 22 SE	Petrol	2198	4	86.00	126						
Z 22 SE	Petrol	2198	4	86.00	151						
Z 22 SE	Petrol	2198	4	86.00	169						
Z 22 XE	Petrol	2198	4	86.00	101						
Z 22 YH	Petrol	2198	4	86.00	118						
Z 22 YH	Petrol	2198	4	86.00	151						
Z 22 YH	Petrol	2198	4	86.00	169						
Z 32 SE	Petrol	3175	6	88.50	121						
Z 32 SE	Petrol	3175	6	88.50	156						

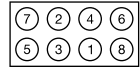




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kW/PS



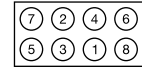
					08/03 →	1		
<b>Agila 1.0L</b>								
Z 10 XEP	998	3	73.40	DOHC		44/60	<b>HBS253</b> → Eng.19AQ2640  M8x1.25x119mm (x10)	1) 25Nm 2) 60° 3) 60° 4) 60° 
<b>Agila 1.0L 12V</b>					09/00 →	2		
Z 10 XE	973	3	72.50	DOHC		43/58	<b>HBS253</b>  M8x1.25x119mm (x10)	1) 25Nm 2) 60° 3) 60° 4) 60° 
<b>Agila 1.2L 16V</b>					09/00 →	3		
Z 12 XE	1199	4	72.50	DOHC		55/75	<b>HBS252</b>  M8x1.25x119mm (x12)	1) 25Nm 2) 60° 3) 60° 4) 60° 
<b>Agila 1.2L 16V Twinport</b>					07/04 →	4		
Z 12 XEP	1229	4	73.40	DOHC		59/80	<b>HBS252</b>  M8x1.25x119mm (x12)	1) 25Nm 2) 60° 3) 60° 4) 60° 
<b>Agila 1.3L CDTI Diesel</b>					08/03 →	5		
Z 13 DT	1248	4	69.60	DOHC		51/70	<b>HBS353</b>  M10x1.25x119mm (x10)	1) 20Nm 2) 40Nm 3) 90° 4) 90° 
Z 13 DTJ	1248	4	69.60	DOHC		55/75		
<b>Arena 1.9L D Diesel</b>					03/98 → 08/01	6	<b>HBS244</b>  M12x1.50x111mm (x10)	1) 30Nm 2) 100° 3) (1-2) ↺ 4) (1-2) 25Nm 5) (1-2) 213° 6) (3-4) ↺ 7) (3-4) 25Nm 8) (3-4) 213° 9) (5-6) ↺ 10) (5-6) 25Nm 11) (5-6) 213° 12) (7-8) ↺ 13) (7-8) 25Nm 14) (7-8) 213° 15) (9-10) ↺ 16) (9-10) 25Nm 17) (9-10) 213° 
<b>Arena Van 1.9L D Diesel</b>					03/98 → 08/01			
F8Q 600/F8Q 606	1870	4	80.00	SOHC		44/60		
<b>Arena 2.5L D Diesel</b>					03/98 → 08/01	7	<b>HBS011</b>  M12x1.25x160mm (x10) M12x1.25x119mm (x12)	1) 20Nm 2) 40Nm 3) ↺ 90° 4) 40Nm 5) 90° 6) 90° 
<b>Arena Van 2.5L D Diesel</b>					03/98 → 08/01			
S8U 780/S8U 782	2499	4	93.00	SOHC		55/75		
S8U 758	2499	4	93.00	SOHC		55-58/ 75-79		
<b>Ascona 1.3L S</b>					09/81 → 08/88	8		
13 S	1297	4	75.00	SOHC		42-55/ 57-75	<b>HBS002</b>  M10x1.25x140mm (x10)	1) 25Nm 2) 60° 3) 60° 4) 60° 
<b>Ascona 1.6L</b>					09/86 → 08/88	9		
16 SV	1598	4	79.00	SOHC		60/82	<b>HBS002</b>  M10x1.25x140mm (x10)	1) 25Nm 2) 60° 3) 60° 4) 60° 
<b>Astra 1.2L</b>					08/05 →	10		
Z 12 XEP	1229	4	73.40	DOHC		59/80	<b>HBS252</b>  M8x1.25x119mm (x12)	1) 25Nm 2) 60° 3) 60° 4) 60° 



cc



kW/PS



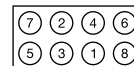
Astra 1.2L 16V						02/98 → 01/05	11	<b>HBS252</b>  M8x1.25x119mm (x12)	1) 25Nm 2) 60° 3) 60° 4) 60°	
X 12 XE	1199	4	72.50	DOHC	48/65					
Z 12 XE	1199	4	72.50	DOHC	55/75					
Astra 1.3L CDTI Diesel						04/05 →	12	<b>HBS353</b>  M10x1.25x119mm (x10)	1) 20Nm 2) 40Nm 3) 90° 4) 90°	
Z 13 DTH	1248	4	69.60	DOHC	66-74/ 90-101					
Astra 1.4L						09/03 → 01/05	13	<b>HBS252</b>  M8x1.25x119mm (x12)	1) 25Nm 2) 60° 3) 60° 4) 60°	
Astra 1.4L Comfort						09/03 → 01/05				
Z 14 XEP	1364	4	73.40	DOHC	66/89					
Z 14 XEL	1364	4	77.00	DOHC	59/80					
Astra 1.4L						09/91 → 09/98	14	<b>HBS002</b>  M10x1.25x140mm (x10)	1) 25Nm 2) 60° 3) 60° 4) 60°	
Astra 1.4L i						09/91 → 01/05				
Astra 1.4L Si						03/92 → 09/98				
Astra Convertible 1.4L Si						05/93 → 03/01				
C 14 NZ/X 14 NZ	1389	4	77.60	SOHC	44/60					
14 NV	1389	4	77.60	SOHC	53-55/ 72-75					
14 SE	1389	4	77.60	SOHC	60/81					
C 14 SE	1389	4	77.60	SOHC	60/82					
Astra 1.4L 16V						02/98 → 01/05	15	<b>HBS055</b>  M10x1.25x153mm (x10)	1) 25Nm 2) ↺ 90° 3) 25Nm 4) 90° 5) 90° 6) 90° 7) 45°	
Astra 1.4L i 16V						01/96 → 09/98				
X 14 XE/Z 14 XE	1389	4	77.60	DOHC	66/89					
Astra 1.6L						02/98 → 01/05	16	<b>HBS002</b>  M10x1.25x140mm (x10)	1) 25Nm 2) 60° 3) 60° 4) 60°	
Astra 1.6L i						09/91 → 01/05				
Astra 1.6L Si						03/92 → 12/94				
Astra Convertible 1.6L i						03/93 → 08/96				
Astra Van 1.6L						01/99 → 04/05				
X 16 SZ	1598	4	79.00	SOHC	52/71					
C 16 NZ/X 16 SZR	1598	4	79.00	SOHC	55/75					
Z 16 SE	1598	4	79.00	SOHC	62/84					
C 16 SE	1598	4	79.00	SOHC	74/100					
Astra 1.6L						12/02 → 01/05	17	<b>HBS055</b>  M10x1.25x153mm (x10)	1) 25Nm 2) ↺ 90° 3) 25Nm 4) 90° 5) 90° 6) 90° 7) 45°	
Astra 1.6L 16V						02/98 → 01/05				
Astra 1.6L CNG						03/03 → 07/04				
Astra 1.6L i 16V						08/94 → 01/05				
Astra 1.6L LPG						08/09 →				
Astra Convertible 1.6L 16V						03/01 → 10/05				
Astra Convertible 1.6L						01/03 → 10/05				
Astra Coupe 1.6L 16V						03/00 → 05/05				
Z 16 YNG	1598	4	79.00	DOHC	69-74/ 94-101					
Z 16 XE	1598	4	79.00	DOHC	74/100					
X 16 XEL	1598	4	79.00	DOHC	74/78/ 100/106					
Z 16 XEP	1598	4	79.00	DOHC	74-77/ 101-105					
Z 16 XE1	1598	4	79.00	Intake Manifold Injection/ Carburettor, DOHC	77/105					
A 16 XER/Z 16 XER	1598	4	79.00	DOHC	85/116					


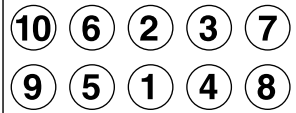

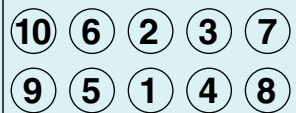

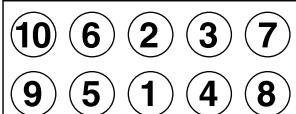

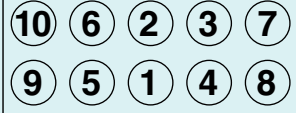

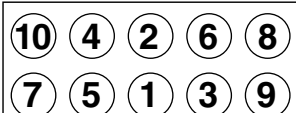

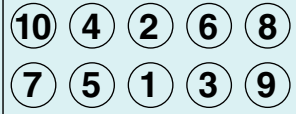

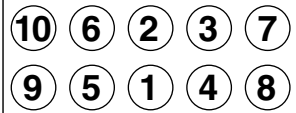

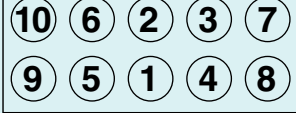




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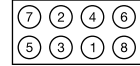
Astra 1.7L CDTI Diesel					04/03 → 01/05	18	HBS036  M12x1.5x102mm (x10)	1) 30Nm 2) ↻ 90° 3) 30Nm 4) 50° 5) 50° 6) 50°	
Astra 1.7L DTI 16V Diesel					02/00 → 01/05				
Astra 1.7L TDS Diesel					12/91 → 09/98				
Y 17 DT	1686	4	79.00	DOHC	55/75				
Z 17 DTL	1686	4	79.00	DOHC	59/80				
17 DT (TC4EE1)/X 17 DT (TC4EE1)	1686	4	79.00	SOHC	60/81				
Z 17 DTH	1686	4	79.00	DOHC	74/100				
Astra 1.7L D Diesel					12/91 → 01/99	19	HBS074  M11x1.25x154mm (x10)	1) 25Nm 2) 90° 3) 90° 4) 45° 5) ⚡ 6) ⚡ 7) 30°	
Astra 1.7L TD Diesel					08/94 → 08/00				
Astra Van 1.7L TD Diesel					01/99 → 04/05				
17 D	1699	4	82.50	SOHC	42/57				
17 DR	1699	4	82.50	SOHC	42-44/ 57-60				
X 17 DTL	1699	4	82.50	SOHC	50/68				
Astra 1.8L 16V					02/98 → 09/00	20	HBS055  M10x1.25x153mm (x10)	1) 25Nm 2) 90° 3) 90° 4) 90° 5) 45°	
Astra Coupe 1.8L 16V					03/00 → 10/00				
X 18 XE1	1796	4	80.50	DOHC	85/115				
Astra 1.8L i 16V					06/93 → 09/98	21	HBS054  M11x1.25x105mm (x10)	1) 25Nm 2) 90° 3) 90° 4) 90° 5) 45°	
Astra Convertible 1.8L i 16V					11/94 → 03/01				
C 18 XEL/X 18 XE	1796	4	81.60	DOHC	85/115				
C 18 XE	1796	4	81.60	DOHC	92/125				
Astra 1.9L CDTI Diesel					09/04 →	22	HBS370  M12x1.25x225mm (x10)	1) 65Nm 2) 90° 3) 90° 4) 90°	
Z 19 DTH	1910	4	82.00	DOHC	88-110/ 120-150				
Astra 1.9L CDTI Diesel					09/05 →	23	HBS227  M12x1.25x218mm (x10)	1) 65Nm 2) 90° 3) 90° 4) 90°	
Astra 1.9L CDTI 16V Diesel					04/04 →				
Astra CDTI Diesel					01/06 →				
Z 19 DTL	1910	4	82.00	DOHC	74/100				
Z 19 DT	1910	4	82.00	SOHC	74-88/ 100-120				
Z 19 DTJ	1910	4	82.00	DOHC	88/120				
Astra 2.0L 16V					02/98 → 01/05	24	HBS054  M11x1.25x105mm (x10)	1) 25Nm 2) 90° 3) 90° 4) 90°	
Astra 2.0L 16V OPC					11/99 → 09/02				
Astra 2.0L i 16V					02/95 → 09/98				
Astra 2.0L OPC					09/02 → 01/05				
Astra 2.0L Turbo					03/04 →				
Astra 16V Turbo					11/02 → 10/05				
Astra Convertible 2.0L OPC					03/02 → 10/05				
Astra Coupe 2.0L 16V Turbo					09/00 → 05/05				
X 20 XEV	1998	4	86.00	DOHC	100/136				
X 20 XER	1998	4	86.00	DOHC	118/160				
Z 20 LEL	1998	4	86.00	DOHC	125/170				
Z 20 LET	1998	4	86.00	DOHC	140-147/ 190-200				
Z 20 LER	1998	4	86.00	DOHC	147/200				
Z 20 LEH	1998	4	86.00	DOHC	177/240				
Astra 2.0L DI Diesel					02/98 → 01/05	25	HBS298  M12x1.50x235mm (x10)	1) 25Nm 2) 65° 3) 65° 4) 65° 5) 65° 6) 15°	
Astra Van 2.0L DI Diesel					01/99 → 04/05				
X 20 DTL	1896	4	84.00	SOHC	60/81				
Astra 2.0L DI Diesel					02/98 → 01/05	26	HBS298  M12x1.50x235mm (x10)	1) 25Nm 2) 65° 3) 65° 4) 65° 5) 65° 6) 15°	
Astra 2.0L DTI 16V Diesel					08/99 → 01/05				
Y 20 DTL	1995	4	84.00	SOHC	60/81				
X 20 DTH/Y 20 DTH	1995	4	84.00	SOHC	74/100				



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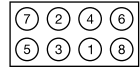
Astra 2.0L GSI 16V Astra 2.0L i 16V						09/91 → 01/98 03/93 → 01/98	27	
C 20 XE	1998	4	86.00	DOHC	110/150	<b>HBS035</b> → Eng.14003804  M11x1.25x110mm (x10)	1) 25Nm 2) 65° 3) 65° 4) 65° 5) ↓ 6) * 7) 30°	
						<b>HBS054</b> Eng.14003805 →  M11x1.25x105mm (x10)	1) 25Nm 2) 90° 3) 90° 4) 90°	
Astra 2.0L i Astra Convertible 2.0L i						09/91 → 01/98 03/93 → 10/94	28	
C 20 NE	1998	4	86.00	SOHC	85/115	<b>HBS003</b> → 12/96  M11x1.25x140mm (x10)	1) 25Nm 2) 60° 3) 60° 4) 60° 5) ↓ 6) * 7) 30°	
						<b>HBS053</b> 01/97 →  M11x1.25x140mm (x10)	1) 25Nm 2) 60° 3) 60° 4) 60° 5) ↓ 6) * 7) 30°	
Astra 2.2L DTI Diesel Astra Convertible 2.2L DTI Diesel Astra Coupe 2.2L DTI Diesel						09/02 → 01/05 09/02 → 10/05 09/02 → 05/05	29	
Y 22 DTR	2172	4	84.00	SOHC	92/125	<b>HBS298</b>  M12x1.50x235mm (x10)	1) 25Nm 2) 65° 3) 65° 4) 65° 5) 65° 6) 15°	
Astra 16V						09/00 → 10/05	30	
Z 22 SE	2198	4	86.00	DOHC	108/147	<b>HBS416</b>  M11x1.50x163mm (x10)	1) 30Nm 2) 75° 3) 75° 4) 15°	
Calibra Coupe 2.0L i Calibra Coupe 2.0L i 4x4						06/90 → 07/97 06/90 → 07/97	31	
C 20 NE	1998	4	86.00	SOHC	85/115	<b>HBS003</b>  M11x1.25x140mm (x10)	1) 25Nm 2) 60° 3) 60° 4) 60° 5) ↓ 6) * 7) 30°	
Calibra Coupe 2.0L i 16V Calibra Coupe 2.0L i 16V 4x4 Calibra Coupe 2.0L i Turbo 4x4						06/90 → 02/94 06/90 → 02/94 03/92 → 07/97	32	
C 20 XE	1998	4	86.00	DOHC	110/150	<b>HBS035</b> → Eng.14003804  M11x1.25x110mm (x10)	1) 25Nm 2) 65° 3) 65° 4) 65° 5) ↓ 6) * 7) 30°	
C 20 LET	1998	4	86.00	DOHC	150/204	<b>HBS054</b> Eng.14003805 →  M11x1.25x105mm (x10)	1) 25Nm 2) 90° 3) 90° 4) 90°	



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Calibra Coupe 2.0L i 16V Calibra Coupe 2.0L i 16V 4x4					02/94 → 07/97	33	HBS035 → Eng.14137011	1) 25Nm 2) 65° 3) 65° 4) 65° 5) 6) 7) 30°	
X 20 XEV	1998	4	86.00	DOHC	100/136		 M11x1.25x110mm (x10)		
Calibra Coupe 2.5L i V6					04/93 → 07/97	34	HBS054 Eng.14137012 →	1) 25Nm 2) 90° 3) 90° 4) 90°	
C 25 XE/X 25 XE	2498	6	81.60	DOHC, V6	125/170		 M11x1.25x105mm (x10)		
Campo 2.2L D Diesel Campo 2.2L D 4x4 Diesel					08/87 → 09/96	35	HBS286	1) 30Nm 2) 55Nm 3)  90° 4) 55Nm 5) 90° 6) 30°	
C223	2238	4	88.00	SOHC	39-54/ 53-73		 M11x1.50x117mm (x3) M11x1.50x116mm (x16)		
Campo 3.1L TD Diesel Campo 3.1L TD 4x4 Diesel					12/92 →	36	HBS287	1) 25Nm 2) 50Nm 3) 70° 4) 70°	
4 JG2T	3059	4	95.40		80/109		 M11x1.50x121mm (x18)		
Combo 1.2L					07/94 → 10/01	37	HBS002	1) 25Nm 2) 60° 3) 60° 4) 60°	
C 12 NZ	1187	4	72.00	SOHC	33/45		 M10x1.25x140mm (x10)		
Combo 1.2L					07/94 → 10/01	38	HBS002	1) 25Nm 2) 60° 3) 60° 4) 60°	
X 12 SZ	1195	4	72.00	SOHC	33/45		 M10x1.25x140mm (x10)		
Combo 1.3L CDTI 16V Diesel					10/04 →	39	HBS353	1) 20Nm 2) 40Nm 3) 90° 4) 90°	
Y 13 DT/Z 13 DT Z 13 DTJ	1248 1248	4 4	69.60 69.60	DOHC DOHC	51/70 55/75		 M10x1.25x119mm (x10)		
Combo 1.4L Combo 1.4L 16V					10/04 → 08/05 →	40	HBS252	1) 25Nm 2) 60° 3) 60° 4) 60°	
Z 14 XEP	1364	4	73.40	DOHC	66/89		 M8x1.25x119mm (x12)		
Combo 1.4L					07/94 → 10/01	41	HBS002	1) 25Nm 2) 60° 3) 60° 4) 60°	
X 14 SZ C 14 NZ C 14 SE	1389 1389 1389	4 4 4	77.60 77.60 77.60	SOHC SOHC SOHC	40-44/ 54-60 44/60 60/82		 M10x1.25x140mm (x10)		
Combo 1.4L 16V					08/99 → 10/01	42	HBS055	1) 25Nm 2)  90° 3) 25Nm 4) 90° 5) 90° 6) 90° 7) 45°	
X 14 XE	1389	4	77.60	DOHC	66/89		 M10x1.25x153mm (x10)		

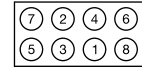




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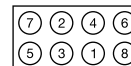
<b>Combo 1.6L</b> 10/01 → <b>43</b>					<b>HBS002</b>  M10x1.25x140mm (x10)	1) 25Nm 2) 60° 3) 60° 4) 60°	
Z 16 SE	1598	4	79.00	SOHC			
<b>Combo 1.7L D Diesel</b> 07/94 → 10/01 <b>44</b>					<b>HBS036</b>  M12x1.5x102mm (x10)	1) 30Nm 2) ↺ 90° 3) 30Nm 4) 50° 5) 50° 6) 50°	
<b>Combo 1.7L DI 16V Diesel</b> 10/01 →							
<b>Combo 1.7L DTI 16V Diesel</b> 10/01 →							
17 D (4EE1)/X 17 D (4EE1)	1686	4	79.00	SOHC			
Y 17 DTL	1686	4	79.00	DOHC	48/65		
Y 17 DT	1686	4	79.00	DOHC	55/75		
<b>Corsa 1.0L</b> 09/00 → <b>45</b>					<b>HBS253</b>  M8x1.25x119mm (x10)	1) 25Nm 2) 60° 3) 60° 4) 60°	
<b>Corsa 1.0L i 12V</b> 11/96 → 09/00							
X 10 XE	973	3	72.50	DOHC			
Z 10 XE	973	3	72.50	DOHC	43/58		
<b>Corsa 1.0L</b> 06/03 → <b>46</b>					<b>HBS253</b> → Eng. 19AQ2640  M8x1.25x119mm (x10)	1) 25Nm 2) 60° 3) 60° 4) 60°	
Z 10 XEP	998	3	73.40	DOHC			
<b>Corsa 1.0L</b> 09/82 → 03/93 <b>47</b>					<b>HBS112</b>  M9x1.25x80mm (x5) M9x1.25x100mm (x5)	1) 25Nm 2) 60° 3) 60° 4) 60°	
<b>Corsa Van 1.0L</b> 02/86 → 04/89							
10 S	993	4	72.00				
<b>Corsa 1.2L</b> 09/82 → 08/90 <b>48</b>					<b>HBS112</b>  M9x1.25x80mm (x5) M9x1.25x100mm (x5)	1) 25Nm 2) 60° 3) 60° 4) 60°	
<b>Corsa Van 1.2L</b> 02/86 → 07/90							
12 NC/E 12 GV	1196	4	79.00				
12 S	1196	4	79.00		40-44/ 54-60		
<b>Corsa 1.2L</b> 09/00 → <b>49</b>					<b>HBS252</b>  M8x1.25x119mm (x12)	1) 25Nm 2) 60° 3) 60° 4) 60°	
<b>Corsa 1.2L i 16V</b> 03/98 → 09/00							
<b>Corsa Van 1.2L 16V</b> 09/00 →							
X 12 XE	1199	4	72.50	DOHC			
Z 12 XE	1199	4	72.50	DOHC	55/75		
<b>Corsa 1.2L</b> 07/06 → <b>50</b>					<b>HBS252</b>  M8x1.25x119mm (x12)	1) 25Nm 2) 60° 3) 60° 4) 60°	
<b>Corsa 1.2L Twinport</b> 07/04 →							
<b>Corsa Van 1.2L</b> 07/05 →							
Z 12 XEP	1229	4	73.40	DOHC	59/80		
<b>Corsa 1.2L i</b> 03/93 → 09/00 <b>51</b>					<b>HBS002</b>  M10x1.25x140mm (x10)	1) 25Nm 2) 60° 3) 60° 4) 60°	
12 NZ/X 12 SZ	1195	4	72.00	SOHC			
<b>Corsa 1.2L i</b> 09/89 → 09/00 <b>52</b>					<b>HBS002</b>  M10x1.25x140mm (x10)	1) 25Nm 2) 60° 3) 60° 4) 60°	
C 12 NZ	1187	4	72.00	SOHC			
<b>Corsa 1.2L N</b> 01/90 → 03/93 <b>53</b>					<b>HBS002</b>  M10x1.25x140mm (x10)	1) 25Nm 2) 60° 3) 60° 4) 60°	
<b>Corsa 1.2L S</b> 09/82 → 03/93							
<b>Corsa Van 1.2L</b> 02/86 → 04/89							
12 NV	1196	4	77.80	SOHC			
12 ST	1196	4	77.80	SOHC	40-43/ 55-58		



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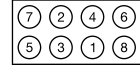
<b>Corsa 1.3L</b> 09/85 → 10/89 <b>54</b> <b>Corsa 1.3L i</b> 09/86 → 09/90 <b>Corsa 1.3L S</b> 09/82 → 10/89 <b>Corsa Van 1.3L</b> 02/86 → 04/89					<b>HBS002</b>  M10x1.25x140mm (x10)	1) 25Nm 2) 60° 3) 60° 4) 60°	
13 NB/C 13 N 1297 4 75.00 SOHC 44/60 13 SB 1297 4 75.00 SOHC 51/70							
<b>Corsa 1.3L CDTI Diesel</b> 06/03 → <b>55</b> <b>Corsa Van 1.3L CDTI 16V Diesel</b> 08/05 →					<b>HBS353</b>  M10x1.25x119mm (x10)	1) 20Nm 2) 40Nm 3) 90° 4) 90°	
Z 13 DT 1248 4 69.60 DOHC 51/70 A 13 DTC 1248 4 69.60 Direct Injection, DOHC 55/75 Z 13 DTJ 1248 4 69.60 DOHC 55/75							
<b>Corsa 1.4L</b> 09/00 → <b>56</b> <b>Corsa 1.4L i 16V</b> 09/94 → 09/00					<b>HBS055</b>  M10x1.25x153mm (x10)	1) 25Nm 2) 90° 3) 25Nm 4) 90° 5) 90° 6) 90° 7) 45°	
X 14 XE/Z 14 XE 1389 4 77.60 DOHC 66/89							
<b>Corsa 1.4L i</b> 10/89 → 09/00 <b>57</b> <b>Corsa 1.4L i 16V</b> 08/97 → 09/00 <b>Corsa 1.4L S</b> 09/89 → 03/93 <b>Corsa 1.4L Si</b> 09/91 → 09/00 <b>Corsa Van 1.4L i</b> 08/99 → 09/00					<b>HBS002</b>  M10x1.25x140mm (x10)	1) 25Nm 2) 60° 3) 60° 4) 60°	
X 14 SZ 1389 4 77.60 SOHC 40-44/ 54-60 C 14 NZ 1389 4 77.60 SOHC 44/60 14 NV 1389 4 77.60 SOHC 53-55/ 72-75 C 14 SE 1389 4 77.60 SOHC 60/82 C 14 SEL 1389 4 77.60 DOHC 63/86							
<b>Corsa 1.4L Twinport</b> 06/03 → <b>58</b>					<b>HBS252</b>  M8x1.25x119mm (x12)	1) 25Nm 2) 60° 3) 60° 4) 60°	
Z 14 XEP 1364 4 73.40 DOHC 66/89							
<b>Corsa 1.5L D Diesel</b> 09/87 → 09/00 <b>59</b> <b>Corsa 1.5L TD Diesel</b> 10/87 → 09/00 <b>Corsa Van 1.5L D Diesel</b> 06/87 → 04/89					<b>HBS036</b>  M12x1.5x102mm (x10)	1) 30Nm 2) 50° 3) 50° 4) 50°	
15 D (4EC1) 1488 4 76.00 SOHC 37/50 X 15 DT (T4EC1) 1488 4 76.00 SOHC 49/67 15 DT (T4EC1) 1488 4 76.00 SOHC 49-53/ 67-72							
<b>Corsa 1.6L GSI</b> 05/88 → 03/93 <b>60</b> <b>Corsa 1.6L i 16V</b> 08/97 → 09/00					<b>HBS002</b>  M10x1.25x140mm (x10)	1) 25Nm 2) 60° 3) 60° 4) 60°	
C 16 NZ 1598 4 79.00 SOHC 55/75 C 16 SEI 1598 4 79.00 SOHC 72/98 C 16 SE/E 16 SE 1598 4 79.00 SOHC 74/100 C 16 SEL 1598 4 79.00 DOHC 78/106							
<b>Corsa 1.6L GSI 16V</b> 03/93 → 09/00 <b>61</b> <b>Corsa 1.6L i 16V</b> 09/94 → 09/00 <b>Corsa 1.6L Turbo</b> 02/07 →					<b>HBS055</b>  M10x1.25x153mm (x10)	1) 25Nm 2) 90° 3) 25Nm 4) 90° 5) 90° 6) 90° 7) 45°	
X 16 XE 1598 4 79.00 DOHC 78/106 C 16 XE 1598 4 79.00 DOHC 80/109 A 16 LER 1598 4 79.00 Intake Manifold Injection/ Carburettor, DOHC 141/192 Z 16 LER 1598 4 79.00 DOHC 141/192							



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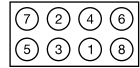
Corsa 1.7L CDTI Diesel		06/03 →		<b>62</b>		<b>HBS036</b>  M12x1.5x102mm (x10)	1) 30Nm 2) ↺ 90° 3) 30Nm 4) 50° 5) 50° 6) 50°	
Corsa 1.7L DI Diesel		09/00 →						
Corsa 1.7L DTI Diesel		09/00 →						
Corsa Van 1.7L D Diesel		08/99 → 09/00						
Corsa Van 1.7L DI 16V Diesel		09/00 →						
Corsa Van 1.7L DTI 16V Diesel		09/00 →						
17 D (4EE1)/X 17 D (4EE1)	1686	4	79.00	SOHC	44/60			
Y 17 DTL	1686	4	79.00	DOHC	48/65			
Y 17 DT	1686	4	79.00	DOHC	55/75			
Z 17 DTH	1686	4	79.00	DOHC	74/100			
<b>Corsa 1.8L</b>		09/00 →		<b>63</b>		<b>HBS055</b>  M10x1.25x153mm (x10)	1) 25Nm 2) 90° 3) 90° 4) 90° 5) 45°	
Z 18 XE	1799	4	80.50	DOHC	92/125			
<b>Frontera 2.0L i</b>		03/92 → 10/98		<b>64</b>		<b>HBS003</b> → 12/96  M11x1.25x140mm (x10)	1) 25Nm 2) 60° 3) 60° 4) 60° 5) ↓ 6) ✱ 7) 30°	
C 20 NE/X 20 SE	1998	4	86.00	SOHC	85/115			
<b>Frontera 2.2L DTI Diesel</b>		10/98 → 09/02		<b>65</b>		<b>HBS298</b>  M12x1.50x235mm (x10)	1) 25Nm 2) 65° 3) 65° 4) 65° 5) 65° 6) 15°	
X 22 DTH	2172	4	84.00	SOHC	85/115			
Y 22 DTH	2172	4	84.00	SOHC	85/88/ 92/115/ 120/125			
<b>Frontera 2.2L i</b>		03/95 → 10/98		<b>66</b>		<b>HBS054</b>  M11x1.25x105mm (x10)	1) 25Nm 2) 90° 3) 90° 4) 90°	
X 22 XE/Y 22 SE	2198	4	86.00	DOHC	100/136			
X 22 SE	2198	4	86.00	CIH	100-104/ 136-141			
<b>Frontera 2.3L TD Diesel</b>		03/92 → 10/98		<b>67</b>		<b>HBS163</b>  M13x1.50x134mm (x10)	1) 50Nm 2) 100Nm 3) 45° 4) 45° 5) ↓ 6) ✱ 7) 30° 8) 30°	
23 DTR	2260	4	92.00	SOHC	74/100			
<b>Frontera 2.4L i</b>		03/92 → 10/98		<b>68</b>		<b>HBS161</b>  M12x1.50x64mm (x5) M12x1.50x97.5mm (x5)	1) 60Nm 2) 90° 3) ↓ 4) ✱ 5) 40°	
C 24 NE	2410	4	95.00		92/125			



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Frontera 2.5L TDS Diesel		09/96 → 10/98			69
25 TDS (VM41B)	2500	4	92.00		85/116
					<b>HBS108</b>  M14x2x137mm (x10) M12x1.75x115mm (x4) M12x1.75x79.5mm (x4)
					<b>A</b> 1) 30Nm 2) 70° 3) 70° 4) ⚡ 5) ✳ 6) 90° 7) 30Nm 8) 65° <b>B</b> 1) 30Nm 2) 85°Nm
Frontera 2.8L TD Diesel		03/95 → 10/98			70
28 TDI (4JB1T)	2771	4	93.00		83/113
					<b>HBS287</b>  M11x1.50x121mm (x18)
					1) 25Nm 2) 50Nm 3) 70° 4) 70°
Kadett 1.3L i		09/85 → 08/91			71
Kadett 1.3L N		09/84 → 08/91			
Kadett 1.3L S		01/86 → 12/89			
Kadett Convertible 1.3L S		03/87 → 02/93			
Kadett Van 1.3L N		09/84 → 07/89			
13 N	1297	4	75.00	SOHC	39-44/ 53-60
13 S	1297	4	75.00	SOHC	42-55/ 57-75
13 NB/C 13 N	1297	4	75.00	SOHC	44/60
					<b>HBS002</b>  M10x1.25x140mm (x10)
					1) 25Nm 2) 60° 3) 60° 4) 60°
Kadett 1.4L i		01/90 → 07/94			72
Kadett 1.4L S		07/89 → 08/91			
Kadett Convertible 1.4L i		01/90 → 08/91			
Kadett Convertible 1.4L S		08/90 → 02/93			
Kadett Van 1.4L i		01/90 → 08/91			
C 14 NZ	1389	4	77.60	SOHC	44/60
14 NV	1389	4	77.60	SOHC	53-55/ 72-75
C 14 SE	1389	4	77.60	SOHC	60/82
					<b>HBS002</b>  M10x1.25x140mm (x10)
					1) 25Nm 2) 60° 3) 60° 4) 60°
Kadett 1.5L D Diesel		01/87 →			73
Kadett 1.5L TD Diesel		07/88 → 08/91			
15 D (4EC1)	1488	4	76.00	SOHC	37/50
15 DT (T4EC1)	1488	4	76.00	SOHC	49-53/ 67-72
					<b>HBS036</b>  M12x1.5x102mm (x10)
					1) 30Nm 2) 50° 3) 50° 4) 50°
Kadett 1.6L		09/86 → 12/91			74
Kadett 1.6L i		09/86 → 07/94			
Kadett 1.6L S		09/86 → 08/91			
Kadett Convertible 1.6L i		10/86 → 02/93			
Kadett Van 1.6L i		08/89 → 09/93			
C 16 NZ/E 16 NZ	1598	4	79.00	SOHC	55/75
16 SV	1598	4	79.00	SOHC	60/82
C 16 LZ	1598	4	80.00	SOHC	55/75
					<b>HBS002</b>  M10x1.25x140mm (x10)
					1) 25Nm 2) 60° 3) 60° 4) 60°
Kadett 1.6L D Diesel		09/84 → 12/89			75
16 D/16 DA	1598	4	80.00	SOHC	40/54
					<b>HBS074</b>  M11x1.25x154mm (x10)
					1) 25Nm 2) 90° 3) 90° 4) 45° 5) ⚡ 6) ✳ 7) 30°
Kadett 1.7L D Diesel		01/89 → 07/94			76
Kadett Van 1.7L D Diesel		08/88 → 09/92			
17 D	1699	4	82.50	SOHC	42/57
17 DR	1699	4	82.50	SOHC	42-44/ 57-60
					<b>HBS074</b>  M11x1.25x154mm (x10)
					1) 25Nm 2) 90° 3) 90° 4) 45° 5) ⚡ 6) ✳ 7) 30°



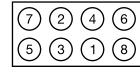
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Kadett 1.8L						09/87 → 08/90	77	<b>HBS003</b>  M11x1.25x140mm (x10)	1) 25Nm 2) 60° 3) 60° 4) 60° 5) ↓ 6) ✱ 7) 30°						
Kadett 1.8L i						06/85 → 08/91	<b>HBS003</b>  M11x1.25x140mm (x10)				1) 25Nm 2) 60° 3) 60° 4) 60° 5) ↓ 6) ✱ 7) 30°				
Kadett 1.8L S						09/87 → 08/91							<b>HBS003</b>  M11x1.25x140mm (x10)	1) 25Nm 2) 60° 3) 60° 4) 60° 5) ↓ 6) ✱ 7) 30°	
Kadett Van 1.8L i						08/84 → 09/92									
E 18 NV	1796	4	84.80	SOHC	62/84	<b>Kadett 2.0L</b> 01/85 → 12/92 <b>Kadett 2.0L GSI</b> 09/86 → 08/91 <b>Kadett 2.0L i</b> 03/87 → 08/91 <b>Kadett Convertible 2.0L i</b> 10/86 → 02/93	<b>78</b>	<b>HBS003</b>  M11x1.25x140mm (x10)	1) 25Nm 2) 60° 3) 60° 4) 60° 5) ↓ 6) ✱ 7) 30°						
S 18 NV	1796	4	84.80	SOHC	62-74/ 84-101										
C 18 NT	1796	4	84.80	SOHC	66/89										
C 18 NZ	1796	4	84.80	SOHC	66/90										
18 E	1796	4	84.80	SOHC	82-85/ 112-115										
<b>Kadett 2.0L GSI 16V</b>						03/88 → 08/91	<b>79</b>	<b>HBS035</b> → Eng.14137011  M11x1.25x110mm (x10)	1) 25Nm 2) 65° 3) 65° 4) 65° 5) ↓ 6) ✱ 7) 30°						
20 XEJ	1984	4	86.00	DOHC	110/150										
<b>Kadett 2.0L GSI 16V</b>						12/87 → 08/91	<b>80</b>	<b>HBS054</b> Eng.14137012 →  M11x1.25x105mm (x10)	1) 25Nm 2) 90° 3) 90° 4) 90°						
20 XE	1998	4	86.00	DOHC	115/156										
<b>Kadett 2.0L GSI 16V</b>						03/88 → 08/91	<b>81</b>	<b>HBS035</b> → Eng.14003804  M11x1.25x110mm (x10)	1) 25Nm 2) 65° 3) 65° 4) 65° 5) ↓ 6) ✱ 7) 30°						
C 20 XE	1998	4	86.00	DOHC	110/150										
<b>Meriva 1.3L CDTI Diesel</b>						09/03 →	<b>82</b>	<b>HBS353</b>  M10x1.25x119mm (x10)	1) 20Nm 2) 40Nm 3) 90° 4) 90°						
Y 13 DT/Z 13 DT	1248	4	69.60	DOHC	51/70										
Z 13 DTJ	1248	4	69.60	DOHC	55/75										

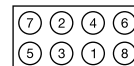




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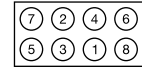
Model and Specifications					Code	Washer Part	Torque and Angle	Washer Diagram
<b>Meriva 1.4L 16V Twinport</b> 07/04 →					<b>83</b>	<b>HBS252</b>	1) 25Nm 2) 60° 3) 60° 4) 60°	
Z 14 XEP	1364	4	73.40	DOHC	66/89	M8x1.25x119mm (x12)		
<b>Meriva 1.6L</b> 05/03 →					<b>84</b>	<b>HBS002</b>	1) 25Nm 2) 60° 3) 60° 4) 60°	
Z 16 SE	1598	4	79.00	SOHC	62/84	M10x1.25x140mm (x10)		
<b>Meriva 1.6L</b> 01/06 →					<b>85</b>	<b>HBS055</b>	1) 25Nm 2) ↻ 90° 3) 25Nm 4) 90° 5) 90° 6) 90° 7) 45°	
<b>Meriva 1.6L 16V</b> 05/03 →								
Z 16 XE	1598	4	79.00	DOHC	74/100	M10x1.25x153mm (x10)		
Z 16 XEP	1598	4	79.00	DOHC	74-77/ 101-105			
<b>Meriva 1.7L CDTI Diesel</b> 09/03 →					<b>86</b>	<b>HBS036</b>	1) 30Nm 2) ↻ 90° 3) 30Nm 4) 50° 5) 50° 6) 50°	
<b>Meriva 1.7L DTI Diesel</b> 09/03 →								
Y 17 DT	1686	4	79.00	DOHC	55/75	M12x1.5x102mm (x10)		
Z 17 DTH	1686	4	79.00	DOHC	74/100			
<b>Meriva 1.8L</b> 05/03 →					<b>87</b>	<b>HBS055</b>	1) 25Nm 2) 90° 3) 90° 4) 90° 5) 45°	
Z 18 XE	1799	4	80.50	DOHC	92/125	M10x1.25x153mm (x10)		
<b>Monterey 3.0L DTI Diesel</b> 07/98 →08/99					<b>88</b>	<b>HBS419</b>	1) 49Nm 2) 60° 3) 60°	
4 JX1	2999	4	95.40	DOHC	117-118/ 159-160	M11x1.50x110mm (x18)		
<b>Monterey 3.1L TD Diesel</b> 09/91 →07/98					<b>89</b>	<b>HBS287</b>	1) 25Nm 2) 50Nm 3) 70° 4) 70°	
4 JG2TC	3059	4	93.00		84/114	M11x1.50x121mm (x18)		
<b>Movano 1.9L DTI Diesel</b> 09/00 →10/01					<b>90</b>	<b>HBS120</b>	1) 30Nm 2) 100° 3) (1-2) ↻ 90° 4) (1-2) 25Nm 5) (1-2) 213° 6) (3-4) ↻ 90° 7) (3-4) 25Nm 8) (3-4) 213° 9) (5-6) ↻ 90° 10) (5-6) 25Nm 11) (5-6) 213° 12) (7-8) ↻ 90° 13) (7-8) 25Nm 14) (7-8) 213° 15) (9-10) ↻ 90° 16) (9-10) 25Nm 17) (9-10) 213°	
F9Q 770	1870	4	80.00	SOHC	59/80	M12x1.50x118mm (x10)		
<b>Movano 2.2L DTI Diesel</b> 09/00 →					<b>91</b>	<b>HBS373</b>	1) 30Nm 1) 30Nm 3) 300°	
G9T 720	2188	4	87.00	DOHC	66/89	M12x1.50x131mm (x10)		
G9T 722	2188	4	87.00	DOHC	66/90			
G9T 750	2188	4	87.00	Direct Injection, DOHC	66/90			



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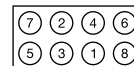
Model		Year	CC	Cyl	Power (kW/PS)	Engine Type	Part No.	Dimensions	Notes	Diagram
<b>Movano 2.5L D Diesel</b>		07/98 → 09/00			<b>92</b>		<b>HBS011</b>			
S8U 770	2499	4	93.00	SOHC	59/80			M12x1.25x160mm (x10)	1) 20Nm 2) 40Nm 3) ↻ 90° 4) 40Nm 5) 90° 6) 90°	
S8U 772	2499	4	93.00	Prechamber Engine, SOHC/OHC	59/80			M12x1.25x119mm (x12)		
<b>Movano 2.5L DTI Diesel</b>		10/01 →			<b>93</b>		<b>HBS373</b>			
G9U 724	2463	4	89.00	DOHC	84/115			M12x1.50x131mm (x10)	1) 10Nm 2) 30Nm 3) 300°	
G9U 750	2463	4	89.00	Direct Injection, DOHC	84/115					
G9U 754	2463	4	89.00	DOHC	84-73/ 115-99					
G9U 720	2463	4	89.00	DOHC	85/116					
<b>Movano 2.8L Diesel</b>		01/99 →			<b>94</b>		<b>HBS011</b>			
8140.43.3700	2800	4	94.40	Sofim, Turbo Intercooled	84/114			M12x1.25x160mm (x10) M12x1.25x119mm (x12)	1) 20Nm 2) 40Nm 3) ↻ 90° 4) 40Nm 5) 90° 6) 90°	
<b>Movano 2.8L DTI Diesel</b>		07/98 → 10/01			<b>95</b>		<b>HBS011</b>			
S9W 700/S9W 702	2799	4	94.40	SOHC	84/114			M12x1.25x160mm (x10) M12x1.25x119mm (x12)	1) 20Nm 2) 40Nm 3) ↻ 90° 4) 40Nm 5) 90° 6) 90°	
<b>Omega 1.8L</b>		09/86 → 03/94			<b>96</b>		<b>HBS003</b>			
<b>Omega 1.8L S</b>		09/86 → 03/94						M11x1.25x140mm (x10)	1) 25Nm 2) 60° 3) 60° 4) 60° 5) ↓ 6) ✱ 7) 30°	
E 18 NVR	1796	4	84.80	SOHC	65/88					
18 SV	1796	4	84.80	SOHC	66/90					
18 SEH	1796	4	84.80	SOHC	85/115					
<b>Omega 2.0L</b>		09/86 → 09/99			<b>97</b>		<b>HBS003</b>			
<b>Omega 2.0L i</b>		09/86 → 03/94						M11x1.25x140mm (x10)	1) 25Nm 2) 60° 3) 60° 4) 60° 5) ↓ 6) ✱ 7) 30°	
C 20 NEJ	1998	4	86.00	SOHC	73-74/ 99-100					
C 20 NEF	1998	4	86.00	SOHC	74/100					
C 20 NE/X 20 SE	1998	4	86.00	SOHC	85/115					
20 SE	1998	4	86.00	Motronic, SOHC	85-90/ 115-122					
<b>Omega 2.0L</b>		03/94 → 12/00			<b>98</b>		<b>HBS003</b>			
<b>Omega 2.0L</b>								M11x1.25x140mm (x10)	1) 25Nm 2) 60° 3) 60° 4) 60° 5) ↓ 6) ✱ 7) 30°	
20 SE	1998	4	86.00	Motronic, SOHC	85-90/ 115-122					
<b>Omega 2.0L 16V</b>		03/94 → 09/99			<b>99</b>		<b>HBS053</b>			
<b>Omega 2.0L 16V</b>								M11x1.25x140mm (x10)	1) 25Nm 2) 60° 3) 60° 4) 60° 5) ↓ 6) ✱ 7) 30°	
X 20 XEV	1998	4	86.00	DOHC	100/136					
<b>Omega 2.0L DTI 16V Diesel</b>		09/97 → 09/00			<b>100</b>		<b>HBS054</b>			
<b>Omega 2.0L DTI 16V Diesel</b>								M11x1.25x105mm (x10)	1) 25Nm 2) 90° 3) 90° 4) 90°	
X 20 DTH	1995	4	84.00	SOHC	74/100					
<b>Omega 2.0L DTI 16V Diesel</b>		09/97 → 09/00			<b>100</b>		<b>HBS298</b>			
<b>Omega 2.0L DTI 16V Diesel</b>								M12x1.50x235mm (x10)	1) 25Nm 2) 65° 3) 65° 4) 65° 5) 65° 6) 15°	
X 20 DTH	1995	4	84.00	SOHC	74/100					



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Omega 2.2L 16V		09/99 → 07/03			101
Y 22 XE/Z 22 XE	2198	4	86.00	DOHC	106/144
 M11x1.25x105mm (x10)					
1) 25Nm 2) 90° 3) 90° 4) 90°					
Omega 2.2L DTI 16V Diesel		09/00 → 07/03			102
Y 22 DTH	2172	4	84.00	SOHC	85/88/ 92/115/ 120/125
 M12x1.50x235mm (x10)					
1) 25Nm 2) 65° 3) 65° 4) 65° 5) 65° 6) 15°					
Omega 2.3L D Diesel		09/86 → 03/94			103
23 YD	2260	4	92.00	SOHC	54/73
 M13x1.50x134mm (x10)					
1) 50Nm 2) 100Nm 3) 45° 4) 45° 5) ↓ 6) * 7) 30° 8) 30°					
Omega 2.3L TD Interc. Diesel		08/88 → 03/94			104
23 DTR	2260	4	92.00	SOHC	74/100
 M13x1.50x134mm (x10)					
1) 50Nm 2) 100Nm 3) 45° 4) 45° 5) ↓ 6) * 7) 30° 8) 30°					
Omega 2.4L i		09/88 → 03/94			105
C 24 NE	2410	4	95.00		92/125
 M12x1.50x64mm (x5) M12x1.50x97.5mm (x5)					
1) 60Nm 2) 90° 3) ↓ 4) * 5) 40°					
Omega 2.5L DTI Diesel		09/01 → 07/03			106
Omega 2.5L TD Diesel		04/94 → 07/03			
X 25 TD	2498	6	80.00	SOHC	
25 DT/X 25 TD	2498	6	80.00	SOHC	96/131
Y 25 DT	2498	6	80.00	DOHC	110/150
 M12x1.50x146.5mm (x14)					
1) 80Nm 2) ↻ 180° 3) 80Nm 4) 90° 5) 90° 6) ↓ 7) * 8) 90°					
Omega 2.5L V6		03/94 → 09/00			107
X 25 XE	2498	6	81.60	DOHC, V6	125/170
 M11x1.25x105mm (x16)					
1) 30Nm 2) 60Nm 3) 90° 4) 90°					
Omega 2.6L V6		09/00 → 07/03			108
Y 26 SE	2597	6	83.20	DOHC, V6	125-132/ 170-180
 M11x1.25x105mm (x16)					
1) 30Nm 2) 60Nm 3) 90° 4) 90°					
Omega 3.0L 24V		09/89 → 03/94			109
Omega 3.0L 24V (3000)		09/89 → 03/94			
C 30 SEI	2969	6	95.00	DOHC	
C 30 SE	2969	6	95.00	DOHC	150/204
 M12x1.50x88mm (x14)					
1) 30Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 95° 6) 35°					
Omega 3.0L V6		04/94 → 02/01			110
X 30 XE	2962	6	86.00	DOHC, V6	155/211
 M11x1.25x105mm (x16)					
1) 30Nm 2) 60Nm 3) 90° 4) 90°					



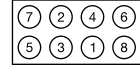
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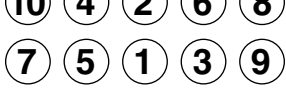

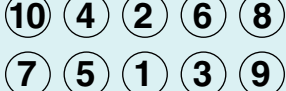

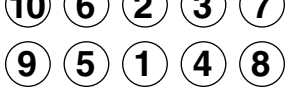





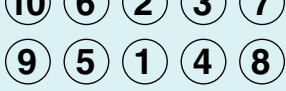

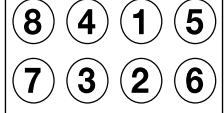

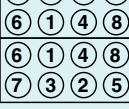


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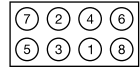
Model				Year Range	Code
<b>Omega 3.2L V6</b>				02/01 → 07/03	<b>111</b>
Y 32 SE	3175	6	87.50	DOHC, V6	160/218
 M11x1.25x105mm (x16)					
1) 30Nm 2) 60Nm 3) 90° 4) 90°					
					
<b>Senator 3.0L 24V</b>				09/89 → 09/93	<b>112</b>
C 30 SE	2969	6	95.00	DOHC	150/204
 M12x1.50x88mm (x14)					
1) 30Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 95° 6) 35°					
					
<b>Signum 1.8L</b>				05/03 →	<b>113</b>
Z 18 XE	1799	4	80.50	DOHC	92/125
 M10x1.25x153mm (x10)					
1) 25Nm 2) 90° 3) 90° 4) 90° 5) 45°					
					
<b>Signum 1.9L CDTI Diesel</b>				04/04 →	<b>114</b>
Z 19 DT	1910	4	82.00	SOHC	74-88/ 100-120
 M12x1.25x218mm (x10)					
1) 65Nm 2) 90° 3) 90° 4) 90°					
					
<b>Signum 1.9L CDTI Diesel</b>				04/04 →	<b>115</b>
Z 19 DTH	1910	4	82.00	DOHC	88-110/ 120-150
 M12x1.25x225mm (x10)					
1) 65Nm 2) 90° 3) 90° 4) 90°					
					
<b>Signum 2.0L DTI Diesel</b>				05/03 →	<b>116</b>
Y 20 DTH	1995	4	84.00	SOHC	74/100
 M12x1.50x235mm (x10)					
1) 25Nm 2) 65° 3) 65° 4) 65° 5) 65° 6) 15°					
					
<b>Signum 2.0L Turbo</b>				05/03 →	<b>117</b>
Z 20 NET	1998	4	86.00	DOHC	129/175
 M11x1.50x163mm (x10)					
1) 30Nm 2) 75° 3) 75° 4) 15°					
					
<b>Signum 2.2L direct</b>				05/03 →	<b>118</b>
Z 22 YH	2198	4	86.00	DOHC	110-114/ 150-155
 M11x1.50x163mm (x10)					
1) 30Nm 2) 75° 3) 75° 4) 15°					
					
<b>Signum 2.2L DTI Diesel</b>				05/03 →	<b>119</b>
Y 22 DTR	2172	4	84.00	SOHC	92/125
 M12x1.50x235mm (x10)					
1) 25Nm 2) 65° 3) 65° 4) 65° 5) 65° 6) 15°					
					
<b>Signum 3.0L V6 CDTI Diesel</b>				05/03 →	<b>120</b>
Y 30 DT	2958	6	87.50	DOHC, V6	130/177
 M12x1.5x145mm (x8) M12x1.5x175mm (x8)					
1) 20Nm 2) 40Nm 3) ↻ 90° 4) 40Nm 5) (1-4) 130° 6) (5-8) 110° 7) (1-4) 130° 8) (5-8) 110°					
					
<b>Signum 3.2L V6</b>				05/03 →	<b>121</b>
Z 32 SE	3175	6	88.50	DOHC, V6	155/211
 M11x1.25x105mm (x16)					
1) 30Nm 2) 60Nm 3) 90° 4) 90°					
					



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<b>Sintra 2.2L DTI Diesel</b> 07/97 → 04/99 <b>122</b>					<b>HBS298</b>  M12x1.50x235mm (x10)	1) 25Nm 2) 65° 3) 65° 4) 65° 5) 65° 6) 15°	
X 22 DTH	2172	4	84.00	SOHC			
<b>Sintra 2.2L i 16V</b> 11/96 → 04/99 <b>123</b>					<b>HBS054</b>  M11x1.25x105mm (x10)	1) 25Nm 2) 90° 3) 90° 4) 90°	
X 22 XE	2198	4	86.00	DOHC			
<b>Sintra 3.0L i 24V</b> 11/96 → 04/99 <b>124</b>					<b>HBS164</b>  M11x1.25x105mm (x16)	1) 30Nm 2) 60Nm 3) 90° 4) 90°	
X 30 XE	2962	6	86.00	DOHC, V6			
<b>Speedster Convertible 2.0L Turbo</b> 04/03 → <b>125</b>					<b>HBS054</b>  M11x1.25x105mm (x10)	1) 25Nm 2) 90° 3) 90° 4) 90°	
Z 20 LET	1998	4	86.00	DOHC			
<b>Speedster 2.2L</b> 09/00 → <b>126</b>					<b>HBS416</b>  M11x1.50x163mm (x10)	1) 30Nm 2) 75° 3) 75° 4) 15°	
Z 22 SE	2198	4	86.00	DOHC			
<b>Tigra 1.3L CDTI Diesel</b> 06/04 → <b>127</b>					<b>HBS353</b>  M10x1.25x119mm (x10)	1) 20Nm 2) 40Nm 3) 90° 4) 90°	
Z 13 DT	1248	4	69.60	DOHC			
<b>Tigra 1.4L</b> 06/04 → <b>128</b>					<b>HBS252</b>  M8x1.25x119mm (x12)	1) 25Nm 2) 60° 3) 60° 4) 60°	
Z 14 XEP	1364	4	73.40	DOHC			
<b>Tigra Coupe 1.4L 16V</b> 07/94 → 12/00 <b>129</b>					<b>HBS055</b>  M10x1.25x153mm (x10)	1) 25Nm 2) ↻ 90° 3) 25Nm 4) 90° 5) 90° 6) 90° 7) 45°	
X 14 XE	1389	4	77.60	DOHC			
<b>Tigra Coupe 1.6L 16V</b> 07/94 → 08/98 <b>130</b>					<b>HBS055</b>  M10x1.25x153mm (x10)	1) 25Nm 2) ↻ 90° 3) 25Nm 4) 90° 5) 90° 6) 90° 7) 45°	
C 16 SEL/X 16 XE	1598	4	79.00	DOHC			
<b>Tigra 1.8L</b> 06/04 → <b>131</b>					<b>HBS055</b>  M10x1.25x153mm (x10)	1) 25Nm 2) 90° 3) 90° 4) 90° 5) 45°	
Z 18 XE	1799	4	80.50	DOHC			
<b>Vectra 1.4L S</b> 04/88 → 06/92 <b>132</b>					<b>HBS002</b>  M10x1.25x140mm (x10)	1) 25Nm 2) 60° 3) 60° 4) 60°	
14 NV	1389	4	77.60	SOHC			





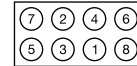
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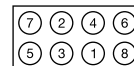
VECTRA 1.6L					09/88 → 05/93	133	HBS002	1) 25Nm 2) 60° 3) 60° 4) 60°	
Vectra 1.6L i					09/88 → 07/03		 M10x1.25x140mm (x10)		
Vectra 1.6L S					09/88 → 05/93				
X 16 SZ	1598	4	79.00	SOHC	52/71				
C 16 NZ/E 16 NZ/X 16 SZR	1598	4	79.00	SOHC	55/75				
16 SV	1598	4	79.00	SOHC	60/82				
C 16 NZ2	1598	4	80.00	SOHC	55/75				
VECTRA 1.6L					08/05 →	134	HBS055	1) 25Nm 2) ↻ 90° 3) 25Nm 4) 90° 5) 90° 6) 90° 7) 45°	
Vectra 1.6L 16V					06/04 →		 M10x1.25x153mm (x10)		
Vectra 1.6L i 16V					10/95 → 07/02				
Y 16 XE/Z 16 XE	1598	4	79.00	DOHC	74/100				
X 16 XEL	1598	4	79.00	DOHC	74/78/ 100/106				
Z 16 XEP	1598	4	79.00	DOHC	74-77/ 101-105				
VECTRA 1.6L i					09/93 → 11/95	135	HBS003	1) 25Nm 2) 60° 3) 60° 4) 60° 5) ↓ 6) ✱ 7) 30°	
16 LZ2	1598	4	79.00	SOHC	55/75		 M11x1.25x140mm (x10)		
VECTRA 1.7L D Diesel					09/88 → 11/95	136			
17 D	1699	4	82.50	SOHC	42/57				
17 DR	1699	4	82.50	SOHC	42-44/ 57-60				
VECTRA 1.7L TD Diesel					03/90 → 12/98	137	HBS036	1) 30Nm 2) ↻ 90° 3) 30Nm 4) 50° 5) 50° 6) 50°	
17 DT (TC4EE1)/X 17 DT (TC4EE1)	1686	4	79.00	SOHC	60/81		 M12x1.5x102mm (x10)		
VECTRA 1.8L					04/02 →	138			
Z 18 XEL	1796	4	80.50	DOHC	81-85/ 110-116				
VECTRA 1.8L					10/03 →	139			
Vectra 1.8L 16V					04/02 →		 M10x1.25x153mm (x10)		
Vectra 1.8L i 16V					09/00 → 07/03				
Z 18 XE	1799	4	80.50	DOHC	92/125				
VECTRA 1.8L i					09/88 → 11/95	140			
Vectra 1.8L S					09/88 → 10/90		 M11x1.25x140mm (x10)		
Vectra 1.8L S 4x4					01/89 → 07/89				
E 18 NVR	1796	4	84.80	SOHC	65/88				
18 SV/C 18 NZ	1796	4	84.80	SOHC	66/90				
VECTRA 1.8L i 16V					10/95 → 09/00	141	HBS055	1) 25Nm 2) ↻ 90° 3) 25Nm 4) 90° 5) 90° 6) 90° 7) 45°	
X 18 XE1	1796	4	80.50	DOHC	85/115		 M10x1.25x153mm (x10)		
VECTRA 1.8L i 16V					10/95 → 09/00				
X 18 XE1	1796	4	80.50	DOHC	85/115				
VECTRA 1.8L i 16V					10/95 → 09/00				



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Vectra 1.9L CDTI Diesel						04/04 →	142	HBS227	1) 65Nm 2) 90° 3) 90° 4) 90°	 
Z 19 DTL	1910	4	82.00	DOHC	74/100			M12x1.25x218mm (x10)		
Z 19 DT	1910	4	82.00	SOHC	74-88/ 100-120					
Vectra 1.9L CDTI Diesel						04/04 →	143	HBS370	1) 65Nm 2) 90° 3) 90° 4) 90°	 
Z 19 DTH	1910	4	82.00	DOHC	88-110/ 120-150			M12x1.25x225mm (x10)		
Vectra 2.0L Vectra 2.0L i Vectra 2.0L i 4x4 Vectra 2.0L i GT						04/88 →09/89 09/88 →04/02 01/89 →11/95 09/88 →11/95	144	HBS003	1) 25Nm 2) 60° 3) 60° 4) 60° 5) ↓ 6) ✖ 7) 30°	 
C 20 NEF	1998	4	86.00	SOHC	74/100			M11x1.25x140mm (x10)		
20 NEJ	1998	4	86.00	SOHC	82/111					
20 NE/C 20 NE	1998	4	86.00	SOHC	85/115					
20 SEH	1998	4	86.00	SOHC	95/129					
Vectra 2.0L 16V Vectra 2.0L GT 16V Vectra 2.0L i 16V						01/89 →10/90 01/89 →06/94 02/89 →10/90	145	HBS035 →Eng.14137011	1) 25Nm 2) 65° 3) 65° 4) 65° 5) ↓ 6) ✖ 7) 30°	 
20 XEJ	1984	4	86.00	DOHC	110/150			M11x1.25x110mm (x10)		
Vectra 2.0L 16V Turbo Vectra 2.0L Turbo						03/03 → 10/03 →	146	HBS416	1) 30Nm 2) 75° 3) 75° 4) 15°	 
Z 20 NET	1998	4	86.00	DOHC	129/175			M11x1.50x163mm (x10)		
Vectra 2.0L DI 16V Diesel						11/96 →04/02	147	HBS298	1) 25Nm 2) 65° 3) 65° 4) 65° 5) 65° 6) 15°	 
X 20 DTL	1896	4	84.00	SOHC	60/81			M12x1.50x235mm (x10)		
Vectra 2.0L DTI Diesel Vectra 2.0L DTI 16V Diesel						10/03 → 06/97 →07/03	148	HBS298	1) 25Nm 2) 65° 3) 65° 4) 65° 5) 65° 6) 15°	 
X 20 DTH/Y 20 DTH	1995	4	84.00	SOHC	74/100			M12x1.50x235mm (x10)		
Vectra 2.0L GT 16V Vectra 2.0L GT 16V 4x4 Vectra 2.0L i 16V Vectra 2.0L i Turbo 4x4						02/90 →11/95 02/90 →11/95 02/90 →11/95 06/94 →11/95	149	HBS035 →Eng.14003804	1) 25Nm 2) 65° 3) 65° 4) 65° 5) ↓ 6) ✖ 7) 30°	 
C 20 XE	1998	4	86.00	DOHC	110/150			M11x1.25x110mm (x10)		
C 20 LET	1998	4	86.00	DOHC	150/204					
								M11x1.25x105mm (x10)		
								HBS054 Eng.14003805 →	1) 25Nm 2) 90° 3) 90° 4) 90°	 



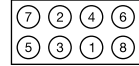
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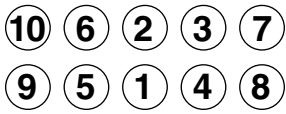

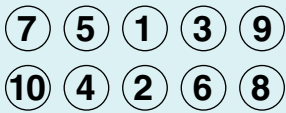

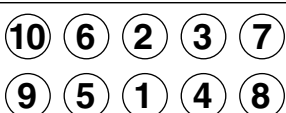







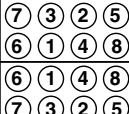

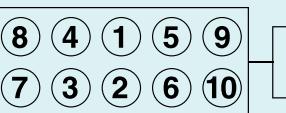


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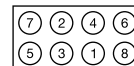
<b>Vectra 2.0L i 16V</b> 06/94 → 09/00 <b>150</b> <b>Vectra 2.0L i 16V 4x4</b> 06/94 → 11/95 C 20 SEL/X 20 XEV 1998 4 86.00 DOHC 100/136						<b>HBS054</b>  M11x1.25x105mm (x10)	1) 25Nm 2) 90° 3) 90° 4) 90°	
<b>Vectra 2.2L 16V</b> 04/02 → <b>151</b> <b>Vectra 2.2L direct</b> 10/03 → <b>Vectra 2.2L i 16V</b> 09/00 → 07/03 Z 22 SE 2198 4 86.00 DOHC 108/147 Z 22 YH 2198 4 86.00 DOHC 110-114/ 150-155						<b>HBS416</b>  M11x1.50x163mm (x10)	1) 30Nm 2) 75° 3) 75° 4) 15°	
<b>Vectra 2.2L DTI Diesel</b> 10/03 → <b>152</b> <b>Vectra 2.2L DTI 16V Diesel</b> 09/00 → 07/03 Y 22 DTR 2172 4 84.00 SOHC 92/125						<b>HBS298</b>  M12x1.50x235mm (x10)	1) 25Nm 2) 65° 3) 65° 4) 65° 5) 65° 6) 15°	
<b>Vectra 2.5L i 500 2.5L</b> 05/98 → 09/00 <b>153</b> <b>Vectra 2.5L i V6</b> 10/95 → 09/00 <b>Vectra 2.5L V6</b> 02/93 → 11/95 C 25 XE/X 25 XE 2498 6 81.60 DOHC, V6 125/170						<b>HBS164</b>  M11x1.25x105mm (x16)	1) 30Nm 2) 60Nm 3) 90° 4) 90°	
<b>Vectra 2.6L i V6</b> 09/00 → 07/03 <b>154</b> Y 26 SE 2597 6 83.20 DOHC, V6 125-132/ 170-180						<b>HBS164</b>  M11x1.25x105mm (x16)	1) 30Nm 2) 60Nm 3) 90° 4) 90°	
<b>Vectra 3.0L CDTI Diesel</b> 06/03 → <b>155</b> Y 30 DT 2958 6 87.50 DOHC, V6 130/177						<b>HBS502</b>  M12x1,5x145mm (x8) M12x1,5x175mm (x8)	1) 20Nm 2) 40Nm 3) ↻ 90° 4) 40Nm 5) (1-4) 130° 6) (5-8) 110° 7) (1-4) 130° 8) (5-8) 110°	
<b>Vectra 3.2L V6</b> 08/02 → <b>156</b> Z 32 SE 3175 6 88.50 DOHC, V6 155/211						<b>HBS164</b>  M11x1.25x105mm (x16)	1) 30Nm 2) 60Nm 3) 90° 4) 90°	
<b>Vivaro 1.9L DI Diesel</b> 08/01 → <b>157</b> <b>Vivaro 1.9L DTI Diesel</b> 08/01 → F9Q 774 1870 4 80.00 SOHC 60/81 F9Q 760 1870 4 80.00 SOHC 74/100						<b>HBS120</b>  M12x1.50x118mm (x10)	1) 30Nm 2) 100° 3) (1-2) ↻ 90° 4) (1-2) 25Nm 5) (1-2) 213° 6) (3-4) ↻ 90° 7) (3-4) 25Nm 8) (3-4) 213° 9) (5-6) ↻ 90° 10) (5-6) 25Nm 11) (5-6) 213° 12) (7-8) ↻ 90° 13) (7-8) 25Nm 14) (7-8) 213° 15) (9-10) ↻ 90° 16) (9-10) 25Nm 17) (9-10) 213°	



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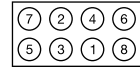
Vivaro 1.9L DTI Diesel					08/01 →	158		
F9Q762	1870	4	80.00	SOHC	59-60/ 80-82	<b>HBS120</b> →Eng.C000156  M12x1.50x118mm (x10)	1) 30Nm 2) 100° 3) (1-2) ↻ 90° 4) (1-2) 25Nm 5) (1-2) 213° 6) (3-4) ↻ 90° 7) (3-4) 25Nm 8) (3-4) 213° 9) (5-6) ↻ 90° 10) (5-6) 25Nm 11) (5-6) 213° 12) (7-8) ↻ 90° 13) (7-8) 25Nm 14) (7-8) 213° 15) (9-10) ↻ 90° 16) (9-10) 25Nm 17) (9-10) 213°	
						<b>HBS372</b> Eng.C000157 →  M12x1.50x121mm (x10)	1) 35Nm 2) 100° 3) (1-2) ↻ 90° 4) (1-2) 25Nm 5) (1-2) 213° 6) (3-4) ↻ 90° 7) (3-4) 25Nm 8) (3-4) 213° 9) (5-6) ↻ 90° 10) (5-6) 25Nm 11) (5-6) 213° 12) (7-8) ↻ 90° 13) (7-8) 25Nm 14) (7-8) 213° 15) (9-10) ↻ 90° 16) (9-10) 25Nm 17) (9-10) 213°	
Vivaro 2.0L 16V					08/01 →	159		
Vivaro Van 2.0L 16V					08/01 →			
F4R 720	1998	4	82.70	DOHC	88/120	<b>HBS310</b>  M12x1.50x117mm (x10)	1) 20Nm 2) 165°	
Vivaro 2.5L DTI Diesel					05/03 →	160		
G9U 630	2464	4	89.00	DOHC	84-107/ 114-146	<b>HBS373</b>  M12x1.50x131mm (x10)	1) 10Nm 2) 30Nm 3) 300°	
G9U 730	2464	4	89.00	DOHC	99/135			
Zafira 1.6L					07/05 →	161		
Zafira 1.6L 16V					04/99 →06/05			
Zafira 1.6L CNG					09/01 →06/05			
Z 16 YNG	1598	4	79.00	DOHC	69-74/ 94-101	<b>HBS055</b>  M10x1.25x153mm (x10)	1) 25Nm 2) ↻ 90° 3) 25Nm 4) 90° 5) 90° 6) 90° 7) 45°	
Z 16 XE	1598	4	79.00	DOHC	74/100			
X 16 XEL	1598	4	79.00	DOHC	74/78/ 100/106			
Z 16 XEP	1598	4	79.00	DOHC	74-77/ 101-105			
Z 16 XE1	1598	4	79.00	Intake Manifold Injection/ Carburettor, DOHC	77/105			
A 16 XER/Z 16 XER	1598	4	79.00	DOHC	85/116			
Zafira 1.8L 16V					04/99 →09/00			
X 18 XE1	1796	4	80.50	DOHC	85/115	<b>HBS055</b>  M10x1.25x153mm (x10)	1) 25Nm 2) ↻ 90° 3) 25Nm 4) 90° 5) 90° 6) 90° 7) 45°	



cc



















kW/PS











Zafira 1.8L 16V						09/00 → 06/05	163	 M10x1.25x153mm (x10)	1) 25Nm 2) 90° 3) 90° 4) 90° 5) 45°	
Z 18 XE	1799	4	80.50	DOHC	92/125					
Zafira 1.9L CDTI Diesel						07/05 →	164	 M12x1.25x225mm (x10)	1) 65Nm 2) 90° 3) 90° 4) 90°	
Z 19 DTH	1910	4	82.00	DOHC	88-110/ 120-150					
Zafira 1.9L CDTI Diesel						07/05 →	165	 M12x1.25x218mm (x10)	1) 65Nm 2) 90° 3) 90° 4) 90°	
Z 19 DTL Z 19 DT	1910 1910	4 4	82.00 82.00	DOHC SOHC	74/100 74-88/ 100-120					
Zafira 2.0L Zafira 2.0L OPC						07/05 → 09/01 → 06/05	166	 M11x1.25x105mm (x10)	1) 25Nm 2) 90° 3) 90° 4) 90°	
Z 20 LET	1998	4	86.00	DOHC	140-147/ 190-200					
Z 20 LER	1998	4	86.00	DOHC	147/200					
Z 20 LEH	1998	4	86.00	DOHC	177/240					
Zafira 2.0L DI 16V Diesel						10/99 → 06/05	167	 M12x1.50x235mm (x10)	1) 25Nm 2) 65° 3) 65° 4) 65° 5) 65° 6) 15°	
X 20 DTL	1896	4	84.00	SOHC	60/81					
Zafira 2.0L DTI 16V Diesel						09/00 → 06/05	168	 M12x1.50x235mm (x10)	1) 25Nm 2) 65° 3) 65° 4) 65° 5) 65° 6) 15°	
Y 20 DTH	1995	4	84.00	SOHC	74/100					
Zafira 2.2L Zafira 2.2L 16V						07/05 → 09/00 → 06/05	169	 M11x1.50x163mm (x10)	1) 30Nm 2) 75° 3) 75° 4) 15°	
Z 22 SE Z 22 YH	2198 2198	4 4	86.00 86.00	DOHC DOHC	108/147 110-114/ 150-155					
Zafira 2.2L DTI 16V Diesel						01/02 → 06/05	170	 M12x1.50x235mm (x10)	1) 25Nm 2) 65° 3) 65° 4) 65° 5) 65° 6) 15°	
Y 22 DTR	2172	4	84.00	SOHC	92/125					



		CC			9			CC			9
1KR (384 F)	Petrol	998	3	71.00	9	ES9J4 (XFZ)	Diesel	2946	6	87.00	86
8HT (DV4TD)	Diesel	1398	4	73.70	10	ES9J4S (XFX/XFW)	Diesel	2946	6	87.00	86
220A2 (160A)	Petrol	1581	4	86.40	140	ES9J4S (XFX/XFW)	Petrol	2946	6	87.00	113
8140.43N	Diesel	2798	4	94.40	139	ES9J4S (XFX/XFW)		2946	6	87.00	125
8140.43S	Diesel	2798	4	94.40	139	EW7A (6FY)	Petrol	1749	4	82.70	88
8140.63	Diesel	2798	4	94.40	139	EW7J4 (6FZ)	Petrol	1749	4	82.70	75
CRD93 (U25/651/661)	Diesel	2500	4	93.00	149	EW7J4 (6FZ)	Petrol	1749	4	82.70	88
CRD93LS (U25/673)	Diesel	2500	4	93.00	149	EW10A (RFJ)	Petrol	1997	4	85.00	52
DHV (XUD9BSD)	Diesel	1905	4	83.00	42	EW10A (RFJ)	Petrol	1997	4	85.00	89
DJ5 (T9A)	Diesel	2446	4	92.00	137	EW10A (RFJ)	Petrol	1997	4	85.00	121
DJ5T (T8A/THZ)	Diesel	2446	4	92.00	137	EW10D (RLZ)	Petrol	1997	4	85.00	79
DJ5TED (THX)	Diesel	2446	4	92.00	138	EW10J4 (RFN)	Petrol	1997	4	85.00	28
DK5ATE (THY)	Diesel	2446	4	92.00	106	EW10J4 (RFN)	Petrol	1997	4	85.00	52
DV4TD (8HR)	Diesel	1398	4	73.70	32	EW10J4 (RFN)	Petrol	1997	4	85.00	79
DV4TD (8HX)	Diesel	1398	4	73.70	23	EW10J4 (RFN)	Petrol	1997	4	85.00	89
DV4TD (8HX)	Diesel	1398	4	73.70	49	EW10J4 (RFN)	Petrol	1997	4	85.00	109
DV4TD (8HX)	Diesel	1398	4	73.70	127	EW10J4 (RFN)	Petrol	1997	4	85.00	117
DV4TD (8HZ)	Diesel	1398	4	73.70	23	EW10J4 (RFN)	Petrol	1997	4	85.00	121
DV4TD (8HZ)	Diesel	1398	4	73.70	32	EW10J4 (RFN)	Petrol	1997	4	85.00	145
DV4TD (8HZ)	Diesel	1398	4	73.70	49	EW10J4 (RFR)	Petrol	1997	4	85.00	28
DV4TD (8HZ)	Diesel	1398	4	73.70	127	EW10J4 (RFR)	Petrol	1997	4	85.00	79
DV6ATED4 (9HX)	Diesel	1560	4	75.00	34	EW10J4S (RFK)	Petrol	1997	4	85.00	28
DV6ATED4 (9HX)	Diesel	1560	4	75.00	51	EW10J4S (RFK)	Petrol	1997	4	85.00	52
DV6TED4 (9HY)	Diesel	1560	4	75.00	25	EW12J4 (3FY)	Petrol	2230	4	86.00	91
DV6TED4 (9HY)	Diesel	1560	4	75.00	34	EW12J4 (3FY)	Petrol	2230	4	86.00	111
DV6TED4 (9HY)	Diesel	1560	4	75.00	51	EW12J4 (3FZ)	Petrol	2230	4	86.00	84
DV6TED4 (9HY)	Diesel	1560	4	75.00	87	EW12J4 (3FZ)	Petrol	2230	4	86.00	91
DV6TED4 (9HZ)	Diesel	1560	4	75.00	25	EW12J4 (3FZ)	Petrol	2230	4	86.00	111
DV6TED4 (9HZ)	Diesel	1560	4	75.00	34	EW12J4 (3FZ)	Petrol	2230	4	86.00	123
DV6TED4 (9HZ)	Diesel	1560	4	75.00	51	KFV (TU3A)	Petrol	1360	4	75.00	30
DV6TED4 (9HZ)	Diesel	1560	4	75.00	129	KFV (TU3A)	Petrol	1360	4	75.00	31
DW8 (WJZ)	Diesel	1868	4	82.20	27	KFV (TU3A)	Petrol	1360	4	75.00	130
DW8 (WJZ)	Diesel	1868	4	82.20	41	KFV (TU3A)	Petrol	1360	4	75.00	131
DW8 (WJZ)	Diesel	1868	4	82.20	143	KFV (TU3A)	Petrol	1360	4	75.00	30
DW8 (WJZ)	Diesel	1868	4	82.20	154	RHV (DW10TD)	Diesel	1997	4	85.00	135
DW8B (WJY)	Diesel	1868	4	82.20	41	TU 3	Petrol	1360	4	75.00	63
DW8B (WJY)	Diesel	1868	4	82.20	143	TU 3 JP	Petrol	1360	4	75.00	22
DW8B (WJY)	Diesel	1868	4	82.20	154	TU1 (H1A/H1B/H3A)	Petrol	1124	4	72.00	2
DW10ATED (RHS)	Diesel	1997	4	85.00	53	TU1 (H1A/H1B/H3A)	Petrol	1124	4	72.00	12
DW10ATED (RHS)	Diesel	1997	4	85.00	81	TU1JP (HFX)	Petrol	1124	4	72.00	2
DW10ATED (RHS)	Diesel	1997	4	85.00	110	TU1JP (HFX)	Petrol	1124	4	72.00	21
DW10ATED (RHZ)	Diesel	1997	4	85.00	81	TU1JP (HFX)	Petrol	1124	4	72.00	150
DW10ATED (RHZ)	Diesel	1997	4	85.00	110	TU1JP (HFZ)	Petrol	1124	4	72.00	21
DW10ATED (RHZ)	Diesel	1997	4	85.00	119	TU1M (HDY)	Petrol	1124	4	72.00	2
DW10ATED (RHZ)	Diesel	1997	4	85.00	146	TU1M (HDZ)	Petrol	1124	4	72.00	2
DW10ATED4 (RHM)	Diesel	1997	4	85.00	122	TU1M (HDZ)	Petrol	1124	4	72.00	12
DW10ATED4 (RHT)	Diesel	1997	4	85.00	122	TU1M (HDZ)	Petrol	1124	4	72.00	35
DW10ATED4 (RHW)	Diesel	1997	4	85.00	119	TU1M (HDZ)	Petrol	1124	4	72.00	55
DW10ATED4 (RHW)	Diesel	1997	4	85.00	122	TU1M (HDZ)	Petrol	1124	4	72.00	150
DW10ATED4 (RHW)	Diesel	1997	4	85.00	146	TU2.4	Petrol	1294	4	75.00	13
DW10BTED (RHX)	Diesel	1997	4	85.00	146	TU2J2 (MFZ)	Petrol	1294	4	75.00	3
DW10BTED4 (RHR)	Diesel	1997	4	85.00	53	TU3 F (Cast Iron Block)	Petrol	1360	4	75.00	14
DW10BTED4 (RHR)	Diesel	1997	4	85.00	90	TU3 F (Cast Iron Block)	Petrol	1360	4	75.00	56
DW10BTED4 (RHR)	Diesel	1997	4	85.00	110	TU3A (K1D)	Petrol	1360	4	75.00	14
DW10BTED4 (RHR)	Diesel	1997	4	85.00	122	TU3A (K1D)	Petrol	1360	4	75.00	56
DW10BTED4 (RHR)	Diesel	1997	4	85.00	146	TU3CP (KAY)	Petrol	1360	4	75.00	14
DW10TD (RHY)	Diesel	1997	4	85.00	29	TU3J2 (KFZ)	Petrol	1360	4	75.00	4
DW10TD (RHY)	Diesel	1997	4	85.00	46	TU3JP (KFW)	Petrol	1360	4	75.00	4
DW10TD (RHY)	Diesel	1997	4	85.00	53	TU3JP (KFW)	Petrol	1360	4	75.00	22
DW10TD (RHY)	Diesel	1997	4	85.00	81	TU3JP (KFW)	Petrol	1360	4	75.00	36
DW10TD (RHY)	Diesel	1997	4	85.00	156	TU3JP (KFW)	Petrol	1360	4	75.00	48
DW10UTD (RHV)	Diesel	1997	4	85.00	135	TU3JP (KFW)	Petrol	1360	4	75.00	151
DW10UTED4 (RHK)	Diesel	1997	4	85.00	146	TU3JP (KFX)	Petrol	1360	4	75.00	4
DW12BTED4 (4HT)	Diesel	2179	4	85.00	92	TU3JP (KFX)	Petrol	1360	4	75.00	14
DW12BTED4 (4HT)	Diesel	2179	4	85.00	112	TU3JP (KFX)	Petrol	1360	4	75.00	22
DW12BTED4 (4HT)	Diesel	2179	4	85.00	124	TU3JP (KFX)	Petrol	1360	4	75.00	36
DW12TED4 (4HX/4HW)	Diesel	2179	4	85.00	85	TU3JP (KFX)	Petrol	1360	4	75.00	151
DW12TED4 (4HX/4HW)	Diesel	2179	4	85.00	112	TU3JP-L4	Petrol	1360	4	75.00	126
DW12TED4 (4HX/4HW)	Diesel	2179	4	85.00	124	TU3M (KDY)	Petrol	1360	4	75.00	4
DW12UTED (4HY)	Diesel	2179	4	85.00	136	TU3M (KDY)	Petrol	1360	4	75.00	14
ES 9 J4	Petrol	2946	6	87.00	108	TU3M (KDY)	Petrol	1360	4	75.00	56
ES9A (XFX)	Petrol	2946	6	87.00	93	TU3M (KDZ)	Petrol	1360	4	75.00	14
ES9A (XFX)	Petrol	2946	6	87.00	113	TU3M (KDZ)	Petrol	1360	4	75.00	56

		cc			9			cc			9
TU3MC (KDX)	Petrol	1360	4	75.00	4	XU9JAZ (DKZ)	Petrol	1905	4	83.00	59
TU3MC (KDX)	Petrol	1360	4	75.00	14	XU9JAZ (DKZ)	Petrol	1905	4	83.00	68
TU3MC (KDX)	Petrol	1360	4	75.00	36	XU9M (DDZ)	Petrol	1769	4	83.00	59
TU3MC (KDX)	Petrol	1360	4	75.00	63	XU9M (DDZ)	Petrol	1905	4	83.00	68
TU3S (K2B)	Petrol	1360	4	75.00	56	XU9S (D2B)	Petrol	1905	4	83.00	59
TU5J2 (NFW)	Petrol	1587	4	78.50	7	XU10J2 (RFL)	Petrol	1998	4	86.00	134
TU5J2 (NFW/NFY)	Petrol	1587	4	78.50	7	XU10J2 (RFU)	Petrol	1998	4	86.00	116
TU5J4 (NFX)	Diesel	1587	4	78.50	8	XU10J2 (RFW)	Petrol	1998	4	86.00	134
TU5JP (NFT)	Petrol	1587	4	78.50	37	XU10J2 (RFX)	Petrol	1998	4	86.00	47
TU5JP (NFZ)	Petrol	1587	4	78.50	7	XU10J2 (RFY)	Petrol	1998	4	86.00	72
TU5JP (NFZ)	Petrol	1587	4	78.50	26	XU10J2 (RFZ/R6A)	Petrol	1998	4	86.00	101
TU5JP (NFZ)	Petrol	1587	4	78.50	37	XU10J2TE (RGX)	Petrol	1998	4	86.00	82
TU5JP4 (NFU/N6A)		1587	4	78.50	24	XU10J2TE (RGX)	Petrol	1998	4	86.00	101
TU5JP4 (NFU/N6A)		1587	4	78.50	33	XU10J2TE (RGX)	Petrol	1998	4	86.00	116
TU5JP4 (NFU/N6A)		1587	4	78.50	50	XU10J2TE (RGY)	Petrol	1998	4	86.00	101
TU5JP4 (NFU/N6A)		1587	4	78.50	54	XU10J4 (RFT)	Petrol	1998	4	86.00	45
TU5JP4 (NFU/N6A)		1587	4	78.50	128	XU10J4 (RFT)	Petrol	1998	4	86.00	73
TU5JP4 (NFU/N6A)		1587	4	78.50	152	XU10J4 (RFT/RFY)	Petrol	1998	4	86.00	45
TU9	Diesel	954	4	70.00	1	XU10J4 (RFT/RFY)	Petrol	1998	4	86.00	73
TU9	Petrol	954	4	70.00	11	XU10J4R (RFV/R6E)	Petrol	1998	4	86.00	45
TU9M (CDY)/TU9M (CDZ)	Diesel	954	4	70.00	1	XU10J4R (RFV/R6E)		1998	4	86.00	80
TU32	Petrol	1360	4	75.00	14	XU10J4R (RFV/R6E)		1998	4	86.00	102
TU32	Petrol	1360	4	75.00	151	XU10J4R (RFV/R6E)		1998	4	86.00	118
TUD3	Diesel	1360	4	75.00	5	XU10J4RS (RFS)	Petrol	1998	4	86.00	45
TUD5 (VJX)	Diesel	1527	4	77.00	6	XU10J4TE (RGZ)	Petrol	1998	4	86.00	73
TUD5 (VJY)	Diesel	1527	4	77.00	6	XU51C (B1A/B1C/B1E)	Petrol	1580	4	83.00	16
XD2 (134)	Diesel	2304	4	94.00	95	XU51C (B1A/B1C/B1E)	Petrol	1580	4	83.00	57
XD3 (155)	Diesel	2498	4	94.00	98	XU51C (B1A/B1C/B1E)	Petrol	1580	4	83.00	64
XD3T	Diesel	2498	4	94.00	99	XU52C (B2A)	Petrol	1580	4	83.00	57
XD3T (152A)	Diesel	2498	4	94.00	99	XU52C (B2A)	Petrol	1580	4	83.00	64
XD3TE (152B)	Diesel	2498	4	94.00	99	XU92C (D2A)	Petrol	1905	4	83.00	20
XM7	Petrol	1796	4	84.00	94	XU92C (D2C)	Petrol	1905	4	83.00	68
XN1A (106E)	Petrol	1971	4	88.00	96	XU102C (R5A)	Petrol	1998	4	86.00	101
XN1T (170)	Petrol	1971	4	88.00	148	XUD7 (161A)	Diesel	1769	4	80.00	18
XN1T (170B)	Petrol	1971	4	88.00	148	XUD7 (161A)	Diesel	1769	4	80.00	58
XN1T (170D)	Petrol	1971	4	88.00	148	XUD7 (A9A)	Diesel	1769	4	80.00	40
XU5 (B1AA)	Petrol	1580	4	83.00	16	XUD7 (A9A)	Diesel	1769	4	80.00	153
XU5 (B1AA)	Petrol	1580	4	83.00	57	XUD7TE (A8A)	Diesel	1769	4	80.00	67
XU5CP (BAZ)	Petrol	1580	4	83.00	16	XUD7TE (A8B)	Diesel	1769	4	80.00	18
XU5CP (BAZ)	Petrol	1580	4	83.00	57	XUD7TE (A8B)	Diesel	1769	4	80.00	58
XU5CP (BAZ)	Petrol	1580	4	83.00	64	XUD7TE (AJZ)	Diesel	1769	4	80.00	67
XU5J (180)	Petrol	1580	4	83.00	16	XUD9 (162)	Diesel	1905	4	83.00	60
XU5J (180A)	Petrol	1580	4	83.00	16	XUD9 (D9A)	Diesel	1905	4	83.00	60
XU5JP (BFZ)	Petrol	1580	4	83.00	65	XUD9 (DJZ)	Diesel	1905	4	83.00	19
XU5JP (BFZ)	Petrol	1580	4	83.00	74	XUD9 (DJZ)	Diesel	1905	4	83.00	42
XU5M (BDZ)	Petrol	1580	4	83.00	57	XUD9 (DJZ)	Diesel	1905	4	83.00	60
XU5M (BDZ)	Petrol	1580	4	83.00	64	XUD9 (DJZ)	Diesel	1905	4	83.00	69
XU5M (BDZ)	Petrol	1580	4	83.00	65	XUD9A (D9B)	Diesel	1905	4	83.00	69
XU5M2Z (BDY)	Petrol	1580	4	83.00	16	XUD9A (D9B)	Diesel	1905	4	83.00	142
XU5M2Z (BDY)	Petrol	1580	4	83.00	57	XUD9A (D9B)	Diesel	1905	4	83.00	147
XU5M2Z (BDY)	Petrol	1580	4	83.00	64	XUD9A (D9B/DJY)	Diesel	1905	4	83.00	132
XU5M2Z (BDY)	Petrol	1580	4	83.00	65	XUD9A (DJY)	Diesel	1905	4	83.00	42
XU5M3Z (BDY)	Petrol	1580	4	83.00	16	XUD9A (DJY)	Diesel	1905	4	83.00	69
XU5M3Z (BDY)	Petrol	1580	4	83.00	57	XUD9A (DJY)	Diesel	1905	4	83.00	132
XU5M3Z (BDY)	Petrol	1580	4	83.00	64	XUD9A (DJY)	Diesel	1905	4	83.00	155
XU5M3Z (BDY)	Petrol	1580	4	83.00	65	XUD9SD (DHW)	Diesel	1905	4	83.00	77
XU7JP (LFW)	Petrol	1761	4	83.00	114	XUD9TE	Diesel	1905	4	83.00	133
XU7JP (LFZ)	Petrol	1761	4	83.00	38	XUD9TE (D8B)	Diesel	1905	4	83.00	144
XU7JP (LFZ)	Petrol	1761	4	83.00	62	XUD9TE (DHX)	Diesel	1905	4	83.00	78
XU7JP (LFZ)	Petrol	1761	4	83.00	66	XUD9TE (DHX)	Diesel	1905	4	83.00	115
XU7JP (LFZ)	Petrol	1761	4	83.00	141	XUD9TE (DHX)	Diesel	1905	4	83.00	144
XU7JP4 (LFY)	Petrol	1761	4	83.00	39	XUD9TE (DHY)	Diesel	1905	4	83.00	43
XU7JP4 (LFY)	Petrol	1761	4	83.00	76	XUD9TE (DHY)	Diesel	1905	4	83.00	71
XU9J1 (DFZ)	Petrol	1905	4	83.00	20	XUD9TE (DHY)	Diesel	1905	4	83.00	78
XU9J1 (DFZ)	Petrol	1905	4	83.00	59	XUD9TE (DHY)	Diesel	1905	4	83.00	133
XU9J1 (DFZ)	Petrol	1905	4	83.00	68	XUD9UTF (D8C)	Diesel	1905	4	83.00	133
XU9J4 (D6C/DFW)	Petrol	1905	4	83.00	61	XUD11A (P9A/PJZ)	Diesel	2138	4	86.00	103
XU9J4 (D6C/DFW)	Petrol	1905	4	83.00	70	XUD11ATE (PHZ/P8A/P8B)	Diesel	2088	4	85.00	104
XU9J4 (DFW)	Petrol	1905	4	83.00	61	XUD11BTE (P8C)	Diesel	2088	4	85.00	83
XU9J4 (DFW)	Petrol	1905	4	83.00	70	XUD11BTE (P8C)	Diesel	2088	4	85.00	105
XU9JA (D6B)	Petrol	1905	4	83.00	20	XUD11BTE (P8C)	Diesel	2088	4	85.00	120
XU9JA (D6B)	Petrol	1905	4	83.00	59	XY7 (150D)	Petrol	1360	4	75.00	14
XU9JAZ (DKZ)	Petrol	1905	4	83.00	20	XY7 (150G)	Petrol	1360	4	75.00	14

		CC			9			CC			9
<b>XY8 (150B)</b>	Petrol	1360	4	75.00	<b>15</b>						
<b>XY8 (150H)</b>	Petrol	1360	4	75.00	<b>15</b>						
<b>ZDJL (851B)</b>	Diesel	2165	4	88.00	<b>97</b>						
<b>ZDJL (851X)</b>	Diesel	2165	4	88.00	<b>97</b>						
<b>ZN3J (154X)</b>	Petrol	2849	6	91.00	<b>100</b>						
<b>ZPJ (UFZ)</b>	Petrol	2963	6	93.00	<b>107</b>						
<b>ZPJ4 (UKZ)</b>	Petrol	2963	6	93.00	<b>107</b>						

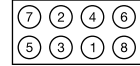
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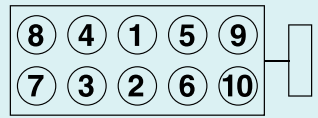
106 1.0L		09/91 → 04/96		1	
106 1.0L i		05/96 →			
TU9	954	4	70.00	SOHC	33/45
TU9M (CDY)/TU9M (CDZ)	954	4	70.00	SOHC	37/50
106 1.1L		09/91 → 04/96		2	
106 1.1L i		05/96 →			
TU1 (H1A/H1B/H3A)/TU1M (HDY)	1124	4	72.00	SOHC	40/54
TU1JP (HFX)/TU1M (HDZ)	1124	4	72.00	SOHC	44/60
106 1.3L		10/93 → 04/96		3	
TU2J2 (MFZ)	1294	4	75.00	SOHC	72/98
106 1.4L		09/91 → 04/96		4	
106 1.4L i		05/96 →			
TU3JP (KFW)/TU3JP (KFX)	1360	4	75.00	SOHC	55/75
TU3MC (KDX)	1360	4	75.00	SOHC	55-56/ 75-76
TU3M (KDY)	1360	4	75.00	SOHC	55-58/ 75-79
TU3J2 (KFZ)	1360	4	75.00	SOHC	69/93
106 1.4L D Diesel		09/92 → 04/96		5	
TUD3	1360	4	75.00	SOHC	39/53
106 1.5L D Diesel		06/94 → 04/96		6	
TUD5 (VJX)	1527	4	77.00	SOHC	40/54
TUD5 (VJY)	1527	4	77.00	SOHC	42/57
106 1.6L		06/93 → 04/96		7	
106 1.6L i		05/96 →			
TU5J2 (NFW)/TU5J2 (NFW/NFY)/TU5JP (NFZ)	1587	4	78.50	SOHC	65/88
106 1.6L S16		05/96 →		8	
TU5J4 (NFX)	1587	4	78.50	DOHC	87/118
107 1.0L		06/05 →		9	
1KR (384 F)	998	3	71.00		
107 1.4L HDI Diesel		06/05 →		10	
8HT (DV4TD)	1398	4	73.70	Direct Injection, SOHC/OHC	40/54
205 1.0L		10/87 → 09/98		11	
TU9	954	4	70.00	SOHC	33/45
205 1.1L		10/87 → 09/98		12	
205 Convertible 1.1L CJ		10/89 → 12/94			
TU1 (H1A/H1B/H3A)	1124	4	72.00	SOHC	40/54
TU1M (HDZ)	1124	4	72.00	SOHC	44/60

HBS039



M10x1.50x175mm (x10)

- 1) 20Nm
- 2) 120°
- 3) 120°

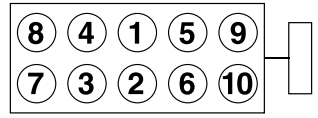


HBS039



M10x1.50x175mm (x10)

- 1) 20Nm
- 2) 120°
- 3) 120°

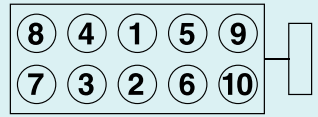


HBS039



M10x1.50x175mm (x10)

- 1) 20Nm
- 2) 120°
- 3) 120°

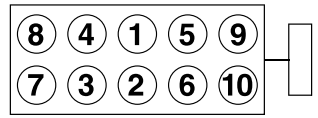


HBS039



M10x1.50x175mm (x10)

- 1) 20Nm
- 2) 120°
- 3) 120°

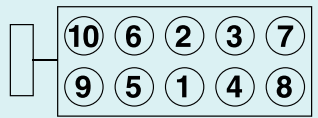


HBS082



M10x1.50x185mm (x10)

- 1) 60Nm
- 2) ↻ 360°
- 3) 20Nm
- 4) 160°
- 5) 160°

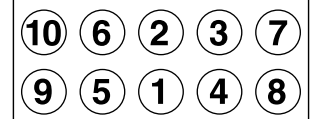


HBS113



M11x1.50x185mm (x10)

- 1) 40Nm
- 2) 300°

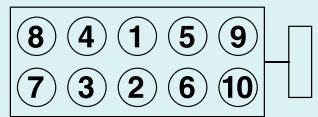


HBS039



M10x1.50x175mm (x10)

- 1) 20Nm
- 2) 120°
- 3) 120°

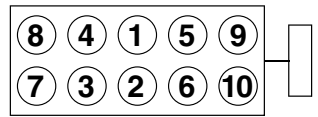


HBS254



M10x1.50x122mm (x10)

- 1) 20Nm
- 2) 130°
- 3) 130°

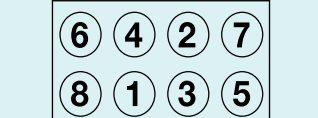


HBS508



M9x1.50x121mm (x8)

- 1) 35Nm
- 2) ↻ 90°
- 3) 35Nm
- 4) 90°
- 5) 90°

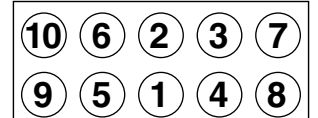


HBS359



M11x1.50x150mm (x10)

- 1) 149Nm
- 2) 20Nm
- 3) 40Nm
- 4) 230°

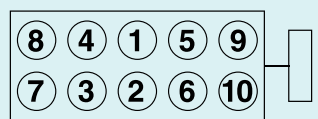


HBS039



M10x1.50x175mm (x10)

- 1) 20Nm
- 2) 120°
- 3) 120°

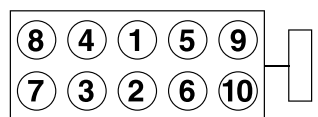


HBS039



M10x1.50x175mm (x10)

- 1) 20Nm
- 2) 120°
- 3) 120°

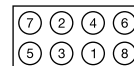




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205 1.3L Rallye						10/87 → 10/90	13	HB5039		1) 20Nm 2) 120° 3) 120°	
TU2.4	1294	4	75.00	SOHC		70/95		 M10x1.50x175mm (x10)			
205 1.4L						08/87 → 09/98	14	HB5039		1) 20Nm 2) 120° 3) 120°	
205 1.4L i						01/91 →			 M10x1.50x175mm (x10)		
205 Convertible 1.4L CJ						03/88 → 12/94					
TU3CP (KAY)/XY7 (150D)/XY7 (150G)	1360	4	75.00	SOHC		44/60					
TU3A (K1D)	1360	4	75.00	SOHC		49/67					
TU32	1360	4	75.00	SOHC		51-52/ 70-71					
TU3JP (KFX)/TU3M (KDZ)	1360	4	75.00	SOHC		55/75					
TU3MC (KDX)	1360	4	75.00	SOHC		55-56/ 75-76					
TU3M (KDY)	1360	4	75.00	SOHC		55-58/ 75-79					
TU3 F (Cast Iron Block)	1360	4	75.00	SPi							
205 1.4L						07/88 → 05/89	15	HB5039		1) 20Nm 2) 120° 3) 120°	
XY8 (150H)	1360	4	75.00	SOHC		58/79					
XY8 (150B)	1360	4	75.00	SOHC		58-59/ 79-80					
205 1.6L						10/87 → 09/98	16	HB5038		1) 60Nm 2) ↻ 180° 3) 20Nm 4) 300°	
205 1.6L Aut.						05/90 → 09/98			 M11x1.50x175mm (x10)		
205 1.6L GTI						10/87 → 12/89					
205 Aut.						10/87 → 09/98					
205 Convertible 1.6L CTI						04/86 → 10/90					
205 Convertible 1.6L CJ						08/92 → 12/94					
205 GTI						10/87 → 12/89					
XU51C (B1A/B1C/B1E)	1580	4		SOHC		58/79					
	1580	4				85/116					
	1580	4	83.00			53-55/ 72-75					
XU5CP (BAZ)	1580	4	83.00			54-55/ 74-75					
XU5 (B1AA)	1580	4	83.00	SOHC		55/75					
XU5M3Z (BDY)	1580	4	83.00	SOHC		65-66/ 88-90					
XU5M2Z (BDY)	1580	4	83.00	SOHC		65-71/ 88-97					
XU5J (180)	1580	4	83.00			76/103					
XU5J (180A)	1580	4	83.00	SOHC		76/103					
205 GTX						01/87 → 10/91	17	HB5038		1) 60Nm 2) ↻ 180° 3) 20Nm 4) 150°	
	1592	4				69/94					
								 M11x1.50x175mm (x10)			
								 M11x1.50x168mm (x10)			
205 1.7L D Diesel						08/83 → 09/98	18	HB5084		1) 20Nm 2) 60Nm 3) 180°	
205 1.7L TD Diesel						01/90 → 09/98					
205 Van 1.7L D Diesel						03/94 →					
XUD7 (161A)	1769	4	80.00	SOHC		44/60					
XUD7E (A8B)	1769	4	80.00	SOHC		57/78					
								 M12x1.50x123mm (x10)			
205 1.9L D Diesel						10/87 → 09/98	19	HB5084		1) 20Nm 2) 60Nm 3) 180°	
XUD9 (DJZ)	1905	4	83.00	SOHC		47/64					
								 M12x1.50x123mm (x10)			



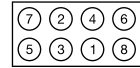
# PEUGEOT



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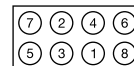
205 1.9L GTI					10/87→09/98	20		
205 Convertible 1.9L CTI					10/87→12/94			
XU92C (D2A)	1905	4	83.00	SOHC	75/102	 M11x1.50x175mm (x10)	1) 60Nm 2) ↺ 180° 3) 20Nm 4) 150°	
XU9J1 (DFZ)/XU9JAZ (DKZ)	1905	4	83.00	SOHC	90/122			
XU9JA (D6B)	1905	4	83.00	SOHC	94-96/ 128-131			
206 1.1L					07/02→	21		
206 1.1L i					09/98→			
TU1JP (HFZ)/TU1JP (HFZ)	1124	4	72.00	SOHC	44/60	 M11x1.50x168mm (x10)	1) 60Nm 2) ↺ 180° 3) 20Nm 4) 120°	
206 1.4L					07/02→	22		
206 1.4L i					09/98→			
TU 3 JP/TU3JP (KFW)/TU3JP (KFX)	1360	4	75.00	SOHC	55/75	 M10x1.50x175mm (x10)	1) 20Nm 2) 120° 3) 120°	
206 1.4L HDI Diesel					07/02→	23		
206 1.4L HDI eco 70 Diesel					09/01→			
DV4TD (8HZ)	1398	4	73.70	SOHC	50/68	 M11x1.50x150mm (x10)	1) 149Nm 2) 20Nm 3) 40Nm 4) 230°	
DV4TD (8HX)	1398	4	73.70	SOHC	52/71			
206 1.6L 16V					09/00→	24		
TU5JP4 (NFU/N6A)	1587	4	78.50	DOHC	80/109	 M10x1.50x122mm (x10)	1) 20Nm 2) 130° 3) 130°	
206 1.6L HDI FAP 110 Diesel					05/04→	25		
DV6TED4 (9HY)/DV6TED4 (9HZ)	1560	4	75.00	DOHC	80/109	 M11x1.50x150mm (x10)	1) 20Nm 2) 40Nm 3) 180°	
206 1.6L i					09/98→12/00	26		
TU5JP (NFZ)	1587	4	78.50	SOHC	65/88	 M10x1.50x175mm (x10)	1) 20Nm 2) 120° 3) 120°	
206 1.9L D Diesel					09/98→11/01	27		
DW8 (WIZ)	1868	4	82.20	SOHC	51/69	 M12x1.50x123mm (x10)	1) 20Nm 2) 60Nm 3) 180°	
						 Eng.08470→ M12x1.50x125mm (x10)	1) 20Nm 2) 60Nm 3) 180°	
206 2.0L 16V					07/02→	28		
206 2.0L RC					07/03→			
206 2.0L S16					04/99→10/00			
EW10J4 (RFR)	1997	4	85.00	DOHC	99/135	 M11x1.50x144.5mm (x10)	1) 15Nm 2) 50Nm 3) ↺ 360° 4) 20Nm 5) 285°	
EW10J4 (RFN)	1997	4	85.00	DOHC	100/136			
EW10J4S (RFK)	1997	4	85.00	DOHC	130/177			
206 2.0L HDI Diesel					07/02→	29		
206 2.0L HDI 90 Diesel					12/99→			
DW10TD (RHY)	1997	4	85.00	SOHC	63/86	 M12x1.50x126mm (x10)	1) 20Nm 2) 60Nm 3) 220°	



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					01/09 →	30				
<b>206+ 1.4L i</b>										
KFV (TU3A)	1360	4	75.00	SOHC	54/73	<b>HBS039</b>  M10x1.50x175mm (x10)	1) 20Nm 2) 120° 3) 120°			
KFW (TU3A)	1360	4	75.00	Petrol Injection, SOHC/OHC	55/75					
					02/06 →	31				
<b>207 1.4L</b>										
KFV (TU3A)	1360	4	75.00	SOHC	54/73	<b>HBS039</b>  M10x1.50x175mm (x10)	1) 20Nm 2) 120° 3) 120°			
					02/06 →	32				
<b>207 1.4L HDI Diesel</b>										
DV4TD (8HR)	1398	4	73.70	SOHC, Straight	50/68	<b>HBS359</b>  M11x1.50x150mm (x10)	1) 149Nm 2) 20Nm 3) 40Nm 4) 230°			
DV4TD (8HZ)	1398	4	73.70	SOHC	50/68					
					02/06 →	33				
<b>207 1.6L 16V</b>										
TU5JP4 (NFU/N6A)	1587	4	78.50	DOHC	80/109	<b>HBS254</b>  M10x1.50x122mm (x10)	1) 20Nm 2) 130° 3) 130°			
					02/06 →	34				
<b>207 1.6L HDI Diesel</b>										
DV6ATED4 (9HX)	1560	4	75.00	DOHC	66/92	<b>HBS359</b>  M11x1.50x150mm (x10)	1) 20Nm 2) 40Nm 3) 180°			
DV6TED4 (9HY)/DV6TED4 (9HZ)	1560	4	75.00	DOHC	80/109					
					05/93 →05/01	35				
<b>306 1.1L</b>										
TU1M (HDZ)	1124	4	72.00	SOHC	44/60	<b>HBS039</b>  M10x1.50x175mm (x10)	1) 20Nm 2) 120° 3) 120°			
					05/93 →04/02	36				
<b>306 1.4L</b>										
<b>306 1.4L SL</b>										
TU3JP (KFW)/TU3JP (KFX)	1360	4	75.00	SOHC	55/75	<b>HBS039</b>  M10x1.50x175mm (x10)	1) 20Nm 2) 120° 3) 120°			
TU3MC (KDX)	1360	4	75.00	SOHC	55-56/ 75-76					
					05/93 →04/02	37				
<b>306 1.6L</b>										
<b>306 1.6L SR</b>										
<b>306 Convertible 1.6L</b>										
TU5JP (NFZ)	1587	4	78.50	SOHC	65/88	<b>HBS039</b>  M10x1.50x175mm (x10)	1) 20Nm 2) 120° 3) 120°			
TU5JP (NFT)	1587	4	78.50	SOHC	72/98					
					05/93 →04/02	38				
<b>306 1.8L</b>										
<b>306 1.8L ST</b>										
<b>306 Convertible 1.8L</b>										
XU7JP (LFZ)	1761	4	83.00	SOHC	74/100	<b>HBS260</b>  M11x1.50x168mm (x10)	1) 60Nm 2) ↻ 180° 3) 20Nm 4) 150°			
					03/97 →04/02	39				
<b>306 1.8L 16V</b>										
<b>306 Convertible 1.8L 16V</b>										
XU7JP4 (LFY)	1761	4	83.00	DOHC	81/110	<b>HBS089</b>  M11x1.50x159mm (x10)	1) 60Nm 2) ↻ 360° 3) 20Nm 4) 300°			
					05/93 →05/01	40				
<b>306 1.8L D Diesel</b>										
XUD7 (A9A)	1769	4	80.00		44/60	<b>HBS084</b> →Eng.08469  M12x1.50x123mm (x10)	1) 20Nm 2) 60Nm 3) 180°			

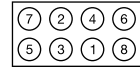
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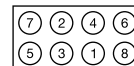
306 1.9L D Diesel		09/98 → 04/02		41	
DW8 (WJZ)/DW8B (WJY)	1868	4	82.20	SOHC	51/69
<b>HBS084</b> → Eng.08469 M12x1.50x123mm (x10)					
1) 20Nm 2) 60Nm 3) 180°					
<b>HBS245</b> Eng.08470 → M12x1.50x125mm (x10)					
1) 20Nm 2) 60Nm 3) 180°					
306 1.9L D Diesel		05/93 → 04/02		42	
306 1.9L SLD Diesel		06/94 → 05/01			
XUD9 (DJZ)	1905	4	83.00	SOHC	47/64
XUD9A (DJY)	1905	4	83.00	SOHC	51/69
DHV (XUD9BSD)	1905	4	83.00		55/75
<b>HBS084</b> M12x1.50x123mm (x10)					
1) 20Nm 2) 60Nm 3) 180°					
306 1.9L DT Diesel		05/93 → 05/01		43	
306 1.9L SRDT Diesel		06/94 → 05/01			
306 1.9L TD Diesel		02/97 → 04/02			
XUD9TE (DHY)	1905	4	83.00		66/89
<b>HBS088</b> → Eng.08574 M12x1.50x145mm (x10)					
1) 20Nm 2) 40Nm 3) 60Nm 4) ↗ 90° 5) 60Nm 6) 110° 7) 110°					
<b>HBS277</b> Eng.08575 → M12x1.50x148mm (x10)					
1) 20Nm 2) 40Nm 3) 60Nm 4) ↗ 90° 5) 60Nm 6) 110° 7) 110°					
306 2.0L		05/93 →		44	
<b>HBS084</b> M12x1.50x123mm (x10)					
1) 20Nm 2) 60Nm 3) 180°					
306 2.0L		03/97 → 04/02		45	
306 2.0L 16V		03/97 → 05/01			
306 2.0L S16		05/93 → 05/01			
306 Convertible 2.0L 16V		03/97 → 04/02			
XU10J4R (RFV/R6E)	1998	4	86.00	DOHC	99/135
XU10J4 (RFT)	1998	4	86.00	DOHC	110-112/ 150-152
XU10J4 (RFT/RFY)	1998	4	86.00	DOHC	112/152
XU10J4RS (RFS)	1998	4	86.00	DOHC	120-123/ 163-167
<b>HBS087</b> → Eng.08581 M12x1.50x110mm (x10)					
1) 35Nm 2) 70Nm 3) 160°					
306 2.0L HDI 90 Diesel		06/99 → 04/02		46	
DW10TD (RHY)	1997	4	85.00	SOHC	63/86
<b>HBS261</b> M12x1.50x126mm (x10)					
1) 20Nm 2) 60Nm 3) 220°					
306 2.0L ST		07/94 → 05/01		47	
306 2.0L XSi		05/93 → 05/01			
306 Convertible 2.0L		03/94 → 04/02			
XU10J2 (RFX)	1998	4	86.00	SOHC	89-96/ 121-131
<b>HBS084</b> M12x1.50x123mm (x10)					
1) 20Nm 2) 60Nm 3) 180°					
307 1.4L		08/00 →		48	
TU3JP (KFW)	1360	4	75.00	SOHC	55/75
<b>HBS039</b> M10x1.50x175mm (x10)					
1) 20Nm 2) 120° 3) 120°					



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307 1.4L HDI Diesel					10/01 →	49	HBS359	1) 149Nm 2) 20Nm 3) 40Nm 4) 230°	
DV4TD (8HZ)	1398	4	73.70	SOHC		50/68	 M11x1.50x150mm (x10)		
DV4TD (8HX)	1398	4	73.70	SOHC		52/71			
307 1.6L 16V					08/00 →	50	HBS254	1) 20Nm 2) 130° 3) 130°	
307 1.6L BioFlex					09/07 →		 M10x1.50x122mm (x10)		
TU5JP4 (NFU/N6A)	1587	4	78.50	DOHC		80/109			
307 1.6L HDI Diesel					04/05 →	51	HBS359	1) 20Nm 2) 40Nm 3) 180°	
307 1.6L HDI 110 FAP Diesel					02/04 →		 M11x1.50x150mm (x10)		
DV6ATED4 (9HX)	1560	4	75.00	DOHC		66/92			
DV6TED4 (9HY)/DV6TED4 (9HZ)	1560	4	75.00	DOHC		80/109			
307 2.0L					03/02 →	52	HBS259	1) 15Nm 2) 50Nm 3) ↻ 360° 4) 20Nm 5) 285°	
307 2.0L 16V					08/00 →		 M11x1.50x144.5mm (x10)		
EW10J4 (RFN)	1997	4	85.00	DOHC		100/136			
EW10A (RFJ)	1997	4	85.00	DOHC		103/140			
EW10J4S (RFK)	1997	4	85.00	DOHC		130/177			
307 2.0L HDI 110 FAP Diesel					08/00 →	53	HBS261	1) 20Nm 2) 60Nm 3) 220°	
307 2.0L HDI 135 FAP Diesel					10/03 →		 M12x1.50x126mm (x10)		
307 2.0L HDI 90 Diesel					08/00 →				
DW10TD (RHY)	1997	4	85.00	SOHC		63/86			
DW10ATED (RHS)	1997	4	85.00	DOHC		81/110			
DW10BTED4 (RHR)	1997	4	85.00	DOHC		100/136			
308 1.6L Bioflex					04/08 →	54	HBS254	1) 20Nm 2) 130° 3) 130°	
TU5JP4 (NFU/N6A)	1587	4	78.50	DOHC		80/109	 M10x1.50x122mm (x10)		
309 1.1L					08/90 →12/93	55	HBS039	1) 20Nm 2) 120° 3) 120°	
TU1M (HDZ)	1124	4	72.00	SOHC		44/60	 M10x1.50x175mm (x10)		
309 1.4L					03/89 →12/93	56	HBS039	1) 20Nm 2) 120° 3) 120°	
309 1.4L i					01/91 →		 M10x1.50x175mm (x10)		
TU3A (K1D)	1360	4	75.00	SOHC		49/67			
TU3M (KDZ)	1360	4	75.00	SOHC		55/75			
TU3M (KDY)	1360	4	75.00	SOHC		55-58/ 75-79			
TU3S (K2B)	1360	4	75.00	SOHC		62/84			
TU3 F (Cast Iron Block)	1360	4	75.00	SPi					
309 1.6L					10/85 →12/93	57	HBS038	1) 60Nm 2) ↻ 180° 3) 20Nm 4) 150°	
XU51C (B1A/B1C/B1E)	1580	4	83.00	SOHC		53-55/ 72-75	 M11x1.50x175mm (x10)		
XU5CP (BAZ)	1580	4	83.00			54-55/ 74-75			
XU5 (B1AA)	1580	4	83.00	SOHC		55/75	 M11x1.50x168mm (x10)		
XU5M (BDZ)/XU5M3Z (BDY)	1580	4	83.00	SOHC		65-66/ 88-90			
XU5M2Z (BDY)	1580	4	83.00	SOHC		65-71/ 88-97			
XU52C (B2A)	1580	4	83.00	SOHC		68/92			
309 1.8L D Diesel					07/89 →12/93	58	HBS084	1) 20Nm 2) 60Nm 3) 180°	
309 1.8L TD Diesel					08/89 →12/93		 M12x1.50x123mm (x10)		
XUD7 (161A)	1769	4	80.00	SOHC		44/60			
XUD7TE (ABB)	1769	4	80.00	SOHC		57/78			

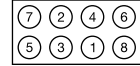
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309 1.9L						10/85 → 12/93	59		
309 1.9L GTI						10/86 → 12/93			
XU9S (D2B)	1905	4	83.00	SOHC		75/102	 M11x1.50x175mm (x10)	1) 60Nm 2) ↺ 180° 3) 20Nm 4) 150°	
XU9J1 (DFZ)/XU9JAZ (DKZ)/XU9M (DDZ)	1905	4	83.00	SOHC		90/122			
XU9JA (D6B)	1905	4	83.00	SOHC		94-96/ 128-131			
309 1.9L D Diesel						06/86 → 12/93	60		
XUD9 (D9A)/XUD9 (DJZ)	1905	4	83.00	SOHC		47/64	 M11x1.50x168mm (x10)	1) 60Nm 2) ↺ 180° 3) 20Nm 4) 120°	
XUD9 (162)	1905	4	83.00	SOHC		47-48/ 64-65			
309 1.9L GTI 16V						08/89 → 12/93	61		
XU9J4 (DFW)	1905	4	83.00	DOHC		90/122	 M11x1.50x175mm (x10)	1) 60Nm 2) ↺ 180° 3) 20Nm 4) 300°	
XU9J4 (D6C/DFW)	1905	4	83.00	DOHC		116/158			
404 1.8L i						05/93 →	62		
XU7JP (LFZ)	1761	4	83.00	SOHC		74/100	 M11x1.50x168mm (x10)	1) 60Nm 2) ↺ 180° 3) 20Nm 4) 150°	
405 1.4L						01/87 → 10/96	63		
TU 3	1360	4	75.00	SOHC		44-51/ 60-69	 M10x1.50x175mm (x10)	1) 20Nm 2) 120° 3) 120°	
TU3MC (KDX)	1360	4	75.00	SOHC		55-56/ 75-76			
405 1.6L						01/87 → 12/92	64		
XU51C (B1A/B1C/B1E)	1580	4	83.00	SOHC		53-55/ 72-75	 M11x1.50x175mm (x10)	1) 60Nm 2) ↺ 180° 3) 20Nm 4) 300°	
XU5CP (BAZ)	1580	4	83.00			54-55/ 74-75			
XU5M (BDZ)/XU5M3Z (BDY)	1580	4	83.00	SOHC		65-66/ 88-90	 M11x1.50x168mm (x10)	1) 60Nm 2) ↺ 180° 3) 20Nm 4) 120°	
XU5M2Z (BDY)	1580	4	83.00	SOHC		65-71/ 88-97			
XU52C (B2A)	1580	4	83.00	SOHC		68/92			
405 1.6L						08/92 → 10/96	65		
XU5JP (BFZ)	1580	4	83.00	SOHC		65/88	 → Eng.07448 M11x1.50x175mm (x10)	1) 60Nm 2) ↺ 180° 3) 20Nm 4) 300°	
XU5M (BDZ)/XU5M3Z (BDY)	1580	4	83.00	SOHC		65-66/ 88-90			
XU5M2Z (BDY)	1580	4	83.00	SOHC		65-71/ 88-97	 M11x1.50x168mm (x10)	1) 60Nm 2) ↺ 180° 3) 20Nm 4) 120°	
							 Eng.07448 → M11x1.50x168mm (x10)	1) 60Nm 2) ↺ 180° 3) 20Nm 4) 300°	

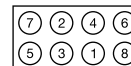




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405 1.8L					08/92 → 10/96	66	
XU7JP (LFZ)	1761	4	83.00	SOHC	74/100	<b>HBS038</b> → Eng.07448 M11x1.50x175mm (x10) 1) 60Nm 2) ↻ 180° 3) 20Nm 4) 300°	
						<b>HBS083</b> M11x1.50x168mm (x10) 1) 60Nm 2) ↻ 180° 3) 20Nm 4) 120°	
						<b>HBS260</b> Eng.07448 → M11x1.50x168mm (x10) 1) 60Nm 2) ↻ 180° 3) 20Nm 4) 150°	
405 1.8L T D Diesel					03/88 → 12/92	67	
405 1.8L TD Diesel					10/88 → 08/92		
XUD7TE (A8A)	1769	4	80.00	SOHC	66/90	<b>HBS084</b> M12x1.50x123mm (x10) 1) 20Nm 2) 60Nm 3) 180°	
XUD7TE (AJZ)	1769	4	80.00		66/90		
405 1.9L					07/87 → 12/92	68	
405 1.9L 4x4					07/88 → 12/92		
405 1.9L Injection					07/87 → 12/92		
XU92C (D2C)	1905	4	83.00	SOHC	70/95	<b>HBS038</b> M11x1.50x175mm (x10) 1) 60Nm 2) ↻ 180° 3) 20Nm 4) 300°	
XU9J1 (DFZ)/XU9JAZ (DKZ)/XU9M (DDZ)	1905	4	83.00	SOHC	90/122		
						<b>HBS083</b> M11x1.50x168mm (x10) 1) 60Nm 2) ↻ 180° 3) 20Nm 4) 120°	
405 1.9L D Diesel					03/88 → 10/96	69	
XUD9 (DJZ)	1905	4	83.00	SOHC	47/64	<b>HBS084</b> M12x1.50x123mm (x10) 1) 20Nm 2) 60Nm 3) 180°	
XUD9A (D9B)/XUD9A (DJY)	1905	4	83.00	SOHC	51/69		
405 1.9L Sport MI-16					07/87 → 12/92	70	
405 1.9L SPort MI-16 4x4					04/88 → 12/92		
XU9J4 (DFW)	1905	4	83.00	DOHC	90/122	<b>HBS038</b> M11x1.50x175mm (x10) 1) 60Nm 2) ↻ 180° 3) 20Nm 4) 150°	
XU9J4 (D6C/DFW)	1905	4	83.00	DOHC	116/158		
405 1.9L TD Diesel					08/92 → 10/96	71	
XUD9TE (DHY)	1905	4	83.00		66/89	<b>HBS088</b> → Eng.08574 M12x1.50x145mm (x10) 1) 20Nm 2) 40Nm 3) 60Nm 4) ↻ 90° 5) 60Nm 6) 110° 7) 110°	
						<b>HBS277</b> Eng.08575 → M12x1.50x148mm (x10) 1) 20Nm 2) 40Nm 3) 60Nm 4) ↻ 90° 5) 60Nm 6) 110° 7) 110°	
405 2.0L					08/92 → 10/96	72	
405 2.0L 4x4					08/92 → 10/96		
405 2.0L X4					08/92 → 10/95		
XU10J2 (RFX)	1998	4	86.00	SOHC	89-96/ 121-131	<b>HBS084</b> M12x1.50x123mm (x10) 1) 20Nm 2) 60Nm 3) 180°	



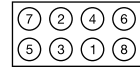
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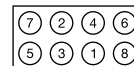
405 2.0L 16V 405 2.0L MI-16 405 2.0L T 16 X4						06/94 → 10/95 08/92 → 10/95 08/92 → 10/95	73	<b>HBS087</b> → Eng.08581  M12x1.50x110mm (x10)	1) 35Nm 2) 70Nm 3) 160°	
XU10J4 (RFT)	1998	4	86.00	DOHC	110-112/ 150-152					
XU10J4 (RFT/RFY)	1998	4	86.00	DOHC	112/152					
XU10J4TE (RGZ)	1998	4	86.00	DOHC	144/196					
406 1.6L						11/95 → 05/04	74	<b>HBS038</b> → Eng.07448  M11x1.50x175mm (x10)	1) 60Nm 2) ↺ 180° 3) 20Nm 4) 300°	
XU5JP (BFZ)	1580	4	83.00	SOHC	65/88					
406 1.8L 16V						10/00 → 10/04	75	<b>HBS083</b>  M11x1.50x168mm (x10)	1) 60Nm 2) ↺ 180° 3) 20Nm 4) 120°	
EW7J4 (6FZ)	1749	4	82.70	DOHC	85/116					
406 1.8L 16V						11/95 → 10/00	76	<b>HBS260</b> Eng.07448 →  M11x1.50x168mm (x10)	1) 60Nm 2) ↺ 180° 3) 20Nm 4) 300°	
XU7JP4 (LFY)	1761	4	83.00	DOHC	81/110					
406 1.9L D Diesel						10/96 → 10/04	77	<b>HBS259</b>  M11x1.50x144.5mm (x10)	1) 15Nm 2) 50Nm 3) ↺ 360° 4) 20Nm 5) 285°	
XUD9SD (DHW)	1905	4	83.00	SOHC	66/89					
406 1.9L TD Diesel						01/96 → 10/04	78	<b>HBS089</b>  M11x1.50x159mm (x10)	1) 60Nm 2) ↺ 360° 3) 20Nm 4) 300°	
XUD9TE (DHX)	1905	4	83.00	SOHC	66/89					
XUD9TE (DHY)	1905	4	83.00	SOHC	66/89					
406 2.0L 16V 406 2.0L 16V HPi 406 Coupe 2.0L 16V						01/99 → 10/04 05/01 → 10/04 01/99 → 12/04	79	<b>HBS084</b>  M12x1.50x123mm (x10)	1) 35Nm 2) 70Nm 3) 160°	
EW10J4 (RFR)	1997	4	85.00	DOHC	99/135					
EW10J4 (RFN)	1997	4	85.00	DOHC	100/136					
EW10D (RLZ)	1997	4	85.00	DOHC	103/140					
								<b>HBS088</b> → Eng.08574  M12x1.50x145mm (x10)	1) 20Nm 2) 40Nm 3) 60Nm 4) ↺ 90° 5) 60Nm 6) 110° 7) 110°	
								<b>HBS277</b> Eng.08575 →  M12x1.50x148mm (x10)	1) 20Nm 2) 40Nm 3) 60Nm 4) ↺ 90° 5) 60Nm 6) 110° 7) 110°	
								<b>HBS259</b>  M11x1.50x144.5mm (x10)	1) 15Nm 2) 50Nm 3) ↺ 360° 4) 20Nm 5) 285°	



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<b>406 2.0L 16V</b> 11/95 → 10/04 <b>80</b> <b>406 Coupe 2.0L 16V</b> 03/97 → 12/04					<b>HBS087</b> → Eng.08581  M12x1.50x110mm (x10)	1) 35Nm 2) 70Nm 3) 160°	
XU10J4R (RFV/R6E) 1998 4 86.00 DOHC 99/135							
<b>406 2.0L HDI 110 Diesel</b> 06/98 → 04/04 <b>81</b> <b>406 2.0L HDI 110 FAP Diesel</b> 08/01 → 10/04 <b>406 2.0L HDI 90 Diesel</b> 02/99 → 10/04					<b>HBS261</b>  M12x1.50x126mm (x10)	1) 20Nm 2) 60Nm 3) 220°	
DW10TD (RHY) 1997 4 85.00 SOHC 63/86 DW10ATED (RHZ) 1997 4 85.00 SOHC 80/109 DW10ATED (RHS) 1997 4 85.00 DOHC 81/110							
<b>406 2.0L Turbo</b> 04/96 → 10/04 <b>82</b>					<b>HBS084</b>  M12x1.50x123mm (x10)	1) 35Nm 2) 70Nm 3) 160°	
XU10J2TE (RGX) 1998 4 86.00 108/147							
<b>406 2.1L TD 12V Diesel</b> 01/96 → 10/04 <b>83</b>					<b>HBS125</b>  M12x1.50x150.5mm (x10)	1) 30Nm 2) 70Nm 3) ↻ 90° 4) 70Nm 5) 150° 6) ⚡ 7) ⚡ 8) ↻ 90° 9) 70Nm 10) 150°	
XUD11BTE (P8C) 2088 4 85.00 SOHC 81/110							
<b>406 2.2L</b> 07/00 → 10/04 <b>84</b> <b>406 Coupe 2.2L</b> 03/02 → 12/04					<b>HBS309</b>  M11x1.50x128mm (x10)	1) 15Nm 2) 50Nm 3) ≈ 360° 4) 20Nm 5) 270°	
EW12J4 (3FZ) 2230 4 86.00 DOHC 118/160							
<b>406 2.2L HDI FAP Diesel</b> 03/00 → 10/04 <b>85</b> <b>406 Coupe 2.2L HDI FAP Diesel</b> 03/00 → 12/04					<b>HBS261</b>  M12x1.50x126mm (x10)	1) 20Nm 2) 60Nm 3) ↻ 360° 4) 60Nm 5) 220°	
DW12TED4 (4HX/4HW) 2179 4 85.00 DOHC 100/136							
<b>406 3.0L 24V</b> 10/96 → 05/04 <b>86</b> <b>406 3.0L V6</b> 03/00 → 12/04 <b>406 24V</b> 10/96 → 10/04 <b>406 V6 24V</b> 03/97 → 12/04					<b>HBS272</b>  M10x1.50x147mm (x16)	1) 20Nm 2) ↻ 360° 3) 15Nm 4) 225°	
ES9J4 (XFZ)/ES9J4S (XFX/XFW) 2946 6 87.00 DOHC 152/207							
<b>407 1.6L HDI 110 FAP Diesel</b> 05/04 → <b>87</b>					<b>HBS359</b>  M11x1.50x150mm (x10)	1) 20Nm 2) 40Nm 3) 180°	
DV6TED4 (9HY) 1560 4 75.00 DOHC 80/109							
<b>407 1.8L</b> 05/04 → <b>88</b> <b>407 1.8L 16V</b> 09/05 →					<b>HBS259</b>  M11x1.50x144.5mm (x10)	1) 15Nm 2) 50Nm 3) ↻ 360° 4) 20Nm 5) 285°	
EW7J4 (6FZ) 1749 4 82.70 DOHC 85/116 EW7A (6FY) 1749 4 82.70 DOHC							
<b>407 2.0L</b> 05/04 → <b>89</b> <b>407 2.0L 16V</b> 09/05 →					<b>HBS259</b>  M11x1.50x144.5mm (x10)	1) 15Nm 2) 50Nm 3) ↻ 360° 4) 20Nm 5) 285°	
EW10J4 (RFN) 1997 4 85.00 DOHC 100/136 EW10A (RFJ) 1997 4 85.00 DOHC 103/140							
<b>407 2.0L HDI 135 FAP Diesel</b> 05/04 → <b>90</b> <b>407 Coupe 2.0L HDI Diesel</b> 10/05 →					<b>HBS261</b>  M12x1.50x126mm (x10)	1) 20Nm 2) 60Nm 3) 220°	
DW10BTED4 (RHR) 1997 4 85.00 DOHC 100/136							

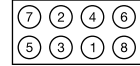
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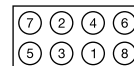
<b>407 2.2L</b> 05/04 → <b>91</b> <b>407 2.2L 16V</b> 09/05 → <b>407 Coupe 2.2L</b> 10/05 →					<b>HBS309</b>  M11x1.50x128mm (x10)	1) 15Nm 2) 50Nm 3) ≈ 360° 4) 20Nm 5) 270°	
EW1214 (3FZ)	2230	4	86.00	DOHC			
EW1214 (3FY)	2230	4	86.00	DOHC			
<b>407 2.2L HDi 170 Diesel</b> 05/06 → <b>92</b> DW12BTD4 (4HT)					<b>HBS261</b>  M12x1.50x126mm (x10)	1) 20Nm 2) 60Nm 3) ≈ 360° 4) 60Nm 5) 220°	
	2179	4	85.00	DOHC			
<b>407 3.0L</b> 05/04 → <b>93</b> <b>407 3.0L V6</b> 10/05 →					<b>HBS272</b>  M10x1.50x147mm (x16)	1) 20Nm 2) ≈ 360° 3) 15Nm 4) 225°	
ES9A (XFV)	2946	6	87.00	DOHC			
<b>504 1.8L</b> 07/87 → 12/89 <b>94</b> XM7					<b>HBS038</b>  M11x1.50x175mm (x10)	1) 60Nm 2) ≈ 180° 3) 20Nm 4) 150°	
	1796	4	84.00				
<b>504 2.3L D Diesel</b> 01/80 → 12/89 <b>95</b> XD2 (134)					<b>HBS015</b>  M11x1.50x97.5mm (x8) M11x1.50x120mm (x7) M11x1.50x107.5mm (x7)	1) 30Nm 2) 70Nm 3) ≈ 90° 4) 70Nm 5) ↓ 6) * 7) ≈ 90° 8) 70Nm 9) 120°	
	2304	4	94.00				
<b>505 2.0L</b> 09/85 → 09/91 <b>96</b> XN1A (106E)					<b>HBS038</b>  M11x1.50x175mm (x10)	1) 60Nm 2) ≈ 180° 3) 20Nm 4) 150°	
	1971	4	88.00				
<b>505 2.2L</b> 01/86 → 12/93 <b>97</b> <b>505 2.2L GTI</b> 08/83 → 12/93					<b>HBS302</b>  M12x1.50x204mm (x10)	1) 20Nm 2) 80° 3) 80°	
ZDJL (851X)	2165	4	88.00	SOHC			
ZDJL (851B)	2165	4	88.00	SOHC	84/114 90/122		
<b>505 2.5L D Diesel</b> 06/81 → 12/93 <b>98</b> XD3 (155)					<b>HBS015</b>  M11x1.50x97.5mm (x8) M11x1.50x120mm (x7) M11x1.50x107.5mm (x7)	1) 30Nm 2) 70Nm 3) ≈ 90° 4) 70Nm 5) ↓ 6) * 7) ≈ 90° 8) 70Nm 9) 120°	
	2498	4	94.00		51-55/ 70-75		
					<b>HBS016</b>  M11x1.50x120mm (x7) M11x1.50x107.5mm (x15)	1) 30Nm 2) 70Nm 3) ≈ 90° 4) 70Nm 5) ↓ 6) * 7) ≈ 90° 8) 70Nm 9) 120°	



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505 2.5L TD Diesel				10/83 → 12/93		99			
XD3T (152A)	2498	4	94.00	SOHC		66/89 66-70/ 90-95 77/105	 M11x1.50x97.5mm (x8) M11x1.50x120mm (x7) M11x1.50x107.5mm (x7)	1) 30Nm 2) 70Nm 3) ↻ 90° 4) 70Nm 5) ↓ 6) ✳ 7) ↻ 90° 8) 70Nm 9) 120°	
XD3T	2498	4	94.00						
XD3TE (152B)	2498	4	94.00						
505 2.8L GTI V6				06/86 → 12/93		100			
ZN3J (154X)	2849	6	91.00	SOHC		105/114/ 125/143/ 155/170	 M12x1.50x178mm (x16)	1) 30Nm 2) 60Nm 3) ↻ 180° 4) 40Nm 5) 90° 6) 90°	
605 2.0L				06/89 → 09/99		101			
605 2.0L T				07/91 → 09/99					
XU102C (R5A)	1998	4	86.00	SOHC		79/107 84/114	 M12x1.50x123mm (x10)	1) 35Nm 2) 70Nm 3) 160°	
XU10J2 (RFZ/R6A)	1998	4	86.00	SOHC		89-90/ 121-123			
XU10J2TE (RGY)	1998	4	86.00	SOHC		104/141			
XU10J2TE (RGX)	1998	4	86.00			108/147			
605 2.0L 16V				07/94 → 09/99		102			
XU10J4R (RFV/R6E)	1998	4	86.00	DOHC		99/135	 M12x1.50x110mm (x10)	1) 35Nm 2) 70Nm 3) 160°	
605 2.1L D Diesel				06/89 → 07/95		103			
XUD11A (P9A/PJZ)	2138	4	86.00	SOHC		61/82	 M12x1.50x145mm (x10)	1) 30Nm 2) 70Nm 3) ↻ 90° 4) 70Nm 5) 150° 6) ↓ 7) ✳ 8) ↻ 90° 9) 70Nm 10) 150°	

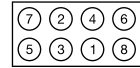




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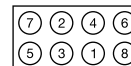
605 2.1L TD Diesel		06/89 → 09/99			104			
XUD11ATE (PHZ/P8A/P8B)	2088	4	85.00	SOHC	80/109	<b>HBS115</b> → Eng.05571  M12x1.50x145mm (x10)	1) 30Nm 2) 70Nm 3) ↻ 90° 4) 70Nm 5) 150° 6) ↓ 7) ✱ 8) ↻ 90° 9) 70Nm 10) 150°	
						<b>HBS125</b> Eng.05572 →  M12x1.50x150.5mm (x10)	1) 30Nm 2) 70Nm 3) ↻ 90° 4) 70Nm 5) 150° 6) ↓ 7) ✱ 8) ↻ 90° 9) 70Nm 10) 150°	
605 2.1L TD 12V Diesel		08/94 → 09/99			105			
XUD11BTE (P8C)	2088	4	85.00	SOHC	81/110	<b>HBS125</b>  M12x1.50x150.5mm (x10)	1) 30Nm 2) 70Nm 3) ↻ 90° 4) 70Nm 5) 150° 6) ↓ 7) ✱ 8) ↻ 90° 9) 70Nm 10) 150°	
605 2.5L TD Diesel		07/94 → 09/99			106			
DK5ATE (THY)	2446	4	92.00	SOHC	95/129	<b>HBS114</b>  M12x1.50x138mm (x14) M10x1.50x148mm (x8)	1) (1-14) 50Nm 2) (15-22) 35Nm 3) 120°	
605 3.0L		10/89 → 09/99			107			
605 3.0L SV 24		08/89 → 09/99				<b>HBS127</b>  M12x1.50x178mm (x16)	1) 30Nm 2) 60Nm 3) ↻ 180° 4) 40Nm 5) 90° 6) 90°	
605 3.0L V6		04/97 → 09/99			108			
ES 9 J4	2946	6	87.00	DOHC	140/190	<b>HBS272</b>  M10x1.50x147mm (x16)	1) 20Nm 2) ↻ 360° 3) 15Nm 4) 225°	
607 2.0L		02/00 →			109			
EW10J4 (RFN)	1997	4	85.00	DOHC	100/136	<b>HBS259</b>  M11x1.50x144.5mm (x10)	1) 15Nm 2) 50Nm 3) ↻ 360° 4) 20Nm 5) 285°	
607 2.0L HDI Diesel		05/00 → 07/04			110			
DW10ATED (RHZ)	1997	4	85.00	SOHC	80/109	<b>HBS261</b>  M12x1.50x126mm (x10)	1) 20Nm 2) 60Nm 3) 220°	
DW10ATED (RHS)	1997	4	85.00	DOHC	81/110			
DW10BTED4 (RHR)	1997	4	85.00	DOHC	100/136			
607 2.2L 16V		02/00 →			111			
EW12J4 (3FZ)	2230	4	86.00	DOHC	118/160	<b>HBS309</b>  M11x1.50x128mm (x10)	1) 15Nm 2) 50Nm 3) ≈ 360° 4) 20Nm 5) 270°	
EW12J4 (3FY)	2230	4	86.00	DOHC				



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607 2.2L HDI Diesel					02/00 →	112	HBS261		1) 20Nm 2) 60Nm 3) ↻ 360° 4) 60Nm 5) 220°	<table border="1"> <tr><td>8</td><td>4</td><td>1</td><td>5</td><td>9</td></tr> <tr><td>7</td><td>3</td><td>2</td><td>6</td><td>10</td></tr> </table>	8	4	1	5	9	7	3	2	6	10						
8	4	1	5	9																						
7	3	2	6	10																						
DW12TED4 (4HX/4HW)	2179	4	85.00	DOHC		100/136	 M12x1.50x126mm (x10)																			
DW12BTED4 (4HT)	2179	4	85.00	DOHC																						
607 3.0L V6 24V					02/00 →	113	HBS272		1) 20Nm 2) ↻ 360° 3) 15Nm 4) 225°	<table border="1"> <tr><td>7</td><td>3</td><td>2</td><td>5</td></tr> <tr><td>6</td><td>1</td><td>4</td><td>8</td></tr> <tr><td>6</td><td>1</td><td>4</td><td>8</td></tr> <tr><td>7</td><td>3</td><td>2</td><td>5</td></tr> </table>	7	3	2	5	6	1	4	8	6	1	4	8	7	3	2	5
7	3	2	5																							
6	1	4	8																							
6	1	4	8																							
7	3	2	5																							
ES9J4S (XFX/XFW)	2946	6	87.00	DOHC		152/207	 M10x1.50x147mm (x16)																			
ES9A (XFV)	2946	6	87.00	DOHC		155/211																				
806 1.8L					07/95 → 08/02	114	HBS260		1) 60Nm 2) ↻ 180° 3) 20Nm 4) 150°	<table border="1"> <tr><td>8</td><td>4</td><td>1</td><td>5</td><td>9</td></tr> <tr><td>7</td><td>3</td><td>2</td><td>6</td><td>10</td></tr> </table>	8	4	1	5	9	7	3	2	6	10						
8	4	1	5	9																						
7	3	2	6	10																						
XU7JP (LFW)	1761	4	83.00	SOHC		73/99	 M11x1.50x168mm (x10)																			
806 1.9L TD Diesel					07/95 → 08/02	115	HBS088		1) 20Nm 2) 40Nm 3) 60Nm 4) ↻ 90° 5) 60Nm 6) 110° 7) 110°	<table border="1"> <tr><td>10</td><td>6</td><td>2</td><td>3</td><td>7</td></tr> <tr><td>9</td><td>5</td><td>1</td><td>4</td><td>8</td></tr> </table>	10	6	2	3	7	9	5	1	4	8						
10	6	2	3	7																						
9	5	1	4	8																						
XUD9TE (DHX)	1905	4	83.00	SOHC		66/89	 M12x1.50x145mm (x10)																			
							<b>HBS277</b> Eng.08575 →  M12x1.50x148mm (x10)		<table border="1"> <tr><td>8</td><td>4</td><td>1</td><td>5</td><td>9</td></tr> <tr><td>7</td><td>3</td><td>2</td><td>6</td><td>10</td></tr> </table>	8	4	1	5	9	7	3	2	6	10							
8	4	1	5	9																						
7	3	2	6	10																						
806 2.0L					06/94 → 08/02	116	HBS084		1) 35Nm 2) 70Nm 3) 160°	<table border="1"> <tr><td>10</td><td>6</td><td>2</td><td>3</td><td>7</td></tr> <tr><td>9</td><td>5</td><td>1</td><td>4</td><td>8</td></tr> </table>	10	6	2	3	7	9	5	1	4	8						
10	6	2	3	7																						
9	5	1	4	8																						
XU10J2 (RFU)	1998	4	86.00	SOHC		89-90/ 121-123	 M12x1.50x123mm (x10)																			
XU10J2TE (RGX)	1998	4	86.00			108/147																				
806 2.0L 16V					09/00 → 08/02	117	HBS259		1) 15Nm 2) 50Nm 3) ↻ 360° 4) 20Nm 5) 285°	<table border="1"> <tr><td>8</td><td>4</td><td>1</td><td>5</td><td>9</td></tr> <tr><td>7</td><td>3</td><td>2</td><td>6</td><td>10</td></tr> </table>	8	4	1	5	9	7	3	2	6	10						
8	4	1	5	9																						
7	3	2	6	10																						
EW10J4 (RFN)	1997	4	85.00	DOHC		100/136	 M11x1.50x144.5mm (x10)																			
806 2.0L 16V					05/98 → 09/00	118	HBS087		1) 35Nm 2) 70Nm 3) 160°	<table border="1"> <tr><td>10</td><td>6</td><td>2</td><td>3</td><td>7</td></tr> <tr><td>9</td><td>5</td><td>1</td><td>4</td><td>8</td></tr> </table>	10	6	2	3	7	9	5	1	4	8						
10	6	2	3	7																						
9	5	1	4	8																						
XU10J4R (RFV/R6E)	1998	4	86.00	DOHC		99/135	 M12x1.50x110mm (x10)																			
806 2.0L HDI Diesel					08/99 → 08/02	119	HBS261		1) 20Nm 2) 60Nm 3) 220°	<table border="1"> <tr><td>8</td><td>4</td><td>1</td><td>5</td><td>9</td></tr> <tr><td>7</td><td>3</td><td>2</td><td>6</td><td>10</td></tr> </table>	8	4	1	5	9	7	3	2	6	10						
8	4	1	5	9																						
7	3	2	6	10																						
DW10ATED (RHZ)/DW10ATED4 (RHW)	1997	4	85.00	SOHC		80/109	 M12x1.50x126mm (x10)																			
806 2.0L HDI 16V Diesel					08/99 → 08/02																					
806 2.1L td 12V Diesel					06/96 → 08/99	120	HBS125		1) 30Nm 2) 70Nm 3) ↻ 90° 4) 70Nm 5) 150° 6) ⚡ 7) ⚡ 8) ↻ 90° 9) 70Nm 10) 150°	<table border="1"> <tr><td>8</td><td>4</td><td>1</td><td>5</td><td>9</td></tr> <tr><td>7</td><td>3</td><td>2</td><td>6</td><td>10</td></tr> </table>	8	4	1	5	9	7	3	2	6	10						
8	4	1	5	9																						
7	3	2	6	10																						
XUD11BTE (P8C)	2088	4	85.00	SOHC		81/110	 M12x1.50x150.5mm (x10)																			

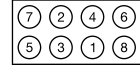
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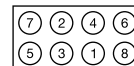
807 2.0L						06/02 →	121	HBS259	 M11x1.50x144.5mm (x10)	1) 15Nm 2) 50Nm 3) ↻ 360° 4) 20Nm 5) 285°	
807 2.0L 16V						09/05 →					
EW10J4 (RFN)	1997	4	85.00	DOHC	100/136						
EW10A (RFJ)	1997	4	85.00	DOHC	103/140						
807 2.0L HDI Diesel						06/06 →	122	HBS261	 M12x1.50x126mm (x10)	1) 20Nm 2) 60Nm 3) 220°	
807 2.0L HDI FAP Diesel						06/02 →					
DW10ATED4 (RHM)/DW10ATED4 (RHT)	1997	4	85.00	DOHC	79/107						
DW10ATED4 (RHW)	1997	4	85.00	SOHC	80/109						
DW10BTED4 (RHR)	1997	4	85.00	DOHC	100/136						
807 2.2L						06/02 →	123	HBS309	 M11x1.50x128mm (x10)	1) 15Nm 2) 50Nm 3) ≈ 360° 4) 20Nm 5) 270°	
EW12J4 (3FZ)	2230	4	86.00	DOHC	118/160						
807 2.2L HDi Diesel						06/06 →	124	HBS261	 M12x1.50x126mm (x10)	1) 20Nm 2) 60Nm 3) ↻ 360° 4) 60Nm 5) 220°	
807 2.2L HDI FAP Diesel						06/02 →					
DW12TED4 (4HX/4HW)	2179	4	85.00	DOHC	100/136						
DW12BTED4 (4HT)	2179	4	85.00	DOHC							
807 3.0L V6						06/02 →	125	HBS272	 M10x1.50x147mm (x16)	1) 20Nm 2) ↻ 360° 3) 15Nm 4) 225°	
ES9J4S (XFX/XFW)	2946	6	87.00	DOHC	152/207						
1007 1.4L						04/05 →	126	HBS039	 M10x1.50x175mm (x10)	1) 20Nm 2) 120° 3) 120°	
TU3JP-L4	1360	4	75.00	SOHC	55/75						
1007 1.4L HDI Diesel						04/05 →	127	HBS359	 M11x1.50x150mm (x10)	1) 20Nm 2) 40Nm 3) 180°	
DV4TD (8HZ)	1398	4	73.70	SOHC	50/68						
DV4TD (8HX)	1398	4	73.70	SOHC	52/71						
1007 1.6L 16V						04/05 →	128	HBS254	 M10x1.50x122mm (x10)	1) 20Nm 2) 130° 3) 130°	
TU5JP4 (NFU/N6A)	1587	4	78.50	DOHC	80/109						
1007 1.6L HDI Diesel						06/07 →	129	HBS359	 M11x1.50x150mm (x10)	1) 20Nm 2) 40Nm 3) 180°	
DV6TED4 (9HZ)	1560	4	75.00	DOHC	80/109						
Bipper 1.4L						02/08 →	130	HBS039	 M10x1.50x175mm (x10)	1) 20Nm 2) 120° 3) 120°	
KFV (TU3A)	1360	4	75.00	SOHC	54/73						
Bipper Tepee 1.4L						04/08 →	131	HBS039	 M10x1.50x175mm (x10)	1) 20Nm 2) 120° 3) 120°	
KFV (TU3A)	1360	4	75.00	SOHC	54/73						
Boxer 1.9L D Diesel						03/94 → 04/02	132	HBS084	 M12x1.50x123mm (x10)	1) 35Nm 2) 70Nm 3) 160°	
XUD9A (D9B/DJY)/XUD9A (DJY)	1905	4	83.00	SOHC	51/69						



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Boxer 1.9L TD Diesel					03/94 → 04/02	133	<b>HBS088</b> → Eng.08574  M12x1.50x145mm (x10)	1) 20Nm 2) 40Nm 3) 60Nm 4) ↻ 90° 5) 60Nm 6) 110° 7) 110°	
Boxer 1.9L TD 4x4 Diesel					07/96 → 04/02				
XUD9TE (DHY)	1905	4	83.00			66/89			
XUD9UTF (D8C)	1905	4	83.00	SOHC		66/89			
XUD9TE	1905	4	83.00	SOHC		66/90			
Boxer 2.0L					04/02 →	134	<b>HBS277</b> Eng.08575 →  M12x1.50x148mm (x10)	1) 20Nm 2) 40Nm 3) 60Nm 4) ↻ 90° 5) 60Nm 6) 110° 7) 110°	
Boxer 2.0L i					03/94 → 04/02				
Boxer 2.0L i 4x4					08/96 → 04/02				
XU10J2 (RFW)	1998	4	86.00	SOHC		80/109			
XU10J2 (RFL)	1998	4	86.00	SOHC		81/110			
Boxer 2.0L HDI Diesel					08/01 → 04/02	135	<b>HBS261</b>  M12x1.50x126mm (x10)	1) 20Nm 2) 60Nm 3) 220°	
DW10UTD (RHV)	1997	4	85.00	SOHC		62/84			
RHV (DW10TD)	1997	4	85.00	Direct Injection, SOHC/OHC		62/84			
Boxer 2.2L HDI Diesel					04/02 →	136	<b>HBS261</b>  M12x1.50x126mm (x10)	1) 20Nm 2) 60Nm 3) ↻ 360° 4) 60Nm 5) 220°	
DW12UTED (4HY)	2179	4	85.00	SOHC		74/100			
Boxer 2.5L D Diesel					03/94 → 04/02	137	<b>HBS114</b>  M12x1.50x138mm (x14) M10x1.50x148mm (x8)	1) (1-14) 50Nm 2) (15-22) 35Nm 3) 120°	
Boxer 2.5L D 4x4 Diesel					07/96 → 04/02				
Boxer 2.5L TD Diesel					03/94 → 04/02				
Boxer 2.5L TD 4x4 Diesel					07/96 → 04/02				
DJ5 (T9A)	2446	4	92.00	SOHC		63/86			
DJ5T (T8A/THZ)	2446	4	92.00			76/103			
Boxer 2.5L TDI Diesel					01/97 → 04/02	138	<b>HBS273</b>  M12x1.50x163mm (x14) M10x1.50x174mm (x8)	1) (1-14) 50Nm 2) (15-22) 35Nm 3) 150°	
Boxer 2.5L TDI 4x4 Diesel					01/97 → 04/02				
DJ5TED (THX)	2446	4	92.00			79/107			
Boxer 2.8L Diesel					01/99 →	139	<b>HBS255</b>  M12x1.25x90mm (x8) M12x1.25x160mm (x14)	1) 20Nm 2) 40Nm 3) ↻ 90° 4) 40Nm 5) 90° 6) 90°	
Boxer 2.8L HDI Diesel					11/00 → 04/02				
Boxer 2.8L HDI 4x4 Diesel					04/02 →				
8140.63	2798	4	94.40	Sofim		64/87			
8140.43S	2798	4	94.40	SOHC		92/125			
8140.43N	2798	4	94.40	Direct Injection, SOHC/OHC		107/146			
Expert 1.6L					02/96 →	140	<b>HBS051</b>  M10x1.25x98mm (x5) M10x1.25x84mm (x5)	1) 40Nm 2) 90° 3) 90°	
220A2 (160A)	1581	4	86.40			59/80			
Expert 1.8L					10/96 → 09/00	141	<b>HBS260</b>  M11x1.50x168mm (x10)	1) 60Nm 2) ↻ 180° 3) 20Nm 4) 150°	
XU7JP (LFZ)	1761	4	83.00	SOHC		74/100			
Expert 1.9L D Diesel					02/96 →	142	<b>HBS084</b>  M12x1.50x123mm (x10)	1) 35Nm 2) 70Nm 3) 160°	
XUD9A (D9B)	1905	4	83.00	SOHC		51/70			

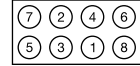
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Expert 1.9L D 70 Diesel		12/98 →			143		
DW8 (WJZ)/DW8B (WJY)	1868	4	82.20	SOHC	51/69	<b>HBS084</b> → Eng.08469  M12x1.50x123mm (x10) 1) 35Nm 2) 70Nm 3) 160°	 
<b>Expert 1.9L TD Diesel</b>							
XUD9TE (D8B)/XUD9TE (DHX)		02/96 →			144	<b>HBS245</b> Eng.08470 →  M12x1.50x125mm (x10) 1) 20Nm 2) 60Nm 3) 180°	 
<b>Expert 1.9L TD Diesel</b>							
XUD9TE (D8B)/XUD9TE (DHX)		02/96 →			144	<b>HBS088</b> → Eng.08574  M12x1.50x145mm (x10) 1) 20Nm 2) 40Nm 3) 60Nm 4) ↻ 90° 5) 60Nm 6) 110° 7) 110°	 
<b>Expert 2.0L</b>							
EW10J4 (RFN)		07/00 →			145	<b>HBS277</b> Eng.08575 →  M12x1.50x148mm (x10) 1) 20Nm 2) 40Nm 3) 60Nm 4) ↻ 90° 5) 60Nm 6) 110° 7) 110°	 
<b>Expert 2.0L</b>							
EW10J4 (RFN)		07/00 →			145	<b>HBS259</b>  M11x1.50x144.5mm (x10) 1) 15Nm 2) 50Nm 3) ↻ 360° 4) 20Nm 5) 285°	 
<b>Expert 2.0L HDI Diesel</b>							
Expert 2.0L HDI 120 Diesel		07/00 →			146	<b>HBS261</b>  M12x1.50x126mm (x10) 1) 20Nm 2) 60Nm 3) 220°	 
Expert 2.0L HDI 140 Diesel		01/07 →					
Expert 2.0L HDI 140 Diesel		01/07 →					
DW10BTED (RHX)	1997	4	85.00	SOHC	69/93	<b>HBS084</b>  M12x1.50x123mm (x10) 1) 35Nm 2) 70Nm 3) 160°	 
DW10ATED (RHZ)/DW10ATED4 (RHW)	1997	4	85.00	SOHC	80/109		
DW10UTED4 (RHK)	1997	4	85.00	DOHC	85-88/ 116-120		
DW10BTED4 (RHR)	1997	4	85.00	DOHC	100/136	<b>HBS038</b>  M11x1.50x175mm (x10) 1) 60Nm 2) ↻ 180° 3) 20Nm 4) 150°	 
<b>J5 1.9L D Diesel</b>							
XUD9A (D9B)		10/90 →			147		
<b>J5 2.0L</b>							
XN1T (170)/XN1T (170B)		09/81 → 09/90			148	<b>HBS017</b>  M12x1.50x145mm (x8) M12x1.50x118mm (x9) 1) 40Nm 2) 100° 3) 100° 4) ⚡ 5) ✳ 6) 45°	 
XN1T (170D)		09/81 → 09/90					
<b>J5 2.5L D Diesel</b>							
J5 2.5L D 4x4 Diesel		10/90 →			149	<b>HBS039</b>  M10x1.50x175mm (x10) 1) 20Nm 2) 120° 3) 120°	 
J5 2.5L TD Diesel		10/90 →					
J5 2.5L TD 4x4 Diesel		10/90 →					
CRD93 (U25/651/661)	2500	4	93.00		54/73		
CRD93LS (U25/673)	2500	4	93.00		70/95		
<b>Partner 1.1L</b>							
TU1JP (HFX)/TU1M (HDZ)		06/96 →			150	<b>HBS039</b>  M10x1.50x175mm (x10) 1) 20Nm 2) 120° 3) 120°	 

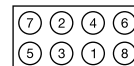












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













kW/PS











<b>Partner 1.4L</b> 06/96 → <b>151</b> <b>Partner 1.4L BiFuel</b> 04/03 →					<b>HBS039</b> 	1) 20Nm 2) 120° 3) 120°		
TU32	1360	4	75.00	SOHC				51-52/ 70-71
TU3JP (KFW)/TU3JP (KFX)	1360	4	75.00	SOHC	55/75			
<b>Partner 1.6L</b> 04/08 → <b>152</b> <b>Partner 1.6L 16V</b> 07/01 →					<b>HBS254</b> 	1) 20Nm 2) 130° 3) 130°		
TU5JP4 (NFU/N6A)	1587	4	78.50	DOHC				80/109
<b>Partner 1.8L D Diesel</b> 06/96 → <b>153</b>					<b>HBS084</b> 	1) 35Nm 2) 70Nm 3) 160°		
XUD7 (A9A)	1769	4	80.00					44/60
<b>Partner 1.9L D Diesel</b> 06/96 → <b>154</b> <b>Partner 1.9L D 4x4 Diesel</b> 04/04 →					<b>HBS084</b> →Eng.08469 	1) 35Nm 2) 70Nm 3) 160°		
DW8 (WJZ)/DW8B (WJY)	1868	4	82.20	SOHC				51/69
						<b>HBS245</b> Eng.08470 → 	1) 20Nm 2) 60Nm 3) 180°	
						M12x1.50x125mm (x10)		
<b>Partner 1.9L D Diesel</b> 06/96 → <b>155</b>					<b>HBS084</b> 	1) 35Nm 2) 70Nm 3) 160°		
XUD9A (DJY)	1905	4	83.00	SOHC				51/69
<b>Partner 2.0L HDI Diesel</b> 02/00 → <b>156</b> <b>Partner 2.0L HDI 4x4 Diesel</b> 04/04 →					<b>HBS261</b> 	1) 20Nm 2) 60Nm 3) 220°		
DW10TD (RHY)	1997	4	85.00	SOHC				63/86





		cc			9			cc			9
701	Petrol	1390	4	75.80	65	C3J 760	Petrol	1397	4	76.00	54
847 700	Petrol	1397	4	76.00	152	C3J 760	Petrol	1397	4	76.00	121
847 701	Petrol	1397	4	76.00	152	C3J 762	Petrol	1397	4	76.00	42
852 720	Diesel	2068	4	86.00	158	C3J 762	Petrol	1397	4	76.00	54
852 750	Diesel	2068	4	86.00	158	C3J 762	Petrol	1397	4	76.00	121
8140.27.2500	Diesel	2499	4	93.00	95	D4F 702	Petrol	1149	4	69.00	165
8140.27.2510	Diesel	2499	4	93.00	95	D4F 704	Petrol	1149	4	69.00	165
8140.27.2530 IDS	Diesel	2499	4	93.00	5	D4F 708	Petrol	1149	4	69.00	165
8140.27.2580	Diesel	2499	4	93.00	95	D4F 712	Petrol	1149	4	69.00	12
8140.43.3900	Diesel	2800	4	94.40	6	D4F 712	Petrol	1149	4	69.00	64
8140.43.3900	Diesel	2800	4	94.40	7	D4F 712	Petrol	1149	4	69.00	146
8140.43.3900	Diesel	2800	4	94.40	97	D4F 714	Petrol	1149	4	69.00	12
8140.47.2530 IDR	Diesel	2499	4	93.00	111	D4F 714	Petrol	1149	4	69.00	64
8140.47.2585	Diesel	2500	4	93.00	112	D4F 716	Petrol	1149	4	69.00	64
8140.47.2590	Diesel	2499	4	93.00	111	D4F 722	Petrol	1149	4	69.00	12
8140.61.2300	Diesel	2445	4	93.00	93	D4F 740	Petrol	1149	4	69.00	12
8140.61.235	Diesel	2445	4	93.00	4	D4F 740	Petrol	1149	4	69.00	113
8140.61.240	Diesel	2445	4	93.00	160	D4F 764	Petrol	1149	4	69.00	12
8140.67.2500	Diesel	2499	4	93.00	161	D4F 764	Petrol	1149	4	69.00	113
8140.67.2510	Diesel	2499	4	93.00	95	D7F 700	Petrol	1149	4	69.00	163
8140.67.2550	Diesel	2499	4	93.00	161	D7F 701	Petrol	1149	4	69.00	163
8140.67.2580	Diesel	2499	4	93.00	161	D7F 702	Petrol	1149	4	69.00	163
B110 2.8L TDDiesel	Diesel	2800	4	94.40	6	D7F 703	Petrol	1149	4	69.00	163
B120 2.8L TDDiesel	Diesel	2800	4	94.40	7	D7F 704	Petrol	1149	4	69.00	163
C1C 706	Petrol	956	4	65.00	45	D7F 706	Petrol	1149	4	69.00	163
C1E 700	Diesel	1108	4	70.00	8	D7F 710	Petrol	1149	4	69.00	9
C1E 750	Petrol	1108	4	70.00	39	D7F 710	Petrol	1149	4	69.00	63
C1E 750	Petrol	1108	4	70.00	47	D7F 720	Petrol	1149	4	69.00	9
C1E 750	Petrol	1108	4	70.00	48	D7F 720	Petrol	1149	4	69.00	63
C1E 750	Petrol	1108	4	70.00	118	D7F 722	Petrol	1149	4	69.00	9
C1E 752	Petrol	1108	4	70.00	39	D7F 722	Petrol	1149	4	69.00	63
C1E 752	Petrol	1108	4	70.00	48	D7F 726	Petrol	1149	4	69.00	9
C1E 752	Petrol	1108	4	70.00	118	D7F 726	Petrol	1149	4	69.00	63
C1E 754	Petrol	1108	4	70.00	39	D7F 730	Petrol	1149	4	69.00	9
C1E 754	Petrol	1108	4	70.00	48	D7F 744	Petrol	1149	4	69.00	63
C1E 754	Petrol	1108	4	70.00	118	D7F 744	Petrol	1149	4	69.00	145
C1E 756	Petrol	1108	4	70.00	48	D7F 746	Petrol	1149	4	69.00	9
C1E 756	Petrol	1108	4	70.00	118	D7F 746	Petrol	1149	4	69.00	63
C1E 760	Petrol	1108	4	70.00	48	D7F 746	Petrol	1149	4	69.00	145
C1E 760	Petrol	1108	4	70.00	118	D7F 764	Petrol	1149	4	69.00	63
C1E 762	Petrol	1108	4	70.00	39	D7F 766	Petrol	1149	4	69.00	9
C1E 762	Petrol	1108	4	70.00	47	D7F 800	Petrol	1149	4	69.00	163
C1E 762	Petrol	1108	4	70.00	48	E5F 710	Petrol	1171	4	75.80	10
C1E 762	Petrol	1108	4	70.00	118	E6J 734	Petrol	1390	4	75.80	52
C1E 792	Petrol	1108	4	70.00	48	E7F 700	Petrol	1171	4	75.80	10
C1E 792	Petrol	1108	4	70.00	118	E7F 706	Petrol	1171	4	75.80	10
C1G 726	Petrol	1237	4	71.50	50	E7F 708	Petrol	1171	4	75.80	10
C1J 700	Petrol	1397	4	76.00	152	E7F 708	Petrol	1171	4	75.80	49
C1J 768	Petrol	1397	4	76.00	42	E7F 750	Petrol	1171	4	75.80	10
C1J 768	Petrol	1397	4	76.00	54	E7J 601	Petrol	1390	4	75.80	13
C1J 768	Petrol	1397	4	76.00	121	E7J 624	Petrol	1390	4	75.80	98
C1J 780	Petrol	1397	4	76.00	42	E7J 626	Petrol	1390	4	75.80	98
C1J 780	Petrol	1397	4	76.00	54	E7J 634	Petrol	1390	4	75.80	65
C1J 780	Petrol	1397	4	76.00	121	E7J 635	Petrol	1390	4	75.80	65
C2J 784	Petrol	1397	4	76.00	42	E7J 710	Petrol	1390	4	75.80	13
C2J 784	Petrol	1397	4	76.00	54	E7J 711	Petrol	1390	4	75.80	13
C2J 784	Petrol	1397	4	76.00	121	E7J 718	Petrol	1390	4	75.80	13
C3G 700	Petrol	1239	4	74.00	164	E7J 719	Petrol	1390	4	75.80	13
C3G 702	Petrol	1239	4	74.00	164	E7J 720	Petrol	1390	4	75.80	41
C3G 710	Petrol	1239	4	74.00	40	E7J 720	Petrol	1390	4	75.80	52
C3G 710	Petrol	1239	4	74.00	51	E7J 720	Petrol	1390	4	75.80	53
C3G 710	Petrol	1239	4	74.00	119	E7J 720	Petrol	1390	4	75.80	120
C3G 712	Petrol	1239	4	74.00	40	E7J 724	Petrol	1390	4	75.80	41
C3G 712	Petrol	1239	4	74.00	51	E7J 724	Petrol	1390	4	75.80	52
C3G 712	Petrol	1239	4	74.00	119	E7J 724	Petrol	1390	4	75.80	53
C3G 720	Petrol	1239	4	74.00	11	E7J 724	Petrol	1390	4	75.80	120
C3J 700	Petrol	1397	4	76.00	42	E7J 726	Petrol	1390	4	75.80	41
C3J 700	Petrol	1397	4	76.00	54	E7J 726	Petrol	1390	4	75.80	53
C3J 700	Petrol	1397	4	76.00	121	E7J 726	Petrol	1390	4	75.80	120
C3J 702	Petrol	1397	4	76.00	42	E7J 728	Petrol	1390	4	75.80	41
C3J 702	Petrol	1397	4	76.00	54	E7J 728	Petrol	1390	4	75.80	53
C3J 702	Petrol	1397	4	76.00	121	E7J 728	Petrol	1390	4	75.80	120
C3J 760	Petrol	1397	4	76.00	42	E7J 754	Petrol	1390	4	75.80	13

		CC			9			CC			9
E7J 756	Petrol	1390	4	75.80	13	F4R 770	Petrol	1998	4	82.70	107
E7J 757	Petrol	1390	4	75.80	13	F4R 770	Petrol	1998	4	82.70	143
E7J 764	Petrol	1390	4	75.80	98	F4R 771	Petrol	1998	4	82.70	62
E7J 773	Petrol	1390	4	75.80	41	F4R 771	Petrol	1998	4	82.70	107
E7J 773	Petrol	1390	4	75.80	52	F4R 771	Petrol	1998	4	82.70	143
E7J 773	Petrol	1390	4	75.80	53	F4R 774	Petrol	1998	4	82.70	107
E7J 773	Petrol	1390	4	75.80	120	F4R 776	Petrol	1998	4	82.70	62
E7J 780	Petrol	1390	4	75.80	13	F4R 776	Petrol	1998	4	82.70	107
E7J 780	Petrol	1390	4	75.80	65	F4R 776	Petrol	1998	4	82.70	143
F1N 720	Petrol	1721	4	81.00	153	F4R 780	Petrol	1998	4	82.70	77
F1N 722	Petrol	1721	4	81.00	153	F4R 784	Petrol	1998	4	82.70	77
F1N 724	Petrol	1721	4	81.00	153	F4R 786	Petrol	1998	4	82.70	77
F2N 770	Petrol	1721	4	81.00	18	F4R 787	Petrol	1998	4	82.70	77
F3P 670	Diesel	1794	4	82.70	72	F4R 790	Petrol	1998	4	82.70	30
F3P 674	Diesel	1794	4	82.70	72	F4R 791	Petrol	1998	4	82.70	30
F3P 676	Diesel	1794	4	82.70	72	F4R 792	Petrol	1998	4	82.70	30
F3P 678	Diesel	1794	4	82.70	72	F4R 794	Petrol	1998	4	82.70	30
F3P 710	Diesel	1794	4	82.70	19	F4R 795	Petrol	1998	4	82.70	30
F3P 712	Diesel	1794	4	82.70	19	F4R 796	Petrol	1998	4	82.70	30
F3P 714	Diesel	1794	4	82.70	19	F4R 797	Petrol	1998	4	82.70	30
F3P 720	Diesel	1794	4	82.70	72	F4R 830	Petrol	1998	4	82.70	23
F3P 724	Diesel	1794	4	82.70	72	F4R 886	Petrol	1998	4	82.70	77
F3P 754	Diesel	1794	4	82.70	19	F4R 887	Petrol	1998	4	82.70	77
F3P 755	Diesel	1794	4	82.70	19	F4R 897	Petrol	1998	4	82.70	30
F3P 758	Diesel	1794	4	82.70	19	F4Rt 774	Petrol	1998	4	82.70	107
F3R 611	Petrol	1998	4	82.70	76	F5R 700	Petrol	1998	4	86.00	79
F3R 722	Petrol	1998	4	82.70	76	F5R 740	Petrol	1998	4	82.70	109
F3R 723	Petrol	1998	4	82.70	76	F7P 722	Petrol	1763	4	82.00	20
F3R 728	Petrol	1998	4	82.70	29	F7R 700	Petrol	1998	4	82.70	24
F3R 729	Petrol	1998	4	82.70	29	F7R 710	Petrol	1998	4	82.70	108
F3R 742	Petrol	1998	4	82.70	29	F7R 710	Petrol	1998	4	82.70	144
F3R 750	Petrol	1998	4	82.70	110	F7R 714	Petrol	1998	4	82.70	108
F3R 751	Petrol	1998	4	82.70	110	F8M 720	Diesel	1595	4	78.00	43
F3R 752	Petrol	1998	4	82.70	110	F8M 720	Diesel	1595	4	78.00	56
F3R 768	Petrol	1998	4	82.70	29	F8M 720	Diesel	1595	4	78.00	122
F3R 768	Petrol	1998	4	82.70	76	F8M 730	Diesel	1595	4	78.00	43
F3R 769	Petrol	1998	4	82.70	29	F8M 730	Diesel	1595	4	78.00	56
F3R 791	Petrol	1998	4	82.70	110	F8M 730	Diesel	1595	4	78.00	122
F3R 796	Petrol	1998	4	82.70	110	F8M 736	Diesel	1595	4	78.00	43
F4P 720	Petrol	1783	4	82.70	103	F8M 736	Diesel	1595	4	78.00	55
F4P 720	Petrol	1783	4	82.70	140	F8M 736	Diesel	1595	4	78.00	56
F4P 722	Petrol	1783	4	82.70	103	F8M 736	Diesel	1595	4	78.00	122
F4P 722	Petrol	1783	4	82.70	140	F8M 760	Diesel	1595	4	78.00	43
F4P 760	Petrol	1783	4	82.70	73	F8M 760	Diesel	1595	4	78.00	56
F4P 770	Petrol	1783	4	82.70	73	F8M 760	Diesel	1595	4	78.00	122
F4P 771	Petrol	1783	4	82.70	73	F8Q 606	Diesel	1870	4	80.00	154
F4P 773	Petrol	1783	4	82.70	73	F8Q 620	Diesel	1870	4	80.00	104
F4P 774	Petrol	1783	4	82.70	73	F8Q 622	Diesel	1870	4	80.00	104
F4P 775	Petrol	1783	4	82.70	73	F8Q 624	Diesel	1870	4	80.00	104
F4R 700	Petrol	1998	4	82.70	30	F8Q 630	Diesel	1870	4	80.00	22
F4R 701	Petrol	1998	4	82.70	30	F8Q 630	Diesel	1870	4	80.00	69
F4R 712	Petrol	1998	4	82.70	77	F8Q 632	Diesel	1870	4	80.00	69
F4R 713	Petrol	1998	4	82.70	77	F8Q 640	Diesel	1870	4	80.00	44
F4R 714	Petrol	1998	4	82.70	77	F8Q 640	Diesel	1870	4	80.00	57
F4R 715	Petrol	1998	4	82.70	77	F8Q 640	Diesel	1870	4	80.00	123
F4R 720	Petrol	1998	4	82.70	157	F8Q 662	Diesel	1870	4	80.00	22
F4R 722	Petrol	1998	4	82.70	157	F8Q 662	Diesel	1870	4	80.00	69
F4R 730	Petrol	1998	4	82.70	23	F8Q 678	Diesel	1870	4	80.00	21
F4R 738	Petrol	1998	4	82.70	23	F8Q 682	Diesel	1870	4	80.00	44
F4R 740	Petrol	1998	4	82.70	143	F8Q 682	Diesel	1870	4	80.00	57
F4R 741	Petrol	1998	4	82.70	143	F8Q 682	Diesel	1870	4	80.00	123
F4R 744	Petrol	1998	4	82.70	143	F8Q 722	Diesel	1870	4	80.00	44
F4R 746	Petrol	1998	4	82.70	107	F8Q 722	Diesel	1870	4	80.00	57
F4R 746	Petrol	1998	4	82.70	143	F8Q 722	Diesel	1870	4	80.00	123
F4R 760	Petrol	1998	4	82.70	1	F8Q 724	Diesel	1870	4	80.00	44
F4R 761	Petrol	1998	4	82.70	1	F8Q 724	Diesel	1870	4	80.00	57
F4R 762	Petrol	1998	4	82.70	168	F8Q 724	Diesel	1870	4	80.00	123
F4R 763	Petrol	1998	4	82.70	168	F8Q 730	Diesel	1870	4	80.00	21
F4R 764	Petrol	1998	4	82.70	77	F8Q 732	Diesel	1870	4	80.00	21
F4R 765	Petrol	1998	4	82.70	77	F8Q 774	Diesel	1870	4	80.00	44
F4R 766	Petrol	1998	4	82.70	168	F8Q 774	Diesel	1870	4	80.00	57
F4R 767	Petrol	1998	4	82.70	168	F8Q 774	Diesel	1870	4	80.00	123
F4R 770	Petrol	1998	4	82.70	62	F8Q 776	Diesel	1870	4	80.00	44

		cc			9			cc			9
F8Q 776	Diesel	1870	4	80.00	57	G8T 794	Diesel	2188	4	87.00	80
F8Q 776	Diesel	1870	4	80.00	123	G9T 600	Diesel	2188	4	87.00	81
F8Q 784	Diesel	1870	4	80.00	106	G9T 600	Diesel	2188	4	87.00	169
F8Q 786	Diesel	1870	4	80.00	106	G9T 605	Diesel	2188	4	87.00	81
F8Q 790	Diesel	1870	4	80.00	104	G9T 606	Diesel	2188	4	87.00	169
F9Q 664	Diesel	1870	4	80.00	74	G9T 642	Diesel	2188	4	87.00	34
F9Q 670	Diesel	1870	4	80.00	74	G9T 645	Diesel	2188	4	87.00	34
F9Q 674	Diesel	1870	4	80.00	74	G9T 700	Diesel	2188	4	87.00	81
F9Q 680	Diesel	1870	4	80.00	26	G9T 700	Diesel	2188	4	87.00	169
F9Q 710	Diesel	1870	4	80.00	75	G9T 702	Diesel	2188	4	87.00	81
F9Q 716	Diesel	1870	4	80.00	75	G9T 702	Diesel	2188	4	87.00	169
F9Q 717	Diesel	1870	4	80.00	75	G9T 703	Diesel	2188	4	87.00	169
F9Q 718	Diesel	1870	4	80.00	74	G9T 706	Diesel	2188	4	87.00	81
F9Q 722	Diesel	1870	4	80.00	27	G9T 707	Diesel	2188	4	87.00	81
F9Q 730	Diesel	1870	4	80.00	106	G9T 710	Diesel	2188	4	87.00	34
F9Q 731	Diesel	1870	4	80.00	106	G9T 712	Diesel	2188	4	87.00	2
F9Q 731	Diesel	1870	4	80.00	142	G9T 720	Diesel	2188	4	87.00	92
F9Q 732	Diesel	1870	4	80.00	105	G9T 722	Diesel	2188	4	87.00	92
F9Q 732	Diesel	1870	4	80.00	141	G9T 742	Diesel	2188	4	87.00	34
F9Q 733	Diesel	1870	4	80.00	105	G9T 743	Diesel	2188	4	87.00	34
F9Q 733	Diesel	1870	4	80.00	141	G9T 750	Diesel	2188	4	87.00	92
F9Q 734	Diesel	1870	4	80.00	106	G9U 720	Diesel	2463	4	89.00	94
F9Q 734	Diesel	1870	4	80.00	142	G9U 730	Diesel	2464	4	89.00	162
F9Q 736	Diesel	1870	4	80.00	106	G9U 754	Diesel	2463	4	89.00	94
F9Q 736	Diesel	1870	4	80.00	142	J5R 716	Petrol	1995	4	88.00	156
F9Q 738	Diesel	1870	4	80.00	105	J5R 718	Petrol	1995	4	88.00	89
F9Q 740	Diesel	1870	4	80.00	141	J5R 722	Petrol	1995	4	88.00	156
F9Q 744	Diesel	1870	4	80.00	106	J5R 726	Petrol	1995	4	88.00	156
F9Q 744	Diesel	1870	4	80.00	142	J5R 728	Petrol	1995	4	88.00	89
F9Q 750	Diesel	1870	4	80.00	74	J6R 234	Petrol	1995	4	88.00	28
F9Q 750	Diesel	1870	4	80.00	105	J6R 236	Petrol	1995	4	88.00	28
F9Q 752	Diesel	1870	4	80.00	74	J6R 734	Petrol	1995	4	88.00	28
F9Q 754	Diesel	1870	4	80.00	74	J7R 732	Petrol	1995	4	88.00	124
F9Q 756	Diesel	1870	4	80.00	74	J7R 733	Petrol	1995	4	88.00	124
F9Q 758	Diesel	1870	4	80.00	74	J7R 734	Petrol	1995	4	88.00	125
F9Q 759	Diesel	1870	4	80.00	74	J7R 735	Petrol	1995	4	88.00	125
F9Q 760	Diesel	1870	4	80.00	155	J7R 760	Petrol	1995	4	88.00	28
F9Q 762	Diesel	1870	4	80.00	155	J7R 768	Petrol	1995	4	88.00	28
F9Q 770	Diesel	1870	4	80.00	88	J7T 600	Petrol	2165	4	88.00	159
F9Q 772	Diesel	1870	4	80.00	87	J7T 760	Petrol	2165	4	88.00	128
F9Q 774	Diesel	1870	4	80.00	87	J7T 761	Petrol	2165	4	88.00	128
F9Q 780	Diesel	1870	4	80.00	22	J7T 762	Petrol	2165	4	88.00	128
F9Q 780	Diesel	1870	4	80.00	69	J7T 770	Diesel	2165	4	88.00	32
F9Q 782	Diesel	1870	4	80.00	69	J7T 772	Diesel	2165	4	88.00	32
F9Q 790	Diesel	1870	4	80.00	69	J7T 773	Diesel	2165	4	88.00	32
F9Q 800	Diesel	1870	4	80.00	105	J7T 776	Diesel	2165	4	88.00	32
F9Q 803	Diesel	1870	4	80.00	105	J7T 780	Petrol	2165	4	88.00	159
F9Q 803	Diesel	1870	4	80.00	141	J7T 782	Petrol	2165	4	88.00	91
F9Q 804	Diesel	1870	4	80.00	105	J7T 788	Petrol	2165	4	88.00	91
F9Q 804	Diesel	1870	4	80.00	136	J8S 240	Diesel	2068	4	86.00	31
F9Q 804	Diesel	1870	4	80.00	141	J8S 330	Diesel	2068	4	86.00	90
F9Q 808	Diesel	1870	4	80.00	105	J8S 610	Diesel	2068	4	86.00	31
F9Q 812	Diesel	1870	4	80.00	61	J8S 612	Diesel	2068	4	86.00	31
F9Q 812	Diesel	1870	4	80.00	141	J8S 620	Diesel	2068	4	86.00	158
F9Q 816	Diesel	1870	4	80.00	61	J8S 758	Diesel	2068	4	86.00	158
F9Q 816	Diesel	1870	4	80.00	105	J8S 760	Diesel	2068	4	86.00	127
F9Q 818	Diesel	1870	4	80.00	61	J8S 772	Diesel	2068	4	86.00	31
F9Q 818	Diesel	1870	4	80.00	105	J8S 774	Diesel	2068	4	86.00	31
F9Q 820	Diesel	1870	4	80.00	26	J8S 776	Diesel	2068	4	86.00	31
F9Q 826	Diesel	1870	4	80.00	26	J8S 778	Diesel	2068	4	86.00	31
F9Q E 804	Diesel	1870	4	80.00	61	K4J 700	Petrol	1390	4	79.50	14
F9Q E 804	Diesel	1870	4	80.00	141	K4J 710	Petrol	1390	4	79.50	14
F9Q EE 804	Diesel	1870	4	80.00	61	K4J 711	Petrol	1390	4	79.50	14
F9Q J 803	Diesel	1870	4	80.00	61	K4J 712	Petrol	1390	4	79.50	14
F9Q J 803	Diesel	1870	4	80.00	141	K4J 712	Petrol	1390	4	79.50	148
G8T 706	Diesel	2188	4	87.00	80	K4J 713	Petrol	1390	4	79.50	14
G8T 714	Diesel	2188	4	87.00	33	K4J 714	Petrol	1390	4	79.50	99
G8T 716	Diesel	2188	4	87.00	33	K4J 714	Petrol	1390	4	79.50	137
G8T 740	Diesel	2188	4	87.00	129	K4J 730	Petrol	1390	4	79.50	99
G8T 752	Diesel	2188	4	87.00	80	K4J 730	Petrol	1390	4	79.50	137
G8T 760	Diesel	2188	4	87.00	33	K4J 732	Petrol	1390	4	79.50	99
G8T 760	Diesel	2188	4	87.00	80	K4J 740	Petrol	1390	4	79.50	99
G8T 790	Diesel	2188	4	87.00	80	K4J 740	Petrol	1390	4	79.50	137

		CC			9			CC			9
K4J 750	Petrol	1390	4	79.50	99	K9K 702	Diesel	1461	4	76.00	15
K4J 750	Petrol	1390	4	79.50	137	K9K 702	Diesel	1461	4	76.00	66
K4J 770	Petrol	1390	4	79.50	114	K9K 702	Diesel	1461	4	76.00	149
K4J 780	Petrol	1390	4	79.50	14	K9K 704	Diesel	1461	4	76.00	15
K4M 700	Petrol	1598	4	79.50	102	K9K 704	Diesel	1461	4	76.00	66
K4M 700	Petrol	1598	4	79.50	139	K9K 710	Diesel	1461	4	76.00	15
K4M 701	Petrol	1598	4	79.50	102	K9K 710	Diesel	1461	4	76.00	66
K4M 701	Petrol	1598	4	79.50	139	K9K 712	Diesel	1461	4	76.00	15
K4M 704	Petrol	1598	4	79.50	102	K9K 714	Diesel	1461	4	76.00	15
K4M 704	Petrol	1598	4	79.50	139	K9K 714	Diesel	1461	4	76.00	66
K4M 708	Petrol	1598	4	79.50	17	K9K 716	Diesel	1461	4	76.00	15
K4M 708	Petrol	1598	4	79.50	102	K9K 718	Diesel	1461	4	76.00	15
K4M 708	Petrol	1598	4	79.50	139	K9K 718	Diesel	1461	4	76.00	66
K4M 709	Petrol	1598	4	79.50	139	K9K 718	Diesel	1461	4	76.00	149
K4M 710	Petrol	1598	4	79.50	71	K9K 718	Diesel	1461	4	76.00	166
K4M 711	Petrol	1598	4	79.50	71	K9K 722	Diesel	1461	4	76.00	100
K4M 714	Petrol	1598	4	79.50	71	K9K 722	Diesel	1461	4	76.00	138
K4M 716	Petrol	1598	4	79.50	71	K9K 724	Diesel	1461	4	76.00	100
K4M 720	Petrol	1598	4	79.50	71	K9K 724	Diesel	1461	4	76.00	138
K4M 724	Petrol	1598	4	79.50	71	K9K 728	Diesel	1461	4	76.00	59
K4M 740	Petrol	1598	4	79.50	151	K9K 728	Diesel	1461	4	76.00	100
K4M 744	Petrol	1598	4	79.50	17	K9K 728	Diesel	1461	4	76.00	138
K4M 745	Petrol	1598	4	79.50	17	K9K 729	Diesel	1461	4	76.00	59
K4M 746	Petrol	1598	4	79.50	17	K9K 729	Diesel	1461	4	76.00	100
K4M 748	Petrol	1598	4	79.50	17	K9K 729	Diesel	1461	4	76.00	138
K4M 750	Petrol	1598	4	79.50	68	K9K 732	Diesel	1461	4	76.00	100
K4M 752	Petrol	1598	4	79.50	68	K9K 732	Diesel	1461	4	76.00	138
K4M 753	Petrol	1598	4	79.50	68	K9K 734	Diesel	1461	4	76.00	100
K4M 754	Petrol	1598	4	79.50	167	K9K 740	Diesel	1461	4	76.00	15
K4M 760	Petrol	1598	4	79.50	102	K9K 740	Diesel	1461	4	76.00	149
K4M 761	Petrol	1598	4	79.50	60	K9K 740	Diesel	1461	4	76.00	166
K4M 761	Petrol	1598	4	79.50	102	K9K 750	Diesel	1461	4	76.00	15
K4M 761	Petrol	1598	4	79.50	139	K9K 752	Diesel	1461	4	76.00	15
K4M 768	Petrol	1598	4	79.50	102	K9K 752	Diesel	1461	4	76.00	115
K4M 782	Petrol	1598	4	79.50	60	K9K 764	Diesel	1461	4	76.00	15
K4M 782	Petrol	1598	4	79.50	139	K9K 764	Diesel	1461	4	76.00	115
K4M 788	Petrol	1598	4	79.50	58	K9K 766	Diesel	1461	4	76.00	15
K4M 788	Petrol	1598	4	79.50	102	K9K 766	Diesel	1461	4	76.00	115
K4M 788	Petrol	1598	4	79.50	135	K9K 768	Diesel	1461	4	76.00	15
K4M 790	Petrol	1598	4	79.50	116	K9K 768	Diesel	1461	4	76.00	115
K4M 791	Petrol	1598	4	79.50	116	K9K 772	Diesel	1461	4	76.00	15
K4M 792	Petrol	1598	4	79.50	116	K9K 780	Diesel	1461	4	76.00	70
K4M 794	Petrol	1598	4	79.50	116	K9K 792	Diesel	1461	4	76.00	85
K4M 800	Petrol	1598	4	79.50	17	K9K 800	Diesel	1461	4	76.00	66
K4M 801	Petrol	1598	4	79.50	17	K9K 802	Diesel	1461	4	76.00	66
K4M 804	Petrol	1598	4	79.50	17	K9K 804	Diesel	1461	4	76.00	66
K4M 812	Petrol	1598	4	76.00	102	K9K 806	Diesel	1461	4	76.00	66
K4M 812	Petrol	1598	4	76.00	135	K9K P 732	Diesel	1461	4	76.00	59
K4M 854	Petrol	1598	4	79.50	167	K9K P 732	Diesel	1461	4	76.00	100
K4M 9 766	Petrol	1598	4	79.50	135	K9K P 732	Diesel	1461	4	76.00	138
K4M C 813	Petrol	1598	4	79.50	102	L7X 700	Diesel	2946	6	87.00	83
K4M C 813	Petrol	1598	4	79.50	135	L7X 701	Diesel	2946	6	87.00	83
K4M D 812	Petrol	1598	4	79.50	102	L7X 713	Petrol	2946	6	87.00	132
K7J	Petrol	1390	4	75.80	65	L7X 720	Petrol	2946	6	87.00	3
K7J 710	Petrol	1390	4	79.50	84	L7X 721	Petrol	2946	6	87.00	3
K7J 710	Petrol	1390	4	79.50	133	L7X 727	Petrol	2946	6	87.00	37
K7J700	Petrol	1390	4	75.80	65	L7X 731	Diesel	2946	6	87.00	83
K7J700	Petrol	1390	4	75.80	147	L7X 760	Petrol	2946	6	87.00	25
K7M 702	Petrol	1598	4	79.50	101	N7Q 700	Petrol	1948	4	83.00	78
K7M 703	Petrol	1598	4	79.50	101	N7Q 704	Petrol	1948	4	83.00	78
K7M 704	Petrol	1598	4	79.50	101	N7Q 710	Petrol	1948	4	83.00	126
K7M 710	Petrol	1598	4	79.50	86	N7Q 711	Petrol	1948	4	83.00	126
K7M 710	Petrol	1598	4	79.50	134	P9X 701	Diesel	2958	6	87.50	36
K7M 720	Petrol	1598	4	79.50	101	P9X 701	Diesel	2958	6	87.50	170
K7M 744	Petrol	1598	4	79.50	16	P9X 715	Diesel	2958	6	87.50	36
K7M 745	Petrol	1598	4	79.50	16	S8U 720	Diesel	2445	4	93.00	160
K7M 746	Petrol	1598	4	79.50	67	S8U 722	Diesel	2445	4	93.00	160
K7M 746	Petrol	1598	4	79.50	150	S8U 731	Diesel	2445	4	93.00	93
K7M 790	Petrol	1598	4	79.50	101	S8U 742	Diesel	2499	4	93.00	95
K9K 700	Diesel	1461	4	76.00	15	S8U 750	Diesel	2499	4	93.00	161
K9K 700	Diesel	1461	4	76.00	66	S8U 752	Diesel	2499	4	93.00	161
K9K 700	Diesel	1461	4	76.00	149	S8U 758	Diesel	2499	4	93.00	161
K9K 700	Diesel	1461	4	76.00	149	S8U 762	Diesel	2445	4	93.00	130



		cc			9
<b>S8U 763</b>	Diesel	2499	4	93.00	<b>131</b>
<b>S9U 702</b>	Diesel	2499	4	93.00	<b>95</b>
<b>S9U 714</b>	Diesel	2499	4	93.00	<b>95</b>
<b>S9W 702</b>	Diesel	2799	4	94.40	<b>96</b>
<b>Z7W 712</b>	Petrol	2849	6	91.00	<b>35</b>
<b>Z7W 713</b>	Petrol	2849	6	91.00	<b>35</b>
<b>Z7W 717</b>	Petrol	2849	6	91.00	<b>35</b>
<b>Z7X 760</b>	Petrol	2963	6	93.00	<b>82</b>
<b>Z7X 765</b>	Petrol	2963	6	93.00	<b>82</b>

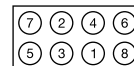
		cc			9
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cc



kW/PS



Avantime 2.0L 16V Turbo					11/01 → 05/03	1		
F4R 760/F4R 761	1998	4	82.70	DOHC	120/163	<b>HBS310</b>  M12x1.50x117mm (x10)	1) 20Nm 2) 165°	
Avantime 2.2L dCi Diesel					05/02 → 05/03	2		
G9T 712	2188	4	87.00	DOHC	110/150	<b>HBS373</b>  M12x1.50x131mm (x10)	1) 30Nm 2) 150° 3) 150°	
Avantime 3.0L V6					09/01 → 05/03	3		
L7X 720/L7X 721	2946	6	87.00	DOHC	152/207	<b>HBS272</b>  M10x1.50x147mm (x16)	1) 20Nm 2) ↻ 360° 3) 15Nm 4) 225°	
B 70 Diesel					01/83 → 12/90	4		
8140.61.235	2445	4	93.00		53/72	<b>HBS011</b>  M12x1.25x160mm (x10) M12x1.25x119mm (x12)	1) 20Nm 2) 40Nm 3) ↻ 90° 4) 40Nm 5) 90° 6) 90°	
B 90 Diesel					08/90 → 01/92	5		
B 90 4x4 Diesel					08/90 → 01/92			
8140.27.2530 IDS	2499	4	93.00		71-78/ 96-106	<b>HBS011</b>  M12x1.25x160mm (x10) M12x1.25x119mm (x12)	1) 20Nm 2) 40Nm 3) ↻ 90° 4) 40Nm 5) 90° 6) 90°	
B110 2.8L TD Diesel						6		
8140.43.3900	2800	4	94.40	Sofim, Turbo Intercooled	84/114	<b>HBS255</b>  M12x1.25x90mm (x8) M12x1.25x160mm (x14)	1) 20Nm 2) 40Nm 3) ↻ 90° 4) 40Nm 5) 90° 6) 90°	
B120 2.8L TD Diesel						7		
8140.43.3900	2800	4	94.40	Sofim, Turbo Intercooled	84/114	<b>HBS255</b>  M12x1.25x90mm (x8) M12x1.25x160mm (x14)	1) 20Nm 2) 40Nm 3) ↻ 90° 4) 40Nm 5) 90° 6) 90°	
Clio 1.1L					01/91 → 09/98	8		
C1E 700	1108	4	70.00		35/47	<b>HBS104</b>  M10x1.50x100mm (x10)	1) (1-2) 20Nm 2) (1-2) 90° 3) (3-6) 20Nm 4) (3-6) 90° 5) (7-10) 20Nm 6) (7-10) 90° 7) (1) ↻ 90° 8) (1) 20Nm 9) (1) 90° 10) (2) ↻ 90° 11) (2) 20Nm 12) (2) 90° 13) etc ...	
Clio 1.2L					01/96 → 05/05	9		
Clio Van 1.2L					09/98 →			
D7F 746	1149	4	69.00	SOHC	43/58		<b>HBS241</b>  M9x1.25x103mm (x10)	1) 20Nm 2) 90° 3) (1-2) ↻ 90° 4) (1-2) 20Nm 5) (1-2) 200° 6) (3-6) ↻ 90° 7) (3-6) 20Nm 8) (3-6) 200° 9) (7-10) ↻ 90° 10) (7-10) 20Nm 11) (7-10) 200°
D7F 710/D7F 720/D7F 722/ D7F 726/D7F 730	1149	4	69.00	SOHC	44/60			
D7F 766	1149	4	69.00	SOHC				

# RENAULT



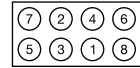
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kW/PS



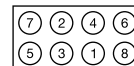
Clio 1.2L						05/90 → 09/98	10		
Clio 1.2L (B/C/S572)						05/90 → 03/96			
Clio Van 1.2L						01/91 → 09/98			
E5F 710	1171	4	75.80	SOHC	40-44/ 55-60		<b>HBS102</b>  M10x1.50x98mm (x5) M10x1.50x113mm (x5)	1) 20Nm 2) 100° 3) (1-2) ↻ 90° 4) (1-2) 20Nm 5) (1-2) 100° 6) (3-6) ↻ 90° 7) (3-6) 20Nm 8) (3-6) 100° 9) (7-10) ↻ 90° 10) (7-10) 20Nm 11) (7-10) 100°	
E7F 708/E7F 750	1171	4	75.80	SOHC	43-44/ 58-60				
E7F 700/E7F 706	1171	4	75.80	SOHC	55/75				
Clio 1.2L						01/96 → 12/96	11		
C3G 720	1239	4	74.00		40/54		<b>HBS104</b>  M10x1.50x100mm (x10)	1) (1-2) 20Nm 2) (1-2) 90° 3) (3-6) 20Nm 4) (3-6) 90° 5) (7-10) 20Nm 6) (7-10) 90° 7) (1) ↻ 90° 8) (1) 20Nm 9) (1) 90° 10) (2) ↻ 90° 11) (2) 20Nm 12) (2) 90° 13) etc ...	
Clio 1.2L 16V						06/01 → 05/05	12		
D4F 712	1149	4	69.00	DOHC	55/75		<b>HBS283</b>  M9x1.25x122mm (x10)	1) 20Nm 2) 230°	
D4F 714/D4F 740	1149	4	69.00		55/75				
D4F 764	1149	4	69.00	DOHC	57/77				
D4F 722	1149	4	69.00	DOHC					
Clio 1.4L						01/91 → 05/05	13		
E7J 756/E7J 757/E7J 780	1390	4	75.80	SOHC	55/75		<b>HBS102</b>  M10x1.50x98mm (x5) M10x1.50x113mm (x5)	1) 20Nm 2) 100° 3) (1-2) ↻ 90° 4) (1-2) 20Nm 5) (1-2) 100° 6) (3-6) ↻ 90° 7) (3-6) 20Nm 8) (3-6) 100° 9) (7-10) ↻ 90° 10) (7-10) 20Nm 11) (7-10) 100°	
E7J 754	1390	4	75.80	SOHC	55-59/ 75-80				
E7J 718/E7J 719	1390	4	75.80	SOHC	58/79				
E7J 601/E7J 710/E7J 711	1390	4	75.80	SOHC	58-59/ 80-80				
Clio 1.4L 16V						10/99 → 05/05	14		
K4J 712	1390	4	79.50	DOHC	70-72/ 95-98		<b>HBS301</b>  M10x1.50x117mm (x10)	1) 20Nm 2) 240°	
K4J 700/K4J 713/K4J 780	1390	4	79.50	DOHC	72/98				
K4J 710/K4J 711	1390	4	79.50	DOHC					



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kW/PS



<b>Clio 1.5L D Diesel</b> 08/04 → <b>15</b>						<b>HBS299</b>  M11x1.50x125mm (x10)	1) 25Nm 2) 25Nm 3) 255°	
<b>Clio 1.5L D Mk III Diesel</b> 11/07 → <b>Clio 1.5L dCi Diesel</b> 06/01 →10/06 <b>Clio 1.5L dCi (B/CB3N) Diesel</b> 02/07 → <b>Clio 1.5L dCi (KROF) Diesel</b> 02/08 → <b>Clio 1.5L dCi (KROG) Diesel</b> 02/08 → <b>Clio 1.5L dCi (KROH) Diesel</b> 02/08 →								
K9K 740	1461	4	76.00	SOHC	47/64			
K9K 700/K9K 704	1461	4	76.00	SOHC	48/65			
K9K 752	1461	4	76.00	SOHC	48-50/ 65-68			
K9K 714/K9K 768	1461	4	76.00	SOHC	50/68			
K9K 750	1461	4	76.00	SOHC	57-65/ 78-88			
K9K 702/K9K 710	1461	4	76.00	SOHC	60/81			
K9K 716	1461	4	76.00	SOHC	60/82			
K9K 718	1461	4	76.00	SOHC	62/84			
K9K 766	1461	4	76.00	SOHC	63/86			
K9K 772	1461	4	76.00	SOHC, Straight	63-76/ 86-103			
K9K 712	1461	4	76.00	SOHC	74/100			
K9K 764	1461	4	76.00	SOHC	78/106			
<b>Clio 1.6L</b> 09/98 →05/05 <b>16</b>						<b>HBS102</b>  M10x1.50x98mm (x5) M10x1.50x113mm (x5)	1) 20Nm 2) 100° 3) (1-2) ↻ 90° 4) (1-2) 20Nm 5) (1-2) 100° 6) (3-6) ↻ 90° 7) (3-6) 20Nm 8) (3-6) 100° 9) (7-10) ↻ 90° 10) (7-10) 20Nm 11) (7-10) 100°	
<b>Clio 1.6L 16V</b> 11/03 → <b>Clio 1.6L 16V</b> 09/98 →05/05 <b>Clio 1.6L 16V (KROB)</b> 02/08 →								
K7M 744/K7M 745	1598	4	79.50	SOHC	66/89			
<b>Clio 1.6L</b> 11/03 → <b>17</b>						<b>HBS301</b>  M10x1.50x117mm (x10)	1) 20Nm 2) 240°	
<b>Clio 1.6L 16V</b> 09/98 →05/05 <b>Clio 1.6L 16V (KROB)</b> 02/08 →								
K4M 804	1598	4	79.50	DOHC	65/88			
K4M 746	1598	4	79.50	DOHC	79/107			
K4M 708/K4M 748	1598	4	79.50	DOHC	79/81/ 107/109			
K4M 800/K4M 801	1598	4	79.50	DOHC	82/111			
K4M 744/K4M 745	1598	4	79.50	DOHC				
<b>Clio 1.7L</b> 01/91 →12/93 <b>18</b>						<b>HBS244</b>  M12x1.50x111mm (x10)	1) 30Nm 2) 100° 3) (1-2) ↻ 4) (1-2) 25Nm 5) (1-2) 213° 6) (3-4) ↻ 7) (3-4) 25Nm 8) (3-4) 213° 9) (5-6) ↻ 10) (5-6) 25Nm 11) (5-6) 213° 12) (7-8) ↻ 13) (7-8) 25Nm 14) (7-8) 213° 15) (9-10) ↻ 16) (9-10) 25Nm 17) (9-10) 213°	
<b>Clio 1.7L</b> 01/91 →12/93								
F2N 770	1721	4	81.00	SOHC	66-68/ 90-92			



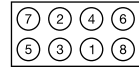
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kW/PS



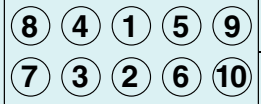
Clio 1.8L		08/90 → 09/98		19	
Clio 1.8L Rsi		01/93 → 09/98			
F3P 710/F3P 712/F3P 714/ F3P 754/F3P 755/F3P 758	1794	4	82.70	SOHC	70/95
<b>Clio 1.8L 16V</b>		08/91 → 06/94		<b>20</b>	
F7P 722	1763	4	82.00	DOHC	101/137
<b>Clio 1.9L D Diesel</b>		01/91 → 09/98		<b>21</b>	
<b>Clio Van 1.9L D Diesel</b>		01/91 → 09/98			
F8Q 730/F8Q 732	1870	4	80.00	SOHC	47-48/ 64-65
F8Q 678	1870	4	80.00	SOHC	48-40/ 65-54
<b>Clio 1.9L D Diesel</b>		09/98 → 05/05		<b>22</b>	
<b>Clio 1.9L dTi Diesel</b>		02/00 → 05/05			
<b>Clio Van 1.9L D Diesel</b>		09/98 →			
F8Q 630/F8Q 662	1870	4	80.00	SOHC	47/64
F9Q 780	1870	4	80.00	SOHC	72/98
<b>Clio 2.0L 16V Sport</b>		02/00 → 05/05		<b>23</b>	
F4R 730	1998	4	82.70	DOHC	124/168
F4R 738	1998	4	82.70	DOHC	132-124/ 180-168
F4R 830	1998	4	82.70	DOHC	145/197

HBS244



M12x1.50x111mm (x10)

- 1) 30Nm
- 2) 100°
- 3) (1-2) ↻
- 4) (1-2) 25Nm
- 5) (1-2) 213°
- 6) (3-4) ↻
- 7) (3-4) 25Nm
- 8) (3-4) 213°
- 9) (5-6) ↻
- 10) (5-6) 25Nm
- 11) (5-6) 213°
- 12) (7-8) ↻
- 13) (7-8) 25Nm
- 14) (7-8) 213°
- 15) (9-10) ↻
- 16) (9-10) 25Nm
- 17) (9-10) 213°

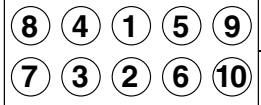


HBS177



M12x1.50x108mm (x10)

- 1) 30Nm
- 2) 50Nm
- 3) ↻
- 4) 25Nm
- 5) 108°

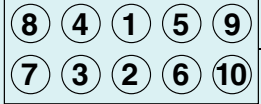


HBS244

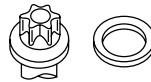


M12x1.50x111mm (x10)

- 1) 30Nm
- 2) 100°
- 3) (1-2) ↻
- 4) (1-2) 25Nm
- 5) (1-2) 213°
- 6) (3-4) ↻
- 7) (3-4) 25Nm
- 8) (3-4) 213°
- 9) (5-6) ↻
- 10) (5-6) 25Nm
- 11) (5-6) 213°
- 12) (7-8) ↻
- 13) (7-8) 25Nm
- 14) (7-8) 213°
- 15) (9-10) ↻
- 16) (9-10) 25Nm
- 17) (9-10) 213°

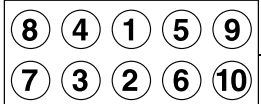


HBS120



M12x1.50x118mm (x10)

- 1) 30Nm
- 2) 100°
- 3) (1-2) ↻ 90°
- 4) (1-2) 25Nm
- 5) (1-2) 213°
- 6) (3-4) ↻ 90°
- 7) (3-4) 25Nm
- 8) (3-4) 213°
- 9) (5-6) ↻ 90°
- 10) (5-6) 25Nm
- 11) (5-6) 213°
- 12) (7-8) ↻ 90°
- 13) (7-8) 25Nm
- 14) (7-8) 213°
- 15) (9-10) ↻ 90°
- 16) (9-10) 25Nm
- 17) (9-10) 213°

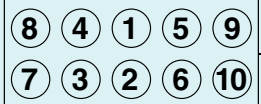


HBS310



M12x1.50x117mm (x10)

- 1) 20Nm
- 2) 165°



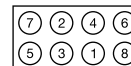




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kW/PS



Clio 2.0L Williams				01/94 → 09/98		24	 M12x1.50x108mm (x10)	1) 30Nm 2) 50° 3) ↻ 4) 25Nm 5) 107° 6) ⚡ 7) ↻ 8) 25Nm 9) 107°	
F7R 700	1998	4	82.70	DOHC	108-110/ 147-150				
Clio V6 Sport				11/00 → 12/02		25	 M10x1.50x147mm (x16)	1) 20Nm 2) ↻ 360° 3) 15Nm 4) 225°	
L7X 760	2946	6	87.00	DOHC	166/226				
Espace 1.9L dCi Diesel				11/02 →		26	 M12x1.50x121mm (x10)	1) 35Nm 2) 100° 3) (1-2) ↻ 90° 4) (1-2) 25Nm 5) (1-2) 213° 6) (3-4) ↻ 90° 7) (3-4) 25Nm 8) (3-4) 213° 9) (5-6) ↻ 90° 10) (5-6) 25Nm 11) (5-6) 213° 12) (7-8) ↻ 90° 13) (7-8) 25Nm 14) (7-8) 213° 15) (9-10) ↻ 90° 16) (9-10) 25Nm 17) (9-10) 213°	
F9Q 680/F9Q 820/F9Q 826	1870	4	80.00	SOHC	88/120				
Espace 1.9L dTi Diesel				02/99 → 10/02		27	 M12x1.50x118mm (x10)	1) 30Nm 2) 100° 3) (1-2) ↻ 90° 4) (1-2) 25Nm 5) (1-2) 213° 6) (3-4) ↻ 90° 7) (3-4) 25Nm 8) (3-4) 213° 9) (5-6) ↻ 90° 10) (5-6) 25Nm 11) (5-6) 213° 12) (7-8) ↻ 90° 13) (7-8) 25Nm 14) (7-8) 213° 15) (9-10) ↻ 90° 16) (9-10) 25Nm 17) (9-10) 213°	
F9Q 722	1870	4	80.00	SOHC	72/98				
Espace 2.0L				07/84 → 10/96		28	 M12x1.50x243mm (x10)	1) 50Nm 2) 80Nm 3) ↻ 90° 4) 93Nm	
Espace 2.0L i				01/89 → 12/90					
Espace 2.0L i Quadra				03/88 → 12/92					
J6R 734	1995	4	88.00	SOHC	74/100				
J7R 768	1995	4	88.00	SOHC	76/103				
J6R 234	1995	4	88.00	SOHC	79-81/ 107-110				
J6R 236	1995	4	88.00	SOHC	80/108				
J7R 760	1995	4	88.00	SOHC	87-88/ 118-120				



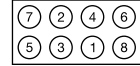
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kW/PS



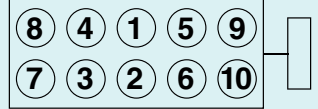
Espace 2.0L		11/96 → 10/00			29	
F3R 728/F3R 729/F3R 742/ F3R 768/F3R 769	1998	4	82.70	SOHC	84/114	
<b>Espace 2.0L</b>		09/01 → 10/02			<b>30</b>	
<b>Espace 2.0L 16V</b>		10/98 → 10/02				
<b>Espace 2.0L Turbo</b>		11/02 →				
F4R 790/F4R 791/F4R 792	1998	4	82.70	DOHC	100/136	
F4R 700/F4R 701	1998	4	82.70	DOHC	103/140	
F4R 794/F4R 795/F4R 797	1998	4	82.70	DOHC	120/163	
F4R 796/F4R 897	1998	4	82.70	DOHC	125/170	
<b>Espace 2.1L TD Diesel</b>		10/84 → 10/96			<b>31</b>	
J8S 240/J8S 610/J8S 772/ J8S 774/J8S 776/J8S 778	2068	4	86.00	SOHC		65/88
J8S 612	2068	4	86.00	SOHC		66/89
<b>Espace 2.2L</b>		07/86 → 10/96			<b>32</b>	
<b>Espace 2.2L 4x4 Mk II</b>		03/91 → 12/96				
<b>Espace 2.2L Quadra</b>		01/88 → 12/90				
J7T 770/J7T 772/J7T 776	2165	4	88.00	SOHC	79-81/ 107-110	
J7T 773	2165	4	88.00	SOHC	79-81/ 108-110	

**HBS244**



M12x1.50x111mm (x10)

- 1) 30Nm
- 2) 100°
- 3) (1-2) ↻
- 4) (1-2) 25Nm
- 5) (1-2) 213°
- 6) (3-4) ↻
- 7) (3-4) 25Nm
- 8) (3-4) 213°
- 9) (5-6) ↻
- 10) (5-6) 25Nm
- 11) (5-6) 213°
- 12) (7-8) ↻
- 13) (7-8) 25Nm
- 14) (7-8) 213°
- 15) (9-10) ↻
- 16) (9-10) 25Nm
- 17) (9-10) 213°

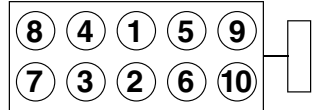


**HBS310**

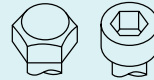


M12x1.50x117mm (x10)

- 1) 20Nm
- 2) 165°

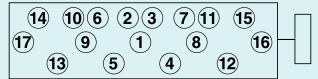


**HBS010**



M12x1.50x247mm (x2)  
M12x1.50x148mm (x4)  
M12x1.50x134mm (x8)

- 1) 30Nm
- 2) 50Nm
- 3) ↻ 90°
- 4) 20Nm
- 5) (1) 105°
- 6) (2-3) 60°
- 7) (4-5) 70°
- 8) (6-7) 60°
- 9) (8-9) 105°
- 10) (10-11) 60°
- 11) (12-13) 70°
- 12) (14-15) 60°
- 13) (16-17) 80°
- 14) (1) 105°
- 15) (2-3) 60°
- 16) (4-5) 70°
- 17) (6-7) 60°
- 18) (8-9) 105°
- 19) (10-11) 60°
- 20) (12-13) 70°
- 21) (14-15) 60°
- 22) (16-17) 80°

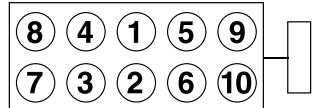


**HBS116**



M12x1.50x243mm (x10)

- 1) 50Nm
- 2) 80Nm
- 3) ↻ 180°
- 4) 93Nm
- 5) ↻
- 6) ↻ 180°
- 7) 93°

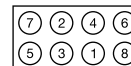




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Espace 2.2L 12V TD Diesel		11/96 → 10/00			33			
G8T 714/G8T 716/G8T 760	2188	4	87.00	SOHC	83/113	<b>HBS119</b>  M11x1.50x207.5mm (x4) M11x1.50x185mm (x5) M11x1.50x103mm (x4) M11x1.50x185mm (x5)	<b>A</b> 1) 20Nm 2) 246° 3) ↻ 180° 4) 20Nm <b>B</b> 1) 20Nm 2) 240° 3) ↻ 180° 4) 20Nm <b>C</b> 1) 20Nm 2) 215° 3) ↻ 180° 4) 20Nm <b>D</b> 1) 20Nm 2) 160° 3) ↻ 180° 4) 20Nm 5) 243°	
Espace 2.2L dCi Diesel		07/00 → 10/02			34			
G9T 710	2188	4	87.00	DOHC	95-110/ 130-150	<b>HBS373</b>  M12x1.50x131mm (x10)	1) 30Nm 2) 30Nm 3) 300°	
G9T 645	2188	4	87.00	DOHC	102/139			
G9T 642/G9T 742/G9T 743	2188	4	87.00	DOHC	110/150			
Espace 2.8L V6		01/91 → 10/96			35			
Z7W 712/Z7W 713/Z7W 717	2849	6	91.00	SOHC	110/150	<b>HBS127</b>  M12x1.50x178mm (x16)	1) 30Nm 2) 60Nm 3) ↻ 180° 4) 20Nm 5) 106° 6) ⚡ 7) ⚡ 8) 45°	
Espace 3.0L dCi Diesel		11/02 →			36			
P9X 715	2958	6	87.50	DOHC, V6	120-130/ 163-177	<b>HBS502</b>  M12x1.50x145mm (x8) M12x1,5x145mm (x8) M12x1,5x175mm (x8)	1) 20Nm 2) 40Nm 3) ↻ 90° 4) 40Nm 5) (1-4) 130° 6) (5-8) 110° 7) (1-4) 130° 8) (5-8) 110°	
P9X 701	2958	6	87.50	DOHC	130/177			
Espace V6 24V		10/98 → 10/02			37			
L7X 727	2946	6	87.00	DOHC	140/190	<b>HBS272</b>  M10x1.50x147mm (x16)	1) 20Nm 2) ↻ 360° 3) 15Nm 4) 225°	
Express Box 1.0L		02/86 → 05/92			38			
	949	4				<b>HBS104</b>  M10x1.50x100mm (x10)	1) (1-2) 20Nm 2) (1-2) 90° 3) (3-6) 20Nm 4) (3-6) 90° 5) (7-10) 20Nm 6) (7-10) 90° 7) (1) ↻ 90° 8) (1) 20Nm 9) (1) 90° 10) (2) ↻ 90° 11) (2) 20Nm 12) (2) 90° 13) etc ...	

# RENAULT



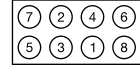
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## Express Box 1.1L

07/85 → 04/95

39

C1E 756/C1E 760/C1E 792  
C1E 750/C1E 752/C1E 754

1108 4 70.00  
1108 4 70.00

C1E 762

1108 4 70.00

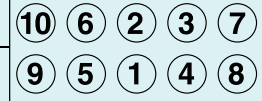
33/45  
33-34/  
45-46  
33-36/  
45-49

HBS104



M10x1.50x100mm (x10)

- 1) (1-2) 20Nm
- 2) (1-2) 90°
- 3) (3-6) 20Nm
- 4) (3-6) 90°
- 5) (7-10) 20Nm
- 6) (7-10) 90°
- 7) (1) ↻ 90°
- 8) (1) 20Nm
- 9) (1) 90°
- 10) (2) ↻ 90°
- 11) (2) 20Nm
- 12) (2) 90°
- 13) etc ...



## Express Box 1.2L

09/91 → 03/98

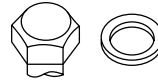
40

C3G 710/C3G 712

1239 4 74.00

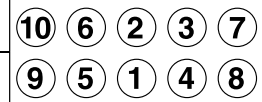
40/54

HBS104



M10x1.50x100mm (x10)

- 1) (1-2) 20Nm
- 2) (1-2) 90°
- 3) (3-6) 20Nm
- 4) (3-6) 90°
- 5) (7-10) 20Nm
- 6) (7-10) 90°
- 7) (1) ↻ 90°
- 8) (1) 20Nm
- 9) (1) 90°
- 10) (2) ↻ 90°
- 11) (2) 20Nm
- 12) (2) 90°
- 13) etc ...



## Express Box 1.4L

09/91 → 03/98

41

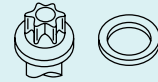
E71 720/E71 724/E71 726/E71 773

1390 4 75.80

SOHC

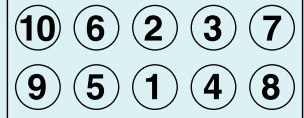
55-59/  
75-80  
58-59/  
79-80

HBS102



M10x1.50x98mm (x5)  
M10x1.50x113mm (x5)

- 1) 20Nm
- 2) 100°
- 3) (1-2) ↻ 90°
- 4) (1-2) 20Nm
- 5) (1-2) 100°
- 6) (3-6) ↻ 90°
- 7) (3-6) 20Nm
- 8) (3-6) 100°
- 9) (7-10) ↻ 90°
- 10) (7-10) 20Nm
- 11) (7-10) 100°



E71 728

1390 4 75.80

SOHC

## Express Box 1.4L

07/85 → 03/98

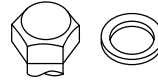
42

C1J 780  
C1J 768/C3J 700/C3J 702/  
C3J 760/C3J 762  
C2J 784

1397 4 76.00  
1397 4 76.00  
1397 4 76.00

43/58  
43-44/  
58-60  
44/60

HBS104



M10x1.50x100mm (x10)

- 1) (1-2) 20Nm
- 2) (1-2) 90°
- 3) (3-6) 20Nm
- 4) (3-6) 90°
- 5) (7-10) 20Nm
- 6) (7-10) 90°
- 7) (1) ↻ 90°
- 8) (1) 20Nm
- 9) (1) 90°
- 10) (2) ↻ 90°
- 11) (2) 20Nm
- 12) (2) 90°
- 13) etc ...





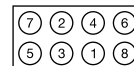
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kW/PS



Express Box 1.6L D Diesel					03/86 → 08/98	43
F8M 720/F8M 730/F8M 736/F8M 760	1595	4	78.00	SOHC		40/54
HBS244 M12x1.50x111mm (x10)						
1) 30Nm 2) 100° 3) (1-2) ↻ 4) (1-2) 25Nm 5) (1-2) 213° 6) (3-4) ↻ 7) (3-4) 25Nm 8) (3-4) 213° 9) (5-6) ↻ 10) (5-6) 25Nm 11) (5-6) 213° 12) (7-8) ↻ 13) (7-8) 25Nm 14) (7-8) 213° 15) (9-10) ↻ 16) (9-10) 25Nm 17) (9-10) 213°						
Express Box 1.9L D Diesel					09/91 → 03/98	44
F8Q 640	1870	4	80.00	SOHC		40/54
F8Q 722/F8Q 724/F8Q 774/F8Q 776	1870	4	80.00	SOHC		47-48/ 64-67
F8Q 682	1870	4	80.00	SOHC		48/65
HBS244 M12x1.50x111mm (x10)						
1) 30Nm 2) 100° 3) (1-2) ↻ 4) (1-2) 25Nm 5) (1-2) 213° 6) (3-4) ↻ 7) (3-4) 25Nm 8) (3-4) 213° 9) (5-6) ↻ 10) (5-6) 25Nm 11) (5-6) 213° 12) (7-8) ↻ 13) (7-8) 25Nm 14) (7-8) 213° 15) (9-10) ↻ 16) (9-10) 25Nm 17) (9-10) 213°						
Extra 1.0L					09/85 → 08/91	45
C1C 706	956	4	65.00			27-30/ 37-42
HBS104 M10x1.50x100mm (x10)						
1) (1-2) 20Nm 2) (1-2) 90° 3) (3-6) 20Nm 4) (3-6) 90° 5) (7-10) 20Nm 6) (7-10) 90° 7) (1) ↻ 90° 8) (1) 20Nm 9) (1) 90° 10) (2) ↻ 90° 11) (2) 20Nm 12) (2) 90° 13) etc ...						
Extra Van 1.0L					02/86 → 05/92	46
HBS104 M10x1.50x100mm (x10)						
1) (1-2) 20Nm 2) (1-2) 90° 3) (3-6) 20Nm 4) (3-6) 90° 5) (7-10) 20Nm 6) (7-10) 90° 7) (1) ↻ 90° 8) (1) 20Nm 9) (1) 90° 10) (2) ↻ 90° 11) (2) 20Nm 12) (2) 90° 13) etc ...						



# RENAULT



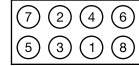
cc



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kW/PS



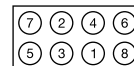
Extra 1.1L		09/85 → 04/95			47	HBS104	1) (1-2) 20Nm 2) (1-2) 90° 3) (3-6) 20Nm 4) (3-6) 90° 5) (7-10) 20Nm 6) (7-10) 90° 7) (1) ↗ 90° 8) (1) 20Nm 9) (1) 90° 10) (2) ↗ 90° 11) (2) 20Nm 12) (2) 90° 13) etc ...
C1E 750	1108	4	70.00		33-34/ 45-46	<p>M10x1.50x100mm (x10)</p>	
C1E 762	1108	4	70.00		33-36/ 45-49		
Extra Van 1.1L		07/85 → 04/95			48	HBS104	1) (1-2) 20Nm 2) (1-2) 90° 3) (3-6) 20Nm 4) (3-6) 90° 5) (7-10) 20Nm 6) (7-10) 90° 7) (1) ↗ 90° 8) (1) 20Nm 9) (1) 90° 10) (2) ↗ 90° 11) (2) 20Nm 12) (2) 90° 13) etc ...
C1E 756/C1E 760/C1E 792	1108	4	70.00		33/45	<p>M10x1.50x100mm (x10)</p>	
C1E 750/C1E 752/C1E 754	1108	4	70.00		33-34/ 45-46		
C1E 762	1108	4	70.00		33-36/ 45-49		
Extra 1.2L		05/95 → 11/98			49	HBS102	1) 20Nm 2) 100° 3) (1-2) ↗ 90° 4) (1-2) 20Nm 5) (1-2) 100° 6) (3-6) ↗ 90° 7) (3-6) 20Nm 8) (3-6) 100° 9) (7-10) ↗ 90° 10) (7-10) 20Nm 11) (7-10) 100°
E7F 708	1171	4	75.80	SOHC	43-44/ 58-60	<p>M10x1.50x98mm (x5) M10x1.50x113mm (x5)</p>	
Extra 1.2L		09/91 → 08/93			50	HBS104	1) (1-2) 20Nm 2) (1-2) 90° 3) (3-6) 20Nm 4) (3-6) 90° 5) (7-10) 20Nm 6) (7-10) 90° 7) (1) ↗ 90° 8) (1) 20Nm 9) (1) 90° 10) (2) ↗ 90° 11) (2) 20Nm 12) (2) 90° 13) etc ...
C1G 726	1237	4	71.50		40/54	<p>M10x1.50x100mm (x10)</p>	
Extra Van 1.2L		09/91 → 03/98			51	HBS104	1) (1-2) 20Nm 2) (1-2) 90° 3) (3-6) 20Nm 4) (3-6) 90° 5) (7-10) 20Nm 6) (7-10) 90° 7) (1) ↗ 90° 8) (1) 20Nm 9) (1) 90° 10) (2) ↗ 90° 11) (2) 20Nm 12) (2) 90° 13) etc ...
C3G 710/C3G 712	1239	4	74.00		40/54	<p>M10x1.50x100mm (x10)</p>	



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kW/PS



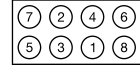
Extra 1.4L					09/91 → 08/97	52	HBS102		1) 20Nm 2) 100° 3) (1-2) ↻ 90° 4) (1-2) 20Nm 5) (1-2) 100° 6) (3-6) ↻ 90° 7) (3-6) 20Nm 8) (3-6) 100° 9) (7-10) ↻ 90° 10) (7-10) 20Nm 11) (7-10) 100°	
Extra 1.4L RN					09/91 → 08/93		HBS102		1) 20Nm 2) 100° 3) (1-2) ↻ 90° 4) (1-2) 20Nm 5) (1-2) 100° 6) (3-6) ↻ 90° 7) (3-6) 20Nm 8) (3-6) 100° 9) (7-10) ↻ 90° 10) (7-10) 20Nm 11) (7-10) 100°	
E6J 734	1390	4	75.80	SOHC	43/58		 M10x1.50x98mm (x5) M10x1.50x113mm (x5)			
E7J 720/E7J 724/E7J 773	1390	4	75.80	SOHC	55-59/ 75-80		 M10x1.50x98mm (x5) M10x1.50x113mm (x5)			
Extra Van 1.4L					09/91 → 03/98	53	HBS102		1) 20Nm 2) 100° 3) (1-2) ↻ 90° 4) (1-2) 20Nm 5) (1-2) 100° 6) (3-6) ↻ 90° 7) (3-6) 20Nm 8) (3-6) 100° 9) (7-10) ↻ 90° 10) (7-10) 20Nm 11) (7-10) 100°	
E7J 720/E7J 724/E7J 726/E7J 773	1390	4	75.80	SOHC	55-59/ 75-80		 M10x1.50x98mm (x5) M10x1.50x113mm (x5)			
E7J 728	1390	4	75.80	SOHC	58-59/ 79-80		 M10x1.50x98mm (x5) M10x1.50x113mm (x5)			
Extra Van 1.4L					07/85 → 03/98	54	HBS104		1) (1-2) 20Nm 2) (1-2) 90° 3) (3-6) 20Nm 4) (3-6) 90° 5) (7-10) 20Nm 6) (7-10) 90° 7) (1) ↻ 90° 8) (1) 20Nm 9) (1) 90° 10) (2) ↻ 90° 11) (2) 20Nm 12) (2) 90° 13) etc ...	
C1J 780	1397	4	76.00		43/58		 M10x1.50x100mm (x10)			
C1J 768/C3J 700/C3J 702/ C3J 760/C3J 762	1397	4	76.00		43-44/ 58-60		 M10x1.50x100mm (x10)			
C2J 784	1397	4	76.00		44/60		 M10x1.50x100mm (x10)			
Extra 1.6L D Diesel					09/93 → 04/95	55	HBS244		1) 30Nm 2) 100° 3) (1-2) ↻ 4) (1-2) 25Nm 5) (1-2) 213° 6) (3-4) ↻ 7) (3-4) 25Nm 8) (3-4) 213° 9) (5-6) ↻ 10) (5-6) 25Nm 11) (5-6) 213° 12) (7-8) ↻ 13) (7-8) 25Nm 14) (7-8) 213° 15) (9-10) ↻ 16) (9-10) 25Nm 17) (9-10) 213°	
F8M 736	1595	4	78.00	SOHC	40/54		 M12x1.50x111mm (x10)			



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kW/PS



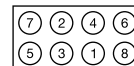
Extra Van 1.6L D Diesel				03/86 → 08/98	56			
F8M 720/F8M 730/F8M 736/F8M 760	1595	4	78.00	SOHC	40/54	<b>HBS244</b>  M12x1.50x111mm (x10)	1) 30Nm 2) 100° 3) (1-2) ↻ 4) (1-2) 25Nm 5) (1-2) 213° 6) (3-4) ↻ 7) (3-4) 25Nm 8) (3-4) 213° 9) (5-6) ↻ 10) (5-6) 25Nm 11) (5-6) 213° 12) (7-8) ↻ 13) (7-8) 25Nm 14) (7-8) 213° 15) (9-10) ↻ 16) (9-10) 25Nm 17) (9-10) 213°	
<b>Extra Van 1.9L D Diesel</b>								
09/91 → 03/98 <b>57</b>								
F8Q 640	1870	4	80.00	SOHC	40/54	<b>HBS244</b>  M12x1.50x111mm (x10)	1) 30Nm 2) 100° 3) (1-2) ↻ 4) (1-2) 25Nm 5) (1-2) 213° 6) (3-4) ↻ 7) (3-4) 25Nm 8) (3-4) 213° 9) (5-6) ↻ 10) (5-6) 25Nm 11) (5-6) 213° 12) (7-8) ↻ 13) (7-8) 25Nm 14) (7-8) 213° 15) (9-10) ↻ 16) (9-10) 25Nm 17) (9-10) 213°	
F8Q 722/F8Q 724/F8Q 774/F8Q 776	1870	4	80.00	SOHC	47-48/ 64-67			
F8Q 682	1870	4	80.00	SOHC	48/65			
<b>Grand Scenic 1.6L</b>				06/06 →	<b>58</b>			
K4M 788	1598	4	79.50	DOHC	77/105	<b>HBS301</b>  M10x1.50x117mm (x10)	1) 20Nm 2) 240°	
<b>Grand Scénic 1.5L dCi Diesel</b>				04/04 →	<b>59</b>			
K9K 728/K9K 729	1461	4	76.00	SOHC	74/101	<b>HBS299</b>  M11x1.50x125mm (x10)	1) 25Nm 2) 25Nm 3) 255°	
K9K P 732	1461	4	76.00	SOHC				
<b>Grand Scénic 1.6L</b>				04/04 →	<b>60</b>			
K4M 761/K4M 782	1598	4	79.50	DOHC	83/113	<b>HBS301</b>  M10x1.50x117mm (x10)	1) 20Nm 2) 240°	



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kW/PS



Grand Scénic 1.9L dCi Diesel					04/04 →	61	HBS372	1) 35Nm 2) 100° 3) (1-2) ↻ 90° 4) (1-2) 25Nm 5) (1-2) 213° 6) (3-4) ↻ 90° 7) (3-4) 25Nm 8) (3-4) 213° 9) (5-6) ↻ 90° 10) (5-6) 25Nm 11) (5-6) 213° 12) (7-8) ↻ 90° 13) (7-8) 25Nm 14) (7-8) 213° 15) (9-10) ↻ 90° 16) (9-10) 25Nm 17) (9-10) 213°	
F9Q 816/F9Q 818	1870	4	80.00	SOHC		81-96/ 110-131	 M12x1.50x121mm (x10)		
F9Q 812	1870	4	80.00	SOHC		88/120			
F9Q E 804/F9Q EE 804	1870	4	80.00	SOHC		96-81/ 131-110			
F9Q J 803	1870	4	80.00	SOHC		96-85/ 131-116			
Grand Scénic 2.0L					04/04 →	62	HBS310	1) 20Nm 2) 165°	
F4R 770/F4R 771	1998	4	82.70	DOHC		99/135	 M12x1.50x117mm (x10)		
F4R 776	1998	4	82.70	DOHC		120/163			
Kangoo 1.2L					03/98 → 07/01	63	HBS241	1) 20Nm 2) 90° 3) (1-2) ↻ 90° 4) (1-2) 20Nm 5) (1-2) 200° 6) (3-6) ↻ 90° 7) (3-6) 20Nm 8) (3-6) 200° 9) (7-10) ↻ 90° 10) (7-10) 20Nm 11) (7-10) 200°	
D7F 744/D7F 746/D7F 764	1149	4	69.00	SOHC		43/58	 M9x1.25x103mm (x10)		
D7F 710/D7F 720/D7F 722/D7F 726	1149	4	69.00	SOHC		44/60			
Kangoo 1.2L 16V					06/01 →	64	HBS283	1) 20Nm 2) 230°	
D4F 712	1149	4	69.00	DOHC		55/75	 M9x1.25x122mm (x10)		
D4F 714	1149	4	69.00	DOHC		55/75			
D4F 716	1149	4	69.00	DOHC		55/75			
Kangoo 1.4L					03/98 →	65	HBS102 E7J	1) 20Nm 2) 100° 3) (1-2) ↻ 90° 4) (1-2) 20Nm 5) (1-2) 100° 6) (3-6) ↻ 90° 7) (3-6) 20Nm 8) (3-6) 100° 9) (7-10) ↻ 90° 10) (7-10) 20Nm 11) (7-10) 100°	
E7J 634/E7J 635/E7J 780/K7J 701/K7J700	1390	4	75.80	SOHC		55/75	 M10x1.50x98mm (x5)  M10x1.50x113mm (x5)		
Kangoo 1.5L dCi Diesel					12/01 →	66	HBS299	1) 25Nm 2) 25Nm 3) 255°	
K9K 700/K9K 704	1461	4	76.00	SOHC		48/65	 M11x1.50x125mm (x10)		
K9K 714	1461	4	76.00	SOHC		50/68			
K9K 702/K9K 710	1461	4	76.00	SOHC		60/81			
K9K 718	1461	4	76.00	SOHC		62/84			
K9K 800/K9K 802	1461	4	76.00	SOHC		63/86			
K9K 806	1461	4	76.00	SOHC		76/103			
K9K 804	1461	4	76.00	SOHC		78/106			



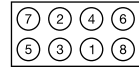
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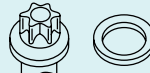


kW/PS



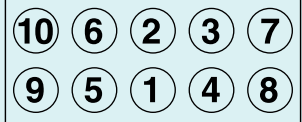
Kangoo 1.6L		09/99 → 06/01			67
K7M 746	1598	4	79.50	SOHC	66/90
<b>Kangoo 1.6L 16V</b>		06/01 →			<b>68</b>
<b>Kangoo 1.6L 16V 4x4</b>		10/01 →			
<b>Kangoo 1.6L 16V bivalent</b>		06/05 →			
K4M 750/K4M 753	1598	4	79.50	DOHC	60/82 70/95
K4M 752	1598	4	79.50	DOHC	79/81/ 107/109
<b>Kangoo 1.9L dCi Diesel</b>		07/03 →			<b>69</b>
<b>Kangoo 1.9L dCi 4x4 Diesel</b>		10/01 →			
<b>Kangoo 1.9L dTi Diesel</b>		02/00 →			
<b>Kangoo D 55 1.9L Diesel</b>		03/98 →			
<b>Kangoo D 65 1.9L Diesel</b>		03/98 →			
F8Q 630/F8Q 662	1870	4	80.00	SOHC	47/64
F8Q 632	1870	4	80.00	SOHC	47-48/ 64-65
F9Q 782/F9Q 790	1870	4	80.00	SOHC	59/80
F9Q 780	1870	4	80.00	SOHC	72/98
<b>Laguna 1.5L dCi Diesel</b>		10/07 →			<b>70</b>
<b>Laguna 1.5L dCi Grandtour Diesel</b>		10/07 →			
K9K 780	1461	4	76.00	SOHC	76/103
<b>Laguna 1.6L 16V</b>		11/97 → 03/01			<b>71</b>
K4M 710/K4M 714	1598	4	79.50	DOHC	79/107
K4M 711/K4M 720/K4M 724	1598	4	79.50	DOHC	79/81/ 107/109
K4M 716	1598	4	79.50	DOHC	82/112
<b>Laguna 1.8L</b>		11/93 → 03/01			<b>72</b>
F3P 670/F3P 678	1794	4	82.70	SOHC	66/89
F3P 720/F3P 724	1794	4	82.70	SOHC	66-69/ 90-94
F3P 674	1794	4	82.70	SOHC	69/93
F3P 676	1794	4	82.70	SOHC	70-69/ 95-94

**HBS102**



M10x1.50x98mm (x5)  
M10x1.50x113mm (x5)

- 1) 20Nm
- 2) 100°
- 3) (1-2) ↻ 90°
- 4) (1-2) 20Nm
- 5) (1-2) 100°
- 6) (3-6) ↻ 90°
- 7) (3-6) 20Nm
- 8) (3-6) 100°
- 9) (7-10) ↻ 90°
- 10) (7-10) 20Nm
- 11) (7-10) 100°

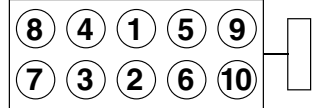


**HBS301**

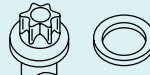


M10x1.50x117mm (x10)

- 1) 20Nm
- 2) 240°

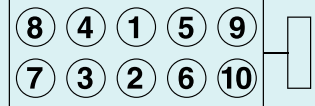


**HBS120**



M12x1.50x118mm (x10)

- 1) 30Nm
- 2) 100°
- 3) (1-2) ↻ 90°
- 4) (1-2) 25Nm
- 5) (1-2) 213°
- 6) (3-4) ↻ 90°
- 7) (3-4) 25Nm
- 8) (3-4) 213°
- 9) (5-6) ↻ 90°
- 10) (5-6) 25Nm
- 11) (5-6) 213°
- 12) (7-8) ↻ 90°
- 13) (7-8) 25Nm
- 14) (7-8) 213°
- 15) (9-10) ↻ 90°
- 16) (9-10) 25Nm
- 17) (9-10) 213°

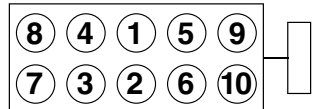


**HBS299**



M11x1.50x125mm (x10)

- 1) 25Nm
- 2) 25Nm
- 3) 255°

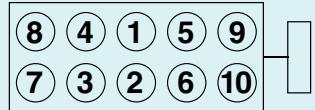


**HBS301**



M10x1.50x117mm (x10)

- 1) 20Nm
- 2) 240°

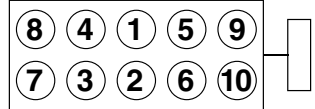


**HBS244**



M12x1.50x111mm (x10)

- 1) 30Nm
- 2) 100°
- 3) (1-2) ↻
- 4) (1-2) 25Nm
- 5) (1-2) 213°
- 6) (3-4) ↻
- 7) (3-4) 25Nm
- 8) (3-4) 213°
- 9) (5-6) ↻
- 10) (5-6) 25Nm
- 11) (5-6) 213°
- 12) (7-8) ↻
- 13) (7-8) 25Nm
- 14) (7-8) 213°
- 15) (9-10) ↻
- 16) (9-10) 25Nm
- 17) (9-10) 213°

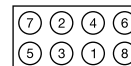




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<b>Laguna 1.8L 16V</b>					04/98 → 03/01	<b>73</b>	<b>HBS310</b>	1) 20Nm 2) 265°	
F4P 770/F4P 771/F4P 773/ F4P 774/F4P 775 F4P 760	1783	4	82.70	DOHC	85-89/ 116-121 88/120	 M12x1.50x117mm (x10)	1) 20Nm 2) 265°		
	1783	4	82.70	DOHC					
<b>Laguna 1.9L dCi Diesel</b>					09/99 → 03/01	<b>74</b>	<b>HBS372</b>	1) 35Nm 2) 100° 3) (1-2) ↻ 90° 4) (1-2) 25Nm 5) (1-2) 213° 6) (3-4) ↻ 90° 7) (3-4) 25Nm 8) (3-4) 213° 9) (5-6) ↻ 90° 10) (5-6) 25Nm 11) (5-6) 213° 12) (7-8) ↻ 90° 13) (7-8) 25Nm 14) (7-8) 213° 15) (9-10) ↻ 90° 16) (9-10) 25Nm 17) (9-10) 213°	
F9Q 750	1870	4	80.00	SOHC	55-88/ 75-120	 M12x1.50x121mm (x10)			
F9Q 718	1870	4	80.00	SOHC	72/98				
F9Q 752	1870	4	80.00	SOHC	74/101				
F9Q 754	1870	4	80.00	SOHC	74-79/ 101-107				
F9Q 674	1870	4	80.00	SOHC	82/112				
F9Q 670/F9Q 756	1870	4	80.00	SOHC	88/120				
F9Q 758/F9Q 759	1870	4	80.00	SOHC	96/130				
F9Q 664	1870	4	80.00	SOHC					
<b>Laguna 1.9L dTi Diesel</b>					10/97 → 03/01	<b>75</b>	<b>HBS120</b>	1) 30Nm 2) 100° 3) (1-2) ↻ 90° 4) (1-2) 25Nm 5) (1-2) 213° 6) (3-4) ↻ 90° 7) (3-4) 25Nm 8) (3-4) 213° 9) (5-6) ↻ 90° 10) (5-6) 25Nm 11) (5-6) 213° 12) (7-8) ↻ 90° 13) (7-8) 25Nm 14) (7-8) 213° 15) (9-10) ↻ 90° 16) (9-10) 25Nm 17) (9-10) 213°	
F9Q 717	1870	4	80.00	SOHC	72-75/ 98-102	 M12x1.50x118mm (x10)			
F9Q 710/F9Q 716	1870	4	80.00	SOHC	74/100				
<b>Laguna 2.0L</b>					11/93 → 03/01	<b>76</b>	<b>HBS244</b>	1) 30Nm 2) 100° 3) (1-2) ↻ 4) (1-2) 25Nm 5) (1-2) 213° 6) (3-4) ↻ 7) (3-4) 25Nm 8) (3-4) 213° 9) (5-6) ↻ 10) (5-6) 25Nm 11) (5-6) 213° 12) (7-8) ↻ 13) (7-8) 25Nm 14) (7-8) 213° 15) (9-10) ↻ 16) (9-10) 25Nm 17) (9-10) 213°	
<b>Laguna 2.0L 16V</b>					03/99 → 03/01				
F3R 722/F3R 723	1998	4	82.70	SOHC	70/95	 M12x1.50x111mm (x10)			
F3R 611	1998	4	82.70	SOHC	83-85/ 113-116				
F3R 768	1998	4	82.70	SOHC	84/114				
<b>Laguna 2.0L 16V</b>					09/99 → 03/01	<b>77</b>	<b>HBS310</b>	1) 20Nm 2) 165°	
<b>Laguna 2.0L 16V Turbo</b>					01/03 →				
F4R 712/F4R 713/F4R 714/F4R 715	1998	4	82.70	DOHC	99/135	 M12x1.50x117mm (x10)			
F4R 780	1998	4	82.70	DOHC	103/140				
F4R 764/F4R 765/F4R 786/F4R 787	1998	4	82.70	DOHC	120/163				
F4R 784	1998	4	82.70	DOHC	125/170				
F4R 886/F4R 887	1998	4	82.70	DOHC	150/204				



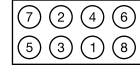
# RENAULT



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kW/PS



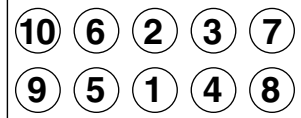
Laguna 2.0L 16V		06/95 → 03/01			78
N7Q 700/N7Q 704	1948	4	83.00	DOHC	102/139
Laguna 2.0L 16V IDE		04/01 →			79
F5R 700	1998	4	86.00	DOHC	103/140
Laguna 2.2L D 12V Diesel		11/93 → 03/01			80
Laguna 2.2L dT Diesel		03/96 → 03/01			
G8T 706/G8T 752/G8T 790/G8T 794	2188	4	87.00	SOHC	61/82
G8T 760	2188	4	87.00	SOHC	83/113
Laguna 2.2L dCi Diesel		10/01 →			81
Laguna 2.2L dCi Mk II Diesel		04/04 → 10/05			
G9T 702	2188	4	87.00	Common Rail, DOHC	95-110/ 130-150
G9T 706/G9T 707	2188	4	87.00	DOHC	102-110/ 139-150
G9T 600/G9T 605/G9T 700	2188	4	87.00	DOHC	110/150
Laguna 3.0L (B56E/R, B565)		11/93 → 03/01			82
Z7X 760	2963	6	93.00	SOHC	123/167
Z7X 765	2963	6	93.00	SOHC	125/170
Laguna 3.0L 24V		03/97 → 03/01			83
Laguna 3.0L V6 24V		03/01 →			
L7X 700/L7X 701	2946	6	87.00	DOHC, V6	140/190
L7X 731	2946	6	87.00	DOHC	152/207
Logan 1.4L		09/04 →			84
K7J 710	1390	4	79.50	SOHC	55/75

HBS178



M12x1.75x157mm (x10)

- 1) 20Nm
- 2) 60Nm
- 3) 150°

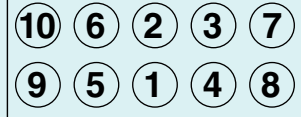


HBS431

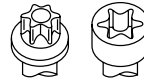


M12x1.50x137mm (x10)

- 1) 20Nm
- 2) 20Nm
- 3) 206°

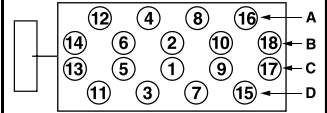


HBS119



M11x1.50x207.5mm (x4)  
M11x1.50x185mm (x5)  
M11x1.50x103mm (x4)  
M11x1.50x185mm (x5)

- A**
- 1) 20Nm
  - 2) 246°
  - 3) ↻ 180°
  - 4) 20Nm
- B**
- 1) 20Nm
  - 2) 240°
  - 3) ↻ 180°
  - 4) 20Nm
- C**
- 1) 20Nm
  - 2) 215°
  - 3) ↻ 180°
  - 4) 20Nm
- D**
- 1) 20Nm
  - 2) 160°
  - 3) ↻ 180°
  - 4) 20Nm
  - 5) 243°

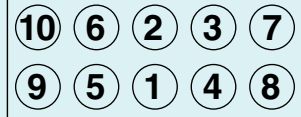


HBS373



M12x1.50x131mm (x10)

- 1) 30Nm
- 2) 30Nm
- 3) 300°

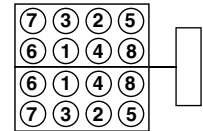


HBS127



M12x1.50x178mm (x16)

- 1) 30Nm
- 2) 60Nm
- 3) ↻ 180°
- 4) 20Nm
- 5) 106°
- 6) ↓
- 7) ↻
- 8) 45°

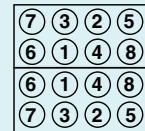


HBS272

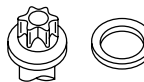


M10x1.50x147mm (x16)

- 1) 20Nm
- 2) ↻ 360°
- 3) 15Nm
- 4) 225°

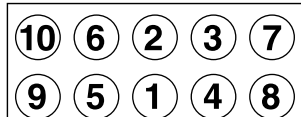


HBS102



M10x1.50x98mm (x5)  
M10x1.50x113mm (x5)

- 1) 20Nm
- 2) 100°
- 3) (1-2) ↻ 90°
- 4) (1-2) 20Nm
- 5) (1-2) 100°
- 6) (3-6) ↻ 90°
- 7) (3-6) 20Nm
- 8) (3-6) 100°
- 9) (7-10) ↻ 90°
- 10) (7-10) 20Nm
- 11) (7-10) 100°

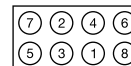




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Logan 1.5L dCi Diesel					04/07 →	85	<b>HBS299</b>  M11x1.50x125mm (x10)	1) 25Nm 2) 25Nm 3) 255°	
K9K 792	1461	4	76.00	SOHC	50/68				
Logan 1.6L					09/04 →	86	<b>HBS102</b>  M10x1.50x98mm (x5) M10x1.50x113mm (x5)	1) 20Nm 2) 100° 3) (1-2) ↻ 90° 4) (1-2) 20Nm 5) (1-2) 100° 6) (3-6) ↻ 90° 7) (3-6) 20Nm 8) (3-6) 100° 9) (7-10) ↻ 90° 10) (7-10) 20Nm 11) (7-10) 100°	
K7M 710	1598	4	79.50	SOHC	66/89				
Master 1.9L dCi 80 Diesel					11/01 →	87	<b>HBS372</b>  M12x1.50x121mm (x10)	1) 35Nm 2) 100° 3) (1-2) ↻ 90° 4) (1-2) 25Nm 5) (1-2) 213° 6) (3-4) ↻ 90° 7) (3-4) 25Nm 8) (3-4) 213° 9) (5-6) ↻ 90° 10) (5-6) 25Nm 11) (5-6) 213° 12) (7-8) ↻ 90° 13) (7-8) 25Nm 14) (7-8) 213° 15) (9-10) ↻ 90° 16) (9-10) 25Nm 17) (9-10) 213°	
F9Q 772	1870	4	80.00	SOHC	60/81				
F9Q 774	1870	4	80.00	SOHC	60/82				
Master 1.9L dTi Diesel					09/00 →	88	<b>HBS120</b>  M12x1.50x118mm (x10)	1) 30Nm 2) 100° 3) (1-2) ↻ 90° 4) (1-2) 25Nm 5) (1-2) 213° 6) (3-4) ↻ 90° 7) (3-4) 25Nm 8) (3-4) 213° 9) (5-6) ↻ 90° 10) (5-6) 25Nm 11) (5-6) 213° 12) (7-8) ↻ 90° 13) (7-8) 25Nm 14) (7-8) 213° 15) (9-10) ↻ 90° 16) (9-10) 25Nm 17) (9-10) 213°	
F9Q 770	1870	4	80.00	SOHC	59/80				
Master 28-35 2.0L					10/86 → 07/98	89	<b>HBS116</b>  M12x1.50x243mm (x10)	1) 50Nm 2) 80Nm 3) ↻ 90° 4) 93Nm	
J5R 718	1995	4	88.00	SOHC	57-60/ 78-82				
J5R 728	1995	4	88.00	SOHC	58/79				



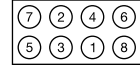
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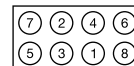
Master 28-35 2.1 D Diesel			08/80 → 07/98	90				
J8S 330	2068	4	86.00	SOHC	44/60	<b>HBS010</b>  M12x1.50x247mm (x2) M12x1.50x148mm (x4) M12x1.50x134mm (x8)	1) 30Nm 2) 50Nm 3) ↻ 90° 4) 20Nm 5) (1) 105° 6) (2-3) 60° 7) (4-5) 70° 8) (6-7) 60° 9) (8-9) 105° 10) (10-11) 60° 11) (12-13) 70° 12) (14-15) 60° 13) (16-17) 80° 14) (1) 105° 15) (2-3) 60° 16) (4-5) 70° 17) (6-7) 60° 18) (8-9) 105° 19) (10-11) 60° 20) (12-13) 70° 21) (14-15) 60° 22) (16-17) 80°	
Master 2.2L			08/80 → 07/98	91				
J7T 788	2165	4	88.00	SOHC	67/91	<b>HBS116</b>  M12x1.50x243mm (x10)	1) 50Nm 2) 80Nm 3) ↻ 180° 4) 93Nm 5) ⚡ 6) ↻ 180° 7) 93°	
J7T 782	2165	4	88.00	SOHC	67-69/ 91-94			
Master 2.2L dCi 90 Diesel			09/00 →	92				
G9T 720/G9T 722	2188	4	87.00	DOHC	66/89	<b>HBS373</b>  M12x1.50x131mm (x10)	1) 30Nm 2) 30Nm 3) 300°	
G9T 750	2188	4	87.00	DOHC	66/90			
Master 28-35 2.4L D Diesel			08/80 → 08/89	93				
Master 28-35 2.5L D Diesel			09/80 → 07/98					
8140.61.2300	2445	4	93.00	DOHC	52/71	<b>HBS011</b>  M12x1.25x160mm (x10) M12x1.25x119mm (x12)	1) 20Nm 2) 40Nm 3) ↻ 90° 4) 40Nm 5) 90° 6) 90°	
S8U 731	2445	4	93.00	SOHC	52/71			
Master 2.5L dCi 100 Diesel			10/03 →	94				
Master 2.5L dCi 120 Diesel			10/01 →					
G9U 754	2463	4	89.00	DOHC	73/99	<b>HBS373</b>  M12x1.50x131mm (x10)	1) 30Nm 2) 30Nm 3) 300°	
G9U 720	2463	4	89.00	DOHC	85/115			
Master 28-35 2.5L D Diesel			08/89 → 07/98	95				
Master 28-35 2.5L TD Diesel			08/89 → 07/98					
Master 35 2.5L TD Diesel			08/89 → 07/98					
8140.67.2510	2499	4	93.00	SOHC	55/75	<b>HBS011</b>  M12x1.25x160mm (x10) M12x1.25x119mm (x12)	1) 20Nm 2) 40Nm 3) ↻ 90° 4) 40Nm 5) 90° 6) 90°	
S8U 742	2499	4	93.00	SOHC	55/75			
8140.27.2500/8140.27.2510	2499	4	93.00	SOHC	69/93			
S9U 714	2499	4	93.00	SOHC	69/93			
8140.27.2580	2499	4	93.00	SOHC	72/98			
S9U 702	2499	4	93.00	SOHC	72/98			
Master 2.8L dTi Diesel			07/98 → 10/01	96				
S9W 702	2799	4	94.40	SOHC	84/114	<b>HBS011</b>  M12x1.25x160mm (x10) M12x1.25x119mm (x12)	1) 20Nm 2) 40Nm 3) ↻ 90° 4) 40Nm 5) 90° 6) 90°	



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Master 2.8L TD Diesel					01/98 →	97					
8140.43.3900	2800	4	94.40	Sofim, Turbo Intercooled	84/114	<b>HBS011</b>  M12x1.25x160mm (x10) M12x1.25x119mm (x12)	1) 20Nm 2) 40Nm 3) ↻ 90° 4) 40Nm 5) 90° 6) 90°				
Megane 1.4L Megane 1.4L e Megane 1.4L Eco Megane Scenic 1.4L i					09/96 → 01/96 → 01/96 →03/99 01/97 →09/99	98					
E7J 624	1390	4	75.80	SOHC	52/71	<b>HBS102</b>  M10x1.50x98mm (x5) M10x1.50x113mm (x5)	1) 20Nm 2) 100° 3) (1-2) ↻ 90° 4) (1-2) 20Nm 5) (1-2) 100° 6) (3-6) ↻ 90° 7) (3-6) 20Nm 8) (3-6) 100° 9) (7-10) ↻ 90° 10) (7-10) 20Nm 11) (7-10) 100°				
E7J 626/E7J 764	1390	4	75.80	SOHC	55/75						
Megane 1.4L Megane 1.4L 16V Megane Cabriolet 1.4L 16V					09/03 → 03/99 → 03/99 →	99					
K4J 732	1390	4	79.50	DOHC	60/82	<b>HBS301</b>  M10x1.50x117mm (x10)	1) 20Nm 2) 240°				
K4J 714/K4J 750	1390	4	79.50	DOHC	70/95						
K4J 730/K4J 740	1390	4	79.50	DOHC	72/98						
Megane 1.5L dCi Diesel					11/02 →	100					
K9K 722	1461	4	76.00	SOHC	60/81	<b>HBS299</b>  M11x1.50x125mm (x10)	1) 25Nm 2) 25Nm 3) 255°				
K9K 724	1461	4	76.00	SOHC	63/86						
K9K 728/K9K 729	1461	4	76.00	SOHC	74/101						
K9K 732/K9K 734	1461	4	76.00	SOHC	78/106						
K9K P 732	1461	4	76.00	SOHC							
Megane 1.6L Megane 1.6L e Megane 1.6L i Megane Cabriolet 1.6L e Megane Scenic 1.6L e Megane Scenic 1.6L i					02/00 →09/00 01/96 →03/99 01/96 →03/99 10/96 →03/99 01/97 →09/99 01/97 →09/99	101					
K7M 720	1598	4	79.50	SOHC	55/75	<b>HBS102</b>  M10x1.50x98mm (x5) M10x1.50x113mm (x5)	1) 20Nm 2) 100° 3) (1-2) ↻ 90° 4) (1-2) 20Nm 5) (1-2) 100° 6) (3-6) ↻ 90° 7) (3-6) 20Nm 8) (3-6) 100° 9) (7-10) ↻ 90° 10) (7-10) 20Nm 11) (7-10) 100°				
K7M 704	1598	4	79.50	SOHC	64-66/ 87-90						
K7M 702/K7M 703/K7M 790	1598	4	79.50	SOHC	66/89						
Megane 1.6L Megane 1.6L 16V Megane 1.6L Flex-Fuel Megane Cabriolet 1.6L 16V					09/03 → 03/99 → 01/07 → 03/99 →				102		
K4M 812	1598	4	76.00	DOHC	82/112				<b>HBS301</b>  M10x1.50x117mm (x10)	1) 20Nm 2) 240°	
K4M 768	1598	4	79.50	DOHC	75/102						
K4M 788	1598	4	79.50	DOHC	77/105						
K4M 700/K4M 701/K4M 704/ K4M 708/K4M 760	1598	4	79.50	DOHC	79/81/ 107/109						
K4M D 812	1598	4	79.50	DOHC	82/112						
K4M 761	1598	4	79.50	DOHC	83/113						
K4M C 813	1598	4	79.50	DOHC							
Megane 1.8L 16V					01/01 →	103					
F4P 720/F4P 722	1783	4	82.70	DOHC	85/115	<b>HBS310</b>  M12x1.50x117mm (x10)	1) 20Nm 2) 265°				



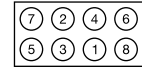
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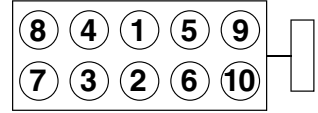
**Megane 1.9L D Diesel** 09/96→ **104**  
**Megane 1.9L D Eco Diesel** 01/96→  
**Megane Scenic 1.9L D Diesel** 03/97→09/99

F8Q 620/F8Q 622/F8Q 790	1870	4	80.00	SOHC	47/64
F8Q 624	1870	4	80.00	SOHC	48/65

**HBS244**

M12x1.50x111mm (x10)

- 1) 30Nm
- 2) 100°
- 3) (1-2) ↻
- 4) (1-2) 25Nm
- 5) (1-2) 213°
- 6) (3-4) ↻
- 7) (3-4) 25Nm
- 8) (3-4) 213°
- 9) (5-6) ↻
- 10) (5-6) 25Nm
- 11) (5-6) 213°
- 12) (7-8) ↻
- 13) (7-8) 25Nm
- 14) (7-8) 213°
- 15) (9-10) ↻
- 16) (9-10) 25Nm
- 17) (9-10) 213°



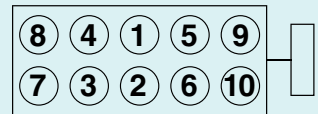
**Megane 1.9L dCi Diesel** 02/01→12/05 **105**

F9Q 750/F9Q 800	1870	4	80.00	SOHC	55-88/ 75-120
F9Q 808	1870	4	80.00	SOHC	66-75/ 90-102
F9Q 732	1870	4	80.00	SOHC	72/98
F9Q 738	1870	4	80.00	SOHC	74-79/ 101-107
F9Q 733	1870	4	80.00	SOHC	79-88/ 107-120
F9Q 816/F9Q 818	1870	4	80.00	SOHC	81-96/ 110-131
F9Q 803	1870	4	80.00	SOHC	96/131
F9Q 804	1870	4	80.00	SOHC	

**HBS372**

M12x1.50x121mm (x10)

- 1) 35Nm
- 2) 100°
- 3) (1-2) ↻ 90°
- 4) (1-2) 25Nm
- 5) (1-2) 213°
- 6) (3-4) ↻ 90°
- 7) (3-4) 25Nm
- 8) (3-4) 213°
- 9) (5-6) ↻ 90°
- 10) (5-6) 25Nm
- 11) (5-6) 213°
- 12) (7-8) ↻ 90°
- 13) (7-8) 25Nm
- 14) (7-8) 213°
- 15) (9-10) ↻ 90°
- 16) (9-10) 25Nm
- 17) (9-10) 213°



**Megane 1.9L dT Diesel** 01/96→ **106**

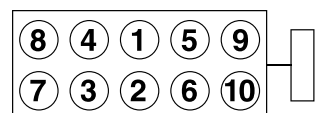
**Megane 1.9L dTi Diesel** 03/97→02/01  
**Megane 1.9L TDI Diesel** 09/96→  
**Megane Scenic 1.9L dT Diesel** 01/97→09/99  
**Megane Scenic 1.9L dTi Diesel** 04/97→09/99

F9Q 744	1870	4	80.00	SOHC	59/80
F8Q 786	1870	4	80.00	SOHC	66/89
F8Q 784	1870	4	80.00	SOHC	66-69/ 90-94
F9Q 730/F9Q 731/F9Q 734/F9Q 736	1870	4	80.00	SOHC	72/98

**HBS120**

M12x1.50x118mm (x10)

- 1) 30Nm
- 2) 100°
- 3) (1-2) ↻ 90°
- 4) (1-2) 25Nm
- 5) (1-2) 213°
- 6) (3-4) ↻ 90°
- 7) (3-4) 25Nm
- 8) (3-4) 213°
- 9) (5-6) ↻ 90°
- 10) (5-6) 25Nm
- 11) (5-6) 213°
- 12) (7-8) ↻ 90°
- 13) (7-8) 25Nm
- 14) (7-8) 213°
- 15) (9-10) ↻ 90°
- 16) (9-10) 25Nm
- 17) (9-10) 213°



**Megane 2.0L** 09/03→ **107**

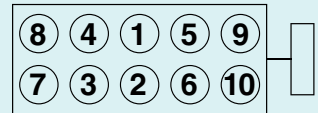
**Megane 2.0L 16V** 01/02→  
**Megane 2.0L 16V Turbo** 05/04→  
**Megane Cabriolet 2.0L 16V** 01/02→  
**Megane Renault Sport** 05/04→

F4R 770/F4R 771	1998	4	82.70	DOHC	99/135
F4R 746	1998	4	82.70	DOHC	103/140
F4R 776	1998	4	82.70	DOHC	120/163
F4R 774/F4Rt 774	1998	4	82.70	DOHC	165/224

**HBS310**

M12x1.50x117mm (x10)

- 1) 20Nm
- 2) 165°

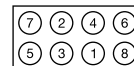




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Megane 2.0L 16V Megane Cabriolet 2.0L 16V					03/96 → 11/99 10/96 → 11/99	108	HBS177	1) 30Nm 2) 50° 3) ↻ 4) 25Nm 5) 107° 6) ⚡ 7) ↻ 8) 25Nm 9) 107°	
F7R 714	1998	4	82.70	DOHC	108/147		 M12x1.50x108mm (x10)		
F7R 710	1998	4	82.70	DOHC	108-110/ 147-150				
Megane 2.0L 16V IDE Megane Cabriolet 2.0L 16V IDE					11/99 → 11/99 →	109	HBS431	1) 20Nm 2) 20Nm 3) 206°	
F5R 740	1998	4	82.70	DOHC	103/140		 M12x1.50x137mm (x10)		
Megane 2.0L i Megane Cabriolet 2.0L Megane Cabriolet 2.0L i Megane Scenic 2.0L i					01/96 → 04/97 → 03/99 → 01/97 → 09/99	110	HBS244	1) 30Nm 2) 100° 3) (1-2) ↻ 4) (1-2) 25Nm 5) (1-2) 213° 6) (3-4) ↻ 7) (3-4) 25Nm 8) (3-4) 213° 9) (5-6) ↻ 10) (5-6) 25Nm 11) (5-6) 213° 12) (7-8) ↻ 13) (7-8) 25Nm 14) (7-8) 213° 15) (9-10) ↻ 16) (9-10) 25Nm 17) (9-10) 213°	
F3R 791/F3R 796	1998	4	82.70	SOHC	80/109		 M12x1.50x111mm (x10)		
F3R 750/F3R 751	1998	4	82.70	SOHC	84/114				
F3R 752	1998	4	82.70	SOHC	84-80/ 114-109				
Messenger B 120.35 Diesel					10/91 → 07/96	111	HBS011	1) 20Nm 2) 40Nm 3) ↻ 90° 4) 40Nm 5) 90° 6) 90°	
8140.47.2530 IDR/8140.47.2590	2499	4	93.00		85/116		 M12x1.25x160mm (x10) M12x1.25x119mm (x12)		
Messenger B 120.55 Diesel Messenger B 120.55T Diesel Messenger B 120.65 Diesel					01/94 → 09/96 01/94 → 09/96 01/94 → 09/96	112	HBS011	1) 20Nm 2) 40Nm 3) ↻ 90° 4) 40Nm 5) 90° 6) 90°	
8140.47.2585	2500	4	93.00		85/116		 M12x1.25x160mm (x10) M12x1.25x119mm (x12)		
Modus 1.2L Modus 1.2L 16V Hi-Flex					12/04 → 10/08 →	113	HBS283	1) 20Nm 2) 230°	
D4F 740	1149	4	69.00		55/75		 M9x1.25x122mm (x10)		
D4F 764	1149	4	69.00	DOHC	57/77				
Modus 1.4L					12/04 →	114	HBS301	1) 20Nm 2) 240°	
K4J 770	1390	4	79.50	DOHC	72/98		 M10x1.50x117mm (x10)		
Modus 1.5L dCi Diesel					12/04 →	115	HBS299	1) 25Nm 2) 25Nm 3) 255°	
K9K 752	1461	4	76.00	SOHC	48-50/ 65-68		 M11x1.50x125mm (x10)		
K9K 768	1461	4	76.00	SOHC	50/68				
K9K 766	1461	4	76.00	SOHC	63/86				
K9K 764	1461	4	76.00	SOHC	78/106				
Modus 1.6L					12/04 →	116	HBS301	1) 20Nm 2) 240°	
K4M 792/K4M 794	1598	4	79.50	DOHC	65/88		 M10x1.50x117mm (x10)		
K4M 790/K4M 791	1598	4	79.50	DOHC	82/112				





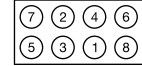
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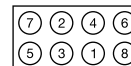
Rapid Van 1.0L		02/86 → 05/92		117			
	949	4		27/37	<b>HBS104</b>  M10x1.50x100mm (x10)	1) (1-2) 20Nm 2) (1-2) 90° 3) (3-6) 20Nm 4) (3-6) 90° 5) (7-10) 20Nm 6) (7-10) 90° 7) (1) ↻ 90° 8) (1) 20Nm 9) (1) 90° 10) (2) ↻ 90° 11) (2) 20Nm 12) (2) 90° 13) etc ...	
Rapid Van 1.1L		07/85 → 04/95		118			
C1E 756/C1E 760/C1E 792	1108	4	70.00	33/45	<b>HBS104</b>  M10x1.50x100mm (x10)	1) (1-2) 20Nm 2) (1-2) 90° 3) (3-6) 20Nm 4) (3-6) 90° 5) (7-10) 20Nm 6) (7-10) 90° 7) (1) ↻ 90° 8) (1) 20Nm 9) (1) 90° 10) (2) ↻ 90° 11) (2) 20Nm 12) (2) 90° 13) etc ...	
C1E 750/C1E 752/C1E 754	1108	4	70.00	33-34/ 45-46			
C1E 762	1108	4	70.00	33-36/ 45-49			
Rapid Van 1.2L		09/91 → 03/98		119			
C3G 710/C3G 712	1239	4	74.00	40/54	<b>HBS104</b>  M10x1.50x100mm (x10)	1) (1-2) 20Nm 2) (1-2) 90° 3) (3-6) 20Nm 4) (3-6) 90° 5) (7-10) 20Nm 6) (7-10) 90° 7) (1) ↻ 90° 8) (1) 20Nm 9) (1) 90° 10) (2) ↻ 90° 11) (2) 20Nm 12) (2) 90° 13) etc ...	
Rapid Van 1.4L		09/91 → 03/98		120			
E7J 720/E7J 724/E7J 726/E7J 773	1390	4	75.80	SOHC	<b>HBS102</b>  M10x1.50x98mm (x5) M10x1.50x113mm (x5)	1) 20Nm 2) 100° 3) (1-2) ↻ 90° 4) (1-2) 20Nm 5) (1-2) 100° 6) (3-6) ↻ 90° 7) (3-6) 20Nm 8) (3-6) 100° 9) (7-10) ↻ 90° 10) (7-10) 20Nm 11) (7-10) 100°	
E7J 728	1390	4	75.80	SOHC			
Rapid Van 1.4L		07/85 → 03/98		121			
C1J 780	1397	4	76.00		<b>HBS104</b>  M10x1.50x100mm (x10)	1) (1-2) 20Nm 2) (1-2) 90° 3) (3-6) 20Nm 4) (3-6) 90° 5) (7-10) 20Nm 6) (7-10) 90° 7) (1) ↻ 90° 8) (1) 20Nm 9) (1) 90° 10) (2) ↻ 90° 11) (2) 20Nm 12) (2) 90° 13) etc ...	
C1J 768/C3J 700/C3J 702/ C3J 760/C3J 762	1397	4	76.00				
C2J 784	1397	4	76.00				

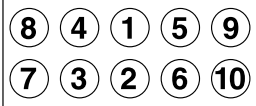

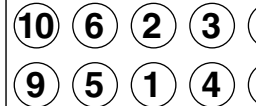


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Rapid Van 1.6L D Diesel					03/86 → 08/98	122
F8M 720/F8M 730/F8M 736/F8M 760	1595	4	78.00	SOHC		40/54
 M12x1.50x111mm (x10)						
1) 30Nm 2) 100° 3) (1-2) ↻ 4) (1-2) 25Nm 5) (1-2) 213° 6) (3-4) ↻ 7) (3-4) 25Nm 8) (3-4) 213° 9) (5-6) ↻ 10) (5-6) 25Nm 11) (5-6) 213° 12) (7-8) ↻ 13) (7-8) 25Nm 14) (7-8) 213° 15) (9-10) ↻ 16) (9-10) 25Nm 17) (9-10) 213°						
						
Rapid Van 1.9L D Diesel					09/91 → 03/98	123
F8Q 640	1870	4	80.00	SOHC		40/54
F8Q 722/F8Q 724/F8Q 774/F8Q 776	1870	4	80.00	SOHC		47-48/ 64-67
F8Q 682	1870	4	80.00	SOHC		48/65
 M12x1.50x111mm (x10)						
1) 30Nm 2) 100° 3) (1-2) ↻ 4) (1-2) 25Nm 5) (1-2) 213° 6) (3-4) ↻ 7) (3-4) 25Nm 8) (3-4) 213° 9) (5-6) ↻ 10) (5-6) 25Nm 11) (5-6) 213° 12) (7-8) ↻ 13) (7-8) 25Nm 14) (7-8) 213° 15) (9-10) ↻ 16) (9-10) 25Nm 17) (9-10) 213°						
						
Safrane 2.0L					11/92 → 07/96	124
J7R 732/J7R 733	1995	4	88.00	SOHC		77/105
 M12x1.50x243mm (x10)						
1) 50Nm 2) 80Nm 3) ↻ 180° 4) 93Nm 5) ⚡ 6) ↻ 180° 7) 93°						
						
Safrane 2.0L 12V					04/92 → 07/96	125
J7R 734/J7R 735	1995	4	88.00	SOHC		97-99/ 132-135
 M12x1.50x204mm (x10)						
1) 20Nm 2) 80° 3) 80°						
						
Safrane 2.0L 16V					07/96 → 12/00	126
N7Q 710/N7Q 711	1948	4	83.00	DOHC		100/136
 M12x1.75x157mm (x10)						
1) 20Nm 2) 60Nm 3) 150°						
						



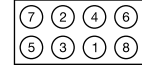
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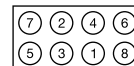
Safrane 2.1L dT Diesel		11/93 → 07/96			127
J8S 760	2068	4	86.00	SOHC	65-66/ 88-90
<b>HBS010</b>  M12x1.50x247mm (x2) M12x1.50x148mm (x4) M12x1.50x134mm (x8)					
1) 30Nm 2) 50Nm 3) ↻ 90° 4) 20Nm 5) (1) 105° 6) (2-3) 60° 7) (4-5) 70° 8) (6-7) 60° 9) (8-9) 105° 10) (10-11) 60° 11) (12-13) 70° 12) (14-15) 60° 13) (16-17) 80° 14) (1) 105° 15) (2-3) 60° 16) (4-5) 70° 17) (6-7) 60° 18) (8-9) 105° 19) (10-11) 60° 20) (12-13) 70° 21) (14-15) 60° 22) (16-17) 80°					
Safrane 2.2L		04/92 → 07/96			128
J7T 762	2165	4	88.00	SOHC	79-81/ 107-110
J7T 760/J7T 761	2165	4	88.00	SOHC	101/137
<b>HBS302</b>  M12x1.50x204mm (x10)					
1) 20Nm 2) 80° 3) 80°					
Safrane 2.2L dT Diesel		07/96 → 12/00			129
G8T 740	2188	4	87.00	SOHC	83/113
<b>HBS119</b>  M11x1.50x207.5mm (x4) M11x1.50x185mm (x5) M11x1.50x103mm (x4) M11x1.50x185mm (x5)					
<b>A</b> 1) 20Nm 2) 246° 3) ↻ 180° 4) 20Nm <b>B</b> 1) 20Nm 2) 240° 3) ↻ 180° 4) 20Nm <b>C</b> 1) 20Nm 2) 215° 3) ↻ 180° 4) 20Nm <b>D</b> 1) 20Nm 2) 160° 3) ↻ 180° 4) 20Nm 5) 243°					
Safrane 2.5L dT Diesel		12/92 → 07/96			130
S8U 762	2445	4	93.00	SOHC	85/115
<b>HBS011</b>  M12x1.25x160mm (x10) M12x1.25x119mm (x12)					
1) 20Nm 2) 40Nm 3) ↻ 90° 4) 40Nm 5) 90° 6) 90°					
Safrane 2.5L dT Diesel		12/92 → 07/96			131
S8U 763	2499	4	93.00	SOHC	83/113
<b>HBS011</b>  M12x1.25x160mm (x10) M12x1.25x119mm (x12)					
1) 20Nm 2) 40Nm 3) ↻ 90° 4) 40Nm 5) 90° 6) 90°					



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Safrane 2.9L 24V					03/99 → 12/00	132	HBS272		1) 20Nm 2) ↻ 360° 3) 15Nm 4) 225°	
L7X 713	2946	6	87.00	DOHC	140/190		 M10x1.50x147mm (x16)			
Sandero 1.4L					02/09 →	133	HBS102		1) 20Nm 2) 100° 3) (1-2) ↻ 90° 4) (1-2) 20Nm 5) (1-2) 100° 6) (3-6) ↻ 90° 7) (3-6) 20Nm 8) (3-6) 100° 9) (7-10) ↻ 90° 10) (7-10) 20Nm 11) (7-10) 100°	
K7J 710	1390	4	79.50	SOHC	55/75		 M10x1.50x98mm (x5) M10x1.50x113mm (x5)			
Sandero 1.6L					02/09 →	134	HBS102		1) 20Nm 2) 100° 3) (1-2) ↻ 90° 4) (1-2) 20Nm 5) (1-2) 100° 6) (3-6) ↻ 90° 7) (3-6) 20Nm 8) (3-6) 100° 9) (7-10) ↻ 90° 10) (7-10) 20Nm 11) (7-10) 100°	
K7M 710	1598	4	79.50	SOHC	66/89		 M10x1.50x98mm (x5) M10x1.50x113mm (x5)			
Scenic 1.6L					06/06 →	135	HBS301		1) 20Nm 2) 240°	
Scenic 1.6L 16V					01/07 →					
K4M 812	1598	4	76.00	DOHC	82/112		 M10x1.50x117mm (x10)			
K4M 788	1598	4	79.50	DOHC	77/105					
K4M 9 766/K4M C 813	1598	4	79.50	DOHC						
Scenic 1.9L dCi Diesel					06/03 →	136	HBS372		1) 35Nm 2) 100° 3) (1-2) ↻ 90° 4) (1-2) 25Nm 5) (1-2) 213° 6) (3-4) ↻ 90° 7) (3-4) 25Nm 8) (3-4) 213° 9) (5-6) ↻ 90° 10) (5-6) 25Nm 11) (5-6) 213° 12) (7-8) ↻ 90° 13) (7-8) 25Nm 14) (7-8) 213° 15) (9-10) ↻ 90° 16) (9-10) 25Nm 17) (9-10) 213°	
F9Q 804	1870	4	80.00	SOHC			 M12x1.50x121mm (x10)			
Scenic 1.4L 16V					09/99 → 08/03	137	HBS301		1) 20Nm 2) 240°	
K4J 714/K4J 750	1390	4	79.50	DOHC	70/95		 M10x1.50x117mm (x10)			
K4J 730/K4J 740	1390	4	79.50	DOHC	72/98					
Scenic 1.5L dCi Diesel					06/03 →	138	HBS299		1) 25Nm 2) 25Nm 3) 255°	
K9K 722	1461	4	76.00	SOHC	60/81		 M11x1.50x125mm (x10)			
K9K 724	1461	4	76.00	SOHC	63/86					
K9K 728/K9K 729	1461	4	76.00	SOHC	74/101					
K9K 732	1461	4	76.00	SOHC	78/106					
K9K P 732	1461	4	76.00	SOHC						

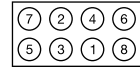
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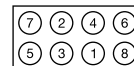
Scénic 1.6L						03/01 → 08/03	139	<b>HBS301</b>  M10x1.50x117mm (x10)	1) 20Nm 2) 240°	
Scénic 1.6L 16V						09/99 → 08/03				
K4M 709	1598	4	79.50	DOHC	79/107					
K4M 700/K4M 701/K4M 704/K4M 708	1598	4	79.50	DOHC	79/81/ 107/109					
K4M 761/K4M 782	1598	4	79.50	DOHC	83/113					
Scénic 1.8L 16V						01/01 → 08/03	140	<b>HBS310</b>  M12x1.50x117mm (x10)	1) 20Nm 2) 265°	
F4P 720/F4P 722						1783	4			
Scénic 1.9L D Diesel						06/06 →	141	<b>HBS372</b>  M12x1.50x121mm (x10)	1) 35Nm 2) 100° 3) (1-2) ↗ 90° 4) (1-2) 25Nm 5) (1-2) 213° 6) (3-4) ↗ 90° 7) (3-4) 25Nm 8) (3-4) 213° 9) (5-6) ↗ 90° 10) (5-6) 25Nm 11) (5-6) 213° 12) (7-8) ↗ 90° 13) (7-8) 25Nm 14) (7-8) 213° 15) (9-10) ↗ 90° 16) (9-10) 25Nm 17) (9-10) 213°	
Scénic 1.9L dCi Diesel						11/00 → 08/03				
Scénic 1.9L dCi RX4 Diesel						11/00 → 08/03				
F9Q 732/F9Q 740	1870	4	80.00	SOHC	72/98					
F9Q 733	1870	4	80.00	SOHC	79/88/ 107-120					
F9Q 812	1870	4	80.00	SOHC	88/120					
F9Q 803	1870	4	80.00	SOHC	96/131					
F9Q E 804	1870	4	80.00	SOHC	96-81/ 131-110					
F9Q J 803	1870	4	80.00	SOHC	96-85/ 131-116					
F9Q 804	1870	4	80.00	SOHC						
Scénic 1.9L dTi Diesel						09/99 → 08/03	142	<b>HBS120</b>  M12x1.50x118mm (x10)	1) 30Nm 2) 100° 3) (1-2) ↗ 90° 4) (1-2) 25Nm 5) (1-2) 213° 6) (3-4) ↗ 90° 7) (3-4) 25Nm 8) (3-4) 213° 9) (5-6) ↗ 90° 10) (5-6) 25Nm 11) (5-6) 213° 12) (7-8) ↗ 90° 13) (7-8) 25Nm 14) (7-8) 213° 15) (9-10) ↗ 90° 16) (9-10) 25Nm 17) (9-10) 213°	
F9Q 744						1870	4			
F9Q 731/F9Q 734/F9Q 736						1870	4	80.00	SOHC	72/98
Scénic 2.0L						06/03 →	143	<b>HBS310</b>  M12x1.50x117mm (x10)	1) 20Nm 2) 165°	
Scénic 2.0L 16V						07/00 → 08/03				
Scénic 2.0L 16V IDE						09/99 → 08/03				
Scénic 2.0L 16V RX4						06/00 → 08/03				
Scénic 2.0L 16V Turbo						05/04 →				
F4R 770/F4R 771	1998	4	82.70	DOHC	99/135					
F4R 740/F4R 741/F4R 744	1998	4	82.70	DOHC	102/139					
F4R 746	1998	4	82.70	DOHC	103/140					
F4R 776	1998	4	82.70	DOHC	120/163					
Sport Spider 2.0L 16V						03/95 → 10/99	144	<b>HBS177</b>  M12x1.50x108mm (x10)	1) 30Nm 2) 50° 3) ↗ 4) 25Nm 5) 107° 6) ⚡ 7) ↗ 8) 25Nm 9) 107°	
F7R 710						1998	4			



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Thalia 1.2L					02/98 → 10/03	145		
D7F 744/D7F 746	1149	4	69.00	SOHC	43/58	<b>HBS241</b>  M9x1.25x103mm (x10)	1) 20Nm 2) 90° 3) (1-2) ↻ 90° 4) (1-2) 20Nm 5) (1-2) 200° 6) (3-6) ↻ 90° 7) (3-6) 20Nm 8) (3-6) 200° 9) (7-10) ↻ 90° 10) (7-10) 20Nm 11) (7-10) 200°	
Thalia 1.2L 16V					04/02 →	146		
D4F 712	1149	4	69.00	DOHC	55/75	<b>HBS283</b>  M9x1.25x122mm (x10)	1) 20Nm 2) 230°	
Thalia 1.4L					08/00 →	147		
K7J700	1390	4	75.80	SOHC	55/75	<b>HBS102</b>  M10x1.50x98mm (x5) M10x1.50x113mm (x5)	1) 20Nm 2) 100° 3) (1-2) ↻ 90° 4) (1-2) 20Nm 5) (1-2) 100° 6) (3-6) ↻ 90° 7) (3-6) 20Nm 8) (3-6) 100° 9) (7-10) ↻ 90° 10) (7-10) 20Nm 11) (7-10) 100°	
Thalia 1.4L 16V					08/00 →	148		
K4J 712	1390	4	79.50	DOHC	70-72/ 95-98	<b>HBS301</b>  M10x1.50x117mm (x10)	1) 20Nm 2) 240°	
Thalia 1.5L dCi Diesel					06/01 → 10/03	149		
K9K 700	1461	4			50/68	<b>HBS299</b>  M11x1.50x125mm (x10)	1) 25Nm 2) 25Nm 3) 255°	
K9K 740	1461	4	76.00	SOHC	47/64			
K9K 700	1461	4	76.00	SOHC	48/65			
K9K 702	1461	4	76.00	SOHC	60/81			
K9K 718	1461	4	76.00	SOHC	62/84			
Thalia 1.6L					03/98 →	150		
K7M 746	1598	4	79.50	SOHC	66/90	<b>HBS102</b>  M10x1.50x98mm (x5) M10x1.50x113mm (x5)	1) 20Nm 2) 100° 3) (1-2) ↻ 90° 4) (1-2) 20Nm 5) (1-2) 100° 6) (3-6) ↻ 90° 7) (3-6) 20Nm 8) (3-6) 100° 9) (7-10) ↻ 90° 10) (7-10) 20Nm 11) (7-10) 100°	
Thalia 1.6L 16V					04/02 →	151		
K4M 740	1598	4	79.50	DOHC	79/107	<b>HBS301</b>  M10x1.50x117mm (x10)	1) 20Nm 2) 240°	



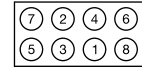
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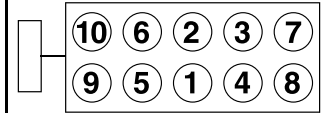


Trafic 1.4L				03/80 → 06/91	152
C1J 700	1397	4	76.00		35-36/ 48-50
847 700/847 701	1397	4	76.00		47/64

**HBS104**

M10x1.50x100mm (x10)

- 1) (1-2) 20Nm
- 2) (1-2) 90°
- 3) (3-6) 20Nm
- 4) (3-6) 90°
- 5) (7-10) 20Nm
- 6) (7-10) 90°
- 7) (1) ↻ 90°
- 8) (1) 20Nm
- 9) (1) 90°
- 10) (2) ↻ 90°
- 11) (2) 20Nm
- 12) (2) 90°
- 13) etc ...

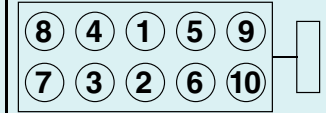


Trafic 1.7L				06/86 → 08/94	153
F1N 720/F1N 722/F1N 724	1721	4	81.00	SOHC	50/68

**HBS244**

M12x1.50x111mm (x10)

- 1) 30Nm
- 2) 100°
- 3) (1-2) ↻
- 4) (1-2) 25Nm
- 5) (1-2) 213°
- 6) (3-4) ↻
- 7) (3-4) 25Nm
- 8) (3-4) 213°
- 9) (5-6) ↻
- 10) (5-6) 25Nm
- 11) (5-6) 213°
- 12) (7-8) ↻
- 13) (7-8) 25Nm
- 14) (7-8) 213°
- 15) (9-10) ↻
- 16) (9-10) 25Nm
- 17) (9-10) 213°

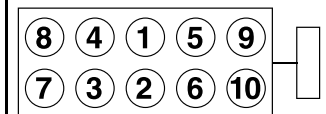


Trafic 1.9L D Diesel				06/97 → 03/01	154
F8Q 606	1870	4	80.00	SOHC	40/54

**HBS120**

M12x1.50x118mm (x10)

- 1) 30Nm
- 2) 100°
- 3) (1-2) ↻ 90°
- 4) (1-2) 25Nm
- 5) (1-2) 213°
- 6) (3-4) ↻ 90°
- 7) (3-4) 25Nm
- 8) (3-4) 213°
- 9) (5-6) ↻ 90°
- 10) (5-6) 25Nm
- 11) (5-6) 213°
- 12) (7-8) ↻ 90°
- 13) (7-8) 25Nm
- 14) (7-8) 213°
- 15) (9-10) ↻ 90°
- 16) (9-10) 25Nm
- 17) (9-10) 213°

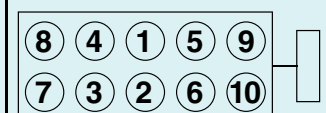


Trafic 1.9L dCI 100 Diesel				03/01 →	155
Trafic 1.9L dCI 80 Diesel				03/01 →	
F9Q 762	1870	4	80.00	SOHC	60/81
F9Q 760	1870	4	80.00	SOHC	74/100

**HBS372**

M12x1.50x121mm (x10)

- 1) 35Nm
- 2) 100°
- 3) (1-2) ↻ 90°
- 4) (1-2) 25Nm
- 5) (1-2) 213°
- 6) (3-4) ↻ 90°
- 7) (3-4) 25Nm
- 8) (3-4) 213°
- 9) (5-6) ↻ 90°
- 10) (5-6) 25Nm
- 11) (5-6) 213°
- 12) (7-8) ↻ 90°
- 13) (7-8) 25Nm
- 14) (7-8) 213°
- 15) (9-10) ↻ 90°
- 16) (9-10) 25Nm
- 17) (9-10) 213°

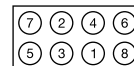




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Trafic 2.0L					03/80 → 10/97	156	HBS116  M12x1.50x243mm (x10)	1) 50Nm 2) 80Nm 3) ↻ 90° 4) 93Nm	
Trafic 2.0L 4x4					06/86 → 04/89				
J5R 722/J5R 726	1995	4	88.00	SOHC	59/80				
J5R 716	1995	4	88.00	SOHC	59-62/ 80-84				
Trafic 2.0L					03/01 →	157	HBS310  M12x1.50x117mm (x10)	1) 20Nm 2) 165°	
F4R 720/F4R 722					1998	4			
Trafic 2.1L D Diesel					03/80 → 10/97	158	HBS010  M12x1.50x247mm (x2) M12x1.50x148mm (x4) M12x1.50x134mm (x8)	1) 30Nm 2) 50Nm 3) ↻ 90° 4) 20Nm 5) (1) 105° 6) (2-3) 60° 7) (4-5) 70° 8) (6-7) 60° 9) (8-9) 105° 10) (10-11) 60° 11) (12-13) 70° 12) (14-15) 60° 13) (16-17) 80° 14) (1) 105° 15) (2-3) 60° 16) (4-5) 70° 17) (6-7) 60° 18) (8-9) 105° 19) (10-11) 60° 20) (12-13) 70° 21) (14-15) 60° 22) (16-17) 80°	
Trafic 2.1L D 4x4 Diesel					11/86 → 04/89				
852 720/852 750	2068	4	86.00	SOHC	43-44/ 58-60				
J8S 620/J8S 758	2068	4	86.00	SOHC	47/64				
Trafic 2.2L					05/89 → 10/97	159	HBS116  M12x1.50x243mm (x10)	1) 50Nm 2) 80Nm 3) ↻ 180° 4) 93Nm 5) ↓ 6) ↻ 180° 7) 93°	
Trafic 2.2L 4x4					05/89 → 10/97				
J7T 780	2165	4	88.00	SOHC	70/95				
J7T 600	2165	4	88.00	SOHC	74/100				
Trafic 2.5L D Diesel					03/80 → 03/01	160	HBS011  M12x1.25x160mm (x10) M12x1.25x119mm (x12)	1) 20Nm 2) 40Nm 3) ↻ 90° 4) 40Nm 5) 90° 6) 90°	
8140.61.240					2445	4			
S8U 720/S8U 722					2445	4	93.00	SOHC	51/69
Trafic 2.5L D Diesel					05/89 → 03/01	161	HBS011  M12x1.25x160mm (x10) M12x1.25x119mm (x12)	1) 20Nm 2) 40Nm 3) ↻ 90° 4) 40Nm 5) 90° 6) 90°	
Trafic 2.5L D 4x4 Diesel					05/89 → 03/01				
8140.67.2500/8140.67.2550/ 8140.67.2580					2499	4	93.00		55/75
S8U 750/S8U 752/S8U 758					2499	4	93.00	SOHC	55/75
Trafic 2.5L dCi 135 Diesel					03/01 →	162	HBS373  M12x1.50x131mm (x10)	1) 30Nm 2) 150° 3) 150°	
69U 730					2464	4			

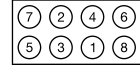
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




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Twingo 1.2L Twingo Van 1.2L						05/96 → 08/00 05/96 →	163	HBS241	1) 20Nm 2) 90° 3) (1-2) ↻ 90° 4) (1-2) 20Nm 5) (1-2) 200° 6) (3-6) ↻ 90° 7) (3-6) 20Nm 8) (3-6) 200° 9) (7-10) ↻ 90° 10) (7-10) 20Nm 11) (7-10) 200°	
D7F 703/D7F 706	1149	4	69.00	SOHC	43/58		M9x1.25x103mm (x10)			
D7F 704	1149	4	69.00	SOHC	43-44/ 58-60					
D7F 700/D7F 701/D7F 702	1149	4	69.00	SOHC	44/60					
D7F 800	1149	4	69.00	SOHC						
Twingo 1.2L Twingo Van 1.2L						03/93 → 10/96 03/93 → 05/96	164	HBS104	1) (1-2) 20Nm 2) (1-2) 90° 3) (3-6) 20Nm 4) (3-6) 90° 5) (7-10) 20Nm 6) (7-10) 90° 7) (1) ↻ 90° 8) (1) 20Nm 9) (1) 90° 10) (2) ↻ 90° 11) (2) 20Nm 12) (2) 90° 13) etc ...	
C3G 700/C3G 702	1239	4	74.00		40/54		M10x1.50x100mm (x10)			
Twingo 1.2L 16V						01/01 →	165	HBS283	1) 20Nm 2) 230°	
D4F 708	1149	4	69.00	SOHC	44/60		M9x1.25x122mm (x10)			
D4F 702/D4F 704	1149	4	69.00	SOHC	55/75					
Twingo 1.5L dCi Diesel						03/07 →	166	HBS299	1) 25Nm 2) 25Nm 3) 255°	
K9K 740	1461	4	76.00	SOHC	47/64		M11x1.50x125mm (x10)			
K9K 718	1461	4	76.00	SOHC	62/84					
Twingo 1.6L RS						05/08 →	167	HBS301	1) 20Nm 2) 240°	
K4M 754/K4M 854	1598	4	79.50	DOHC	98/133		M10x1.50x117mm (x10)			
Vel Satis 2.0L 16 V Turbo Vel Satis 2.0L 16V Turbo						04/04 → 06/02 →	168	HBS310	1) 20Nm 2) 165°	
F4R 762/F4R 763	1998	4	82.70	DOHC	120/163		M12x1.50x117mm (x10)			
F4R 766/F4R 767	1998	4	82.70	DOHC						
Vel Satis 2.2L dCi Diesel						06/02 →	169	HBS373	1) 30Nm 2) 30Nm 3) 300°	
G9T 702	2188	4	87.00	Common Rail, DOHC	95-110/ 130-150		M12x1.50x131mm (x10)			
G9T 606	2188	4	87.00	DOHC	102/139					
G9T 600/G9T 700/G9T 703	2188	4	87.00	DOHC	110/150					
Vel Satis 3.0L dCi Diesel						06/02 →	170	HBS502	1) 20Nm 2) 40Nm 3) ↻ 90° 4) 40Nm 5) (1-4) 130° 6) (5-8) 110° 7) (1-4) 130° 8) (5-8) 110°	
P9X 701	2958	6	87.50	DOHC	130/177		M12x1.50x145mm (x8) M12x1,5x145mm (x8) M12x1,5x175mm (x8)			

		CC			9			CC			9
11 K2A	Petrol	1120	4	75.00	12	KV 6	Petrol	2497	6	80.00	11
11 K2A	Petrol	1120	4	75.00	41	M 47 R	Diesel	1950	4	84.00	10
11 K2D	Petrol	1120	4	75.00	12	T 16	Petrol	1994	4	84.45	36
11 K2D	Petrol	1120	4	75.00	16	TUD3	Diesel	1360	4	75.00	14
11 K2F	Petrol	1120	4	75.00	12	TUD5	Diesel	1527	4	77.00	15
11 K2F	Petrol	1120	4	75.00	16	XUD 7TE	Diesel	1769	4	80.00	20
14 K2A	Petrol	1396	4	75.00	13	XUD 7TE	Diesel	1769	4	80.00	27
14 K2A	Petrol	1396	4	75.00	17	XUD9/A/B/L/Y	Diesel	1905	4	83.00	21
14 K2B	Petrol	1396	4	75.00	17	XUD9/A/B/L/Y	Diesel	1905	4	83.00	28
14 K2D	Petrol	1396	4	75.00	13						
14 K2D	Petrol	1396	4	75.00	17						
14 K2F	Petrol	1396	4	75.00	13						
14 K2F	Petrol	1396	4	75.00	17						
14 K2F	Petrol	1396	4	75.00	24						
14 K2F	Petrol	1396	4	75.00	42						
14 K4C	Petrol	1396	4	75.00	13						
14 K4C	Petrol	1396	4	75.00	17						
14 K4C	Petrol	1396	4	75.00	24						
14 K4C	Petrol	1396	4	75.00	42						
14 K4D	Petrol	1396	4	75.00	13						
14 K4D	Petrol	1396	4	75.00	17						
14 K4D	Petrol	1396	4	75.00	24						
14 K4F	Petrol	1396	4	75.00	1						
14 K4F	Petrol	1396	4	75.00	5						
14 K4F	Petrol	1396	4	75.00	13						
14 K4F	Petrol	1396	4	75.00	17						
14 K4F	Petrol	1396	4	75.00	24						
14 K4F	Petrol	1396	4	75.00	43						
14 K4M	Petrol	1396	4	75.00	1						
14 K4M	Petrol	1396	4	75.00	43						
16 K4F	Petrol	1588	4	80.00	2						
16 K4F	Petrol	1588	4	80.00	6						
16 K4F	Petrol	1588	4	80.00	18						
16 K4F	Petrol	1588	4	80.00	25						
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18 K4F	Petrol	1796	4	80.00	3						
18 K4F	Petrol	1796	4	80.00	7						
18 K4F	Petrol	1796	4	80.00	9						
18 K4F	Petrol	1796	4	80.00	19						
18 K4K (VVC)	Petrol	1796	4	80.00	3						
18 K4K (VVC)	Petrol	1796	4	80.00	19						
18 K4K (VVC)	Petrol	1796	4	80.00	26						
18 K4K (VVC)	Petrol	1796	4	80.00	40						
20 HD	Petrol	1994	4	84.50	36						
20 HD M 16	Petrol	1994	4	84.50	36						
20 HS	Petrol	1994	4	84.50	36						
20 M4F	Petrol	1994	4	84.50	23						
20 M4F	Petrol	1994	4	84.50	29						
20 T2N (L Series)	Diesel	1994	4	84.45	4						
20 T2N (L Series)	Diesel	1994	4	84.45	8						
20 T2N (L Series)	Diesel	1994	4	84.45	22						
20 T2N (L Series)	Diesel	1994	4	84.45	30						
20 T2N (L Series)	Diesel	1994	4	84.45	33						
20 T2N (L Series)	Diesel	1994	4	84.45	44						
20 T2R (L Series)	Diesel	1994	4	84.45	4						
20 T2R (L Series)	Diesel	1994	4	84.45	8						
20 T2R (L Series)	Diesel	1994	4	84.45	22						
20 T2R (L Series)	Diesel	1994	4	84.45	30						
20 T4G	Petrol	1994	4	84.45	23						
20 T4G	Petrol	1994	4	84.45	29						
20 T4G	Petrol	1994	4	84.45	34						
20 T4G	Petrol	1994	4	84.45	36						
20 T4H	Petrol	1994	4	84.45	23						
20 T4H	Petrol	1994	4	84.45	29						
20 T4H	Petrol	1994	4	84.45	36						
25 K4F	Petrol	2497	6	80.00	11						
25 K4F	Petrol	2497	6	80.00	38						
425 SL1RR	Diesel	2500	4	92.00	37						
492 4 SHIRG	Diesel	2500	4	92.00	37						
F 18 A3	Petrol	1849	4	85.00	31						
F 20 Z1	Petrol	1997	4	85.00	32						
F 20 Z2	Petrol	1997	4	85.00	32						
H 23 A3	Petrol	2259	4	87.00	35						

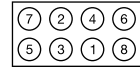
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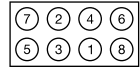
25 1.4L 16V						10/99 →	1		
14 K4M	1396	4	75.00	DOHC	62/84	HBS005  M9x1.25x412mm (x10)	1) 20Nm 2) 90° 3) 90° 4) 90° 5) 90°		
14 K4F	1396	4	75.00	MPI, DOHC	76/103				
25 1.6L 16V						10/99 →	2		
16 K4F	1588	4	80.00	DOHC	81/110	HBS005  M9x1.25x412mm (x10)	1) 20Nm 2) 90° 3) 90° 4) 90° 5) 90°		
25 1.8L 16V						10/99 →	3		
18 K4F	1796	4	80.00	DOHC	87/118	HBS005  M9x1.25x412mm (x10)	1) 20Nm 2) 90° 3) 90° 4) 90° 5) 90°		
18 K4K (VVC)	1796	4	80.00	DOHC	107-118/ 146-160				
25 2.0L D Diesel						04/00 → 01/05	4		
25 2.0L iDT Diesel						10/99 →	HBS282  M11x1.50x230mm (x10)	1) 30Nm 2) 65Nm 3) 90° 4) 90°	
20 T2R (L Series)	1994	4	84.45	SOHC, Turbocharged	63/86				
20 T2N (L Series)	1994	4	84.45	SOHC	74-83/ 101-113				
45 1.4L						02/00 →	5		
14 K4F	1396	4	75.00	MPI, DOHC	76/103	HBS005  M9x1.25x412mm (x10)	1) 20Nm 2) 90° 3) 90° 4) 90° 5) 90°		
45 1.6L						02/00 →	6		
16 K4F	1588	4	80.00	DOHC	81/110	HBS005  M9x1.25x412mm (x10)	1) 20Nm 2) 90° 3) 90° 4) 90° 5) 90°		
45 1.8L						02/00 →	7		
18 K4F	1796	4	80.00	DOHC	87/118	HBS005  M9x1.25x412mm (x10)	1) 20Nm 2) 90° 3) 90° 4) 90° 5) 90°		
45 2.0L D Diesel						04/00 → 01/05	8		
45 2.0L iDT Diesel						02/00 →	HBS282  M11x1.50x230mm (x10)	1) 30Nm 2) 65Nm 3) 90° 4) 90°	
20 T2R (L Series)	1994	4	84.45	SOHC, Turbocharged	63/86				
20 T2N (L Series)	1994	4	84.45	SOHC	74-83/ 101-113				
75 1.8L 16V						02/99 →	9		
75 1.8L Turbo						05/03 →	HBS005  M9x1.25x412mm (x10)	1) 20Nm 2) 90° 3) 90° 4) 90° 5) 90°	
18 K4F	1796	4	80.00	DOHC	110/150 88/120				
75 2.0L CDT Diesel						02/99 →	10		
M 47 R	1950	4	84.00	DOHC	85/116	HBS121  M12x1.50x146.5mm (x10)	1) 80Nm 2) ↺ 180° 3) 50Nm 4) 90° 5) 90°		
75 2.5L V6						02/99 → 10/01	11		
KV 6	2497	6	80.00	DOHC, V6	129/175	HBS423  M9x1.25x200mm (x16)	1) 12Nm 2) 25Nm 3) 90° 4) 90°		
25 K4F	2497	6	80.00	DOHC, V6	130/177				
100 111						01/95 →	12		
100 111 C/L/S						03/90 → 12/98	HBS005  M9x1.25x412mm (x10)	1) 20Nm 2) 90° 3) 90° 4) 90° 5) 90°	
100 Convertible 111						04/94 →			
11 K2A/11 K2D	1120	4	75.00	SOHC	44/60				
11 K2F	1120	4	75.00	MPI	44/60				



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100 114						13	<b>HBS005</b>  M9x1.25x412mm (x10)	1) 20Nm 2) 90° 3) 90° 4) 90° 5) 90°	
100 114 GSi 100 114 GTI 16V 100 114 GTI/GT 16V 100 114 S/L/GTA 100 Convertible 114									
14 K2A/14 K2D	1396	4	75.00	SOHC		55/75			
14 K2F	1396	4	75.00	MPI, SOHC		55/75			
14 K4C	1396	4	75.00	SOHC		66-70/ 90-95			
14 K4D	1396	4	75.00	DOHC		75/77			
14 K4F	1396	4	75.00	MPI, DOHC		76/103			
100 114 D Diesel						14	<b>HBS082</b>  M10x1.50x185mm (x10)	1) 60Nm 2) ↻ 360° 3) 20Nm 4) 160° 5) 160°	
10/92 → 12/94									
TUD3	1360	4	75.00	SOHC		38/52			
100 115 D Diesel						15	<b>HBS113</b>  M11x1.50x185mm (x10)	1) 40Nm 2) 300°	
12/94 → 12/98									
TUD5	1527	4	77.00	SOHC		42/57			
200 211						16	<b>HBS005</b>  M9x1.25x412mm (x10)	1) 20Nm 2) 90° 3) 90° 4) 90° 5) 90°	
01/98 → 03/00									
11 K2D	1120	4	75.00	SOHC		44/60			
11 K2F	1120	4	75.00	MPI		44/60			
200 214						17	<b>HBS005</b>  M9x1.25x412mm (x10)	1) 20Nm 2) 90° 3) 90° 4) 90° 5) 90°	
09/93 → 10/95 08/90 → 04/92 01/90 → 10/95 11/95 → 03/00 11/95 → 03/00 10/89 → 10/95									
200 214 (cat)									
200 214 GSi/Si									
200 214 i									
200 214 Si									
200 214 Si/Gsi									
14 K2A	1396	4	75.00	SOHC		55/75			
14 K2B	1396	4	75.00			55/75			
14 K2D	1396	4	75.00	SOHC		55/75			
14 K2F	1396	4	75.00	MPI, SOHC		55/75			
14 K4C	1396	4	75.00	SOHC		66-70/ 90-95			
14 K4D	1396	4	75.00	DOHC		75/77			
14 K4F	1396	4	75.00	MPI, DOHC		76/103			
200 216 Si						18	<b>HBS005</b>  M9x1.25x412mm (x10)	1) 20Nm 2) 90° 3) 90° 4) 90° 5) 90°	
11/95 → 03/00 01/96 → 11/99									
200 Convertible 216 1.6Li 16V									
16 K4F	1588	4	80.00	DOHC		81/110			
200 218 K Vi						19	<b>HBS005</b>  M9x1.25x412mm (x10)	1) 20Nm 2) 90° 3) 90° 4) 90° 5) 90°	
11/95 → 03/00 06/97 → 10/99									
200 218i									
18 K4F	1796	4	80.00	K Series, DOHC		87/118			
18 K4K (VVC)	1796	4	80.00	DOHC		107-118/ 146-160			
200 218 TD Diesel						20	<b>HBS084</b>  M12x1.50x123mm (x10)	1) 20Nm 2) 60Nm 3) 180°	
09/91 → 10/95									
XUD 7TE	1769	4	80.00	SOHC		66/90			
200 218 D Diesel						21	<b>HBS084</b>  M12x1.50x123mm (x10)	1) 20Nm 2) 60Nm 3) 180°	
09/91 → 10/95									
XUD9/A/B/L/Y	1905	4	83.00			52/71			

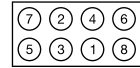




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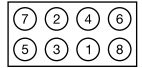
<b>200 220 D/SD Diesel</b>					11/95→03/00	<b>22</b>	<b>HBS282</b>  M11x1.50x230mm (x10)	1) 30Nm 2) 65Nm 3) 90° 4) 90°	
<b>200 220 SDi Diesel</b>					11/95→03/00				
20 T2R (L Series)	1994	4	84.45	SOHC	63/86				
20 T2N (L Series)	1994	4	84.45	SOHC	74-83/ 101-113				
<b>200 220 GTi</b>					09/91→10/95	<b>23</b>	<b>HBS305</b>  M11x1.50x162mm (x10)	1) 45Nm 2) 80Nm 3) 90°	
<b>200 220 Turbo</b>					01/93→10/95				
<b>200 Coupe 220 GSi</b>					05/94→06/99				
<b>200 Coupe 220 Turbo</b>					10/92→06/99				
20 T4G	1994	4	84.45		100/136				
20 T4H	1994	4	84.45	DOHC	100/136				
20 M4F	1994	4	84.50	DOHC	103/140				
<b>400 1.4L</b>					03/97→10/99	<b>24</b>	<b>HBS005</b>  M9x1.25x412mm (x10)	1) 20Nm 2) 90° 3) 90° 4) 90° 5) 90°	
<b>400 414</b>					01/93→04/95				
<b>400 414 GSi/Si</b>					04/90→04/95				
<b>400 414 Si</b>					05/95→03/00				
14 K2F	1396	4	75.00	MPI, SOHC	55/75				
14 K4C	1396	4	75.00	SOHC	66-70/ 90-95				
14 K4D	1396	4	75.00	DOHC	75/77				
14 K4F	1396	4	75.00	MPI, DOHC	76/103				
<b>400 416 Si</b>					05/95→03/00	<b>25</b>	<b>HBS005</b>  M9x1.25x412mm (x10)	1) 20Nm 2) 90° 3) 90° 4) 90° 5) 90°	
16 K4F	1588	4	80.00	DOHC	81/110				
<b>400 1.8L i</b>					06/96→11/98	<b>26</b>	<b>HBS005</b>  M9x1.25x412mm (x10)	1) 20Nm 2) 90° 3) 90° 4) 90° 5) 90°	
18 K4K (VVC)	1796	4	80.00	DOHC	107-118/ 146-160				
<b>400 1.8L TD Diesel</b>					09/93→11/98	<b>27</b>	<b>HBS084</b>  M12x1.50x123mm (x10)	1) 20Nm 2) 60Nm 3) 180°	
<b>400 418 TD Diesel</b>					09/91→04/95				
XUD 7TE	1769	4	80.00	SOHC	66/90				
<b>400 418 D Diesel</b>					09/91→04/95	<b>28</b>	<b>HBS084</b>  M12x1.50x123mm (x10)	1) 20Nm 2) 60Nm 3) 180°	
XUD9/A/B/L/Y	1905	4	83.00		49/67				
<b>400 2.0L i</b>					05/94→11/98	<b>29</b>	<b>HBS305</b>  M11x1.50x162mm (x10)	1) 45Nm 2) 80Nm 3) 90°	
<b>400 420 GSi/SLi/GTi/Vite</b>					01/93→04/95				
<b>400 420 GTi/GSi/Vitesse</b>					02/92→04/95				
<b>400 420 Si Lux</b>					12/95→03/00				
<b>400 420 Turbo</b>					01/93→04/95				
20 T4G	1994	4	84.45		100/136				
20 T4H	1994	4	84.45	DOHC	100/136				
20 M4F	1994	4	84.50	DOHC	103/140				
<b>400 420 D Diesel</b>					11/95→03/00	<b>30</b>	<b>HBS282</b>  M11x1.50x230mm (x10)	1) 30Nm 2) 65Nm 3) 90° 4) 90°	
<b>400 420 Di Diesel</b>					05/95→03/00				
20 T2R (L Series)	1994	4	84.45	SOHC	63/86				
20 T2N (L Series)	1994	4	84.45	SOHC	74-83/ 101-113				
<b>600 618 i/Si</b>					03/96→02/99	<b>31</b>	<b>HBS284</b>  M12x1.50x198mm (x1) M12x1.50x163mm (x9)	1) 30Nm 2) 90° 3) 90° 4) 90°	
F 18 A3	1849	4	85.00	SOHC	83/113				



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600 620 i 600 620 Si					08/93 → 06/96 08/93 → 02/99	32	HBS284	1) 30Nm 2) 90° 3) 90° 4) 90°	
F 20 Z2	1997	4	85.00		SOHC	85/115 96/131	 M12x1.50x198mm (x1) M12x1.50x163mm (x9)		
600 620 Sdi Diesel					12/94 → 02/99	33	HBS282	1) 30Nm 2) 65Nm 3) 90° 4) 90°	
20 T2N (L Series)	1994	4	84.45		SOHC	74-83/ 101-113	 M11x1.50x230mm (x10)		
600 620 Ti Vitesse					07/94 → 02/99	34	HBS305	1) 45Nm 2) 80Nm 3) 90°	
20 T4G	1994	4	84.45			100/136	 M11x1.50x162mm (x10)		
600 623 Si					08/93 → 02/99	35	HBS284	1) 30Nm 2) 90° 3) 90° 4) 90°	
H 23 A3	2259	4	87.00		DOHC	116/158	 M12x1.50x198mm (x1) M12x1.50x163mm (x9)		
800 820 16V Turbo 800 820 i/Si 800 820 SE/SI 800 820 SI 800 820 Sport 800 820e					01/92 → 02/99 10/88 → 02/99 10/86 → 12/91 10/88 → 12/91 04/94 → 03/96 10/86 → 10/91	36	HBS305	1) 45Nm 2) 80Nm 3) 90°	
20 T4G	1994	4	84.45			100/136	 M11x1.50x162mm (x10)		
20 T4H	1994	4	84.45		DOHC	100/136			
T 16	1994	4	84.45		DOHC	100-147/ 136-200			
20 HS	1994	4	84.50		DOHC	88/120			
20 HD M 16	1994	4	84.50		DOHC	98/133			
20 HD	1994	4	84.50		DOHC	103/140			
800 825 D/SD Diesel 800 Coupe 825 SD Diesel					01/90 → 02/99 09/93 → 02/99	37	HBS108	<b>A</b> 1) 30Nm 2) 70° 3) 70° 4) ⚡ 5) ⚡ 6) 90° 7) 30Nm 8) 65° <b>B</b> 1) 30Nm 2) 85°	
425 SL1RR/492 4 SHIRG	2500	4	92.00			87/118	 M14x2x137mm (x10) M12x1.75x115mm (x4) M12x1.75x79.5mm (x4)		
800 825 Si Lux 800 Coupe 825 Si					04/96 → 02/99 04/96 → 02/99	38	HBS423	1) 25Nm 2) 25Nm 3) 25Nm 4) 180°	
25 K4F	2497	6	80.00		DOHC, V6	130/177	 M9x1.25x200mm (x16)		
Coupe 1.6L 16 V					03/96 → 11/99	39	HBS005	1) 20Nm 2) 90° 3) 90° 4) 90° 5) 90°	
16 K4F	1588	4	80.00		DOHC	81/110	 M9x1.25x412mm (x10)		
Coupe 1.8L 16 V					03/96 → 11/99	40	HBS005	1) 20Nm 2) 90° 3) 90° 4) 90° 5) 90°	
18 K4K (WC)	1796	4	80.00		DOHC	107-118/ 146-160	 M9x1.25x412mm (x10)		

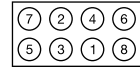
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Metro 1.1L		05/90 → 12/94			41			
11 K2A	1120	4	75.00	SOHC	44/60	<b>HBS005</b>  M9x1.25x412mm (x10)	1) 20Nm 2) 90° 3) 90° 4) 90° 5) 90°	
Metro 1.4L		12/90 → 12/94			42			
Metro 1.4L (non cat)		12/90 → 12/94						
14 K2F	1396	4	75.00	MPi, SOHC	55/75	<b>HBS005</b>  M9x1.25x412mm (x10)	1) 20Nm 2) 90° 3) 90° 4) 90° 5) 90°	
14 K4C	1396	4	75.00	SOHC	66-70/ 90-95			
Streetwise 1.4L		08/03 →			43			
14 K4M	1396	4	75.00	DOHC	62/84	<b>HBS005</b>  M9x1.25x412mm (x10)	1) 20Nm 2) 90° 3) 90° 4) 90° 5) 90°	
14 K4F	1396	4	75.00	MPi, DOHC	76/103			
Streetwise 2.0L TD Diesel		08/03 →			44			
20 T2N (L Series)	1994	4	84.45	SOHC	74-83/ 101-113	<b>HBS282</b>  M11x1.50x230mm (x10)	1) 30Nm 2) 65Nm 3) 90° 4) 90°	

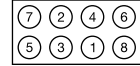




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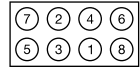
<b>9-3 1.8L i</b> 01/04 → <b>1</b>					<b>HBS055</b>	1) 25Nm 2) 90° 3) 90° 4) 90° 5) 45°	
Z18XE	1796	4	80.50	DOHC	90/122		M10x1.25x153mm (x10)
<b>9-3 1.8L t</b> 09/02 → <b>2</b>					<b>HBS416</b>	1) 30Nm 2) 75° 3) 75° 4) 150°	
<b>9-3 Convertible 1.8L t</b> 08/03 →						M11x1.50x163mm (x10)	
<b>9-3 2.0L T</b> 09/02 →							
<b>9-3 Convertible 2.0L t</b> 08/03 →							
B207E	1998	4	86.00	DOHC	110/150		
B207L	1998	4	86.00	DOHC	129/175		
B207R	1998	4	86.00	DOHC	154/210		
<b>9-3 1.9L TiD Diesel</b> 09/04 → <b>3</b>					<b>HBS227</b>	1) 65Nm 2) 90° 3) 90° 4) 90°	
<b>9-3 TiD Diesel</b> 03/05 →						M12x1.25x218mm (x10)	
Z19DTJ	1910	4	82.00	SOHC	88/120		
Z19DT	1910	4	82.00	SOHC	88/120		
<b>9-3 1.9L TiD Diesel</b> 09/04 → <b>4</b>					<b>HBS370</b>	1) 65Nm 2) 90° 3) 90° 4) 90°	
<b>9-3 Cabriolet 1.9L TiD Diesel</b> 01/06 →						M12x1.25x225mm (x10)	
Z19DTH	1910	4	82.00	DOHC	110/150		
<b>9-3 2.0L i</b> 02/98 → 09/02 <b>5</b>					<b>HBS180</b>	1) 40Nm 2) 60Nm 3) 90°	
<b>9-3 2.0L SE Turbo</b> 02/98 → 09/02						M12x1.75x95.5mm (x10)	
<b>9-3 2.0L Turbo</b> 02/98 → 09/02							
<b>9-3 Cabriolet 2.0L i</b> 02/98 → 08/03							
<b>9-3 Cabriolet 2.0L SE Turbo</b> 02/98 → 08/03							
<b>9-3 Cabriolet 2.0L Turbo</b> 02/98 → 08/03							
B204I	1985	4	90.00	Motronic, DOHC	96/131		
B204E	1985	4	90.00	DOHC	108-113/ 147-154		
B205E	1985	4	90.00	DOHC	110/150		
B204L/B205L	1985	4	90.00	DOHC	136/185		
B204R	1985	4	90.00	DOHC	147/200		
B205R	1985	4	90.00	DOHC	151/205		
<b>9-3 2.2L TiD Diesel</b> 02/98 → 09/02 <b>6</b>					<b>HBS298</b>	1) 25Nm 2) 65° 3) 65° 4) 65° 5) 65° 6) 15°	
<b>X22 DTH</b> 2171 4 84.00 SOHC 85/115						M12x1.50x235mm (x10)	
<b>D223L</b> 2171 4 84.00 SOHC 85-92/ 115-125							
<b>9-3 2.3L i</b> 02/98 → 09/02 <b>7</b>					<b>HBS180</b>	1) 60Nm 2) 80Nm 3) 90°	
<b>9-3 2.3L Turbo</b> 10/98 → 09/02						M12x1.75x95.5mm (x10)	
<b>9-3 Cabriolet 2.3L i</b> 02/98 → 08/03							
<b>9-3 Cabriolet 2.3L Turbo</b> 10/99 → 08/03							
B234I	2290	4	90.00	Motronic, DOHC	110/150		
B235R	2290	4	90.00	DOHC	165-184/ 224-250		
<b>9-5 1.9L TiD Diesel</b> 01/06 → <b>8</b>					<b>HBS370</b>	1) 65Nm 2) 90° 3) 90° 4) 90°	
<b>Z19DTH</b> 1910 4 82.00 DOHC 110/150						M12x1.25x225mm (x10)	
<b>9-5 2.0L t</b> 09/97 → <b>9</b>					<b>HBS180</b>	1) 40Nm 2) 60Nm 3) 90°	
<b>B205E</b> 1985 4 90.00 DOHC 110/150						M12x1.75x95.5mm (x10)	
<b>B204R</b> 1985 4 90.00 DOHC 147/200							
<b>9-5 2.2L TiD Diesel</b> 03/02 → <b>10</b>					<b>HBS298</b>	1) 25Nm 2) 65° 3) 65° 4) 65° 5) 65° 6) 15°	
<b>D223L</b> 2171 4 84.00 SOHC 85-92/ 115-125						M12x1.50x235mm (x10)	



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9-5 2.3L t					09/97 →	11	<b>HBS180</b>  M12x1.75x95.5mm (x10)	1) 60Nm 2) 80Nm 3) 90°	
9-5 2.3L Turbo					10/99 → 09/01				
B235E	2290	4	90.00	DOHC		125-136/ 170-185			
B235L	2290	4	90.00	DOHC		162-184/ 220			
B235R	2290	4	90.00	DOHC		165-184/ 224-250			
9-5 3.0L TiD Diesel					07/01 →	12	<b>HBS502</b>  M12x1,5x145mm (x8) M12x1,5x175mm (x8)	1) 20Nm 2) 40Nm 3) ↻ 90° 4) 40Nm 5) (1-4) 130° 6) (5-8) 110° 7) (1-4) 130° 8) (5-8) 110°	
D308L	2958	6	87.50	DOHC, V6		130/177			
9-5 3.0L V6t					01/98 →	13	<b>HBS164</b>  M11x1.25x105mm (x16)	1) 25Nm 2) 90° 3) 90° 4) 90°	
B308E	2962	6	86.00	DOHC, V6		147/200			
900 2.0L					10/87 → 10/91	14	<b>HBS180</b>  M12x1.75x95.5mm (x10)	1) 40Nm 2) 60Nm 3) 90°	
900 2.0L -16					01/89 → 12/93				
900 2.0L -16 Turbo					07/93 → 02/98				
900 2.0L i					07/93 → 02/98				
900 2.0L S Turbo-16					07/91 → 12/93				
900 2.0L Turbo-16					01/93 → 06/94				
900 Cabriolet 2.0L 16v					04/90 → 12/90				
900 Convertible 2.0L -16					01/90 → 06/94				
900 Convertible 2.0L S Turbo-16					09/91 → 06/94				
900 Convertible 2.0L -16 Turbo					12/93 → 02/98				
900 Convertible 2.0L i					12/93 → 02/98				
900 Coupe 2.0L -16 Turbo					12/93 → 02/98				
900 Coupe 2.0L i					07/93 → 02/98				
B206i	1985	4		Motronic, DOHC	98/133				
B202i	1985	4	90.00	KH-Jetronic, DOHC	93-96/ 126-130				
B204i	1985	4	90.00	Motronic, DOHC	96/131				
B202S	1985	4	90.00	DOHC	104-110/ 141-150				
B202L	1985	4	90.00	Motronic, DOHC	132-136/ 180-185				
B204L	1985	4	90.00	DOHC	136/185				
900 2.0L i					11/80 → 08/90	15	<b>HBS179</b>  M12x1.75x121.5mm (x10)	1) 40Nm 2) 60Nm 3) 90°	
900 2.0L Turbo					10/86 → 12/91				
900 2.0L Turbo-16					11/85 → 06/94				
900 2.0L Turbo-16 S					01/89 → 12/93				
900 Convertible 2.0L Turbo-16					11/86 → 06/94				
900 Convertible 2.0L Turbo-16 S					11/86 → 06/94				
B201	1985	4	90.00	SOHC	81/110				
B201XI	1985	4	90.00	K-Jetronic, SOHC	85/115				
BI 20	1985	4	90.00		85/115				
B201XL	1985	4	90.00		103/140				
B202XL	1985	4	90.00	L-Jetronic, DOHC	118-121/ 160-165				
900 2.3L -16					07/93 → 02/98	16	<b>HBS180</b>  M12x1.75x95.5mm (x10)	1) 60Nm 2) 80Nm 3) 90°	
900 Convertible 2.3L -16					12/93 → 02/98				
900 Coupe 2.3L -16					12/93 → 02/98				
B234i	2290	4	90.00	Motronic, DOHC	110/150				

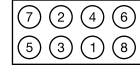




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<b>900 2.5L -24 V6</b>					07/93→02/98	<b>17</b>
<b>900 Convertible 2.5L -24 V6</b>					12/93→02/98	
<b>900 Coupe 2.5L -24 V6</b>					12/93→02/98	
B258I	2498	6	81.60	Motronic, DOHC, V6	125/170	

<b>HBS164</b>	1) 25Nm 2) 90° 3) 90° 4) 90°	
M11x1.25x105mm (x16)		

<b>9000 2.0L -16</b>					01/89→01/93	<b>18</b>
<b>9000 2.0L -16 CD</b>					09/93→12/98	
<b>9000 2.0L -16 CS</b>					01/89→12/98	
<b>9000 2.0L -16 ND Turbo</b>					09/93→12/98	
<b>9000 2.0L -16 Turbo</b>					09/84→08/93	
<b>9000 2.0L -16 Turbo CS</b>					09/88→12/98	
<b>9000 2.0L -16 Turbo CD</b>					09/88→12/98	

<b>HBS180</b>	1) 40Nm 2) 60Nm 3) 90°	
M12x1.75x95.5mm (x10)		

B202	1985	4			127/172
B202i	1985	4	90.00	KH-Jetronic, DOHC	93-96/ 126-130
B204I	1985	4	90.00	Motronic, DOHC	96/131
B202S	1985	4	90.00	DOHC	104-110/ 141-150
B204E	1985	4	90.00	DOHC	108-113/ 147-154
B204S	1985	4	90.00	Intake Manifold Injection/ Carburettor, DOHC	110/150
B202XL	1985	4	90.00	L-Jetronic, DOHC	118-121/ 160-165
B202L	1985	4	90.00	Motronic, DOHC	132-136/ 180-185

<b>9000 2.3L -16 Aero CS</b>					02/93→12/98	<b>19</b>
<b>9000 2.3L -16 CD</b>					08/89→12/98	
<b>9000 2.3L -16 CD Turbo</b>					07/90→12/98	
<b>9000 2.3L -16 CDE</b>					09/93→12/98	
<b>9000 2.3L -16 CDE Eco-Power</b>					09/93→12/98	
<b>9000 2.3L -16 CS</b>					09/89→12/98	
<b>9000 2.3L -16 CSE</b>					09/93→12/98	
<b>9000 2.3L -16 CSE Eco Power</b>					09/93→12/98	
<b>9000 2.3L -16 Turbo</b>					09/90→12/98	
<b>9000 2.3L -16 Turbo CSE</b>					09/93→12/98	









<b>HBS180</b>	1) 60Nm 2) 80Nm 3) 90°	
M12x1.75x95.5mm (x10)		









B234I	2290	4	90.00	Motronic, DOHC	110/150
B234E	2290	4	90.00	DOHC	125/170
B234L	2290	4	90.00	DOHC	143-147/ 195-200
B234R	2290	4	90.00	DOHC	162-165/ 220-225









<b>9000 3.0L -24 V6 CD/CDE</b>					07/94→12/98	<b>20</b>
<b>9000 3.0L -24 V6 CS/CSE</b>					07/94→12/98	

<b>HBS164</b>	1) 25Nm 2) 90° 3) 90° 4) 90°	
M11x1.25x105mm (x16)		

B308I	2962	6	86.00	DOHC, V6	155/211
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		CC			9			CC			9
1F	Petrol	1595	4	81.00	31	AEY	Diesel	1896	4	79.50	63
1F	Petrol	1595	4	81.00	59	AEY	Diesel	1896	4	79.50	73
1F	Diesel	1595	4	81.00	71	AFH	Petrol	1390	4	76.50	26
1F	Petrol	1595	4	81.00	93	AFH	Petrol	1390	4	76.50	53
1W	Diesel	1398	4	75.00	89	AFK	Petrol	1390	4	76.50	16
1Y	Diesel	1896	4	79.50	36	AFN	Diesel	1896	4	79.50	3
1Y	Diesel	1896	4	79.50	63	AFN	Diesel	1896	4	79.50	36
1Y	Diesel	1896	4	79.50	73	AFN	Diesel	1896	4	79.50	63
1Y	Diesel	1896	4	79.50	98	AFN	Diesel	1896	4	79.50	98
1Z	Diesel	1896	4	79.50	2	AFT	Petrol	1595	4	81.00	31
1Z	Diesel	1896	4	79.50	36	AFT	Petrol	1595	4	81.00	32
1Z	Diesel	1896	4	79.50	63	AFT	Petrol	1595	4	81.00	59
1Z	Diesel	1896	4	79.50	98	AFT	Petrol	1595	4	81.00	93
2E	Petrol	1984	4	82.50	39	AGG	Petrol	1984	4	82.50	39
2E	Petrol	1984	4	82.50	65	AGG	Petrol	1984	4	82.50	65
2E	Petrol	1984	4	82.50	101	AGG	Petrol	1984	4	82.50	101
2G	Petrol	1272	4	75.00	48	AGN	Petrol	1781	4	81.00	77
09 NCA	Petrol	903	4	65.00	41	AGN	Petrol	1781	4	81.00	95
09 NCA	Petrol	903	4	65.00	87	AGP	Diesel	1896	4	79.50	36
09 NCB	Petrol	903	4		87	AGP	Diesel	1896	4	79.50	63
021 A.1000	Petrol	1193	4	75.00	45	AGR	Diesel	1896	4	79.50	36
021 A.1000	Petrol	1193	4	75.00	85	AGR	Diesel	1896	4	79.50	63
021 A.2000	Petrol	1461	4	83.00	55	AGR	Diesel	1896	4	79.50	78
021 A.2000	Petrol	1461	4	83.00	86	AGR	Diesel	1896	4	79.50	98
021 B.2000	Petrol	1461	4	83.00	55	AGZ	Petrol	2324	5	81.00	106
021 B.2000	Petrol	1461	4	83.00	86	AHB	Diesel	1716	4	79.50	72
021 C.1000	Petrol	1193	4	75.00	45	AHF	Diesel	1896	4	79.50	78
021 C.1000	Petrol	1193	4	75.00	85	AHF	Diesel	1896	4	79.50	98
021 C.2000	Petrol	1461	4	83.00	55	AHU	Diesel	1896	4	79.50	2
021 C.2000	Petrol	1461	4	83.00	86	AHU	Diesel	1896	4	79.50	36
021 D.2000	Petrol	1461	4	83.00	55	AHU	Diesel	1896	4	79.50	63
021 D.2000	Petrol	1461	4	83.00	86	AHU	Diesel	1896	4	79.50	98
146 A.000	Petrol	903	4	65.00	41	AHW	Petrol	1390	4	76.50	74
AAU	Petrol	1043	4	75.00	43	AHW	Petrol	1390	4	76.50	90
AAV	Petrol	1272	4	75.00	48	AJH	Petrol	1781	4	81.00	1
AAZ	Diesel	1896	4	79.50	36	AJQ	Petrol	1781	4	81.00	77
AAZ	Diesel	1896	4	79.50	63	AKK	Petrol	1390	4	76.50	14
AAZ	Diesel	1896	4	79.50	98	AKK	Petrol	1390	4	76.50	22
ABD	Petrol	1390	4	75.00	24	AKK	Petrol	1390	4	76.50	49
ABD	Petrol	1390	4	75.00	51	AKL	Petrol	1595	4	81.00	28
ABF	Petrol	1984	4	82.50	40	AKL	Petrol	1595	4	81.00	32
ABF	Petrol	1984	4	82.50	66	AKL	Petrol	1595	4	81.00	56
ABF	Petrol	1984	4	82.50	102	AKL	Petrol	1595	4	81.00	75
ABN	Petrol	1595	4	81.00	93	AKL	Petrol	1595	4	81.00	91
ABS	Petrol	1781	4	81.00	33	AKU	Diesel	1716	4	79.50	18
ABS	Petrol	1781	4	81.00	60	AKV	Petrol	1390	4	76.50	14
ABS	Petrol	1781	4	81.00	96	AKV	Petrol	1390	4	76.50	24
ABU	Petrol	1598	4	76.50	29	AKV	Petrol	1390	4	76.50	51
ABU	Petrol	1598	4	76.50	57	AKV	Petrol	1390	4	76.50	68
ACC	Petrol	1781	4	81.00	33	ALD	Diesel	999	4	67.10	13
ACC	Petrol	1781	4	81.00	60	ALD	Petrol	999	4	67.10	19
ACC	Petrol	1781	4	81.00	96	ALD	Petrol	999	4	67.10	42
ADL	Petrol	1781	4	81.00	34	ALH	Diesel	1896	4	79.50	36
ADL	Petrol	1781	4	81.00	61	ALH	Diesel	1896	4	79.50	63
ADY	Petrol	1984	4	82.50	6	ALH	Diesel	1896	4	79.50	73
ADZ	Petrol	1781	4	81.00	33	ALH	Diesel	1896	4	79.50	78
ADZ	Petrol	1781	4	81.00	60	ALH	Diesel	1896	4	79.50	98
ADZ	Petrol	1781	4	81.00	96	ALL	Diesel	999	4	67.10	13
AEE	Petrol	1598	4	76.50	29	ALM	Petrol	1598	4	76.50	29
AEE	Petrol	1598	4	76.50	57	ALM	Petrol	1598	4	76.50	57
AEE	Petrol	1598	4	76.50	70	ALM	Petrol	1598	4	76.50	70
AEH	Petrol	1595	4	81.00	28	AMF	Diesel	1422	3	79.50	17
AEH	Petrol	1595	4	81.00	56	AMF	Diesel	1422	3	79.50	27
AEH	Petrol	1595	4	81.00	75	AMF	Diesel	1422	3	79.50	54
AEH	Petrol	1595	4	81.00	91	AMK	Petrol	1781	4	81.00	77
AER	Diesel	999	4	67.10	13	ANU	Diesel	1896	4	79.50	2
AER	Diesel	999	4	67.10	20	ANV	Diesel	999	4	67.10	13
AER	Diesel	999	4	67.10	44	ANV	Petrol	999	4	67.10	19
AEX	Petrol	1391	4	76.50	15	ANV	Petrol	999	4	67.10	42
AEX	Petrol	1391	4	76.50	25	ANW	Petrol	1390	4	76.50	14
AEX	Petrol	1391	4	76.50	52	ANW	Petrol	1390	4	76.50	22
AEX	Petrol	1391	4	76.50	69	ANW	Petrol	1390	4	76.50	49
AEY	Diesel	1896	4	79.50	36	ANX	Petrol	1390	4	76.50	24

		cc			9			cc			9
APE	Petrol	1390	4	76.50	23	AYP	Petrol	1781	4	81.00	62
APE	Petrol	1390	4	76.50	50	AYQ	Diesel	1896	4	79.50	73
APE	Petrol	1390	4	76.50	74	AZD	Petrol	1598	4	76.50	76
APE	Petrol	1390	4	76.50	90	AZD	Petrol	1598	4	76.50	92
APF	Petrol	1595	4	81.00	28	AZL	Petrol	1984	4	82.50	38
APF	Petrol	1595	4	81.00	56	AZQ	Petrol	1198	3	76.50	21
APF	Petrol	1595	4	81.00	75	AZQ	Petrol	1198	3	76.50	46
APF	Petrol	1595	4	81.00	91	AZV	Diesel	1968	4	81.00	10
APG	Petrol	1781	4	81.00	77	AZV	Diesel	1968	4	81.00	82
APG	Petrol	1781	4	81.00	95	AZV	Diesel	1968	4	81.00	103
APP	Petrol	1781	4	81.00	77	BAM	Petrol	1781	4	81.00	77
APP	Petrol	1781	4	81.00	95	BBM	Petrol	1198	3	76.50	47
APQ	Petrol	1391	4	76.50	15	BBU	Petrol	1781	4	81.00	62
APQ	Petrol	1391	4	76.50	25	BBX	Petrol	1984	4	82.50	38
APQ	Petrol	1391	4	76.50	52	BBY	Petrol	1390	4	76.50	23
APQ	Petrol	1391	4	76.50	69	BBY	Petrol	1390	4	76.50	50
AQM	Diesel	1896	4	79.50	36	BBZ	Petrol	1390	4	76.50	23
AQM	Diesel	1896	4	79.50	63	BBZ	Petrol	1390	4	76.50	50
AQM	Diesel	1896	4	79.50	78	BCA	Petrol	1390	4	76.50	74
AQM	Diesel	1896	4	79.50	98	BCA	Petrol	1390	4	76.50	90
AQQ	Petrol	1390	4	76.50	16	BCB	Petrol	1598	4	76.50	76
AQQ	Petrol	1390	4	76.50	23	BCB	Petrol	1598	4	76.50	92
AQQ	Petrol	1390	4	76.50	50	BGU	Petrol	1595	4	81.00	7
AQX	Petrol	1781	4	81.00	35	BGU	Petrol	1595	4	81.00	91
AQX	Petrol	1781	4	81.00	62	BJB	Diesel	1896	4	79.50	8
ARY	Petrol	1781	4	81.00	77	BJB	Diesel	1896	4	79.50	99
ASK	Diesel	1896	4	79.50	36	BJX	Petrol	1781	4	81.00	62
ASK	Diesel	1896	4	79.50	63	BKC	Diesel	1896	4	79.50	8
ASV	Diesel	1896	4	79.50	36	BKC	Diesel	1896	4	79.50	79
ASV	Diesel	1896	4	79.50	63	BKC	Diesel	1896	4	79.50	99
ASV	Diesel	1896	4	79.50	78	BKD	Diesel	1968	4	81.00	84
ASV	Diesel	1896	4	79.50	98	BKD	Diesel	1968	4	81.00	103
ASY	Diesel	1896	4	79.50	36	BKV	Petrol	1781	4	81.00	62
ASY	Diesel	1896	4	79.50	63	BKY	Petrol	1390	4	76.50	23
ASZ	Diesel	1896	4	79.50	4	BKY	Petrol	1390	4	76.50	50
ASZ	Diesel	1896	4	79.50	37	BLR	Petrol	1984	4	82.50	9
ASZ	Diesel	1896	4	79.50	64	BLR	Petrol	1984	4	82.50	80
ASZ	Diesel	1896	4	79.50	79	BLR	Petrol	1984	4	82.50	100
ASZ	Diesel	1896	4	79.50	99	BLS	Diesel	1896	4	79.50	8
ATD	Diesel	1896	4	79.50	37	BLS	Diesel	1896	4	79.50	64
ATD	Diesel	1896	4	79.50	64	BLS	Diesel	1896	4	79.50	79
ATM	Petrol	1984	4	82.50	6	BLS	Diesel	1896	4	79.50	99
ATN	Petrol	1598	4	76.50	76	BLT	Diesel	1896	4	79.50	37
AUA	Petrol	1390	4	76.50	23	BLT	Diesel	1896	4	79.50	64
AUA	Petrol	1390	4	76.50	50	BLY	Petrol	1984	4	82.50	9
AUA	Petrol	1390	4	76.50	67	BLY	Petrol	1984	4	82.50	80
AUA	Petrol	1390	4	76.50	74	BLY	Petrol	1984	4	82.50	100
AUA	Petrol	1390	4	76.50	90	BLZ	Petrol	1781	4	81.00	62
AUB	Petrol	1390	4	76.50	16	BME	Petrol	1198	3	76.50	21
AUB	Petrol	1390	4	76.50	23	BME	Petrol	1198	3	76.50	46
AUB	Petrol	1390	4	76.50	50	BMM	Diesel	1968	4	81.00	11
AUC	Diesel	999	4	67.10	13	BMM	Diesel	1968	4	81.00	81
AUC	Petrol	999	4	67.10	19	BMM	Diesel	1968	4	81.00	105
AUC	Petrol	999	4	67.10	42	BMN	Diesel	1968	4	81.00	12
AUD	Petrol	1390	4	76.50	14	BMN	Diesel	1968	4	81.00	83
AUD	Petrol	1390	4	76.50	22	BMN	Diesel	1968	4	81.00	104
AUD	Petrol	1390	4	76.50	49	BMS	Diesel	1422	3	79.50	27
AUD	Petrol	1390	4	76.50	68	BMS	Diesel	1422	3	79.50	54
AUQ	Petrol	1781	4	81.00	77	BMT	Diesel	1896	4	79.50	37
AUQ	Petrol	1781	4	81.00	95	BMT	Diesel	1896	4	79.50	64
AUR	Petrol	1595	4	81.00	28	BNM	Diesel	1422	3	79.50	27
AUR	Petrol	1595	4	81.00	56	BNM	Diesel	1422	3	79.50	54
AUS	Petrol	1598	4	76.50	76	BNV	Diesel	1422	3	79.50	27
AUS	Petrol	1598	4	76.50	92	BNV	Diesel	1422	3	79.50	54
AUY	Diesel	1896	4	79.50	4	BPX	Diesel	1896	4	79.50	64
AVG	Diesel	1896	4	79.50	3	BSE	Petrol	1595	4	81.00	7
AWC	Petrol	1781	4	81.00	1	BSE	Petrol	1595	4	81.00	75
AXP	Petrol	1390	4	76.50	74	BSE	Petrol	1595	4	81.00	91
AXP	Petrol	1390	4	76.50	90	BSF	Petrol	1595	4	81.00	7
AXR	Diesel	1896	4	79.50	37	BSF	Petrol	1595	4	81.00	75
AXR	Diesel	1896	4	79.50	64	BSF	Petrol	1595	4	81.00	91
AXR	Diesel	1896	4	79.50	79	BTB	Diesel	1896	4	79.50	5
AYP	Petrol	1781	4	81.00	35	BTS	Petrol	1598	4	76.50	30

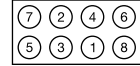
		CC			9			CC			9
<b>BTS</b>	Petrol	1598	4	76.50	<b>58</b>						
<b>BUK</b>	Diesel	1896	4	79.50	<b>64</b>						
<b>BVK</b>	Diesel	1896	4	79.50	<b>4</b>						
<b>BVY</b>	Petrol	1984	4	82.50	<b>9</b>						
<b>BVY</b>	Petrol	1984	4	82.50	<b>80</b>						
<b>BVY</b>	Petrol	1984	4	82.50	<b>100</b>						
<b>BVZ</b>	Petrol	1984	4	82.50	<b>9</b>						
<b>BVZ</b>	Petrol	1984	4	82.50	<b>80</b>						
<b>BVZ</b>	Petrol	1984	4	82.50	<b>100</b>						
<b>BXE</b>	Diesel	1896	4	79.50	<b>8</b>						
<b>BXE</b>	Diesel	1896	4	79.50	<b>79</b>						
<b>BXE</b>	Diesel	1896	4	79.50	<b>99</b>						
<b>BXF</b>	Diesel	1896	4	79.50	<b>8</b>						
<b>BXF</b>	Diesel	1896	4	79.50	<b>79</b>						
<b>BXJ</b>	Diesel	1896	4	79.50	<b>64</b>						
<b>BXV</b>	Petrol	1198	3	76.50	<b>21</b>						
<b>BXV</b>	Petrol	1198	3	76.50	<b>46</b>						
<b>BZG</b>	Petrol	1198	3	76.50	<b>46</b>						
<b>CCSA</b>	Petrol	1595	4	81.00	<b>7</b>						
<b>CCSA</b>	Petrol	1595	4	81.00	<b>75</b>						
<b>CCSA</b>	Petrol	1595	4	81.00	<b>91</b>						
<b>CGPA</b>	Petrol	1198	3	76.50	<b>46</b>						
<b>CMXA</b>	Petrol	1595	4	81.00	<b>7</b>						
<b>CMXA</b>	Petrol	1595	4	81.00	<b>75</b>						
<b>EZ</b>	Petrol	1595	4	81.00	<b>93</b>						
<b>KR</b>	Petrol	1781	4	81.00	<b>94</b>						
<b>MN</b>	Diesel	1272	4	75.00	<b>88</b>						
<b>PL</b>	Petrol	1781	4	81.00	<b>94</b>						
<b>RP</b>	Diesel	1781	4	81.00	<b>97</b>						



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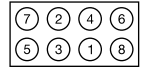
Alhambra 1.8L T 20V						10/97 →	1	
AJH/AWC	1781	4	81.00	DOHC	110/150		<b>HBS268</b>  M10x1.50x120mm (x10) 1) 40Nm 2) 60Nm 3) ↻ 90° 4) 90° 5) 90°	
Alhambra 1.9L TDI Diesel						04/96 →	2	
1Z	1896	4	79.50	SOHC	66/89		<b>HBS018</b> AHU, 1Z  M12x1.75x115mm (x10) 1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°	
AHU/ANU	1896	4	79.50	SOHC	66/90		<b>HBS300</b> ANU  M12x1.75x166mm (x10) 1) 40Nm 2) 60Nm 3) 90° 4) 90°	
Alhambra 1.9L TDI Diesel						08/96 → 06/00	3	
AFN	1896	4	79.50	SOHC	81/110		<b>HBS018</b>  M12x1.75x115mm (x10) 1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°	
AVG	1896	4	79.50	Direct Injection, SOHC/OHC	81/110			
Alhambra 1.9L TDI Diesel						06/00 →	4	
Alhambra 1.9L TDI 4motion Diesel						02/01 →	4	
AUY/BVK	1896	4	79.50	SOHC	85/115		<b>HBS300</b>  M12x1.75x166mm (x10) 1) 40Nm 2) 60Nm 3) 90° 4) 90°	
ASZ	1896	4	79.50	SOHC	96/130			
Alhambra 1.9L TDI Diesel						05/05 →	5	
BTB	1896	4	79.50	SOHC	110/150		<b>HBS300</b>  M12x1.75x166mm (x10) 1) 40Nm 2) 60Nm 3) 90° 4) 90°	
Alhambra 2.0L i						04/96 →	6	
ADY/ATM	1984	4	82.50	SOHC	85/115		<b>HBS043</b> ADY  M11x1.50x95mm (x10) 1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°	
							<b>HBS246</b> ATM  M10x1.50x120mm (x10) 1) 40Nm 2) 90° 3) 90°	
Altea 1.6L						03/04 →	7	
BGU/BSE/BSF/CCSA	1595	4	81.00	SOHC	75/102		<b>HBS246</b>  M10x1.50x120mm (x10) 1) 40Nm 2) 90° 3) 90°	
CMXA	1595	4	81.00	Intake Manifold Injection/ Carburettor, SOHC/OHC	75/102			
Altea 1.9L TDI Diesel						04/04 →	8	
BXF	1896	4	79.50	SOHC	66/90		<b>HBS300</b>  M12x1.75x166mm (x10) 1) 40Nm 2) 60Nm 3) 90° 4) 90°	
BJB/BKC/BLS/BXE	1896	4	79.50	SOHC	77/105			
Altea 2.0L FSI						05/04 →	9	
BLR/BLY/BVY/BVZ	1984	4	82.50	DOHC	110/150		<b>HBS363</b>  M10x1.50x122mm (x10) 1) 40Nm 2) 90° 3) 90°	



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Altea 2.0L TDI Diesel					03/04 →	10	HBS364		1) 35Nm 2) 60Nm 3) 90° 4) 90°	<table border="1"> <tr><td>10</td><td>4</td><td>2</td><td>6</td><td>8</td></tr> <tr><td>7</td><td>5</td><td>1</td><td>3</td><td>9</td></tr> </table>	10	4	2	6	8	7	5	1	3	9
10	4	2	6	8																
7	5	1	3	9																
AZV	1968	4	81.00	DOHC		100/136		M12x1.75x149mm (x10)												
Altea 2.0L TDI Diesel					11/05 →	11	HBS300		1) 40Nm 2) 60Nm 3) 90° 4) 90°	<table border="1"> <tr><td>10</td><td>4</td><td>2</td><td>6</td><td>8</td></tr> <tr><td>7</td><td>5</td><td>1</td><td>3</td><td>9</td></tr> </table>	10	4	2	6	8	7	5	1	3	9
10	4	2	6	8																
7	5	1	3	9																
BMM	1968	4	81.00	SOHC	06/07 →	103/140		M12x1.75x166mm (x10)												
Altea 2.0L TDI Diesel					03/06 →	12	HBS364		1) 35Nm 2) 60Nm 3) 90° 4) 90°	<table border="1"> <tr><td>10</td><td>4</td><td>2</td><td>6</td><td>8</td></tr> <tr><td>7</td><td>5</td><td>1</td><td>3</td><td>9</td></tr> </table>	10	4	2	6	8	7	5	1	3	9
10	4	2	6	8																
7	5	1	3	9																
BMN	1968	4	81.00	DOHC		125/170		M12x1.75x149mm (x10)												
Arosa 1.0L					05/97 →06/04	13	HBS249		1) 30Nm 2) 90° 3) 90°	<table border="1"> <tr><td>10</td><td>4</td><td>2</td><td>6</td><td>8</td></tr> <tr><td>7</td><td>5</td><td>1</td><td>3</td><td>9</td></tr> </table>	10	4	2	6	8	7	5	1	3	9
10	4	2	6	8																
7	5	1	3	9																
AER	999	4	67.10	SOHC		37/50		M9x1.25x138mm (x10)												
ALD/ALL/ANV	999	4	67.10	Motronic, SOHC		37/50														
AUC	999	4	67.10	SOHC		37/50														
Arosa 1.0L							HBS362		1) 30Nm 2) 90° 3) 90°	<table border="1"> <tr><td>10</td><td>6</td><td>2</td><td>3</td><td>7</td></tr> <tr><td>9</td><td>5</td><td>1</td><td>4</td><td>8</td></tr> </table>	10	6	2	3	7	9	5	1	4	8
10	6	2	3	7																
9	5	1	4	8																
								M9x1.25x162mm (x10)												
Arosa 1.4L					05/97 →06/04	14	HBS075		1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°	<table border="1"> <tr><td>10</td><td>6</td><td>2</td><td>3</td><td>7</td></tr> <tr><td>9</td><td>5</td><td>1</td><td>4</td><td>8</td></tr> </table>	10	6	2	3	7	9	5	1	4	8
10	6	2	3	7																
9	5	1	4	8																
AKK	1390	4	76.50	Motronic, SOHC		44/60		M11x1.50x110mm (x10)												
AKV/ANW/AUD	1390	4	76.50	SOHC		44/60														
Arosa 1.4L							HBS362		1) 30Nm 2) 90° 3) 90°	<table border="1"> <tr><td>10</td><td>6</td><td>2</td><td>3</td><td>7</td></tr> <tr><td>9</td><td>5</td><td>1</td><td>4</td><td>8</td></tr> </table>	10	6	2	3	7	9	5	1	4	8
10	6	2	3	7																
9	5	1	4	8																
								M9x1.25x162mm (x10)												
Arosa 1.4L					05/97 →06/04	15	HBS075		1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°	<table border="1"> <tr><td>10</td><td>6</td><td>2</td><td>3</td><td>7</td></tr> <tr><td>9</td><td>5</td><td>1</td><td>4</td><td>8</td></tr> </table>	10	6	2	3	7	9	5	1	4	8
10	6	2	3	7																
9	5	1	4	8																
AEX/APQ	1391	4	76.50	SOHC		44/60		M11x1.50x110mm (x10)												
Arosa 1.4L 16V					01/00 →06/04	16	HBS249		1) 30Nm 2) 90° 3) 90°	<table border="1"> <tr><td>10</td><td>4</td><td>2</td><td>6</td><td>8</td></tr> <tr><td>7</td><td>5</td><td>1</td><td>3</td><td>9</td></tr> </table>	10	4	2	6	8	7	5	1	3	9
10	4	2	6	8																
7	5	1	3	9																
AQQ/AUB	1390	4	76.50	DOHC		74/100		M9x1.25x138mm (x10)												
AFK	1390	4	76.50	Motronic, DOHC		74/101														
Arosa 1.4L TDI Diesel					01/00 →06/04	17	HBS264		1) 40Nm 2) 60Nm 3) 90° 4) 90°	<table border="1"> <tr><td>5</td><td>1</td><td>3</td><td>7</td></tr> <tr><td>6</td><td>4</td><td>2</td><td>8</td></tr> </table>	5	1	3	7	6	4	2	8		
5	1	3	7																	
6	4	2	8																	
AMF	1422	3	79.50	SOHC		55/75		M12x1.75x166mm (x8)												
Arosa 1.7L SDI Diesel					08/97 →06/04	18	HBS018		1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°	<table border="1"> <tr><td>10</td><td>4</td><td>2</td><td>6</td><td>8</td></tr> <tr><td>7</td><td>5</td><td>1</td><td>3</td><td>9</td></tr> </table>	10	4	2	6	8	7	5	1	3	9
10	4	2	6	8																
7	5	1	3	9																
AKU	1716	4	79.50	SOHC		44/60		M12x1.75x115mm (x10)												

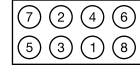




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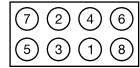
Cordoba 1.0L		06/99 → 10/02			19	<b>HBS362</b>  M9x1.25x162mm (x10)	1) 30Nm 2) 90° 3) 90°	
ALD/ANV	999	4	67.10	Motronic, SOHC	37/50			
AUC	999	4	67.10	SOHC	37/50			
Cordoba 1.0L i		09/96 → 06/99			20	<b>HBS249</b>  M9x1.25x138mm (x10)	1) 30Nm 2) 90° 3) 90°	
AER	999	4	67.10	SOHC	37/50			
Cordoba 1.2L 12V		05/06 →			21	<b>HBS471</b>  M9x1.25x138mm (x8)	1) 30Nm 2) 90° 3) 90°	
Cordoba 1.2L i		10/02 →						
AZQ	1198	3	76.50	DOHC	47/64			
BME	1198	3	76.50	SOHC	47/64			
BXV	1198	3	76.50	DOHC	51/70			
Cordoba 1.4L		06/99 → 10/02			22	<b>HBS362</b>  M9x1.25x162mm (x10)	1) 30Nm 2) 90° 3) 90°	
Cordoba 1.4L Vario		06/99 →						
AKK	1390	4	76.50	Motronic, SOHC	44/60			
ANW/AUD	1390	4	76.50	SOHC	44/60			
Cordoba 1.4L 16V		02/00 → 10/02			23	<b>HBS249</b>  M9x1.25x138mm (x10)	1) 30Nm 2) 90° 3) 90°	
Cordoba 1.4L 16V Vario		06/99 →						
APE	1390	4	76.50	SOHC	55/75			
AUA/BBY/BKY	1390	4	76.50	DOHC	55/75			
AQQ/AUB/BBZ	1390	4	76.50	DOHC	74/100			
Cordoba 1.4L i		06/94 → 06/99			24	<b>HBS043</b> ABD  M11x1.50x95mm (x10)	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°	
ABD	1390	4	75.00	Motronic, SOHC				
AKV/ANX	1390	4	76.50	SOHC	44/60			
					25	<b>HBS075</b> AKV, ANX  M11x1.50x110mm (x10)	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°	
AEX/APQ	1391	4	76.50	SOHC				
Cordoba 1.4L i 16V		09/96 → 06/99			26	<b>HBS360</b>  M11x1.50x142mm (x10)	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°	
AFH	1390	4	76.50	DOHC	74/101			
Cordoba 1.4L TDI Diesel		10/02 →			27	<b>HBS264</b>  M12x1.75x166mm (x8)	1) 40Nm 2) 60Nm 3) 90° 4) 90°	
BNM	1422	3	79.50	SOHC				
AMF	1422	3	79.50	SOHC	55/75			
BMS/BNV	1422	3	79.50	SOHC	59/80			
Cordoba 1.6L		06/99 → 10/02			28	<b>HBS246</b>  M10x1.50x120mm (x10)	1) 40Nm 2) 90° 3) 90°	
Cordoba 1.6L Vario		06/99 →						
APF	1595	4	81.00	SOHC	74/100			
AEH/AKL/AUR	1595	4	81.00	SOHC	74/101			



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<b>Cordoba 1.6L</b> 06/99 → 10/02 <b>29</b> <b>Cordoba 1.6L i</b> 02/93 → 06/99 <b>Cordoba 1.6L Vario</b> 06/99 →						<b>HBS075</b>  M11x1.50x110mm (x10)	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°	
ABU/AEE/ALM	1598	4	76.50	SOHC	55/75			
<b>Cordoba 1.6L 16V</b> 11/06 → <b>30</b> BTS						<b>HBS249</b>  M9x1.25x138mm (x10)	1) 30Nm 2) 90° 3) 90°	
	1598	4	76.50	DOHC	77/105			
<b>Cordoba 1.6L i</b> 05/94 → 06/99 <b>31</b> <b>Cordoba 1.6L i Vario</b> 09/96 → 06/99						<b>HBS043</b>  M11x1.50x95mm (x10)	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°	
TF	1595	4	81.00	SOHC	53/55/ 72/75			
AFT	1595	4	81.00	SOHC	74/101			
<b>Cordoba 1.6L i</b> 07/96 → 06/99 <b>32</b> AFT/AKL						<b>HBS043</b> AFT  M11x1.50x95mm (x10)	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°	
	1595	4	81.00	SOHC	74/101			
<b>Cordoba 1.8L i</b> 02/93 → 06/99 <b>33</b> ABS/ACC ADZ						<b>HBS043</b>  M11x1.50x95mm (x10)	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°	
	1781	4	81.00	SOHC	66/90			
	1781	4	81.00	Motronic, SOHC	66/90			
<b>Cordoba 1.8L i 16V</b> 10/93 → 08/96 <b>34</b> ADL						<b>HBS028</b>  M11x1.50x147mm (x10)	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°	
	1781	4	81.00	DOHC	95/129			
<b>Cordoba 1.8L T 20V Cupra</b> 07/00 → 10/02 <b>35</b> AQX/AYP						<b>HBS268</b>  M10x1.50x120mm (x10)	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 90° 5) 90°	
	1781	4	81.00	DOHC	115/156			
<b>Cordoba 1.9L D Diesel</b> 02/93 → 08/96 <b>36</b> <b>Cordoba 1.9L SDI Diesel</b> 08/96 → 10/02 <b>Cordoba 1.9L SDI Vario Diesel</b> 09/96 → 06/99 <b>Cordoba 1.9L TD Diesel</b> 02/93 → 08/96 <b>Cordoba 1.9L TDI Diesel</b> 08/96 → 10/02 <b>Cordoba 1.9L TDI Vario Diesel</b> 08/96 → 06/99						<b>HBS018</b>  M12x1.75x115mm (x10)	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°	
TY/AEY/ASY	1896	4	79.50	SOHC	47/64			
AGP/AQM	1896	4	79.50	SOHC	50/68			
AAZ	1896	4	79.50	SOHC	55/75			
IZ	1896	4	79.50	SOHC	66/89			
AGR/AHU/ALH	1896	4	79.50	SOHC	66/90			
AFN/ASK/ASV	1896	4	79.50	SOHC	81/110			
<b>Cordoba 1.9L TDI Diesel</b> 09/02 → <b>37</b> ATD/AXR BMT ASZ BLT								
	1896	4	79.50	SOHC	74/100			
	1896	4	79.50	SOHC	74/101			
	1896	4	79.50	SOHC	96/130			
	1896	4	79.50	SOHC	96/131			



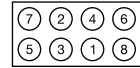
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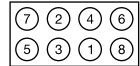
Cordoba 2.0L		09/02 →			38			
AZL/BBX	1984	4	82.50	SOHC	85/115	<b>HBS246</b>  M10x1.50x120mm (x10)	1) 40Nm 2) 90° 3) 90°	
Cordoba 2.0L i		02/93 → 06/99			39			
2E/AGG	1984	4	82.50	SOHC	85/115	<b>HBS043</b>  M11x1.50x95mm (x10)	1) 40Nm 2) 60Nm 3) ↺ 90° 4) 60Nm 5) 90° 6) 90°	
Cordoba 2.0L i 16V		08/96 → 06/99			40			
ABF	1984	4	82.50	DOHC	110/150	<b>HBS028</b> → Eng.ABF 031 251  M11x1.50x147mm (x10)	1) 40Nm 2) 60Nm 3) ↺ 90° 4) 60Nm 5) 90° 6) 90°	
Ibiza 0.9L		08/90 → 05/93			41			
09 NCA 146 A.000	903 903	4 4	65.00 65.00	SOHC	29/39 29-32/ 40-43	<b>HBS109</b>  M9x1.25x60mm (x1) M9x1.25x95mm (x9)	1) 30Nm 2) 90° 3) 90°	
Ibiza 1.0L		08/99 → 02/02			42			
ALD/ANV AUC	999 999	4 4	67.10 67.10	Motronic, SOHC SOHC	37/50 37/50	<b>HBS362</b>  M9x1.25x162mm (x10)	1) 30Nm 2) 90° 3) 90°	
Ibiza 1.0L		03/93 → 09/96			43			
AAU	1043	4	75.00	SOHC	33/45	<b>HBS043</b>  M11x1.50x95mm (x10)	1) 40Nm 2) 60Nm 3) ↺ 90° 4) 60Nm 5) 90° 6) 90°	
Ibiza 1.0L i		09/96 → 08/99			44			
AER	999	4	67.10	SOHC	37/50	<b>HBS249</b>  M9x1.25x138mm (x10)	1) 30Nm 2) 90° 3) 90°	
Ibiza 1.2L		11/84 → 12/93			45			
Ibiza 1.2L i		01/89 → 05/93						
021 A.1000	1193	4	75.00		44/46/ 52/60/ 63/70	<b>HBS044</b>  M12x1.75x115mm (x10)	1) 20Nm 2) 90° 3) 90°	
021 C.1000	1193	4	75.00	L-Jetronic, SOHC	52/71			
Ibiza 1.2L		02/02 →			46			
Ibiza 1.2L 12V		05/06 →						
Ibiza 1.2L Sport Coupe		07/08 →						
AZQ	1198	3	76.50	DOHC	47/64	<b>HBS471</b>  M9x1.25x138mm (x8)	1) 30Nm 2) 90° 3) 90°	
BME	1198	3	76.50	SOHC	47/64			
BXV/BZG/CGPA	1198	3	76.50	DOHC	51/70			
Ibiza 1.2L		06/07 → 05/08			47			
BBM	1198	3	76.50	DOHC	44/60	<b>HBS479</b>  M9x1.25x162mm (x8)	1) 15Nm 2) 30Nm 3) 90° 4) 90°	
Ibiza 1.3L i		03/93 → 08/99			48			
2G/AAV	1272	4	75.00	SOHC	40/54	<b>HBS043</b>  M11x1.50x95mm (x10)	1) 40Nm 2) 60Nm 3) ↺ 90° 4) 60Nm 5) 90° 6) 90°	



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Ibiza 1.4L						08/99 → 02/02	49	HBS362	1) 30Nm 2) 90° 3) 90°	
AKK	1390	4	76.50	Motronic, SOHC	44/60	SOHC	 M9x1.25x162mm (x10)			
ANW/AUD	1390	4	76.50		44/60					
Ibiza 1.4L 16V						08/99 → 02/02	50	HBS249	1) 30Nm 2) 90° 3) 90°	
APE	1390	4	76.50	SOHC	55/75	DOHC	 M9x1.25x138mm (x10)			
AUA/BBY/BKY	1390	4	76.50		55/75					
AQQ/AUB/BBZ	1390	4	76.50		74/100					
Ibiza 1.4L i						09/93 → 08/99	51	HBS043	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°	
ABD	1390	4	75.00	Motronic, SOHC	44/60	SOHC	 M11x1.50x95mm (x10)			
AKV	1390	4	76.50		44/60					
Ibiza 1.4L i						09/93 → 08/99	52	HBS075	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°	
AEX/APQ	1391	4	76.50	SOHC	44/60		 M11x1.50x110mm (x10)			
Ibiza 1.4L i 16V						09/96 → 08/99	53	HBS360	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°	
AFH	1390	4	76.50	DOHC	74/101		 M11x1.50x142mm (x10)			
Ibiza 1.4L TDI Diesel						05/02 →	54	HBS264	1) 40Nm 2) 60Nm 3) 90° 4) 90°	
BNM	1422	3	79.50	SOHC	51/70	SOHC	 M12x1.75x166mm (x8)			
AMF	1422	3	79.50		55/75					
BMS/BNV	1422	3	79.50		59/80					
Ibiza 1.5L						11/84 → 05/93	55	HBS044	1) 20Nm 2) 90° 3) 90°	
Ibiza 1.5L i						10/86 → 05/93		 M12x1.75x115mm (x10)		
021 A.2000	1461	4	83.00		63/66/ 85/90					
021 C.2000	1461	4	83.00	SOHC	65-66/ 88-90					
021 D.2000	1461	4	83.00	SOHC	65-66/ 89-90					
021 B.2000	1461	4	83.00		74/100					
Ibiza 1.6L						08/99 → 02/02	56	HBS246	1) 40Nm 2) 90° 3) 90°	
APF	1595	4	81.00	SOHC	74/100	SOHC	 M10x1.50x120mm (x10)			
AEH/AKL/AUR	1595	4	81.00		74/101					
Ibiza 1.6L						08/99 → 02/02	57	HBS075	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°	
Ibiza 1.6L i						03/93 → 08/99		 M11x1.50x110mm (x10)		
ABU/AEE/ALM	1598	4	76.50	SOHC	55/75					
Ibiza 1.6L 16V						11/06 →	58	HBS249	1) 30Nm 2) 90° 3) 90°	
BTS	1598	4	76.50	DOHC	77/105		 M9x1.25x138mm (x10)			



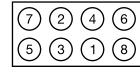
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Ibiza 1.6L i					09/94 → 08/99	59	HBS043  M11x1.50x95mm (x10)	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°	
TF	1595	4	81.00	SOHC	53/55/ 72/75				
AFT	1595	4	81.00	SOHC	74/101				
Ibiza 1.8L i					03/93 → 08/99	60	HBS043 → Eng. ADZ 011 565 ABS  M11x1.50x95mm (x10)	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°	
ABS/ACC	1781	4	81.00	SOHC	66/90				
ADZ	1781	4	81.00	Motronic, SOHC	66/90				
Ibiza 1.8L i 16V					11/93 → 08/96	61	HBS028  M11x1.50x147mm (x10)	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°	
ADL	1781	4	81.00	DOHC	95/129				
Ibiza 1.8L T 20V Cupra					07/00 → 02/02	62	HBS268  M10x1.50x120mm (x10)	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 90° 5) 90°	
Ibiza 1.8L T Cupra R					01/04 →				
Ibiza 1.8L T FR					12/03 →				
BJX	1781	4	81.00	DOHC	110/150				
BKV	1781	4	81.00		110/150				
AQX/AYP	1781	4	81.00	DOHC	115/156				
BBU/BLZ	1781	4	81.00	DOHC	132/180				
Ibiza 1.9L D Diesel					04/93 → 08/96	63	HBS018  M12x1.75x115mm (x10)	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°	
Ibiza 1.9L SDI Diesel					08/96 → 02/02				
Ibiza 1.9L TD Diesel					03/93 → 08/96				
Ibiza 1.9L TDI Diesel					08/96 → 02/02				
TY/AEY/ASY	1896	4	79.50	SOHC	47/64				
AGP/AQM	1896	4	79.50	SOHC	50/68				
AAZ	1896	4	79.50	SOHC	55/75				
IZ	1896	4	79.50	SOHC	66/89				
AGR/AHU/ALH	1896	4	79.50	SOHC	66/90				
AFN/ASK/ASV	1896	4	79.50	SOHC	81/110				
Ibiza 1.9L TDI Diesel					02/02 →	64	HBS300  M12x1.75x166mm (x10)	1) 40Nm 2) 60Nm 3) 90° 4) 90°	
Ibiza 1.9L TDI Cupra R Diesel					03/04 →				
Ibiza 1.9L TDI Sport Coupe Diesel					07/08 →				
BXJ	1896	4	79.50	SOHC	66/90				
ATD/AXR	1896	4	79.50	SOHC	74/100				
BMT	1896	4	79.50	SOHC	74/101				
BLS	1896	4	79.50	SOHC	77/105				
ASZ	1896	4	79.50	SOHC	96/130				
BLT	1896	4	79.50	SOHC	96/131				
BPX/BUK	1896	4	79.50	SOHC	118/160				
Ibiza 2.0L i					03/93 → 08/99	65	HBS043  M11x1.50x95mm (x10)	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°	
2E/AGG	1984	4	82.50	SOHC	85/115				
Ibiza 2.0L i 16V					08/96 → 08/99	66	HBS028 → Eng. ABF 031 251  M11x1.50x147mm (x10)	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°	
ABF	1984	4	82.50	DOHC	110/150				
Inca Van 1.4L 16V					04/00 →	67	HBS249  M9x1.25x138mm (x10)	1) 30Nm 2) 90° 3) 90°	
AUA	1390	4	76.50	DOHC	55/75				

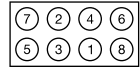




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Inca Van 1.4L i					11/95 →	68
AKV/AUD	1390	4	76.50	SOHC		44/60
<b>HBS075</b> AKV M11x1.50x110mm (x10) 1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°						
<b>HBS362</b> AUD M9x1.25x162mm (x10) 1) 30Nm 2) 90° 3) 90°						
Inca Van 1.4L i					11/95 →	69
AEX/APQ	1391	4	76.50	SOHC		44/60
<b>HBS075</b> M11x1.50x110mm (x10) 1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°						
Inca Van 1.6L i					11/95 → 05/98	70
AEE/ALM	1598	4	76.50	SOHC		55/75
<b>HBS075</b> M11x1.50x110mm (x10) 1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°						
Inca Van 1.6L i					11/95 → 05/98	71
TF	1595	4	81.00	SOHC		53/55/ 72/75
<b>HBS043</b> M11x1.50x95mm (x10) 1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°						
Inca Van 1.7L D Diesel					09/96 →	72
AHB	1716	4	79.50	SOHC		42/57
<b>HBS018</b> M12x1.75x115mm (x10) 1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°						
Inca Van 1.9L D Diesel					11/95 →	73
Inca Van 1.9L SDI Diesel					11/95 →	
Inca Van 1.9L TDI Diesel					09/96 →	
TY/AEY/AYQ	1896	4	79.50	SOHC		47/64
ALH	1896	4	79.50	SOHC		66/90
<b>HBS018</b> M12x1.75x115mm (x10) 1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°						
Leon 1.4L 16V					11/99 →	74
AHW/APE	1390	4	76.50	SOHC		55/75
AUA/AXP/BCA	1390	4	76.50	DOHC		55/75
<b>HBS249</b> M9x1.25x138mm (x10) 1) 30Nm 2) 90° 3) 90°						
Leon 1.6L					11/99 →	75
APF	1595	4	81.00	SOHC		74/100
AEH/AKL	1595	4	81.00	SOHC		74/101
BSE/BSF/CCSA	1595	4	81.00	SOHC		75/102
CMXA	1595	4	81.00	Intake Manifold Injection/ Carburettor, SOHC/OHC		75/102
<b>HBS246</b> M10x1.50x120mm (x10) 1) 40Nm 2) 90° 3) 90°						
Leon 1.6L 16 V					09/00 →	76
ATN/AUS/AZD/BCB	1598	4	76.50	DOHC		77/105
<b>HBS316</b> M9x1.25x97mm (x10) 1) 30Nm 2) 90° 3) 90°						

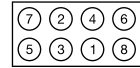




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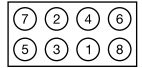
SEAT					cc	kW/PS	Washer	Washer	Washer		
<b>Leon 1.8L 20V</b>					1781	4	81.00	DOHC	92/125	<b>77</b> M10x1.50x120mm (x10) 1) 40Nm 2) 60Nm 3) ↻ 90° 4) 90° 5) 90°	
Leon 1.8L 20V T					1781	4	81.00	DOHC	132/180		
Leon 1.8L 20V T 4					1781	4	81.00	DOHC	154/209		
Leon 1.8L T Cupra R					1781	4	81.00	DOHC	165/225		
<b>Leon 1.9L SDI Diesel</b>					1896	4	79.50	SOHC	50/68	<b>78</b> M12x1.75x115mm (x10) 1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°	
Leon 1.9L TDI Diesel					1896	4	79.50	SOHC	66/90		
Leon 1.9L TDI Diesel					1896	4	79.50	SOHC	81/110		
<b>Leon 1.9L TDI Diesel</b>					1896	4	79.50	SOHC	66/90	<b>79</b> M12x1.75x166mm (x10) 1) 40Nm 2) 60Nm 3) 90° 4) 90°	
Leon 1.9L TDI Diesel					1896	4	79.50	SOHC	74/100		
Leon 1.9L TDI Diesel					1896	4	79.50	SOHC	77/105		
Leon 1.9L TDI Diesel					1896	4	79.50	SOHC	96/130		
<b>Leon 2.0L FSI</b>					1984	4	82.50	DOHC	110/150	<b>80</b> M10x1.50x122mm (x10) 1) 40Nm 2) 90° 3) 90°	
Leon 2.0L FSI					1984	4	82.50	DOHC	110/150		
<b>Leon 2.0L TDI Diesel</b>					1968	4	81.00	SOHC	103/140	<b>81</b> M12x1.75x166mm (x10) 1) 40Nm 2) 60Nm 3) 90° 4) 90°	
Leon 2.0L TDI Diesel					1968	4	81.00	SOHC	103/140		
<b>Leon 2.0L TDI Diesel</b>					1968	4	81.00	DOHC	100/136	<b>82</b> M12x1.75x149mm (x10) 1) 35Nm 2) 60Nm 3) 90° 4) 90°	
Leon 2.0L TDI Diesel					1968	4	81.00	DOHC	100/136		
<b>Leon 2.0L TDI Diesel</b>					1968	4	81.00	DOHC	125/170	<b>83</b> M12x1.75x149mm (x10) 1) 35Nm 2) 60Nm 3) 90° 4) 90°	
Leon 2.0L TDI Diesel					1968	4	81.00	Direct Injection, DOHC	125/170		
<b>Leon 2.0L TDI 16V Diesel</b>					1968	4	81.00	DOHC	103/140	<b>84</b> M12x1.75x149mm (x10) 1) 35Nm 2) 60Nm 3) 90° 4) 90°	
Leon 2.0L TDI 16V Diesel					1968	4	81.00	Direct Injection, DOHC	103/140		
<b>Malaga 1.2L</b>					1193	4	75.00		44/46/52/60/63/70	<b>85</b> M12x1.75x115mm (x10) 1) 20Nm 2) 90° 3) 90°	
Malaga 1.2L i					1193	4	75.00	L-Jetronic, SOHC	52/71		
<b>Malaga 1.5L</b>					1461	4	83.00		63/66/85/90	<b>86</b> M12x1.75x115mm (x10) 1) 20Nm 2) 90° 3) 90°	
Malaga 1.5L i					1461	4	83.00	SOHC	65-66/88-90		
Malaga 1.5L i					1461	4	83.00	SOHC	65-66/89-90		
Malaga 1.5L i					1461	4	83.00	SOHC	74/100		



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<b>Terra 0.9L</b> <b>Terra Van 0.9L</b>					02/87 → 12/96 01/87 → 12/95	<b>87</b>	<b>HBS109</b>  M9x1.25x60mm (x1) M9x1.25x95mm (x9)	1) 30Nm 2) 90° 3) 90°	
09 NCB 09 NCA	903 903	4 4	65.00			29/40 29/39			
<b>Terra 1.3L D Diesel</b> <b>Terra Van 1.3L D Diesel</b>					03/90 → 12/94 03/90 → 02/92	<b>88</b>	<b>HBS018</b>  M12x1.75x115mm (x10)	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°	
MN	1272	4	75.00	SOHC		33/44			
<b>Terra 1.4L D Diesel</b> <b>Terra Van 1.4L D Diesel</b>					10/90 → 12/95 10/90 → 02/92	<b>89</b>	<b>HBS018</b>  M12x1.75x115mm (x10)	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°	
TW	1398	4	75.00	SOHC		35/47			
<b>Toledo 1.4L 16V</b>					07/99 → 05/06	<b>90</b>	<b>HBS249</b>  M9x1.25x138mm (x10)	1) 30Nm 2) 90° 3) 90°	
AHW/APE AUA/AXP/BCA	1390 1390	4 4	76.50 76.50	SOHC DOHC		55/75 55/75			
<b>Toledo 1.6L</b>					04/99 → 09/00	<b>91</b>	<b>HBS246</b>  M10x1.50x120mm (x10)	1) 40Nm 2) 90° 3) 90°	
APF AEH/AKL BGU/BSE/BSF/CCSA	1595 1595 1595	4 4 4	81.00 81.00 81.00	SOHC SOHC SOHC		74/100 74/101 75/102			
<b>Toledo 1.6L 16V</b>					09/00 → 05/06	<b>92</b>	<b>HBS316</b>  M9x1.25x97mm (x10)	1) 30Nm 2) 90° 3) 90°	
AUS/AZD/BCB	1598	4	76.50	DOHC		77/105			
<b>Toledo 1.6L i</b>					05/91 → 03/99	<b>93</b>	<b>HBS043</b>  M11x1.50x95mm (x10)	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°	
EZ TF ABN AFT	1595 1595 1595 1595	4 4 4 4	81.00 81.00 81.00 81.00	SOHC SOHC SOHC SOHC		52-54/ 71-73 53/55/ 72/75 54-55/ 73-75 74/101			
<b>Toledo 1.8L 16V</b> <b>Toledo 1.8L GT Mk I</b>					05/91 → 03/99 05/91 → 11/92	<b>94</b>	<b>HBS028</b>  M11x1.50x147mm (x10)	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°	
PL KR	1781 1781	4 4	81.00 81.00	DOHC DOHC		95/129 98-102/ 133-139			
<b>Toledo 1.8L 20V</b> <b>Toledo 1.8L 20VT</b>					04/99 → 05/06 05/01 → 05/06	<b>95</b>	<b>HBS268</b>  M10x1.50x120mm (x10)	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 90° 5) 90°	
AGN/APG APP/AUQ	1781 1781	4 4	81.00 81.00	DOHC DOHC		92/125 132/180			
<b>Toledo 1.8L i</b>					11/93 → 12/96	<b>96</b>	<b>HBS043</b> → Eng.ADZ 011 565 ABS, ACC  M11x1.50x95mm (x10)	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°	
ABS/ACC ADZ	1781 1781	4 4	81.00 81.00	SOHC Motronic, SOHC		66/90 66/90			



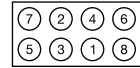
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Toledo 1.8L i		05/91 → 12/96			97			
RP	1781	4	81.00		66/89	<b>HBS043</b>  M11x1.50x95mm (x10)	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°	
Toledo 1.9L D Diesel		05/91 → 03/99			98			
Toledo 1.9L SDI Diesel		11/99 → 06/04						
Toledo 1.9L TD Diesel		05/91 → 03/99						
Toledo 1.9L TDI Diesel		08/95 → 05/06						
1Y	1896	4	79.50	SOHC	47/64	<b>HBS018</b>  M12x1.75x115mm (x10)	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°	
AQM	1896	4	79.50	SOHC	50/68			
AAZ	1896	4	79.50	SOHC	55/75			
1Z	1896	4	79.50	SOHC	66/89			
AGR/AHU/ALH	1896	4	79.50	SOHC	66/90			
AFN/AHF/ASV	1896	4	79.50	SOHC	81/110			
Toledo 1.9L TDI Diesel		05/03 → 05/06			99			
BJB/BKC/BLS/BXE	1896	4	79.50	SOHC	77/105	<b>HBS300</b>  M12x1.75x166mm (x10)	1) 40Nm 2) 60Nm 3) 90° 4) 90°	
ASZ	1896	4	79.50	SOHC	96/130			
Toledo 2.0L FSI		10/04 →			100			
BLR/BLY/BVY/BVZ	1984	4	82.50	DOHC	110/150	<b>HBS363</b>  M10x1.50x122mm (x10)	1) 40Nm 2) 90° 3) 90°	
Toledo 2.0L i		05/91 → 03/99			101			
2E/AGG	1984	4	82.50	SOHC	85/115	<b>HBS043</b>  M11x1.50x95mm (x10)	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°	
Toledo 2.0L i 16V		11/93 → 03/99			102			
ABF	1984	4	82.50	DOHC	110/150	<b>HBS028</b> → Eng.ABF 031 251  M11x1.50x147mm (x10)	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°	
Toledo 2.0L TDI Diesel		09/04 →			103			
AZV	1968	4	81.00	DOHC	100/136	<b>HBS364</b>  M12x1.75x149mm (x10)	1) 35Nm 2) 60Nm 3) 90° 4) 90°	
BKD	1968	4	81.00	DOHC	103/140			
Toledo 2.0L TDI Diesel		01/06 →			104			
BMN	1968	4	81.00	DOHC	125/170	<b>HBS364</b>  M12x1.75x149mm (x10)	1) 35Nm 2) 60Nm 3) 90° 4) 90°	
Toledo 2.0L TDI Diesel		01/06 →			105			
BMM	1968	4	81.00	SOHC	103/140	<b>HBS300</b>  M12x1.75x166mm (x10)	1) 40Nm 2) 60Nm 3) 90° 4) 90°	
Toledo 2.3L V5		04/99 → 05/01			106			
AGZ	2324	5	81.00	DOHC, V5	110/150	<b>HBS461</b>  M11x1,50x119mm (x9) M11x1,50x85mm (x6) M11x1,50x144mm (x3)	1) 30Nm 2) 50Nm 3) 90° 4) 90°	

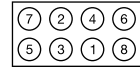




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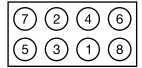
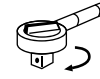
Model		cc	Cylinders	Power (kW/PS)	Engine Type	Year Range	Part Number	Dimensions	Torque	Angle	Sequence
<b>Fabia 1.2L</b>						07/01 →	<b>1</b>				
AWY/BMD		1198	3	76.50	SOHC			40/54			
							<b>HBS479</b>	M9x1.25x162mm (x8)	1) 15Nm 2) 30Nm 3) 90° 4) 90°		5 1 3 7 6 4 2 8
<b>Fabia 1.2L</b>						01/03 →	<b>2</b>				
AZQ/BME		1198	3	76.50	DOHC			47/64			
CEVA		1198	3	76.50	DOHC			51/70			
CGPA/CHTA		1198	3	76.50	DOHC, Straight			51/70			
BZG		1198	3	76.50	DOHC						
							<b>HBS471</b>	M9x1.25x138mm (x8)	1) 30Nm 2) 90° 3) 90°		8 1 3 5 6 4 2 7
<b>Fabia 1.4L</b>						02/06 → 10/06	<b>3</b>				
<b>Fabia 1.4L 16V</b>						10/99 → 12/07					
AUA/BBY/BKY		1390	4	76.50	DOHC			55/75			
AUB/BBZ		1390	4	76.50	DOHC			74/100			
BUD		1390	4	76.50	DOHC						
							<b>HBS249</b>	M9x1.25x138mm (x10)	1) 30Nm 2) 90° 3) 90°		10 4 2 6 8 7 5 1 3 9
<b>Fabia 1.4L TDI Diesel</b>						04/03 →	<b>4</b>				
BNM		1422	3	79.50	SOHC			51/70			
AMF		1422	3	79.50	SOHC			55/75			
BNV		1422	3	79.50	SOHC			59/80			
							<b>HBS264</b>	M12x1.75x166mm (x8)	1) 40Nm 2) 60Nm 3) 90° 4) 90°		5 1 3 7 6 4 2 8
<b>Fabia 1.6L</b>						03/07 →	<b>5</b>				
BTS		1598	4	76.50	DOHC			77/105			
CFNA		1598	4	76.50	Intake Manifold Injection/ Carburettor, DOHC			77/105			
							<b>HBS249</b>	M9x1.25x138mm (x10)	1) 30Nm 2) 90° 3) 90°		10 4 2 6 8 7 5 1 3 9
<b>Fabia 1.9L SDI Diesel</b>						11/99 →	<b>6</b>				
ASY		1896	4	79.50	SOHC			47/64			
							<b>HBS018</b>	M12x1.75x115mm (x10)	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°		10 4 2 6 8 7 5 1 3 9
<b>Fabia 1.9L TDI Diesel</b>						01/00 →	<b>7</b>				
<b>Fabia 1.9L TDI RS Diesel</b>						06/03 →					
ATD/AXR		1896	4	79.50	SOHC			74/100			
BLS/BSW		1896	4	79.50	SOHC			77/105			
BLT		1896	4	79.50	SOHC			96/130			
ASZ		1896	4	79.50	SOHC			96/131			
							<b>HBS300</b>	M12x1.75x166mm (x10)	1) 40Nm 2) 60Nm 3) 90° 4) 90°		10 4 2 6 8 7 5 1 3 9
<b>Fabia 2.0L</b>						12/99 →	<b>8</b>				
AQY/AZL		1984	4	82.50	SOHC			85/116			
							<b>HBS246</b>	M10x1.50x120mm (x10)	1) 40Nm 2) 90° 3) 90°		10 4 2 6 8 7 5 1 3 9
<b>Favorit 1.3L</b>						08/91 → 06/97	<b>9</b>				
<b>Favorit 135</b>						10/90 → 09/94					
<b>Favorit 135 L</b>						05/89 → 09/94					
<b>Favorit 135 X, LX, GLX</b>						01/90 → 09/94					
<b>Favorit 136</b>						10/90 → 09/94					
OHC		1289	4					40-45/ 55-61			
136 L		1289	4					45/61			
135B		1289	4	75.50				40/54			
781.135/781.135E		1289	4	75.50				40-50/ 54-68			
136B		1289	4	75.50				50/68			
							<b>HBS173</b>	M11x1.50x168mm (x7) M11x1.50x133mm (x1) M11x1.50x182mm (x2)	1) 20Nm 2) 90° 3) 90°		10 6 2 3 7 9 5 1 4 8
<b>Felicia 1.3L</b>						01/98 → 06/01	<b>10</b>				
AMG		1289	4	75.50				40/54			
							<b>HBS308</b>	M10x1.25x99mm (x8) M12x1.25x151mm (x2)	1) 35Nm 2) 35Nm 3) 65° 4) 65°		8 6 1 3 9 10 4 2 5 7



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Model and Year Range					11	Part Number	Specifications	Ordering Grid										
<b>Felicia 1.6L</b> 06/97 → 06/01					11	<b>HBS075</b>  M11x1.50x110mm (x10)	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°	<table border="1"> <tr><td>10</td><td>6</td><td>2</td><td>3</td><td>7</td></tr> <tr><td>9</td><td>5</td><td>1</td><td>4</td><td>8</td></tr> </table>	10	6	2	3	7	9	5	1	4	8
10	6	2	3	7														
9	5	1	4	8														
<b>Felicia 1.6L GLX</b> 08/95 → 03/98																		
<b>Felicia 1.6L LX</b> 08/95 → 03/98																		
EA111	1598	4		55/75														
AEE	1598	4	76.50	SOHC	55/75													
<b>Felicia 1.9L D Diesel</b> 10/95 → 06/01					12	<b>HBS018</b>  M12x1.75x115mm (x10)	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°	<table border="1"> <tr><td>10</td><td>4</td><td>2</td><td>6</td><td>8</td></tr> <tr><td>7</td><td>5</td><td>1</td><td>3</td><td>9</td></tr> </table>	10	4	2	6	8	7	5	1	3	9
10	4	2	6	8														
7	5	1	3	9														
AEE	1896	4	79.50	SOHC	47/64													
<b>Octavia 1.4L</b> 06/04 →					13	<b>HBS249</b>  M9x1.25x138mm (x10)	1) 30Nm 2) 90° 3) 90°	<table border="1"> <tr><td>10</td><td>4</td><td>2</td><td>6</td><td>8</td></tr> <tr><td>7</td><td>5</td><td>1</td><td>3</td><td>9</td></tr> </table>	10	4	2	6	8	7	5	1	3	9
10	4	2	6	8														
7	5	1	3	9														
<b>Octavia 1.4L 16V</b> 08/00 →																		
AXP/BCA	1390	4	76.50	DOHC	55/75													
CGGA	1390	4	76.50	Intake Manifold Injection/ Carburettor, DOHC	59/80													
BUD	1390	4	76.50	DOHC														
<b>Octavia 1.6L</b> 02/97 →					14	<b>HBS246</b>  M10x1.50x120mm (x10)	1) 40Nm 2) 90° 3) 90°	<table border="1"> <tr><td>10</td><td>4</td><td>2</td><td>6</td><td>8</td></tr> <tr><td>7</td><td>5</td><td>1</td><td>3</td><td>9</td></tr> </table>	10	4	2	6	8	7	5	1	3	9
10	4	2	6	8														
7	5	1	3	9														
AEH/AKL	1595	4	81.00	SOHC					74/100									
AVU/BFQ/BGU/BSE/BSF/CCSA	1595	4	81.00	SOHC	75/102													
CMXA	1595	4	81.00	Intake Manifold Injection/ Carburettor, SOHC/OHC	75/102													
<b>Octavia 1.6L</b> 09/96 → 09/00					15	<b>HBS075</b>  M11x1.50x110mm (x10)	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°	<table border="1"> <tr><td>10</td><td>6</td><td>2</td><td>3</td><td>7</td></tr> <tr><td>9</td><td>5</td><td>1</td><td>4</td><td>8</td></tr> </table>	10	6	2	3	7	9	5	1	4	8
10	6	2	3	7														
9	5	1	4	8														
AEE	1598	4	76.50	SOHC	55/75													
<b>Octavia 1.6L FSI</b> 06/04 →					16	<b>HBS249</b>  M9x1.25x138mm (x10)	1) 30Nm 2) 90° 3) 90°	<table border="1"> <tr><td>10</td><td>4</td><td>2</td><td>6</td><td>8</td></tr> <tr><td>7</td><td>5</td><td>1</td><td>3</td><td>9</td></tr> </table>	10	4	2	6	8	7	5	1	3	9
10	4	2	6	8														
7	5	1	3	9														
BLF	1598	4	76.50	DOHC	85/115													
<b>Octavia 1.8L</b> 09/96 →					17	<b>HBS268</b> Eng.AGN 107 001 →  M10x1.50x120mm (x10)	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 90° 5) 90°	<table border="1"> <tr><td>10</td><td>4</td><td>2</td><td>6</td><td>8</td></tr> <tr><td>7</td><td>5</td><td>1</td><td>3</td><td>9</td></tr> </table>	10	4	2	6	8	7	5	1	3	9
10	4	2	6	8														
7	5	1	3	9														
<b>Octavia 1.8L 20V</b> 07/98 →																		
AGN	1781	4	81.00	DOHC	92/125													
<b>Octavia 1.8L T</b> 08/97 →					18	<b>HBS268</b>  M10x1.50x120mm (x10)	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 90° 5) 90°	<table border="1"> <tr><td>10</td><td>4</td><td>2</td><td>6</td><td>8</td></tr> <tr><td>7</td><td>5</td><td>1</td><td>3</td><td>9</td></tr> </table>	10	4	2	6	8	7	5	1	3	9
10	4	2	6	8														
7	5	1	3	9														
<b>Octavia 1.8L T 4x4</b> 05/01 →																		
<b>Octavia RS 1.8L T</b> 05/01 →																		
AGU/ARX/ARZ/AUM	1781	4	81.00	Motronic, DOHC	110/150													
AUQ	1781	4	81.00	DOHC	132/180													
<b>Octavia 1.9L SDI Diesel</b> 06/97 →					19	<b>HBS018</b>  M12x1.75x115mm (x10)	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°	<table border="1"> <tr><td>10</td><td>4</td><td>2</td><td>6</td><td>8</td></tr> <tr><td>7</td><td>5</td><td>1</td><td>3</td><td>9</td></tr> </table>	10	4	2	6	8	7	5	1	3	9
10	4	2	6	8														
7	5	1	3	9														
<b>Octavia 1.9L TDI Diesel</b> 09/96 →																		
AGP/AQM	1896	4	79.50	SOHC	50/68													
AGR/ALH	1896	4	79.50	SOHC	66/89													
AHF/ASV	1896	4	79.50	SOHC	81/110													
<b>Octavia 1.9L TDI Diesel</b> 08/00 →					20	<b>HBS300</b>  M12x1.75x116mm (x10)	1) 40Nm 2) 60Nm 3) 90° 4) 90°	<table border="1"> <tr><td>10</td><td>4</td><td>2</td><td>6</td><td>8</td></tr> <tr><td>7</td><td>5</td><td>1</td><td>3</td><td>9</td></tr> </table>	10	4	2	6	8	7	5	1	3	9
10	4	2	6	8														
7	5	1	3	9														
<b>Octavia 1.9L TDI 4x4 Diesel</b> 09/00 →																		
ATD/AXR	1896	4	79.50	SOHC	74/100													
BJB/BKC/BLS/BXE	1896	4	79.50	SOHC	77/105													
ASZ	1896	4	79.50	SOHC	96/131													
<b>Octavia 2.0L</b> 04/99 →					21	<b>HBS246</b>  M10x1.50x120mm (x10)	1) 40Nm 2) 90° 3) 90°	<table border="1"> <tr><td>10</td><td>4</td><td>2</td><td>6</td><td>8</td></tr> <tr><td>7</td><td>5</td><td>1</td><td>3</td><td>9</td></tr> </table>	10	4	2	6	8	7	5	1	3	9
10	4	2	6	8														
7	5	1	3	9														
<b>Octavia 2.0L 4x4</b> 05/01 →																		
AEG/APK/AQY/AZH/AZI	1984	4	82.50	SOHC	85/116													



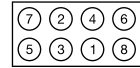
# SKODA



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kW/PS



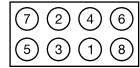
Model					Year	Power (kW/PS)	Valves	Configuration	Part Number	Dimensions	Torque	Chart
<b>Octavia 2.0L FSI</b>					11/04 →	<b>22</b>			<b>HBS363</b>	M10x1.50x122mm (x10)	1) 40Nm 2) 90° 3) 90°	
BLR/BLY/BVY/BVZ	1984	4	82.50	DOHC	110/150							
BLX/BVX	1984	4	82.50	DOHC								
<b>Octavia 2.0L TDI Diesel</b>					11/05 →	<b>23</b>			<b>HBS300</b>	M12x1.75x166mm (x10)	1) 40Nm 2) 60Nm 3) 90° 4) 90°	
BMM	1968	4	81.00	SOHC	103/140							
<b>Octavia 2.0L TDI 16V Diesel</b>					06/04 →	<b>24</b>			<b>HBS364</b>	M12x1.75x149mm (x10)	1) 35Nm 2) 60Nm 3) 90° 4) 90°	
BKD	1968	4	81.00	DOHC	103/140							
	1968	4	81.00	DOHC, Straight	103/140							
	1968	4	81.00	Direct Injection, DOHC	103/140							
<b>Praktik 1.2L</b>					03/07 →	<b>25</b>			<b>HBS471</b>	M9x1.25x138mm (x8)	1) 30Nm 2) 90° 3) 90°	
CGPA	1198	3	76.50	DOHC, Straight	51/70							
BZG	1198	3	76.50	DOHC								
<b>Roomster 1.2L</b>					09/06 →	<b>26</b>			<b>HBS471</b>	M9x1.25x138mm (x8)	1) 30Nm 2) 90° 3) 90°	
BME	1198	3	76.50	DOHC	47/64							
CGPA	1198	3	76.50	DOHC, Straight	51/70							
BZG	1198	3	76.50	DOHC								
<b>Roomster 1.4L</b>					09/06 →	<b>27</b>			<b>HBS249</b>	M9x1.25x138mm (x10)	1) 30Nm 2) 90° 3) 90°	
CGGB	1390	4	76.50	Intake Manifold Injection/ Carburettor, DOHC	63/85							
BXW	1390	4	76.50	DOHC	63/86							
<b>Roomster 1.4L TDI Diesel</b>					09/06 →	<b>28</b>			<b>HBS264</b>	M12x1.75x166mm (x8)	1) 40Nm 2) 60Nm 3) 90° 4) 90°	
BNM	1422	3	79.50	SOHC	51/70							
BMS/BNV	1422	3	79.50	SOHC	59/80							
<b>Roomster 1.6L</b>					09/06 →	<b>29</b>			<b>HBS249</b>	M9x1.25x138mm (x10)	1) 30Nm 2) 90° 3) 90°	
BTS	1598	4	76.50	DOHC	77/105							
CFNA	1598	4	76.50	Intake Manifold Injection/ Carburettor, DOHC	77/105							
<b>Roomster 1.9L TDI Diesel</b>					03/06 → 05/06	<b>30</b>			<b>HBS300</b>	M12x1.75x166mm (x10)	1) 40Nm 2) 60Nm 3) 90° 4) 90°	
AXR	1896	4	79.50	SOHC	74/100							
BLS/BSW	1896	4	79.50	SOHC	77/105							
<b>Superb 1.8L T</b>					02/02 →	<b>31</b>			<b>HBS268</b>	M10x1.50x120mm (x10)	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 90° 5) 90°	
AWT	1781	4	81.00	DOHC	110/150							
<b>Superb 1.9L TDI Diesel</b>					02/02 → 11/10	<b>32</b>			<b>HBS300</b>	M12x1.75x166mm (x10)	1) 40Nm 2) 60Nm 3) 90° 4) 90°	
AVB	1896	4	79.50	SOHC	74/100							
BLS/BXE	1896	4	79.50	SOHC	77/105							
AVF/AWX	1896	4	79.50	SOHC	96/131							
BPZ/BSV	1896	4	79.50	SOHC								
<b>Superb 2.0L</b>					02/02 →	<b>33</b>			<b>HBS246</b>	M10x1.50x120mm (x10)	1) 40Nm 2) 90° 3) 90°	
AZM	1984	4	82.50	SOHC	85/116							



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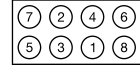
Superb 2.0L TDI Diesel		10/05 → 03/10			34	HBS300	1) 40Nm 2) 60Nm 3) 90° 4) 90°	<table border="1"> <tr><td>7</td><td>2</td><td>4</td><td>6</td></tr> <tr><td>5</td><td>3</td><td>1</td><td>8</td></tr> </table>	7	2	4	6	5	3	1	8								
7	2	4	6																					
5	3	1	8																					
BMP/BSS	1968	4	81.00	SOHC	103/140	 M12x1.75x166mm (x10)	<table border="1"> <tr><td>10</td><td>4</td><td>2</td><td>6</td><td>8</td></tr> <tr><td>7</td><td>5</td><td>1</td><td>3</td><td>9</td></tr> </table>	10	4	2	6	8	7	5	1	3	9							
10	4	2	6	8																				
7	5	1	3	9																				
Superb 2.5L TDI Diesel		02/02 →			35	HBS265	1) 35Nm 2) 60Nm 3) 90° 4) 90°	<table border="1"> <tr><td>7</td><td>3</td><td>2</td><td>5</td></tr> <tr><td>6</td><td>1</td><td>4</td><td>8</td></tr> <tr><td>6</td><td>1</td><td>4</td><td>8</td></tr> <tr><td>7</td><td>3</td><td>2</td><td>5</td></tr> </table>	7	3	2	5	6	1	4	8	6	1	4	8	7	3	2	5
7	3	2	5																					
6	1	4	8																					
6	1	4	8																					
7	3	2	5																					
AYM	2496	6	78.30	DOHC, V6	114/155	 M12x1.50x155mm (x16)																		
Superb 2.5L TDI Diesel		06/03 →			36	HBS361	1) 40Nm 2) 60Nm 3) 90° 4) 90°	<table border="1"> <tr><td>7</td><td>3</td><td>2</td><td>5</td></tr> <tr><td>6</td><td>1</td><td>4</td><td>8</td></tr> <tr><td>6</td><td>1</td><td>4</td><td>8</td></tr> <tr><td>7</td><td>3</td><td>2</td><td>5</td></tr> </table>	7	3	2	5	6	1	4	8	6	1	4	8	7	3	2	5
7	3	2	5																					
6	1	4	8																					
6	1	4	8																					
7	3	2	5																					
BDG	2496	6	78.30	DOHC, V6	120/163	 M12x1.50x159mm (x16)																		



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kW/PS



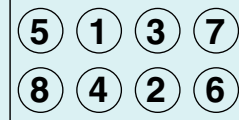
Cabrio Convertible 0.6L		03/00 → 01/04		1	
M 160 E6AL B03	599	3	63.50	SOHC	40/55
M 160 E6AL B05	599	3	63.50	SOHC	45/61
Cabrio Convertible 0.7L		01/03 → 01/04		2	
	698	3			45/61
	698	3			55/75
Cabrio Convertible 0.8L CDI Diesel		03/01 → 01/04		3	
OM 660 DE 8LA	799	3	65.50	SOHC	30/41
City-Coupe 0.6L		07/98 → 01/04		4	
M 160.910	599	3		Intake Manifold Injection/ Carburettor, SOHC/OHC	52/71
M 160 E6AL B04	599	3	63.50	SOHC	33/45
M 160 E6AL B03	599	3	63.50	SOHC	40/55
M 160 E6AL B05	599	3	63.50	SOHC	45/61
City-Coupe 0.7L		01/03 → 01/04		5	
	698	3			37/50
	698	3			45/61
	698	3			55/75
City-Coupe 0.8L CDI Diesel		11/99 → 01/04		6	
OM 660 DE 8LA	799	3	65.50	SOHC	30/41
Crossblade Convertible 0.6L		06/02 →		7	
	599	3			52/71
Fortwo 0.7L		01/04 →		8	
M 160.920	698	3			37/50
	698	3			45/61
	698	3			55/75
Fortwo 0.8L CDI Diesel		01/07 →		9	
Fortwo Cabrio 0.8L CDI Diesel		01/04 →			
Fortwo Coupe 0.8L CDI Diesel		01/04 →			
OM 660 DE 8LA	799	3	65.50	SOHC	30/41
OM 660.950	799	3	65.50		33/45
Roadster Convertible 0.7L		04/03 →		10	
Roadster Convertible 0.7L Brabus		12/03 →			
Roadster Coupe 0.7L		04/03 →			
Roadster Coupe 0.7L Brabus		12/03 →			
	698	3			45/61
	698	3			60/82
M 160.923	698	3			74/101

HBS349



M9x1.25x145mm (x8)

- 1) 20Nm
- 2) 90°
- 3) 90°
- 4) 10Nm

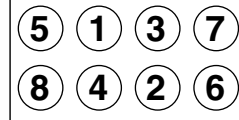


HBS349



M9x1.25x145mm (x8)

- 1) 20Nm
- 2) 90°
- 3) 90°
- 4) 10Nm

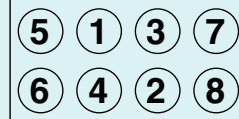


HBS460



M10x1.50x154mm (x8)

- 1) 30Nm
- 2) 90°
- 3) 90°
- 4) 90°

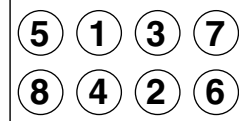


HBS349



M9x1.25x145mm (x8)

- 1) 20Nm
- 2) 90°
- 3) 90°
- 4) 10Nm

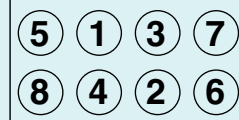


HBS349



M9x1.25x145mm (x8)

- 1) 20Nm
- 2) 90°
- 3) 90°
- 4) 10Nm

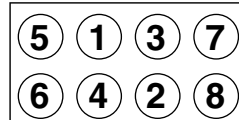


HBS460



M10x1.50x154mm (x8)

- 1) 30Nm
- 2) 90°
- 3) 90°
- 4) 90°

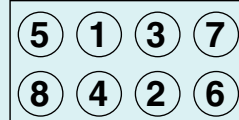


HBS349



M9x1.25x145mm (x8)

- 1) 20Nm
- 2) 90°
- 3) 90°
- 4) 10Nm

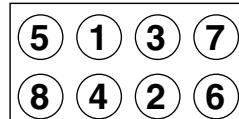


HBS349



M9x1.25x145mm (x8)

- 1) 20Nm
- 2) 90°
- 3) 90°
- 4) 10Nm

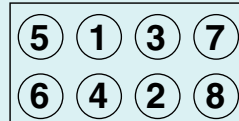


HBS460



M10x1.50x154mm (x8)

- 1) 30Nm
- 2) 90°
- 3) 90°
- 4) 90°

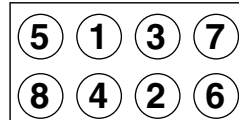


HBS349



M9x1.25x145mm (x8)

- 1) 20Nm
- 2) 90°
- 3) 90°
- 4) 10Nm







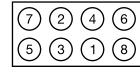
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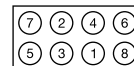
Forester 2.0L		08/97 → 09/02		1				
Forester 2.0L S Turbo		06/98 → 04/01						
EJ20	1994	4	92.00	DOHC, Boxer	92/125	M11x1.25x169mm (x12)	1) 30Nm 2) 70Nm 3) ↻ 180° 4) ↻ 180° 5) (1-2) 34Nm 6) (3-6) 15Nm 7) 90° 8) 90°	
Forester 2.0L S Turbo		04/01 → 09/02		2				
EJ205	1994	4	92.00	DOHC, Boxer	160-125/ 218-170	M11x1.25x190mm (x12)	1) 30Nm 2) 70Nm 3) ↻ 180° 4) ↻ 180° 5) (1-2) 34Nm 6) (3-6) 15Nm 7) 90° 8) 90°	
Forester 2.5L		12/03 →		3				
Forester 2.5L RX Nato AWD		11/02 → 08/05						
EJ25	2457	4	99.50	SOHC	115-155/ 156-211	M11x1.25x169mm (x12)	1) 30Nm 2) 70Nm 3) ↻ 180° 4) ↻ 180° 5) (1-2) 34Nm 6) (3-6) 15Nm 7) 90° 8) 90°	
Impreza 1.6L		12/96 → 12/00		4				
EJ161	1597	4	87.90	SOHC, Boxer	66-70/ 90-95	M11x1.25x190mm (x12)	1) 30Nm 2) 70Nm 3) ↻ 180° 4) ↻ 180° 5) (1-2) 34Nm 6) (3-6) 15Nm 7) 90° 8) 90°	
						M11x1.25x169mm (x12)	1) 30Nm 2) 70Nm 3) ↻ 180° 4) ↻ 180° 5) (1-2) 34Nm 6) (3-6) 15Nm 7) 90° 8) 90°	
Impreza 1.6L		12/00 →		5				
Impreza 1.6L i		06/98 → 12/00						
Impreza 1.6L i 4WD		06/98 → 12/00						
EJ161	1597	4	87.90	SOHC, Boxer	66-70/ 90-95	M11x1.25x169mm (x12)	1) 30Nm 2) 70Nm 3) ↻ 180° 4) ↻ 180° 5) (1-2) 34Nm 6) (3-6) 15Nm 7) 90° 8) 90°	
EJ16	1597	4	87.90	SOHC, Boxer	70/95			
Impreza 1.6L		12/96 → 12/00		6				
Impreza 1.6L i		08/92 → 12/00						
Impreza 1.6L i 4WD		08/92 → 12/00						
EJ16E	1597	4	87.90	Intake Manifold Injection/ Carburettor, SOHC/OHC, BOXER	66/90	M11x1.25x190mm (x12)	1) 30Nm 2) 70Nm 3) ↻ 180° 4) ↻ 180° 5) (1-2) 34Nm 6) (3-6) 15Nm 7) 90° 8) 90°	
EJ16	1597	4	87.90	SOHC, Boxer	70/95			
Impreza 1.8L i 4WD		08/92 → 12/00		7				
EJ18	1820	4	87.90	SOHC	76/103	M11x1.25x190mm (x12)	1) 30Nm 2) 70Nm 3) ↻ 180° 4) ↻ 180° 5) (1-2) 34Nm 6) (3-6) 15Nm 7) 90° 8) 90°	
EJ18E	1820	4	87.90	SOHC				



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kW/PS



<b>Impreza 2.0L</b> 11/95 → 09/00 <b>Impreza 2.0L 16V</b> 06/98 → 12/00 <b>Impreza 2.0L 4WD</b> 12/95 → 12/00 <b>Impreza 2.0L i 4WD</b> 10/95 → 12/00 <b>Impreza Coupe 2.0L 4WD</b> 12/95 → 12/00 <b>Impreza Coupe 2.0L Turbo 4WD</b> 12/96 → 12/00					<b>8</b>	<b>HBS405</b>  M11x1.25x169mm (x12)	1) 30Nm 2) 70Nm 3) ↻ 180° 4) ↻ 180° 5) (1-2) 34Nm 6) (3-6) 15Nm 7) 90° 8) 90°	
EJ20 1994 4 92.00 DOHC, Boxer 92/125 EJ20E 1994 4 92.00 SOHC, Boxer 103-85/ EJ20G 1994 4 92.00 DOHC, Boxer 140-116 147/200								
<b>Impreza 2.0L i Turbo 4WD</b> 03/94 → 12/00 <b>Impreza 2.0L Turbo GT 4WD</b> 03/94 → 12/00					<b>9</b>	<b>HBS218</b>  M11x1.25x190mm (x12)	1) 30Nm 2) 70Nm 3) ↻ 180° 4) ↻ 180° 5) (1-2) 34Nm 6) (3-6) 15Nm 7) 90° 8) 90°	
EJ20 (Turbo) 1994 4 DOHC, Boxer 155/211								
<b>Legacy 1800</b> 01/89 → 07/94 <b>Legacy 1800 4WD</b> 01/89 → 07/94					<b>10</b>	<b>HBS218</b>  M11x1.25x190mm (x12)	1) 30Nm 2) 70Nm 3) ↻ 180° 4) ↻ 180° 5) (1-2) 34Nm 6) (3-6) 15Nm 7) 90° 8) 90°	
EJ18 SPI 1820 4 76/103								
<b>Legacy 2.0L</b> 12/98 → 08/03 <b>Legacy 2.0L i 4WD</b> 09/94 → 03/99 <b>Legacy 2000 Turbo 4WD</b> 05/92 → 07/94 <b>Legacy 2000 Turbo Super 4WD</b> 05/92 → 07/94					<b>11</b>	<b>HBS405</b>  M11x1.25x169mm (x12)	1) 30Nm 2) 70Nm 3) ↻ 180° 4) ↻ 180° 5) (1-2) 34Nm 6) (3-6) 15Nm 7) 90° 8) 90°	
EJ20-GN 1994 4 DOHC 147/200 EJ20 1994 4 92.00 DOHC, Boxer 92/125								
<b>Legacy 2.0L i</b> 09/94 → 03/99 <b>Legacy 2000</b> 09/91 → 12/93 <b>Legacy 2000 4WD</b> 08/91 → 07/94					<b>12</b>	<b>HBS218</b> → 12/97  M11x1.25x190mm (x12)	1) 30Nm 2) 70Nm 3) ↻ 180° 4) ↻ 180° 5) (1-2) 34Nm 6) (3-6) 15Nm 7) 90° 8) 90°	
EJ20 EMPI 1994 4 DOHC, Boxer 85/116 EJ20E 1994 4 92.00 SOHC, Boxer 103-85/ 140-116								
<b>Legacy 2.0L i 4WD</b> 09/94 → 03/99 <b>Legacy 2200 4WD</b> 01/89 → 07/94 <b>Legacy 2200 Super 4WD</b> 01/89 → 07/94					<b>13</b>	<b>HBS405</b> 01/98 →  M11x1.25x169mm (x12)	1) 30Nm 2) 70Nm 3) ↻ 180° 4) ↻ 180° 5) (1-2) 34Nm 6) (3-6) 15Nm 7) 90° 8) 90°	
EJ22 EMPI 2212 4 96.90 SOHC, Boxer 94-100/ 128-136								



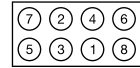
# SUBARU



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kW/PS



Legacy 2.5L Legacy 2.5L i 4WD Legacy 2.5L Mk IV						10/98 → 08/03 06/96 → 03/99 09/03 →	14	HBS405	1) 30Nm 2) 70Nm 3) ↺ 180° 4) ↺ 180° 5) (1-2) 34Nm 6) (3-6) 15Nm 7) 90° 8) 90°	
EJ25D	2457	4	99.50	DOHC	110/150		 M11x1.25x169mm (x12)			
EJ25	2457	4	99.50	SOHC	115-155/ 156-211					
Outback 2.5L						10/00 → 08/03	15	HBS405	1) 30Nm 2) 70Nm 3) ↺ 180° 4) ↺ 180° 5) (1-2) 34Nm 6) (3-6) 15Nm 7) 90° 8) 90°	
EJ25D	2457	4	99.50	DOHC	110/150		 M11x1.25x169mm (x12)			
EJ25	2457	4	99.50	SOHC	115-155/ 156-211					

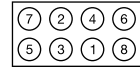




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kW/PS



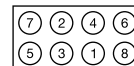
Model	Year	Cylinders	Power (kW/PS)	Engine Type	Part No.	Dimensions	Notes	Diagram
<b>Baleno 1.9L TD Diesel</b>	04/98 → 05/02	4	55/75		<b>HBS088</b>	M12x1.50x145mm (x10)	1) 20Nm 2) 40Nm 3) 60Nm 4) ↻ 90° 5) 60Nm 6) 110° 7) 110°	
					<b>HBS277</b>	M12x1.50x148mm (x10)	1) 20Nm 2) 40Nm 3) 60Nm 4) ↻ 90° 5) 60Nm 6) 110° 7) 110°	
<b>Grand Vitara 2.0L Grand Vitara 2.0L Allrad</b>	03/98 → 10/05 →	4	94-97/ 128-132	DOHC	<b>HBS447</b>	M11x1.50x116mm (x10) M6x1x40mm (x1)	1) 26Nm 2) 53Nm 3) 84Nm 4) ↻ 360° 5) 26Nm 6) 53Nm 7) 105Nm <b>M6</b> 1) 11Nm	
<b>Grand Vitara 2.0L HDI 110 Diesel</b>	07/01 →	4	85.00	DOHC	<b>HBS261</b>	M12x1.50x126mm (x10)	1) 20Nm 2) 60Nm 3) 220°	
<b>Grand Vitara 2.0L TD Intercooler Diesel</b>	03/98 →	4	86.00		<b>HBS211</b>	M12x1.50x113mm (x10)	1) 30Nm 2) 90° 3) 90°	
<b>Ignis 1.3L DDiS Diesel</b>	09/03 →	4	69.60	DOHC	<b>HBS353</b>	M10x1.25x119mm (x10)	1) 20Nm 2) 40Nm 3) 90° 4) 90°	
<b>Liana DDiS Diesel</b>	03/05 →	4	73.70	SOHC	<b>HBS359</b>	M11x1.50x150mm (x10)	1) 149Nm 2) 20Nm 3) 40Nm 4) 230°	
<b>Splash 1.3L CDTi Diesel</b>	01/08 →	4	69.60	DOHC	<b>HBS353</b>	M10x1.25x119mm (x10)	1) 20Nm 2) 40Nm 3) 90° 4) 90°	
<b>Swift 1.0L Swift 1.0L i</b>	03/89 → 05/01 03/89 → 05/01	3	37-40/ 50-54		<b>HBS408</b>	M10x1.50x100mm (x8)	1) 30Nm 2) 50Nm 3) 70Nm	
<b>Swift 1.3L DDiS Diesel</b>	08/05 →	4	69.60	DOHC	<b>HBS353</b>	M10x1.25x119mm (x10)	1) 20Nm 2) 40Nm 3) 90° 4) 90°	
<b>Sx4 1.6L DDiS Diesel</b>	04/07 →	4	75.00	DOHC	<b>HBS359</b>	M11x1.50x150mm (x10)	1) 20Nm 2) 40Nm 3) 180°	











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kW/PS



Vitaro 1.9L D Diesel					01/95 → 03/99	11	<b>HBS084</b>  M12x1.50x123mm (x10)	1) 20Nm 2) 60Nm 3) 180°	
Vitaro Cabrio 1.9L D Diesel					01/95 → 03/98				
XUD9A	1905	4	83.00	SOHC	50/68	1) 20Nm 2) 60Nm 3) 180°			
XUD9SD	1905	4	83.00	SOHC	55/75				
Vitaro 1.9L TD Diesel					01/98 →	12	<b>HBS088</b> → Eng.08574  M12x1.50x145mm (x10)	1) 20Nm 2) 40Nm 3) 60Nm 4) ↻ 90° 5) 60Nm 6) 110° 7) 110°	
XUD9TF/BTF (DHX)	1905	4	83.00	SOHC, Turbo Intercooled	44/66/ 60/90				
							<b>HBS277</b> Eng.08575 →  M12x1.50x148mm (x10)	1) 20Nm 2) 40Nm 3) 60Nm 4) ↻ 90° 5) 60Nm 6) 110° 7) 110°	
Vitaro 2.0L 16V					12/96 → 03/98	13	<b>HBS447</b>  M11x1.50x116mm (x10) M6x1x40mm (x1)	1) 26Nm 2) 53Nm 3) 84Nm 4) ↻ 360° 5) 26Nm 6) 53Nm 7) 105Nm <b>M6</b> 1) 11Nm	
Vitaro Cabrio 2.0L 16V					12/96 → 03/99				
J20A	1995	4	84.00	DOHC	94-97/ 128-132				
Vitaro 2.0L TD Diesel					12/94 → 03/98	14	<b>HBS211</b>  M12x1.50x113mm (x10)	1) 30Nm 2) 90° 3) 90°	
Vitaro 2.0L TD Intercooler Diesel					12/95 → 03/98				
RF	1998	4	86.00		52-68/ 71-92				
Wagon R+ 1.2L					06/04 →	15	<b>HBS252</b>  M8x1.25x119mm (x12)	1) 25Nm 2) 60° 3) 60° 4) 60°	
Z 12 XEP	1229	4	73.40	DOHC	59/80				
Wagon R+ 1.3L DDiS Diesel					09/03 →	16	<b>HBS353</b>  M10x1.25x119mm (x10)	1) 20Nm 2) 40Nm 3) 90° 4) 90°	
Z 13 DT	1248	4	69.60	DOHC	51/70				

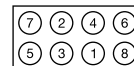
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1AZ-FE	Petrol	1998	4	86.00	15	2L	Diesel	2446	4	92.00	55
1AZ-FE	Diesel	1998	4	86.00	23	2L	Diesel	2446	4	92.00	61
1AZ-FE	Petrol	1998	4	86.00	97	2L	Diesel	2446	4	92.00	66
1AZ-FSE	Petrol	1998	4	86.00	6	2L-T	Diesel	2446	4	92.00	61
1AZ-FSE	Petrol	1998	4	86.00	15	2L-T	Diesel	2446	4	92.00	66
1C	Diesel	1839	4	83.00	45	2L-T	Diesel	2446	4	92.00	73
1CD-FTV	Diesel	1995	4	82.20	16	2L-TE	Diesel	2446	4	92.00	52
1CD-FTV	Diesel	1995	4	82.20	49	2L-TE	Diesel	2446	4	92.00	53
1CD-FTV	Diesel	1995	4	82.20	90	2NZ-FE	Petrol	1299	4	75.00	107
1CD-FTV	Diesel	1995	4	82.20	96	2NZ-FE	Petrol	1299	4	75.00	111
1E	Petrol	999	4	70.50	100	2RZ	Petrol	2438	4	95.00	60
1E-L	Petrol	999	4	70.50	100	2RZ-E	Petrol	2438	4	95.00	60
1HD-T	Diesel	4164	6	94.00	79	2SZ-FE	Petrol	1298	4	72.00	110
1H-Z	Diesel	4164	6	94.00	79	2TR-FE	Diesel	2694	4	95.00	75
1KD-FTV	Diesel	2982	4	96.00	56	2TZ-FE	Petrol	2438	4	95.00	91
1KD-FTV	Diesel	2982	4	96.00	57	2UZ-FE	Petrol	4664	8	94.00	80
1KD-FTV	Diesel	2982	4	96.00	64	2VZ-FE	Petrol	2507	6	87.50	26
1KD-FTV	Diesel	2982	4	96.00	69	2WZ-TV	Diesel	1398	4	73.70	19
1KD-FTV	Diesel	2982	4	96.00	76	2ZZ-FE	Petrol	1796	4	82.00	34
1KR-FE	Petrol	998	3	71.00	18	2ZZ-GE	Petrol	1796	4	82.00	46
1KR-FE	Petrol	998	3	71.00	20	3C-TE	Diesel	2184	4	86.00	50
1KR-FE	Petrol	998	3	71.00	70	3C-TE	Diesel	2184	4	86.00	89
1KR-FE	Petrol	998	3	71.00	87	3RZ-FE	Petrol	2694	4	95.00	2
1KR-FE	Petrol	998	3	71.00	108	3RZ-FE	Petrol	2694	4	95.00	63
1KZ-T	Diesel	2982	4	96.00	3	3S-FE	Petrol	1998	4	86.00	14
1KZ-T	Diesel	2982	4	96.00	77	3S-FE	Petrol	1998	4	86.00	21
1KZ-TE	Diesel	2982	4	96.00	77	3S-FE	Petrol	1998	4	86.00	30
1ND-TV	Diesel	1364	4	73.00	8	3S-FE	Petrol	1998	4	86.00	84
1ND-TV	Diesel	1364	4	73.00	41	3S-FE	Petrol	1998	4	86.00	88
1ND-TV	Diesel	1364	4	73.00	71	3S-FE	Petrol	1998	4	86.00	95
1ND-TV	Diesel	1364	4	73.00	104	3S-GE	Petrol	1998	4	86.00	32
1ND-TV	Diesel	1364	4	73.00	105	3S-GE	Petrol	1998	4	86.00	36
1ND-TV	Diesel	1364	4	73.00	112	3S-GE	Petrol	1998	4	86.00	85
1NZ-FE	Petrol	1497	4	75.00	113	3S-GEL	Petrol	1998	4	86.00	36
1NZ-FXE	Petrol	1497	4	75.00	93	3S-GELC	Petrol	1984	4	86.00	37
1RZ	Petrol	1998	4	86.00	59	3S-GTE	Petrol	1998	4	86.00	36
1SZ-FE	Petrol	998	4	69.00	106	3S-GTE	Petrol	1998	4	86.00	85
1SZ-FE	Petrol	998	4	69.00	109	3VZ-E	Petrol	2958	6	87.50	4
1TR-FE	Diesel	1998	4	86.00	54	3VZ-FE	Petrol	2959	6	87.50	27
1WZ	Diesel	1867	4	82.20	47	3ZZ-FE	Petrol	1598	4	79.00	11
1ZZ-FE	Petrol	1796	4	79.00	13	3ZZ-FE	Petrol	1598	4	79.00	43
1ZZ-FE	Petrol	1796	4	79.00	34	4A-F	Petrol	1587	4	81.00	28
1ZZ-FE	Petrol	1796	4	79.00	46	4A-F	Petrol	1587	4	81.00	42
1ZZ-FE	Petrol	1796	4	79.00	83	4A-FE	Petrol	1587	4	81.00	10
1ZZ-FE	Petrol	1796	4	79.00	94	4A-FE	Petrol	1587	4	81.00	28
2AZ-FE	Diesel	2362	4	88.50	7	4A-FE	Petrol	1587	4	81.00	33
2AZ-FE	Diesel	2362	4	88.50	9	4A-FE	Petrol	1587	4	81.00	42
2AZ-FE	Diesel	2362	4	88.50	25	4A-FE	Petrol	1587	4	81.00	99
2AZ-FE	Diesel	2362	4	88.50	51	4A-GE	Petrol	1587	4	81.00	42
2AZ-FE	Diesel	2362	4	88.50	92	4A-GEL	Petrol	1587	4	81.00	82
2AZ-FE	Diesel	2362	4	88.50	98	4A-GELC	Petrol	1587	4	81.00	82
2AZ-FXE	Diesel	2362	4	88.50	25	4E-FE	Petrol	1331	4	74.00	39
2AZ-FXE	Diesel	2362	4	88.50	92	4E-FE	Petrol	1331	4	74.00	58
2C	Diesel	1975	4	86.00	31	4E-FE	Petrol	1331	4	74.00	102
2C	Diesel	1975	4	86.00	48	4ZZ-FE	Petrol	1398	4	79.00	40
2C	Diesel	1975	4	86.00	81	5E-FE	Petrol	1496	4	74.00	86
2C-E	Diesel	1975	4	86.00	48	5L	Diesel	2986	4	99.50	65
2C-L	Diesel	1975	4	86.00	31	5S-FE	Petrol	2164	4	87.00	24
2C-T	Diesel	1975	4	86.00	22	5VZ-FE	Petrol	3378	6	93.50	5
2C-T	Diesel	1975	4	86.00	31	5VZ-FE	Petrol	3378	6	93.50	78
2C-TE	Diesel	1975	4	86.00	17	7A-FE	Petrol	1762	4	81.00	12
2C-TE	Diesel	1975	4	86.00	31	7A-FE	Petrol	1762	4	81.00	29
2E	Petrol	1296	4	73.00	38	7A-FE	Petrol	1762	4	81.00	35
2E	Petrol	1296	4	73.00	101	7A-FE	Petrol	1762	4	81.00	44
2E-E	Petrol	1296	4	73.00	38	22R	Petrol	2366	4	92.00	67
2E-E	Petrol	1296	4	73.00	101	22R	Petrol	2366	4	92.00	72
2E-L	Petrol	1296	4	73.00	38	22RE	Petrol	2366	4	92.00	67
2E-LC	Petrol	1296	4	73.00	38	22RE	Petrol	2366	4	92.00	72
2E-LC	Petrol	1296	4	73.00	101	22REC	Petrol	2367	4	92.00	1
2JZ-GTE	Petrol	2997	6	86.00	103	VM 588 HT	Diesel	2494	5	88.00	74
2KD-FTV	Diesel	2494	4	92.00	62						
2KD-FTV	Diesel	2494	4	92.00	68						
2L	Diesel	2446	4	92.00	53						



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4 Runner 2.4L					08/87 → 03/96	1	HBS386	1) 25Nm 2) 50Nm 3) 78Nm	
22REC	2367	4	92.00	SOHC	82-87/ 112-118		 M12x1.25x163mm (x10)		
4 Runner 2.7L i					11/95 →	2	HBS425	1) 34Nm 2) 90° 3) 90°	
3RZ-FE	2694	4	95.00	DOHC	105-112/ 143-152		 M11x1.25x105mm (x10)		
4 Runner 3.0L Turbo-D Diesel					10/93 → 03/96	3	HBS209	1) 40Nm 2) 90° 3) 90°	
1KZ-T	2982	4	96.00	SOHC	92/125		 M12x1.25x127mm (x18)		
4 Runner 3.0L V6					07/90 → 11/95	4	HBS397	1) 20Nm 2) 45Nm 3) 90° 4) 90°	
3VZ-E	2958	6	87.50	SOHC, V6	105/143		 M11x1.25x115mm (x16)		
4 Runner 3.4L i					11/95 →	5	HBS394	1) 34Nm 2) 90° 3) 90°	
5VZ-FE	3378	6	93.50	DOHC	131/178		 M11x1.25x96mm (x16)		
Aurion 2.0L					03/06 →	6	HBS441	1) 40Nm 2) 80Nm 3) 90°	
1AZ-FSE	1998	4	86.00	DOHC	108-110/ 147-150		 M11x1.50x162mm (x10)		
Aurion 2.4L					03/06 →	7	HBS441	1) 40Nm 2) 80Nm 3) 90°	
2AZ-FE	2362	4	88.50	DOHC	112-115/ 152-156		 M11x1.50x162mm (x10)		
Auris 1.4L D-4D Diesel					03/07 →	8	HBS490	1) 34Nm 2) 69Nm 3) ↻ 90° 4) 69Nm 5) 90° 6) 90°	
1ND-TV	1364	4	73.00	SOHC	55-66/ 75-90		 M12x1.75x180mm (x10)		
Auris 2.4L VVTi Auris 2.4L VVTi 4x4					04/07 → 04/07 →	9	HBS441	1) 40Nm 2) 80Nm 3) 90°	
2AZ-FE	2362	4	88.50	DOHC	112-115/ 152-156		 M11x1.50x162mm (x10)		
Avenis 1.6L					09/97 → 10/00	10	HBS203	1) 22Nm 2) 44Nm 3) 90°	
4A-FE	1587	4	81.00	DOHC	84/114		 M10x1.25x90mm (x5) M10x1.25x108mm (x5)		
Avenis 1.6L VVT-i					10/00 → 02/03	11	HBS385	1) 25Nm 2) 49Nm 3) 90°	
3ZZ-FE	1598	4	79.00	DOHC	81/110		 M10x1.50x147mm (x10)		
Avenis 1.8L					09/97 → 10/00	12	HBS203	1) 30Nm 2) 90° 3) 90°	
7A-FE	1762	4	81.00	DOHC	81/110		 M10x1.25x90mm (x5) M10x1.25x108mm (x5)		



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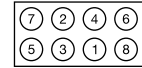
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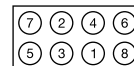
<b>Avensis 1.8L</b> 04/03 → <b>13</b> <b>Avensis 1.8L VVT-i</b> 10/00 → 02/03					<b>HBS385</b> M10x1.50x147mm (x10)	1) 25Nm 2) 49Nm 3) 90°		
1ZZ-FE	1796	4	79.00	DOHC				92/95/ 105
<b>Avensis 2.0L</b> 09/97 → 10/00 <b>14</b> <b>3S-FE</b>					<b>HBS200</b> M10x1.25x94.5mm (x10)	1) 25Nm 2) 50Nm 3) 90°		
1998	4	86.00	DOHC	88-98/ 120-133				
<b>Avensis 2.0L</b> 04/03 → <b>15</b> <b>Avensis 2.0L VVT-i</b> 10/00 → 02/03 <b>Avensis Verso 2.0L VVT-i</b> 08/01 →					<b>HBS441</b> M11x1.50x162mm (x10)	1) 40Nm 2) 80Nm 3) 90°		
1AZ-FSE	1998	4	86.00	DOHC				108-110/ 147-150
1AZ-FE	1998	4	86.00	DOHC				110/150
<b>Avensis 2.0L D-4D Diesel</b> 10/99 → 02/03 <b>16</b> <b>Avensis Verso 2.0L D-4D Diesel</b> 08/01 →					<b>HBS314</b> M11x1.25x160mm (x8) M12x1.25x104mm (x10)	1) 15Nm 2) 30Nm 3) 45Nm 4) 90° 5) 90° 6) 90°		
1CD-FTV	1995	4	82.20	DOHC				66-85/ 90-116
<b>Avensis 2.0L TD Diesel</b> 09/97 → 02/03 <b>17</b> <b>2C-TE</b>					<b>HBS042</b> M11x1.25x145mm (x10) M11x1.25x123mm (x8)	1) 44Nm 2) 90° 3) 90°		
1975	4	86.00	SOHC	66/89				
<b>Aygo 1.0L</b> 07/05 → <b>18</b> <b>Aygo 1.0L GPL</b> 07/05 →					<b>HBS508</b> M9x1.50x121mm (x8)	1) 35Nm 2) ↯ 90° 3) 35Nm 4) 90° 5) 90°		
1KR-FE	998	3	71.00	DOHC				50/68
<b>Aygo 1.4L HDI Diesel</b> 07/05 → <b>19</b> <b>2WZ-TV</b>					<b>HBS359</b> M11x1.50x150mm (x10)	1) 149Nm 2) 20Nm 3) 40Nm 4) 230°		
1398	4	73.70	Direct Injection, SOHC/OHC	40/54				
<b>Belta 1.0L</b> 09/05 → <b>20</b> <b>1KR-FE</b>					<b>HBS508</b> M9x1.50x121mm (x8)	1) 35Nm 2) ↯ 90° 3) 35Nm 4) 90° 5) 90°		
998	3	71.00	DOHC	50/68				
<b>Camry 2.0L</b> 11/86 → 05/91 <b>21</b> <b>Camry 2.0L Gli 16V</b> 11/86 → 05/91 <b>Camry 2000 ZX</b> 06/91 → 09/97					<b>HBS200</b> M10x1.25x94.5mm (x10)	1) 25Nm 2) 50Nm 3) 90°		
3S-FE	1998	4	86.00	DOHC				88-98/ 120-133
<b>Camry 2.0L TD Diesel</b> 11/86 → 05/91 <b>22</b> <b>Camry 2.0L Turbo-D Diesel</b> 11/86 → 05/91					<b>HBS042</b> M11x1.25x145mm (x10) M11x1.25x123mm (x8)	1) 44Nm 2) 90° 3) 90°		
2C-T	1975	4	86.00	SOHC				62/84
<b>Camry 2.0L VVTI</b> 08/01 → <b>23</b> <b>Camry 2.0L VVT-i Diesel</b> 01/06 →					<b>HBS441</b> M11x1.50x162mm (x10)	1) 40Nm 2) 80Nm 3) 90°		
1AZ-FE	1998	4	86.00	DOHC				110/150
<b>Camry 2.2L</b> 06/91 → 11/01 <b>24</b> <b>5S-FE</b>					<b>HBS200</b> M10x1.25x94.5mm (x10)	1) 25Nm 2) 50Nm 3) 90°		
2164	4	87.00	DOHC	93-103/ 126-140				



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<b>Camry 2.4</b> 04/00 → <b>25</b> <b>Camry 2.4L</b> 04/00 → <b>Camry 2.4L VVTi</b> 01/06 → <b>Camry 2.4L VVT-i</b> 11/01 → <b>Camry 2.4L VVTi LE</b> 01/06 → <b>Camry 2.4L VVT-i Hybrid Diesel</b> 01/06 → <b>Camry 2.4L VVTi Hybrid</b> 01/06 →					<b>HBS441</b> M11x1.50x162mm (x10)	1) 40Nm 2) 80Nm 3) 90°	
<b>Camry 2.5L V6 GXI</b> 02/88 → 05/91 <b>26</b> <b>2VZ-FE</b> 2507 4 87.50 DOHC, V6 118/160					<b>HBS394</b> M11x1.25x96mm (x16)	1) 34Nm 2) 90° 3) 90°	
<b>Camry 3.0L</b> 06/91 → 08/96 <b>27</b> <b>3VZ-FE</b> 2959 6 87.50 DOHC, V6 138/188					<b>HBS394</b> M11x1.25x96mm (x16)	1) 34Nm 2) 90° 3) 90°	
<b>Carina 1.6L</b> 12/87 → 09/97 <b>28</b> <b>Carina 1.6L 16V</b> 12/94 → 09/97 <b>Carina 1.6L GLI</b> 04/92 → 09/97 <b>Carina 1.6L i</b> 02/95 → 09/97					<b>HBS203</b> M10x1.25x90mm (x5) M10x1.25x108mm (x5)	1) 22Nm 2) 44Nm 3) 90°	
<b>Carina 1.8L</b> 01/95 → 09/97 <b>29</b> <b>Carina 1.8L i</b> 02/95 → 09/97 <b>Carina 1.8L i 16V</b> 01/95 → 09/97					<b>HBS203</b> M10x1.25x90mm (x5) M10x1.25x108mm (x5)	1) 30Nm 2) 90° 3) 90°	
<b>Carina 2.0L</b> 12/87 → 09/97 <b>30</b> <b>Carina 2.0L GLI</b> 12/87 → 09/97 <b>Carina 2.0L i</b> 12/92 → 09/97					<b>HBS200</b> M10x1.25x94.5mm (x10)	1) 25Nm 2) 50Nm 3) 90°	
<b>Carina 2.0L D Diesel</b> 12/87 → 01/96 <b>31</b> <b>Carina 2.0L ED Diesel</b> 08/92 → 01/96 <b>Carina 2.0L TD Diesel</b> 01/96 → 09/97					<b>HBS042</b> M11x1.25x145mm (x10) M11x1.25x123mm (x8)	1) 44Nm 2) 90° 3) 90°	
<b>Carina 2.0L GTi</b> 04/92 → 02/94 <b>32</b> <b>Carina 2.0L GTi 16V</b> 03/94 → 09/97					<b>HBS198</b> M10x1.25x93mm (x10)	1) 25Nm 2) 50Nm 3) 90°	
<b>Celica Coupe 1.6L STI</b> 10/89 → 01/94 <b>33</b> <b>4A-FE</b> 1587 4 81.00 DOHC 84/114					<b>HBS203</b> M10x1.25x90mm (x5) M10x1.25x108mm (x5)	1) 22Nm 2) 44Nm 3) 90°	
<b>Celica Coupe 1.8L 16V TS</b> 11/99 → <b>34</b> <b>Celica Coupe 1.8L 16V VT-i</b> 11/99 →					<b>HBS385</b> M10x1.50x147mm (x10)	1) 25Nm 2) 49Nm 3) 90°	
<b>1ZZ-FE</b> 1796 4 79.00 DOHC 92/95/105 <b>2ZZ-GE</b> 1796 4 82.00 DOHC 141/192							

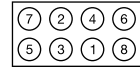
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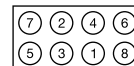
<b>Celica Coupe 1.8L i 16V</b>						<b>35</b>	<b>HBS203</b>  M10x1.25x90mm (x5) M10x1.25x108mm (x5)	1) 30Nm 2) 90° 3) 90°		
7AFE	1762	4	81.00	DOHC	11/93→11/99	81/110				
<b>Celica 2.0L</b>						<b>36</b>	<b>HBS198</b>  M10x1.25x93mm (x10)	1) 25Nm 2) 50Nm 3) 90°		
<b>Celica 2.0L 16V 4WD</b>										01/87→08/90
<b>Celica Convertible 2.0L GT</b>										10/87→02/92
<b>Celica Convertible 2.0L GTi</b>										10/86→08/90
<b>Celica Convertible 2.0L i 16V</b>										05/91→01/94
<b>Celica Coupe 2.0L GTi</b>										04/96→11/99
<b>Celica Coupe 2.0L i 16V</b>										10/89→01/94
<b>Celica Coupe 2.0L i Turbo 4WD</b>										11/93→11/99
<b>Celica Coupe 2.0L Turbo 4WD</b>						02/94→11/99				
<b>Celica Coupe 2.0L Turbo 4WD</b>						03/88→01/94				
3S-GEL	1998	4	86.00	DOHC		110/150				
3S-GE	1998	4	86.00	DOHC		115-129/ 156-175				
3S-GTE	1998	4	86.00	DOHC, Turbo Intercooled		136-178/ 185-242				
3S-GTE	1998	4	86.00	DOHC		136-178/ 185-242				
<b>Celica 2.0L GT</b>						<b>37</b>	<b>HBS198</b>  M10x1.25x93mm (x10)	1) 25Nm 2) 50Nm 3) 90°		
3S-GELC	1984	4	86.00	DOHC	10/86→08/90	103/140				
<b>Corolla 1.3L</b>						<b>38</b>	<b>HBS197</b>  M9x1.25x98mm (x10)	1) 30Nm 2) 50Nm 3) 90°		
<b>Corolla 1.3L 12V</b>										10/84→12/89
<b>Corolla 1.3L i</b>										07/92→04/97
2E	1296	4	73.00	SOHC	08/87→12/92	53-55/ 72-75				
2E-L/2E-LC	1296	4	73.00	SOHC		55/75				
2E-E	1296	4	73.00	SOHC		74/100				
<b>Corolla 1.3L XLI</b>						<b>39</b>	<b>HBS306</b>  M9x1.25x98mm (x5) M9x1.25x84mm (x5)	1) 22Nm 2) 44Nm 3) 90°		
<b>Corolla 1.3L XLI 16V</b>										07/92→04/97
<b>Corolla 1.4L</b>										07/92→09/95
4E-FE	1331	4	74.00	DOHC	04/97→02/00	55-65/ 75-88				
<b>Corolla 1.4L</b>						<b>40</b>	<b>HBS385</b>  M10x1.50x147mm (x10)	1) 25Nm 2) 49Nm 3) 90°		
<b>Corolla 1.4L 16V</b>										02/00→01/02
<b>Corolla 1.4L VVT-i</b>										02/00→01/02
<b>Corolla Verso 1.4L VVT-i</b>										01/02→
4ZZ-FE	1398	4	79.00	DOHC	01/02→05/04	71/96				
<b>Corolla 1.4L D Diesel</b>						<b>41</b>	<b>HBS490</b>  M12x1,75x180mm (x10)	1) 34Nm 2) 69Nm 3) ↻ 90° 4) 69Nm 5) 90° 6) 90°		
<b>Corolla 1.4L D-4D Diesel</b>										07/04→
1ND-TV	1364	4	73.00	SOHC	01/09→	55-66/ 75-90				



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<b>Corolla 1.6L</b> 08/87 → 02/00 <b>42</b> <b>Corolla 1.6L Aut.</b> 04/97 → 02/00 <b>Corolla 1.6L GLI</b> 07/92 → 04/97 <b>Corolla 1.6L GTi</b> 07/87 → 06/93 <b>Corolla 1.6L i</b> 11/89 → 06/93 <b>Corolla 1.6L i 4WD</b> 10/87 → 08/90 <b>Corolla 1.6L Si</b> 07/92 → 04/97 <b>Corolla 1.6L XL</b> 09/89 → 04/92 <b>Corolla 1.6L XLI</b> 11/89 → 06/92 <b>Corolla 1.6L XLI 4x4</b> 08/88 → 06/92					<b>HBS203</b>  M10x1.25x90mm (x5) M10x1.25x108mm (x5)	1) 22Nm 2) 44Nm 3) 90°	
4A-F 1587 4 81.00 DOHC 66-70/ 90-95 4A-FE 1587 4 81.00 DOHC 84/114 4A-GE 1587 4 81.00 DOHC 85-92/ 116-125							
<b>Corolla 1.6L</b> 02/00 → 01/02 <b>43</b> <b>Corolla 1.6L 16V</b> 02/00 → 01/02 <b>Corolla 1.6L VVT-i</b> 01/02 → <b>Corolla Verso 1.6L</b> 04/04 → <b>Corolla Verso 1.6L VVT-i</b> 01/02 → 05/04					<b>HBS385</b>  M10x1.50x147mm (x10)	1) 25Nm 2) 49Nm 3) 90°	
3ZZ-FE 1598 4 79.00 DOHC 81/110							
<b>Corolla 1.8L 16V 4WD</b> 09/95 → 04/97 <b>44</b> <b>Corolla 1.8L AWD</b> 04/97 → 01/02 <b>Corolla 1.8L GT</b> 11/92 → 05/95					<b>HBS203</b>  M10x1.25x90mm (x5) M10x1.25x108mm (x5)	1) 30Nm 2) 90° 3) 90°	
7A-FE 1762 4 81.00 DOHC 81/110							
<b>Corolla 1.8L D Diesel</b> 07/87 → 06/93 <b>45</b>					<b>HBS042</b>  M11x1.25x145mm (x10) M11x1.25x123mm (x8)	1) 44Nm 2) 90° 3) 90°	
1C 1839 4 83.00 SOHC 54/73							
<b>Corolla 1.8L VVT-i TS</b> 01/02 → <b>46</b> <b>Corolla Verso 1.8L</b> 04/04 → <b>Corolla Verso 1.8L VVT-i</b> 01/02 → 05/04					<b>HBS385</b>  M10x1.50x147mm (x10)	1) 25Nm 2) 49Nm 3) 90°	
1ZZ-FE 1796 4 79.00 DOHC 92/95/ 105 2ZZ-GE 1796 4 82.00 DOHC 141/192							
<b>Corolla 1.9L D Diesel</b> 02/00 → 01/02 <b>47</b>					<b>HBS245</b>  M12x1.50x125mm (x10)	1) 20Nm 2) 60Nm 3) 180°	
1WZ 1867 4 82.20 SOHC 51/69							
<b>Corolla 2.0L D Diesel</b> 07/92 → 02/00 <b>48</b>					<b>HBS042</b>  M11x1.25x145mm (x10) M11x1.25x123mm (x8)	1) 44Nm 2) 90° 3) 90°	
2C 1975 4 86.00 SOHC 51-54/ 69-73 2C-E 1975 4 86.00 SOHC 53/72							
<b>Corolla 2.0L D4d Diesel</b> 06/04 → <b>49</b> <b>Corolla 2.0L D-4D Diesel</b> 09/00 → 01/02 <b>Corolla Verso 2.0L D-4D Diesel</b> 01/02 → 05/04					<b>HBS314</b>  M11x1.25x160mm (x8) M12x1.25x104mm (x10)	1) 15Nm 2) 30Nm 3) 45Nm 4) 90° 5) 90° 6) 90°	
1CD-FTV 1995 4 82.20 DOHC 66-85/ 90-116							
<b>Corolla 2.2L TD Diesel</b> 04/98 → 10/01 <b>50</b>					<b>HBS042</b>  M11x1.25x145mm (x10) M11x1.25x123mm (x8)	1) 44Nm 2) 90° 3) 90°	
3C-TE 2184 4 86.00 SOHC 66/89							

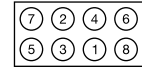
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<b>Corolla 2.4L Diesel</b> 05/10 → <b>51</b>					<b>HBS441</b>  M11x1.50x162mm (x10)	1) 40Nm 2) 80Nm 3) 90°	
2AZ-FE	2362	4	88.50	DOHC			
<b>Cressida 2.4L TD Diesel</b> 01/88 → <b>52</b>					<b>HBS315</b>  M12x1.25x126mm (x14) M12x1.25x106mm (x4)	1) 80Nm 2) 90° 3) 90°	
2L-TE	2446	4	92.00	Turbocharged			
<b>Crown 2.4L Diesel</b> 08/83 → <b>53</b>					<b>HBS315</b>  M12x1.25x126mm (x14) M12x1.25x106mm (x4)	1) 80Nm 2) 90° 3) 90°	
2L	2446	4	92.00	SOHC			
2L-TE	2446	4	92.00	Turbocharged			
<b>Dyna 2.0L Diesel</b> 09/06 → <b>54</b>					<b>HBS425</b>  M11x1.25x105mm (x10)	1) 20Nm 2) 40Nm 3) 90° 4) 90°	
<b>Dyna 2.0L 4WD Diesel</b> 09/06 →							
1TR-FE	1998	4	86.00	DOHC	100/136		
<b>Dyna 2.4L Diesel</b> 08/88 → <b>55</b>					<b>HBS315</b>  M12x1.25x126mm (x14) M12x1.25x106mm (x4)	1) 80Nm 2) 90° 3) 90°	
2L	2446	4	92.00	SOHC			
<b>Dyna 3.0L D4d Diesel</b> 09/06 → <b>56</b>					<b>HBS501</b>  M12x1.25x110mm (x10) M12x1.25x167mm (x8)	1) 40Nm 2) 85Nm 3) ↻ 90° 4) 85Nm 5) 90° 6) 90°	
<b>Dyna 3.0L D4d 4WD Diesel</b> 09/06 →							
1KD-FTV	2982	4	96.00	DOHC	120-122/ 163-166		
<b>Fortuner 3.0L D Diesel</b> 08/09 → <b>57</b>					<b>HBS501</b>  M12x1.25x110mm (x10) M12x1.25x167mm (x8)	1) 40Nm 2) 85Nm 3) ↻ 90° 4) 85Nm 5) 90° 6) 90°	
1KD-FTV	2982	4	96.00	DOHC			
<b>Hiace 1.3L 16V</b> 05/92 → 04/97 <b>58</b>					<b>HBS306</b>  M9x1.25x98mm (x5) M9x1.25x84mm (x5)	1) 22Nm 2) 44Nm 3) 90°	
4E-FE	1331	4	74.00	DOHC			
<b>Hiace 2.0L</b> 08/89 → 08/95 <b>59</b>					<b>HBS425</b>  M11x1.25x105mm (x10)	1) 20Nm 2) 40Nm 3) 90° 4) 90°	
<b>Hiace Van 2.0L</b> 02/90 → 08/95							
1RZ	1998	4	86.00	SOHC	74/100		
<b>Hiace 2.4L</b> 08/89 → 04/98 <b>60</b>					<b>HBS425</b>  M11x1.25x105mm (x10)	1) 20Nm 2) 40Nm 3) 90° 4) 90°	
<b>Hiace 2.4L 4WD</b> 08/89 → 04/98							
<b>Hiace Van 2.4L</b> 08/89 → 04/98							
<b>Hiace Van 2.4L 4WD</b> 08/89 → 04/98							
2RZ-E	2438	4	95.00		85/115		
2RZ-E	2438	4	95.00	SOHC	85/115		
2RZ	2438	4	95.00				

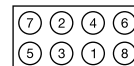




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<b>Hiace 2.4L D Diesel</b> 08/84 → 08/95 <b>61</b> <b>Hiace 2.4L D 4WD Diesel</b> 08/89 → 08/95 <b>Hiace 2.4L TD Diesel</b> 08/95 → <b>Hiace 2.4L TD 4WD Diesel</b> 08/95 → <b>Hiace Van 2.4L D Diesel</b> 05/84 → 08/95 <b>Hiace Van 2.4L D 4WD Diesel</b> 08/89 → 08/95 <b>Hiace Van 2.4L TD Diesel</b> 08/95 → <b>Hiace Van 2.4L TD 4WD Diesel</b> 08/95 →					<b>HBS315</b>  M12x1.25x126mm (x14) M12x1.25x106mm (x4)	1) 80Nm 2) 90° 3) 90°	
2L 2446 4 92.00 SOHC 53-61/ 72-83 2L-T 2446 4 92.00 SOHC 63-66/ 85-90							
<b>Hiace 2.5L D-4D Diesel</b> 11/01 → <b>62</b> <b>Hiace 2.5L D-4D 4WD Mk IV Diesel</b> 11/01 → <b>Hiace 2.5L D-4D 4x4 Diesel</b> 08/06 → <b>Hiace 2.5L D-4D Mk IV Diesel</b> 08/06 → <b>Hiace Van 2.5L D-4D Diesel</b> 11/01 →					<b>HBS501</b>  M12x1.25x110mm (x10) M12x1.25x167mm (x8)	1) 40Nm 2) 85Nm 3) ↻ 90° 4) 85Nm 5) 90° 6) 90°	
2KD-FTV 2494 4 92.00 DOHC 65-75/ 88-102							
<b>Hiace 2.7L</b> 04/98 → 11/01 <b>63</b> <b>Hiace 2.7L 4WD</b> 04/98 →					<b>HBS425</b>  M11x1.25x105mm (x10)	1) 34Nm 2) 90° 3) 90°	
3RZ-FE 2694 4 95.00 DOHC 105-112/ 143-152							
<b>Hiace 3.0L D Diesel</b> 11/06 → <b>64</b>					<b>HBS501</b>  M12x1.25x110mm (x10) M12x1.25x167mm (x8)	1) 40Nm 2) 85Nm 3) ↻ 90° 4) 85Nm 5) 90° 6) 90°	
1KD-FTV 2982 4 96.00 DOHC 120-122/ 163-166							
<b>Hiace 3.0L D Diesel</b> 08/98 → 12/04 <b>65</b>					<b>HBS315</b>  M12x1.25x126mm (x14) M12x1.25x106mm (x4)	1) 80Nm 2) 90° 3) 90°	
5L 2986 4 99.50 SOHC 65/88							
<b>Hilux 2.4L D Diesel</b> 08/88 → 01/02 <b>66</b> <b>Hilux 2.4L D 4WD Diesel</b> 08/88 → <b>Hilux 2.4L TD 4WD Diesel</b> 08/98 → 01/02					<b>HBS315</b>  M12x1.25x126mm (x14) M12x1.25x106mm (x4)	1) 80Nm 2) 90° 3) 90°	
2L 2446 4 92.00 SOHC 53-61/ 72-83 2L-T 2446 4 92.00 SOHC 63-66/ 85-90							
<b>Hilux 2.4L i 4WD</b> 06/89 → <b>67</b>					<b>HBS386</b>  M12x1.25x163mm (x10)	1) 25Nm 2) 50Nm 3) 78Nm	
22R 2366 4 92.00 SOHC 77-81/ 105-110 22RE 2366 4 92.00 SOHC 84/114							
<b>Hilux 2.5L D4d Diesel</b> 06/06 → <b>68</b> <b>Hilux 2.5L D-4D Diesel</b> 11/01 → <b>Hilux 2.5L D-4D 4WD Diesel</b> 11/01 → <b>Hilux 2.5L D-4D 4x4 Diesel</b> 12/07 →					<b>HBS501</b>  M12x1.25x110mm (x10) M12x1.25x167mm (x8)	1) 40Nm 2) 85Nm 3) ↻ 90° 4) 85Nm 5) 90° 6) 90°	
2KD-FTV 2494 4 92.00 DOHC 65-75/ 88-102							
<b>Hilux 3.0L D Diesel</b> 10/06 → <b>69</b> <b>Hilux 3.0L D-4D 4x4 Diesel</b> 12/07 →					<b>HBS501</b>  M12x1.25x110mm (x10) M12x1.25x167mm (x8)	1) 40Nm 2) 85Nm 3) ↻ 90° 4) 85Nm 5) 90° 6) 90°	
1KD-FTV 2982 4 96.00 DOHC 120-122/ 163-166							





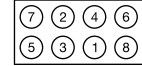
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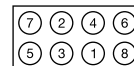
IQ 1.0L				01/09 →	70
1KR-FE	998	3	71.00	DOHC	50/68
<b>HBS508</b>					
M9x1.50x121mm (x8)				1) 35Nm 2) ↺ 90° 3) 35Nm 4) 90° 5) 90°	
<b>IQ 1.4L D-4D Diesel</b>				01/09 →	71
1ND-TV	1364	4	73.00	SOHC	55-66/ 75-90
<b>HBS490</b>					
M12x1.75x180mm (x10)				1) 34Nm 2) 69Nm 3) ↺ 90° 4) 69Nm 5) 90° 6) 90°	
<b>Land Cruiser 2.4L</b>				11/84 → 12/96	72
22R	2366	4	92.00	SOHC	77-81/ 105-110
22RE	2366	4	92.00	SOHC	84/114
<b>HBS386</b>					
M12x1.25x163mm (x10)				1) 25Nm 2) 50Nm 3) 78Nm	
<b>Land Cruiser 2.4L TD Diesel</b>				10/85 → 05/96	73
2L-T	2446	4	92.00	SOHC	63-66/ 85-90
<b>HBS315</b>					
M12x1.25x126mm (x14) M12x1.25x106mm (x4)				1) 80Nm 2) 90° 3) 90°	
<b>Land Cruiser 2.5L Cruiser Diesel</b>				01/85 →	74
VM 588 HT	2494	5	88.00	Turbocharged	
<b>HBS106</b>					
M14x2x137mm (x12) M12x1.75x80mm (x5) M12x1.75x116mm (x5)				<b>A</b> 1) 30Nm 2) 70° 3) 70° 4) ⚡ 5) ⚡ 6) 90° 7) 30Nm 8) 65° <b>B</b> 1) 30Nm 2) 85°	
<b>Land Cruiser 2.7L 4WD Diesel</b>				01/10 →	75
2TR-FE	2694	4	95.00	DOHC	118/160
<b>HBS425</b>					
M11x1.25x105mm (x10)				1) 34Nm 2) 90° 3) 90°	
<b>Land Cruiser 3.0L D-4D Diesel</b>				10/00 →	76
<b>Land Cruiser 3.0L D-4D (KDJ120) Diesel</b>				01/07 →	
1KD-FTV	2982	4	96.00	DOHC	120-122/ 163-166
<b>HBS501</b>					
M12x1.25x110mm (x10) M12x1.25x167mm (x8)				1) 40Nm 2) 85Nm 3) ↺ 90° 4) 85Nm 5) 90° 6) 90°	
<b>Land Cruiser 3.0L TD Diesel</b>				05/93 → 05/96	77
1KZ-T/1KZ-TE	2982	4	96.00	SOHC	92/125
<b>HBS209</b>					
M12x1.25x127mm (x18)				1) 40Nm 2) 90° 3) 90°	
<b>Land Cruiser 3.4L i 24V</b>				04/96 →	78
5VZ-FE	3378	6	93.50	DOHC	131/178
<b>HBS394</b>					
M11x1.25x96mm (x16)				1) 34Nm 2) 90° 3) 90°	
<b>Land Cruiser 4.2L TD Diesel</b>				01/90 → 12/97	79
1HZ	4164	6	94.00	SOHC	96/131
1HD-T	4164	6	94.00	SOHC	118/160
<b>HBS500</b>					
M11x1.25x133mm (x26)				1) 20Nm 2) 40Nm 3) 70Nm 4) ↺ 90° 5) 70Nm 6) 90° 7) 90°	



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<b>Land Cruiser 4.7L</b> 02/02 → <b>80</b> <b>Land Cruiser 4.7L V8 32V</b> 01/98 → ZUZ-FE 4664 8 94.00 DOHC, V8 172-175/ 234-238					<b>HBS452</b>  M10x1.25x120mm (x10)	1) 16Nm 2) 32Nm 3) 90° 4) 90°	
<b>Liteace 2.0L D Diesel</b> 08/88 → 05/94 <b>81</b> <b>Liteace Van 2.0L D Diesel</b> 08/88 → 05/94 2C 1975 4 86.00 SOHC 51-54/ 69-73					<b>HBS042</b>  M11x1.25x145mm (x10) M11x1.25x123mm (x8)	1) 44Nm 2) 90° 3) 90°	
<b>MR 2 Coupe 1.6L 16V</b> 11/84 → 06/90 <b>82</b> 4A-GELC 1587 4 81.00 DOHC 85/116 4A-GEL 1587 4 81.00 DOHC 85-91/ 116-124					<b>HBS203</b>  M10x1.25x90mm (x5) M10x1.25x108mm (x5)	1) 22Nm 2) 44Nm 3) 90°	
<b>MR 2 Convertible 1.8L 16V VT-i</b> 04/00 → <b>83</b> 1ZZ-FE 1796 4 79.00 DOHC 92/95/ 105					<b>HBS385</b>  M10x1.50x147mm (x10)	1) 25Nm 2) 49Nm 3) 90°	
<b>MR 2 2.0L</b> 01/89 → <b>84</b> 3S-FE 1998 4 86.00 Injection 94/128					<b>HBS200</b>  M10x1.25x94.5mm (x10)	1) 25Nm 2) 50Nm 3) 90°	
<b>MR 2 2.0L Turbo</b> 01/90 → <b>85</b> <b>MR 2 Coupe 2.0L 16V</b> 12/89 → 05/00 3S-GTE 1998 4 86.00 DOHC 115-129/ 156-175 3S-GTE 1998 4 86.00 DOHC, Turbo Intercooled 136-178/ 185-242					<b>HBS198</b>  M10x1.25x93mm (x10)	1) 25Nm 2) 50Nm 3) 90°	
<b>Paseo Convertible 1.5L 16V</b> 10/96 → 03/99 <b>86</b> <b>Paseo Coupe 1.5L 16V</b> 08/95 → 07/99 5E-FE 1496 4 74.00 DOHC 66/89					<b>HBS306</b>  M9x1.25x98mm (x5) M9x1.25x84mm (x5)	1) 22Nm 2) 44Nm 3) 90°	
<b>Passo 1.0L</b> 06/05 → <b>87</b> <b>Passo 1.0L 4x4</b> 06/05 → 1KR-FE 998 3 71.00 DOHC 50/68					<b>HBS508</b>  M9x1.50x121mm (x8)	1) 35Nm 2) ↺ 90° 3) 35Nm 4) 90° 5) 90°	
<b>Picnic 2.0L</b> 01/01 → 12/01 <b>88</b> <b>Picnic 2.0L 16V</b> 05/96 → 12/01 3S-FE 1998 4 86.00 DOHC 88-98/ 120-133					<b>HBS200</b>  M10x1.25x94.5mm (x10)	1) 25Nm 2) 50Nm 3) 90°	
<b>Picnic 2.2L D Diesel</b> 08/97 → 12/01 <b>89</b> 3C-TE 2184 4 86.00 SOHC 66/89					<b>HBS042</b>  M11x1.25x145mm (x10) M11x1.25x123mm (x8)	1) 44Nm 2) 90° 3) 90°	
<b>Previa 2.0L D-4D Diesel</b> 03/01 → <b>90</b> 1CD-FTV 1995 4 82.20 DOHC 66-85/ 90-116					<b>HBS314</b>  M11x1.25x160mm (x8) M12x1.25x104mm (x10)	1) 15Nm 2) 30Nm 3) 45Nm 4) 90° 5) 90° 6) 90°	

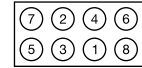
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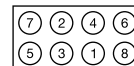
<b>Previa 2.4L</b> 05/90→08/00 <b>91</b>					<b>HBS425</b>  M11x1.25x105mm (x10)	1) 20Nm 2) 40Nm 3) 90° 4) 90°	
<b>Previa 2.4L 4WD</b> 05/90→08/00							
2TZ-FE	2438	4	95.00	DOHC	97/132		
<b>Previa 2.4L 16V</b> 08/00→ <b>92</b>					<b>HBS441</b>  M11x1.50x162mm (x10)	1) 40Nm 2) 80Nm 3) 90°	
<b>Previa 2.4L Hybrid 4x4</b> 10/06→							
2AZ-FE	2362	4	88.50	DOHC	112-115/ 152-156		
2AZ-FXE	2362	4	88.50	DOHC	110/150		
<b>Prius 1.5L</b> 05/00→01/04 <b>93</b>					<b>HBS313</b>  M9x1.50x143mm (x10)	1) 30Nm 2) 90° 3) 90°	
<b>1NZ-FXE</b>							
1NZ-FXE	1497	4	75.00	CIH	53-57/ 72-78		
<b>Rav 4 1.8L VVTi</b> 02/01→ <b>94</b>					<b>HBS385</b>  M10x1.50x147mm (x10)	1) 25Nm 2) 49Nm 3) 90°	
<b>1ZZ-FE</b>							
1ZZ-FE	1796	4	79.00	DOHC	92/95/ 105		
<b>Rav 4 2.0L 16V</b> 06/94→06/00 <b>95</b>					<b>HBS200</b>  M10x1.25x94.5mm (x10)	1) 25Nm 2) 50Nm 3) 90°	
<b>Rav 4 Cabrio 2.0L 16V</b> 12/97→06/00							
3S-FE	1998	4	86.00	DOHC	88-98/ 120-133		
<b>Rav 4 2.0L D-4D 4WD Diesel</b> 09/01→ <b>96</b>					<b>HBS314</b>  M11x1.25x160mm (x8) M12x1.25x104mm (x10)	1) 15Nm 2) 30Nm 3) 45Nm 4) 90° 5) 90° 6) 90°	
<b>1CD-FTV</b>							
1CD-FTV	1995	4	82.20	DOHC	66-85/ 90-116		
<b>Rav 4 2.0L VVTi 4WD</b> 06/00→ <b>97</b>					<b>HBS441</b>  M11x1.50x162mm (x10)	1) 40Nm 2) 80Nm 3) 90°	
<b>Rav 4 2.0L VVT-I Mk III</b> 03/06→							
1AZ-FE	1998	4	86.00	DOHC	110/150		
<b>Rav 4 2.4L VVTi</b> 11/05→ <b>98</b>					<b>HBS441</b>  M11x1.50x162mm (x10)	1) 40Nm 2) 80Nm 3) 90°	
<b>Rav 4 2.4L VVTi 4x4 Mk II</b> 08/03→10/05							
2AZ-FE	2362	4	88.50	DOHC	112-115/ 152-156		
<b>Sprinter 1.6L 16V</b> 05/92→10/99 <b>99</b>					<b>HBS203</b>  M10x1.25x90mm (x5) M10x1.25x108mm (x5)	1) 22Nm 2) 44Nm 3) 90°	
<b>4AFE</b>							
4AFE	1587	4	81.00	Leanburn Injection	81/110		
<b>Starlet 1.0L</b> 10/84→12/92 <b>100</b>					<b>HBS197</b>  M9x1.25x98mm (x10)	1) 30Nm 2) 50Nm 3) 90°	
<b>1E/1EL</b>							
1E/1EL	999	4	70.50	SOHC	40/54		
<b>Starlet 1.3L</b> 10/84→12/89 <b>101</b>					<b>HBS197</b>  M9x1.25x98mm (x10)	1) 30Nm 2) 50Nm 3) 90°	
<b>Starlet 1.3L 12V</b> 12/89→03/96							
2E	1296	4	73.00	SOHC	53-55/ 72-75		
2E-LC	1296	4	73.00	SOHC	55/75		
2E-E	1296	4	73.00	SOHC	74/100		
<b>Starlet 1.3L</b> 04/96→03/99 <b>102</b>					<b>HBS306</b>  M9x1.25x98mm (x5) M9x1.25x84mm (x5)	1) 22Nm 2) 44Nm 3) 90°	
<b>4E-FE</b>							
4E-FE	1331	4	74.00	DOHC	55-65/ 75-88		











cc











kW/PS











Supra Coupe 3.0L i Bi-Turbo		05/93 → 08/98			103	HBS450	1) 18Nm 2) 34Nm 3) 90° 4) 90°	<table border="1"> <tr><td>11</td><td>9</td><td>5</td><td>1</td><td>3</td><td>7</td><td>11</td></tr> <tr><td>14</td><td>10</td><td>6</td><td>2</td><td>4</td><td>8</td><td>12</td></tr> </table>	11	9	5	1	3	7	11	14	10	6	2	4	8	12
11	9	5	1	3	7	11																
14	10	6	2	4	8	12																
2JZ-GTE	2997	6	86.00	DOHC	243/330	M11x1.25x91mm (x14)																
Urban Cruiser 1.4L D-4D Diesel		04/09 →			104	HBS490	1) 34Nm 2) 69Nm 3) ↻ 90° 4) 69Nm 5) 90° 6) 90°	<table border="1"> <tr><td>8</td><td>6</td><td>1</td><td>3</td><td>9</td></tr> <tr><td>10</td><td>4</td><td>2</td><td>5</td><td>7</td></tr> </table>	8	6	1	3	9	10	4	2	5	7				
8	6	1	3	9																		
10	4	2	5	7																		
Urban Cruiser 1.4L D-4D 4x4 Diesel		04/09 →																				
TND-TV	1364	4	73.00	SOHC	55-66/ 75-90	M12x1.75x180mm (x10)																
Verso 1.4L D4-D Diesel		11/10 →			105	HBS490	1) 34Nm 2) 69Nm 3) ↻ 90° 4) 69Nm 5) 90° 6) 90°	<table border="1"> <tr><td>8</td><td>6</td><td>1</td><td>3</td><td>9</td></tr> <tr><td>10</td><td>4</td><td>2</td><td>5</td><td>7</td></tr> </table>	8	6	1	3	9	10	4	2	5	7				
8	6	1	3	9																		
10	4	2	5	7																		
Verso 1.4L D4-D Diesel		11/10 →																				
TND-TV	1364	4	73.00	SOHC	55-66/ 75-90	M12x1.75x180mm (x10)																
Vitz 1.0L		01/98 →			106	HBS312	1) 17Nm 2) 34Nm 3) 90°	<table border="1"> <tr><td>8</td><td>6</td><td>1</td><td>3</td><td>9</td></tr> <tr><td>10</td><td>4</td><td>2</td><td>5</td><td>7</td></tr> </table>	8	6	1	3	9	10	4	2	5	7				
8	6	1	3	9																		
10	4	2	5	7																		
Vitz 1.0L		01/98 →																				
1SZ-FE	998	4	69.00	DOHC	50/68	M9x1.25x84mm (x10)																
Vitz 1.3L		01/98 →			107	HBS313	1) 30Nm 2) 90° 3) 90°	<table border="1"> <tr><td>8</td><td>6</td><td>1</td><td>3</td><td>9</td></tr> <tr><td>10</td><td>4</td><td>2</td><td>5</td><td>7</td></tr> </table>	8	6	1	3	9	10	4	2	5	7				
8	6	1	3	9																		
10	4	2	5	7																		
Vitz 1.3L		01/98 →																				
2NZ-FE	1299	4	75.00	DOHC	66/89	M9x1.50x143mm (x10)																
Yaris 1.0L		09/11 →			108	HBS508	1) 35Nm 2) ↻ 90° 3) 35Nm 4) 90° 5) 90°	<table border="1"> <tr><td>6</td><td>4</td><td>2</td><td>7</td></tr> <tr><td>8</td><td>1</td><td>3</td><td>5</td></tr> </table>	6	4	2	7	8	1	3	5						
6	4	2	7																			
8	1	3	5																			
Yaris 1.0L GPL		01/06 →																				
Yaris 1.0L VVT-i		01/06 →																				
1KR-FE	998	3	71.00	DOHC	50/68	M9x1.50x121mm (x8)																
Yaris 1.0L 16V		04/99 →			109	HBS312	1) 17Nm 2) 34Nm 3) 90°	<table border="1"> <tr><td>8</td><td>6</td><td>1</td><td>3</td><td>9</td></tr> <tr><td>10</td><td>4</td><td>2</td><td>5</td><td>7</td></tr> </table>	8	6	1	3	9	10	4	2	5	7				
8	6	1	3	9																		
10	4	2	5	7																		
Yaris 1.0L 16V		04/99 →																				
1SZ-FE	998	4	69.00	DOHC	50/68	M9x1.25x84mm (x10)																
Yaris 1.3L		04/02 →			110	HBS312	1) 17Nm 2) 34Nm 3) 90°	<table border="1"> <tr><td>8</td><td>6</td><td>1</td><td>3</td><td>9</td></tr> <tr><td>10</td><td>4</td><td>2</td><td>5</td><td>7</td></tr> </table>	8	6	1	3	9	10	4	2	5	7				
8	6	1	3	9																		
10	4	2	5	7																		
Yaris 1.3L		04/02 →																				
2SZ-FE	1298	4	72.00	DOHC	64/87	M9x1.25x84mm (x10)																
Yaris 1.3L 16V		11/99 →			111	HBS313	1) 30Nm 2) 90° 3) 90°	<table border="1"> <tr><td>8</td><td>6</td><td>1</td><td>3</td><td>9</td></tr> <tr><td>10</td><td>4</td><td>2</td><td>5</td><td>7</td></tr> </table>	8	6	1	3	9	10	4	2	5	7				
8	6	1	3	9																		
10	4	2	5	7																		
Yaris Verso 1.3L		11/99 →																				
Yaris 1.3L 16V		11/99 →																				
2NZ-FE	1299	4	75.00	DOHC	66/89	M9x1.50x143mm (x10)																
Yaris 1.4L D-4D Diesel		12/01 →			112	HBS490	1) 34Nm 2) 69Nm 3) ↻ 90° 4) 69Nm 5) 90° 6) 90°	<table border="1"> <tr><td>8</td><td>6</td><td>1</td><td>3</td><td>9</td></tr> <tr><td>10</td><td>4</td><td>2</td><td>5</td><td>7</td></tr> </table>	8	6	1	3	9	10	4	2	5	7				
8	6	1	3	9																		
10	4	2	5	7																		
Yaris D-4D Diesel		01/06 →																				
Yaris Verso 1.4L D-4D Diesel		12/01 →																				
Yaris 1.4L D-4D Diesel		12/01 →																				
TND-TV	1364	4	73.00	SOHC	55-66/ 75-90	M12x1.75x180mm (x10)																
Yaris 1.5L TS		01/03 →			113	HBS313	1) 30Nm 2) 90° 3) 90°	<table border="1"> <tr><td>8</td><td>6</td><td>1</td><td>3</td><td>9</td></tr> <tr><td>10</td><td>4</td><td>2</td><td>5</td><td>7</td></tr> </table>	8	6	1	3	9	10	4	2	5	7				
8	6	1	3	9																		
10	4	2	5	7																		
Yaris 1.5L VVT-i TS		04/01 →																				
Yaris Verso 1.5L		03/00 →																				
Yaris 1.5L TS		04/01 →																				
Yaris 1.5L VVT-i TS		03/00 →																				
Yaris Verso 1.5L		03/00 →																				
1NZ-FE	1497	4	75.00	DOHC	78/106	M9x1.50x143mm (x10)																

		cc			9			cc			9
4 JX1	Diesel	2999	4	95.40	104	C 14 NZ	Petrol	1389	4	77.60	74
10 S/N		993	4	72.00	111	C 14 NZ	Petrol	1389	4	77.60	84
12 NC	Petrol	1196	4	79.00	112	C 14 NZ	Petrol	1389	4	77.60	116
12 NV	Petrol	1196	4	77.80	114	C 14 SE	Petrol	1389	4	77.60	15
12 NV	Petrol	1196	4	77.80	119	C 14 SE	Petrol	1389	4	77.60	74
12 S	Petrol	1196	4	79.00	8	C 14 SE	Petrol	1389	4	77.60	84
12 S	Petrol	1196	4	79.00	114	C 14 SE	Petrol	1389	4	77.60	116
12 ST	Petrol	1196	4	77.80	114	C 16 LZ	Petrol	1598	4	79.00	17
13 NB	Petrol	1297	4	75.00	115	C 16 NZ	Petrol	1598	4	79.00	17
13 S	Petrol	1297	4	75.00	11	C 16 NZ	Petrol	1598	4	79.00	36
13 S	Petrol	1297	4	75.00	40	C 16 SE	Petrol	1598	4	79.00	17
13 SB	Petrol	1297	4	75.00	115	C 16 SE	Petrol	1598	4	79.00	118
14 NV	Petrol	1389	4	77.60	15	C 16 SEI	Petrol	1598	4	79.00	118
14 NV	Petrol	1389	4	77.60	60	C 16 SEL	Petrol	1598	4	79.00	18
14 NV	Petrol	1389	4	77.60	116	C 16 XE	Petrol	1598	4	79.00	87
15 D	Diesel	1488	4	76.00	86	C 18 NZ	Petrol	1796	4	84.80	25
15 D	Diesel	1488	4	76.00	117	C 18 NZ	Petrol	1796	4	84.80	64
15 D	Diesel	1488	4	76.00	120	C 18 XE	Petrol	1799	4	81.60	26
15 DT	Diesel	1488	4	76.00	42	C 18 XEL	Petrol	1799	4	81.60	26
15 DT (T4EC1)	Diesel	1488	4	76.00	16	C 20 LET	Petrol	1998	4	86.00	52
15 DT (T4EC1)	Diesel	1488	4	76.00	42	C 20 LET	Petrol	1998	4	86.00	68
15 DT (T4EC1)	Diesel	1488	4	76.00	86	C 20 NE	Petrol	1998	4	86.00	31
15 DT (T4EC1)	Diesel	1488	4	76.00	117	C 20 NE	Petrol	1998	4	86.00	33
16 DA	Diesel	1598	4	80.00	19	C 20 NE	Petrol	1998	4	86.00	49
16 DA	Diesel	1598	4	80.00	44	C 20 NE	Petrol	1998	4	86.00	55
16 S	Petrol	1598	4	80.00	43	C 20 NE	Petrol	1998	4	86.00	65
16 SH	Petrol	1598	4	80.00	43	C 20 NE	Petrol	1998	4	86.00	92
16 SV	Petrol	1598	4	79.00	17	C 20 NEF	Petrol	1998	4	86.00	55
16 SV	Petrol	1598	4	79.00	45	C 20 NEJ	Petrol	1998	4	86.00	55
16 SV	Petrol	1598	4	79.00	61	C 20 XE	Petrol	1998	4	86.00	32
17 D	Diesel	1699	4	82.50	21	C 20 XE	Petrol	1998	4	86.00	50
17 D	Diesel	1699	4	82.50	46	C 20 XE	Petrol	1998	4	86.00	66
17 D	Diesel	1699	4	82.50	62	C 24 NE	Petrol	2410	4	95.00	58
17 D (4EE1)	Diesel	1686	4	79.00	76	C 24 NE	Petrol	2410	4	95.00	96
17 D (4EE1)	Diesel	1686	4	79.00	88	C 25 XE	Petrol	2498	6	81.60	53
17 DR	Diesel	1699	4	82.50	21	C 25 XE	Petrol	2498	6	81.60	69
17 DR	Diesel	1699	4	82.50	38	C 30 SE	Petrol	2969	6	95.00	59
17 DR	Diesel	1699	4	82.50	62	C 30 SE	Petrol	2969	6	95.00	132
17 DT (TC4EE1)	Diesel	1686	4	79.00	20	C 30 SEJ	Petrol	2969	6	95.00	59
17 DT (TC4EE1)	Diesel	1686	4	79.00	63	C223	Diesel	2238	4	88.00	48
18 E	Petrol	1796	4	84.80	24	E 12 GV	Petrol	1196	4	79.00	112
18 E	Petrol	1796	4	84.80	47	E 16 NZ	Petrol	1598	4	79.00	17
18 SE	Petrol	1796	4	84.80	24	E 16 NZ	Petrol	1598	4	79.00	61
18 SE	Petrol	1796	4	84.80	47	E 16 SE	Petrol	1598	4	79.00	118
18 SEH	Petrol	1796	4	84.80	54	E 18 NVR	Petrol	1796	4	84.80	54
18 SV	Petrol	1796	4	84.80	54	F4R 720	Petrol	1998	4	82.70	163
18 SV	Petrol	1796	4	84.80	64	F8Q 600	Diesel	1870	4	80.00	6
20 NE	Petrol	1998	4	86.00	31	F8Q 606	Diesel	1870	4	80.00	6
20 NE	Petrol	1998	4	86.00	65	F9Q 760	Diesel	1870	4	80.00	162
20 SE	Petrol	1998	4	86.00	55	F9Q 770	Diesel	1870	4	80.00	105
20 SE	Petrol	1998	4	86.00	122	F9Q 774	Diesel	1870	4	80.00	106
20 SEH	Petrol	1998	4	86.00	31	G9T 720	Diesel	2188	4	87.00	107
20 SEH	Petrol	1998	4	86.00	65	G9T 722	Diesel	2188	4	87.00	107
20 SER	Petrol	1998	4	86.00	55	G9T 750	Diesel	2188	4	87.00	107
20 XE	Petrol	1998	4	86.00	32	G9U 720	Diesel	2463	4	89.00	108
23 DTR	Diesel	2260	4	92.00	57	G9U 724	Diesel	2463	4	89.00	108
23 DTR	Diesel	2260	4	92.00	95	G9U 730	Diesel	2463	4	89.00	164
23 YD	Diesel	2260	4	92.00	56	G9U 750	Diesel	2463	4	89.00	108
25 DT	Diesel	2497	6	80.00	127	G9U 754	Diesel	2463	4	89.00	108
25TDS (VM41B)	Diesel	2499	4	92.00	97	S8U 758	Diesel	2499	4	93.00	7
28 TDI (4JB1T)	Diesel	2771	4	93.00	98	S8U 770	Diesel	2499	4	93.00	109
A 10 XEP	Petrol	998	3	73.40	78	S8U 780	Diesel	2499	4	93.00	7
A 13 DTC	Diesel	1248	4	69.60	83	S8U 782	Diesel	2499	4	93.00	7
A 16 XER	Petrol	1598	4	79.00	168	S9W 702	Diesel	2799	4	94.40	110
A 18 XER	Petrol	1796	4	80.50	22	X 10 XE	Petrol	973	3	72.50	77
A 18 XER	Petrol	1796	4	80.50	169	X 12 SZ	Petrol	1195	4	72.00	71
C 12 NZ	Petrol	1187	4	72.00	70	X 12 SZ	Petrol	1195	4	72.00	81
C 12 NZ	Petrol	1187	4	72.00	80	X 12 XE	Bi-Fuel	1199	4	72.50	10
C 12 NZ	Petrol	1187	4	72.00	113	X 12 XE	Bi-Fuel	1199	4	72.50	79
C 13 N	Petrol	1297	4	75.00	115	X 14 SZ	Petrol	1389	4	77.60	84
C 14 NZ	Petrol	1389	4	77.60	15	X 14 XE	Petrol	1389	4	77.60	14
C 14 NZ	Petrol	1389	4	77.60	35	X 14 XE	Petrol	1389	4	77.60	73
C 14 NZ	Petrol	1389	4	77.60	41	X 14 XE	Petrol	1389	4	77.60	85



		CC			9			CC			9
X 14 XE	Petrol	1389	4	77.60	145	Z 10 XEP	Petrol	998	3	73.40	78
X 15 DT (T4EC1)	Diesel	1488	4	76.00	86	Z 12 XE	Bi-Fuel	1199	4	72.50	3
X 16 SZ	Petrol	1598	4	79.00	17	Z 12 XE	Bi-Fuel	1199	4	72.50	10
X 16 SZ	Petrol	1598	4	79.00	36	Z 12 XE	Bi-Fuel	1199	4	72.50	79
X 16 SZ	Petrol	1598	4	79.00	61	Z 12 XEP	Petrol	1229	4	73.40	4
X 16 SZR	Petrol	1598	4	79.00	17	Z 12 XEP	Petrol	1229	4	73.40	9
X 16 SZR	Petrol	1598	4	79.00	36	Z 12 XEP	Petrol	1229	4	73.40	82
X 16 SZR	Petrol	1598	4	79.00	149	Z 12 XEP	Petrol	1229	4	73.40	90
X 16 XE	Petrol	1598	4	79.00	87	Z 13 DTH	Diesel	1248	4	69.60	12
X 16 XE	Petrol	1598	4	79.00	146	Z 13 DTJ	Diesel	1248	4	69.60	5
X 16 XEL	Petrol	1598	4	79.00	18	Z 13 DTJ	Diesel	1248	4	69.60	72
X 16 XEL	Petrol	1598	4	79.00	148	Z 13 DTJ	Diesel	1248	4	69.60	83
X 16 XEL	Petrol	1598	4	79.00	168	Z 13 DTJ	Diesel	1248	4	69.60	91
X 17 D (4EE1)	Diesel	1686	4	79.00	76	Z 13 DTJ	Diesel	1248	4	69.60	99
X 17 D (4EE1)	Diesel	1686	4	79.00	88	Z 14 XE	Petrol	1389	4	77.60	14
X 17 DT (TC4EE1)	Diesel	1686	4	79.00	150	Z 14 XE	Petrol	1389	4	77.60	85
X 17 DTL	Diesel	1699	4	82.50	21	Z 14 XE	Petrol	1389	4	77.60	167
X 17 DTL	Diesel	1699	4	82.50	38	Z 14 XEP	Petrol	1364	4	73.40	13
X 18 XE	Petrol	1799	4	81.60	26	Z 14 XEP	Petrol	1364	4	73.40	144
X 18 XE1	Petrol	1796	4	80.50	22	Z 16 SE	Petrol	1598	4	79.00	17
X 18 XE1	Petrol	1796	4	80.50	169	Z 16 SE	Petrol	1598	4	79.00	36
X 20 DTH	Diesel	1995	4	84.00	30	Z 16 SE	Petrol	1598	4	79.00	75
X 20 DTH	Diesel	1995	4	84.00	124	Z 16 SE	Petrol	1598	4	79.00	100
X 20 DTH	Diesel	1995	4	84.00	155	Z 16 XE	Petrol	1598	4	79.00	18
X 20 DTL	Diesel	1995	4	84.00	30	Z 16 XE	Petrol	1598	4	79.00	101
X 20 DTL	Diesel	1995	4	84.00	39	Z 16 XE	Petrol	1598	4	79.00	148
X 20 DTL	Diesel	1995	4	84.00	155	Z 16 XE	Petrol	1598	4	79.00	168
X 20 DTL	Diesel	1995	4	84.00	174	Z 16 XEP	Petrol	1598	4	79.00	18
X 20 SE	Petrol	1998	4	86.00	92	Z 16 XEP	Petrol	1598	4	79.00	101
X 20 SE	Petrol	1998	4	86.00	121	Z 16 XEP	Petrol	1598	4	79.00	148
X 20 XEV	Petrol	1998	4	86.00	29	Z 16 XEP	Petrol	1598	4	79.00	168
X 20 XEV	Petrol	1998	4	86.00	51	Z 16 XER	Petrol	1598	4	79.00	18
X 20 XEV	Petrol	1998	4	86.00	67	Z 16 XER	Petrol	1598	4	79.00	168
X 20 XEV	Petrol	1998	4	86.00	123	Z 17 DTH	Diesel	1686	4	79.00	20
X 20 XEV	Petrol	1998	4	86.00	156	Z 17 DTH	Diesel	1686	4	79.00	88
X 22 DTH	Diesel	2172	4	84.00	93	Z 17 DTH	Diesel	1686	4	79.00	102
X 22 DTH	Diesel	2172	4	84.00	140	Z 17 DTL	Diesel	1686	4	79.00	20
X 22 SE	Petrol	2198	4	86.00	94	Z 17 DTL	Diesel	1686	4	79.00	37
X 22 XE	Petrol	2198	4	86.00	94	Z 18 XE	Petrol	1799	4	80.50	23
X 22 XE	Petrol	2198	4	86.00	141	Z 18 XE	Petrol	1799	4	80.50	89
X 25 DT	Diesel	2497	6	80.00	127	Z 18 XE	Petrol	1799	4	80.50	103
X 25 XE	Petrol	2498	6	81.60	53	Z 18 XE	Petrol	1799	4	80.50	147
X 25 XE	Petrol	2498	6	81.60	128	Z 18 XE	Petrol	1799	4	80.50	152
X 25 XE	Petrol	2498	6	81.60	159	Z 18 XE	Petrol	1799	4	80.50	170
X 30 XE	Petrol	2962	6	86.00	130	Z 18 XEL	Petrol	1796	4	80.50	22
X 30 XE	Petrol	2962	6	86.00	142	Z 18 XEP	Petrol	1796	4	80.50	169
Y 16 XE	Petrol	1598	4	79.00	148	Z 18 XER	Petrol	1796	4	80.50	22
Y 17 DT	Diesel	1686	4	79.00	20	Z 18 XER	Petrol	1796	4	80.50	133
Y 17 DT	Diesel	1686	4	79.00	76	Z 18 XER	Petrol	1796	4	80.50	151
Y 17 DT	Diesel	1686	4	79.00	88	Z 18 XER	Petrol	1796	4	80.50	169
Y 17 DTL	Diesel	1686	4	79.00	76	Z 19 DT	Diesel	1910	4	82.00	27
Y 17 DTL	Diesel	1686	4	79.00	88	Z 19 DT	Diesel	1910	4	82.00	28
Y 20 DTH	Diesel	1995	4	84.00	30	Z 19 DT	Diesel	1910	4	82.00	134
Y 20 DTH	Diesel	1995	4	84.00	39	Z 19 DT	Diesel	1910	4	82.00	153
Y 20 DTH	Diesel	1995	4	84.00	136	Z 19 DT	Diesel	1910	4	82.00	171
Y 20 DTH	Diesel	1995	4	84.00	155	Z 19 DTH	Diesel	1910	4	82.00	27
Y 20 DTH	Diesel	1995	4	84.00	174	Z 19 DTH	Diesel	1910	4	82.00	135
Y 20 DTL	Diesel	1995	4	84.00	30	Z 19 DTH	Diesel	1910	4	82.00	154
Y 22 DTH	Diesel	2172	4	84.00	93	Z 19 DTH	Diesel	1910	4	82.00	172
Y 22 DTH	Diesel	2172	4	84.00	126	Z 19 DTJ	Diesel	1910	4	82.00	27
Y 22 DTR	Diesel	2172	4	84.00	137	Z 20 LEH	Petrol	1998	4	86.00	29
Y 22 DTR	Diesel	2172	4	84.00	158	Z 20 LEH	Petrol	1998	4	86.00	173
Y 22 SE	Petrol	2198	4	86.00	94	Z 20 LEL	Petrol	1998	4	86.00	29
Y 22 XE	Petrol	2198	4	86.00	125	Z 20 LER	Petrol	1998	4	86.00	173
Y 25 DT	Diesel	2497	6	80.00	127	Z 20 LET	Petrol	1998	4	86.00	29
Y 26 SE	Petrol	2597	6	83.20	129	Z 20 LET	Petrol	1998	4	86.00	165
Y 26 SE	Petrol	2597	6	83.20	160	Z 20 LET	Petrol	1998	4	86.00	173
Y 32 SE	Petrol	3175	6	87.50	131	Z 22 SE	Petrol	2198	4	86.00	34
Y/Z 13 DT	Diesel	1248	4	69.60	83	Z 22 SE	Petrol	2198	4	86.00	157
Y/Z 13 DT	Diesel	1248	4	69.60	143	Z 22 SE	Petrol	2198	4	86.00	166
Z 10 XE	Petrol	973	3	72.50	1	Z 22 SE	Petrol	2198	4	86.00	175
Z 10 XE	Petrol	973	3	72.50	77	Z 22 XE	Petrol	2198	4	86.00	125
Z 10 XEP	Petrol	998	3	73.40	2	Z 22 YH	Petrol	2198	4	86.00	138



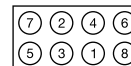
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Z 22 YH	Petrol	2198	4	86.00	157						
Z 22 YH	Petrol	2198	4	86.00	175						
Z 32 SE	Petrol	3175	6	88.50	139						
Z 32 SE	Petrol	3175	6	88.50	161						



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Agila 1.0L 12V					09/00 →	1		
Z 10 XE	973	3	72.50	DOHC	43/58	<b>HBS253</b>  M8x1.25x119mm (x10)	1) 25Nm 2) 60° 3) 60° 4) 60°	
Agila 1.0L 12V					08/03 →	2		
Z 10 XEP	998	3	73.40	DOHC	44/60	<b>HBS253</b>  M8x1.25x119mm (x10)	1) 25Nm 2) 60° 3) 60° 4) 60°	
Agila 1.2L 16V					09/00 →	3		
Z 12 XE	1199	4	72.50	DOHC	55/75	<b>HBS252</b>  M8x1.25x119mm (x12)	1) 25Nm 2) 60° 3) 60° 4) 60°	
Agila 1.2L 16V Twinport					07/04 →	4		
Z 12 XEP	1229	4	73.40	DOHC	59/80	<b>HBS252</b>  M8x1.25x119mm (x12)	1) 25Nm 2) 60° 3) 60° 4) 60°	
Agila 1.3L CDTI Diesel					01/08 →	5		
Z 13 DTJ	1248	4	69.60	DOHC	55/75	<b>HBS353</b>  M10x1.25x119mm (x10)	1) 20Nm 2) 40Nm 3) 90° 4) 90°	
Arena 1.9L D Diesel					03/98 → 08/01	6		
F8Q 600/F8Q 606	1870	4	80.00	SOHC	44/60	<b>HBS244</b>  M12x1.50x111mm (x10)	1) 30Nm 2) 100° 3) (1-2) ↺ 4) (1-2) 25Nm 5) (1-2) 213° 6) (3-4) ↺ 7) (3-4) 25Nm 8) (3-4) 213° 9) (5-6) ↺ 10) (5-6) 25Nm 11) (5-6) 213° 12) (7-8) ↺ 13) (7-8) 25Nm 14) (7-8) 213° 15) (9-10) ↺ 16) (9-10) 25Nm 17) (9-10) 213°	
Arena 2.5L D Diesel					03/98 → 08/01	7		
S8U 780/S8U 782	2499	4	93.00	SOHC	55/75	<b>HBS011</b>  M12x1.25x160mm (x10) M12x1.25x119mm (x12)	1) 20Nm 2) 40Nm 3) ↺ 90° 4) 40Nm 5) 90° 6) 90°	
S8U 758	2499	4	93.00	SOHC	55-58/ 75-79			
Astra 1.2L					09/84 → 08/91	8		
12 S	1196	4	79.00	OHV	44/60	<b>HBS112</b>  M9x1.25x80mm (x5) M9x1.25x100mm (x5)	1) 25Nm 2) 60° 3) 60° 4) 60°	
Astra 1.2L					08/05 →	9		
Z 12 XEP	1229	4	73.40	DOHC	59/80	<b>HBS252</b>  M8x1.25x119mm (x12)	1) 25Nm 2) 60° 3) 60° 4) 60°	
Astra 1.2L 16V					02/98 → 09/00	10		
X 12 XE	1199	4	72.50	DOHC	48/65	<b>HBS252</b>  M8x1.25x119mm (x12)	1) 25Nm 2) 60° 3) 60° 4) 60°	
Z 12 XE	1199	4	72.50	DOHC	55/75			



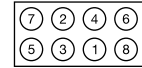
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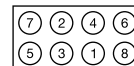
<b>Astra 1.3L</b> 09/84 → 08/91 <b>11</b>					<b>HBS002</b>  M10x1.25x140mm (x10)	1) 25Nm 2) 60° 3) 60° 4) 60°		
13 S	1297	4	75.00	SOHC				42-55/ 57-75
<b>Astra 1.3L CDTI Diesel</b> 08/05 → <b>12</b>					<b>HBS353</b>  M10x1.25x119mm (x10)	1) 20Nm 2) 40Nm 3) 90° 4) 90°		
Z 13 DTH	1248	4	69.60	DOHC				66-74/ 90-101
<b>Astra 1.4L</b> 03/04 → <b>13</b>					<b>HBS252</b>  M8x1.25x119mm (x12)	1) 25Nm 2) 60° 3) 60° 4) 60°		
Z 14 XEP	1364	4	73.40	DOHC				66/89
<b>Astra 1.4L 16V</b> 02/98 → <b>14</b>					<b>HBS055</b>  M10x1.25x153mm (x10)	1) 25Nm 2) ↻ 90° 3) 25Nm 4) 90° 5) 90° 6) 90° 7) 45°		
<b>Astra 1.4L i 16V</b> 02/96 → 09/98								
<b>Astra Convertible 1.4L i 16V</b> 01/96 → 03/01								
X 14 XE/Z 14 XE	1389	4	77.60	DOHC				66/89
<b>Astra 1.4L i</b> 01/90 → 09/98 <b>15</b>					<b>HBS002</b>  M10x1.25x140mm (x10)	1) 25Nm 2) 60° 3) 60° 4) 60°		
<b>Astra 1.4L S</b> 01/89 → 02/98								
<b>Astra Convertible 1.4L i</b> 05/93 → 03/01								
C 14 NZ	1389	4	77.60	SOHC				44/60
14 NV	1389	4	77.60	SOHC	53-55/ 72-75			
C 14 SE	1389	4	77.60	SOHC	60/81			
<b>Astra 1.5L DT Diesel</b> 01/88 → 08/91 <b>16</b>					<b>HBS036</b>  M12x1.5x102mm (x10)	1) 30Nm 2) 50° 3) 50° 4) 50°		
15 DT (T4EC1)	1488	4	76.00	SOHC				49-53/ 67-72
<b>Astra 1.6L</b> 09/84 → 09/00 <b>17</b>					<b>HBS002</b>  M10x1.25x140mm (x10)	1) 25Nm 2) 60° 3) 60° 4) 60°		
<b>Astra 1.6L i</b> 09/91 → 09/98								
<b>Astra 1.6L Si</b> 03/91 → 12/94								
<b>Astra Convertible 1.6L i</b> 01/87 → 03/01								
X 16 SZ	1598	4	79.00	SOHC				52/71
C 16 LZ/C 16 NZ/E 16 NZ/X 16 SZR	1598	4	79.00	SOHC				55/75
16 SV	1598	4	79.00	SOHC	60/82			
Z 16 SE	1598	4	79.00	SOHC	62-64/ 84-87			
C 16 SE	1598	4	79.00	SOHC	74/100			
<b>Astra 1.6L</b> 01/04 → 05/09 <b>18</b>					<b>HBS055</b>  M10x1.25x153mm (x10)	1) 25Nm 2) ↻ 90° 3) 25Nm 4) 90° 5) 90° 6) 90° 7) 45°		
<b>Astra 1.6L 16V</b> 02/98 →								
<b>Astra 1.6L Dualfuel</b> 09/02 →								
<b>Astra 1.6L i 16V</b> 01/94 → 09/98								
<b>Astra Convertible 1.6L 16V</b> 03/01 →								
Z 16 XE	1598	4	79.00	DOHC				63-74/ 85-101
C 16 SEL	1598	4	79.00	Intake Manifold Injection/ Carburettor, DOHC				74/100
X 16 XEL	1598	4	79.00	DOHC				74/100
Z 16 XEP	1598	4	79.00	DOHC	74-77/ 101-105			
Z 16 XER	1598	4	79.00	DOHC	85/116			
<b>Astra 1.6L D Diesel</b> 09/84 → 12/89 <b>19</b>					<b>HBS074</b>  M11x1.25x154mm (x10)	1) 25Nm 2) 90° 3) 90° 4) 45° 5) ⚡ 6) ⚡ 7) 30°		
16 DA	1598	4	80.00	SOHC				40/54



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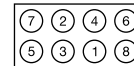
Astra 1.7L CDTI Diesel Astra 1.7L CDTI 16V Diesel Astra 1.7L DTI 16V Diesel Astra 1.7L TD Diesel					03/04 → 04/03 → 02/00 → 12/91 →09/98	20	HBS036  M12x1.5x102mm (x10)	1) 30Nm 2) ↻ 90° 3) 30Nm 4) 50° 5) 50° 6) 50°	
Y 17 DT	1686	4	79.00	DOHC		55/75			
Z 17 DTL	1686	4	79.00	DOHC		59/80			
17 DT (TC4EE1)	1686	4	79.00	SOHC		60/81			
Z 17 DTH	1686	4	79.00	DOHC		74/100			
Astra 1.7L D Diesel Astra 1.7L TD Diesel					01/89 →09/98 01/94 →08/00	21	HBS074  M11x1.25x154mm (x10)	1) 25Nm 2) 90° 3) 90° 4) 45° 5) ↓ 6) ✳ 7) 30°	
17 D	1699	4	82.50	SOHC		42/57			
17 DR	1699	4	82.50	SOHC		42-44/ 57-60			
X 17 DTL	1699	4	82.50	SOHC		50/68			
Astra 1.8L Astra 1.8L 16V Astra 1.8L i 16V Astra Coupe 1.8L 16V					01/04 →05/09 02/98 →09/00 03/07 → 03/00 →10/00	22	HBS055  M10x1.25x153mm (x10)	1) 25Nm 2) ↻ 90° 3) 25Nm 4) 90° 5) 90° 6) 90° 7) 45°	
Z 18 XEL	1796	4	80.50	DOHC		85/115			
X 18 XE1	1796	4	80.50	DOHC		85/116			
A 18 XER/Z 18 XER	1796	4	80.50	DOHC		103/140			
Astra 1.8L Astra 1.8L 16V Astra 1.8L 16V Dualfuel Astra Convertible 1.8L 16V Astra Coupe 1.8L 16V Astra Coupe 1.8L 16V Dualfuel					03/04 → 09/00 → 09/02 → 03/01 → 09/00 → 09/02 →	23	HBS055  M10x1.25x153mm (x10)	1) 25Nm 2) 90° 3) 90° 4) 90° 5) 45°	
Z 18 XE	1799	4	80.50	DOHC		87-92/ 118-125			
Astra 1.8L GTE Astra 1.8L i					09/84 →08/91 01/90 →08/91	24	HBS003  M11x1.25x140mm (x10)	1) 25Nm 2) 60° 3) 60° 4) 60° 5) ↓ 6) ✳ 7) 30°	
18 SE	1796	4	84.80	SOHC		82/111			
18 E	1796	4	84.80	SOHC		85/115			
Astra 1.8L i					09/91 →09/98	25	HBS003 →12/96  M11x1.25x140mm (x10)	1) 25Nm 2) 60° 3) 60° 4) 60° 5) ↓ 6) ✳ 7) 30°	
C 18 NZ	1796	4	84.80	SOHC		66/89			
Astra 1.8L i 16V Astra Convertible 1.8L 16V					06/93 →02/98 11/94 →03/01	26	HBS053 01/97 →  M11x1.25x140mm (x10)	1) 25Nm 2) 60° 3) 60° 4) 60° 5) ↓ 6) ✳ 7) 30°	
C 18 XEL/X 18 XE	1799	4	81.60	DOHC		85/116			
C 18 XE	1799	4	81.60	DOHC		92/125			
Astra 1.8L i 16V Astra Convertible 1.8L 16V					06/93 →02/98 11/94 →03/01	26	HBS054  M11x1.25x105mm (x10)	1) 25Nm 2) 90° 3) 90° 4) 90° 5) 45°	
C 18 XEL/X 18 XE	1799	4	81.60	DOHC		85/116			
C 18 XE	1799	4	81.60	DOHC		92/125			
Astra 1.9L CDTI Diesel Astra 1.9L CDTI 16V Diesel					06/04 → 04/04 →	27	HBS370  M12x1.25x225mm (x10)	1) 65Nm 2) 90° 3) 90° 4) 90°	
Z 19 DT	1910	4	82.00	SOHC		74-88/ 100-120			
Z 19 DTJ	1910	4	82.00	DOHC		88/120			
Z 19 DTH	1910	4	82.00	DOHC		110/150			



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kW/PS



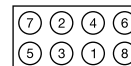
Astra 1.9L CDTI Diesel						08/05 →	28	HBS227	1) 65Nm 2) 90° 3) 90° 4) 90°	
Z 19 DT	1910	4	82.00	SOHC	74-88/ 100-120		 M12x1.25x218mm (x10)			
Astra 2.0L 16V Astra 2.0L i 16V Astra 2.0L SRI Turbo Astra 2.0L Turbo Astra Convertible 2.0L Turbo Astra Coupe 2.0L 16V Turbo						02/98 → 01/94 →09/98 07/02 → 03/04 → 03/02 → 09/00 →	29	HBS054	1) 25Nm 2) 90° 3) 90° 4) 90°	
X 20 XEV	1998	4	86.00	DOHC	100/136		 M11x1.25x105mm (x10)			
Z 20 LEL	1998	4	86.00	DOHC	125/170					
Z 20 LET	1998	4	86.00	DOHC	140-147/ 190-200					
Z 20 LEH	1998	4	86.00	DOHC	177/240					
Astra 2.0L DI Diesel Astra 2.0L DTI 16V Diesel						02/98 → 08/99 →	30	HBS298	1) 25Nm 2) 65° 3) 65° 4) 65° 5) 65° 6) 15°	
X 20 DTL/Y 20 DTL	1995	4	84.00	SOHC	60/81		 M12x1.50x235mm (x10)			
X 20 DTH/Y 20 DTH	1995	4	84.00	SOHC	74/100					
Astra 2.0L GTE Astra 2.0L i Astra Convertible 2.0L i						09/86 →08/91 09/91 →09/98 01/87 →10/94	31	HBS003	1) 25Nm 2) 60° 3) 60° 4) 60° 5) ↓ 6) * 7) 30°	
C 20 NE	1998	4	86.00	SOHC	85/115		 M11x1.25x140mm (x10)			
20 NE	1998	4	86.00	SOHC	85/116					
20 SEH	1998	4	86.00	SOHC	95/129					
Astra 2.0L GTE 16V Astra 2.0L i 16V						05/88 →08/91 09/91 →02/98	32	HBS035 →Eng.14137011	1) 25Nm 2) 65° 3) 65° 4) 65° 5) ↓ 6) * 7) 30°	
C 20 XE	1998	4	86.00	DOHC	110/150		 M11x1.25x110mm (x10)			
20 XE	1998	4	86.00	DOHC	115/156					
							HBS054 Eng.14137012 →	1) 25Nm 2) 90° 3) 90° 4) 90°		
							 M11x1.25x105mm (x10)			
Astra 2.0L i						09/91 →02/98	33	HBS003 →12/96	1) 25Nm 2) 60° 3) 60° 4) 60° 5) ↓ 6) * 7) 30°	
C 20 NE	1998	4	86.00	SOHC	85/115		 M11x1.25x140mm (x10)			
							HBS053 01/97 →	1) 25Nm 2) 60° 3) 60° 4) 60° 5) ↓ 6) * 7) 30°		
							 M11x1.25x140mm (x10)			
Astra 2.2L 16V Astra Convertible 2.2L 16V Astra Coupe 2.2L 16V						03/01 → 03/01 → 03/00 →	34	HBS416	1) 30Nm 2) 75° 3) 75° 4) 15°	
Z 22 SE	2198	4	86.00	DOHC	108/147		 M11x1.50x163mm (x10)			



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kW/PS



Astravan 1.4L i					01/91 → 10/94	35												
C 14 NZ	1389	4	77.60	SOHC	44/60	<b>HBS002</b>  M10x1.25x140mm (x10)	1) 25Nm 2) 60° 3) 60° 4) 60°	<table border="1"><tr><td>10</td><td>6</td><td>2</td><td>3</td><td>7</td></tr><tr><td>9</td><td>5</td><td>1</td><td>4</td><td>8</td></tr></table>	10	6	2	3	7	9	5	1	4	8
10	6	2	3	7														
9	5	1	4	8														
<b>Astravan 1.6L i</b>					01/91 → 09/00	36												
X 16 SZ	1598	4	79.00	SOHC	52/71	<b>HBS002</b>  M10x1.25x140mm (x10)	1) 25Nm 2) 60° 3) 60° 4) 60°	<table border="1"><tr><td>10</td><td>6</td><td>2</td><td>3</td><td>7</td></tr><tr><td>9</td><td>5</td><td>1</td><td>4</td><td>8</td></tr></table>	10	6	2	3	7	9	5	1	4	8
10	6	2	3	7														
9	5	1	4	8														
C 16 NZ/X 16 SZR	1598	4	79.00	SOHC	55/75													
Z 16 SE	1598	4	79.00	SOHC	62-64/ 84-87													
<b>Astravan 1.7L CDTI Diesel</b>					04/04 →	37												
Z 17 DTL	1686	4	79.00	DOHC	59/80	<b>HBS036</b>  M12x1.5x102mm (x10)	1) 30Nm 2) ↺ 90° 3) 30Nm 4) 50° 5) 50° 6) 50°	<table border="1"><tr><td>10</td><td>6</td><td>2</td><td>3</td><td>7</td></tr><tr><td>9</td><td>5</td><td>1</td><td>4</td><td>8</td></tr></table>	10	6	2	3	7	9	5	1	4	8
10	6	2	3	7														
9	5	1	4	8														
<b>Astravan 1.7L D Diesel</b>					01/91 → 08/94	38												
<b>Astravan 1.7L TD Diesel</b>					01/94 → 08/98													
17 DR	1699	4	82.50	SOHC	42-44/ 57-60	<b>HBS074</b>  M11x1.25x154mm (x10)	1) 25Nm 2) 90° 3) 90° 4) 45° 5) ↓ 6) ✳ 7) 30°	<table border="1"><tr><td>10</td><td>6</td><td>2</td><td>3</td><td>7</td></tr><tr><td>9</td><td>5</td><td>1</td><td>4</td><td>8</td></tr></table>	10	6	2	3	7	9	5	1	4	8
10	6	2	3	7														
9	5	1	4	8														
X 17 DTL	1699	4	82.50	SOHC	50/68													
<b>Astravan 2.0L DI Diesel</b>					08/98 →	39												
<b>Astravan 2.0L DTI Diesel</b>					04/04 →													
X 20 DTL	1995	4	84.00	SOHC	60/81	<b>HBS298</b>  M12x1.50x235mm (x10)	1) 25Nm 2) 65° 3) 65° 4) 65° 5) 65° 6) 15°	<table border="1"><tr><td>10</td><td>6</td><td>2</td><td>3</td><td>7</td></tr><tr><td>9</td><td>5</td><td>1</td><td>4</td><td>8</td></tr></table>	10	6	2	3	7	9	5	1	4	8
10	6	2	3	7														
9	5	1	4	8														
Y 20 DTH	1995	4	84.00	SOHC	74/100													
<b>Belmont 1.3L</b>					09/85 → 08/91	40												
13 S	1297	4	75.00	SOHC	42-55/ 57-75	<b>HBS002</b>  M10x1.25x140mm (x10)	1) 25Nm 2) 60° 3) 60° 4) 60°	<table border="1"><tr><td>10</td><td>6</td><td>2</td><td>3</td><td>7</td></tr><tr><td>9</td><td>5</td><td>1</td><td>4</td><td>8</td></tr></table>	10	6	2	3	7	9	5	1	4	8
10	6	2	3	7														
9	5	1	4	8														
<b>Belmont 1.4L i</b>					01/90 → 12/91	41												
C 14 NZ	1389	4	77.60	SOHC	44/60	<b>HBS002</b>  M10x1.25x140mm (x10)	1) 25Nm 2) 60° 3) 60° 4) 60°	<table border="1"><tr><td>10</td><td>6</td><td>2</td><td>3</td><td>7</td></tr><tr><td>9</td><td>5</td><td>1</td><td>4</td><td>8</td></tr></table>	10	6	2	3	7	9	5	1	4	8
10	6	2	3	7														
9	5	1	4	8														
<b>Belmont 1.5L DT Diesel</b>					01/87 → 08/90	42												
15 DT (T4EC1)	1488	4	76.00	SOHC	49-53/ 67-72	<b>HBS036</b>  M12x1.5x102mm (x10)	1) 30Nm 2) 50° 3) 50° 4) 50°	<table border="1"><tr><td>10</td><td>6</td><td>2</td><td>3</td><td>7</td></tr><tr><td>9</td><td>5</td><td>1</td><td>4</td><td>8</td></tr></table>	10	6	2	3	7	9	5	1	4	8
10	6	2	3	7														
9	5	1	4	8														
15 DT	1488	4	76.00	SOHC	53/72													
<b>Belmont 1.6L</b>					09/85 → 08/91	43												
16 S	1598	4	80.00	CIH	55-66/ 75-90	<b>HBS003</b>  M11x1.25x140mm (x10)	1) 25Nm 2) 60° 3) 60° 4) 60° 5) ↓ 6) ✳ 7) 30°	<table border="1"><tr><td>10</td><td>6</td><td>2</td><td>3</td><td>7</td></tr><tr><td>9</td><td>5</td><td>1</td><td>4</td><td>8</td></tr></table>	10	6	2	3	7	9	5	1	4	8
10	6	2	3	7														
9	5	1	4	8														
16 SH	1598	4	80.00	SOHC	66/89													
<b>Belmont 1.6L D Diesel</b>					09/85 → 08/91	44												
16 DA	1598	4	80.00	SOHC	40/54	<b>HBS074</b>  M11x1.25x154mm (x10)	1) 25Nm 2) 90° 3) 90° 4) 45° 5) ↓ 6) ✳ 7) 30°	<table border="1"><tr><td>10</td><td>6</td><td>2</td><td>3</td><td>7</td></tr><tr><td>9</td><td>5</td><td>1</td><td>4</td><td>8</td></tr></table>	10	6	2	3	7	9	5	1	4	8
10	6	2	3	7														
9	5	1	4	8														
<b>Belmont 1.6L S</b>					01/89 → 12/91	45												
16 SV	1598	4	79.00	SOHC	60/82	<b>HBS002</b>  M10x1.25x140mm (x10)	1) 25Nm 2) 60° 3) 60° 4) 60°	<table border="1"><tr><td>10</td><td>6</td><td>2</td><td>3</td><td>7</td></tr><tr><td>9</td><td>5</td><td>1</td><td>4</td><td>8</td></tr></table>	10	6	2	3	7	9	5	1	4	8
10	6	2	3	7														
9	5	1	4	8														





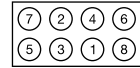
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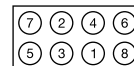
Belmont 1.7L D Diesel				01/89→12/91	46
17 D	1699	4	82.50	SOHC	42/57
<b>HBS074</b>  M11x1.25x154mm (x10)					
1) 25Nm 2) 90° 3) 90° 4) 45° 5) ↓ 6) ✳ 7) 30°					
Belmont 1.8L Belmont 1.8L i				01/86→12/90 09/85→08/91	47
18 SE	1796	4	84.80	SOHC	82/111
18 E	1796	4	84.80	SOHC	85/115
<b>HBS003</b>  M11x1.25x140mm (x10)					
1) 25Nm 2) 60° 3) 60° 4) 60° 5) ↓ 6) ✳ 7) 30°					
Brava 2.2L D Diesel Brava 2.2L D 4x4 Diesel				08/91→09/96 08/91→09/96	48
C223	2238	4	88.00	SOHC	39-54/ 53-73
<b>HBS286</b>  M11x1.50x117mm (x3) M11x1.50x116mm (x16)					
1) 30Nm 2) 55Nm 3) ↷ 90° 4) 55Nm 5) 90° 6) 30°					
Calibra Coupe 2.0L i Calibra Coupe 2.0L i 4x4				06/90→07/97 06/90→07/97	49
C 20 NE	1998	4	86.00	SOHC	85/115
<b>HBS003</b>  M11x1.25x140mm (x10)					
1) 25Nm 2) 60° 3) 60° 4) 60° 5) ↓ 6) ✳ 7) 30°					
Calibra Coupe 2.0L i 16V Calibra Coupe 2.0L i 16V 4x4				06/90→02/94 06/90→02/94	50
C 20 XE	1998	4	86.00	DOHC	110/150
<b>HBS035</b> →Eng.14137011  M11x1.25x110mm (x10)					
1) 25Nm 2) 65° 3) 65° 4) 65° 5) ↓ 6) ✳ 7) 30°					
<b>HBS054</b> Eng.14137012→  M11x1.25x105mm (x10)					
1) 25Nm 2) 90° 3) 90° 4) 90°					
Calibra Coupe 2.0L i 16V Calibra Coupe 2.0L i 16V 4x4				06/90→07/97 02/94→07/97	51
X 20 XEV	1998	4	86.00	DOHC	100/136
<b>HBS054</b>  M11x1.25x105mm (x10)					
1) 25Nm 2) 90° 3) 90° 4) 90°					
Calibra Coupe 2.0L i Turbo 4x4				03/92→07/97	52
C 20 LET	1998	4	86.00	DOHC	150/204
<b>HBS035</b> →Eng.14003804  M11x1.25x110mm (x10)					
1) 25Nm 2) 65° 3) 65° 4) 65° 5) ↓ 6) ✳ 7) 30°					
<b>HBS054</b> Eng.14003805→  M11x1.25x105mm (x10)					
1) 25Nm 2) 90° 3) 90° 4) 90°					
Calibra Coupe 2.5L i V6				04/93→07/97	53
C 25 XE	2498	6	81.60	DOHC, V6	125/170
X 25 XE	2498	6	81.60	DOHC, V6	125-143/ 170-194
<b>HBS164</b>  M11x1.25x105mm (x16)					
1) 30Nm 2) 60Nm 3) 90° 4) 90°					



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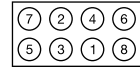
<b>Carlton 1.8L</b> 09/87 → 03/94 <b>54</b>						<b>HBS003</b>  M11x1.25x140mm (x10)	1) 25Nm 2) 60° 3) 60° 4) 60° 5) ↓ 6) ✱ 7) 30°			
<b>Carlton 1.8L i</b> 09/86 → 03/94										
<b>Carlton 1.8L S</b> 09/86 → 03/94										
Engine	CC	Cyl	Power	SOHC	kW/PS					
E 18 NVR	1796	4	84.80	SOHC	65/88					
18 SV	1796	4	84.80	SOHC	66/89					
18 SEH	1796	4	84.80	SOHC	85/115					
<b>Carlton 2.0L</b> 01/86 → 03/94 <b>55</b>						<b>HBS003</b>  M11x1.25x140mm (x10)	1) 25Nm 2) 60° 3) 60° 4) 60° 5) ↓ 6) ✱ 7) 30°			
<b>Carlton 2.0L i</b> 09/86 → 03/94										
C 20 NEJ	1998	4	86.00	SOHC	73-74/ 99-100					
C 20 NEF	1998	4	86.00	SOHC	74/100					
C 20 NE	1998	4	86.00	SOHC	85/115					
20 SE	1998	4	86.00	SOHC	90/122					
20 SER	1998	4	86.00	Injection	90/122					
<b>Carlton 2.3L D Diesel</b> 09/86 → 03/94 <b>56</b>						<b>HBS160</b>  M13x1.50x134mm (x10)	1) 50Nm 2) 100Nm 3) 45° 4) 45° 5) ↓ 6) ✱ 7) 30° 8) 30°			
23 YD	2260	4	92.00	SOHC	54/73					
<b>Carlton 2.3L TD Interc. Diesel</b> 08/88 → 03/94 <b>57</b>						<b>HBS163</b>  M13x1.50x134mm (x10)	1) 50Nm 2) 100Nm 3) 45° 4) 45° 5) ↓ 6) ✱ 7) 30° 8) 30°			
23 DTR	2260	4	92.00	SOHC	74/100					
<b>Carlton 2.4L i</b> 09/88 → 03/94 <b>58</b>						<b>HBS161</b>  M12x1.50x64mm (x5) M12x1.50x97.5mm (x5)	1) 60Nm 2) 90° 3) ↓ 4) ✱ 5) 40°			
C 24 NE	2410	4	95.00	SOHC	92/125					
<b>Carlton 3.0L 24V</b> 09/89 → 03/94 <b>59</b>						<b>HBS417</b>  M12x1.50x88mm (x14)	1) 30Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 95° 6) 35°			
<b>Carlton 3.0L 3000 24V</b> 09/89 → 03/94										
C 30 SEI	2969	6	95.00	DOHC	147/200					
C 30 SE	2969	6	95.00	DOHC	150/204					
<b>Cavalier 1.4L S</b> 09/88 → 11/95 <b>60</b>						<b>HBS002</b>  M10x1.25x140mm (x10)	1) 25Nm 2) 60° 3) 60° 4) 60°			
14 NV	1389	4	77.60	SOHC	53-55/ 72-75					
<b>Cavalier 1.6L</b> 09/88 → 05/93 <b>61</b>						<b>HBS002</b>  M10x1.25x140mm (x10)	1) 25Nm 2) 60° 3) 60° 4) 60°			
<b>Cavalier 1.6L i</b> 09/88 → 11/95										
X 16 SZ	1598	4	79.00	SOHC	52/71					
E 16 NZ	1598	4	79.00	SOHC	55/75					
16 SV	1598	4	79.00	SOHC	60/82					
<b>Cavalier 1.7L D Diesel</b> 09/88 → 11/95 <b>62</b>						<b>HBS074</b>  M11x1.25x154mm (x10)	1) 25Nm 2) 90° 3) 90° 4) 45° 5) ↓ 6) ✱ 7) 30°			
17 D	1699	4	82.50	SOHC	42/57					
17 DR	1699	4	82.50	SOHC	42-44/ 57-60					


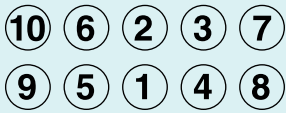

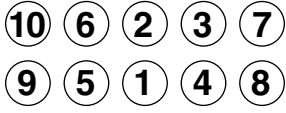

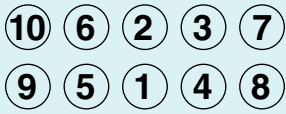

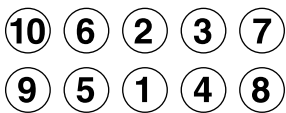

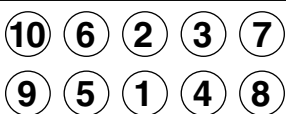

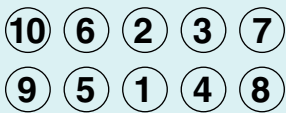

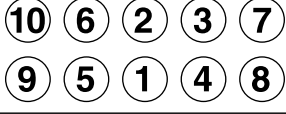

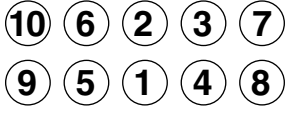



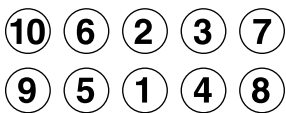


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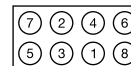
Cavalier 1.7L TD Diesel		09/88 → 11/95			63			
17 DT (TC4EE1)	1686	4	79.00	SOHC	60/81	 M12x1.5x102mm (x10)	1) 30Nm 2) ↻ 90° 3) 30Nm 4) 50° 5) 50° 6) 50°	
Cavalier 1.8L Cavalier 1.8L i		09/88 → 10/92 03/90 → 11/95			64			
18 SV/C 18 NZ	1796	4	84.80	SOHC	66/89	 M11x1.25x140mm (x10)	1) 25Nm 2) 60° 3) 60° 4) 60° 5) ↓ 6) ✱ 7) 30°	
Cavalier 2.0L i Cavalier 2.0L i 4x4 Cavalier 2.0L SRi		09/88 → 11/95 09/88 → 10/92 09/88 → 09/92			65			
C 20 NE	1998	4	86.00	SOHC	85/115	 M11x1.25x140mm (x10)	1) 25Nm 2) 60° 3) 60° 4) 60° 5) ↓ 6) ✱ 7) 30°	
20 NE	1998	4	86.00	SOHC	85/116			
20 SEH	1998	4	86.00	SOHC	95/129			
Cavalier 2.0L i 16V Cavalier 2.0L i 16V 4x4 Cavalier 2.0L i 4x4		09/88 → 11/95 09/88 → 11/95 01/92 → 11/93			66			
C 20 XE	1998	4	86.00	DOHC	110/150	 → Eng.14137011 M11x1.25x110mm (x10)	1) 25Nm 2) 65° 3) 65° 4) 65° 5) ↓ 6) ✱ 7) 30°	
						 Eng.14137012 → M11x1.25x105mm (x10)	1) 25Nm 2) 90° 3) 90° 4) 90°	
Cavalier 2.0L i 16V Cavalier 2.0L SRi 16V		09/93 → 11/95 09/93 → 11/95			67			
X 20 XEV	1998	4	86.00	DOHC	100/136	 M11x1.25x105mm (x10)	1) 25Nm 2) 90° 3) 90° 4) 90°	
Cavalier 2.5 V6 4x4		06/92 → 11/94			68			
C 20 LET	1998	4	86.00	DOHC	150/204	 → Eng.14003804 M11x1.25x110mm (x10)	1) 25Nm 2) 65° 3) 65° 4) 65° 5) ↓ 6) ✱ 7) 30°	
						 Eng.14003805 → M11x1.25x105mm (x10)	1) 25Nm 2) 90° 3) 90° 4) 90°	
Cavalier 2.5L V6		02/93 → 11/95			69			
C 25 XE	2498	6	81.60	DOHC, V6	125/170	 M11x1.25x105mm (x16)	1) 30Nm 2) 60Nm 3) 90° 4) 90°	
Combo Van 1.2L		07/94 → 10/01			70			
C 12 NZ	1187	4	72.00	SOHC	33/45	 M10x1.25x140mm (x10)	1) 25Nm 2) 60° 3) 60° 4) 60°	



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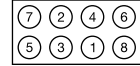
Combo Van 1.2L					07/94 → 10/01	71			
X 12 SZ	1195	4	72.00	SOHC	33/45	<b>HBS002</b>	1) 25Nm 2) 60° 3) 60° 4) 60°	 M10x1.25x140mm (x10)	
Combo 1.3L CDTI 16V Diesel					10/05 →	72			
Z 13 DTJ	1248	4	69.60	DOHC	55/75	<b>HBS353</b>	1) 20Nm 2) 40Nm 3) 90° 4) 90°	 M10x1.25x119mm (x10)	
Combo 1.4L 16V					08/99 → 10/01	73			
X 14 XE	1389	4	77.60	DOHC	66/89	<b>HBS055</b>	1) 25Nm 2) ↻ 90° 3) 25Nm 4) 90° 5) 90° 6) 90° 7) 45°	 M10x1.25x153mm (x10)	
Combo Van 1.4L					07/94 → 10/01	74			
C 14 NZ	1389	4	77.60	SOHC	44/60	<b>HBS002</b>	1) 25Nm 2) 60° 3) 60° 4) 60°	 M10x1.25x140mm (x10)	
C 14 SE	1389	4	77.60	SOHC	60/81				
Combo Van 1.6L					10/01 →	75			
Z 16 SE	1598	4	79.00	SOHC	62-64/ 84-87	<b>HBS002</b>	1) 25Nm 2) 60° 3) 60° 4) 60°	 M10x1.25x140mm (x10)	
Combo Van 1.7L D Diesel					07/94 → 10/01	76			
Combo Van 1.7L DI 16V Diesel					09/01 →				
Combo Van 1.7L DTI 16V Diesel					10/01 →				
17 D (4EE1)/X 17 D (4EE1)	1686	4	79.00	SOHC	44/60	<b>HBS036</b>	1) 30Nm 2) ↻ 90° 3) 30Nm 4) 50° 5) 50° 6) 50°	 M12x1.5x102mm (x10)	
Y 17 DTL	1686	4	79.00	DOHC	48/65				
Y 17 DT	1686	4	79.00	DOHC	55/75				
Corsa 1.0L 12V					09/00 → 10/03	77			
Corsa 1.0L i 12V					11/96 → 09/00				
X 10 XE	973	3	72.50	DOHC	40/54	<b>HBS253</b>	1) 25Nm 2) 60° 3) 60° 4) 60°	 M8x1.25x119mm (x10)	
Z 10 XE	973	3	72.50	DOHC	43/58				
Corsa 1.0L 12V Mk II					11/03 →	78			
Corsa 1.0L Mk III					07/06 →				
Z 10 XEP	998	3	73.40	DOHC	44/60	<b>HBS253</b>	1) 25Nm 2) 60° 3) 60° 4) 60°	 M8x1.25x119mm (x10)	
A 10 XEP	998	3	73.40	Intake Manifold Injection/ Carburettor, DOHC	44-48/ 60-65				
Corsa 1.2L 16V					09/00 →	79			
Corsa 1.2L 16V Dualfuel					08/01 →				
Corsa 1.2L i 16V					03/98 → 09/00				
Corsa Van 1.2L 16V					09/00 →				
Corsa Van 1.2L 16V Dualfuel					08/01 →				
X 12 XE	1199	4	72.50	DOHC	48/65	<b>HBS252</b>	1) 25Nm 2) 60° 3) 60° 4) 60°	 M8x1.25x119mm (x12)	
Z 12 XE	1199	4	72.50	DOHC	55/75				
Corsa 1.2L i					03/93 → 09/00	80			
C 12 NZ	1187	4	72.00	SOHC	33/45	<b>HBS002</b>	1) 25Nm 2) 60° 3) 60° 4) 60°	 M10x1.25x140mm (x10)	
Corsa 1.2L i					03/93 → 09/00	81			
X 12 SZ	1195	4	72.00	SOHC	33/45	<b>HBS002</b>	1) 25Nm 2) 60° 3) 60° 4) 60°	 M10x1.25x140mm (x10)	



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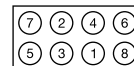
<b>Corsa 1.2L Mk III</b> 07/06 → <b>82</b> <b>Corsa 1.2L Twinport</b> 07/04 →					<b>HBS252</b>  M8x1.25x119mm (x12)	1) 25Nm 2) 60° 3) 60° 4) 60°		
Z 12 XEP	1229	4	73.40	DOHC				59/80
<b>Corsa 1.3L CDTI 16V Diesel</b> 04/04 → 09/06 <b>83</b> <b>Corsa 1.3L CDTI Mk III Diesel</b> 07/06 → <b>Corsa Van 1.3L CDTI 16V Diesel</b> 04/04 →					<b>HBS353</b>  M10x1.25x119mm (x10)	1) 20Nm 2) 40Nm 3) 90° 4) 90°		
Y/Z 13 DT	1248	4	69.60	DOHC				51/70
A 13 DTC	1248	4	69.60	Direct Injection, DOHC				55/75
Z 13 DTJ	1248	4	69.60	DOHC				55/75
<b>Corsa 1.4L i</b> 03/93 → 09/00 <b>84</b> <b>Corsa 1.4L i S</b> 03/93 → 09/00 <b>Corsa Van 1.4L i</b> 01/94 → 09/00					<b>HBS002</b>  M10x1.25x140mm (x10)	1) 25Nm 2) 60° 3) 60° 4) 60°		
C 14 NZ/X 14 SZ	1389	4	77.60	SOHC				44/60
C 14 SE	1389	4	77.60	SOHC				60/81
<b>Corsa 1.4L i 16V</b> 09/94 → 09/00 <b>85</b> <b>Corsa Convertible 1.4L i 16V</b> 01/98 →					<b>HBS055</b>  M10x1.25x153mm (x10)	1) 25Nm 2) ↻ 90° 3) 25Nm 4) 90° 5) 90° 6) 90° 7) 45°		
X 14 XE/Z 14 XE	1389	4	77.60	DOHC				66/89
<b>Corsa 1.5L D Diesel</b> 03/93 → 09/00 <b>86</b> <b>Corsa 1.5L TD Diesel</b> 03/93 → 10/96					<b>HBS036</b>  M12x1.5x102mm (x10)	1) 30Nm 2) 50° 3) 50° 4) 50°		
15 D	1488	4	76.00	SOHC				37/50
X 15 DT (T4EC1)	1488	4	76.00	SOHC				49/67
15 DT (T4EC1)	1488	4	76.00	SOHC	49-53/ 67-72			
<b>Corsa 1.6L GSI 16V</b> 03/93 → 09/00 <b>87</b> <b>Corsa 1.6L i 16V</b> 09/94 → 09/00					<b>HBS055</b>  M10x1.25x153mm (x10)	1) 25Nm 2) ↻ 90° 3) 25Nm 4) 90° 5) 90° 6) 90° 7) 45°		
X 16 XE	1598	4	79.00	DOHC				78/106
C 16 XE	1598	4	79.00	DOHC				78-80/ 106-109
<b>Corsa 1.7L CDTI 16V Diesel</b> 04/04 → <b>88</b> <b>Corsa 1.7L D Diesel</b> 02/96 → 09/00 <b>Corsa 1.7L DI 16V Diesel</b> 09/00 → <b>Corsa 1.7L DTI 16V Diesel</b> 09/00 → <b>Corsa Van 1.7L D Diesel</b> 01/94 → 09/00 <b>Corsa Van 1.7L DI 16V Diesel</b> 09/00 → <b>Corsa Van 1.7L DTI 16V Diesel</b> 09/00 →					<b>HBS036</b>  M12x1.5x102mm (x10)	1) 30Nm 2) ↻ 90° 3) 30Nm 4) 50° 5) 50° 6) 50°		
17 D (4EE1)/X 17 D (4EE1)	1686	4	79.00	SOHC				44/60
Y 17 DTL	1686	4	79.00	DOHC				48/65
Y 17 DT	1686	4	79.00	DOHC				55/75
Z 17 DTH	1686	4	79.00	DOHC				74/100
<b>Corsa 1.8L 16V</b> 09/00 → <b>89</b>								<b>HBS055</b>  M10x1.25x153mm (x10)
Z 18 XE	1799	4	80.50	DOHC	87-92/ 118-125			
<b>Corsavan 1.2L</b> 07/09 → <b>90</b>					<b>HBS252</b>  M8x1.25x119mm (x12)	1) 25Nm 2) 60° 3) 60° 4) 60°		
Z 12 XEP	1229	4	73.40	DOHC				59/80
<b>Corsavan 1.3L CDTI Diesel</b> 07/06 → <b>91</b>					<b>HBS353</b>  M10x1.25x119mm (x10)	1) 20Nm 2) 40Nm 3) 90° 4) 90°		
Z 13 DTJ	1248	4	69.60	DOHC				55/75



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Frontera 2.0L i					03/92 → 10/98	92				
C 20 NE	1998	4	86.00	SOHC	85/115	<b>HBS003</b> →12/96  M11x1.25x140mm (x10)	1) 25Nm			
X 20 SE	1998	4	86.00	SOHC	85/116		2) 60°			
Frontera 2.2L DTI Diesel					10/98 →	93				
X 22 DTH	2172	4	84.00	SOHC	85/116	<b>HBS053</b> 01/97 →  M11x1.25x140mm (x10)	1) 25Nm			
Y 22 DTH	2172	4	84.00	SOHC	85-88/ 116-120		2) 60°			
Frontera 2.2L i					03/95 → 10/98	94				
X 22 XE/Y 22 SE	2198	4	86.00	DOHC	100/136	<b>HBS054</b>  M11x1.25x105mm (x10)	1) 25Nm			
X 22 SE	2198	4	86.00	DOHC	100-104/ 136-141		2) 90°			
Frontera 2.3L TD Diesel					03/92 → 10/98	95				
23 DTR	2260	4	92.00	SOHC	74/100	<b>HBS163</b>  M13x1.50x134mm (x10)	1) 50Nm			
							2) 100Nm			
Frontera 2.4L i					03/92 → 10/98	96				
C 24 NE	2410	4	95.00	SOHC	92/125	<b>HBS161</b>  M12x1.50x64mm (x5) M12x1.50x97.5mm (x5)	1) 60Nm			
							2) 90°			
Frontera 2.5L TDS Diesel					09/96 → 10/98	97				
25TDS (VM41B)	2499	4	92.00		85/115	<b>HBS108</b>  M14x2x137mm (x10) M12x1.75x115mm (x4) M12x1.75x79.5mm (x4)	<b>A</b>			
							1) 30Nm			
Frontera 2.8L TD Diesel					03/95 → 10/98	98				
28 TDI (4JB1T)	2771	4	93.00		83/113	<b>HBS287</b>  M11x1.50x121mm (x18)	1) 25Nm			
							2) 50Nm			
Meriva 1.3L CDTI Diesel					09/03 →	99				
Z 13 DTJ	1248	4	69.60	DOHC	55/75	<b>HBS353</b>  M10x1.25x119mm (x10)	1) 20Nm			
							2) 40Nm			





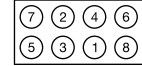
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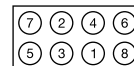
Meriva 1.6L i		05/03 →			100			
Z 16 SE	1598	4	79.00	SOHC	62-64/ 84-87	<b>HBS002</b>  M10x1.25x140mm (x10)	1) 25Nm 2) 60° 3) 60° 4) 60°	
Meriva 1.6L i 16V Meriva 1.6L i 16V Twinport		05/03 → 01/06 →			101			
Z 16 XE	1598	4	79.00	DOHC	63-74/ 85-101	<b>HBS055</b>  M10x1.25x153mm (x10)	1) 25Nm 2) ↻ 90° 3) 25Nm 4) 90° 5) 90° 6) 90° 7) 45°	
Z 16 XEP	1598	4	79.00	DOHC	74-77/ 101-105			
Meriva 1.7L CDTI 16V Diesel		04/04 →			102			
Z 17 DTH	1686	4	79.00	DOHC	74/100	<b>HBS036</b>  M12x1.5x102mm (x10)	1) 30Nm 2) ↻ 90° 3) 30Nm 4) 50° 5) 50° 6) 50°	
Meriva 1.8L i 16V		05/03 →			103			
Z 18 XE	1799	4	80.50	DOHC	87-92/ 118-125	<b>HBS055</b>  M10x1.25x153mm (x10)	1) 25Nm 2) 90° 3) 90° 4) 90° 5) 45°	
Monterey 3.0L DTI Diesel		07/98 →08/99			104			
4 JX1	2999	4	95.40	DOHC	117-118/ 159-160	<b>HBS419</b>  M11x1.50x110mm (x18)	1) 49Nm 2) 60° 3) 60°	
Movano 1.9L DTI Diesel		09/00 →10/01			105			
F9Q 770	1870	4	80.00	SOHC	59/80	<b>HBS120</b>  M12x1.50x118mm (x10)	1) 30Nm 2) 100° 3) (1-2) ↻ 90° 4) (1-2) 25Nm 5) (1-2) 213° 6) (3-4) ↻ 90° 7) (3-4) 25Nm 8) (3-4) 213° 9) (5-6) ↻ 90° 10) (5-6) 25Nm 11) (5-6) 213° 12) (7-8) ↻ 90° 13) (7-8) 25Nm 14) (7-8) 213° 15) (9-10) ↻ 90° 16) (9-10) 25Nm 17) (9-10) 213°	
Movano 1.9L DTI Diesel		10/01 →			106			
F9Q 774	1870	4	80.00	SOHC	60/82	<b>HBS372</b>  M12x1.50x121mm (x10)	1) 35Nm 2) 100° 3) (1-2) ↻ 90° 4) (1-2) 25Nm 5) (1-2) 213° 6) (3-4) ↻ 90° 7) (3-4) 25Nm 8) (3-4) 213° 9) (5-6) ↻ 90° 10) (5-6) 25Nm 11) (5-6) 213° 12) (7-8) ↻ 90° 13) (7-8) 25Nm 14) (7-8) 213° 15) (9-10) ↻ 90° 16) (9-10) 25Nm 17) (9-10) 213°	



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Model		cc	Cyl	Power (kW/PS)	Year Range	Configuration	Part No.	Part Description	Specifications	Timing Diagram
<b>Movano 2.2L DTI Diesel</b>					09/00 →		<b>107</b>			
G9T 720/G9T 722/G9T 750	2188	4	87.00	DOHC		66/90	<b>HBS373</b>	M12x1.50x131mm (x10)	1) 30Nm 2) 30Nm 3) 300°	
<b>Movano 2.5L CDTI Diesel</b>					04/04 →		<b>108</b>			
<b>Movano 2.5L DTI Diesel</b>					10/01 →		<b>108</b>			
G9U 754	2463	4	89.00	DOHC		73/99	<b>HBS373</b>	M12x1.50x131mm (x10)	1) 10Nm 2) 30Nm 3) 300°	
G9U 720/G9U 724/G9U 750	2463	4	89.00	DOHC		84/115	<b>HBS373</b>	M12x1.50x131mm (x10)	1) 10Nm 2) 30Nm 3) 300°	
<b>Movano 2.5L D Diesel</b>					10/98 → 09/00		<b>109</b>			
S8U 770	2499	4	93.00			59/80	<b>HBS011</b>	M12x1.25x160mm (x10) M12x1.25x119mm (x12)	1) 20Nm 2) 40Nm 3) 90° 4) 40Nm 5) 90° 6) 90°	
<b>Movano 2.8L DTI Diesel</b>					10/98 → 10/01		<b>110</b>			
<b>Movano 2.8L TDI Diesel</b>					10/98 → 10/01		<b>110</b>			
S9W 702	2799	4	94.40	SOHC		84/114	<b>HBS011</b>	M12x1.25x160mm (x10) M12x1.25x119mm (x12)	1) 20Nm 2) 40Nm 3) 90° 4) 40Nm 5) 90° 6) 90°	
<b>Nova 1.0L</b>					05/83 → 03/93		<b>111</b>			
10 S/N	993	4	72.00			29-37/ 39-50	<b>HBS112</b>	M9x1.25x80mm (x5) M9x1.25x100mm (x5)	1) 25Nm 2) 60° 3) 60° 4) 60°	
<b>Nova 1.2L i</b>					01/85 → 10/89		<b>112</b>			
12 NC/E 12 GV	1196	4	79.00			33/45	<b>HBS112</b>	M9x1.25x80mm (x5) M9x1.25x100mm (x5)	1) 25Nm 2) 60° 3) 60° 4) 60°	
<b>Nova 1.2L i</b>					09/89 → 03/93		<b>113</b>			
C 12 NZ	1187	4	72.00	SOHC		33/45	<b>HBS002</b>	M10x1.25x140mm (x10)	1) 25Nm 2) 60° 3) 60° 4) 60°	
<b>Nova 1.2L N</b>					01/90 → 03/93		<b>114</b>			
<b>Nova 1.2L S</b>					05/83 → 02/90		<b>114</b>			
12 NV	1196	4	77.80	SOHC		38/52	<b>HBS002</b>	M10x1.25x140mm (x10)	1) 25Nm 2) 60° 3) 60° 4) 60°	
12 ST	1196	4	77.80	SOHC		40-43/ 54-58	<b>HBS002</b>	M10x1.25x140mm (x10)	1) 25Nm 2) 60° 3) 60° 4) 60°	
12 S	1196	4	79.00	OHV		44/60	<b>HBS002</b>	M10x1.25x140mm (x10)	1) 25Nm 2) 60° 3) 60° 4) 60°	
<b>Nova 1.3L i</b>					09/85 → 03/93		<b>115</b>			
<b>Nova 1.3L S</b>					05/83 → 10/89		<b>115</b>			
13 NB/C 13 N	1297	4	75.00	SOHC		44/60	<b>HBS002</b>	M10x1.25x140mm (x10)	1) 25Nm 2) 60° 3) 60° 4) 60°	
13 SB	1297	4	75.00	SOHC		51/70	<b>HBS002</b>	M10x1.25x140mm (x10)	1) 25Nm 2) 60° 3) 60° 4) 60°	
<b>Nova 1.4L i</b>					01/90 → 03/93		<b>116</b>			
<b>Nova 1.4L i S</b>					09/91 → 03/93		<b>116</b>			
<b>Nova 1.4L S</b>					01/90 → 03/93		<b>116</b>			
C 14 NZ	1389	4	77.60	SOHC		44/60	<b>HBS002</b>	M10x1.25x140mm (x10)	1) 25Nm 2) 60° 3) 60° 4) 60°	
14 NV	1389	4	77.60	SOHC		53-55/ 72-75	<b>HBS002</b>	M10x1.25x140mm (x10)	1) 25Nm 2) 60° 3) 60° 4) 60°	
C 14 SE	1389	4	77.60	SOHC		60/81	<b>HBS002</b>	M10x1.25x140mm (x10)	1) 25Nm 2) 60° 3) 60° 4) 60°	
<b>Nova 1.5L D Diesel</b>					09/87 → 03/93		<b>117</b>			
<b>Nova 1.5L TD Diesel</b>					01/90 → 03/93		<b>117</b>			
15 D	1488	4	76.00	SOHC		37/50	<b>HBS036</b>	M12x1.5x102mm (x10)	1) 30Nm 2) 50° 3) 50° 4) 50°	
15 DT (T4EC1)	1488	4	76.00	SOHC		49-53/ 67-72	<b>HBS036</b>	M12x1.5x102mm (x10)	1) 30Nm 2) 50° 3) 50° 4) 50°	



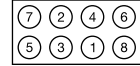
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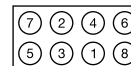
Nova 1.6L GSI		05/88 → 03/93			118	
C 16 SEI	1598	4	79.00	SOHC	72/98	
C 16 SE/E 16 SE	1598	4	79.00	SOHC	74/100	
<b>HBS002</b>				M10x1.25x140mm (x10)	1) 25Nm 2) 60° 3) 60° 4) 60°	
<b>Novavan Van 1.2L</b>		01/90 → 10/94			119	
12 NV	1196	4	77.80	SOHC	38/52	
<b>HBS002</b>				M10x1.25x140mm (x10)	1) 25Nm 2) 60° 3) 60° 4) 60°	
<b>Novavan Van 1.5L D Diesel</b>		01/91 → 10/94			120	
15 D	1488	4	76.00	SOHC	37/50	
<b>HBS036</b>				M12x1.5x102mm (x10)	1) 30Nm 2) 50° 3) 50° 4) 50°	
<b>Omega 2.0L</b>		03/94 → 09/99			121	
X 20 SE	1998	4	86.00	SOHC	85/116	
<b>HBS003</b>				M11x1.25x140mm (x10)	1) 25Nm 2) 60° 3) 60° 4) 60° 5) ↓ 6) * 7) 30°	
<b>HBS053</b>				M11x1.25x140mm (x10)	1) 25Nm 2) 60° 3) 60° 4) 60° 5) ↓ 6) * 7) 30°	
<b>Omega 2.0L</b>		03/94 → 12/00			122	
20 SE	1998	4	86.00	SOHC	90/122	
<b>HBS003</b>				M11x1.25x140mm (x10)	1) 25Nm 2) 60° 3) 60° 4) 60° 5) ↓ 6) * 7) 30°	
<b>Omega 2.0L 16V</b>		03/94 → 09/99			123	
X 20 XEV	1998	4	86.00	DOHC	100/136	
<b>HBS054</b>				M11x1.25x105mm (x10)	1) 25Nm 2) 90° 3) 90° 4) 90°	
<b>Omega 2.0L DTI 16V Diesel</b>		10/98 → 09/00			124	
X 20 DTH	1995	4	84.00	SOHC	74/100	
<b>HBS298</b>				M12x1.50x235mm (x10)	1) 25Nm 2) 65° 3) 65° 4) 65° 5) 65° 6) 15°	
<b>Omega 2.2L 16V</b>		09/99 →			125	
Z 22 XE	2198	4	86.00	DOHC	106/144	
Y 22 XE	2198	4	86.00	DOHC	106-108/ 144-147	
<b>HBS054</b>				M11x1.25x105mm (x10)	1) 25Nm 2) 90° 3) 90° 4) 90°	
<b>Omega 2.2L DTI 16V Diesel</b>		09/00 →			126	
Y 22 DTH	2172	4	84.00	SOHC	85-88/ 116-120	
<b>HBS298</b>				M12x1.50x235mm (x10)	1) 25Nm 2) 65° 3) 65° 4) 65° 5) 65° 6) 15°	



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<b>Omega 2.5L DTI 24V Diesel</b> 09/01 → <b>127</b> <b>Omega 2.5L TD Diesel</b> 04/94 → 02/01						<b>HBS066</b> M12x1.50x146.5mm (x14)		1) 80Nm 2) ↻ 180° 3) 80Nm 4) 90° 5) 90° 6) ⚡ 7) ✳ 8) 90°	
25 DT	2497	6	80.00	SOHC	96/130				
X 25 DT	2497	6	80.00	SOHC	96/131				
Y 25 DT	2497	6	80.00	DOHC	110/150				
<b>Omega 2.5L V6</b> 03/94 → 09/00 <b>128</b>						<b>HBS164</b> M11x1.25x105mm (x16)		1) 30Nm 2) 60Nm 3) 90° 4) 90°	
X 25 XE	2498	6	81.60	DOHC, V6	125-143/ 170-194				
<b>Omega 2.6L V6</b> 09/00 → <b>129</b>						<b>HBS164</b> M11x1.25x105mm (x16)		1) 30Nm 2) 60Nm 3) 90° 4) 90°	
Y 26 SE	2597	6	83.20	DOHC, V6	125-132/ 170-180				
<b>Omega 3.0L V6</b> 04/94 → <b>130</b>						<b>HBS164</b> M11x1.25x105mm (x16)		1) 30Nm 2) 60Nm 3) 90° 4) 90°	
X 30 XE	2962	6	86.00	DOHC, V6	148-155/ 201-211				
<b>Omega 3.2L V6</b> 02/01 → <b>131</b>						<b>HBS164</b> M11x1.25x105mm (x16)		1) 30Nm 2) 60Nm 3) 90° 4) 90°	
Y 32 SE	3175	6	87.50	DOHC, V6	160/218				
<b>Senator 3.0L 24V</b> 09/89 → 09/93 <b>132</b>						<b>HBS417</b> M12x1.50x88mm (x14)		1) 30Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 95° 6) 35°	
C 30 SE	2969	6	95.00	DOHC	150/204				
<b>Signum 1.8L</b> 08/05 → <b>133</b>						<b>HBS055</b> M10x1.25x153mm (x10)		1) 25Nm 2) ↻ 90° 3) 25Nm 4) 90° 5) 90° 6) 90° 7) 45°	
Z 18 XER	1796	4	80.50	DOHC	103/140				
<b>Signum 1.9L CDTI Diesel</b> 04/04 → <b>134</b>						<b>HBS227</b> M12x1.25x218mm (x10)		1) 65Nm 2) 90° 3) 90° 4) 90°	
Z 19 DT	1910	4	82.00	SOHC	74-88/ 100-120				
<b>Signum 1.9L CDTI 16V Diesel</b> 04/04 → <b>135</b>						<b>HBS370</b> M12x1.25x225mm (x10)		1) 65Nm 2) 90° 3) 90° 4) 90°	
Z 19 DTH	1910	4	82.00	DOHC	110/150				
<b>Signum 2.0L DTI Diesel</b> 05/03 → <b>136</b>						<b>HBS298</b> M12x1.50x235mm (x10)		1) 25Nm 2) 65° 3) 65° 4) 65° 5) 65° 6) 15°	
Y 20 DTH	1995	4	84.00	SOHC	74/100				
<b>Signum 2.2L DTI Diesel</b> 05/03 → <b>137</b>						<b>HBS298</b> M12x1.50x235mm (x10)		1) 25Nm 2) 65° 3) 65° 4) 65° 5) 65° 6) 15°	
Y 22 DTR	2172	4	84.00	SOHC	92/125				



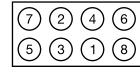
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Model	Year	CC	Cyl	Power	Eng. Type	Code	Part No.	Part Name	Dimensions	Torque	Angles	Sequence
<b>Signum 2.2L i</b>	05/03 →			<b>138</b>								
Z 22 YH		2198	4	86.00	DOHC		114/155	<b>HBS416</b>	M11x1.50x163mm (x10)	1) 30Nm 2) 75° 3) 75° 4) 15°		7 5 1 3 9 10 4 2 6 8
<b>Signum 3.2L V6</b>	05/03 →			<b>139</b>								
Z 32 SE		3175	6	88.50	DOHC, V6		155/211	<b>HBS164</b>	M11x1.25x105mm (x16)	1) 30Nm 2) 60Nm 3) 90° 4) 90°		7 3 2 5 6 1 4 8 6 1 4 8 7 3 2 5
<b>Sintra 2.2L DTI Diesel</b>	07/97 → 04/99			<b>140</b>								
X 22 DTH		2172	4	84.00	SOHC		85/116	<b>HBS298</b>	M12x1.50x235mm (x10)	1) 25Nm 2) 65° 3) 65° 4) 65° 5) 65° 6) 15°		10 6 2 3 7 9 5 1 4 8
<b>Sintra 2.2L i 16 V</b>	11/96 → 04/99			<b>141</b>								
X 22 XE		2198	4	86.00	DOHC		100/136	<b>HBS054</b>	M11x1.25x105mm (x10)	1) 25Nm 2) 90° 3) 90° 4) 90°		10 6 2 3 7 9 5 1 4 8
<b>Sintra 3.0L i 24V</b>	11/96 → 04/99			<b>142</b>								
X 30 XE		2962	6	86.00	DOHC, V6		148-155/ 201-211	<b>HBS164</b>	M11x1.25x105mm (x16)	1) 30Nm 2) 60Nm 3) 90° 4) 90°		7 3 2 5 6 1 4 8 6 1 4 8 7 3 2 5
<b>Tigra 1.3L CDTI Diesel</b>	06/04 →			<b>143</b>								
Y/Z 13 DT		1248	4	69.60	DOHC		51/70	<b>HBS353</b>	M10x1.25x119mm (x10)	1) 20Nm 2) 40Nm 3) 90° 4) 90°		8 6 1 3 9 10 4 2 5 7
<b>Tigra 1.4L</b>	06/04 →			<b>144</b>								
Z 14 XEP		1364	4	73.40	DOHC		66/89	<b>HBS252</b>	M8x1.25x119mm (x12)	1) 25Nm 2) 60° 3) 60° 4) 60°		12 8 4 1 5 9 7 3 2 6 10 11
<b>Tigra Coupe 1.4L 16V</b>	07/94 →			<b>145</b>								
X 14 XE		1389	4	77.60	DOHC		66/89	<b>HBS055</b>	M10x1.25x153mm (x10)	1) 25Nm 2) ↻ 90° 3) 25Nm 4) 90° 5) 90° 6) 90° 7) 45°		10 6 2 3 7 9 5 1 4 8
<b>Tigra Coupe 1.6L 16V</b>	07/94 →			<b>146</b>								
X 16 XE		1598	4	79.00	DOHC		78/106	<b>HBS055</b>	M10x1.25x153mm (x10)	1) 25Nm 2) ↻ 90° 3) 25Nm 4) 90° 5) 90° 6) 90° 7) 45°		10 6 2 3 7 9 5 1 4 8
<b>Tigra 1.8L</b>	06/04 →			<b>147</b>								
Z 18 XE		1799	4	80.50	DOHC		87-92/ 118-125	<b>HBS055</b>	M10x1.25x153mm (x10)	1) 25Nm 2) 90° 3) 90° 4) 90° 5) 45°		10 6 2 3 7 9 5 1 4 8
<b>Vectra 1.6L</b>	01/06 →			<b>148</b>								
<b>Vectra 1.6L i 16V</b>	10/95 →											
Z 16 XE		1598	4	79.00	DOHC		63-74/ 85-101	<b>HBS055</b>	M10x1.25x153mm (x10)	1) 25Nm 2) ↻ 90° 3) 25Nm 4) 90° 5) 90° 6) 90° 7) 45°		10 6 2 3 7 9 5 1 4 8
X 16 XEL/Y 16 XE		1598	4	79.00	DOHC		74/100					
Z 16 XEP		1598	4	79.00	DOHC		74-77/ 101-105					







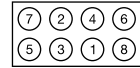
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Ø



kW/PS



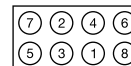
Vauxhall Model		Year	Cylinders	Displacement (cc)	Configuration	Power (kW/PS)	Part Number	Dimensions	Notes	Diagram
<b>Vectra 2.6L i V6</b>		09/00 →				<b>160</b>	<b>HBS164</b>			
Y 26 SE		2597	6	83.20	DOHC, V6	125-132/ 170-180		M11x1.25x105mm (x16)	1) 30Nm 2) 60Nm 3) 90° 4) 90°	
<b>Vectra 3.2L V6</b>		08/02 →				<b>161</b>	<b>HBS164</b>			
Z 32 SE		3175	6	88.50	DOHC, V6	155/211		M11x1.25x105mm (x16)	1) 30Nm 2) 60Nm 3) 90° 4) 90°	
<b>Vivaro 1.9L DTI Diesel</b>		08/01 →				<b>162</b>	<b>HBS120</b>			
<b>Vivaro Van 1.9L DTI Diesel</b>		08/01 →								
F9Q 760		1870	4	80.00	SOHC	74/101		M12x1.50x118mm (x10)	1) 30Nm 2) 100° 3) (1-2) ↗ 90° 4) (1-2) 25Nm 5) (1-2) 213° 6) (3-4) ↗ 90° 7) (3-4) 25Nm 8) (3-4) 213° 9) (5-6) ↗ 90° 10) (5-6) 25Nm 11) (5-6) 213° 12) (7-8) ↗ 90° 13) (7-8) 25Nm 14) (7-8) 213° 15) (9-10) ↗ 90° 16) (9-10) 25Nm 17) (9-10) 213°	
<b>Vivaro 2.0L 16V</b>		08/01 →				<b>163</b>	<b>HBS310</b>			
<b>Vivaro Van 2.0L 16V</b>		08/01 →								
F4R 720		1998	4	82.70	DOHC	88/120		M12x1.50x117mm (x10)	1) 20Nm 2) 165°	
<b>Vivaro 2.5L DTI Diesel</b>		04/04 →				<b>164</b>	<b>HBS373</b>			
<b>Vivaro Van 2.5L DTI Diesel</b>		04/04 →								
G9U 730		2463	4	89.00	DOHC	99/135		M12x1.50x131mm (x10)	1) 10Nm 2) 30Nm 3) 300°	
<b>VX220 Convertible 2.0L i Turbo</b>		04/03 →				<b>165</b>	<b>HBS054</b>			
Z 20 LET		1998	4	86.00	DOHC	140-147/ 190-200		M11x1.25x105mm (x10)	1) 25Nm 2) 90° 3) 90° 4) 90°	
<b>VX220 Convertible 2.2L i</b>		09/00 →				<b>166</b>	<b>HBS416</b>			
Z 22 SE		2198	4	86.00	DOHC	108/147		M11x1.50x163mm (x10)	1) 30Nm 2) 75° 3) 75° 4) 15°	
<b>Zafira 1.4L</b>		01/00 →				<b>167</b>	<b>HBS055</b>			
Z 14 XE		1389	4	77.60	DOHC	66/89		M10x1.25x153mm (x10)	1) 25Nm 2) ↗ 90° 3) 25Nm 4) 90° 5) 90° 6) 90° 7) 45°	
<b>Zafira 1.6L</b>		07/05 →				<b>168</b>	<b>HBS055</b>			
<b>Zafira 1.6L 16V</b>		04/99 →								
Z 16 XE		1598	4	79.00	DOHC	63-74/ 85-101		M10x1.25x153mm (x10)	1) 25Nm 2) ↗ 90° 3) 25Nm 4) 90° 5) 90° 6) 90° 7) 45°	
X 16 XEL		1598	4	79.00	DOHC	74/100				
Z 16 XEP		1598	4	79.00	DOHC	74-77/ 101-105				
A 16 XER/Z 16 XER		1598	4	79.00	DOHC	85/116				











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






kW/PS



Zafira 1.8L Zafira 1.8L 16V						04/05 → 04/99 → 09/00	169	HBS055	1) 25Nm 2) 90° 3) 25Nm 4) 90° 5) 90° 6) 90° 7) 45°	
X 18 XE1	1796	4	80.50	DOHC	85/116	M10x1.25x153mm (x10)				
A 18 XER/Z 18 XEP/Z 18 XER	1796	4	80.50	DOHC	103/140					
Zafira 1.8L 16V						09/00 →	170	HBS055	1) 25Nm 2) 90° 3) 90° 4) 90° 5) 45°	
Z 18 XE	1799	4	80.50	DOHC	87-92/ 118-125	M10x1.25x153mm (x10)				
Zafira 1.9L CDTI Diesel						07/05 →	171	HBS227	1) 65Nm 2) 90° 3) 90° 4) 90°	
Z 19 DT	1910	4	82.00	SOHC	74-88/ 100-120	M12x1.25x218mm (x10)				
Zafira 1.9L CDTI Diesel						07/05 →	172	HBS370	1) 65Nm 2) 90° 3) 90° 4) 90°	
Z 19 DTH	1910	4	82.00	DOHC	110/150	M12x1.25x225mm (x10)				
Zafira 2.0L Zafira 2.0L GSI Turbo						07/05 → 09/01 →	173	HBS054	1) 25Nm 2) 90° 3) 90° 4) 90°	
Z 20 LET	1998	4	86.00	DOHC	140-147/ 190-200	M11x1.25x105mm (x10)				
Z 20 LER	1998	4	86.00	DOHC	147/200					
Z 20 LEH	1998	4	86.00	DOHC	177/240					
Zafira 2.0L DI 16V Diesel Zafira 2.0L DTI 16V Diesel						10/99 → 04/99 →	174	HBS298	1) 25Nm 2) 65° 3) 65° 4) 65° 5) 65° 6) 15°	
X 20 DTL	1995	4	84.00	SOHC	60/81	M12x1.50x235mm (x10)				
Y 20 DTH	1995	4	84.00	SOHC	74/100					
Zafira 2.2L Zafira 2.2L 16V						07/05 → 09/00 →	175	HBS416	1) 30Nm 2) 75° 3) 75° 4) 15°	
Z 22 SE	2198	4	86.00	DOHC	108/147	M11x1.50x163mm (x10)				
Z 22 YH	2198	4	86.00	DOHC	114/155					

		cc			9			cc			9
B 16 F	Petrol	1596	4	78.00	10	B 4184 S2	Petrol	1783	4	83.00	86
B 16 F	Petrol	1596	4	78.00	16	B 4184 S3	Petrol	1731	4	83.00	55
B 17 2 K	Petrol	1721	4	81.00	5	B 4184 S3	Petrol	1731	4	83.00	85
B 17 2 K	Petrol	1721	4	81.00	8	B 4184 S9	Petrol	1783	4	83.00	56
B 18 E	Petrol	1721	4	81.00	21	B 4184 S9	Petrol	1783	4	83.00	86
B 18 EP	Petrol	1721	4	81.00	11	B 4184 SJ	Petrol	1834	4	81.00	58
B 18 EP	Petrol	1721	4	81.00	17	B 4184 SJ	Petrol	1834	4	81.00	87
B 18 EP	Petrol	1721	4	81.00	21	B 4184 SM	Petrol	1834	4	81.00	58
B 18 F	Petrol	1721	4	81.00	11	B 4184 SM	Petrol	1834	4	81.00	87
B 18 F	Petrol	1721	4	81.00	21	B 4194 T	Petrol	1855	4	81.00	62
B 18 FP	Petrol	1721	4	81.00	11	B 4194 T	Petrol	1855	4	81.00	91
B 18 FT	Petrol	1721	4	81.00	11	B 4194 T2	Petrol	1855	4	81.00	62
B 18 FT	Petrol	1721	4	81.00	17	B 4204 S	Petrol	1948	4	83.00	63
B 18 FT	Petrol	1721	4	81.00	21	B 4204 S	Petrol	1948	4	83.00	92
B 18 K	Petrol	1721	4	81.00	15	B 4204 S2	Petrol	1948	4	83.00	63
B 18 KD	Petrol	1721	4	81.00	11	B 4204 S2	Petrol	1948	4	83.00	92
B 18 KD	Petrol	1721	4	81.00	17	B 4204 T	Petrol	1948	4	83.00	63
B 18 KP	Petrol	1721	4	81.00	11	B 4204 T	Petrol	1948	4	83.00	92
B 18 KP	Petrol	1721	4	81.00	15	B 4204 T2	Petrol	1948	4	83.00	92
B 18 KP	Petrol	1721	4	81.00	17	B 4204 T3	Petrol	1948	4	83.00	63
B 18 U	Petrol	1794	4	82.70	12	B 4204 T3	Petrol	1948	4	83.00	92
B 18 U	Petrol	1794	4	82.70	18	B 4204 T5	Petrol	1948	4	83.00	63
B 20 F	Petrol	1998	4	82.70	14	B 4204 T5	Petrol	1948	4	83.00	92
B 20 F	Petrol	1998	4	82.70	20	B 5202 S	Diesel	1984	5	81.00	30
B 20 F	Petrol	1998	4	82.70	22	B 5202 S	Petrol	1984	5	81.00	72
B 23 A	Petrol	2316	4	96.00	25	B 5202 S	Petrol	1984	5	81.00	101
B 23 E	Petrol	2316	4	96.00	2	B 5204 F	Diesel	1984	5	81.00	30
B 200 E	Petrol	1986	4	88.90	1	B 5204 F	Petrol	1984	5	81.00	72
B 200 E	Petrol	1986	4	88.90	23	B 5204 FT	Diesel	1984	5	81.00	30
B 200 ET	Petrol	1986	4	88.90	23	B 5204 T	Diesel	1984	5	81.00	30
B 200 F	Petrol	1986	4	88.90	6	B 5204 T	Petrol	1984	5	81.00	72
B 200 F	Petrol	1986	4	88.90	9	B 5204 T	Petrol	1984	5	81.00	101
B 200 F	Petrol	1986	4	88.90	23	B 5204 T2	Petrol	1984	5	81.00	47
B 200 F	Petrol	1986	4	88.90	35	B 5204 T2	Petrol	1984	5	81.00	72
B 200 FT	Petrol	1986	4	88.90	35	B 5204 T2	Petrol	1984	5	81.00	101
B 200 G	Petrol	1986	4	88.90	23	B 5204 T3	Petrol	1984	5	81.00	47
B 200 K	Petrol	1986	4	88.90	9	B 5204 T3	Petrol	1984	5	81.00	72
B 200 K	Petrol	1986	4	88.90	23	B 5204 T3	Petrol	1984	5	81.00	78
B 204 E	Petrol	1986	4	88.90	24	B 5204 T3	Petrol	1984	5	81.00	101
B 204 E	Petrol	1986	4	88.90	34	B 5204 T4	Petrol	1984	5	81.00	47
B 204 E	Petrol	1986	4	88.90	39	B 5204 T4	Petrol	1984	5	81.00	72
B 204 FT	Petrol	1986	4	88.90	34	B 5204 T4	Petrol	1984	5	81.00	78
B 204 FT	Petrol	1986	4	88.90	39	B 5204 T4	Petrol	1984	5	81.00	101
B 230 E	Petrol	2316	4	96.00	25	B 5204 T5	Petrol	1984	5	81.00	67
B 230 ET	Petrol	2316	4	96.00	28	B 5204 T5	Petrol	1984	5	81.00	78
B 230 F	Petrol	2316	4	96.00	2	B 5204 T5	Petrol	1984	5	81.00	101
B 230 F	Petrol	2316	4	96.00	25	B 5234 FT	Petrol	2319	5	81.00	31
B 230 FB	Petrol	2316	4	96.00	25	B 5234 FT+	Petrol	2319	5	81.00	73
B 230 FB	Petrol	2316	4	96.00	37	B 5234 FT+	Petrol	2319	5	81.00	103
B 230 FD	Petrol	2316	4	96.00	37	B 5234 T3	Petrol	2319	5	81.00	48
B 230 FK	Petrol	2316	4	96.00	37	B 5234 T3	Petrol	2319	5	81.00	68
B 230 FT	Petrol	2316	4	96.00	25	B 5234 T3	Petrol	2319	5	81.00	73
B 230 FT	Petrol	2316	4	96.00	28	B 5234 T3	Petrol	2319	5	81.00	103
B 230 FT	Petrol	2316	4	96.00	37	B 5234 T4	Petrol	2319	5	81.00	31
B 230 FT+	Petrol	2316	4	96.00	37	B 5234 T4	Petrol	2319	5	81.00	73
B 230 G	Petrol	2316	4	96.00	37	B 5234 T4	Petrol	2319	5	81.00	103
B 230 GT	Petrol	2316	4	96.00	25	B 5234 T9	Petrol	2319	5	81.00	49
B 230 K	Petrol	2316	4	96.00	25	B 5244 S	Petrol	2435	5	83.00	51
B 234 F	Petrol	2316	4	96.00	26	B 5244 S	Petrol	2435	5	83.00	65
B 234 F	Petrol	2316	4	96.00	36	B 5244 S	Petrol	2435	5	83.00	69
B 234 G	Petrol	2316	4	96.00	36	B 5244 S	Petrol	2435	5	83.00	74
B 4164 S	Petrol	1587	4	81.00	52	B 5244 S	Petrol	2435	5	83.00	80
B 4164 S	Petrol	1587	4	81.00	84	B 5244 S	Petrol	2435	5	83.00	98
B 4164 S2	Petrol	1587	4	81.00	52	B 5244 S	Petrol	2435	5	83.00	105
B 4164 S2	Petrol	1587	4	81.00	84	B 5244 S2	Petrol	2435	5	83.00	69
B 4164 S3	Petrol	1596	4	79.00	42	B 5244 S2	Petrol	2435	5	83.00	75
B 4164 S3	Petrol	1596	4	79.00	54	B 5244 S2	Petrol	2435	5	83.00	80
B 4164 S3	Petrol	1596	4	79.00	94	B 5244 S2	Petrol	2435	5	83.00	105
B 4184 S	Petrol	1731	4	83.00	55	B 5244 S5	Petrol	2435	5	83.00	65
B 4184 S	Petrol	1731	4	83.00	85	B 5244 S5	Petrol	2435	5	83.00	98
B 4184 S11	Petrol	1798	4	83.00	57	B 5244 S6	Petrol	2435	5	83.00	75
B 4184 S11	Petrol	1798	4	83.00	96	B 5244 S6	Petrol	2435	5	83.00	105
B 4184 S2	Petrol	1783	4	83.00	56	B 5244 S62	Petrol	2435	5	83.00	69

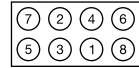
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B 5244 SG2	Petrol	2435	5	83.00	80	D 4204 T	Diesel	1998	4	85.00	102
B 5244 SG2	Petrol	2435	5	83.00	105	D 5252 T	Diesel	2461	5	81.00	33
B 5244 T	Petrol	2435	5	83.00	51	D 5252 T	Diesel	2461	5	81.00	76
B 5244 T	Petrol	2435	5	83.00	74	D 5252 T	Diesel	2461	5	81.00	82
B 5244 T	Petrol	2435	5	83.00	104	D 5252 T	Diesel	2461	5	81.00	108
B 5244 T2	Petrol	2435	5	83.00	105	GB 5252 S	Petrol	2435	5	83.00	75
B 5244 T3	Petrol	2435	5	83.00	69	GB 5252 S	Petrol	2435	5	83.00	105
B 5244 T3	Petrol	2435	5	83.00	80						
B 5244 T3	Petrol	2435	5	83.00	105						
B 5244 T3	Petrol	2435	5	83.00	110						
B 5244 T5	Petrol	2401	5	81.00	70						
B 5244 T5	Petrol	2401	5	81.00	106						
B 5244 T7	Petrol	2435	5	83.00	50						
B 5252	Petrol	2435	5	83.00	32						
B 5252 S	Petrol	2435	5	83.00	32						
B 5252 S	Petrol	2435	5	83.00	74						
B 5252 S	Petrol	2435	5	83.00	104						
B 5254 S	Petrol	2435	5	83.00	32						
B 5254 S	Petrol	2435	5	83.00	51						
B 5254 S	Petrol	2435	5	83.00	74						
B 5254 S	Petrol	2435	5	83.00	104						
B 5254 T	Petrol	2435	5	83.00	32						
B 5254 T	Petrol	2435	5	83.00	51						
B 5254 T	Petrol	2435	5	83.00	74						
B 5254 T	Petrol	2435	5	83.00	104						
B 5254 T2	Petrol	2521	5	83.00	71						
B 5254 T2	Petrol	2521	5	83.00	81						
B 5254 T2	Petrol	2521	5	83.00	107						
B 5254 T2	Petrol	2521	5	83.00	111						
B 5254 T2	Petrol	2521	5	83.00	112						
B 5254 T3	Petrol	2521	5	83.00	45						
B 5254 T3	Petrol	2521	5	83.00	66						
B 5254 T3	Petrol	2521	5	83.00	99						
B 5254 T4	Petrol	2521	5	83.00	71						
B 5254 T4	Petrol	2521	5	83.00	107						
B 6284 T	Petrol	2783	4	81.00	83						
B 6294 T	Petrol	2922	6	83.00	113						
B 6304 G	Petrol	2922	6	83.00	109						
B 6304 S	Petrol	2922	6	83.00	41						
B 6304 S2	Petrol	2922	6	83.00	109						
D 16	Diesel	1595	4	78.00	4						
D 16	Diesel	1595	4	78.00	7						
D 19 T	Diesel	1870	4	80.00	13						
D 19 T	Diesel	1870	4	80.00	19						
D 24	Diesel	2383	6	76.50	3						
D 24	Diesel	2383	6	76.50	27						
D 24	Diesel	2383	6	76.50	29						
D 24	Diesel	2383	6	76.50	38						
D 24 T	Diesel	2383	6	76.50	27						
D 24 T	Diesel	2383	6	76.50	29						
D 24 T	Diesel	2383	6	76.50	38						
D 24 TIC	Diesel	2383	6	76.50	29						
D 24 TIC	Diesel	2383	6	76.50	38						
D 24 TIC	Diesel	2383	6	76.50	40						
D 4164 T	Diesel	1560	4	75.00	43						
D 4164 T	Diesel	1560	4	75.00	53						
D 4164 T	Diesel	1560	4	75.00	77						
D 4164 T	Diesel	1560	4	75.00	95						
D 4164 T	Diesel	1560	4	75.00	100						
D 4192 T	Diesel	1870	4	80.00	59						
D 4192 T	Diesel	1870	4	80.00	88						
D 4192 T2	Diesel	1870	4	80.00	59						
D 4192 T2	Diesel	1870	4	80.00	88						
D 4192 T3	Diesel	1870	4	80.00	61						
D 4192 T3	Diesel	1870	4	80.00	90						
D 4192 T4	Diesel	1870	4	80.00	60						
D 4192 T4	Diesel	1870	4	80.00	89						
D 4204 T	Diesel	1998	4	85.00	44						
D 4204 T	Diesel	1998	4	85.00	46						
D 4204 T	Diesel	1998	4	85.00	64						
D 4204 T	Diesel	1998	4	85.00	79						
D 4204 T	Diesel	1998	4	85.00	93						
D 4204 T	Diesel	1998	4	85.00	97						



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240 2.0L		08/83 → 07/93			1			
B 200 E	1986	4	88.90		82-87/ 112-118	<b>HBS174</b>  M12x1.75x133mm (x10)	1) 20Nm 2) 40Nm 3) 60Nm 4) ↻ 90° 5) 60Nm 6) 90°	
240 2.3L 240 2.3L i		08/84 → 07/92 08/86 → 07/93			2			
B 230 F	2316	4	96.00	SOHC	81-100/ 110-136	<b>HBS174</b>  M12x1.75x133mm (x10)	1) 20Nm 2) 40Nm 3) 60Nm 4) ↻ 90° 5) 60Nm 6) 90°	
B 23 E	2316	4	96.00	SOHC	91-103/ 124-140			
240 2.4L D Diesel		04/79 → 08/93			3			
D 24	2383	6	76.50	SOHC	58-60/ 79-82	<b>HBS022</b>  M12x1.75x115mm (x14)	1) 40Nm 2) 60Nm 3) 75Nm 4) 90° 5) 90° 6) ↓ 7) ✳ 8) 90°	
340 1.6L D Diesel		08/84 → 07/91			4			
D 16	1595	4	78.00	SOHC	40/54	<b>HBS244</b>  M12x1.50x111mm (x10)	1) 30Nm 2) 100° 3) (1-2) ↻ 4) (1-2) 25Nm 5) (1-2) 213° 6) (3-4) ↻ 7) (3-4) 25Nm 8) (3-4) 213° 9) (5-6) ↻ 10) (5-6) 25Nm 11) (5-6) 213° 12) (7-8) ↻ 13) (7-8) 25Nm 14) (7-8) 213° 15) (9-10) ↻ 16) (9-10) 25Nm 17) (9-10) 213°	
340 1.7L		08/85 → 07/91			5			
B 17 2 K	1721	4	81.00	SOHC	60/81	<b>HBS244</b>  M12x1.50x111mm (x10)	1) 30Nm 2) 100° 3) (1-2) ↻ 4) (1-2) 25Nm 5) (1-2) 213° 6) (3-4) ↻ 7) (3-4) 25Nm 8) (3-4) 213° 9) (5-6) ↻ 10) (5-6) 25Nm 11) (5-6) 213° 12) (7-8) ↻ 13) (7-8) 25Nm 14) (7-8) 213° 15) (9-10) ↻ 16) (9-10) 25Nm 17) (9-10) 213°	
340 2.0L		08/88 → 07/89			6			
B 200 F	1986	4	88.90	SOHC	82/111	<b>HBS174</b>  M12x1.75x133mm (x10)	1) 20Nm 2) 40Nm 3) 60Nm 4) ↻ 90° 5) 60Nm 6) 90°	



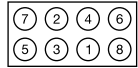
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360 1.6L D Diesel				08/84 → 07/91		7
D 16	1595	4	78.00	SOHC		40/54
<b>HBS244</b>  M12x1.50x111mm (x10)						
1) 30Nm 2) 100° 3) (1-2) ↻ 4) (1-2) 25Nm 5) (1-2) 213° 6) (3-4) ↻ 7) (3-4) 25Nm 8) (3-4) 213° 9) (5-6) ↻ 10) (5-6) 25Nm 11) (5-6) 213° 12) (7-8) ↻ 13) (7-8) 25Nm 14) (7-8) 213° 15) (9-10) ↻ 16) (9-10) 25Nm 17) (9-10) 213°						
360 1.7L				08/85 → 07/91		8
B 17 2 K	1721	4	81.00	SOHC		60/81
<b>HBS244</b>  M12x1.50x111mm (x10)						
1) 30Nm 2) 100° 3) (1-2) ↻ 4) (1-2) 25Nm 5) (1-2) 213° 6) (3-4) ↻ 7) (3-4) 25Nm 8) (3-4) 213° 9) (5-6) ↻ 10) (5-6) 25Nm 11) (5-6) 213° 12) (7-8) ↻ 13) (7-8) 25Nm 14) (7-8) 213° 15) (9-10) ↻ 16) (9-10) 25Nm 17) (9-10) 213°						
360 2.0L				08/84 → 07/90		9
B 200 K	1986	4	88.90			70-77/ 95-105
B 200 F	1986	4	88.90	SOHC		82/111
<b>HBS174</b>  M12x1.75x133mm (x10)						
1) 20Nm 2) 40Nm 3) 60Nm 4) ↻ 90° 5) 60Nm 6) 90°						
440 1.6L				09/88 → 12/96		10
B 16 F	1596	4	78.00	SOHC		61/82
<b>HBS244</b>  M12x1.50x111mm (x10)						
1) 30Nm 2) 100° 3) (1-2) ↻ 4) (1-2) 25Nm 5) (1-2) 213° 6) (3-4) ↻ 7) (3-4) 25Nm 8) (3-4) 213° 9) (5-6) ↻ 10) (5-6) 25Nm 11) (5-6) 213° 12) (7-8) ↻ 13) (7-8) 25Nm 14) (7-8) 213° 15) (9-10) ↻ 16) (9-10) 25Nm 17) (9-10) 213°						

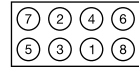




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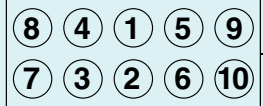
440 1.7L		08/88 → 12/96		11	
440 1.7L Turbo		08/88 → 12/96			
B 18 KD	1721	4	81.00	SOHC	58/79
B 18 KP	1721	4	81.00	SOHC	64-66/ 87-90
B 18 F	1721	4	81.00	SOHC	70-75/ 95-102
B 18 EP/B 18 FP	1721	4	81.00	SOHC	75/102
B 18 FT	1721	4	81.00	SOHC	88/120
440 1.8L		08/91 → 12/96		12	
B 18 U	1794	4	82.70		66/89
440 1.9L Turbo-D Diesel		07/94 → 12/96		13	
D 19 T	1870	4	80.00	SOHC	60-85/ 82-116

HBS244



M12x1.50x111mm (x10)

- 1) 30Nm
- 2) 100°
- 3) (1-2) ↻
- 4) (1-2) 25Nm
- 5) (1-2) 213°
- 6) (3-4) ↻
- 7) (3-4) 25Nm
- 8) (3-4) 213°
- 9) (5-6) ↻
- 10) (5-6) 25Nm
- 11) (5-6) 213°
- 12) (7-8) ↻
- 13) (7-8) 25Nm
- 14) (7-8) 213°
- 15) (9-10) ↻
- 16) (9-10) 25Nm
- 17) (9-10) 213°



HBS244

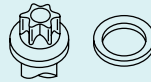


M12x1.50x111mm (x10)

- 1) 30Nm
- 2) 100°
- 3) (1-2) ↻
- 4) (1-2) 25Nm
- 5) (1-2) 213°
- 6) (3-4) ↻
- 7) (3-4) 25Nm
- 8) (3-4) 213°
- 9) (5-6) ↻
- 10) (5-6) 25Nm
- 11) (5-6) 213°
- 12) (7-8) ↻
- 13) (7-8) 25Nm
- 14) (7-8) 213°
- 15) (9-10) ↻
- 16) (9-10) 25Nm
- 17) (9-10) 213°

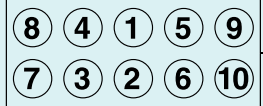


HBS120 [1]



M12x1.50x118mm (x10)

- 1) 30Nm
- 2) 100°
- 3) (1-2) ↻ 90°
- 4) (1-2) 25Nm
- 5) (1-2) 213°
- 6) (3-4) ↻ 90°
- 7) (3-4) 25Nm
- 8) (3-4) 213°
- 9) (5-6) ↻ 90°
- 10) (5-6) 25Nm
- 11) (5-6) 213°
- 12) (7-8) ↻ 90°
- 13) (7-8) 25Nm
- 14) (7-8) 213°
- 15) (9-10) ↻ 90°
- 16) (9-10) 25Nm
- 17) (9-10) 213°





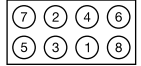
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kW/PS



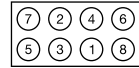
440 2.0L					08/92 → 07/96		14	
B 20 F	1998	4	82.70	SOHC	80-85/ 108-115	 M12x1.50x111mm (x10)	1) 30Nm 2) 100° 3) (1-2) ↻ 4) (1-2) 25Nm 5) (1-2) 213° 6) (3-4) ↻ 7) (3-4) 25Nm 8) (3-4) 213° 9) (5-6) ↻ 10) (5-6) 25Nm 11) (5-6) 213° 12) (7-8) ↻ 13) (7-8) 25Nm 14) (7-8) 213° 15) (9-10) ↻ 16) (9-10) 25Nm 17) (9-10) 213°	
442 1.7					09/88 → 08/89		15	
B 18 K	1721	4	81.00	SOHC	58-60/ 79-82	 M12x1.50x111mm (x10)	1) 30Nm 2) 100° 3) (1-2) ↻ 4) (1-2) 25Nm 5) (1-2) 213° 6) (3-4) ↻ 7) (3-4) 25Nm 8) (3-4) 213° 9) (5-6) ↻ 10) (5-6) 25Nm 11) (5-6) 213° 12) (7-8) ↻ 13) (7-8) 25Nm 14) (7-8) 213° 15) (9-10) ↻ 16) (9-10) 25Nm 17) (9-10) 213°	
B 18 KP	1721	4	81.00	SOHC	64-66/ 87-90			
460 1.6L					07/92 → 07/96		16	
B 16 F	1596	4	78.00	SOHC	61/82	 M12x1.50x111mm (x10)	1) 30Nm 2) 100° 3) (1-2) ↻ 4) (1-2) 25Nm 5) (1-2) 213° 6) (3-4) ↻ 7) (3-4) 25Nm 8) (3-4) 213° 9) (5-6) ↻ 10) (5-6) 25Nm 11) (5-6) 213° 12) (7-8) ↻ 13) (7-8) 25Nm 14) (7-8) 213° 15) (9-10) ↻ 16) (9-10) 25Nm 17) (9-10) 213°	



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kW/PS



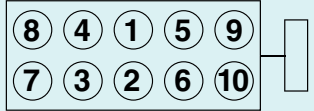
460 1.7L		09/88 → 07/96		17	
460 1.7L Turbo		08/89 → 07/96			
B 18 KD	1721	4	81.00	SOHC	58/79
B 18 KP	1721	4	81.00	SOHC	64-66/ 87-90
B 18 EP	1721	4	81.00	SOHC	75/102
B 18 FT	1721	4	81.00	SOHC	88/120

HBS244



M12x1.50x111mm (x10)

- 1) 30Nm
- 2) 100°
- 3) (1-2) ↻
- 4) (1-2) 25Nm
- 5) (1-2) 213°
- 6) (3-4) ↻
- 7) (3-4) 25Nm
- 8) (3-4) 213°
- 9) (5-6) ↻
- 10) (5-6) 25Nm
- 11) (5-6) 213°
- 12) (7-8) ↻
- 13) (7-8) 25Nm
- 14) (7-8) 213°
- 15) (9-10) ↻
- 16) (9-10) 25Nm
- 17) (9-10) 213°



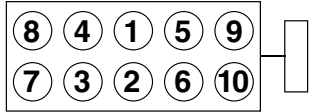
460 1.8L		08/91 → 07/96		18	
B 18 U	1794	4	82.70		66/89

HBS244



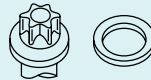
M12x1.50x111mm (x10)

- 1) 30Nm
- 2) 100°
- 3) (1-2) ↻
- 4) (1-2) 25Nm
- 5) (1-2) 213°
- 6) (3-4) ↻
- 7) (3-4) 25Nm
- 8) (3-4) 213°
- 9) (5-6) ↻
- 10) (5-6) 25Nm
- 11) (5-6) 213°
- 12) (7-8) ↻
- 13) (7-8) 25Nm
- 14) (7-8) 213°
- 15) (9-10) ↻
- 16) (9-10) 25Nm
- 17) (9-10) 213°



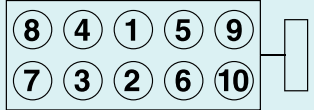
460 1.9L Turbo-D Diesel		07/94 → 07/96		19	
D 19 T	1870	4	80.00	SOHC	60-85/ 82-116

HBS120 [1]



M12x1.50x118mm (x10)

- 1) 30Nm
- 2) 100°
- 3) (1-2) ↻ 90°
- 4) (1-2) 25Nm
- 5) (1-2) 213°
- 6) (3-4) ↻ 90°
- 7) (3-4) 25Nm
- 8) (3-4) 213°
- 9) (5-6) ↻ 90°
- 10) (5-6) 25Nm
- 11) (5-6) 213°
- 12) (7-8) ↻ 90°
- 13) (7-8) 25Nm
- 14) (7-8) 213°
- 15) (9-10) ↻ 90°
- 16) (9-10) 25Nm
- 17) (9-10) 213°

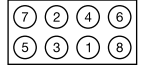




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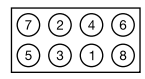
460 2.0L				08/92 → 07/96		20		
B 20 F	1998	4	82.70	SOHC	80-85/ 108-115	<b>HBS244</b> M12x1.50x111mm (x10)	1) 30Nm 2) 100° 3) (1-2) ↻ 4) (1-2) 25Nm 5) (1-2) 213° 6) (3-4) ↻ 7) (3-4) 25Nm 8) (3-4) 213° 9) (5-6) ↻ 10) (5-6) 25Nm 11) (5-6) 213° 12) (7-8) ↻ 13) (7-8) 25Nm 14) (7-8) 213° 15) (9-10) ↻ 16) (9-10) 25Nm 17) (9-10) 213°	
480 Coupe 1.7L				04/86 → 07/96		21		
480 Coupe 1.7L Turbo				08/87 → 07/96		<b>HBS244</b> M12x1.50x111mm (x10)	1) 30Nm 2) 100° 3) (1-2) ↻ 4) (1-2) 25Nm 5) (1-2) 213° 6) (3-4) ↻ 7) (3-4) 25Nm 8) (3-4) 213° 9) (5-6) ↻ 10) (5-6) 25Nm 11) (5-6) 213° 12) (7-8) ↻ 13) (7-8) 25Nm 14) (7-8) 213° 15) (9-10) ↻ 16) (9-10) 25Nm 17) (9-10) 213°	
B 18 F	1721	4	81.00	SOHC	70-75/ 95-102			
B 18 E/B 18 EP	1721	4	81.00	SOHC	75/102			
B 18 FT	1721	4	81.00	SOHC	88/120			
480 Coupe 2.0L				08/92 → 09/95		22		
B 20 F	1998	4	82.70	SOHC	80-85/ 108-115	<b>HBS244</b> M12x1.50x111mm (x10)	1) 30Nm 2) 100° 3) (1-2) ↻ 4) (1-2) 25Nm 5) (1-2) 213° 6) (3-4) ↻ 7) (3-4) 25Nm 8) (3-4) 213° 9) (5-6) ↻ 10) (5-6) 25Nm 11) (5-6) 213° 12) (7-8) ↻ 13) (7-8) 25Nm 14) (7-8) 213° 15) (9-10) ↻ 16) (9-10) 25Nm 17) (9-10) 213°	
740 2.0L				08/85 → 08/92		23		
B 200 K	1986	4	88.90		70-77/ 95-105	<b>HBS174</b> M12x1.75x133mm (x10)	1) 20Nm 2) 40Nm 3) 60Nm 4) ↻ 90° 5) 60Nm 6) 90°	
B 200 G	1986	4	88.90	SOHC	80-89/ 109-121			
B 200 F	1986	4	88.90	SOHC	82/111			
B 200 E	1986	4	88.90		82-87/ 112-118			
B 200 ET	1986	4	88.90	SOHC	118/160			



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kW/PS



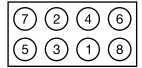
740 2.0L 16V 740 2.0L GLE						09/87 → 08/90	24	HBS175	1) 20Nm 2) 40Nm 3) ↻ 90° 4) 40Nm 5) 115°	 
B 204 E	1986	4	88.90	DOHC	100-103/ 136-140			 M12x1.75x77mm (x3) M12x1.75x115mm (x7)		
740 2.3L 740 2.3L Turbo						08/84 → 07/92	25	HBS174	1) 20Nm 2) 40Nm 3) 60Nm 4) ↻ 90° 5) 60Nm 6) 90°	 
B 23 A	2316	4	96.00	SOHC	78-84/ 106-114			 M12x1.75x133mm (x10)		
B 230 F	2316	4	96.00	SOHC	81-100/ 110-136					
B 230 K	2316	4	96.00	SOHC	85/116					
B 230 FB	2316	4	96.00	SOHC	96/131					
B 230 E	2316	4	96.00	SOHC	96-98/ 131-133					
B 230 FT	2316	4	96.00	SOHC	115-151/ 156-205					
B 230 GT	2316	4	96.00	SOHC	121/165					
740 2.3L						08/87 → 08/92	26	HBS175	1) 20Nm 2) 40Nm 3) ↻ 90° 4) 40Nm 5) 115°	 
B 234 F	2316	4	96.00	SOHC	111-117/ 151-159			 M12x1.75x77mm (x3) M12x1.75x115mm (x7)		
740 2.4L D Diesel 740 2.4L TD Diesel 740 2.4L Turbo-D Diesel						08/84 → 07/92	27	HBS022	1) 40Nm 2) 60Nm 3) 75Nm 4) 90° 5) 90° 6) ↓ 7) ✱ 8) 90°	 
D 24	2383	6	76.50	SOHC	58-60/ 79-82			 M12x1.75x115mm (x14)		
D 24 T	2383	6	76.50	SOHC	79-82/ 107-112					
760 2.3L 760 2.3L Turbo						01/88 → 07/92	28	HBS174	1) 20Nm 2) 40Nm 3) 60Nm 4) ↻ 90° 5) 60Nm 6) 90°	 
B 230 FT	2316	4	96.00	SOHC	115-151/ 156-205			 M12x1.75x133mm (x10)		
B 230 ET	2316	4	96.00		134/182					
760 2.4L D Diesel 760 2.4L TD Interc. Diesel 760 2.4L Turbo-D Diesel						01/82 → 07/92	29	HBS022	1) 40Nm 2) 60Nm 3) 75Nm 4) 90° 5) 90° 6) ↓ 7) ✱ 8) 90°	 
D 24	2383	6	76.50	SOHC	58-60/ 79-82			 M12x1.75x115mm (x14)		
D 24 T	2383	6	76.50	SOHC	79-82/ 107-112					
D 24 TIC	2383	6	76.50	SOHC	85-95/ 115-129					
850 2.0L 850 2.0L Turbo						06/91 → 12/96	30	HBS303	1) 20Nm 2) 60Nm 3) 130°	 
B 5202 S	1984	5	81.00	DOHC	93/126			 M12x1.75x162mm (x12)		
B 5204 T	1984	5	81.00	DOHC	103/140					
B 5204 F	1984	5	81.00		107/145					
B 5204 FT	1984	5	81.00	DOHC	150-155/ 204-211			 Eng.131035 → M12x1.75x157mm (x12)		



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kW/PS



850 2.3L T5 850 2.3L T5-R					02/93 → 12/96 08/95 → 12/96	31	<b>HBS303</b> → Eng.131034  M12x1.75x162mm (x12)		1) 20Nm 2) 60Nm 3) 130°	
B 5234 FT	2319	5	81.00	DOHC	168/228					
B 5234 T4	2319	5	81.00	DOHC	176-184/ 239-250					
850 2.5L 850 2.5L AWD					06/91 → 12/96 04/96 → 12/96	32	<b>HBS303</b> → Eng.131034  M12x1.75x162mm (x12)		1) 20Nm 2) 60Nm 3) 130°	
B 5252 S	2435	5	83.00	DOHC	103/106/ 140/144					
B 5252 B 5254 S	2435	5	83.00	SOHC	105/143 125/142/ 170/193					
B 5254 T	2435	5	83.00	DOHC	142/154/ 193/210					
850 2.5L TDI Diesel					08/95 → 12/96	33	<b>HBS021</b>  M12x1.75x115mm (x12)		1) 40Nm 2) 60Nm 3) ↷ 90° 4) 60Nm 5) 90° 6) 90°	
D 5252 T	2461	5	81.00	SOHC	103/140					
940 2.0L 940 2.0L GL					09/90 → 05/97 09/90 → 04/92	34	<b>HBS175</b>  M12x1.75x77mm (x3) M12x1.75x115mm (x7)		1) 20Nm 2) 40Nm 3) ↷ 90° 4) 40Nm 5) 115°	
B 204 E	1986	4	88.90	DOHC	100-103/ 136-140					
B 204 FT	1986	4	88.90	DOHC	147/200					
940 2.0L 940 2.0L Turbo					01/92 → 07/94 01/91 → 10/98	35	<b>HBS174</b>  M12x1.75x133mm (x10)		1) 20Nm 2) 40Nm 3) 60Nm 4) ↷ 90° 5) 60Nm 6) 90°	
B 200 F	1986	4	88.90	SOHC	82/111					
B 200 FT	1986	4	88.90		105-114/ 143-155					
940 2.3L					08/90 → 07/91	36	<b>HBS175</b>  M12x1.75x77mm (x3) M12x1.75x115mm (x7)		1) 20Nm 2) 40Nm 3) ↷ 90° 4) 40Nm 5) 115°	
B 234 F	2316	4	96.00	SOHC	111-117/ 151-159					
B 234 G	2316	4	96.00	DOHC	114/155					
940 2.3L 940 2.3L ti 940 2.3L Turbo					08/90 → 10/98 01/95 → 10/98 08/90 → 10/98	37	<b>HBS174</b>  M12x1.75x133mm (x10)		1) 20Nm 2) 40Nm 3) 60Nm 4) ↷ 90° 5) 60Nm 6) 90°	
B 230 FD	2316	4	96.00	SOHC	85-96/ 116-131					
B 230 G	2316	4	96.00	SOHC	94-96/ 128-131					
B 230 FB	2316	4	96.00	SOHC	96/131					
B 230 FK	2316	4	96.00	SOHC	99/135					
B 230 FT	2316	4	96.00	SOHC	115-151/ 156-205					
B 230 FT+	2316	4	96.00	SOHC	140/190					





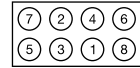
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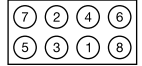
940 2.4L D Diesel						08/90 → 07/95	38	<b>HBS022</b>  M12x1.75x115mm (x14)	1) 40Nm 2) 60Nm 3) 75Nm 4) 90° 5) 90° 6) ⚡ 7) ✨ 8) 90°					
940 2.4L TD Interc. Diesel						08/94 → 10/98								
940 2.4L TD Intercooler Diesel						08/90 → 12/94								
940 2.4L Turbo-D Diesel						08/90 → 12/94								
D 24	2383	6	76.50	SOHC		58-60/ 79-82								
D 24 T	2383	6	76.50	SOHC		79-82/ 107-112								
D 24 TIC	2383	6	76.50	SOHC		85-95/ 115-129								
960 2.0L						08/90 → 09/93	39	<b>HBS175</b>  M12x1.75x77mm (x3) M12x1.75x115mm (x7)	1) 20Nm 2) 40Nm 3) ↻ 90° 4) 40Nm 5) 115°					
B 204 E						1986	4				88.90	DOHC		100-103/ 136-140
B 204 FT						1986	4				88.90	DOHC		147/200
960 2.4L TD Interc. Diesel						09/91 → 07/94	40	<b>HBS022</b>  M12x1.75x115mm (x14)	1) 40Nm 2) 60Nm 3) 75Nm 4) 90° 5) 90° 6) ⚡ 7) ✨ 8) 90°					
D 24 TIC						2383	6				76.50	SOHC		85-95/ 115-129
960 2.9L						08/90 → 12/96	41	<b>HBS426</b>  M12x1.75x162mm (x14)	1) 20Nm 2) 60Nm 3) 130°					
B 6304 S						2922	6				83.00	DOHC		150/204
C30 1.6L						10/06 →	42	<b>HBS078</b>  M10x1.50x143mm (x10)	1) 15Nm 2) 30Nm 3) 90°					
B 4164 S3						1596	4				79.00	DOHC		74/100
C30 1.6L D Diesel						10/06 →	43	<b>HBS359</b>  M11x1.50x150mm (x10)	1) 20Nm 2) 40Nm 3) 180°					
D 4164 T						1560	4				75.00	DOHC		80/109
C30 2.0L D Diesel						10/06 →	44	<b>HBS261</b>  M12x1.50x126mm (x10)	1) 20Nm 2) 60Nm 3) 220°					
D 4204 T						1998	4				85.00	DOHC		100/136
C30 2.5L T5						10/06 →	45	<b>HBS303</b> → Eng.131034  M12x1.75x162mm (x12)	1) 20Nm 2) 60Nm 3) 130°					
B 5254 T3						2521	5				83.00	DOHC		162/220
HBS185						Eng.131035 →		 M12x1.75x157mm (x12)	1) 20Nm 2) 60Nm 3) 130°					
C70 Cabriolet 2.0L D Mk II Diesel						01/08 →	46							
D 4204 T						1998	4	85.00	DOHC		100/136			
HBS261								 M12x1.50x126mm (x10)	1) 20Nm 2) 60Nm 3) 220°					



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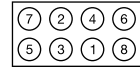
C70 Convertible 2.0L C70 Convertible 2.0L T C70 Coupe 2.0L C70 Coupe 2.0L T					03/98 → 10/05 03/98 → 10/05 03/97 → 09/02 03/97 → 09/02	47	HBS303 → Eng.131034  M12x1.75x162mm (x12)	1) 20Nm 2) 60Nm 3) 130°	
B 5204 T4	1984	5	81.00	DOHC	120/163				
B 5204 T2	1984	5	81.00	DOHC	132/180				
B 5204 T3	1984	5	81.00	DOHC	166/226				
C70 Convertible 2.3L T-5 C70 Coupe 2.3L T-5					03/98 → 10/05 03/97 → 09/02	48	HBS303 → Eng.131034  M12x1.75x162mm (x12)	1) 20Nm 2) 60Nm 3) 130°	
B 5234 T3	2319	5	81.00	DOHC	176/184/ 239/250				
C70 Convertible 2.3L T5					07/02 → 10/05	49	HBS185 Eng.131035 →  M12x1.75x157mm (x12)	1) 20Nm 2) 60Nm 3) 130°	
B 5234 T9	2319	5	81.00	DOHC	180/245				
C70 Convertible 2.4L T					07/02 → 10/05	50	HBS185  M12x1.75x157mm (x12)	1) 20Nm 2) 60Nm 3) 130°	
B 5244 T7	2435	5	83.00	DOHC	147/200				
C70 2.5L C70 Convertible 2.5L T C70 Convertible 2.5L C70 Coupe 2.5L C70 Coupe 2.5L T					03/99 → 09/02 03/98 → 10/05 06/98 → 10/05 11/99 → 09/02 03/97 → 09/02	51	HBS303 → Eng.131034  M12x1.75x162mm (x12)	1) 20Nm 2) 60Nm 3) 130°	
B 5244 S	2435	5	83.00	DOHC	125/170				
B 5254 S	2435	5	83.00	DOHC	125/142/ 170/193				
B 5244 T	2435	5	83.00	DOHC	142/193				
B 5254 T	2435	5	83.00	DOHC	142/154/ 193/210				
S40 1.6L					09/95 → 12/03	52	HBS178  M12x1.75x157mm (x10)	1) 20Nm 2) 60Nm 3) 130°	
B 4164 S/B 4164 S2	1587	4	81.00	DOHC	80/109				
S40 1.6L D Diesel					01/05 →	53	HBS359  M11x1.50x150mm (x10)	1) 20Nm 2) 40Nm 3) 180°	
D 4164 T	1560	4	75.00	DOHC	80/109				
S40 1.6L Mk II					01/05 →	54	HBS078  M10x1.50x143mm (x10)	1) 15Nm 2) 30Nm 3) 90°	
B 4164 S3	1596	4	79.00	DOHC	74/100				



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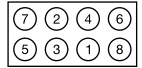
<b>S40 1.8L</b>					07/95 → 08/99	<b>55</b>	<b>HBS178</b>	1) 20Nm 2) 60Nm 3) 130°	
B 4184 S	1731	4	83.00	DOHC	85/116	 M12x1.75x157mm (x10)			
B 4184 S3	1731	4	83.00		85/116				
<b>S40 1.8L</b>					03/99 → 12/03	<b>56</b>	<b>HBS178</b>	1) 20Nm 2) 60Nm 3) 130°	
B 4184 S9	1783	4	83.00	DOHC	88-90/ 120-122	 M12x1.75x157mm (x10)			
B 4184 S2	1783	4	83.00	DOHC	90/122				
<b>S40 1.8L</b>					04/04 →	<b>57</b>	<b>HBS369</b>	1) 5Nm 2) 15Nm 3) 45Nm 4) 90° 5) 90°	
B 4184 S11	1798	4	83.00		92/125	 M10x1.50x145.5mm (x10)			
<b>S40 1.8L i</b>					03/98 → 12/03	<b>58</b>	<b>HBS215</b>	1) 30Nm 2) 50Nm 3) 75Nm 4) ↻ 180° 5) 20Nm 6) 90° 7) 90°	
B 4184 SJ	1834	4	81.00	DOHC	90/122	 M10x1.25x95mm (x10)			
B 4184 SM	1834	4	81.00		92/125				
<b>S40 1.9L DI Diesel</b>					03/99 → 07/00	<b>59</b>	<b>HBS120 [1]</b>	1) 30Nm 2) 100° 3) (1-2) ↻ 90° 4) (1-2) 25Nm 5) (1-2) 213° 6) (3-4) ↻ 90° 7) (3-4) 25Nm 8) (3-4) 213° 9) (5-6) ↻ 90° 10) (5-6) 25Nm 11) (5-6) 213° 12) (7-8) ↻ 90° 13) (7-8) 25Nm 14) (7-8) 213° 15) (9-10) ↻ 90° 16) (9-10) 25Nm 17) (9-10) 213°	
<b>S40 1.9L TD Diesel</b>					07/95 → 08/99				
D 4192 T	1870	4	80.00	SOHC	66/89	 M12x1.50x118mm (x10)			
D 4192 T2	1870	4	80.00		70/95				
<b>S40 1.9L DI Diesel</b>					07/00 → 12/03	<b>60</b>	<b>HBS372</b>	1) 35Nm 2) 100° 3) (1-2) ↻ 90° 4) (1-2) 25Nm 5) (1-2) 213° 6) (3-4) ↻ 90° 7) (3-4) 25Nm 8) (3-4) 213° 9) (5-6) ↻ 90° 10) (5-6) 25Nm 11) (5-6) 213° 12) (7-8) ↻ 90° 13) (7-8) 25Nm 14) (7-8) 213° 15) (9-10) ↻ 90° 16) (9-10) 25Nm 17) (9-10) 213°	
D 4192 T4	1870	4	80.00	DOHC	75/102	 M12x1.50x121mm (x10)			



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S40 1.9L DI Diesel				07/00 → 12/03		61			
D 4192 T3	1870	4	80.00	DOHC		85/116	<b>HBS244</b>  M12x1.50x111mm (x10)	1) 30Nm 2) 100° 3) (1-2) ↻ 4) (1-2) 25Nm 5) (1-2) 213° 6) (3-4) ↻ 7) (3-4) 25Nm 8) (3-4) 213° 9) (5-6) ↻ 10) (5-6) 25Nm 11) (5-6) 213° 12) (7-8) ↻ 13) (7-8) 25Nm 14) (7-8) 213° 15) (9-10) ↻ 16) (9-10) 25Nm 17) (9-10) 213°	
S40 1.9L T4				05/97 → 07/00		62			
B 4194 T/B 4194 T2	1855	4	81.00	DOHC		147/200	<b>HBS178</b>  M12x1.75x157mm (x10)	1) 20Nm 2) 60Nm 3) 130°	
S40 2.0L				07/95 → 12/03		63			
S40 2.0L T				10/97 → 12/03					
S40 2.0L T4				07/00 → 12/03					
B 4204 S/B 4204 S2	1948	4	83.00	DOHC		100/136	<b>HBS178</b>  M12x1.75x157mm (x10)	1) 20Nm 2) 60Nm 3) 130°	
B 4204 T	1948	4	83.00	DOHC		118/160			
B 4204 T3	1948	4	83.00	DOHC		120-121/ 163-165			
B 4204 T5	1948	4	83.00	DOHC		147/200			
S40 2.0L D Mk II Diesel				01/04 →		64			
D 4204 T	1998	4	85.00	DOHC		100/136	<b>HBS261</b>  M12x1.50x126mm (x10)	1) 20Nm 2) 60Nm 3) 220°	
S40 2.4L				01/04 →		65			
B 5244 S5	2435	5	83.00	DOHC		103/140	<b>HBS185</b>  M12x1.75x157mm (x12)	1) 20Nm 2) 60Nm 3) 130°	
B 5244 S	2435	5	83.00	DOHC		125/170			
S40 2.5L T5				01/04 →		66			
S40 2.5L T5 AWD				04/04 →					
B 5254 T3	2521	5	83.00	DOHC		162/220	<b>HBS185</b>  M12x1.75x157mm (x12)	1) 20Nm 2) 60Nm 3) 130°	
S60 2.0L T				09/01 →		67			
B 5204 T5	1984	5	81.00	DOHC		123/180	<b>HBS303</b> → Eng. 131034  M12x1.75x162mm (x12)	1) 20Nm 2) 60Nm 3) 130°	
							<b>HBS185</b> Eng. 131035 →  M12x1.75x157mm (x12)	1) 20Nm 2) 60Nm 3) 130°	



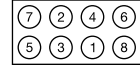
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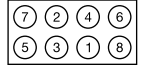
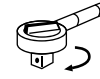
S60 2.3L T5					11/00 →	68				
B 5234 T3	2319	5	81.00	DOHC	176/184/ 239/250	<b>HBS303</b> →Eng.131034  M12x1.75x162mm (x12)	1) 20Nm 2) 60Nm 3) 130°			
						<b>HBS185</b> Eng.131035 →  M12x1.75x157mm (x12)	1) 20Nm 2) 60Nm 3) 130°			
S60 2.4L					11/00 →	69				
S60 2.4L Bifuel					06/02 →					
S60 2.4L T					11/00 →					
S60 2.4L T AWD					11/01 →					
B 5244 S2/B 5244 SG2	2435	5	83.00	DOHC	103/140	<b>HBS185</b>  M12x1.75x157mm (x12)	1) 20Nm 2) 60Nm 3) 130°			
B 5244 S	2435	5	83.00	DOHC	125/170					
B 5244 T3	2435	5	83.00		147/200					
S60 2.4L T5					04/04 →	70				
B 5244 T5	2401	5	81.00	DOHC	191/260	<b>HBS185</b>  M12x1.75x157mm (x12)	1) 20Nm 2) 60Nm 3) 130°			
S60 2.5L T					02/04 →	71				
S60 2.5L T AWD					04/04 →					
S60 R 2.5L T AWD					03/03 →					
B 5254 T2	2521	5	83.00	DOHC	154/210	<b>HBS185</b>  M12x1.75x157mm (x12)	1) 20Nm 2) 60Nm 3) 130°			
B 5254 T4	2521	5	83.00	DOHC	220/300					
S70 2.0L					01/97 →11/00	72				
S70 2.0L Turbo					01/97 →11/00					
B 5202 S	1984	5	81.00	DOHC	93/126	<b>HBS303</b> →Eng.131034  M12x1.75x162mm (x12)	1) 20Nm 2) 60Nm 3) 130°			
B 5204 T	1984	5	81.00	DOHC	103/140					
B 5204 F	1984	5	81.00		107/145	<b>HBS185</b> Eng.131035 →  M12x1.75x157mm (x12)	1) 20Nm 2) 60Nm 3) 130°			
B 5204 T4	1984	5	81.00	DOHC	120/163					
B 5204 T2	1984	5	81.00	DOHC	132/180					
B 5204 T3	1984	5	81.00	DOHC	166/226					
S70 2.3L T-5					01/97 →11/00	73				
S70 2.3L T5 AWD					11/96 →09/00					
S70 2.3L Turbo					01/97 →11/00					
B 5234 T3	2319	5	81.00	DOHC	176/184/ 239/250	<b>HBS303</b> →Eng.131034  M12x1.75x162mm (x12)	1) 20Nm 2) 60Nm 3) 130°			
B 5234 T4	2319	5	81.00	DOHC	176-184/ 239-250					
B 5234 FT+	2319	5	81.00	DOHC	184/250	<b>HBS185</b> Eng.131035 →  M12x1.75x157mm (x12)	1) 20Nm 2) 60Nm 3) 130°			



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74					75		76		77		78		79		80		81		82			
<b>S70 2.4L</b> <b>S70 2.4L T5 AWD</b> <b>S70 2.4L Turbo</b> <b>S70 2.5L</b>					01/97 → 11/00 11/96 → 04/99 01/97 → 11/00 01/97 → 11/00																	
B 5252 S	2435	5	83.00	DOHC	103/106/ 140/144																	
B 5244 S	2435	5	83.00	DOHC	125/170																	
B 5254 S	2435	5	83.00	DOHC	125/142/ 170/193																	
B 5244 T	2435	5	83.00	DOHC	142/193																	
B 5254 T	2435	5	83.00	DOHC	142/154/ 193/210																	
<b>S70 2.4L</b> <b>S70 2.5L Bifuel</b>					08/99 → 11/00 10/98 → 11/00																	
B 5244 S2/B 5244 SG	2435	5	83.00	DOHC	103/140																	
GB 5252 S	2435	5	83.00	DOHC	106/144																	
<b>S70 2.5L TDI Diesel</b> <b>S70 2.5L TDi AWD Diesel</b>					01/97 → 11/00 10/99 → 09/00																	
D 5252 T	2461	5	81.00	SOHC	103/140																	
<b>S80 1.6L D DRIVE Diesel</b>					01/10 →																	
D 4164 T	1560	4	75.00	DOHC	80/109																	
<b>S80 2.0L</b> <b>S80 2.0L T</b>					06/98 → 07/06 06/98 → 07/06																	
B 5204 T4	1984	5	81.00	DOHC	120/163																	
B 5204 T5	1984	5	81.00	DOHC	132/180																	
B 5204 T3	1984	5	81.00	DOHC	166/226																	
<b>S80 2.0L Tdi Mk II Diesel</b>					02/08 →																	
D 4204 T	1998	4	85.00	DOHC	100/136																	
<b>S80 2.4L</b> <b>S80 2.4L Bifuel</b> <b>S80 2.4L T</b>					01/99 → 07/06 09/01 → 07/06 06/00 → 07/06																	
B 5244 S2/B 5244 SG2	2435	5	83.00	DOHC	103/140																	
B 5244 S	2435	5	83.00	DOHC	125/170																	
B 5244 T3	2435	5	83.00	DOHC	147/200																	
<b>S80 2.5L T</b> <b>S80 2.5L T AWD</b>					03/03 → 07/06 07/03 → 07/06																	
B 5254 T2	2521	5	83.00	DOHC	154/210																	
<b>S80 2.5L TDI Diesel</b>					01/99 → 07/06																	
D 5252 T	2461	5	81.00	SOHC	103/140																	

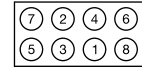




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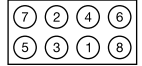
S80 2.8L T6		05/98 → 07/06			83			
B 6284 T	2783	4	81.00	DOHC	200/272	<b>HBS426</b>  M12x1.75x162mm (x14)	1) 20Nm 2) 60Nm 3) 130°	
V40 1.6L		12/95 → 06/04			84			
B 4164 S/B 4164 S2	1587	4	81.00	DOHC	80/109	<b>HBS178</b>  M12x1.75x157mm (x10)	1) 20Nm 2) 60Nm 3) 130°	
V40 1.8L		07/95 → 08/99			85			
B 4184 S	1731	4	83.00	DOHC	85/116	<b>HBS178</b>  M12x1.75x157mm (x10)	1) 20Nm 2) 60Nm 3) 130°	
B 4184 S3	1731	4	83.00					
V40 1.8L		03/99 → 06/04			86			
B 4184 S9	1783	4	83.00	DOHC	88-90/ 120-122	<b>HBS178</b>  M12x1.75x157mm (x10)	1) 20Nm 2) 60Nm 3) 130°	
B 4184 S2	1783	4	83.00	DOHC	90/122			
V40 1.8L i		03/98 → 06/04			87			
B 4184 SJ	1834	4	81.00	DOHC	90/122	<b>HBS215</b>  M10x1.25x95mm (x10)	1) 30Nm 2) 50Nm 3) 75Nm 4) ↺ 180° 5) 20Nm 6) 90° 7) 90°	
B 4184 SM	1834	4	81.00					
V40 1.9L DI Diesel		03/99 → 07/00			88			
V40 1.9L TD Diesel		07/95 → 08/99						
D 4192 T	1870	4	80.00	SOHC	66/89	<b>HBS120 [1]</b>  M12x1.50x118mm (x10)	1) 30Nm 2) 100° 3) (1-2) ↺ 90° 4) (1-2) 25Nm 5) (1-2) 213° 6) (3-4) ↺ 90° 7) (3-4) 25Nm 8) (3-4) 213° 9) (5-6) ↺ 90° 10) (5-6) 25Nm 11) (5-6) 213° 12) (7-8) ↺ 90° 13) (7-8) 25Nm 14) (7-8) 213° 15) (9-10) ↺ 90° 16) (9-10) 25Nm 17) (9-10) 213°	
D 4192 T2	1870	4	80.00					
V40 1.9L DI Diesel		07/00 → 06/04			89			
D 4192 T4	1870	4	80.00	DOHC	75/102	<b>HBS372</b>  M12x1.50x121mm (x10)	1) 35Nm 2) 100° 3) (1-2) ↺ 90° 4) (1-2) 25Nm 5) (1-2) 213° 6) (3-4) ↺ 90° 7) (3-4) 25Nm 8) (3-4) 213° 9) (5-6) ↺ 90° 10) (5-6) 25Nm 11) (5-6) 213° 12) (7-8) ↺ 90° 13) (7-8) 25Nm 14) (7-8) 213° 15) (9-10) ↺ 90° 16) (9-10) 25Nm 17) (9-10) 213°	



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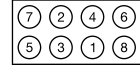
V40 1.9L DI Diesel					07/00 → 06/04	90				
D 4192 T3	1870	4	80.00	DOHC		85/116	 M12x1.50x111mm (x10)	1) 30Nm 2) 100° 3) (1-2) ↻ 4) (1-2) 25Nm 5) (1-2) 213° 6) (3-4) ↻ 7) (3-4) 25Nm 8) (3-4) 213° 9) (5-6) ↻ 10) (5-6) 25Nm 11) (5-6) 213° 12) (7-8) ↻ 13) (7-8) 25Nm 14) (7-8) 213° 15) (9-10) ↻ 16) (9-10) 25Nm 17) (9-10) 213°		
V40 1.9L T4					05/97 → 07/00	91				
B 4194 T	1855	4	81.00	DOHC		147/200	 M12x1.75x157mm (x10)	1) 20Nm 2) 60Nm 3) 130°		
V40 2.0L					07/95 → 06/04	92				
V40 2.0L T					10/97 → 06/04					
V40 2.0L T4					07/00 → 06/04					
B 4204 S/B 4204 S2	1948	4	83.00	DOHC		100/136	 M12x1.75x157mm (x10)	1) 20Nm 2) 60Nm 3) 130°		
B 4204 T	1948	4	83.00	DOHC	118/160					
B 4204 T2	1948	4	83.00	DOHC	118-121/ 160-165					
B 4204 T3	1948	4	83.00	DOHC	120-121/ 163-165					
B 4204 T5	1948	4	83.00	DOHC	147/200					
V40 2.0L D Diesel					12/02 → 06/04	93				
D 4204 T	1998	4	85.00	DOHC		100/136	 M12x1.50x126mm (x10)	1) 20Nm 2) 60Nm 3) 220°		
V50 1.6L					01/05 →	94				
B 4164 S3	1596	4	79.00	DOHC		74/100	 M10x1.50x143mm (x10)	1) 15Nm 2) 30Nm 3) 90°		
V50 1.6L D Diesel					01/05 →	95				
D 4164 T	1560	4	75.00	DOHC		80/109	 M11x1.50x150mm (x10)	1) 20Nm 2) 40Nm 3) 180°		
V50 1.8L					04/04 →	96				
B 4184 S11	1798	4	83.00			92/125	 M10x1.50x145.5mm (x10)	1) 5Nm 2) 15Nm 3) 45Nm 4) 90° 5) 90°		
V50 2.0L D Diesel					04/04 →	97				
D 4204 T	1998	4	85.00	DOHC		100/136	 M12x1.50x126mm (x10)	1) 20Nm 2) 60Nm 3) 220°		
V50 2.4L					04/04 →	98				
B 5244 S5	2435	5	83.00	DOHC		103/140	 M12x1.75x157mm (x12)	1) 20Nm 2) 60Nm 3) 130°		
B 5244 S	2435	5	83.00	DOHC	125/170					



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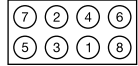
VOLVO						cc		kW/PS				
<b>V50 2.5L T5</b>						04/04 →		<b>99</b>		<b>HBS185</b>  M12x1.75x157mm (x12)	1) 20Nm 2) 60Nm 3) 130°	
<b>V50 2.5L T5 AWD</b>						04/04 →						
B 5254 T3	2521	5	83.00	DOHC	162/220							
<b>V70 1.6L D Diesel</b>						01/10 →		<b>100</b>		<b>HBS359</b>  M11x1.50x150mm (x10)	1) 20Nm 2) 40Nm 3) 180°	
D 4164 T	1560	4	75.00	DOHC	80/109							
<b>V70 2.0L</b>						01/97 → 03/00		<b>101</b>		<b>HBS303</b> → Eng.131034  M12x1.75x162mm (x12)	1) 20Nm 2) 60Nm 3) 130°	
<b>V70 2.0L T</b>						07/01 →						
<b>V70 2.0L Turbo</b>						01/97 → 03/00						
B 5202 S	1984	5	81.00	DOHC	93/126							
B 5204 T	1984	5	81.00	DOHC	103/140							
B 5204 T4	1984	5	81.00	DOHC	120/163							
B 5204 T2/B 5204 T5	1984	5	81.00	DOHC	132/180							
B 5204 T3	1984	5	81.00	DOHC	166/226							
<b>V70 2.0L D Mk III Diesel</b>						10/07 →		<b>102</b>		<b>HBS261</b>  M12x1.50x126mm (x10)	1) 20Nm 2) 60Nm 3) 220°	
D 4204 T	1998	4	85.00	DOHC	100/136							
<b>V70 2.3L T AWD</b>						04/97 → 03/00		<b>103</b>		<b>HBS303</b> → Eng.131034  M12x1.75x162mm (x12)	1) 20Nm 2) 60Nm 3) 130°	
<b>V70 2.3L T5</b>						01/97 → 03/00						
<b>V70 2.3L T5 AWD</b>						01/97 → 03/00						
<b>V70 2.3L Turbo</b>						01/97 → 03/00						
B 5234 T3	2319	5	81.00	DOHC	176/184/ 239/250							
B 5234 T4	2319	5	81.00	DOHC	176-184/ 239-250							
B 5234 FT+	2319	5	81.00	DOHC	184/250							
<b>V70 2.4L</b>						01/97 → 05/00		<b>104</b>		<b>HBS303</b> → Eng.131034  M12x1.75x162mm (x12)	1) 20Nm 2) 60Nm 3) 130°	
<b>V70 2.4L Turbo</b>						01/97 → 03/00						
<b>V70 2.5L</b>						01/97 → 03/00						
<b>V70 2.5L Turbo AWD</b>						01/97 → 05/00						
B 5252 S	2435	5	83.00	DOHC	103/106/ 140/144							
B 5254 S	2435	5	83.00		125/142/ 170/193							
B 5244 T	2435	5	83.00	DOHC	142/193							
B 5254 T	2435	5	83.00	DOHC	142/154/ 193/210							
<b>V70 2.4L</b>						08/99 → 05/00		<b>105</b>		<b>HBS185</b>  M12x1.75x157mm (x12)	1) 20Nm 2) 60Nm 3) 130°	
<b>V70 2.4L AWD Mk I</b>						05/99 → 02/00						
<b>V70 2.4L Bifuel</b>						08/99 → 03/00						
<b>V70 2.4L T</b>						03/00 →						
<b>V70 2.4L T AWD</b>						09/01 →						
<b>V70 2.5L Bifuel</b>						10/98 → 08/99						
B 5244 S2/B 5244 SG/B 5244 SG2	2435	5	83.00	DOHC	103/140							
GB 5252 S	2435	5	83.00		106/144							
B 5244 S	2435	5	83.00	DOHC	125/170							
B 5244 T3	2435	5	83.00		147/200							
B 5244 T2	2435	5	83.00	DOHC	195/265							











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Model					04/04 →	106	HBS185		1) 20Nm 2) 60Nm 3) 130°	
B 5244 T5	2401	5	81.00	DOHC		191/260	M12x1.75x157mm (x12)			
<b>V70 2.5L T</b>					04/04 →	<b>107</b>	HBS185		1) 20Nm 2) 60Nm 3) 130°	
<b>V70 2.5L T AWD</b>					09/02 →		HBS185			
<b>V70 R 2.5L T AWD</b>					03/03 →		HBS185			
B 5254 T2	2521	5	83.00	DOHC		154/210	M12x1.75x157mm (x12)			
B 5254 T4	2521	5	83.00	DOHC		220/300	M12x1.75x157mm (x12)			
<b>V70 2.5L TDI Diesel</b>					01/97 → 05/00	<b>108</b>	HBS021		1) 40Nm 2) 60Nm 3) 90° 4) 60Nm 5) 90° 6) 90°	
<b>V70 2.5L TDi AWD Mk I Diesel</b>					11/96 → 02/00		HBS021			
D 5252 T	2461	5	81.00	SOHC		103/140	M12x1.75x115mm (x12)			
<b>V90 2.9L</b>					01/97 → 12/98	<b>109</b>	HBS426		1) 20Nm 2) 60Nm 3) 130°	
B 6304 S2	2922	6	83.00	DOHC		132/135/ 150/180/ 184/204	M12x1.75x162mm (x14)			
B 6304 G	2922	6	83.00	DOHC		150/204	M12x1.75x162mm (x14)			
<b>XC70 2.4L T XC AWD</b>					03/00 → 09/02	<b>110</b>	HBS185		1) 20Nm 2) 60Nm 3) 130°	
B 5244 T3	2435	5	83.00			147/200	M12x1.75x157mm (x12)			
<b>XC70 2.5L T XC AWD</b>					09/02 →	<b>111</b>	HBS185		1) 20Nm 2) 60Nm 3) 130°	
B 5254 T2	2521	5	83.00	DOHC		154/210	M12x1.75x157mm (x12)			
<b>XC90 2.5L T</b>					10/02 →	<b>112</b>	HBS185		1) 20Nm 2) 60Nm 3) 130°	
B 5254 T2	2521	5	83.00	DOHC		154/210	M12x1.75x157mm (x12)			
<b>XC90 2.9L T6</b>					10/02 →	<b>113</b>	HBS426		1) 20Nm 2) 60Nm 3) 130°	
B 6294 T	2922	6	83.00	DOHC, V6		200/272	M12x1.75x162mm (x14)			

		cc			9			cc			9
D6A180	Diesel	5480	6	98.43	1						
D6A210	Diesel	5480	6	98.43	1						
D10B320	Diesel	9600	6	120.65	2						
D10B360	Diesel	9600	6	120.65	2						
D16A470	Diesel	16120	6	144.00	4						
D16A520	Diesel	16120	6	144.00	4						
D16B520	Diesel	16120	6	144.00	4						
TD 61 F	Diesel	5480	6	98.42	1						
TD 61 G	Diesel	5480	6	98.42	1						
TD 61 GA	Diesel	5480	6	98.42	1						
TD 61 GB	Diesel	5480	6	98.42	1						
TD 61 GC	Diesel	5480	6	98.42	1						
TD 61 GS	Diesel	5480	6	98.42	1						
TD 63 E	Diesel	5480	6	98.43	1						
TD 63 ES	Diesel	5480	6	98.43	1						
TD 122 F	Petrol	11980	6	130.00	3						
TD 122 FH	Petrol	11980	6	130.18	3						



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F 12 F 12/360	01/88→12/90	3
F 12 F 12/360	12/90→12/94	3
F 12 F 12/360	01/91→12/94	3
FH 16 FH 16	08/93→12/99	4
FH 16 FH 16/470	08/93→12/99	4
FH 16 FH 16/520	08/93→12/02	4
FH 16 FH 16/520	01/95→	4
FL 6 FL 608	10/85→12/99	1
FL 6 FL 608	01/91→12/99	1
FL 6 FL 608	01/93→12/99	1
FL 6 FL 610	09/85→11/94	1
FL 6 FL 611	09/85→11/94	1
FL 6 FL 611	09/85→03/00	1
FL 6 FL 611	12/94→03/00	1
FL 6 FL 612	09/85→12/99	1
FL 6 FL 612	11/91→12/99	1
FL 6 FL 614	09/85→03/00	1
FL 6 FL 615	11/91→03/00	1
FL 6 FL 618	11/91→03/00	1
FL 6 FL 619	09/85→11/94	1
FM 10 FM 10/320	04/99→12/01	2
FM 10 FM 10/360	04/99→12/01	2



# VOLVO COMMERCIAL



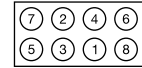
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










						<b>1</b>				
TD 61 G	5480	6	98.42	Turbo Intercooled	108-152/ 147-207	<b>HBS427 (x2)</b>  M11x1.50x140mm (x20)	1) 30Nm 2) 85Nm 3) 85Nm 4) 60°			
TD 61 GA	5480	6	98.42	Turbo	112/152					
TD 61 GB/TD 61 GS	5480	6	98.42	Turbo	131-132/ 179-180					
TD 61 GC	5480	6	98.42	Turbo	132/180					
TD 61 F	5480	6	98.42	Turbo Intercooled	150-152/ 204-207					
D6A180	5480	6	98.43	Euro 3/Turbo Intercooled	132/180					
TD 63 E	5480	6	98.43	Turbo Intercooled	132/180					
D6A210	5480	6	98.43	Euro 3/Turbo Intercooled	154/210					
TD 63 ES	5480	6	98.43	Turbo Intercooled	154/210					
										<b>2</b>
D10B320	9600	6	120.65	Euro 2/Turbo Intercooled	235/320	<b>HBS481 (x6)</b>  M19x2.50x200mm (x8)				
D10B360	9600	6	120.65	Euro 2/Turbo Intercooled	265/360					
						<b>3</b>				
TD 122 F	11980	6	130.00	Turbo	257-262/ 350-356	<b>HBS482 (x6)</b>  M14x2x189mm (x8)	1) 50Nm 2) 150Nm 3) 190Nm 4) 60°			
TD 122 FH	11980	6	130.18	Euro 1/Turbo Intercooled	262/356					
						<b>4</b>				
D16A470	16120	6	144.00	Euro 2/Turbo Intercooled	346/470	<b>HBS480 (x6)</b>  M16x2x210mm (x8)	1) 50Nm 2) 125Nm 3) 200Nm 4) 180°			
D16A520/D16B520	16120	6	144.00	Turbo Intercooled	382/520					

		CC			9			CC			9
1E	Petrol	2382	6	76.50	89	ADX	Petrol	1296	4	76.50	151
1F	Petrol	1595	4	81.00	14	ADY	Petrol	1984	4	82.50	26
1F	Petrol	1595	4	81.00	110	ADY	Petrol	1984	4	82.50	55
1F	Petrol	1595	4	81.00	163	ADY	Petrol	1984	4	82.50	123
1G	Diesel	2383	6	76.50	86	ADY	Petrol	1984	4	82.50	177
1H	Petrol	1781	4	81.00	49	ADY	Petrol	1984	4	82.50	214
1P	Petrol	1781	4	81.00	49	ADZ	Petrol	1781	4	81.00	49
1P	Petrol	1781	4	81.00	74	ADZ	Petrol	1781	4	81.00	115
1S	Diesel	2383	6	76.50	86	ADZ	Petrol	1781	4	81.00	212
1V	Diesel	1588	4	76.50	47	AEA	Petrol	1598	4	76.50	43
1V	Diesel	1588	4	76.50	72	AEA	Petrol	1598	4	76.50	160
1W	Diesel	1398	4	75.00	156	AEA	Petrol	1598	4	76.50	210
1X	Diesel	1896	4	79.50	194	AEB	Diesel	1781	4	81.00	117
1Y	Diesel	1896	4	79.50	20	AEE	Petrol	1598	4	76.50	16
1Y	Diesel	1896	4	79.50	52	AEE	Petrol	1598	4	76.50	43
1Y	Diesel	1896	4	79.50	120	AEE	Petrol	1598	4	76.50	160
1Y	Diesel	1896	4	79.50	213	AEE	Petrol	1598	4	76.50	210
1Z	Diesel	1896	4	79.50	20	AEF	Diesel	1896	4	79.50	20
1Z	Diesel	1896	4	79.50	52	AEF	Diesel	1896	4	79.50	167
1Z	Diesel	1896	4	79.50	120	AEG	Petrol	1984	4	82.50	107
1Z	Diesel	1896	4	79.50	174	AEH	Petrol	1595	4	81.00	2
1Z	Diesel	1896	4	79.50	213	AEH	Petrol	1595	4	81.00	42
2E	Petrol	1984	4	82.50	55	AEH	Petrol	1595	4	81.00	159
2E	Petrol	1984	4	82.50	123	AEK	Petrol	1595	4	81.00	41
2E	Petrol	1984	4	82.50	214	AEK	Petrol	1595	4	81.00	110
2G	Petrol	1272	4	75.00	37	AEK	Petrol	1595	4	81.00	209
2G	Petrol	1272	4	75.00	69	AEN	Diesel	2461	5	81.00	200
2G	Petrol	1272	4	75.00	150	AEP	Petrol	1984	4	82.50	123
2H	Petrol	1781	4	81.00	49	AER	Petrol	999	4	67.10	90
3F	Petrol	1272	4	75.00	150	AER	Petrol	999	4	67.10	144
9A	Petrol	1984	4	82.50	27	AES	Petrol	2792	6	81.00	203
9A	Petrol	1984	4	82.50	126	AET	Diesel	2461	5	81.00	200
22R	Petrol	2366	4	92.00	180	AEU	Petrol	2459	5	81.00	199
AAA	Petrol	2792	6	81.00	65	AEV	Petrol	1043	4	75.00	143
AAA	Petrol	2792	6	81.00	138	AEX	Petrol	1390	4	76.50	12
AAA	Petrol	2792	6	81.00	179	AEX	Petrol	1390	4	76.50	38
AAA	Petrol	2792	6	81.00	215	AEX	Petrol	1390	4	76.50	153
AAB	Diesel	2370	5	79.50	198	AEX	Petrol	1390	4	76.50	155
AAC	Petrol	1968	4	81.00	196	AEX	Petrol	1390	4	76.50	207
AAF	Petrol	2459	5	81.00	199	AEY	Diesel	1896	4	79.50	20
AAK	Petrol	1043	4	75.00	143	AEY	Diesel	1896	4	79.50	52
AAM	Petrol	1781	4	81.00	49	AEY	Diesel	1896	4	79.50	167
AAM	Petrol	1781	4	81.00	116	AEY	Diesel	1896	4	79.50	213
AAM	Petrol	1781	4	81.00	211	AFB	Diesel	2496	6	78.30	136
AAU	Petrol	1043	4	75.00	143	AFK	Petrol	1390	4	76.50	93
AAV	Petrol	1272	4	75.00	150	AFK	Petrol	1390	4	76.50	154
AAZ	Diesel	1896	4	79.50	52	AFN	Diesel	1896	4	79.50	52
AAZ	Diesel	1896	4	79.50	120	AFN	Diesel	1896	4	79.50	120
AAZ	Diesel	1896	4	79.50	213	AFN	Diesel	1896	4	79.50	167
ABA	Petrol	1984	4	82.50	55	AFN	Diesel	1896	4	79.50	175
ABD	Petrol	1391	4	75.00	39	AFN	Diesel	1896	4	79.50	213
ABD	Petrol	1391	4	75.00	208	AFT	Petrol	1595	4	81.00	41
ABF	Petrol	1984	4	82.50	59	AFT	Petrol	1595	4	81.00	110
ABF	Petrol	1984	4	82.50	127	AFT	Petrol	1595	4	81.00	159
ABL	Diesel	1896	4	79.50	194	AFT	Petrol	1595	4	81.00	209
ABN	Petrol	1595	4	81.00	41	AFY	Diesel	1781	4	81.00	117
ABN	Petrol	1595	4	81.00	70	AGD	Diesel	1896	4	79.50	167
ABS	Petrol	1781	4	81.00	49	AGG	Petrol	1984	4	82.50	55
ABS	Petrol	1781	4	81.00	115	AGG	Petrol	1984	4	82.50	123
ABS	Petrol	1781	4	81.00	212	AGG	Petrol	1984	4	82.50	214
ABU	Petrol	1598	4	76.50	43	AGK	Diesel	2799	4	93.00	85
ABU	Petrol	1598	4	76.50	210	AGL	Diesel	2295	4	90.90	81
ABV	Petrol	2861	6	82.00	28	AGN	Petrol	1781	4	81.00	6
ABV	Petrol	2861	6	82.00	66	AGN	Petrol	1781	4	81.00	50
ABV	Petrol	2861	6	82.00	139	AGP	Diesel	1896	4	79.50	7
ACC	Petrol	1781	4	81.00	49	AGP	Diesel	1896	4	79.50	52
ACL	Diesel	2384	6	76.50	88	AGP	Diesel	1896	4	79.50	167
ACM	Petrol	1043	4	75.00	143	AGR	Diesel	1896	4	79.50	7
ACT	Diesel	2384	6	76.50	88	AGR	Diesel	1896	4	79.50	52
ACU	Petrol	2459	5	81.00	199	AGR	Diesel	1896	4	79.50	167
ACV	Diesel	2461	5	81.00	200	AGU	Petrol	1781	4	81.00	6
ADP	Petrol	1595	4	81.00	111	AGU	Petrol	1781	4	81.00	50
ADR	Diesel	1781	4	81.00	117	AGU	Petrol	1781	4	81.00	104

		cc			9			cc			9
AGX	Diesel	2459	5	81.00	82	APA	Diesel	2461	5	81.00	83
AGZ	Petrol	2324	5	81.00	10	APE	Petrol	1390	4	76.50	1
AGZ	Petrol	2324	5	81.00	63	APE	Petrol	1390	4	76.50	40
AGZ	Petrol	2324	5	81.00	135	APE	Petrol	1390	4	76.50	93
AHB	Diesel	1716	4	79.50	18	APE	Petrol	1390	4	76.50	154
AHD	Diesel	2459	5	81.00	82	APF	Petrol	1595	4	81.00	2
AHF	Diesel	1896	4	79.50	7	APF	Petrol	1595	4	81.00	42
AHF	Diesel	1896	4	79.50	52	APF	Petrol	1595	4	81.00	159
AHG	Diesel	1716	4	79.50	165	APH	Petrol	1781	4	81.00	104
AHH	Diesel	1896	4	79.50	120	APK	Petrol	1984	4	82.50	9
AHL	Petrol	1595	4	81.00	111	APK	Petrol	1984	4	82.50	56
AHS	Petrol	1588	4	76.50	164	APK	Petrol	1984	4	82.50	107
AHU	Diesel	1896	4	79.50	20	APL	Diesel	2461	5	81.00	200
AHU	Diesel	1896	4	79.50	52	APQ	Petrol	1390	4	76.50	12
AHU	Diesel	1896	4	79.50	120	APQ	Petrol	1390	4	76.50	38
AHU	Diesel	1896	4	79.50	167	APQ	Petrol	1390	4	76.50	153
AHU	Diesel	1896	4	79.50	174	APT	Diesel	1781	4	81.00	117
AHU	Diesel	1896	4	79.50	213	APU	Diesel	1781	4	81.00	117
AHW	Petrol	1390	4	76.50	1	AQA	Petrol	1781	4	81.00	50
AHW	Petrol	1390	4	76.50	40	AQM	Diesel	1896	4	79.50	7
AHW	Petrol	1390	4	76.50	93	AQM	Diesel	1896	4	79.50	52
AHW	Petrol	1390	4	76.50	154	AQM	Diesel	1896	4	79.50	167
AHY	Diesel	2461	5	81.00	200	AQN	Petrol	2324	5	81.00	11
AJA	Diesel	2370	5	79.50	198	AQN	Petrol	2324	5	81.00	64
AJH	Petrol	1781	4	81.00	173	AQN	Petrol	2324	5	81.00	108
AJM	Diesel	1896	4	79.50	8	AQQ	Petrol	1390	4	76.50	93
AJM	Diesel	1896	4	79.50	53	AQQ	Petrol	1390	4	76.50	154
AJM	Diesel	1896	4	79.50	121	AQY	Petrol	1984	4	82.50	9
AJT	Diesel	2461	5	81.00	200	AQY	Petrol	1984	4	82.50	56
AJV	Petrol	1598	4	76.50	162	AQY	Petrol	1984	4	82.50	107
AKK	Petrol	1390	4	76.50	153	ARC	Petrol	1598	4	76.50	162
AKL	Petrol	1595	4	81.00	2	ARG	Diesel	1781	4	81.00	117
AKL	Petrol	1595	4	81.00	42	ARM	Petrol	1595	4	81.00	111
AKL	Petrol	1595	4	81.00	159	ARR	Petrol	1390	4	76.50	93
AKN	Diesel	2496	6	78.30	136	ARX	Petrol	1781	4	81.00	6
AKQ	Petrol	1390	4	76.50	1	ARZ	Petrol	1781	4	81.00	50
AKQ	Petrol	1390	4	76.50	40	ASV	Diesel	1896	4	79.50	7
AKQ	Petrol	1390	4	76.50	93	ASV	Diesel	1896	4	79.50	52
AKR	Petrol	1984	4	82.50	55	ASV	Diesel	1896	4	79.50	167
AKR	Petrol	1984	4	82.50	214	ASX	Diesel	1896	4	79.50	167
AKS	Petrol	1595	4	81.00	41	ASY	Diesel	1896	4	79.50	167
AKU	Diesel	1716	4	79.50	96	ASZ	Diesel	1896	4	79.50	8
AKU	Diesel	1716	4	79.50	165	ASZ	Diesel	1896	4	79.50	53
AKV	Petrol	1390	4	76.50	12	ASZ	Diesel	1896	4	79.50	168
AKV	Petrol	1390	4	76.50	153	ASZ	Diesel	1896	4	79.50	176
AKW	Diesel	1716	4	79.50	165	ATA	Diesel	2799	4	93.00	85
ALD	Petrol	999	4	67.10	90	ATD	Diesel	1896	4	79.50	8
ALD	Petrol	999	4	67.10	142	ATD	Diesel	1896	4	79.50	53
ALE	Diesel	1896	4	79.50	20	ATD	Diesel	1896	4	79.50	106
ALE	Diesel	1896	4	79.50	52	ATD	Diesel	1896	4	79.50	168
ALE	Diesel	1896	4	79.50	213	ATJ	Diesel	1896	4	79.50	121
ALE/	Diesel	1896	4	79.50	167	ATM	Petrol	1984	4	82.50	177
ALH	Diesel	1896	4	79.50	7	ATN	Petrol	1595	4	76.50	3
ALH	Diesel	1896	4	79.50	20	ATN	Petrol	1595	4	76.50	44
ALH	Diesel	1896	4	79.50	52	AUA	Petrol	1390	4	76.50	13
ALH	Diesel	1896	4	79.50	105	AUA	Petrol	1390	4	76.50	93
ALH	Diesel	1896	4	79.50	167	AUA	Petrol	1390	4	76.50	154
ALL	Petrol	999	4	67.10	90	AUB	Petrol	1390	4	76.50	93
ALL	Petrol	999	4	67.10	144	AUB	Petrol	1390	4	76.50	154
ALM	Petrol	1598	4	76.50	160	AUC	Petrol	999	4	67.10	90
ALT	Petrol	1984	4	82.50	125	AUC	Petrol	999	4	67.10	142
ALZ	Petrol	1595	4	81.00	112	AUD	Petrol	1390	4	76.50	12
AMF	Diesel	1422	3	79.50	94	AUD	Petrol	1390	4	76.50	92
AMF	Diesel	1422	3	79.50	157	AUD	Petrol	1390	4	76.50	153
ANA	Petrol	1595	4	81.00	111	AUF	Diesel	2461	5	81.00	200
ANB	Diesel	1781	4	81.00	117	AUH	Diesel	2799	4	93.00	85
ANJ	Diesel	2461	5	81.00	83	AUM	Petrol	1781	4	81.00	6
ANP	Petrol	1781	4	81.00	49	AUM	Petrol	1781	4	81.00	50
ANU	Diesel	1896	4	79.50	174	AUQ	Petrol	1781	4	81.00	6
ANV	Petrol	999	4	67.10	90	AUQ	Petrol	1781	4	81.00	50
ANW	Petrol	1390	4	76.50	153	AUR	Petrol	1595	4	81.00	159
ANX	Petrol	1389	4	76.50	158	AUS	Petrol	1597	4	76.50	4
ANY	Diesel	1191	3	76.50	91	AUS	Petrol	1597	4	76.50	45

		CC			9			CC			9
AUY	Diesel	1896	4	79.50	8	BAF	Petrol	1781	4	81.00	6
AUY	Diesel	1896	4	79.50	53	BAG	Petrol	1598	4	76.50	48
AUY	Diesel	1896	4	79.50	176	BAG	Petrol	1598	4	76.50	184
AVB	Diesel	1896	4	79.50	121	BAU	Diesel	2496	6	78.30	137
AVC	Petrol	1781	4	81.00	104	BAY	Diesel	1422	3	79.50	157
AVF	Diesel	1896	4	79.50	121	BBE	Diesel	2461	5	81.00	83
AVG	Diesel	1896	4	79.50	52	BBF	Diesel	2461	5	81.00	83
AVG	Diesel	1896	4	79.50	120	BBW	Petrol	1984	4	82.50	9
AVG	Diesel	1896	4	79.50	175	BBY	Petrol	1390	4	76.50	93
AVQ	Diesel	1896	4	79.50	185	BBY	Petrol	1390	4	76.50	154
AVR	Diesel	2461	5	81.00	83	BBZ	Petrol	1390	4	76.50	154
AVT	Diesel	2461	5	81.00	200	BCA	Petrol	1390	4	76.50	1
AVU	Petrol	1595	4	81.00	2	BCA	Petrol	1390	4	76.50	13
AVU	Petrol	1595	4	81.00	42	BCA	Petrol	1390	4	76.50	40
AVY	Petrol	1598	4	76.50	95	BCA	Petrol	1390	4	76.50	102
AVY	Petrol	1598	4	76.50	162	BCB	Petrol	1598	4	76.50	5
AWC	Petrol	1781	4	81.00	173	BCB	Petrol	1598	4	76.50	46
AWD	Petrol	1781	4	81.00	50	BCQ	Diesel	2798	4	93.00	84
AWH	Petrol	1595	4	81.00	103	BDG	Diesel	2496	6	78.30	137
AWL	Petrol	1781	4	81.00	119	BDH	Diesel	2496	6	78.30	137
AWM	Petrol	1781	4	81.00	119	BDJ	Diesel	1968	4	81.00	23
AWT	Petrol	1781	4	81.00	119	BDK	Diesel	1968	4	81.00	60
AWU	Petrol	1781	4	81.00	104	BDL	Petrol	3189	6	84.00	101
AWV	Petrol	1781	4	81.00	104	BDL	Petrol	3189	6	84.00	204
AWX	Diesel	1896	4	79.50	121	BEH	Petrol	1984	4	82.50	56
AWY	Petrol	1198	3	76.50	146	BEW	Diesel	1896	4	79.50	106
AXA	Petrol	1984	4	82.50	98	BFH	Petrol	3189	6	84.00	67
AXA	Petrol	1984	4	82.50	197	BFQ	Petrol	1595	4	81.00	2
AXB	Diesel	1896	4	79.50	97	BFQ	Petrol	1595	4	81.00	42
AXB	Diesel	1896	4	79.50	195	BFS	Petrol	1595	4	81.00	103
AXC	Diesel	1896	4	79.50	195	BGU	Petrol	1595	4	81.00	15
AXD	Diesel	2461	5	81.00	100	BGU	Petrol	1595	4	81.00	42
AXE	Diesel	2461	5	81.00	100	BGU	Petrol	1595	4	81.00	183
AXE	Diesel	2461	5	81.00	202	BGW	Diesel	1968	4	81.00	129
AXE	Diesel	2461	5	81.00	206	BHW	Diesel	1968	4	81.00	129
AXG	Diesel	2461	5	81.00	200	BJB	Diesel	1896	4	79.50	21
AXL	Diesel	2461	5	81.00	200	BJH	Petrol	1595	4	81.00	2
AXP	Petrol	1390	4	76.50	1	BJH	Petrol	1595	4	81.00	42
AXP	Petrol	1390	4	76.50	40	BJX	Petrol	1781	4	81.00	166
AXR	Diesel	1896	4	79.50	8	BKC	Diesel	1896	4	79.50	54
AXR	Diesel	1896	4	79.50	53	BKC	Diesel	1896	4	79.50	122
AXR	Diesel	1896	4	79.50	106	BKC	Diesel	1896	4	79.50	185
AXR	Diesel	1896	4	79.50	168	BKD	Diesel	1968	4	81.00	58
AXU	Petrol	1390	4	76.50	154	BKD	Diesel	1968	4	81.00	62
AXW	Petrol	1984	4	82.50	57	BKD	Diesel	1968	4	81.00	190
AXW	Petrol	1984	4	82.50	186	BKF	Petrol	1781	4	81.00	104
AYC	Diesel	2461	5	81.00	200	BKG	Petrol	1390	4	76.50	40
AYD	Petrol	1595	4	81.00	103	BKJ	Petrol	3189	6	84.00	182
AYQ	Diesel	1896	4	79.50	20	BKK	Petrol	3189	6	84.00	101
AYT	Petrol	3189	6	84.00	141	BKK	Petrol	3189	6	84.00	204
AYY	Diesel	2461	5	81.00	200	BKL	Petrol	3189	6	84.00	141
AYZ	Diesel	1191	3	76.50	91	BKP	Diesel	1968	4	81.00	133
AZD	Petrol	1597	4	76.50	4	BKS	Diesel	2967	6	83.00	181
AZD	Petrol	1597	4	76.50	45	BKY	Petrol	1390	4	76.50	154
AZG	Petrol	1984	4	82.50	9	BLF	Petrol	1598	4	76.50	29
AZG	Petrol	1984	4	82.50	56	BLF	Petrol	1598	4	76.50	48
AZG	Petrol	1984	4	82.50	107	BLF	Petrol	1598	4	76.50	73
AZH	Petrol	1984	4	82.50	9	BLF	Petrol	1598	4	76.50	113
AZH	Petrol	1984	4	82.50	56	BLF	Petrol	1598	4	76.50	184
AZJ	Petrol	1984	4	82.50	9	BLN	Petrol	1390	4	76.50	40
AZJ	Petrol	1984	4	82.50	56	BLP	Petrol	1598	4	76.50	48
AZM	Petrol	1984	4	82.50	124	BLP	Petrol	1598	4	76.50	184
AZQ	Petrol	1198	3	76.50	147	BLR	Petrol	1984	4	82.50	57
AZV	Diesel	1968	4	81.00	58	BLR	Petrol	1984	4	82.50	77
AZV	Diesel	1968	4	81.00	61	BLR	Petrol	1984	4	82.50	128
AZV	Diesel	1968	4	81.00	78	BLR	Petrol	1984	4	82.50	186
AZV	Diesel	1968	4	81.00	187	BLS	Diesel	1896	4	79.50	21
AZX	Petrol	2324	5	81.00	134	BLS	Diesel	1896	4	79.50	54
AZZ	Petrol	3189	6	84.00	182	BLS	Diesel	1896	4	79.50	122
BAA	Petrol	3189	6	84.00	182	BLS	Diesel	1896	4	79.50	185
BAD	Petrol	1598	4	76.50	5	BLT	Diesel	1896	4	79.50	168
BAD	Petrol	1598	4	76.50	46	BLX	Petrol	1984	4	82.50	57
BAE	Petrol	1781	4	81.00	6	BLX	Petrol	1984	4	82.50	128

		cc			9			cc			9
BLX	Petrol	1984	4	82.50	186	BVZ	Petrol	1984	4	82.50	57
BLY	Petrol	1984	4	82.50	57	BVZ	Petrol	1984	4	82.50	77
BLY	Petrol	1984	4	82.50	77	BVZ	Petrol	1984	4	82.50	128
BLY	Petrol	1984	4	82.50	128	BVZ	Petrol	1984	4	82.50	186
BLY	Petrol	1984	4	82.50	186	BWB	Diesel	1422	3	79.50	157
BMA	Diesel	1968	4	81.00	130	BXE	Diesel	1896	4	79.50	76
BMD	Petrol	1198	3	76.50	33	BXE	Diesel	1896	4	79.50	185
BMD	Petrol	1198	3	76.50	146	BXF	Diesel	1896	4	79.50	53
BME	Petrol	1198	3	76.50	147	BXF	Diesel	1896	4	79.50	185
BMK	Diesel	2967	6	83.00	140	BXJ	Diesel	1896	4	79.50	53
BML	Petrol	3189	6	84.00	67	BXJ	Diesel	1896	4	79.50	185
BMM	Diesel	1968	4	81.00	23	BZG	Petrol	1198	3	76.50	147
BMM	Diesel	1968	4	81.00	31	CATA	Diesel	2967	6	83.00	181
BMM	Diesel	1968	4	81.00	60	CBAA	Diesel	1968	4	81.00	130
BMM	Diesel	1968	4	81.00	80	CBR	Petrol	3189	6	84.00	67
BMM	Diesel	1968	4	81.00	189	CBRA	Petrol	3189	6	84.00	32
BMN	Diesel	1968	4	81.00	58	CBRA	Petrol	3189	6	84.00	67
BMN	Diesel	1968	4	81.00	79	CCSA	Petrol	1595	4	81.00	42
BMN	Diesel	1968	4	81.00	188	CCSA	Petrol	1595	4	81.00	68
BMP	Diesel	1968	4	81.00	129	CCSA	Petrol	1595	4	81.00	71
BMR	Diesel	1968	4	81.00	132	CFLA	Petrol	3189	6	84.00	101
BMS	Diesel	1422	3	79.50	157	CFLA	Petrol	3189	6	84.00	204
BMT	Diesel	1896	4	79.50	168	CGGA	Petrol	1390	4	76.50	40
BMV	Petrol	3189	6	84.00	182	CHFB	Petrol	1198	3	76.50	33
BMX	Petrol	3189	6	84.00	182	CMXA	Petrol	1595	4	81.00	42
BNM	Diesel	1422	3	79.50	34	CP	Diesel	2383	6	76.50	87
BNM	Diesel	1422	3	79.50	157	CS	Diesel	1588	4	76.50	191
BNV	Diesel	1422	3	79.50	157	DL	Diesel	2383	6	76.50	86
BNZ	Diesel	2460	5	81.00	99	DS	Petrol	1781	4	81.00	115
BPC	Diesel	2460	5	81.00	99	DS	Petrol	1781	4	81.00	169
BPC	Diesel	2460	5	81.00	201	DV	Diesel	2383	6	76.50	86
BPC	Diesel	2460	5	81.00	205	DW	Diesel	2383	6	76.50	87
BRJ	Petrol	3189	6	84.00	182	DX	Petrol	1781	4	81.00	49
BRK	Petrol	3189	6	84.00	141	DX	Petrol	1781	4	81.00	171
BRR	Diesel	1896	4	79.50	97	EV	Petrol	1781	4	81.00	49
BRR	Diesel	1896	4	79.50	195	EV	Petrol	1781	4	81.00	74
BRS	Diesel	1896	4	79.50	97	EV	Petrol	1781	4	81.00	171
BRS	Diesel	1896	4	79.50	195	EW	Petrol	1595	4	81.00	14
BRT	Diesel	1968	4	81.00	178	EW	Petrol	1595	4	81.00	41
BRU	Diesel	1896	4	79.50	53	EW	Petrol	1595	4	81.00	170
BRU	Diesel	1896	4	79.50	185	EX	Petrol	1781	4	81.00	49
BSE	Petrol	1595	4	81.00	15	EX	Petrol	1781	4	81.00	171
BSE	Petrol	1595	4	81.00	42	EZ	Petrol	1595	4	81.00	41
BSE	Petrol	1595	4	81.00	71	EZ	Petrol	1595	4	81.00	70
BSE	Petrol	1595	4	81.00	112	EZ	Petrol	1595	4	81.00	110
BSE	Petrol	1595	4	81.00	183	GK	Petrol	1272	4	75.00	148
BSF	Petrol	1595	4	81.00	15	GU	Petrol	1781	4	81.00	49
BSF	Petrol	1595	4	81.00	42	GU	Petrol	1781	4	81.00	74
BSF	Petrol	1595	4	81.00	71	GX	Petrol	1781	4	81.00	49
BSF	Petrol	1595	4	81.00	112	GX	Petrol	1781	4	81.00	74
BSF	Petrol	1595	4	81.00	183	GZ	Petrol	1781	4	81.00	49
BST	Diesel	1968	4	81.00	23	GZ	Petrol	1781	4	81.00	74
BSU	Diesel	1896	4	79.50	21	HB	Petrol	1093	4	69.50	145
BSW	Diesel	1896	4	79.50	106	HK	Petrol	1272	4	75.00	36
BSX	Petrol	1984	4	82.50	22	HK	Petrol	1272	4	75.00	149
BTB	Diesel	1896	4	79.50	176	HM	Petrol	1595	4	81.00	41
BTS	Petrol	1598	4	76.50	161	HM	Petrol	1595	4	81.00	70
BUB	Petrol	3189	6	84.00	32	HN	Petrol	1595	4	81.00	41
BUB	Petrol	3189	6	84.00	67	HV	Petrol	1781	4	81.00	49
BUD	Petrol	1390	4	76.50	13	HV	Petrol	1781	4	81.00	74
BUD	Petrol	1390	4	76.50	40	HZ	Petrol	1043	4	75.00	35
BUD	Petrol	1390	4	76.50	154	HZ	Petrol	1043	4	75.00	143
BVE	Diesel	1968	4	81.00	131	JH	Petrol	1781	4	81.00	19
BVH	Diesel	1968	4	81.00	178	JH	Petrol	1781	4	81.00	49
BVK	Diesel	1896	4	79.50	176	JH	Petrol	1781	4	81.00	171
BVX	Petrol	1984	4	82.50	57	JJ	Petrol	1781	4	81.00	171
BVX	Petrol	1984	4	82.50	128	JK	Diesel	1588	4	76.50	17
BVY	Petrol	1984	4	82.50	30	JN	Petrol	1781	4	81.00	115
BVY	Petrol	1984	4	82.50	57	JP	Diesel	1588	4	76.50	47
BVY	Petrol	1984	4	82.50	77	JP	Diesel	1588	4	76.50	72
BVY	Petrol	1984	4	82.50	128	JR	Diesel	1588	4	76.50	47
BVY	Petrol	1984	4	82.50	186	JR	Diesel	1588	4	76.50	72
BVZ	Petrol	1984	4	82.50	30	JV	Petrol	1781	4	81.00	115

		CC			9			CC			9
JX	Diesel	1588	4	76.50	191						
KR	Petrol	1781	4	81.00	24						
KR	Petrol	1781	4	81.00	51						
KR	Petrol	1781	4	81.00	75						
KR	Petrol	1781	4	81.00	118						
KR	Petrol	1781	4	81.00	172						
KY	Diesel	1715	4	79.50	192						
ME	Diesel	1588	4	76.50	17						
ME	Diesel	1588	4	76.50	47						
ME	Diesel	1588	4	76.50	72						
MF	Diesel	1588	4	76.50	47						
MF	Diesel	1588	4	76.50	72						
MH	Petrol	1272	4	75.00	36						
MH	Petrol	1272	4	75.00	37						
MH	Petrol	1272	4	75.00	69						
MH	Petrol	1272	4	75.00	149						
MH	Petrol	1272	4	75.00	150						
MN	Diesel	1272	4	75.00	152						
NZ	Petrol	1272	4	75.00	37						
NZ	Petrol	1272	4	75.00	69						
NZ	Petrol	1272	4	75.00	150						
PB	Petrol	1781	4	81.00	49						
PB	Petrol	1781	4	81.00	74						
PB	Petrol	1781	4	81.00	115						
PB	Petrol	1781	4	81.00	171						
PD	Petrol	1781	4	81.00	193						
PF	Petrol	1781	4	81.00	49						
PF	Petrol	1781	4	81.00	74						
PF	Petrol	1781	4	81.00	115						
PG	Petrol	1781	4	81.00	25						
PG	Petrol	1781	4	81.00	49						
PG	Petrol	1781	4	81.00	115						
PL	Petrol	1781	4	81.00	51						
PL	Petrol	1781	4	81.00	75						
PL	Petrol	1781	4	81.00	172						
PN	Petrol	1595	4	81.00	41						
PN	Petrol	1595	4	81.00	70						
PY	Petrol	1272	4	75.00	150						
RA	Diesel	1588	4	76.50	47						
RA	Diesel	1588	4	76.50	72						
RA	Diesel	1588	4	76.50	114						
RE	Petrol	1595	4	81.00	41						
RE	Petrol	1595	4	81.00	170						
RF	Petrol	1595	4	81.00	41						
RF	Petrol	1595	4	81.00	70						
RH	Petrol	1781	4	81.00	49						
RH	Petrol	1781	4	81.00	74						
RM	Petrol	1781	4	81.00	115						
RP	Petrol	1781	4	81.00	49						
RP	Petrol	1781	4	81.00	74						
RP	Petrol	1781	4	81.00	115						
SB	Diesel	1588	4	76.50	47						
SB	Diesel	1588	4	76.50	72						
SB	Diesel	1588	4	76.50	114						
WV	Petrol	1588	4	79.50	109						
YN	Petrol	1588	4	79.50	109						

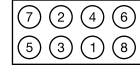




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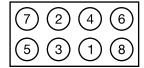
Bora 1.4L 16V						03/00 → 05/05	1	
AHW/AKQ	1390	4	76.50	DOHC	55/75	<b>HBS249</b>  M9x1.25x138mm (x10)	1) 30Nm 2) 90° 3) 90°	
APE/AXP/BCA	1390	4	76.50	DOHC	55/75			
Bora 1.6L						10/98 → 05/05	2	
AEH/AKL/APF	1595	4	81.00	SOHC	74/100	<b>HBS246</b>  M10x1.50x120mm (x10)	1) 40Nm 2) 90° 3) 90°	
AVU/BFQ/BJH	1595	4	81.00	SOHC	75/102			
Bora 1.6L 16V						02/00 → 05/05	3	
ATN	1595	4	76.50	DOHC	77/105	<b>HBS316</b>  M9x1.25x97mm (x10)	1) 30Nm 2) 90° 3) 90°	
Bora 1.6L 16V						02/00 → 05/05	4	
AUS/AZD	1597	4	76.50	DOHC	77/105	<b>HBS316</b>  M9x1.25x97mm (x10)	1) 30Nm 2) 90° 3) 90°	
Bora 1.6L 16V						02/00 → 05/05	5	
Bora 1.6L FSI						01/02 → 05/05		
BCB	1598	4	76.50	DOHC	77/105	<b>HBS316</b>  M9x1.25x97mm (x10)	1) 30Nm 2) 90° 3) 90°	
BAD	1598	4	76.50	DOHC	81/110			
Bora 1.8L						10/98 → 05/05	6	
Bora 1.8L 4motion						02/99 → 05/05		
Bora 1.8L T						05/00 → 05/05		
AGN	1781	4	81.00	DOHC	92/125	<b>HBS268</b>  M10x1.50x120mm (x10)	1) 40Nm 2) 60Nm 3) ↙ 90° 4) 90° 5) 90°	
BAF	1781	4	81.00	DOHC	92/125			
AGU/ARX/AUM/BAE	1781	4	81.00	DOHC	110/150			
AUQ	1781	4	81.00	DOHC	132/180			
Bora 1.9L SDI Diesel						10/98 → 05/05	7	
Bora 1.9L TDI Diesel						10/98 → 06/01		
AGP/AQM	1896	4	79.50	SOHC	50/68	<b>HBS018</b>  M12x1.75x115mm (x10)	1) 40Nm 2) 60Nm 3) ↙ 90° 4) 60Nm 5) 90° 6) 90°	
AGR/ALH	1896	4	79.50	SOHC	66/89			
AHF/ASV	1896	4	79.50	SOHC	81/110			
Bora 1.9L TDI Diesel						12/98 → 05/05	8	
Bora 1.9L TDI 4motion Diesel						02/99 → 05/05		
ATD/AXR	1896	4	79.50	SOHC	74/100	<b>HBS300</b>  M12x1.75x166mm (x10)	1) 40Nm 2) 60Nm 3) 90° 4) 90°	
AJM/AUY	1896	4	79.50	SOHC	85/116			
ASZ	1896	4	79.50	SOHC	96/131			
Bora 2.0L						10/98 → 05/05	9	
BBW	1984	4	82.50	SOHC	85/115	<b>HBS246</b>  M10x1.50x120mm (x10)	1) 40Nm 2) 90° 3) 90°	
APK	1984	4	82.50	SOHC	85/116			
AQY	1984	4	82.50	Motronic, SOHC	85/116			
AZG/AZH/AZJ	1984	4	82.50	SOHC	85/116			
Bora 2.3L V5						10/98 → 10/00	10	
Bora 2.3L V5 4motion						12/98 → 10/00		
AGZ	2324	5	81.00	DOHC, V5	110/150	<b>HBS461</b>  M11x1.50x119mm (x9) M11x1.50x85mm (x6) M11x1.50x144mm (x3)	1) 30Nm 2) 50Nm 3) 90° 4) 90°	
Bora 2.3L V5						10/00 → 05/05	11	
AQN	2324	5	81.00	DOHC, V5	125/170	<b>HBS513</b>  M11x1.5x100mm (x12) M11x1.5x131mm (x6)	1) 25Nm 2) 50Nm 3) ↙ 90° 4) 50Nm 5) 90° 6) 90°	



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Caddy 1.4L					11/95 → 01/04	12				
AEX	1390	4	76.50	SOHC	40/44/ 54/60	<b>HBS075</b> AEX, AKV, APQ  M11x1.50x110mm (x10)	1) 40Nm	 		
AKV/APQ/AUD	1390	4	76.50	SOHC	44/60		<b>HBS362</b> AUD  M9x1.25x162mm (x10)		1) 30Nm 2) 90° 3) 90°	 
Caddy 1.4L Caddy 1.4L 16V Caddy 1.4L 16V Mk III					08/00 → 01/04 08/00 → 01/04 05/06 →	13				
AUA/BCA	1390	4	76.50	DOHC	55/75	<b>HBS249</b>  M9x1.25x138mm (x10)	1) 30Nm	 		
BUD	1390	4	76.50	DOHC	59/80		1) 30Nm 2) 90° 3) 90°			
Caddy 1.6L					01/83 → 05/97	14				
1F	1595	4	81.00	SOHC	53/55/ 72/75	<b>HBS043</b>  M11x1.50x95mm (x10)	1) 40Nm	 		
EW	1595	4	81.00	SOHC	55/75		1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°			
Caddy 1.6L					04/04 →	15				
BGU/BSE/BSF	1595	4	81.00	SOHC	75/102	<b>HBS246</b>  M10x1.50x120mm (x10)	1) 40Nm 2) 90° 3) 90°	 		
Caddy 1.6L Caddy 75 1.6L					06/96 → 12/00 11/95 → 09/00	16				
AEE	1598	4	76.50	SOHC	55/75	<b>HBS075</b>  M11x1.50x110mm (x10)	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°	 		
Caddy 1.6L D Diesel					08/82 → 07/92	17				
JK/ME	1588	4	76.50	SOHC	40/54	<b>HBS018</b>  M12x1.75x115mm (x10)	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°	 		
Caddy 1.7L SDI Diesel					07/96 → 09/00	18				
AHB	1716	4	79.50	SOHC	42/57	<b>HBS018</b>  M12x1.75x115mm (x10)	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°	 		
Caddy 1.8L					08/85 → 07/92	19				
JH	1781	4	81.00	K-Jetronic, SOHC	70/95	<b>HBS043</b>  M11x1.50x95mm (x10)	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°	 		
Caddy 1.9L D Diesel Caddy 1.9L SDI Diesel Caddy 1.9L TDI Diesel					11/95 → 01/04 11/95 → 01/04 09/96 → 01/04	20				
AEF/AEY/AYQ	1896	4	79.50	SOHC	47/64	<b>HBS018</b>  M12x1.75x115mm (x10)	1) 40Nm	 		
1Y	1896	4	79.50	SOHC	47/50/ 64/68		1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°			
1Z/AHU/ALE/ALH	1896	4	79.50	SOHC	66/89					
Caddy 1.9L TDI Diesel Caddy 1.9L TDI 4motion Diesel					04/04 → 11/08 → 08/10	21				
BSU	1896	4	79.50	SOHC	55/75	<b>HBS300</b>  M12x1.75x166mm (x10)	1) 40Nm	 		
BJB/BLS	1896	4	79.50	SOHC	77/105		1) 40Nm 2) 60Nm 3) 90° 4) 90°			



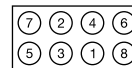
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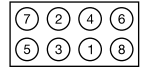
Caddy 2.0L EcoFuel Mk III		04/06 →			22			
BSX	1984	4	82.50	DOHC	80/109	<b>HBS246</b>  M10x1.50x120mm (x10)	1) 40Nm 2) 90° 3) 90°	
Caddy 2.0L SDI Diesel Caddy 2.0L TDI Mk III Diesel		03/04 → 09/07 →			23			
BDJ/BST	1968	4	81.00	SOHC	51/70	<b>HBS300</b>  M12x1.75x166mm (x10)	1) 40Nm 2) 60Nm 3) 90° 4) 90°	
BMM	1968	4	81.00	SOHC	103/140			
Corrado Coupe 1.8L 16V		04/89 → 07/92			24			
KR	1781	4	81.00	DOHC	98/133	<b>HBS028</b>  M11x1.50x147mm (x10)	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°	
Corrado Coupe 1.8L G60		09/88 → 09/93			25			
PG	1781	4	81.00	SOHC	118/160	<b>HBS043</b>  M11x1.50x95mm (x10)	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°	
Corrado Coupe 2.0L i		04/93 → 12/95			26			
ADY	1984	4	82.50	SOHC	85/116	<b>HBS043</b>  M11x1.50x95mm (x10)	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°	
Corrado Coupe 2.0L i 16V		08/91 → 12/95			27			
9A	1984	4	82.50	KE-Jetronic, DOHC	100/136	<b>HBS028</b> → Eng. 9A 131 460  M11x1.50x147mm (x10)	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°	
Corrado Coupe 2.9L VR6		08/91 → 12/95			28			
ABV	2861	6	82.00	DOHC, V6	140/190	<b>HBS077</b>  M11x1.50x85mm (x7) M11x1.50x144mm (x3) M11x1.50x119mm (x10)	1) 40Nm 2) 60Nm 3) 90° 4) 90°	
EOS 1.6L FSI		06/06 →			29			
BLF	1598	4	76.50	DOHC	85/115	<b>HBS249</b>  M9x1.25x138mm (x10)	1) 30Nm 2) 90° 3) 90°	
EOS 2.0L FSI		03/06 →			30			
BVY/BVZ	1984	4	82.50	DOHC	110/150	<b>HBS363</b>  M10x1.50x122mm (x10)	1) 40Nm 2) 90° 3) 90°	
EOS 2.0L TDI Diesel		06/06 →			31			
BMM	1968	4	81.00	SOHC	103/140	<b>HBS300</b>  M12x1.75x166mm (x10)	1) 40Nm 2) 60Nm 3) 90° 4) 90°	
EOS 3.2L V6		06/06 →			32			
BUB/CBRA	3189	6	84.00	DOHC, V6	184/250	<b>HBS466</b>  M10x1.50x111mm (x13) M10x1.50x150mm (x7)	1) 30Nm 2) 50Nm 3) 90° 4) 90°	



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kW/PS



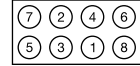
Model					Year Range	Power (kW/PS)	Washer	Dimensions	Torque	Sequence
<b>Fox 1.2L</b>					04/05 →	<b>33</b>				
BMD	1198	3	76.50	SOHC	40/54					
CHFB	1198	3	76.50	Intake Manifold Injection/ Carburettor, DOHC	40/54					
<b>Fox 1.4L TDI Diesel</b>					04/05 →	<b>34</b>				
BNM	1422	3	79.50	SOHC	51/70					
<b>Golf 1.0L</b>					08/85 → 10/91	<b>35</b>				
HZ	1043	4	75.00	SOHC	33/37/ 45/50					
<b>Golf 1.3L</b>					08/83 → 06/87	<b>36</b>				
HK/MH	1272	4	75.00	SOHC	40/54					
<b>Golf 1.3L</b>					06/86 → 12/92	<b>37</b>				
2G/MH/NZ	1272	4	75.00	SOHC	40/54					
<b>Golf 1.4L</b>					10/91 → 04/99	<b>38</b>				
AEX	1390	4	76.50	SOHC	40/44/ 54/60					
APQ	1390	4	76.50	SOHC	44/60					
<b>Golf 1.4L</b>					10/91 → 04/99	<b>39</b>				
ABD	1391	4	75.00	SOHC	40/44/ 55/60					
<b>Golf 1.4L</b>					06/07 →	<b>40</b>				
<b>Golf 1.4L 16V</b>					08/97 → 06/05					
<b>Golf 1.4L 16V Mk V</b>					05/06 →					
<b>Golf 1.4L 16V Plus Mk V</b>					01/05 →					
<b>Golf 1.4L FSI</b>					10/03 →					
<b>Golf 1.4L FSI Plus</b>					07/05 → 05/06					
AHW/AKQ	1390	4	76.50		55/75					
APE/AXP/BCA	1390	4	76.50	DOHC	55/75					
BUD/CGGA	1390	4	76.50	DOHC	59/80					
BKG	1390	4	76.50	DOHC	66/89					
BLN	1390	4	76.50	DOHC	66/90					
<b>Golf 1.6L</b>					08/83 → 04/99	<b>41</b>				
<b>Golf Cabriolet 1.6L</b>					08/83 → 06/02					
PN	1595	4	81.00	SOHC	51/70					
RE/RF	1595	4	81.00	SOHC	53/72					
ABN/EW/EZ/HM/HN	1595	4	81.00	SOHC	55/75					
AEK/AFT/AKS	1595	4	81.00	SOHC	74/100					



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kW/PS

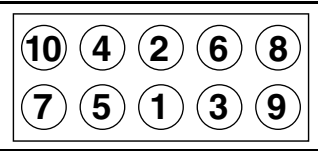


**Golf 1.6L** 08/97 → 06/05 **42**  
**Golf 1.6L MultiFuel** 11/07 →

AEH/AKL/APF	1595	4	81.00	SOHC	74/100
AVU/BFQ/BGU/BIH/BSE/BSF/CCSA	1595	4	81.00	SOHC	75/102
CMXA	1595	4	81.00	SOHC, Straight	75/102

**HBS246**  
  
 M10x1.50x120mm (x10)

- 1) 40Nm
- 2) 90°
- 3) 90°

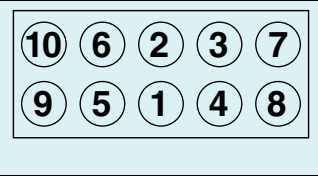


**Golf 1.6L** 09/92 → 12/97 **43**

ABU/AEA/AEE	1598	4	76.50	SOHC	55/75
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**HBS075**  
  
 M11x1.50x110mm (x10)

- 1) 40Nm
- 2) 60Nm
- 3) ↻ 90°
- 4) 60Nm
- 5) 90°
- 6) 90°

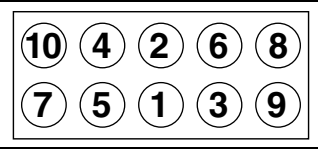


**Golf 1.6L 16V** 02/00 → 06/05 **44**

ATN	1595	4	76.50	DOHC	77/105
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**HBS316**  
  
 M9x1.25x97mm (x10)

- 1) 30Nm
- 2) 90°
- 3) 90°

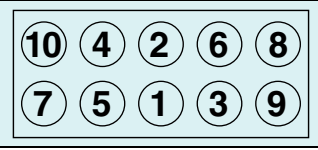


**Golf 1.6L 16V** 02/00 → 06/05 **45**

AUS/AZD	1597	4	76.50	DOHC	77/105
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**HBS316**  
  
 M9x1.25x97mm (x10)

- 1) 30Nm
- 2) 90°
- 3) 90°

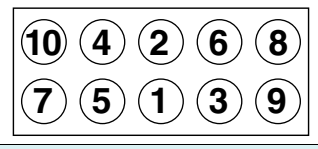


**Golf 1.6L 16V** 02/00 → 06/05 **46**  
**Golf 1.6L FSI** 01/02 → 06/05

BCB	1598	4	76.50	DOHC	77/105
BAD	1598	4	76.50	DOHC	81/110

**HBS316**  
  
 M9x1.25x97mm (x10)

- 1) 30Nm
- 2) 90°
- 3) 90°

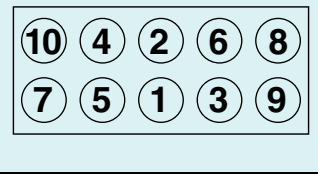


**Golf 1.6L D Diesel** 08/83 → 10/91 **47**  
**Golf 1.6L TD Diesel** 08/83 → 10/91

JP/ME	1588	4	76.50	SOHC	40/54
TV	1588	4	76.50	SOHC	44/60
JR/MF	1588	4	76.50	SOHC	51/70
RA/SB	1588	4	76.50	SOHC	59/80

**HBS018**  
  
 M12x1.75x115mm (x10)

- 1) 40Nm
- 2) 60Nm
- 3) ↻ 90°
- 4) 60Nm
- 5) 90°
- 6) 90°

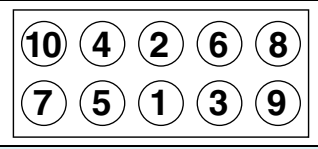


**Golf 1.6L FSI** 10/03 → **48**  
**Golf 1.6L FSI Mk IV** 10/03 → 07/04

BAG/BLF/BLP	1598	4	76.50	DOHC	85/115
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**HBS249**  
  
 M9x1.25x138mm (x10)

- 1) 30Nm
- 2) 90°
- 3) 90°



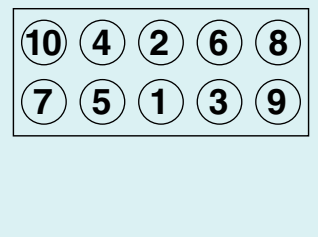
**Golf 1.8L** 08/84 → 04/99 **49**

<b>Golf 1.8L GTI</b>	08/83 → 10/91				
<b>Golf 1.8L GTI G60</b>	04/90 → 07/91				
<b>Golf 1.8L GTI G60 Syncro</b>	08/88 → 07/91				
<b>Golf 1.8L i</b>	08/87 → 10/91				
<b>Golf 1.8L i Syncro</b>	08/87 → 10/91				
<b>Golf 1.8L Syncro</b>	02/86 → 08/97				
<b>Golf Cabriolet 1.8L</b>	08/82 → 06/02				

AAM	1781	4	81.00	SOHC	55/75
RH	1781	4	81.00	SOHC	62/84
ABS/ACC/ADZ/ANP/EX/GU	1781	4	81.00	SOHC	66/89
GX	1781	4	81.00	KE-Jetronic, SOHC	66/89
GZ/HV/VP	1781	4	81.00	SOHC	66/89
JH	1781	4	81.00	K-Jetronic, SOHC	70/95
1P/2H	1781	4	81.00	SOHC	72/98
PF	1781	4	81.00	SOHC	79/107
DX/EV	1781	4	81.00	K-Jetronic, SOHC	82/111
PB	1781	4	81.00	SOHC	82/111
1H/PG	1781	4	81.00	SOHC	118/160

**HBS043**  
  
 M11x1.50x95mm (x10)

- 1) 40Nm
- 2) 60Nm
- 3) ↻ 90°
- 4) 60Nm
- 5) 90°
- 6) 90°

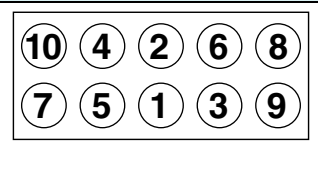


**Golf 1.8L 4motion** 05/98 → 06/05 **50**  
**Golf 1.8L T** 08/97 → 06/05  
**Golf 1.8L T GTI** 08/01 → 06/05

AGN	1781	4	81.00	DOHC	92/125
AGU/AQA/ARZ/AUM/AWD	1781	4	81.00	DOHC	110/150
AUQ	1781	4	81.00	DOHC	132/180

**HBS268**  
  
 M10x1.50x120mm (x10)

- 1) 40Nm
- 2) 60Nm
- 3) ↻ 90°
- 4) 90°
- 5) 90°



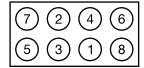




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Golf 1.8L GTI 16V					02/86 → 10/91	51	HBS028	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°					
PL	1781	4	81.00	KE-Jetronic, DOHC	95/129	M11x1.50x147mm (x10)							
KR	1781	4	81.00	DOHC	98/133								
Golf 1.9L D Diesel					11/91 → 04/99	52	HBS018	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°					
Golf 1.9L SDI Diesel					04/97 → 06/05	M12x1.75x115mm (x10)							
Golf 1.9L TD Diesel					07/93 → 04/99								
Golf 1.9L TD, GTD Diesel					11/91 → 08/97								
Golf 1.9L TDI Diesel					09/93 → 05/06								
Golf 1.9L TDI 4motion Diesel					07/98 → 04/02								
Golf 1.9L TDI Syncro Diesel					08/95 → 08/97								
Golf Cabriolet 1.9L TDI Diesel					07/96 → 06/02								
AEY	1896	4	79.50	SOHC	47/64	M12x1.75x115mm (x10)							
1Y	1896	4	79.50	SOHC	47/50/ 64/68								
AGP/AQM	1896	4	79.50	SOHC	50/68								
AAZ	1896	4	79.50	SOHC	55/75								
1Z/AGR/AHU/ALE/ALH	1896	4	79.50	SOHC	66/89								
AFN/AHF/ASV/AVG	1896	4	79.50	SOHC	81/110								
Golf 1.9L TDI Diesel					12/98 → 06/05				53	HBS300	1) 40Nm 2) 60Nm 3) 90° 4) 90°		
Golf 1.9L TDI 4motion Diesel					05/99 → 06/05				M12x1.75x166mm (x10)				
BRU	1896	4	79.50	SOHC	66/89								
BXF/BXJ	1896	4	79.50	SOHC	66/90								
ATD/AXR	1896	4	79.50	SOHC	74/100								
AJM/AUY	1896	4	79.50	SOHC	85/116								
ASZ	1896	4	79.50	SOHC	96/131								
Golf 1.9L TDI Diesel					10/03 →	54	HBS300	1) 40Nm 2) 60Nm 3) 90° 4) 90°					
Golf 1.9L TDI 4motion Diesel					08/04 →	M12x1.75x166mm (x10)							
BKC/BLS	1896	4	79.50	SOHC	77/105								
Golf 2.0L					11/91 → 04/99	55	HBS043	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°					
Golf Cabriolet 2.0L					07/93 → 05/98	M11x1.50x95mm (x10)							
2E	1984	4	82.50	SOHC	85/115								
ABA/ADY/AGG/AKR	1984	4	82.50	SOHC	85/116								
Golf 2.0L					07/98 → 06/05	56	HBS246	1) 40Nm 2) 90° 3) 90°					
Golf 2.0L 4motion					10/00 → 06/05	M10x1.50x120mm (x10)							
Golf 2.0L Bi-Fuel					02/02 →								
APK	1984	4	82.50	SOHC	85/116								
AQY	1984	4	82.50	Motronic, SOHC	85/116	M10x1.50x122mm (x10)							
AZG/AZH/AZI/BEH	1984	4	82.50	SOHC	85/116								
Golf 2.0L FSI					01/04 →					57	HBS363	1) 40Nm 2) 90° 3) 90°	
AXW/BLR/BLX/BLY/BVX/BVY/BVZ	1984	4	82.50	DOHC	110/150	M12x1.75x149mm (x10)							
Golf 2.0L GTD Diesel					11/05 →					58	HBS364	1) 35Nm 2) 60Nm 3) 90° 4) 90°	
Golf 2.0L TDI 16V Diesel					10/03 →					M12x1.75x149mm (x10)			
Golf 2.0L TDI 4motion MkV Variant Diesel					06/07 →								
Golf 2.0L TDI Mk V Variant Diesel					06/07 →								
AZV	1968	4	81.00	DOHC	100/136	M12x1.75x149mm (x10)							
BKD	1968	4	81.00	DOHC	103/140								
BMN	1968	4	81.00	DOHC	125/170								
Golf 2.0L GTI 16V					08/92 → 08/97	59	HBS028	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°					
ABF	1984	4	82.50	DOHC	110/150	M11x1.50x147mm (x10)							





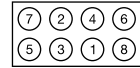
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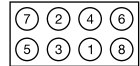
Model		Year	Cyl	cc	kW/PS	Configuration	Part No.	Dimensions	Torque	Timing
<b>Golf 2.0L SDI Diesel</b>		01/04 →	<b>60</b>				<b>HBS300</b>	M12x1.75x166mm (x10)	1) 40Nm 2) 60Nm 3) 90° 4) 90°	
<b>Golf 2.0L TDI 4motion Mk V Diesel</b>		08/04 →								
<b>Golf 2.0L TDI Mk V Diesel</b>		12/04 →								
<b>Golf 2.0L TDI Mk V Variant Diesel</b>		06/07 →								
<b>Golf 2.0L TDI Plus Mk V Diesel</b>		12/05 →								
BDK		1968	4	81.00		SOHC		55/75		
BMM		1968	4	81.00		SOHC		103/140		
<b>Golf 2.0L TDI Diesel</b>		10/03 →	<b>61</b>				<b>HBS364</b>	M12x1.75x149mm (x10)	1) 35Nm 2) 60Nm 3) 90° 4) 90°	
AZV		1968	4	81.00		DOHC		100/136		
		1968	4	81.00		DOHC, Straight		100/136		
<b>Golf 2.0L TDI 16V Diesel</b>		01/05 →	<b>62</b>				<b>HBS364</b>	M12x1.75x149mm (x10)	1) 35Nm 2) 60Nm 3) 90° 4) 90°	
BKD		1968	4	81.00		DOHC		103/140		
		1968	4	81.00		Direct Injection, DOHC		103/140		
<b>Golf 2.3L V5</b>		08/97 → 10/00	<b>63</b>				<b>HBS461</b>	M11x1.50x119mm (x9) M11x1.50x85mm (x6) M11x1.50x144mm (x3)	1) 30Nm 2) 50Nm 3) 90° 4) 90°	
<b>Golf 2.3L V5 4motion</b>		12/98 → 10/00								
AGZ		2324	5	81.00		DOHC, V5		110/150		
<b>Golf 2.3L V5</b>		10/00 → 06/05	<b>64</b>				<b>HBS513</b>	M11x1.5x100mm (x12) M11x1.5x131mm (x6)	1) 25Nm 2) 50Nm 3) ↻ 90° 4) 50Nm 5) 90° 6) 90°	
AQN		2324	5	81.00		DOHC, V5		125/170		
<b>Golf 2.8L VR6</b>		01/92 → 08/97	<b>65</b>				<b>HBS077</b>	M11x1.50x85mm (x7) M11x1.50x144mm (x3) M11x1.50x119mm (x10)	1) 40Nm 2) 60Nm 3) 90° 4) 90°	
AAA		2792	6	81.00		DOHC, V6		128/174		
<b>Golf 2.9L VR6</b>		10/94 → 04/99	<b>66</b>				<b>HBS077</b>	M11x1.50x85mm (x7) M11x1.50x144mm (x3) M11x1.50x119mm (x10)	1) 40Nm 2) 60Nm 3) 90° 4) 90°	
<b>Golf 2.9L VR6 Syncro</b>		10/94 → 04/99								
ABV		2861	6	82.00		DOHC, V6		140/190		
<b>Golf 3.2L Mk V</b>		09/05 →	<b>67</b>				<b>HBS466</b>	M10x1.50x111mm (x13) M10x1.50x150mm (x7)	1) 30Nm 2) 50Nm 3) 90° 4) 90°	
<b>Golf 3.2L R32 4motion Mk IV</b>		09/02 → 06/05								
<b>Golf 3.2L R32 4motion Mk V</b>		11/05 →								
BFH		3189	6	84.00		DOHC, V6		177/240		
BML		3189	6	84.00		DOHC, V6		177/241		
BUB/CBR/CBRA		3189	6	84.00		DOHC, V6		184/250		
<b>Golf V 1.6L MultiFuel</b>		10/07 →	<b>68</b>				<b>HBS246</b>	M10x1.50x120mm (x10)	1) 40Nm 2) 90° 3) 90°	
CCSA		1595	4	81.00		SOHC		75/102		
<b>Jetta 1.3L</b>		06/87 → 12/91	<b>69</b>				<b>HBS043</b>	M11x1.50x95mm (x10)	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°	
2G/MH/NZ		1272	4	75.00		SOHC		40/54		



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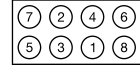
Model					Year Range	Power (kW/PS)	Washer Part	Specifications	Washer Grid
<b>Jetta 1.6L</b>					01/84 → 07/92	<b>70</b>	<b>HBS043</b>	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°	
PN	1595	4	81.00	SOHC	51/70	 M11x1.50x95mm (x10)			
RF	1595	4	81.00	SOHC	53/72				
ABN/EZ/HM	1595	4	81.00	SOHC	55/75				
<b>Jetta 1.6L MultiFuel</b>					10/05 → 01/08 → 10/10	<b>71</b>	<b>HBS246</b>	1) 40Nm 2) 90° 3) 90°	
BSE/BSF/CCSA	1595	4	81.00	SOHC	75/102	 M10x1.50x120mm (x10)			
<b>Jetta 1.6L D Diesel</b>					01/84 → 10/91	<b>72</b>	<b>HBS018</b>	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°	
<b>Jetta 1.6L TD Diesel</b>					01/84 → 10/91				
JP/ME	1588	4	76.50	SOHC	40/54	 M12x1.75x115mm (x10)			
TV	1588	4	76.50	SOHC	44/60				
JR/MF	1588	4	76.50	SOHC	51/70				
RA/SB	1588	4	76.50	SOHC	59/80				
<b>Jetta 1.6L FSI</b>					09/05 →	<b>73</b>	<b>HBS249</b>	1) 30Nm 2) 90° 3) 90°	
BLF	1598	4	76.50	DOHC	85/115	 M9x1.25x138mm (x10)			
<b>Jetta 1.8L Syncro</b>					01/84 → 10/91 08/88 → 07/91	<b>74</b>	<b>HBS043</b>	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°	
RH	1781	4	81.00	SOHC	62/84	 M11x1.50x95mm (x10)			
GU	1781	4	81.00	SOHC	66/89				
GX	1781	4	81.00	KE-Jetronic, SOHC	66/89				
GZ/HV/RP	1781	4	81.00	SOHC	66/89				
1P	1781	4	81.00	SOHC	72/98				
PF	1781	4	81.00	SOHC	79/107				
EV	1781	4	81.00	K-Jetronic, SOHC	82/111				
PB	1781	4	81.00	SOHC	82/111				
<b>Jetta 1.8L 16V</b>					08/86 → 10/91	<b>75</b>	<b>HBS028</b>	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°	
PL	1781	4	81.00	KE-Jetronic, DOHC	95/129	 M11x1.50x147mm (x10)			
KR	1781	4	81.00	DOHC	98/133				
<b>Jetta 1.9L TDI Diesel</b>					09/05 →	<b>76</b>	<b>HBS300</b>	1) 40Nm 2) 60Nm 3) 90° 4) 90°	
BXE	1896	4	79.50	SOHC	77/105	 M12x1.75x166mm (x10)			
<b>Jetta 2.0L FSI</b>					08/05 →	<b>77</b>	<b>HBS363</b>	1) 40Nm 2) 90° 3) 90°	
BLR/BLY/BVY/BVZ	1984	4	82.50	DOHC	110/150	 M10x1.50x122mm (x10)			
<b>Jetta 2.0L TDI Diesel</b>					09/05 →	<b>78</b>	<b>HBS364</b>	1) 35Nm 2) 60Nm 3) 90° 4) 90°	
AZV	1968	4	81.00	DOHC	100/136	 M12x1.75x149mm (x10)			
<b>Jetta 2.0L TDI Diesel</b>					10/06 →	<b>79</b>	<b>HBS364</b>	1) 35Nm 2) 60Nm 3) 90° 4) 90°	
BMN	1968	4	81.00	DOHC	125/170	 M12x1.75x149mm (x10)			
	1968	4	81.00	Direct Injection, DOHC	125/170				
<b>Jetta 2.0L TDI Mk III Diesel</b>					10/05 →	<b>80</b>	<b>HBS300</b>	1) 40Nm 2) 60Nm 3) 90° 4) 90°	
BMM	1968	4	81.00	SOHC	103/140	 M12x1.75x166mm (x10)			



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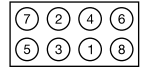
LT 28-46 2.3L						05/96 →	81			
AGL	2295	4	90.90	DOHC	105/143			 M12x1.75x102mm (x10)	1) 55Nm 2) 90° 3) 90°	
LT 28-46 2.5L SDI Diesel						07/96 →	82			
LT 28-46 2.5L TDI Diesel						05/96 → 08/99				
AGX	2459	5	81.00		55/75			 M12x1.75x115mm (x12)	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°	
AHD	2459	5	81.00	SOHC	75/102					
LT 28-46 2.5L TDI Diesel						05/99 →	83			
BBE	2461	5	81.00	SOHC	61/82			 M12x1.75x115mm (x12)	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°	
APA	2461	5	81.00	SOHC	66/89					
BBF	2461	5	81.00	SOHC	70/95					
ANJ	2461	5	81.00	SOHC	80/109					
AVR	2461	5	81.00	SOHC	80/109					
LT 28-46 2.8L TDI Diesel						04/02 →	84			
BCQ	2798	4	93.00	SOHC	116/158			 M14x2x165mm (x10)	1) 30Nm 2) 70Nm 3) 100Nm 4) ↻ 90° 5) 100Nm 6) 90° 7) 90°	
LT 28-46 2.8L TDI Diesel						06/97 → 12/98	85			
AGK	2799	4	93.00	SOHC	92/125			 M14x2x165mm (x10)	1) 30Nm 2) 70Nm 3) 100Nm 4) ↻ 90° 5) 100Nm 6) 90° 7) 90°	
ATA	2799	4	93.00	SOHC	96/131					
AUH	2799	4	93.00		116/158					
LT 28-55 2.4L						12/82 → 07/92	86			
LT 28-55 2.4L 4WD						12/82 → 07/92				
LT 28-55 2.4L D Diesel						08/89 → 06/96				
LT 28-55 2.4L TD Diesel						12/82 → 09/93				
TS	2383	6	76.50	SOHC	51/70			 M12x1.75x115mm (x14)	1) 40Nm 2) 60Nm 3) 75Nm 4) 90° 5) 90° 6) ↓ 7) ✱ 8) 90°	
DL	2383	6	76.50	SOHC	66/89					
1G	2383	6	76.50	SOHC	68/92					
DV	2383	6	76.50	SOHC	75/80/ 102/109					
LT 28-55 2.4L D Diesel						12/78 → 07/92	87			
CP	2383	6	76.50	SOHC	55/75			 Ch.28-P-014 817 → M12x1.75x115mm (x14)	1) 40Nm 2) 60Nm 3) 75Nm 4) 90° 5) 90° 6) ↓ 7) ✱ 8) 90°	
DW	2383	6	76.50	SOHC	55/57/ 75/78					
LT 28-55 2.4L D Diesel						08/89 → 06/96	88			
LT 28-55 2.4L TD Diesel						06/92 → 06/96				
ACT	2384	6	76.50	SOHC	51/70			 M12x1.75x115mm (x14)	1) 40Nm 2) 60Nm 3) 75Nm 4) 90° 5) 90° 6) ↓ 7) ✱ 8) 90°	
ACL	2384	6	76.50	SOHC	70/95					
LT 28-55 2.4L i						08/89 → 06/96	89			
1E	2382	6	76.50	SOHC	70/95			 M12x1.75x115mm (x14)	1) 40Nm 2) 60Nm 3) 75Nm 4) 90° 5) 90° 6) ↓ 7) ✱ 8) 90°	



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Lupo 1.0l		09/98 → 07/05			90		
AER/ALD/ALL/ANV/AUC	999	4	67.10	SOHC	37/50	<b>HBS249</b> AER. ALL  M9x1.25x138mm (x10) 1) 30Nm 2) 90° 3) 90°	
						<b>HBS362</b> AUC/ALD/ANV  M9x1.25x162mm (x10) 1) 30Nm 2) 90° 3) 90°	
Lupo 1.2L TDI 3L Diesel		07/99 → 07/05			91		
ANY/AYZ	1191	3	76.50	SOHC	45/61	<b>HBS311</b>  M12x1.75x115mm (x8) 1) 40Nm 2) 60Nm 3) 90° 4) 90° 5) 90° 6) 90° 7) ↻ 90°	
Lupo 1.4l		10/00 → 07/05			92		
AUD	1390	4	76.50	SOHC	44/60	<b>HBS362</b>  M9x1.25x162mm (x10) 1) 30Nm 2) 90° 3) 90°	
Lupo 1.4l 16V Lupo 1.4l FSI		09/98 → 07/05 02/01 → 07/05			93		
AHW/AKQ	1390	4	76.50	DOHC	55/75	<b>HBS249</b>  M9x1.25x138mm (x10) 1) 30Nm 2) 90° 3) 90°	
APE/AUA/BBY	1390	4	76.50	DOHC	55/75		
AFK/AQQ/AUB	1390	4	76.50	DOHC	74/100		
ARR	1390	4	76.50	DOHC	77/105		
Lupo 1.4L TDI Diesel		01/99 → 07/05			94		
AMF	1422	3	79.50	SOHC	55/75	<b>HBS264</b>  M12x1.75x166mm (x8) 1) 40Nm 2) 60Nm 3) 90° 4) 90°	
Lupo 1.6l GTI		09/00 → 07/05			95		
AVY	1598	4	76.50	DOHC	92/125	<b>HBS316</b>  M9x1.25x97mm (x10) 1) 30Nm 2) 90° 3) 90°	
Lupo 1.7L SDI Diesel		09/98 → 07/05			96		
AKU	1716	4	79.50	SOHC	44/60	<b>HBS018</b>  M12x1.75x115mm (x10) 1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°	
Multivan 1.9L TDI Diesel		04/03 → 11/09			97		
BRR	1896	4	79.50	SOHC	62/84	<b>HBS300</b>  M12x1.75x166mm (x10) 1) 40Nm 2) 60Nm 3) 90° 4) 90°	
BRS	1896	4	79.50	SOHC	75/102		
AXB	1896	4	79.50	SOHC	77/105		
Multivan 2.0L		04/03 →			98		
AXA	1984	4	82.50	SOHC	85/116	<b>HBS246</b>  M10x1.50x120mm (x10) 1) 40Nm 2) 90° 3) 90°	
Multivan 2.5L TDI Diesel Multivan 2.5L TDI 4motion Diesel		04/03 → 07/04 →			99		
BNZ	2460	5	81.00	SOHC	96/131	<b>HBS509</b>  M12x1.50x149.5mm (x12) 1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90° 7) ↻ 90°	
BPC	2460	5	81.00	SOHC	128/174		



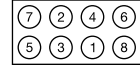
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<b>Multivan 2.5L TDI Diesel</b> 04/03 → <b>100</b> <b>Multivan 2.5L TDI 4motion Diesel</b> 07/04 →						<b>HBS509</b> M12x1.50x149.5mm (x12)	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90° 7) ↻ 90°	
AXD	2461	5	81.00	SOHC	96/131			
AXE	2461	5	81.00	SOHC	128/174			
<b>Multivan 3.2L V6</b> 02/04 → 06/04 <b>101</b> <b>Multivan 3.2L V6 4motion</b> 07/04 →						<b>HBS466</b> M10x1.50x111mm (x13) M10x1.50x150mm (x7)	1) 30Nm 2) 50Nm 3) 90° 4) 90°	
BDL	3189	6	84.00	DOHC, V6	170/231			
BKK	3189	6	84.00	DOHC	173/235			
CFLA	3189	6	84.00	DOHC, V6	173/235			
<b>New Beetle 1.4L</b> 11/01 → <b>102</b> <b>New Beetle Convertible 1.4L</b> 01/03 →						<b>HBS249</b> M9x1.25x138mm (x10)	1) 30Nm 2) 90° 3) 90°	
BCA	1390	4	76.50	DOHC	55/75			
<b>New Beetle 1.6L</b> 10/99 → 09/00 <b>103</b> <b>New Beetle Convertible 1.6L</b> 01/03 →						<b>HBS246</b> M10x1.50x120mm (x10)	1) 40Nm 2) 90° 3) 90°	
AWH	1595	4	81.00	SOHC	74/100			
AYD/BFS	1595	4	81.00	SOHC	75/102			
<b>New Beetle 1.8L T</b> 10/99 → <b>104</b> <b>New Beetle Convertible 1.8L T</b> 01/04 →						<b>HBS268</b> M10x1.50x120mm (x10)	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 90° 5) 90°	
AGU/APH/AVC/AWU/AWV/BKF	1781	4	81.00	DOHC	110/150			
<b>New Beetle 1.9L TDI Diesel</b> 01/98 → 02/01 <b>105</b>						<b>HBS018</b> M12x1.75x115mm (x10)	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°	
ALH	1896	4	79.50	SOHC	66/89			
<b>New Beetle 1.9L TDI Diesel</b> 02/01 → <b>106</b> <b>New Beetle Convertible 1.9L TDI Diesel</b> 03/03 →						<b>HBS300</b> M12x1.75x166mm (x10)	1) 40Nm 2) 60Nm 3) 90° 4) 90°	
ATD/AXR	1896	4	79.50	SOHC	74/100			
BEW	1896	4	79.50	SOHC	74/101			
BSW	1896	4	79.50	SOHC	77/105			
<b>New Beetle 2.0L</b> 01/98 → <b>107</b>						<b>HBS246</b> M10x1.50x120mm (x10)	1) 40Nm 2) 90° 3) 90°	
AEG/APK	1984	4	82.50	SOHC	85/116			
AQY	1984	4	82.50	Motronic, SOHC	85/116			
AZG	1984	4	82.50	SOHC	85/116			
<b>New Beetle V5</b> 10/00 → <b>108</b>						<b>HBS513</b> M11x1.50x100mm (x12) M11x1.5x131mm (x6)	1) 25Nm 2) 50Nm 3) ↻ 90° 4) 50Nm 5) 90° 6) 90°	
AQN	2324	5	81.00	DOHC, V5	125/170			
<b>Passat 1.6L</b> 08/80 → 03/88 <b>109</b>						<b>HBS043</b> M11x1.50x95mm (x10)	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°	
VW/YN	1588	4	79.50	SOHC	55/75			
<b>Passat 1.6L</b> 02/88 → 08/96 <b>110</b>						<b>HBS043</b> M11x1.50x95mm (x10)	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°	
1F	1595	4	81.00	SOHC	53/55/ 72/75			
EZ	1595	4	81.00	SOHC	55/75			
AEK/AFT	1595	4	81.00	SOHC	74/100			

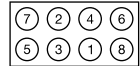




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Passat 1.6L						10/96 → 11/00	111		
AHL/ANA/ARM	1595	4	81.00	SOHC	74/100	<b>HBS043</b> ADP  M11x1.50x95mm (x10)	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°		
ADP	1595	4	81.00	SOHC	75/102				
Passat 1.6L						11/00 → 05/05	112		
ALZ	1595	4	81.00	SOHC	74/100	<b>HBS246</b> AHL. ANA. ARM  M10x1.50x120mm (x10)	1) 40Nm 2) 90° 3) 90°		
BSE/BSF	1595	4	81.00	SOHC	75/102				
Passat 1.6L FSI						03/05 →	113		
BLF	1598	4	76.50	DOHC	85/115	<b>HBS249</b>  M9x1.25x138mm (x10)	1) 30Nm 2) 90° 3) 90°		
Passat 1.6L TD Diesel						08/88 → 09/93	114		
RA/SB	1588	4	76.50	SOHC	59/80	<b>HBS018</b>  M12x1.75x115mm (x10)	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°		
Passat 1.8L						01/83 → 05/97	115		
Passat 1.8L G60 Syncro						08/88 → 05/97			
RM	1781	4	81.00	SOHC	64/87				
ABS/ADZ/DS	1781	4	81.00	SOHC	66/89				
JN	1781	4	81.00	KE-Jetronic, SOHC	66/89				
JV/RP	1781	4	81.00	SOHC	66/89				
PF	1781	4	81.00	SOHC	79/107				
PB	1781	4	81.00	SOHC	82/111				
PG	1781	4	81.00	SOHC	118/160				
Passat 1.8L						08/90 → 05/97	116		
AAM	1781	4	81.00	SOHC	55/75	<b>HBS043</b> → Eng. AAM 408 197  M11x1.50x95mm (x10)	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°		
Passat 1.8L						10/96 → 11/00	117		
Passat 1.8L Syncro / 4motion						10/96 → 11/00			
Passat 1.8L T						10/96 → 11/00			
AFY	1781	4	81.00	DOHC	85/116	<b>HBS171</b>  M11x1.50x101mm (x10)	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°		
ADR/APT/ARG	1781	4	81.00	DOHC	92/125				
AEB/ANB/APU	1781	4	81.00	DOHC	110/150				
Passat 1.8L 16V						04/88 → 12/89	118		
Passat 1.8L GL						08/91 → 09/93			
Passat 1.8L Variant						08/91 → 09/93			
KR	1781	4	81.00	DOHC	98/133	<b>HBS028</b>  M11x1.50x147mm (x10)	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°		
Passat 1.8L T						02/01 → 05/05	119		
Passat 1.8L T 20V						11/00 → 05/05			
AWL/AWT	1781	4	81.00	DOHC	110/150	<b>HBS268</b>  M10x1.50x120mm (x10)	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 90° 5) 90°		
AWM	1781	4	81.00	DOHC	125/170				

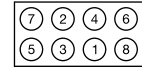




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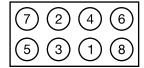
<b>Passat 1.9L D Diesel</b> 05/89→10/93 <b>120</b>						<b>HBS018</b>  M12x1.75x115mm (x10)	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°	
<b>Passat 1.9L TD Diesel</b> 03/91→05/97								
<b>Passat 1.9L TDI Diesel</b> 10/93→11/00								
<b>Passat 1.9L TDI Syncro / 4motion Diesel</b> 10/96→11/00								
1Y	1896	4	79.50	SOHC	47/50/ 64/68			
AAZ	1896	4	79.50	SOHC	55/75			
1Z/AHH/AHU	1896	4	79.50	SOHC	66/89			
AFV/AVG	1896	4	79.50	SOHC	81/110			
<b>Passat 1.9L TDI Diesel</b> 08/98→05/05 <b>121</b>						<b>HBS300</b>  M12x1.75x166mm (x10)	1) 40Nm 2) 60Nm 3) 90° 4) 90°	
<b>Passat 1.9L TDI 4motion Diesel</b> 08/99→05/05								
AVB	1896	4	79.50	SOHC	74/100			
AJM/ATJ	1896	4	79.50	SOHC	85/116			
AVF/AWX	1896	4	79.50	SOHC	96/131			
<b>Passat 1.9L TDI Diesel</b> 03/05→ <b>122</b>						<b>HBS300</b>  M12x1.75x166mm (x10)	1) 40Nm 2) 60Nm 3) 90° 4) 90°	
BKC/BLS	1896	4	79.50	SOHC	77/105			
<b>Passat 2.0L</b> 02/90→05/97 <b>123</b>						<b>HBS043</b>  M11x1.50x95mm (x10)	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°	
<b>Passat 2.0L Syncro</b> 10/90→05/97								
<b>Passat 2.0L Variant</b> 10/93→10/96								
AEP	1984	4	82.50	SOHC	79/107			
2E	1984	4	82.50	SOHC	85/115			
ADY/AGG	1984	4	82.50	SOHC	85/116			
<b>Passat 2.0L</b> 11/00→05/05 <b>124</b>						<b>HBS246</b>  M10x1.50x120mm (x10)	1) 40Nm 2) 90° 3) 90°	
<b>Passat 2.0L 4motion</b> 11/00→05/05								
AZM	1984	4	82.50	SOHC	85/116			
<b>Passat 2.0L</b> 11/01→05/05 <b>125</b>						<b>HBS510</b>  M10x1.50x131mm (x10)	1) 20Nm 2) 40Nm 3) ↻ 90° 4) 40Nm 5) 90° 6) 90°	
ALT	1984	4	82.50	DOHC	96/131			
<b>Passat 2.0L 16V</b> 08/88→09/93 <b>126</b>						<b>HBS028</b> →Eng.9A 131 460  M11x1.50x147mm (x10)	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°	
9A	1984	4	82.50	KE-Jetronic, DOHC	100/136			
<b>Passat 2.0L 16V</b> 01/94→05/97 <b>127</b>						<b>HBS028</b> →Eng.ABF 031 251  M11x1.50x147mm (x10)	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°	
ABF	1984	4	82.50	DOHC	110/150			
<b>Passat 2.0L FSI</b> 03/05→ <b>128</b>						<b>HBS363</b>  M10x1.50x122mm (x10)	1) 40Nm 2) 90° 3) 90°	
<b>Passat 2.0L FSI 4motion</b> 09/05→								
BLR/BLX/BLY/BVX/BVY/BVZ	1984	4	82.50	DOHC	110/150			
<b>Passat 2.0L TDI Diesel</b> 12/03→05/05 <b>129</b>						<b>HBS300</b>  M12x1.75x166mm (x10)	1) 40Nm 2) 60Nm 3) 90° 4) 90°	
<b>Passat 2.0L TDI 4motion Diesel</b> 03/05→								
<b>Passat 2.0L TDI 4motion Variant Diesel</b> 08/05→								
<b>Passat 2.0L TDI Variant Diesel</b> 08/05→								
BGW	1968	4	81.00	SOHC	100/136			
BHW	1968	4	81.00	SOHC	100/136			
BMP	1968	4	81.00	SOHC	103/140			



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<b>Passat 2.0L TDI Diesel</b> 03/05 → <b>130</b>					<b>HBS364</b> BMA M12x1.75x149mm (x10)	1) 35Nm 2) 60Nm 3) 90° 4) 90°							
BMA/CBAA	1968	4	81.00	DOHC				100/136					
<b>Passat 2.0L TDI Diesel</b> 08/05 → 07/06 <b>131</b>					<b>HBS364</b> M12x1.75x149mm (x10)	1) 35Nm 2) 60Nm 3) 90° 4) 90°							
BVE	1968	4	81.00	DOHC				90/122					
<b>Passat 2.0L TDI Diesel</b> 08/05 → <b>132</b>					<b>HBS364</b> M12x1.75x149mm (x10)	1) 35Nm 2) 60Nm 3) 90° 4) 90°							
BMR	1968	4	81.00	DOHC				125/170					
<b>Passat 2.0L TDI 16V Diesel</b> 03/05 → <b>133</b>					<b>HBS364</b> M12x1.75x149mm (x10)	1) 35Nm 2) 60Nm 3) 90° 4) 90°							
BKP	1968	4	81.00	DOHC				103/140					
<b>Passat 2.3L V5</b> 11/00 → 05/05 <b>134</b>					<b>HBS513</b> M11x1.50x100mm (x12) M11x1.5x131mm (x6)	1) 25Nm 2) 50Nm 3) ↻ 90° 4) 50Nm 5) 90° 6) 90°							
<b>Passat 2.3L VR5</b> 11/00 → 05/05								AZX	2324	5	81.00	DOHC, V5	125/170
<b>Passat 2.3L VR5</b> 10/96 → 11/00 <b>135</b>					<b>HBS461</b> M11x1.50x119mm (x9) M11x1.50x85mm (x6) M11x1.50x144mm (x3)	1) 30Nm 2) 50Nm 3) 90° 4) 90°							
<b>Passat 2.3L VR5 Syncro / 4motion</b> 10/97 → 11/00								AGZ	2324	5	81.00	DOHC, V5	110/150
<b>Passat 2.5L TDI Diesel</b> 07/98 → 05/05 <b>136</b>					<b>HBS265</b> M12x1.50x155mm (x16)	1) 35Nm 2) 60Nm 3) 90° 4) 90°							
<b>Passat 2.5L TDI 4motion Diesel</b> 11/00 → 05/05								AFB/AKN	2496	6	78.30	DOHC, V6	110/150
<b>Passat 2.5L TDI Syncro / 4motion Diesel</b> 12/98 → 11/00													
<b>Passat 2.5L TDI Diesel</b> 05/03 → 05/05 <b>137</b>					<b>HBS361</b> M12x1.50x159mm (x16)	1) 40Nm 2) 60Nm 3) 90° 4) 90°							
<b>Passat 2.5L TDI 4motion Diesel</b> 01/03 → 05/05								BDG	2496	6	78.30	DOHC, V6	120/163
<b>Passat 2.8L VR6</b> 06/91 → 05/97 <b>138</b>					<b>HBS077</b> M11x1.50x85mm (x7) M11x1.50x144mm (x3) M11x1.50x119mm (x10)	1) 40Nm 2) 60Nm 3) 90° 4) 90°							
								AAA	2792	6	81.00	DOHC, V6	128/174
<b>Passat 2.9L VR6 Syncro</b> 01/94 → 05/97 <b>139</b>					<b>HBS077</b> M11x1.50x85mm (x7) M11x1.50x144mm (x3) M11x1.50x119mm (x10)	1) 40Nm 2) 60Nm 3) 90° 4) 90°							
								ABV	2861	6	82.00	DOHC, V6	140/190
<b>Phaeton 3.0L V6 TDI 4motion Diesel</b> 09/04 → <b>140</b>					<b>HBS361</b> M12x1.50x159mm (x16)	1) 40Nm 2) 60Nm 3) 90° 4) 90°							
								BMK	2967	6	83.00	DOHC, V6	165/224



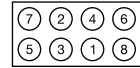
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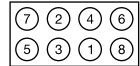
<b>Phaeton 3.2L V6</b>					04/02 →	<b>141</b>	<b>HBS466</b>  M10x1.50x111mm (x13) M10x1.50x150mm (x7)	1) 30Nm 2) 50Nm 3) 90° 4) 90°		
<b>Phaeton 3.2L V6 4motion</b>					02/04 →					
AYT/BKL/BRK	3189	6	84.00	DOHC, V6		177/240				
<b>Polo 1.0L</b>					10/99 → 09/01	<b>142</b>	<b>HBS362</b>  M9x1.25x162mm (x10)	1) 30Nm 2) 90° 3) 90°		
ALD/AUC	999	4	67.10	SOHC		37/50				
<b>Polo 1.0L</b>					01/85 → 09/94	<b>143</b>	<b>HBS043</b>  M11x1.50x95mm (x10)	1) 40Nm 2) 60Nm 3) ↺ 90° 4) 60Nm 5) 90° 6) 90°		
<b>Polo 1.0L 45</b>					10/94 → 09/96					
<b>Polo 1.3</b>					08/89 → 09/94					
<b>Polo Coupe 1.0L</b>					08/85 → 01/92					
<b>Polo Coupe 1.3</b>					08/89 → 09/94					
<b>Polo Van 1.0L</b>					04/93 → 12/99					
AAK/AAU/ACM	1043	4	75.00	SOHC		33/44				
AEV	1043	4	75.00	SOHC		33/45				
HZ	1043	4	75.00	SOHC		33/37/ 45/50				
<b>Polo 1.0L 50</b>					09/96 → 10/99	<b>144</b>	<b>HBS249</b>  M9x1.25x138mm (x10)	1) 30Nm 2) 90° 3) 90°		
AER/ALL	999	4	67.10	SOHC		37/50				
<b>Polo 1.1L</b>					10/81 → 09/89	<b>145</b>	<b>HBS043</b>  M11x1.50x95mm (x10)	1) 40Nm 2) 60Nm 3) ↺ 90° 4) 60Nm 5) 90° 6) 90°		
HB	1093	4	69.50	SOHC		37/50				
<b>Polo 1.2L</b>					04/01 → 10/01	<b>146</b>	<b>HBS479</b>  M9x1.25x162mm (x8)	1) 15Nm 2) 30Nm 3) 90° 4) 90°		
AWY/BMD	1198	3	76.50	SOHC		40/54				
<b>Polo 1.2L</b>					10/01 →	<b>147</b>	<b>HBS471</b>  M9x1.25x138mm (x8)	1) 30Nm 2) 90° 3) 90°		
AZQ	1198	3	76.50	DOHC						47/64
BME	1198	3	76.50	SOHC						47/64
BZG	1198	3	76.50	DOHC						51/69
<b>Polo 1.3L</b>					09/82 → 09/89	<b>148</b>	<b>HBS029</b>  M11x1.50x98mm (x10)	1) 40Nm 2) 60Nm 3) ↺ 90° 4) 60Nm 5) 90° 6) 90°		
<b>Polo Coupe 1.3L</b>					09/82 → 09/89					
GK	1272	4	75.00	SOHC		55/75				
<b>Polo 1.3L</b>					08/83 → 07/88	<b>149</b>	<b>HBS029</b> HK  M11x1.50x98mm (x10)	1) 40Nm 2) 60Nm 3) ↺ 90° 4) 60Nm 5) 90° 6) 90°		
<b>Polo Coupe 1.3L</b>					08/83 → 06/87					
HK/MH	1272	4	75.00	SOHC						40/54
							<b>HBS043</b> MH  M11x1.50x95mm (x10)	1) 40Nm 2) 60Nm 3) ↺ 90° 4) 60Nm 5) 90° 6) 90°		



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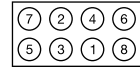
<b>Polo 1.3L</b> 07/87 → 09/94 <b>150</b> <b>Polo Coupe 1.3L</b> 07/87 → 09/94 <b>Polo Coupe 1.3L G40</b> 01/87 → 09/94 <b>Polo Van 1.3L</b> 04/93 →					<b>HBS043</b>  M11x1.50x95mm (x10)		1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°	
2G/AAV/MH/NZ	1272	4	75.00	SOHC	40/54			
3F	1272	4	75.00	SOHC	55/57/ 75/78			
PY	1272	4	75.00	SOHC	85/115			
<b>Polo 1.3L 55</b> 10/94 → 07/95 <b>151</b> ADX					<b>HBS075</b>  M11x1.50x110mm (x10)		1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°	
ADX	1296	4	76.50	SOHC	40/54			
<b>Polo 1.3L D Diesel</b> 08/86 → 07/90 <b>152</b> <b>Polo Coupe 1.3L D Diesel</b> 08/86 → 08/90 MN					<b>HBS018</b>  M12x1.75x115mm (x10)		1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°	
MN	1272	4	75.00	SOHC	33/44			
<b>Polo 1.4L</b> 05/97 → 09/01 <b>153</b> <b>Polo 1.4L 60</b> 12/95 → 09/01 AEX AKK/AKV/ANW/APQ/AUD					<b>HBS075</b> AEX. AKV. APQ  M11x1.50x110mm (x10)		1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°	
AEX	1390	4	76.50	SOHC	40/44/ 54/60			
AKK/AKV/ANW/APQ/AUD	1390	4	76.50	SOHC	44/60			
<b>Polo 1.4L</b> 07/03 → <b>154</b> <b>Polo 1.4L 16V</b> 10/99 → 09/01 <b>Polo 1.4L 16V 75</b> 10/99 → 09/01 <b>Polo 1.4L FSI</b> 05/02 → AHW APE/AUA/BBY/BKY BUD AXU AFK/AQQ/AUB/BBZ					<b>HBS249</b>  M9x1.25x138mm (x10)		1) 30Nm 2) 90° 3) 90°	
AHW	1390	4	76.50		55/75			
APE/AUA/BBY/BKY	1390	4	76.50	DOHC	55/75			
BUD	1390	4	76.50	DOHC	59/80			
AXU	1390	4	76.50		63/86			
AFK/AQQ/AUB/BBZ	1390	4	76.50	DOHC	74/100			
<b>Polo 1.4L 55</b> 08/95 → 10/99 <b>155</b> AEX					<b>HBS075</b>  M11x1.50x110mm (x10)		1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°	
AEX	1390	4	76.50	SOHC	40/44/ 54/60			
<b>Polo 1.4L D Diesel</b> 10/90 → 09/94 <b>156</b> <b>Polo Coupe 1.4L D Diesel</b> 08/90 → 09/94 <b>Polo Van 1.4L D Diesel</b> 04/93 → 1W					<b>HBS018</b>  M12x1.75x115mm (x10)		1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°	
1W	1398	4	75.00	SOHC	35/47			
<b>Polo 1.4L TDI Diesel</b> 10/99 → 09/01 <b>157</b> BNM/BWB AMF BAY BMS/BNV					<b>HBS264</b>  M12x1.75x166mm (x8)		1) 40Nm 2) 60Nm 3) 90° 4) 90°	
BNM/BWB	1422	3	79.50	SOHC	51/70			
AMF	1422	3	79.50	SOHC	55/75			
BAY	1422	3	79.50		55/75			
BMS/BNV	1422	3	79.50	SOHC	59/80			
<b>Polo 54 1.4L</b> 01/98 → 08/99 <b>158</b> ANX					<b>HBS075</b>  M11x1.50x110mm (x10)		1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°	
ANX	1389	4	76.50	SOHC	44/60			



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Polo 1.6L		05/97 → 09/01		159			
Polo 1.6L 100		12/95 → 09/01					
AEH/AFT/AKL/APF/AUR	1595	4	81.00	SOHC	74/100	<b>HBS043</b> AFT  M11x1.50x95mm (x10) 1) 40Nm 2) 60Nm 3) ↗ 90° 4) 60Nm 5) 90° 6) 90°	 10 4 2 6 8 7 5 1 3 9
						<b>HBS246</b> AEH/AKL/APF/AUR  M10x1.50x120mm (x10) 1) 40Nm 2) 90° 3) 90°	 10 4 2 6 8 7 5 1 3 9
Polo 1.6L		09/94 → 09/01		160			
Polo 1.6L 75		10/94 → 09/01					
AEA/AEE/ALM	1598	4	76.50	SOHC	55/75	<b>HBS075</b>  M11x1.50x110mm (x10) 1) 40Nm 2) 60Nm 3) ↗ 90° 4) 60Nm 5) 90° 6) 90°	 10 6 2 3 7 9 5 1 4 8
Polo 1.6L 16V		05/06 →		161			
BTS	1598	4	76.50	DOHC	77/105	<b>HBS249</b>  M9x1.25x138mm (x10) 1) 30Nm 2) 90° 3) 90°	 10 4 2 6 8 7 5 1 3 9
Polo 1.6L 16V GTI		10/99 → 09/01		162			
Polo 1.6L 16V GTI 120		09/98 → 10/99					
AIV	1598	4	76.50	DOHC	88/120	<b>HBS316</b>  M9x1.25x97mm (x10) 1) 30Nm 2) 90° 3) 90°	 10 4 2 6 8 7 5 1 3 9
ARC/AVY	1598	4	76.50	DOHC	92/125		
Polo 1.6L 75		11/95 → 09/97		163			
1F	1595	4	81.00	SOHC	53/55/ 72/75	<b>HBS043</b>  M11x1.50x95mm (x10) 1) 40Nm 2) 60Nm 3) ↗ 90° 4) 60Nm 5) 90° 6) 90°	 10 4 2 6 8 7 5 1 3 9
Polo 1.6L 75		10/94 → 10/99		164			
AHS	1588	4	76.50	SOHC	55/75	<b>HBS075</b>  M11x1.50x110mm (x10) 1) 40Nm 2) 60Nm 3) ↗ 90° 4) 60Nm 5) 90° 6) 90°	 10 6 2 3 7 9 5 1 4 8
Polo 1.7L SDI Diesel		04/97 → 09/01		165			
Polo 1.7L SDI 57 Diesel		07/97 → 09/01					
Polo 1.7L SDI 60 Diesel		08/97 → 10/99					
Polo Van 1.7L SDI Diesel		08/97 → 12/99					
AHG/AKW	1716	4	79.50	SOHC	42/57	<b>HBS018</b>  M12x1.75x115mm (x10) 1) 40Nm 2) 60Nm 3) ↗ 90° 4) 60Nm 5) 90° 6) 90°	 10 4 2 6 8 7 5 1 3 9
AKU	1716	4	79.50	SOHC	44/60		
Polo 1.8L GTI		09/05 →		166			
BJX	1781	4	81.00	DOHC	110/150	<b>HBS268</b>  M10x1.50x120mm (x10) 1) 40Nm 2) 60Nm 3) ↗ 90° 4) 90° 5) 90°	 10 4 2 6 8 7 5 1 3 9

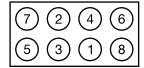




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<b>Polo 1.9L D Diesel</b> 10/99 → 09/01 <b>167</b>					<b>HBS018</b>  M12x1.75x115mm (x10)	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°	
<b>Polo 1.9L D 64 Diesel</b> 10/94 → 10/99							
<b>Polo 1.9L SDI Diesel</b> 06/97 → 09/01							
<b>Polo 1.9L SDI 64 Diesel</b> 12/95 → 10/99							
<b>Polo 1.9L SDI 68 Diesel</b> 08/99 → 09/01							
<b>Polo 1.9L TDI Diesel</b> 05/97 → 09/01							
<b>Polo 1.9L TDI 110 Diesel</b> 06/98 → 09/01							
<b>Polo 1.9L TDI 90 Diesel</b> 09/96 → 09/01							
<b>Polo Van 1.9L D Diesel</b> 10/94 → 12/99							
<b>Polo Van 1.9L SDI Diesel</b> 07/96 → 12/99							
AEF/AEY/AGD/ASX/ASY	1896	4	79.50	SOHC	47/64		
AGP/AQM	1896	4	79.50	SOHC	50/68		
AGR/AHU/ALE/ALH	1896	4	79.50	SOHC	66/89		
AFN/ASV	1896	4	79.50	SOHC	81/110		
<b>Polo 1.9L TDI Diesel</b> 10/01 → <b>168</b>					<b>HBS300</b>  M12x1.75x166mm (x10)	1) 40Nm 2) 60Nm 3) 90° 4) 90°	
<b>ATD/AXR</b> 1896 4 79.50 SOHC 74/100							
<b>BMT</b> 1896 4 79.50 SOHC 74/101							
<b>ASZ/BLT</b> 1896 4 79.50 SOHC 96/131							
<b>Santana 1.8L</b> 08/84 → 07/94 <b>169</b>					<b>HBS043</b>  M11x1.50x95mm (x10)	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°	
<b>DS</b> 1781 4 81.00 SOHC 66/89							
<b>Scirocco Coupe 1.6L</b> 01/83 → 07/90 <b>170</b>					<b>HBS043</b>  M11x1.50x95mm (x10)	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°	
<b>RE</b> 1595 4 81.00 SOHC 53/72							
<b>EW</b> 1595 4 81.00 SOHC 55/75							
<b>Scirocco Coupe 1.8L</b> 08/82 → 07/92 <b>171</b>					<b>HBS043</b>  M11x1.50x95mm (x10)	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°	
<b>EX</b> 1781 4 81.00 SOHC 66/89							
<b>JH</b> 1781 4 81.00 K-Jetronic, SOHC 70/95							
<b>DX/EV</b> 1781 4 81.00 K-Jetronic, SOHC 82/111							
<b>JJ/PB</b> 1781 4 81.00 SOHC 82/111							
<b>Scirocco Coupe 1.8L 16V</b> 10/85 → 07/92 <b>172</b>					<b>HBS028</b>  M11x1.50x147mm (x10)	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°	
<b>PL</b> 1781 4 81.00 KE-Jetronic, DOHC 95/129							
<b>KR</b> 1781 4 81.00 DOHC 98/133							
<b>Sharan 1.8L T 20V</b> 09/97 → <b>173</b>					<b>HBS268</b>  M10x1.50x120mm (x10)	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 90° 5) 90°	
<b>AJH/AWC</b> 1781 4 81.00 DOHC 110/150							
<b>Sharan 1.9L TDI Diesel</b> 09/95 → <b>174</b>					<b>HBS018</b> AHU. 1Z  M12x1.75x115mm (x10)	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°	
<b>1Z/AHU/ANU</b> 1896 4 79.50 SOHC 66/89							
					<b>HBS300</b> ANU  M12x1.75x166mm (x10)	1) 40Nm 2) 60Nm 3) 90° 4) 90°	

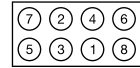




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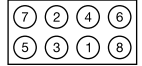
<b>Sharan 1.9L TDI Diesel</b>		09/96 → 04/00			<b>175</b>	<b>HBS018</b>  M12x1.75x115mm (x10)	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°	
AFN/AVG	1896	4	79.50	SOHC	81/110			
<b>Sharan 1.9L TDI Diesel</b>		04/00 →			<b>176</b>	<b>HBS300</b>  M12x1.75x166mm (x10)	1) 40Nm 2) 60Nm 3) 90° 4) 90°	
<b>Sharan 1.9L TDI 4motion Diesel</b>		04/00 →						
BVK	1896	4	79.50	SOHC	85/115			
AUY	1896	4	79.50	SOHC	85/116			
ASZ	1896	4	79.50	SOHC	96/131			
BTB	1896	4	79.50	SOHC	110/150			
<b>Sharan 2.0L</b>		09/95 →			<b>177</b>	<b>HBS043</b> ADY  M11x1.50x95mm (x10)	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°	
ADY/ATM	1984	4	82.50	SOHC	85/116			
<b>HBS246</b>						<b>HBS246</b> ATM  M10x1.50x120mm (x10)	1) 40Nm 2) 90° 3) 90°	
<b>Sharan 2.0L TDI Diesel</b>		11/05 → 03/10			<b>178</b>			
BVH	1968	4	81.00	SOHC	100/136	<b>HBS300</b>  M12x1.75x166mm (x10)	1) 40Nm 2) 60Nm 3) 90° 4) 90°	
BRT	1968	4	81.00	SOHC	103/140			
<b>Sharan 2.8L VR6</b>		09/95 → 04/00			<b>179</b>	<b>HBS077</b>  M11x1.50x85mm (x7) M11x1.50x144mm (x3) M11x1.50x119mm (x10)	1) 40Nm 2) 60Nm 3) 90° 4) 90°	
<b>Sharan 2.8L VR6 Syncro</b>		11/96 → 04/00						
AAA	2792	6	81.00	DOHC, V6	128/174			
<b>Taro 2.4L i 4x4</b>		06/89 → 03/97			<b>180</b>			
22R	2366	4	92.00	SOHC	84/114	<b>HBS386</b>  M12x1.25x163mm (x10)	1) 25Nm 2) 50Nm 3) 78Nm	
<b>Touareg 3.0L V6 TDI Diesel</b>		11/04 →			<b>181</b>			
BKS/CATA	2967	6	83.00	DOHC, V6	165/224	<b>HBS361</b>  M12x1.50x159mm (x16)	1) 40Nm 2) 60Nm 3) 90° 4) 90°	
<b>Touareg 3.2L V6</b>		10/02 → 11/06			<b>182</b>			
AZZ/BAA/BKJ/BMV/BRJ	3189	6	84.00	DOHC, V6	162/220	<b>HBS466</b>  M10x1.50x111mm (x13) M10x1.50x150mm (x7)	1) 30Nm 2) 50Nm 3) 90° 4) 90°	
BMX	3189	6	84.00	DOHC, V6	177/241			
<b>Touran 1.6L</b>		07/03 →			<b>183</b>	<b>HBS246</b>  M10x1.50x120mm (x10)	1) 40Nm 2) 90° 3) 90°	
BGU/BSE/BSF	1595	4	81.00	SOHC	75/102			
<b>Touran 1.6L FSI</b>		02/03 →			<b>184</b>	<b>HBS249</b>  M9x1.25x138mm (x10)	1) 30Nm 2) 90° 3) 90°	
BAG/BLF/BLP	1598	4	76.50	DOHC	85/115			



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kW/PS



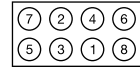
<b>Touran 1.9L TDI Diesel</b> 02/03 → <b>185</b>						<b>HBS300</b>  M12x1.75x166mm (x10)	1) 40Nm 2) 60Nm 3) 90° 4) 90°	
BRU	1896	4	79.50	SOHC	66/89			
BXF/BXJ	1896	4	79.50	SOHC	66/90			
AVQ	1896	4	79.50	SOHC	74/100			
BKC/BLS/BXE	1896	4	79.50	SOHC	77/105			
<b>Touran 2.0L FSI</b> 10/03 → <b>186</b>						<b>HBS363</b>  M10x1.50x122mm (x10)	1) 40Nm 2) 90° 3) 90°	
AXW/BLR/BLX/BLY/BVY/BVZ	1984	4	82.50	DOHC	110/150			
<b>Touran 2.0L TDI Diesel</b> 02/03 → <b>187</b>						<b>HBS364</b>  M12x1.75x149mm (x10)	1) 35Nm 2) 60Nm 3) 90° 4) 90°	
AZV	1968	4	81.00	DOHC	100/136			
<b>Touran 2.0L TDI Diesel</b> 12/05 → <b>188</b>						<b>HBS364</b>  M12x1.75x149mm (x10)	1) 35Nm 2) 60Nm 3) 90° 4) 90°	
BMN	1968	4	81.00	DOHC	125/170			
<b>Touran 2.0L TDI Diesel</b> 12/05 → <b>189</b>						<b>HBS300</b>  M12x1.75x166mm (x10)	1) 40Nm 2) 60Nm 3) 90° 4) 90°	
BMM	1968	4	81.00	SOHC	103/140			
<b>Touran 2.0L TDI 16V Diesel</b> 08/03 → <b>190</b>						<b>HBS364</b>  M12x1.75x149mm (x10)	1) 35Nm 2) 60Nm 3) 90° 4) 90°	
BKD	1968	4	81.00	DOHC	103/140			
<b>Transporter 1.6L D Diesel</b> 01/81 → 07/87 <b>Transporter 1.6L TD Diesel</b> 08/84 → 07/92 <b>Transporter 1.6L TD Syncro Diesel</b> 03/86 → 07/92						<b>HBS018</b>  M12x1.75x115mm (x10)	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°	
CS	1588	4	76.50	SOHC	37/50			
JX	1588	4	76.50	SOHC	50/68			
<b>Transporter 1.7L D Diesel</b> 10/86 → 07/92 <b>192</b>						<b>HBS018</b>  M12x1.75x115mm (x10)	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°	
KY	1715	4	79.50	SOHC	42/57			
<b>Transporter 1.8L</b> 12/90 → 07/92 <b>193</b>						<b>HBS043</b>  M11x1.50x95mm (x10)	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°	
PD	1781	4	81.00	SOHC	49/67			
<b>Transporter 1.9L D Diesel</b> 07/90 → 04/03 <b>Transporter 1.9L TD Diesel</b> 10/92 → 04/03 <b>194</b>						<b>HBS018</b>  M12x1.75x115mm (x10)	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°	
1X	1896	4	79.50	SOHC	44/60			
ABL	1896	4	79.50	SOHC	50/68			
<b>Transporter 1.9L TDI Diesel</b> 04/03 → 11/09 <b>195</b>						<b>HBS300</b>  M12x1.75x166mm (x10)	1) 40Nm 2) 60Nm 3) 90° 4) 90°	
BRR	1896	4	79.50	SOHC	62/84			
AXC	1896	4	79.50	SOHC	63/85			
BRS	1896	4	79.50	SOHC	75/102			
AXB	1896	4	79.50	SOHC	77/105			



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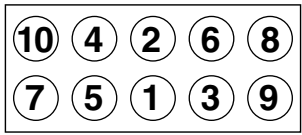


Transporter 2.0L		07/90 → 04/03		196		
AAC	1968	4	81.00	SOHC	62/84	
Transporter 2.0L		04/03 →		197		
AXA	1984	4	82.50	SOHC	85/116	
Transporter 2.4L D Diesel		07/90 → 04/03		198		
Transporter 2.4L D Syncro Diesel		10/92 → 04/03				
AJA	2370	5	79.50	SOHC	55/75	
AAB	2370	5	79.50		57/77	
Transporter 2.5L		11/90 → 04/03		199		
Transporter 2.5L Syncro		10/92 → 04/03				
AAF/ACU/AEU	2459	5	81.00	SOHC	81/110	
Transporter 2.5L		11/90 → 04/03		200		
Transporter 2.5L Syncro		10/92 → 04/03				
Transporter 2.5L TDI Diesel		09/95 → 04/03				
Transporter 2.5L TDI Syncro Diesel		09/95 → 04/03				
AJT	2461	5	81.00	SOHC	65/88	
AYY	2461	5	81.00		65/88	
ACV	2461	5	81.00		74/100	
AUF	2461	5	81.00		75/102	
AXL/AYC	2461	5	81.00		75/102	
AEN/AET	2461	5	81.00		81/110	
APL/AVT	2461	5	81.00		85/116	
AHY	2461	5	81.00		111/151	
AXG	2461	5	81.00		111/151	
Transporter 2.5L TDI Diesel		04/03 →			201	
Transporter 2.5L TDI 4motion Diesel		07/04 →				
BPC	2460	5	81.00	SOHC	128/174	
Transporter 2.5L TDI Diesel		04/03 →		202		
Transporter 2.5L TDI 4motion Diesel		07/04 →				
AXE	2461	5	81.00	SOHC	128/174	
Transporter 2.8L VR 6		11/95 → 04/00		203		
AES	2792	6	81.00	SOHC, V6	103/140	
Transporter 3.2L 4motion		11/03 → 06/06		204		
Transporter 3.2L V6		04/03 → 06/04				
BDL	3189	6	84.00	DOHC, V6	170/231	
BKK	3189	6	84.00	DOHC	173/235	
CFLA	3189	6	84.00	DOHC, V6	173/235	

**HBS018**

M12x1.75x115mm (x10)

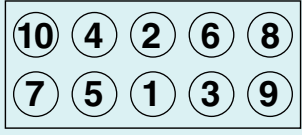
- 1) 40Nm
- 2) 60Nm
- 3) ↻ 90°
- 4) 60Nm
- 5) 90°
- 6) 90°



**HBS246**

M10x1.50x120mm (x10)

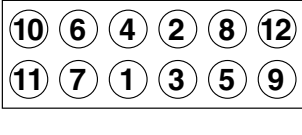
- 1) 40Nm
- 2) 90°
- 3) 90°



**HBS021**

M12x1.75x115mm (x12)

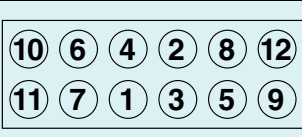
- 1) 40Nm
- 2) 60Nm
- 3) ↻ 90°
- 4) 60Nm
- 5) 90°
- 6) 90°



**HBS021**

M12x1.75x115mm (x12)

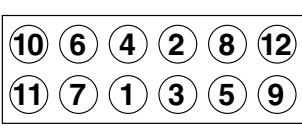
- 1) 40Nm
- 2) 60Nm
- 3) ↻ 90°
- 4) 60Nm
- 5) 90°
- 6) 90°



**HBS021**

M12x1.75x115mm (x12)

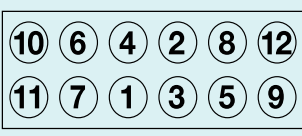
- 1) 40Nm
- 2) 60Nm
- 3) ↻ 90°
- 4) 60Nm
- 5) 90°
- 6) 90°



**HBS509**

M12x1.50x149.5mm (x12)

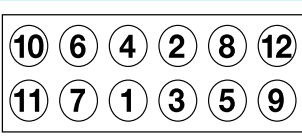
- 1) 40Nm
- 2) 60Nm
- 3) ↻ 90°
- 4) 60Nm
- 5) 90°
- 6) 90°
- 7) ↻ 90°



**HBS509**

M12x1.50x149.5mm (x12)

- 1) 40Nm
- 2) 60Nm
- 3) ↻ 90°
- 4) 60Nm
- 5) 90°
- 6) 90°
- 7) ↻ 90°

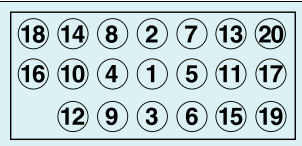


**HBS077**

→ Eng. AES 009 433

M11x1.50x85mm (x7)  
M11x1.50x144mm (x3)  
M11x1.50x119mm (x10)

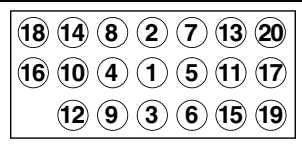
- 1) 40Nm
- 2) 60Nm
- 3) 90°
- 4) 90°



**HBS466**

M10x1.50x111mm (x13)  
M10x1.50x150mm (x7)

- 1) 30Nm
- 2) 50Nm
- 3) 90°
- 4) 90°

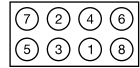




cc



kW/PS



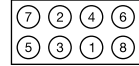
TRANSPORTER V 2.5L TDI 4motion Diesel					04/04 → 11/09	205	HBS509	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90° 7) ↻ 90°	
BPC	2460	5	81.00	SOHC		128/174	M12x1.50x149.5mm (x12)		
TRANSPORTER V 2.5L TDI 4motion Diesel					04/04 → 11/09	206	HBS509	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90° 7) ↻ 90°	
AXE	2461	5	81.00	SOHC		128/174	M12x1.50x149.5mm (x12)		
Vento 1.4L					11/91 → 09/98	207	HBS075	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°	
AEX	1390	4	76.50	SOHC		40/44/ 54/60	M11x1.50x110mm (x10)		
Vento 1.4L					11/91 → 09/98	208	HBS043	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°	
ABD	1391	4	75.00	SOHC		40/44/ 55/60	M11x1.50x95mm (x10)		
Vento 1.6L					10/94 → 09/98	209	HBS043	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°	
AEK/AFT	1595	4	81.00	SOHC		74/100	M11x1.50x95mm (x10)		
Vento 1.6L					09/92 → 09/98	210	HBS075	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°	
ABU/AEA/AEE	1598	4	76.50	SOHC		55/75	M11x1.50x110mm (x10)		
Vento 1.8L					11/91 → 09/98	211	HBS043	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°	
AAM	1781	4	81.00	SOHC		55/75	M11x1.50x95mm (x10)		
Vento 1.8L					11/91 → 09/98	212	HBS043	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°	
ABS/ADZ	1781	4	81.00	SOHC		66/89	M11x1.50x95mm (x10)		
Vento 1.9L D Diesel					11/91 → 09/98	213	HBS018	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°	
Vento 1.9L SDI Diesel					04/97 → 09/98				
Vento 1.9L TD Diesel					11/91 → 09/98				
Vento 1.9L TDI Diesel					09/93 → 09/98				
AEY	1896	4	79.50	SOHC		47/64	M12x1.75x115mm (x10)		
1Y	1896	4	79.50	SOHC		47/50/ 64/68			
AAZ	1896	4	79.50	SOHC		55/75			
1Z/AHU/ALE	1896	4	79.50	SOHC		66/89			
AFN	1896	4	79.50	SOHC		81/110			



cc



kW/PS











<b>Vento 2.0L</b>		11/91 → 09/98			<b>214</b>	<b>HBS043</b>		
2E	1984	4	82.50	SOHC	85/115	 M11x1.50x95mm (x10)	1) 40Nm 2) 60Nm 3) ↻ 90° 4) 60Nm 5) 90° 6) 90°	
ADY/AGG/AKR	1984	4	82.50	SOHC	85/116			
<b>Vento 2.8L VR6</b>		01/92 → 09/98			<b>215</b>	<b>HBS077</b>		
AAA	2792	6	81.00	DOHC, V6	128/174	 M11x1.50x85mm (x7) M11x1.50x144mm (x3) M11x1.50x119mm (x10)	1) 40Nm 2) 60Nm 3) 90° 4) 90°	













# NUMERICAL PARTS LIST









Numerische Teilenummernliste • Liste des références produits  
Elenco numerico articoli

















 	 	 	 
<b>HBS001</b> FORD 109, 111, 116, 119	<b>HBS028</b> AUDI 12, 14, 20, 24	<b>HBS051</b> CITROËN 58, 61	<b>HBS075</b> SEAT 327, 328, 329, 331, 333
<b>HBS002</b> CHEVROLET 44	SEAT 329, 330, 332, 335, 336	FIAT 88, 89, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 103	SKODA 339
DAEWOO 74, 75, 76	VW 414, 417, 419, 423, 424, 429	LANCIA 147, 148, 150, 151	VW 413, 415, 416, 427, 428, 433
OPEL 237, 238, 241, 242, 243, 245, 247, 251, 252	<b>HBS029</b> VW 415, 426	PEUGEOT 275	<b>HBS077</b> FORD 114
VAUXHALL 366, 369, 371, 372, 373, 374, 376, 377, 378, 381	<b>HBS031</b> FORD 109, 110, 111, 112, 113, 115, 116, 117, 120, 122	<b>HBS052</b> FIAT 82, 84, 86, 89, 90, 91, 92, 93, 94, 95, 97, 98, 100, 103	MERCEDES-BENZ 191
<b>HBS003</b> DAEWOO 74, 76	MAZDA 171	LANCIA 150, 152, 153	VW 414, 418, 425, 430, 432, 434
OPEL 240, 244, 246, 248, 252, 253	<b>HBS032</b> FORD 110, 114, 118, 120, 121	<b>HBS053</b> DAEWOO 74	<b>HBS078</b> FORD 110, 111, 112, 113, 115, 117
VAUXHALL 367, 368, 369, 370, 371, 372, 375, 378	<b>HBS033</b> FORD 110, 112, 115, 117	<b>HBS054</b> CHEVROLET 44, 45	MAZDA 166, 167
<b>HBS005</b> LAND ROVER 154	MAZDA 167	DAEWOO 74, 75, 76, 77	VOLVO 394, 395, 401
MG 208, 209	<b>HBS035</b> OPEL 240, 241, 246, 253	OPEL 239, 244, 248, 249, 251, 254, 256	<b>HBS082</b> CITROËN 52, 69
ROVER 314, 315, 316, 317, 318	VAUXHALL 368, 370, 372	VAUXHALL 367, 368, 370, 372, 375, 378, 380, 381, 382, 383	PEUGEOT 260
<b>HBS006</b> FORD 119	<b>HBS036</b> HONDA 125	<b>HBS055</b> OPEL 238, 239, 241, 243, 244, 247, 250, 251, 252, 255, 256	ROVER 315
<b>HBS007</b> FORD 110, 111, 112, 117, 120	ISUZU 134	SAAB 320	<b>HBS083</b> CITROËN 65, 70
<b>HBS008</b> FORD 122	MAZDA 168	VAUXHALL 366, 367, 373, 374, 376, 379, 380, 381, 382, 383	PEUGEOT 261
<b>HBS010</b> JEEP 140	OPEL 239, 242, 243, 244, 245, 247, 252	<b>HBS056</b> FORD 109, 117, 118, 119, 120, 121	<b>HBS084</b> CITROËN 53, 54, 58, 59, 60, 61, 62, 64, 65, 66, 68, 70, 71
RENAULT 288, 300, 306, 311	VAUXHALL 366, 367, 369, 372, 373, 374, 376, 377, 378, 381	<b>HBS057</b> FORD 118, 119, 120, 122	FIAT 86, 87, 96, 102
<b>HBS011</b> ALFA ROMEO 7	<b>HBS038</b> CITROËN 54, 58, 65, 70	<b>HBS058</b> DAEWOO 75	HYUNDAI 130
FIAT 84, 85, 87, 88	FIAT 87	MERCEDES-BENZ 174, 176, 180, 188, 189, 190, 191, 192	LANCIA 153
IVECO 136, 137, 138	PEUGEOT 261, 262, 265, 266, 267, 268, 270, 276	<b>HBS059</b> DAEWOO 74, 76	PEUGEOT 261, 262, 263, 264, 265, 266, 267, 268, 269, 271, 273, 274, 275, 276, 277
LANCIA 151	<b>HBS039</b> CITROËN 52, 53, 54, 55, 56, 57, 63, 67, 68, 69	MERCEDES-BENZ 174, 181, 182, 184, 189, 190	ROVER 315, 316
OPEL 237, 248	PEUGEOT 260, 261, 262, 263, 264, 265, 266, 274, 276, 277	<b>HBS060</b> MERCEDES-BENZ 182, 184, 185, 186	SUZUKI 349
RENAULT 283, 300, 301, 303, 306, 311	<b>HBS041</b> BMW 31, 33, 35, 36, 42	<b>HBS061</b> MERCEDES-BENZ 176, 177, 180, 181	<b>HBS087</b> CITROËN 60, 64, 66, 69, 71
VAUXHALL 365, 377	<b>HBS042</b> TOYOTA 352, 353, 355, 359	<b>HBS062</b> MERCEDES-BENZ 177, 181	FIAT 102
<b>HBS015</b> FORD 118, 119, 120	<b>HBS043</b> AUDI 12, 13, 14, 17, 20, 24, 25	<b>HBS063</b> MERCEDES-BENZ 183, 184, 186	LANCIA 153
PEUGEOT 270, 271	SEAT 326, 328, 329, 330, 331, 332, 333, 335, 336	<b>HBS064</b> AUDI 13, 15, 19, 22, 23, 24, 25	PEUGEOT 264, 268, 269, 271, 273
<b>HBS016</b> FORD 118	VW 413, 414, 415, 416, 417, 424, 426, 427, 428, 429, 430, 431, 433, 434	<b>HBS065</b> BMW 32, 36	<b>HBS088</b> CITROËN 59, 60, 62, 64, 66, 69, 71
<b>HBS017</b> CITROËN 58	<b>HBS044</b> SEAT 330, 331, 334	<b>HBS066</b> BMW 33, 34, 36, 37, 39, 41	FIAT 86, 96, 102
FIAT 82	<b>HBS045</b> MERCEDES-BENZ 174, 189, 190	LAND ROVER 155	PEUGEOT 264, 267, 268, 273, 275, 276
PEUGEOT 276	<b>HBS046</b> MERCEDES-BENZ 184, 186, 189	OPEL 249	SUZUKI 348, 349
<b>HBS018</b> AUDI 12, 13, 16, 18, 20, 24	<b>HBS047</b> MERCEDES-BENZ 174, 180, 181, 184, 189	VAUXHALL 379	<b>HBS089</b> CITROËN 65, 68, 70
FORD 114	<b>HBS050</b> FORD 109, 110, 111, 114, 116	<b>HBS067</b> BMW 32, 33, 35, 36, 37, 38, 39, 40, 41, 42, 43	PEUGEOT 263, 268
SEAT 326, 327, 329, 332, 333, 334, 335, 336	MAZDA 167	<b>HBS068</b> BMW 31, 32, 35, 42	<b>HBS092</b> ALFA ROMEO 6
SKODA 338, 339	<b>HBS048</b> SEAT 330, 331, 334	<b>HBS069</b> BMW 29, 30, 34, 42	FIAT 85, 96, 99, 100, 101
VW 412, 413, 416, 417, 419, 421, 422, 423, 424, 427, 428, 429, 430, 431, 432, 433	<b>HBS049</b> MERCEDES-BENZ 174, 180, 181, 184, 189	<b>HBS070</b> BMW 30	LANCIA 147, 148, 149, 151
<b>HBS021</b> AUDI 14, 21	<b>HBS051</b> FORD 109, 110, 111, 112, 113, 115, 116, 117, 120, 122	<b>HBS071</b> BMW 37, 38, 39, 40	<b>HBS093</b> ALFA ROMEO 4
VOLVO 393, 399, 403	MAZDA 171	<b>HBS074</b> OPEL 239, 245, 252	FIAT 84, 85, 100, 101
VW 420, 432	<b>HBS052</b> FIAT 82, 84, 86, 89, 90, 91, 92, 93, 94, 95, 97, 98, 100, 103	VAUXHALL 366, 367, 369, 370, 371	LANCIA 147, 149, 151
<b>HBS022</b> VOLVO 386, 392, 394	<b>HBS053</b> DAEWOO 74	<b>HBS077</b> FORD 114	<b>HBS095</b> ALFA ROMEO 2, 3, 4, 7
VW 420	<b>HBS054</b> CHEVROLET 44, 45	MERCEDES-BENZ 191	FIAT 83, 84, 86, 88, 90, 92, 94, 95, 98, 99, 101, 103, 104
<b>HBS024</b> AUDI 13, 14, 15, 21, 24, 25, 26	<b>HBS055</b> OPEL 238, 239, 241, 243, 244, 247, 250, 251, 252, 255, 256	VW 414, 418, 425, 430, 432, 434	LANCIA 147, 149, 151
	<b>HBS056</b> FORD 109, 117, 118, 119, 120, 121		<b>HBS097</b> FIAT 85
	<b>HBS057</b> FORD 118, 119, 120, 122		<b>HBS098</b> FIAT 88, 89
	<b>HBS058</b> DAEWOO 75		
	<b>HBS059</b> DAEWOO 74, 76		
	MERCEDES-BENZ 174, 181, 182, 184, 189, 190		
	<b>HBS060</b> MERCEDES-BENZ 182, 184, 185, 186		
	<b>HBS061</b> MERCEDES-BENZ 176, 177, 180, 181		
	<b>HBS062</b> MERCEDES-BENZ 177, 181		
	<b>HBS063</b> MERCEDES-BENZ 183, 184, 186		
	<b>HBS064</b> AUDI 13, 15, 19, 22, 23, 24, 25		
	<b>HBS065</b> BMW 32, 36		
	<b>HBS066</b> BMW 33, 34, 36, 37, 39, 41		
	LAND ROVER 155		
	OPEL 249		
	VAUXHALL 379		
	<b>HBS067</b> BMW 32, 33, 35, 36, 37, 38, 39, 40, 41, 42, 43		
	<b>HBS068</b> BMW 31, 32, 35, 42		
	<b>HBS069</b> BMW 29, 30, 34, 42		
	<b>HBS070</b> BMW 30		
	<b>HBS071</b> BMW 37, 38, 39, 40		
	<b>HBS074</b> OPEL 239, 245, 252		
	VAUXHALL 366, 367, 369, 370, 371		

							
<b>HBS102</b> DACIA	72, 73	<b>HBS131</b> FIAT	83, 86, 91, 92, 97, 98	<b>HBS198</b> TOYOTA	353, 354, 359	<b>HBS249</b> AUDI	15, 16
RENAULT	284, 285, 290, 292, 293, 295, 296, 298, 299, 301, 304, 307, 309	LANCIA	147, 148, 149	<b>HBS200</b> TOYOTA	352, 353, 359, 360	SEAT	327, 328, 329, 330, 331, 332, 333, 335
<b>HBS104</b> RENAULT	283, 284, 289, 290, 291, 292, 293, 304, 310, 312	<b>HBS132</b> ALFA ROMEO	2, 3, 4, 5, 6, 7, 8	<b>HBS203</b> TOYOTA	351, 353, 354, 355, 359, 360	SKODA	338, 339, 340
<b>HBS105</b> ALFA ROMEO	2, 4, 6	FIAT	82, 83, 84, 91, 94, 98	<b>HBS209</b> TOYOTA	351, 358	VW	412, 413, 414, 415, 416, 419, 421, 422, 423, 426, 427, 428, 430
<b>HBS106</b> TOYOTA	358	LANCIA	147, 148, 149	<b>HBS211</b> KIA	142, 144, 145	<b>HBS251</b> FIAT	87
<b>HBS107</b> ALFA ROMEO	2	<b>HBS133</b> FIAT	84, 91, 98	MAZDA	168, 169, 170, 171	IVECO	136
<b>HBS108</b> CHRYSLER	46, 48	LANCIA	149, 150, 151	SUZUKI	348, 349	<b>HBS252</b> OPEL	237, 238, 241, 242, 243, 247, 251
FORD	119	<b>HBS136</b> MAZDA	168, 169, 170, 171	<b>HBS215</b> MITSUBISHI	212, 213, 214, 216, 217, 218, 219, 220	SUZUKI	349
JEEP	140, 141	<b>HBS140</b> FORD	119	VOLVO	396, 400	VAUXHALL	365, 366, 373, 374, 380
OPEL	245	<b>HBS146</b> MERCEDES-BENZ	174, 181, 182, 184, 186, 187	<b>HBS216</b> MITSUBISHI	218	<b>HBS253</b> OPEL	237, 242
ROVER	317	<b>HBS149</b> MERCEDES-BENZ	174	<b>HBS217</b> MITSUBISHI	214	VAUXHALL	365, 373
VAUXHALL	375	<b>HBS150</b> DAEWOO	74, 75	<b>HBS218</b> SUBARU	344, 345	<b>HBS254</b> CITROËN	52, 55, 56, 63, 68
<b>HBS109</b> FIAT	82, 93, 103	MERCEDES-BENZ	174, 176, 177, 179, 180, 181, 185, 187, 188, 190, 191, 192	<b>HBS222</b> LAND ROVER	154, 155	PEUGEOT	260, 262, 263, 265, 274, 277
SEAT	330, 335	<b>HBS152</b> DAEWOO	76	<b>HBS223</b> LAND ROVER	155	<b>HBS255</b> CITROËN	61, 63
<b>HBS110</b> NISSAN	225, 226	MERCEDES-BENZ	178, 182, 183, 184, 185, 186, 187	<b>HBS224</b> LAND ROVER	154, 155	FIAT	88
<b>HBS111</b> NISSAN	223, 230, 232	<b>HBS160</b> OPEL	249	<b>HBS226</b> MAN	163, 164	IVECO	137, 138
<b>HBS112</b> OPEL	242	VAUXHALL	371	MERCEDES-BENZ COMMERCIAL	203, 204, 205, 206, 207	PEUGEOT	275
VAUXHALL	365, 377	<b>HBS161</b> OPEL	244, 249	<b>HBS227</b> ALFA ROMEO	2, 3, 5, 6	RENAULT	283
<b>HBS113</b> CITROËN	52, 63, 67, 69	VAUXHALL	371, 375	FIAT	83, 84, 86, 90, 91, 92, 95, 97, 98	<b>HBS257</b> ALFA ROMEO	5, 7
NISSAN	226	<b>HBS163</b> OPEL	244, 249	LANCIA	150	FIAT	91
PEUGEOT	260	VAUXHALL	371, 375	OPEL	239, 250, 253, 256	LANCIA	149, 150, 152
ROVER	315	<b>HBS164</b> OPEL	241, 249, 250, 251, 254	SAAB	320	<b>HBS259</b> CITROËN	56, 57, 59, 60, 62, 64, 69
<b>HBS114</b> CITROËN	61, 63, 67	SAAB	321, 322	VAUXHALL	368, 379, 381, 383	FIAT	96, 102
PEUGEOT	272, 275	VAUXHALL	370, 372, 379, 380, 381, 382	<b>HBS241</b> NISSAN	225	LANCIA	150, 153
<b>HBS115</b> CITROËN	67	<b>HBS171</b> AUDI	17, 19, 20, 24	RENAULT	283, 295, 309, 312	PEUGEOT	262, 265, 268, 269, 272, 273, 274, 276
PEUGEOT	271, 272	VW	423	<b>HBS243</b> FORD	112, 113, 120, 122	<b>HBS260</b> CITROËN	53, 59, 64, 65, 68, 70
<b>HBS116</b> JEEP	140	<b>HBS173</b> SKODA	338	<b>HBS244</b> OPEL	237	FIAT	101
RENAULT	287, 288, 299, 300, 305, 311	<b>HBS174</b> VOLVO	386, 387, 391, 392, 393	RENAULT	285, 286, 288, 291, 293, 294, 296, 297, 302, 303, 305, 310	PEUGEOT	263, 266, 273, 275
<b>HBS119</b> RENAULT	289, 298, 306	<b>HBS175</b> VOLVO	392, 393, 394	VAUXHALL	365	<b>HBS261</b> CITROËN	53, 56, 57, 59, 60, 61, 62, 63, 64, 66, 69
<b>HBS120</b> MITSUBISHI	212, 219	<b>HBS177</b> RENAULT	286, 287, 303, 308	VOLVO	386, 387, 388, 389, 390, 391, 397, 401	FIAT	87, 97, 102
NISSAN	224, 228, 229, 230	<b>HBS178</b> RENAULT	298, 305	<b>HBS245</b> CITROËN	61, 63	FORD	114, 116
OPEL	247, 254, 255	VOLVO	395, 396, 397, 400, 401	FIAT	87	LANCIA	150, 153
RENAULT	286, 287, 296, 297, 299, 302, 308, 310	<b>HBS179</b> SAAB	321	TOYOTA	355	PEUGEOT	262, 264, 265, 269, 270, 272, 273, 274, 275, 276, 277
VAUXHALL	376, 382	<b>HBS180</b> SAAB	320, 321, 322	<b>HBS246</b> AUDI	16, 17	SUZUKI	348
<b>HBS121</b> BMW	29, 30, 31, 34, 35, 40	<b>HBS185</b> FORD	113	SEAT	326, 328, 330, 331, 333, 335	VOLVO	394, 397, 399, 401, 402
LAND ROVER	154	VOLVO	395, 397, 398, 399, 401, 402, 403	SKODA	338, 339, 340	<b>HBS262</b> ALFA ROMEO	2, 3, 4
MG	208	<b>HBS187</b> NISSAN	222, 229, 231, 232, 233	VW	412, 413, 414, 416, 417, 418, 419, 421, 422, 423, 424, 430, 432	<b>HBS264</b> AUDI	15
ROVER	314	<b>HBS188</b> NISSAN	222, 223, 230, 231, 232	<b>HBS247</b> ALFA ROMEO	8	SEAT	327, 328, 331
<b>HBS125</b> CITROËN	60, 64, 66	<b>HBS189</b> NISSAN	224, 225, 227	FIAT	82, 83, 90, 91, 92, 93, 94, 97	SKODA	338, 340
FIAT	102	<b>HBS190</b> NISSAN	224, 227	LANCIA	150, 152, 153	VW	415, 421, 427
LANCIA	153	<b>HBS194</b> FORD	115	<b>HBS195</b> NISSAN	231, 233		
PEUGEOT	269, 272, 273	NISSAN	223, 227, 228, 232, 233	<b>HBS197</b> TOYOTA	354, 360		
<b>HBS127</b> CITROËN	67						
PEUGEOT	271, 272						
RENAULT	289, 298						
<b>HBS130</b> FIAT	82, 83, 91						
LANCIA	152						

# NUMERICAL PARTS LIST

Numerische Teilenummernliste • Liste des références produits  
Elenco numerico articoli

							
<b>HBS265</b>	AUDI 19, 21, 22, 23, 24 ISUZU 134 SKODA 341 VW 425	<b>HBS297</b>	FIAT 84, 92, 93, 97	<b>HBS350</b>	MERCEDES-BENZ COMMERCIAL 204, 207	<b>HBS372</b>	MITSUBISHI 212, 219 RENAULT 287, 295, 297, 299, 302, 307, 308, 310 VAUXHALL 376 VOLVO 396, 400
<b>HBS268</b>	AUDI 16, 17, 20, 26 SEAT 326, 329, 332, 334, 335 SKODA 339, 340 VW 412, 416, 422, 423, 428, 429	<b>HBS298</b>	OPEL 239, 240, 244, 248, 249, 250, 251, 253, 254, 256 SAAB 320 VAUXHALL 368, 369, 375, 378, 379, 380, 381, 383	<b>HBS351</b>	MERCEDES-BENZ 190 MERCEDES-BENZ COMMERCIAL 202	<b>HBS373</b>	NISSAN 224, 229, 231 OPEL 247, 248, 255 RENAULT 283, 289, 298, 300, 311, 312 VAUXHALL 377, 382
<b>HBS269</b>	AUDI 13, 14, 15, 21, 25, 26	<b>HBS299</b>	DACIA 72 NISSAN 222, 225, 226, 230 RENAULT 285, 294, 295, 296, 299, 301, 303, 307, 309, 312	<b>HBS352</b>	MERCEDES-BENZ COMMERCIAL 202	<b>HBS374</b>	NISSAN 223, 226, 227, 230, 233
<b>HBS270</b>	AUDI 18, 21	<b>HBS300</b>	AUDI 16, 18, 20 FORD 114 HONDA 125 SEAT 326, 327, 329, 332, 334, 336 SKODA 338, 339, 340, 341 VW 412, 413, 414, 417, 418, 419, 421, 422, 424, 429, 430, 431	<b>HBS353</b>	FIAT 82, 86, 89, 90, 92, 93, 94, 95, 98 LANCIA 150, 152 OPEL 237, 238, 241, 243, 246, 251 SUZUKI 348, 349 VAUXHALL 365, 366, 373, 374, 375, 380	<b>HBS377</b>	CHEVROLET 44, 45 DAEWOO 75, 77
<b>HBS272</b>	CITROËN 56, 57, 66, 67 FIAT 102 LANCIA 149, 150, 151, 152 PEUGEOT 269, 270, 272, 273, 274 RENAULT 283, 287, 289, 298, 307	<b>HBS301</b>	DACIA 72 RENAULT 284, 285, 294, 296, 301, 303, 307, 308, 309, 312	<b>HBS354</b>	HYUNDAI 131, 132 KIA 143 MITSUBISHI 214, 215, 216, 217, 220	<b>HBS378</b>	HYUNDAI 127, 128 KIA 143
<b>HBS273</b>	CITROËN 61, 63 PEUGEOT 275	<b>HBS302</b>	PEUGEOT 270 RENAULT 305, 306	<b>HBS358</b>	FORD 111, 114, 115	<b>HBS379</b>	HYUNDAI 132 KIA 142
<b>HBS279</b>	CHRYSLER 46, 47	<b>HBS303</b>	VOLVO 393, 394, 395, 397, 398, 399, 402	<b>HBS359</b>	CITROËN 52, 54, 55, 56, 67, 68 FORD 109, 111, 112, 113 MAZDA 166 MINI 210 PEUGEOT 260, 262, 263, 265, 269, 274 SUZUKI 348 TOYOTA 352 VOLVO 394, 395, 399, 401, 402	<b>HBS381</b>	HYUNDAI 132 KIA 142, 144
<b>HBS280</b>	CHRYSLER 48 JEEP 140	<b>HBS305</b>	LAND ROVER 154 ROVER 316, 317	<b>HBS360</b>	SEAT 328, 331	<b>HBS382</b>	HYUNDAI 128, 129, 131, 132 KIA 142, 145
<b>HBS281</b>	HONDA 124, 125	<b>HBS306</b>	TOYOTA 354, 356, 359, 360	<b>HBS361</b>	AUDI 19, 22, 23, 24, 25 SKODA 341 VW 425, 430	<b>HBS385</b>	TOYOTA 351, 352, 353, 354, 355, 359, 360
<b>HBS282</b>	HONDA 124, 125 LAND ROVER 154 MG 208 ROVER 314, 316, 317, 318	<b>HBS307</b>	HYUNDAI 131 MITSUBISHI 213, 214, 215, 216, 217, 218, 219, 220	<b>HBS362</b>	SEAT 328, 330, 331 VW 421, 426	<b>HBS386</b>	TOYOTA 351, 357, 358 VW 430
<b>HBS283</b>	NISSAN 225 RENAULT 284, 295, 303, 309, 312	<b>HBS308</b>	HYUNDAI 127, 128, 129, 130, 132 SKODA 338	<b>HBS363</b>	AUDI 16, 18 SEAT 326, 334, 336 SKODA 340 VW 414, 417, 419, 424, 431	<b>HBS387</b>	HYUNDAI 127, 128, 129, 130
<b>HBS284</b>	HONDA 124, 125 ROVER 316, 317	<b>HBS309</b>	CITROËN 57 PEUGEOT 269, 270, 272, 274	<b>HBS364</b>	AUDI 16, 18, 20, 21 MITSUBISHI 215 SEAT 327, 334, 336 SKODA 340 VW 417, 418, 419, 425, 431	<b>HBS391</b>	CHRYSLER 46, 47
<b>HBS285</b>	CHEVROLET 44, 45 DAEWOO 74, 75, 76, 77	<b>HBS310</b>	NISSAN 229 OPEL 255 RENAULT 283, 286, 288, 295, 297, 301, 302, 308, 311, 312 VAUXHALL 382	<b>HBS366</b>	MAN 164	<b>HBS392</b>	FORD 109, 116
<b>HBS286</b>	ISUZU 134 OPEL 241 VAUXHALL 370	<b>HBS311</b>	AUDI 15 VW 421	<b>HBS367</b>	MAN 164	<b>HBS394</b>	TOYOTA 351, 353, 358
<b>HBS287</b>	ISUZU 134 OPEL 241, 245, 247 VAUXHALL 375	<b>HBS312</b>	DAIHATSU 78 TOYOTA 361	<b>HBS368</b>	FORD 113	<b>HBS397</b>	TOYOTA 351
<b>HBS288</b>	FORD 118 MAZDA 169, 170	<b>HBS313</b>	TOYOTA 360, 361	<b>HBS369</b>	FORD 112, 113, 115, 121 MAZDA 166, 167, 170 VOLVO 396, 401	<b>HBS402</b>	CHRYSLER 46 HYUNDAI 128, 131 MITSUBISHI 212, 218
<b>HBS289</b>	MAZDA 169, 171	<b>HBS314</b>	TOYOTA 352, 355, 359, 360	<b>HBS370</b>	ALFA ROMEO 3, 5, 7 FIAT 84, 85, 98 OPEL 239, 250, 253, 256 SAAB 320 VAUXHALL 367, 379, 381, 383	<b>HBS403</b>	MITSUBISHI 215
<b>HBS291</b>	MERCEDES-BENZ 175, 190	<b>HBS315</b>	TOYOTA 356, 357, 358	<b>HBS371</b>	ALFA ROMEO 5, 6, 7 FIAT 85 LANCIA 152	<b>HBS404</b>	NISSAN 222, 225, 226, 227, 228, 232
<b>HBS292</b>	CHRYSLER 47 MERCEDES-BENZ 177, 179, 180, 188, 190, 191	<b>HBS316</b>	AUDI 15 SEAT 333, 335 VW 412, 416, 421, 428	<b>HBS405</b>	SUBARU 344, 345, 346	<b>HBS406</b>	KIA 143, 144 MAZDA 167, 168, 170, 171
<b>HBS293</b>	JEEP 141 MERCEDES-BENZ 177, 178, 179, 182, 184, 185, 189	<b>HBS349</b>	SMART 342	<b>HBS408</b>	SUZUKI 348	<b>HBS408</b>	SUZUKI 348
<b>HBS294</b>	MERCEDES-BENZ 183, 186			<b>HBS409</b>	NISSAN 231, 232	<b>HBS413</b>	BMW 32, 33, 34, 35, 36, 38, 39, 40, 41, 42, 43
<b>HBS295</b>	HYUNDAI 128, 129, 130, 131, 132 MITSUBISHI 213, 215, 216, 217, 218			<b>HBS415</b>	FORD 117	<b>HBS416</b>	ALFA ROMEO 6 FIAT 85 OPEL 240, 250, 251, 253, 254, 256 SAAB 320 VAUXHALL 368, 380, 381, 382, 383
<b>HBS296</b>	FORD 116, 121			<b>HBS417</b>	OPEL 249, 250 VAUXHALL 371, 379	<b>HBS419</b>	OPEL 247 VAUXHALL 376

  		  		  		  	
<b>HBS420</b> MAZDA	168	<b>HBS471</b> SEAT	328, 330				
<b>HBS421</b> MITSUBISHI	214, 217, 219, 220	SKODA	338, 340				
<b>HBS422</b> NISSAN	222, 223, 229	VW	426				
<b>HBS423</b> KIA	142	<b>HBS472</b> MAN	162, 163				
LAND ROVER	154	<b>HBS473</b> MAN	162, 163				
MG	208	<b>HBS474</b> CHRYSLER	46				
ROVER	314, 317	JEEP	141				
<b>HBS425</b> TOYOTA	351, 356, 357, 358, 360	MERCEDES-BENZ	178, 179, 183, 184, 185, 186, 189, 191				
<b>HBS426</b> VOLVO	394, 400, 403	<b>HBS475</b> MERCEDES-BENZ COMMERCIAL	205				
<b>HBS427</b> VOLVO COMMERCIAL	406	<b>HBS476</b> AUDI	18, 26				
<b>HBS431</b> RENAULT	298, 303	<b>HBS477</b> MITSUBISHI	213, 216, 219				
<b>HBS432</b> FORD	115	<b>HBS478</b> KIA	142, 143, 144				
NISSAN	227, 228, 232	<b>HBS479</b> SEAT	330				
<b>HBS433</b> NISSAN	227	SKODA	338				
<b>HBS434</b> HYUNDAI	129	VW	415, 426				
KIA	144	<b>HBS480</b> VOLVO COMMERCIAL	406				
<b>HBS435</b> KIA	144	<b>HBS481</b> VOLVO COMMERCIAL	406				
<b>HBS436</b> KIA	144	<b>HBS482</b> VOLVO COMMERCIAL	406				
<b>HBS438</b> JEEP	140, 141	<b>HBS483</b> HYUNDAI	127, 129, 130				
<b>HBS439</b> JEEP	141	KIA	142, 144				
<b>HBS440</b> HYUNDAI	128, 129, 130	<b>HBS484</b> LAND ROVER	154				
MITSUBISHI	212, 213, 215, 216	<b>HBS489</b> CITROËN	55				
<b>HBS441</b> DAIHATSU	78	<b>HBS490</b> TOYOTA	351, 354, 358, 361				
TOYOTA	351, 352, 353, 356, 360	<b>HBS491</b> MITSUBISHI	218, 220				
<b>HBS443</b> NISSAN	227	<b>HBS492</b> NISSAN	227				
<b>HBS446</b> HYUNDAI	128, 131, 132, 133	<b>HBS494</b> MAZDA	167, 170				
KIA	143	<b>HBS495</b> NISSAN	222, 223, 232				
<b>HBS447</b> SUZUKI	348, 349	<b>HBS496</b> CHRYSLER	46, 47				
<b>HBS450</b> TOYOTA	361	MINI	210				
<b>HBS452</b> TOYOTA	359	<b>HBS497</b> FIAT	97				
<b>HBS454</b> HYUNDAI	127, 128, 129, 130, 132	<b>HBS499</b> VW	420				
KIA	142, 143, 144	<b>HBS500</b> TOYOTA	358				
<b>HBS455</b> KIA	143, 145	<b>HBS501</b> TOYOTA	356, 357, 358				
<b>HBS457</b> MERCEDES-BENZ	174, 175, 190	<b>HBS502</b> OPEL	250, 254				
<b>HBS458</b> MERCEDES-BENZ	175	RENAULT	289, 312				
<b>HBS459</b> MERCEDES-BENZ	176, 178, 179, 180, 187	SAAB	321				
<b>HBS460</b> SMART	342	<b>HBS503</b> CHRYSLER	48				
<b>HBS461</b> SEAT	336	<b>HBS504</b> NISSAN	223, 224, 230, 231, 233				
VW	412, 418, 425	<b>HBS505</b> NISSAN	223, 230				
<b>HBS463</b> MERCEDES-BENZ	177, 178, 179, 181, 182, 183, 185, 186, 187, 188, 191, 192	<b>HBS506</b> NISSAN	224, 226				
<b>HBS464</b> IVECO	138	<b>HBS507</b> BMW	34, 42				
<b>HBS465</b> ALFA ROMEO	5	<b>HBS508</b> PEUGEOT	260				
<b>HBS466</b> AUDI	17, 26	TOYOTA	352, 358, 359, 361				
VW	414, 418, 422, 426, 430, 432	<b>HBS509</b> VW	421, 422, 432, 433				
<b>HBS467</b> BMW	29, 30, 31, 40, 43	<b>HBS510</b> AUDI	18, 20				
<b>HBS468</b> BMW	29, 32, 34, 36, 37, 38, 39, 41, 43	VW	424				
<b>HBS470</b> AUDI	23, 24	<b>HBS511</b> MERCEDES-BENZ	178, 179, 180, 183, 185, 186, 187, 188				
		<b>HBS512</b> AUDI	19, 22, 23				
		<b>HBS513</b> VW	412, 418, 422, 425				
		<b>HBS514</b> AUDI	15, 22, 23, 24, 26				

# INTERCHANGE OE → PAYEN

Vergleichsliste OE → Payen • Références croisées 1ère Monte → Payen  
Intercambio OE → Payen

OE reference	▲ Payen	OE reference	▲ Payen	OE reference	▲ Payen	OE reference	▲ Payen	OE reference	▲ Payen
0000160069	HBS458	038103384	HBS300	1105657J00	HBS111	2000021	HBS002	5040815468	HBS464
0004551V000	HBS460	038103384A	HBS311	1105689J00	HBS188	2000574	HBS002	51900200275	HBS473
0029903722	HBS349	03G103384	HBS364	11056-9C601 +		2024152 +		51900200356	HBS473
0039902522	HBS474	049103384B	HBS024	11057-9C601	HBS195	2024153	HBS161	51900200383	HBS472
020441 +		049103384B	HBS043	11056AD200	HBS374	2232002500	HBS378	51900200403 +	
020442	HBS017	049103385	HBS029	11056AR000 (10x)	HBS504	2232122000	HBS387	51900200404	HBS367
020457	HBS038	049103385A	HBS043	11056AX000 (x10)	HBS506	2232123000 +		51904900070 +	
020467	HBS115	057103384A	HBS361	11056D4200	HBS495	2232123010	HBS478	51904900071	HBS366
020468	HBS125	057103384A	HBS470	11056G2401	HBS194	22321-23000 +		5419900501	HBS350
020472	HBS087	058103385A	HBS171	11056G2401	HBS433	22321-23010	HBS308	55110136 +	
020473	HBS088	059103384	HBS265	11056V7200	HBS190	2232123010	HBS377	55110137	HBS379
020474 +		068103384A	HBS018	11057H11500	HBS432	2232127000	HBS382	55192265	HBS353
020475	HBS114	068103384A	HBS021	11082802	HBS002	22321-27000	HBS483	552142160	HBS465
020480	HBS089	068103384A	HBS022	11095AA041	HBS405	22321371	HBS446	5607451	HBS419
020481	HBS254	068103384A	HBS140	11095AA090	HBS218	2232137120	HBS446	5607937	HBS252
020484	HBS082	06A103384C	HBS246	11120621144	HBS070	223214A000	HBS434	5607937	HBS253
020485	HBS113	06A103385A	HBS268	11120621144	HBS071	2232726000	HBS454	5607948 +	
020486	HBS272	06B103385 (x10)	HBS510	11121317979 (x14)	HBS507	2660160269	HBS457	56607949	HBS502
020487 +		06D103385	HBS363	11121718931	HBS041	2710160369	HBS459	5-86206-712-0 +	
020488	HBS273	06D103385D	HBS476	11121721938	HBS068	2720160269 (x16)	HBS511	5-86206-713-0	HBS281
020489	HBS260	06D103385D	HBS476	11121721939	HBS069	3396066	HBS136	5950720 +	
020490	HBS261	06E103385 (x16)	HBS512	11121722021	HBS041	3517947	HBS303	5950738	HBS502
020493	HBS259	06E103385 (x16)	HBS512	11121726	HBS041	4220869	HBS481	6035514 +	
020495	HBS309	0706305500	HBS104	11121726478	HBS041	4229900201 +		6035515 +	
020496	HBS272	078103385A	HBS064	11121729246	HBS067	4229900301 +		6035516	HBS438
020497	HBS084	078103385F	HBS064	11121740065	HBS413	4229900401	HBS226	6039900110 +	
020497	HBS245	078103385K	HBS270	11122243143	HBS065	4404240	HBS373	6039900210 +	
020498	HBS277	0K30C10135A	HBS387	11127511534	HBS468	4411018	HBS386	6039900310	HBS058
0204A2	HBS359	0K30C10135A	HBS435	11127790944	HBS490	4415053	HBS492	6039900110 +	
0204A4	HBS359	0K30E10135A +		11129067790	HBS066	4469751 +		6039900210 +	
0204A5	HBS489	0K30F10135B	HBS436	11129067792	HBS121	4469752	HBS051	6039900310	HBS059
021103384D +		0K95510135	HBS455	1129900212	HBS463	4501060	HBS164	6039900110 +	
021103384E +		0K9BV10135	HBS423	1129900213	HBS463	4579900201	HBS475	6039900210 +	
021103384F	HBS077	1004421	HBS078	114029010 +		46420638	HBS130	6039900310	HBS060
021103384G +		1029900810	HBS146	114029011 +		46430687 +		6039900210 +	
021103384K +		1029900810	HBS150	114029012	HBS173	46430688	HBS051	6039900310	HBS061
021103384L	HBS461	1031001	HBS415	1229267	HBS369	46475573 +		6039900210 +	
022103384C +		1049900012	HBS152	1231928	HBS368	46475574	HBS297	6039900310	HBS062
022103384D	HBS513	1073369	HBS032	1239900412	HBS149	4658407	HBS427	6039900210 +	
022103384L +		1079925 +		13063417	HBS174	46764762	HBS370	6039900310	HBS063
022103384M	HBS466	1079926	HBS243	13177613 +		46764762	HBS371	60572819 +	
024099	HBS125	1089765 +		13262399	HBS175	46764762	HBS371	60572821 +	
027103385	HBS028	1089766	HBS358	13971330	HBS052	4702619	HBS482	60572823	HBS108
027103385A	HBS028	1102674 +		13971330 +		4804881	HBS483	60616867	HBS262
027103385C	HBS028	1102676	HBS296	4467207	HBS098	4828150 +		60665425	HBS262
030103384D	HBS362	1105601M03	HBS467	143204202	HBS160	4854648	HBS011	607208	HBS416
030103384D	HBS479	1105601M03 +		15569569	HBS480	4854648 +		607233 +	
030103384D	HBS479	1105601M04 +		1646403 +		99442951	HBS255	607234	HBS112
032103384	HBS075	1105601M05	HBS409	1646404 +		4F126065AB	HBS392	607237	HBS160
034103385C	HBS269	110561C310 (10x)	HBS505	1646405	HBS015	5001001215 +		607238	HBS160
036103384	HBS360	1105621V02 +		1646404 +		5001001216	HBS011	607238	HBS163
036103384B	HBS249	11056	HBS443	1646405	HBS016	500347039 +		607242	HBS002
036103384B	HBS471	1105631U01	HBS404	1653965	HBS001	500347040	HBS251	607242	HBS285
036103384E	HBS316	1105641B00	HBS110	1653965	HBS006	504081515 +		607248	HBS035
038103384	HBS264	110564M500	HBS422	1663390	HBS031	504081543 +		607254	HBS003
038103384	HBS300	1105653Y00	HBS187	1962292	HBS432	5040815318 +		607256	HBS054

OE reference	▲ Payen	OE reference	▲ Payen	OE reference	▲ Payen	OE reference	▲ Payen	OE reference	▲ Payen
607256	HBS164	7518343	HBS179	90005PT0003 +		96033224	HBS115	N804732S	HBS006
607296	HBS252	75467934 +		90006PT0003	HBS284	96059992	HBS408	N8066838S	HBS006
607296	HBS253	75467935	HBS017	9010509002	HBS197	96059994	HBS087	RF0110135	HBS211
607685	HBS003	7581743	HBS052	90144262	HBS003	96061591	HBS407	RF01-10-135 +	
607685	HBS053	7648250 +		90183135	HBS163	96073848	HBS084	WL01-10-135	HBS288
607686	HBS074	7648251	HBS109	9020111034	HBS441	96136745	HBS125	RF2A-10-135B	HBS289
607923	HBS298	7650612	HBS097	90324060	HBS035	9613674580	HBS115	RF5C10135	HBS494
607933	HBS003	7653650	HBS095	90391046	HBS002	9613674680	HBS088	SE021006142A	HBS044
607939	HBS036	7696197	HBS052	90410526	HBS054	9624116780	HBS089	W703983S430 +	
607941	HBS417	770010744	HBS241	90412701	HBS055	96HM6065AB	HBS078	W703985S430	HBS243
607952	HBS074	7700114745	HBS372	90444862	HBS074	96MM6065AB	HBS078	WAM2293	HBS005
607960	HBS055	7700648719	HBS116	90466480	HBS054	97002474	HBS039	XS7Q6065A2D +	
60807357	HBS092	7700738986 +		90466480	HBS164	97229307 +		XS7Q6065C2C	HBS296
60807621	HBS093	7700738987	HBS102	90466480	HBS164	97229308	HBS502	Z50110135	HBS420
60807621	HBS093	770083008	HBS120	9060160769	HBS351	AEU2078L +			
60807621	HBS093	7700853324	HBS177	9060160769	HBS352	AEU2083L +			
6088344	HBS001	7700855034 +		9091002075	HBS397	AEU2085L	HBS105		
6093964	HBS008	7700855231 +		9091002077	HBS394	AEU2078L +			
6119900322	HBS292	7700855230	HBS010	9091002080 +		AEU2083L +			
6119900322	HBS293	7700855384	HBS244	9091002081	HBS315	AEU2085L	HBS106		
6119900322	HBS294	7700856350	HBS302	9091002088	HBS445	AEU2078L +			
6155563	HBS057	7700872848 +		9091002091	HBS425	AEU2083L +			
6157105	HBS056	7700872849 +		90910-02094	HBS198	AEU2085L	HBS107		
6159900112 +		7700872847 +		9091002096	HBS500	B63010135	HBS406		
6159900212 +		7700872850	HBS119	9091002097 +		B63010135	HBS406		
6159900312	HBS045	7701471366	HBS310	9091002099	HBS042	ERR1939 +			
6159900212	HBS047	7701471373	HBS301	9091002100 +		ETC8810 +			
6159900312 +		7701471779	HBS431	9091002101	HBS306	ETC8808	HBS223		
6159900212 +		7701473178	HBS299	9091002102	HBS450	ERR2943 +			
6159900112	HBS046	7701473543	HBS283	9091002112	HBS209	ERR2944	HBS222		
6166499	HBS032	7701473571	HBS373	9091002120 +		ERR5384	HBS484		
6184406	HBS050	7701474194	HBS502	9091002121	HBS203	ETC8808 +			
62103384	HBS499	7703053075	HBS104	9091002132	HBS452	ETC8809 +			
6503559 +		7710162	HBS092	9091002136 +		ETC8810	HBS224		
6503560	HBS279	77103385 (x20)	HBS514	9091002139	HBS314	F32Z-6065-A	HBS136		
6503561 +		77103385 (x20)	HBS514	9091002137	HBS312	FS01-10-135	HBS136		
6503562	HBS391	7710582	HBS132	9091002141	HBS441	J9010512092	HBS386		
6504033	HBS280	7710582	HBS133	9091002151 (x8)	HBS508	LDN10027	HBS423		
6504060 (x16)	HBS503	7758731	HBS131	9091002152	HBS385	LDN10027L	HBS423		
6505239AA	HBS496	7775920	HBS227	9091010132	HBS200	LDN10028	HBS305		
6505528AA +		7775920	HBS257	90910T2005 +		MD008769	HBS440		
6506785AA	HBS439	7795992	HBS247	90910T2006	HBS501	MD020730	HBS403		
6558046	HBS032	7910248324	HBS127	91174299 +		MD040514	HBS295		
6656422	HBS006	800211190	HBS218	91174357	HBS447	MD040514	HBS307		
6689900122	HBS291	81026800	HBS313	9129909	HBS180	MD065959	HBS402		
67332295	HBS033	81SM6065HA	HBS001	91511857	HBS083	MD164738	HBS215		
6842347	HBS178	844F6065AA	HBS008	928M6065BC	HBS031	MD164738	HBS217		
6842347	HBS185	85HM6065BA	HBS056	928M6065BD	HBS031	MD191470	HBS354		
68423474	HBS426	86TM6065EA	HBS057	94029335 +		MD191474	HBS421		
70103384 (x12)	HBS509	88WM6065CA	HBS032	94029334	HBS286	MD355550	HBS477		
7079275	HBS031	88WM6065CB	HBS032	94320618	HBS036	ME200426 +			
71010135	HBS381	88WM6065CC	HBS032	94455667	HBS287	ME200427 +			
712000740	HBS189	89FF6065AA	HBS007	94580081	HBS377	ME200848	HBS216		
71739374	HBS416	90003P5TG00	HBS282	948103384B	HBS024	ME203051 +			
71741916	HBS497	90005-PAA-A01 +		96003915	HBS082	ME203052	HBS491		
7436842347	HBS426	90006-PAA-A01	HBS281	96005977	HBS038	N804732S	HBS001		



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