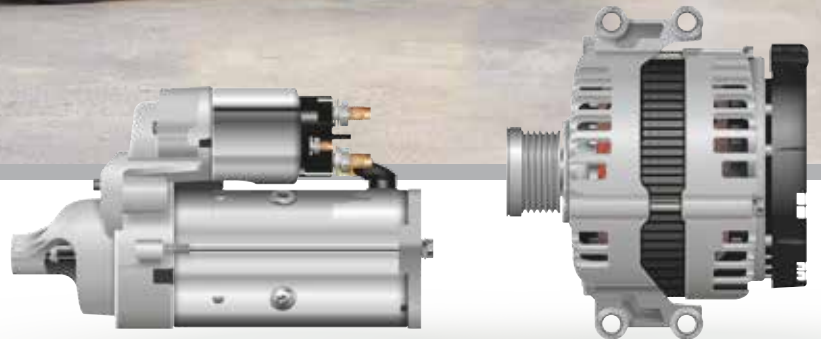


# Forklift

 The Power of WAI

87-715-12

## Starter Motors & Alternators



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WAI, A USA COMPANY

# New Alternators and Starters

## WPS ADVANTAGES - BUILT TOUGH

### ✓ 100% New Components

### ✓ Tested to O.E.M. Specifications

#### ✓ Performance

- ✓ Alternators - Thorough testing of output current at idle and full-load speed
- ✓ Starters - RPM, torque, voltage, output and solenoid performance

#### ✓ Endurance and environmental validation

### ✓ Premium Grade WBD Bearing

- ✓ 3-point triple-lip full contact hybrid polyacrylic seals
- ✓ Kyodo Yushi high-temperature grease

### ✓ Premium Transpo Electronics Manufactured by WAglobal

- ✓ O.E.M. supplier of electronic components
- ✓ Meets and exceeds all O.E.M. specifications
- ✓ First-to-market with late-model products utilizing the latest technology and advance manufacturing practices
- ✓ O.E.M. type diodes utilized on rectifier assemblies to ensure maximum field life
- ✓ Welded diode to rectifier lead frame assembly to enhance performance and field life
- ✓ Utilizing advanced components for the voltage regulators resulting in lowest power (heat) dissipation and extended field life of alternator



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## Bosch



### 12145N

**Alternator - Bosch IR/EF**  
95 Amp/12 Volts, w/o Pulley

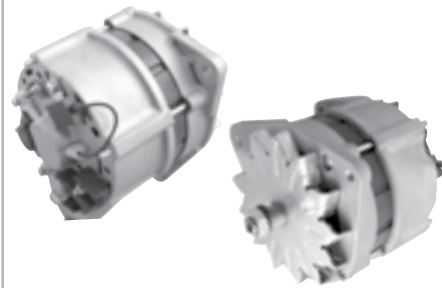
**For:** John Deere w/ John Deere 4045 Eng  
**Replaces:** Bosch 0-120-484-011, -018, -026, -218; 9-120-060-041, F-005-A00-024, John Deere AH137883, AT175194, AT220394, TY6750, TY24485



### 12159N

**Alternator - Bosch IR/EF**  
95 Amp/12 Volts, 2-Groove Pulley

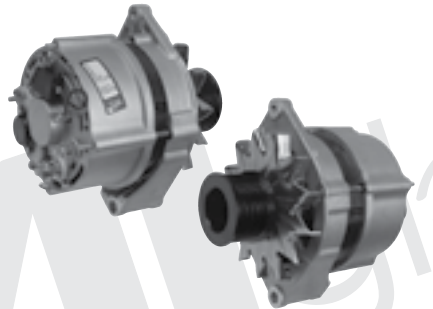
**Used on:** John Deere Industrial / loader  
**Replaces:** Bosch 9-120-060-041, F-005-A00-024; John Deere AT175194, TY24485; New Holland 86546257



### 12164N

**Alternator - Bosch IR/EF**  
55 Amp/12 Volts, CW, w/o Pulley

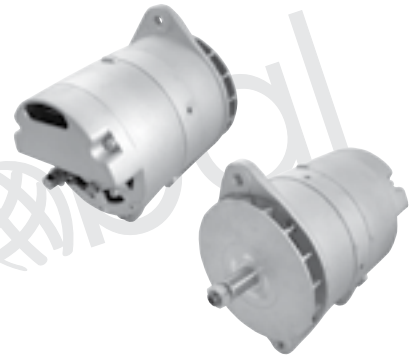
**Used on:** Caterpillar Lift trucks, Perkins Engines  
**Replaces:** Bosch 0-120-488-286; Caterpillar 1008223; Land Rover YLE10088; Perkins 2871C105



### 12161N

**Alternator - Bosch IR/EF**  
65 Amp/12 Volts, CW

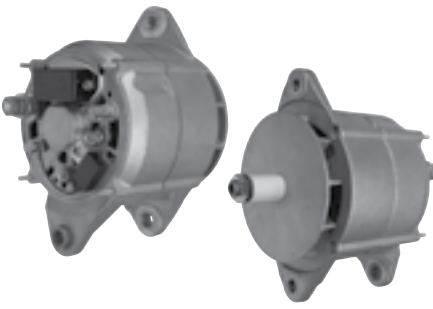
**For:** Case, Genie, JLG w/ Case 4-390, Cummins 4B3.9L Eng  
**Replaces:** Bosch 0-120-488-205, -293; B-120-402-662, Case A-187873



### 12165N

**Alternator - Bosch IR/EF**  
55 Amp/12 Volts, CW, w/o Pulley

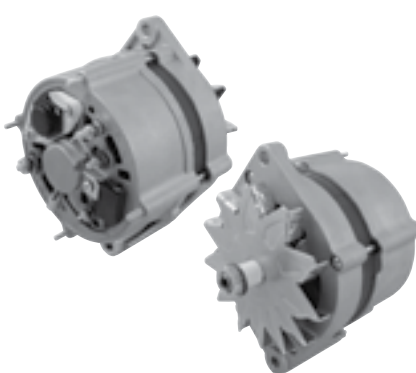
**Used on:** Caterpillar Lift trucks, Perkins Engines  
**Replaces:** Bosch 0-120-488-286; Caterpillar 1008223; Land Rover YLE10088; Perkins 2871C105



### 12162N

**Alternator - Bosch IR/EF**  
135 Amp/12 Volts, CW, W/O Pulley

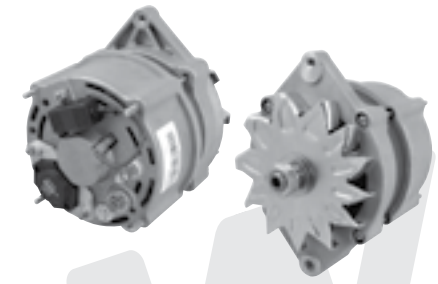
**Used on:** John Deere Loaders, Skidders; New Holland Farm Tractors  
**Replaces:** Bosch 0-120-468-028, -055; Case 125849A1R, 202360T91, 91448C1, 91448C2IHC; John Deere RE36268, TY6773, TY6795; New Holland 86994128  
**Lester No's:** 12131, 12162



### 12167N

**Alternator - Bosch IR/EF**  
55 Amp/24 Volts, w/o Pulley

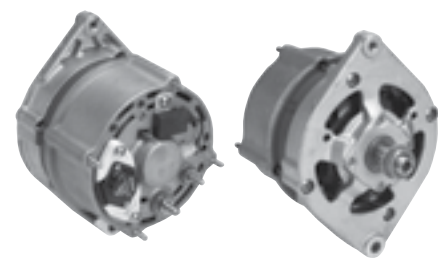
**Used on:** Caterpillar skidder  
**Replaces:** Bosch 0-120-469-569, 0-120-469-643; Scania 1117252, 354858, 357736, 371972, Caterpillar 0R3652, 9W3043, OR3652



### 12147N

**Alternator - Bosch IR/EF**  
45 Amp/24 Volts, w/o pulley

**Used on:** Case Dozer, Excavator, Tractors, Wheel Loaders  
**Replaces:** Bosch 0-120-489-481; Case P941518P; Cummins 3911247, 3604479RX, 3675275NW



### 12148N

**Alternator - Bosch IR/EF**  
45 Amp/24 Volts, w/o pulley or fan

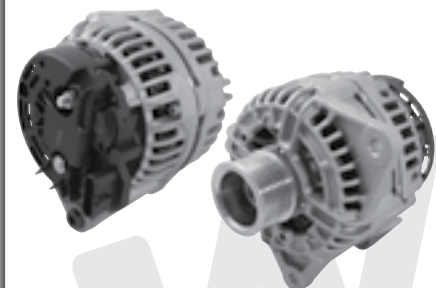
**Used on:** Case Wheel loader, John Deere, Komatsu Industrial Equipment  
**Replaces:** Bosch 0-120-488-206, John Deere AT161324, TY6774, TY24322



### 12445N

**Alternator - Bosch IR/IF**  
70 Amp/12 Volts, CW, 6-Groove Pulley

**Used on:** John Deere Loader  
**Replaces:** Bosch 0-124-315-030, -042; John Deere RE509648



### 12591N

**Alternator - Bosch IR/IF**  
70 Amp/24 Volts, CW, 8-Groove Pulley

**Used on:** CASE Wheel Loader, New Holland Wheel Loader  
**Replaces:** Bosch 0-124-555-005, Iveco 4892318



### 14949N

**Alternator - Bosch IR/EF**  
32 Amp/12 Volt, CW, 1-Groove Pulley

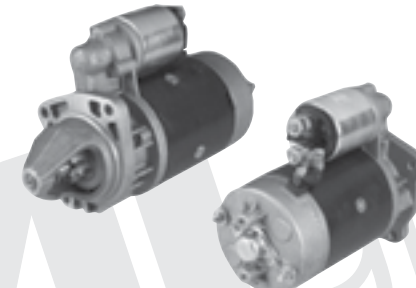
**For:** Linde w/ KHD F3L913G, F4L912, F6L912 Eng  
**Replaces:** Bosch 0-120-339-514, -531, KHD 1171617, 1177481



### 17074N

**Starter - Bosch 367 Series DD**  
3.0KW/12 Volt, CW, 9-Tooth Pinion

**For:** Linde & Others w/ KHD F2L912 Eng  
**Replaces:** Bosch 0-001-354-100, -362-012, -024, -041, -366-011, KHD 1161384, 1162510, 1164414, 1172683



### 17075N

**Starter - Bosch 362 Series DD**  
2.7KW/12 Volt, CW, 9-Tooth Pinion

**For:** Linde & Others w/ KHD F3L913G, F4L912 Eng  
**Replaces:** Bosch 0-001-362-016, -034, -091, -305, -313, KHD 1164668, 1174166, 1175886, 1178026, 117686, Linde 0009710120



### 17093N

**Starter - Bosch 362 Series DD**  
2.7KW/12 Volt, CW, 9-Tooth Pinion

**Used On:** Fiat-Allis Wheel Loader  
**Replaces:** Bosch 0-001-362-032, -039, -332; Marelli 63217101, 63217125, 63217126, MT71AA, AB  
**Lester No's:** 17093, 17126



### 17257N

**Starter - Bosch DD**  
3.0KW/12 Volts, CW, 10-Tooth Pinion

**For:** Genie w/ KHD FL1011F, F4L1011 Eng  
**Replaces:** Bosch 0-001-362-700, KHD 1177441, 1178670



### 17318N

**Starter - Bosch DD**  
2.2KW/12 Volt, CW, 11-Tooth Pinion

**For:** Genie w/ KHD FL1011F, F4L1011 Eng  
**Replaces:** Bosch 0-001-362-700, KHD 1177441, 1178670



### 18026N

**Starter - Bosch DD**  
3.1KW/12 Volt, CW, 9-Tooth Pinion

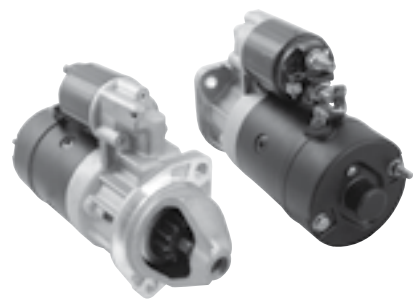
**For:** Linde w/ KHD F3L913G Eng  
**Replaces:** Bosch 0-001-36-014, KHD 1179318, 1179319



### 18230N

**Starter - Bosch PLGR**  
2.2KW/12 Volt, CW, 11-Tooth Pinion

**For:** Genie & Others w/ KHD F4L1011 Eng  
**Replaces:** Bosch 0-001-223-002, 0001109035, Gehl 133557, KHD 1180995, Steinbock 8157761



### 18230N

**Starter - Bosch PLGR**  
2.2KW/12 Volt, CW, 11-Tooth Pinion

**For:** Genie & Others w/ KHD F4L1011 Eng  
**Replaces:** Bosch 0-001-223-002, 0001109035, Gehl 133557, KHD 1180995, Steinbock 8157761



### 18959N

**Starter - Bosch 231 Series PLGR**  
4.0KW/24 Volts, CW, 9-Tooth Pinion

**Used On:** Iveco, New Holland Wheel Loader  
**Replaces:** Bosch 0-001-231-011, Iveco 500325137



### 18030N

**Starter - Bosch 368 Series DD**  
4.0KW/24 Volt, CW, 9-Tooth Pinion

**For:** Fiat OM w/ Fiat 8061 Eng  
**Replaces:** Bosch 0-001-360-043, 0-001-368-019, Fiat 4231018, 4682999, 4701920, 4807378, Magneti Marelli 63216701, 63216727, 63224580



### 18251N

**Starter - Bosch 368 Series DD**  
4.0KW/24 Volt, CW, 10-Tooth Pinion

**For:** Volvo Ag & Industrial Excavators  
**Replaces:** Bosch 0001368085, Caterpillar 109-2361



### 18033N

**Starter - Bosch 368 Series DD**  
4.0KW/24 Volts, CW, 9-Tooth Pinion

**Used On:** Fiat-Allis Crawler, Wheel Loaders w/ 8361 Diesel Engine  
**Replaces:** Bosch 0-001-360-063, 0-001-368-020; Marelli 63216740, 63216741, MT67CA, MT67CB

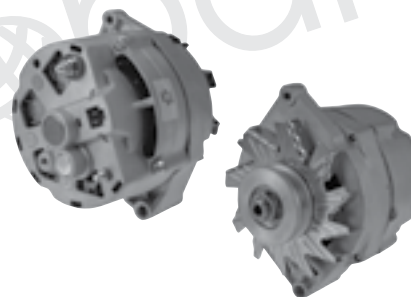


### 18954N

**Starter - Bosch PMGR**  
2.2KW/12 Volts, CW, 9-Tooth Pinion

**Used On:** John Deere Loaders, Skid Steer Loaders, Tractors w/ 4024T, 5030T, 5225, 5325 Engines  
**Replaces:** Bosch 6-004-AA3-014, F-000-AL0-115; John Deere RE508922

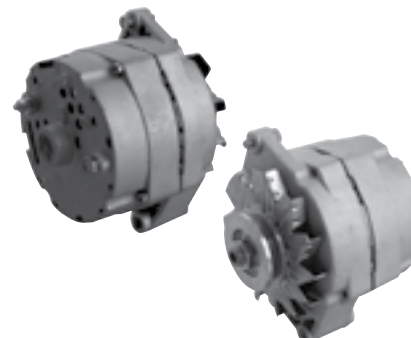
## Delco



### 7122N

**Alternator - Delco 10DN Series**  
63 Amp/12 Volt, CW, 1-Groove Pulley

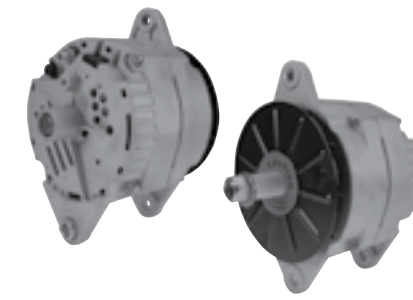
**Replaces:** Baker-Lift Trucks FGD-30 1967-1970, Lift Trucks FGD-55 1967-1970, Lift Trucks FGF-30 1967-1970, Lift Trucks FGF-50 1967-1970, Lift Trucks FGF-60 1967-1970, Lift Trucks FGF-80 1967-1970, Lift Trucks FIA-20 1967-1970, Lift Trucks FIA-30 1967-1970, Lift Trucks FID-30 1967-1970, Lift Trucks FID-55 1967-1970, Lift Trucks FID-60 1967-1970, Lift Trucks FID-80 1967-1970, Lift Trucks FIF-30 1967-1970, Lift Trucks FIF-50 1967-1970, Lift Trucks FIF-60 1967-1970, Lift Trucks FIF-80 1967-1970, Lift Trucks FJA-20 1967-1970, Lift Trucks FJA-30 1967-1970, Lift Trucks FJD-20 1967-1970, Lift Trucks FJD-30 1967-1970, Lift Trucks FJD-55 1967-1970, Lift Trucks FJD-60 1967-1970, Lift Trucks FJD-80 1967-1970, Lift Trucks FJF-20 1965-1970, Lift Trucks FJF-30 1965-1970, Lift Trucks FJF-50 1965-1970, Lift Trucks FJF-60 1967-1970, Lift Trucks FJF-80 1967-1970, Lift Trucks FMD-20 1967-1970, Lift Trucks FMD-30 1967-1970, Lift Trucks FMD-55 1967-1970, Lift Trucks FMD-60 1967-1970, Lift Trucks FMD-80 1967-1970, Lift Trucks FMF-20 1967-1970, Lift Trucks FMF-30 1967-1970, Lift Trucks FMF-50 1967-1970, Lift Trucks FMF-60 1967-1970, Lift Trucks FMF-80 1967-1970



### 7127-12N

**Alternator - Delco 10SI Series**  
63 Amp/12 Volt, CW, 1-Groove Pulley

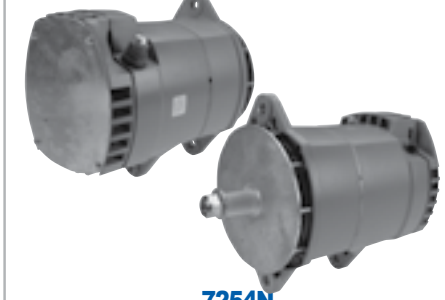
**For:** Allis Chalmers, Caterpillar, Clark, Hyster, White, Etc. w/ Continental, Perkins, Waukesha, Etc. Eng  
**Replaces:** Caterpillar 110578, 1100588, 110588, 1105067, 1105195, Yale 5800018 48



### 7138N

**Alternator - Delco 27SI/200 Series**  
80 Amp/12 Volt, Neg. Grd., w/o pulley

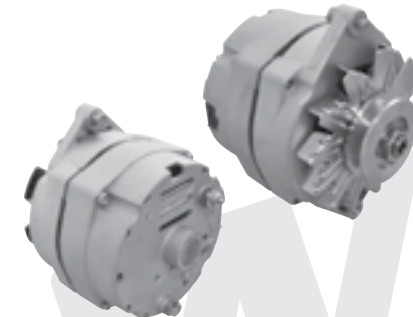
**For:** Hyster, Allis Chalmers Ag & Industrial Power Units  
**Replaces:** Hyster-Lift Trucks H-700 Cummins V-903 1972-1977, Lift Trucks H-800A Cummins V-903 1972-1977



### 7254N

**Alternator - Delco 25SI Series**  
50 Amp/24 Volts, Neg. Grd., w/o pulley

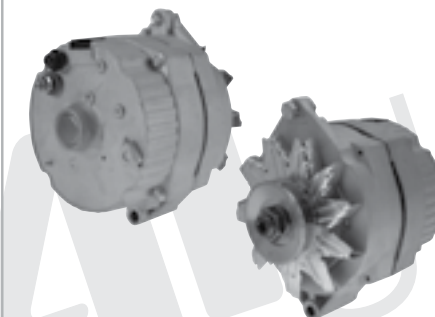
**Used on:** Allis-Chalmers, Case, Caterpillar, Clark, Cummins Engine, Dresser Loaders, Euclid, Fiat-Allis, Murphy Diesel, Terex, Waukesha  
**Replaces:** Caterpillar 9G9538, Cummins 3603848RX; Delco 1117226, 1117236, 1117239, 1117248, 1117250, 1117253, 1117258, 10459006



### 7127-SEN

**Alternator - Delco 10SI Series**  
63 Amp/12 Volts, CW, 1-Groove Pulley, 1-Wire System

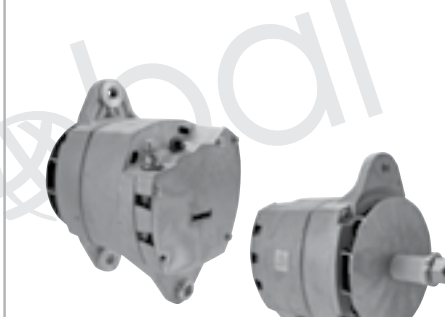
**Used on:** Industrial Applications Self exciting, 1-wire hookup  
**Note:** Regulator set point voltage 14.2V



### 7164N

**Alternator - Delco 10SI/102 Series**  
22 Amp/12 Volt, 1-Groove Pulley, 1-Wire System

**For:** Allis Chalmers, Caterpillar, Clark, Hyster, White, Etc. w/ Continental, Perkins, Waukesha, Etc. Eng  
**Replaces:** Caterpillar 351940, Delco 1100499, 1103190, 1105071, 1105076



### 7266N

**Alternator - Delco 20SI Series**  
60 Amp/12 Volt, Neg. Grd., w/o pulley

**For:** Caterpillar w/ Caterpillar 3208 Eng  
**Replaces:** Caterpillar 7G7889, Delco 1117641, 10459020



### 7127-SEN-100A1G

**Alternator - Delco 10SI Series**  
100 Amp/12 Volts, CW, 1-Groove Pulley, 1-Wire System

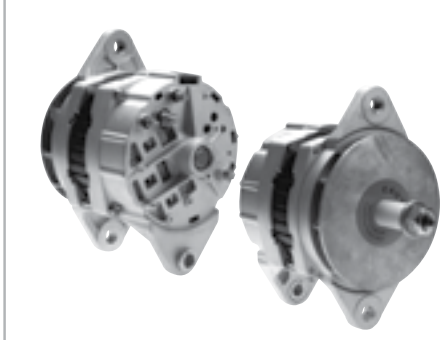
**Replaces:** Ref. No. 17295  
**Note:** 1-Groove Pulley, 3/8 belt, 2.75 OD  
Self exciting, 1-wire hookup



### 7186-3N

**Alternator - Delco 10SI/116 Series**  
72 Amp/12 Volt, 1-Groove Pulley

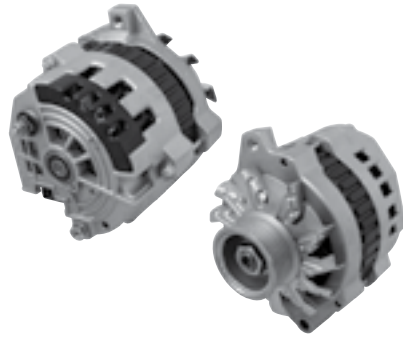
**For:** Allis Chalmers, Caterpillar, Clark, Etc. w/ Continental, Perkins, Waukesha, Etc. Eng  
**Replaces:** Delco 110582, 1100583, 1102363, John Deere AR54793, AR54796, AR56728, TY6772



### 7644N

**Alternator - Delco 21SI Series**  
145-160 Amp/12 Volt, 1-Wire System, Neg. Grd

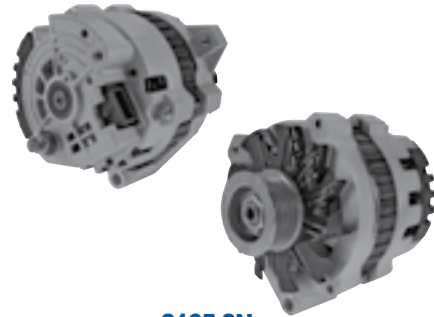
**For:** Caterpillar, Clark, Hyster w/ Caterpillar, Cummins, Detroit Eng  
**Replaces:** Cummins 3918558, Delco 1117880, 1117953, 19010100



**7801-7N**

**Alternator - Delco CS130 Series**  
100-105 Amp/12 Volt, CW, 6-Groove Pulley,  
07:00 Plug Clock

**For:** Caterpillar w/ Caterpillar, Hercules, Perkins Eng  
**Replaces:** Caterpillar 8C-5510, Delco 1101291,  
10463109



**8165-3N**

**Alternator - Delco CS130 Series**  
100-105 Amp/12 Volt, CW, 6-Groove Pulley,  
03:00 Plug Clock

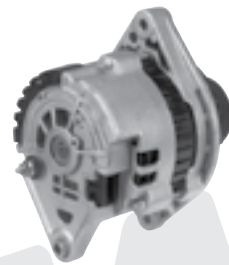
**For:** Hyster w/ GM 2.2L Eng  
**Replaces:** Delco 10480028, 10480084, 10480094,  
10480104, Hyster1339174, 3068339



**8468N**

**Alternator - Delco 7SI Series**  
70 Amp/12 Volt, CW, 2-Groove Pulley

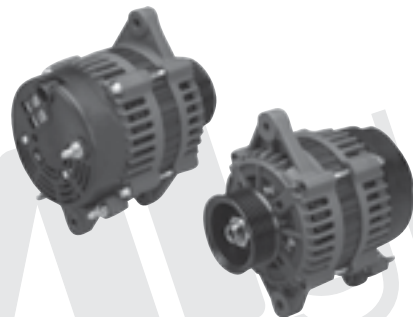
**For:** Hyster w/ GM 3.0L Eng  
**Replaces:** Delco 19020614, Hyster 1469599, Yale  
5800268 28



**7929N**

**Alternator - Delco CS121 Series**  
70 Amp/12 Volt, CW, 5-Groove Pulley

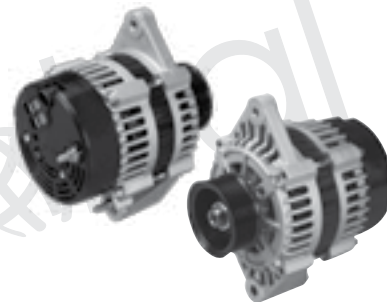
**For:** Daewoo w/ Daewoo DB33 Eng  
**Replaces:** Daewoo 219214, D167411, Delco  
1101517



**8460N**

**Alternator - Delco 7SI Series**  
70 Amp/12 Volt, CW, 6-Groove Pulley

**For:** Hyster, Yale w/ GM 2.4L Eng  
**Replaces:** Daewoo 219232, Delco19020601,  
19020609, Hyster 1534017, Yale 5800396 72



**8469N**

**Alternator - Delco 7SI Series**  
70 Amp/12 Volt

**For:** Hyster w/ GM 4.3L Eng  
**Replaces:** Delco 19020615, Hyster 1469597, Yale  
5800268 29



**8003N**

**Alternator - Delco 21SI Series**  
70 Amp/24 Volt, 1-Wire System, Neg. Grd.

**For:** Caterpillar, Clark, Hyster w/ Caterpillar,  
Cummins, Detroit Eng  
**Replaces:** Delco 1117900, 19010111, 19010182,  
19010195



**8463N**

**Alternator - Delco 7SI Series**  
70 Amp/12 Volt, CW, 2-Groove Pulley

**For:** Hyster w/ Perkins Eng  
**Replaces:** Delco 19020616, Hyster 1469598



**3745N**

**Starter - Delco 40MT Series**  
24 Volt, CW, 11-Tooth Pinion

**For:** Clark, Hyster w/ Caterpillar, Cummins Eng  
**Replaces:** Cummins 173007, Delco 1114727,  
1114781  
**Note:** 42MT version - 6370N



**3974N**

**Starter - Delco 40MT Series**  
12 Volt, CW, 11-Tooth Pinion

**For:** Clark, Hyster w/ Caterpillar, Cummins Eng.  
**Replaces:** Delco 1114899, 1114961  
**Note:** 42MT version - 6356N



**4398N**

**Starter - Delco DD**  
12 Volt, CW, 10-Tooth Pinion  
Oil Sealed

**For:** Hyster Industrial Lift Trucks  
**Replaces:** Hyster 136125, 3001265R, 3004684R,  
1107582



**6360N**

**Starter - Delco 42MT Series**  
24 Volts, CW, 12-Tooth Pinion

**Used on:** Case Crawler Tractors, Wheel Loaders,  
Caterpillar Compactors, Engines, Industrial,  
Excavators, Forestry Loaders, Pipelayers, Scrapers,  
Track Tractors, Wheel Loaders, Wheel Skidders,  
Wheel Tractor, Caterpillar Engines - Marine 3208  
8cyl, 3304 4cyl, 3306 6cyl., Fiat-Allis Crawlers,  
Graders, Wheel Loaders, Timberjack Feller Bunchers  
**Replaces:** Caterpillar 2S0900, 4N3182, 4N7905,  
9M1662; Delco 1990357, 359, 433, 453, 457, 497;  
1993797, 804, 809, 814, 833, 929; Delco Reman.  
10461025



**4162N**

**Starter - Delco SD300 (10MT) Series**  
12 Volt, CW, 9-Tooth Pinion

**Replaces:** TowMotor-Lift Trucks Model 850 IHC UV-  
266 1963-1964, Lift Trucks Model 850 IHC UV-304 1963-  
1964, Lift Trucks Model 950 IHC UV-266 1963-1964, Lift  
Trucks Model 950 IHC UV-304 1963-1964



**4525N**

**Starter - Delco SD300 (10MT) Series**  
12 Volt, CW, 10-Tooth Pinion

**For:** Hyster w/ GM 4-153 (2.5L), 4-181 (3.0 L), 6-250  
(4.1L) Eng  
**Replaces:** Delco 1108443, 1108493, 1109418,  
1109439, 1998576  
Hyster 191848, 353221, 1383779



**6370N**

**Starter - Delco 42MT Series**  
24 Volt, CW, 11-Tooth Pinion

**For:** Clark, Hyster & Others w/ Caterpillar & Cummins  
Eng  
**Replaces:** Caterpillar 106-8553, 106-8554, 8C-3545,  
Cummins 135161, 3021036, 4078515, Delco 1990344,  
1990378, 1990418



**4234N**

**Starter - Delco SD300 (10MT) Series**  
12 Volt, CW, 9-Tooth Pinion

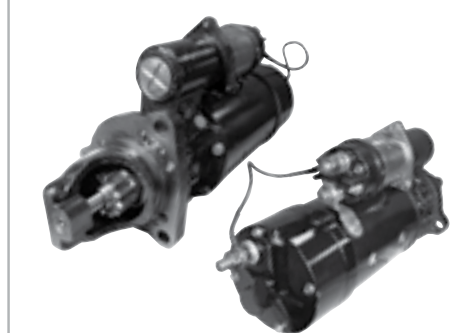
**For:** Clark Lift Trucks, Minneapolis Moline, TCM, White  
Lift Trucks  
**Replaces:** Clark 2355693R, 2377360R



**6356N**

**Starter - Delco 42MT Series**  
12 Volt, CW, 11-Tooth Pinion

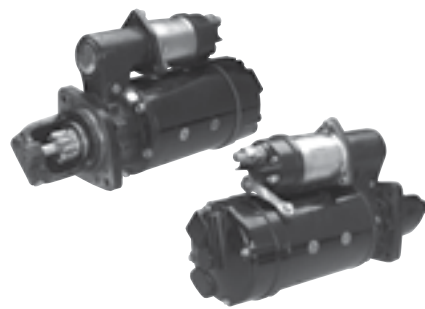
**For:** Caterpillar w/ Caterpillar 3208 Eng  
**Replaces:** Cummins 185617, 3910645, Delco  
1990353, 1990356, 1990385, 1990403, 1993783



**6371N**

**Starter - Delco 42MT Series**  
12 Volt, CW, 12-Tooth Pinion

**For:** Caterpillar w/ Caterpillar 3208 Eng  
**Replaces:** Cummins 185617, 3910645, Delco  
1990353, 1990356, 1990385, 1990403, 1993783



**6382N-PT**

**Starter - Delco 37MT Series**  
12 Volt, CW, 10-Tooth Pinion

**Replaces:** Clark-Lift Trucks C500-160 / 180 Perkins 6-354 Diesel 1986-1987, Lift Trucks C500-200 Perkins 6-354 Diesel 1986-1987, Lift Trucks C500-220 / 225 Perkins 6-354 Diesel 1986-1987, Lift Trucks C500-250 / 300 Perkins 6-354 Diesel 1986-1987



**6410N-PT**

**Starter - Delco 37MT Series**  
12 Volt, CW, 10-Tooth Pinion

**For:** Clark, Lift King & Others w/ Perkins Eng  
**Replaces:** Delco 1990309, 1993705, 1993769



**6415N**

**Starter - Delco SD260 Series**  
12 Volt, CW, 9-Tooth Pinion

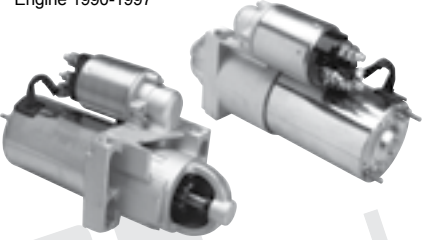
**For:** Hyster w/ GM 4-2.2L Eng  
**Replaces:** Delco 10455010, 10455025, 10455053, 10465098, Hyster 1362081, Isuzu 8-10455-025-0, -053-0



**6418N**

**Starter - Delco SD260 Series**  
12 Volt, CW, 9-Tooth Pinion

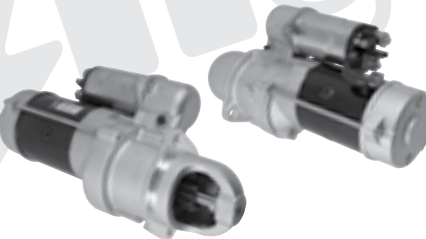
**Replaces:** Hyster-Lift Trucks H-40XL GM 3.0L Engine 1990-1997, Lift Trucks H-60XL GM 3.0L Engine 1990-1997, Lift Trucks H100XL GM 3.0L Engine 1990-1997, Lift Trucks H110XL GM 3.0L Engine 1990-1997, Lift Trucks H130XL GM 3.0L Engine 1990-1997, Lift Trucks S-40XL GM 3.0L Engine 1990-1997



**6562N**

**Starter - Delco PG260L Series**  
12 Volt, CW, 11-Tooth Pinion

**For:** Caterpillar, Clark, Daewoo w/ GM V6-4.3L Eng  
**Replaces:** Delco 9000885, Hyster 1469604



**6570N**

**Starter - Delco 28MT Series**  
12 Volt, CW, 10-Tooth Pinion

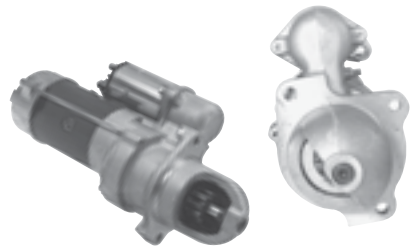
**For:** John Deere w/ John Deere 4-239, 4039 Eng  
**Replaces:** Delco 1113271, John Deere RE49033, RE 50095, RE60854



**6571N**

**Starter - Delco 28MT Series**  
12 Volt, CW, 12-Tooth Pinion

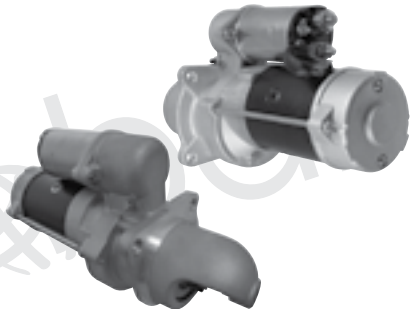
**For:** Hyster, Lister-Petter, Perkins, Bobcat OPE & Industrial Skid Steer Loaders  
**Replaces:** Hyster-Lift Trucks H-110E-160 Chev. L6-250 1985



**6572N**

**Starter - Delco 28MT Series**  
12 Volt, CW, 10-Tooth Pinion

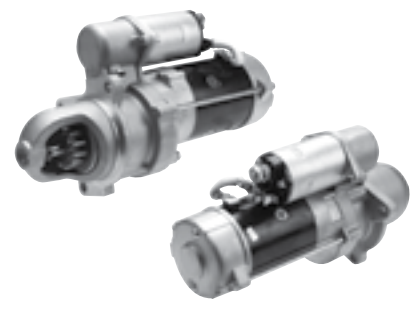
**For:** Allis Chalmers, White w/ Perkins 4-203, 4-236 Eng  
**Replaces:** Clark 2743536, Delco 1113274



**6573N**

**Starter - Delco 28MT Series**  
12 Volt, CW, 10-Tooth Pinion

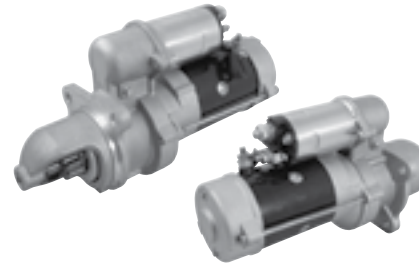
**For:** Hyster, Lift King & Others w/ Cummins 4BT-3.9, 6BT-5.9 Eng  
**Replaces:** Cummins 3916854, ST9039, Delco 1113276, 10479621



**6575N**

**Starter - Delco 28MT Series**  
12 Volt, CW, 12-Tooth Pinion

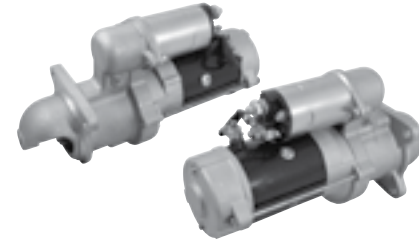
**For:** Clark, Cummins 3.9L, Perkins  
**Replaces:** Bobcat-Skid Steer Loaders 980 Cummins 4BT3.9L Dsl 1989-1993, Clark-Skid Steer Loaders 980 Cummins 3.9L 1989-1993



**6576N**

**Starter - Delco 28MT Series**  
12 Volt, CW, 10-Tooth Pinion

**For:** Caterpillar, Hyster w/ Various Eng  
**Replaces:** Delco 1113281, 1113282



**6581N**

**Starter - Delco 28MT Series**  
12 Volt, CW, 10-Tooth Pinion

**For:** Clark w/ Perkins 4-236 Eng  
**Replaces:** Clark 2743535, Delco 1113288



**6582N**

**Starter - Delco 28MT Series**  
24 Volt, CW, 10-Tooth Pinion, Oil Sealed

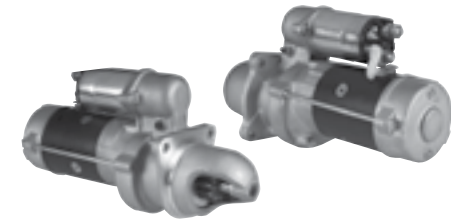
**For:** Hyster, Lift King & Others w/ Cummins 4BT-3.9, 6BT-5.9 Eng  
**Replaces:** Cummins 3918377, 3926932, ST9042, Delco 1113277



**6583N**

**Starter - Delco 28MT Series**  
12 Volt, CW, 10-Tooth Pinion Oil Sealed

**For:** Consolidated Diesel, Cummins 3.9L, 5.9L  
**Replaces:** Delco 1113276, 1113292



**6584N**

**Starter - Delco 28MT Series**  
12 Volt, CW, 10-Tooth Pinion

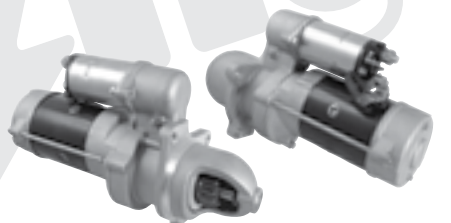
**For:** Hyster w/ Perkins 1006-6 Eng  
**Replaces:** Delco 1113275, 1113278, Hyster 313394, 1313394



**6585N**

**Starter - Delco 28MT Series**  
12 Volt, CW, 10-Tooth Pinion

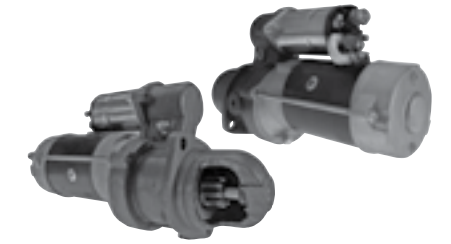
**For:** Clark Skid Steer Loader



**6588N**

**Starter - Delco 28MT Series**  
12 Volt, CW, 10-Tooth Pinion

**For:** Hyster w/ Perkins 3-152, 6-354 Eng  
**Replaces:** Delco 1113290



**6601N**

**Starter - Delco 28MT Series**  
12 Volt, CW, 10-Tooth Pinion

**Replaces:** John Deere-Lift Trucks 482C 1987, Skid Steer Loaders 8875 J. Deere 61HP Turbo Dsl 1994-1998



**6788N**

**Starter - Delco PG260L Series**  
12 Volts, CW, 11-Tooth Pinion

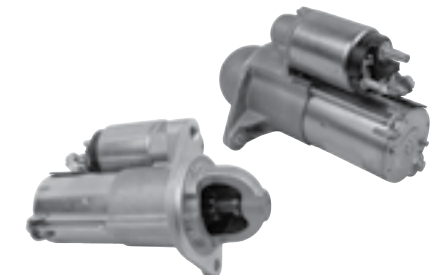
**Used on:** Hyster Lift Trucks  
**Replaces:** Clark 930707, 2817056; Delco 9000820, 822, 850, 895; 12301334; Hyster 1457047, 1486530; 1469603, 1650426, Mercury Marine 50-812429A2; 50-806965A2, A4; 50-806963A2, A4; OMC 988217, 3850526, 3854750, 3855882, 3856003, 3858463; Volvo-Penta 3854750-1, 3856003-3; Yale 5800022-10, 5800197-25  
**Lester No's:** 6561, 6563, 6788, 6789

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**6950N**

**Starter - Delco 28MT Series**  
12 Volts, CW, 10-Tooth Pinion

**Used on:** Oshkosh, New Holland Skid Steer Loader  
**Replaces:** Delco 10479604, New Holland 9800887  
Note: Dry clutch, 3-terminal solenoid, 32mm pinion OD.

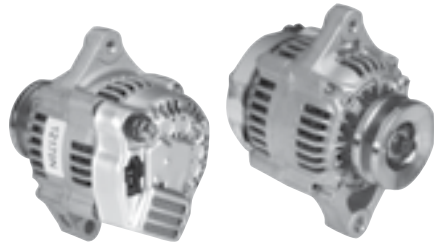


**6984N**

**Starter - Delco PG260D Series**  
12 Volt, CW, 9-Tooth Pinion

**For:** Hyster-Lift Truck H40FT 2005 - 2009 2.4L GM Gas, Lift Truck H50FT 2005 - 2009 2.4L GM Gas, Lift Truck H60FT 2005 - 2009 2.4L GM Gas, Lift Truck H70FT 2005 - 2009 2.4L GM Gas

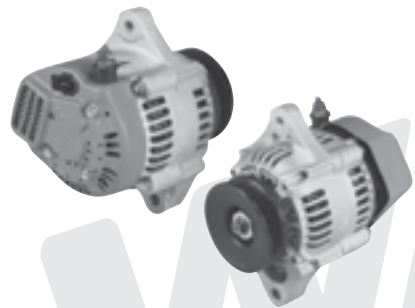
## Denso



### 12179N

**Alternator - Denso IR/IF**  
40 Amp/12 Volts, 1-Groove Pulley

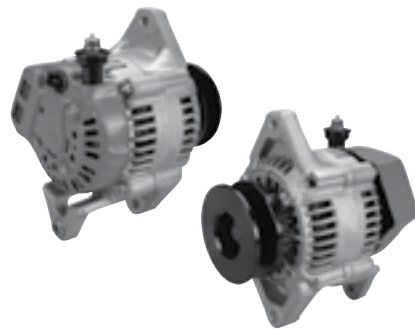
**Used on:** Case Uni-Loader, Kubota Excavators  
**Replaces:** Denso 100211-167; Kubota 16231-24011, 16241-64010, 16241-64011, 16241-64012



### 12180N

**Alternator - Denso IR/IF**  
35 Amp/12 Volt, CW, 1-Groove Pulley

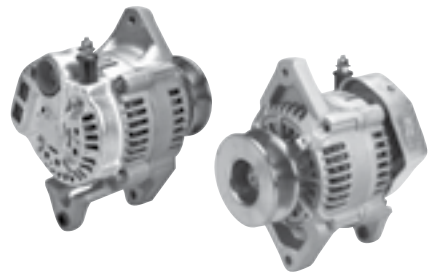
**For:** Toyota Lift Trucks 4P, 4Y, V1502 Engines  
**Replaces:** Denso 100211-1660, -1661, -1662, Toyota 27060-78001-71



### 12182N

**Alternator - Denso IR/IF**  
40 Amp/12 Volt, 1-Groove Pulley

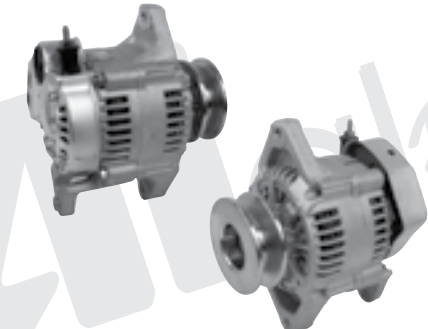
**For:** Toyota Lift Truck w/ 1Z, 2J, 3F Engines  
**Replaces:** Denso 100211-4000, -4001, -4003, -4004, Toyota 27060-78301-71



### 12184N

**Alternator - Denso IR/IF**  
55 Amp/12 Volt, 1-Groove Pulley

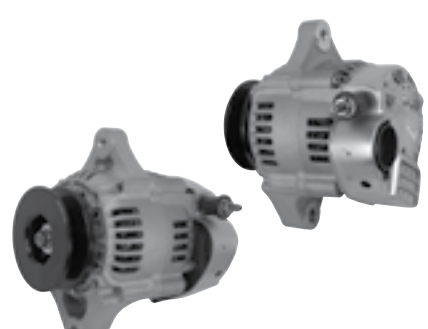
**For:** Toyota Lift Trucks w/ 1DZ, 1Z, 2DZ, 3F, 11Z Engines  
**Replaces:** Denso 100211-6930, -6931, -6960, -6970, Toyota 27060-78305-71, 27070-23001-71, 27070-23041-71



### 12185N

**Alternator - Denso IR/IF**  
50 Amp/12 Volt, 1-Groove Pulley

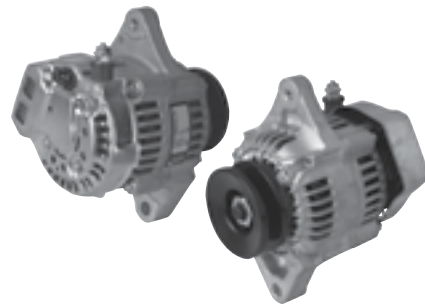
**For:** Toyota Lift Trucks  
**Replaces:** Denso 100211-697; Toyota 27070-23001-71



### 12187N

**Alternator - Denso IR/IF**  
35 Amp/12 Volt, CW, 1-Groove Pulley

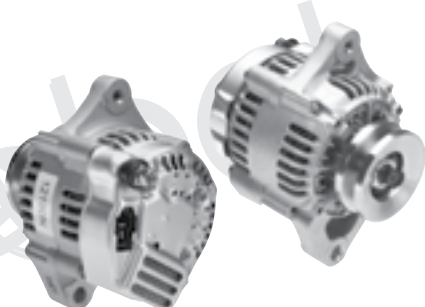
**For:** Toyota Lift Trucks 4P, 4Y, 5K, V1512 Engines  
**Replaces:** Denso 100211-4540, Toyota 27060-78003-71



### 12188N

**Alternator - Denso IR/IF**  
40 Amp/12 Volts, CW, 1-Groove Pulley

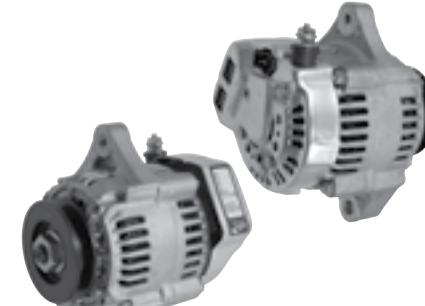
**Used on:** John Deere, Skid Steer Loaders,  
**Replaces:** Denso 100211-453, John Deere AM877740, Yanmar 119620-77201, 119620-77202  
**Note:** 1/2 in. belt pulley



### 12190N

**Alternator - Denso IR/IF**  
30 Amp/12 Volt, CW, 1-Groove Pulley

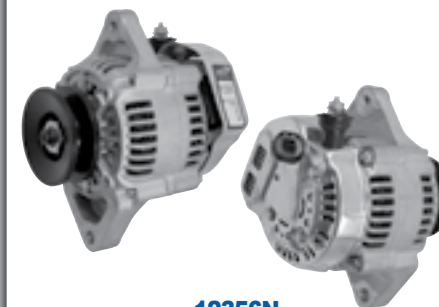
**For:** Genie w/ Kubota D950B, WG750 Eng  
**Replaces:** Denso 100211-450, Kubota 16231-64010, -64011, -64012



### 12196N

**Alternator - Denso IR/IF**  
45 Amp/12 Volts, 1-Groove Pulley

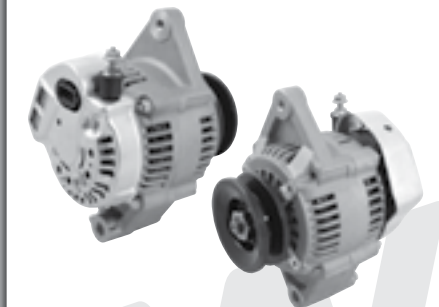
**Used on:** Gehl, Kubota Loaders, Skid Steers  
**Replaces:** Denso 100211-688; Kubota 16771-64010, -64012  
**Note:** 1V/69mm OD Pulley, 15mm ID.



### 12356N

**Alternator - Denso IR/IF**  
40 Amp/12 Volts, CW, 1-Groove Pulley

**Used on:** John Deere 4000 Series Tractors loader w/ Yanmar Diesel Engines  
**Replaces:** Denso 101211-117; Yanmar 129423-77200; John Deere AM879908, LVA12357, TY25243



### 12357N

**Alternator - Denso IR/IF**  
50 Amp/12 Volt, 1-Groove Pulley

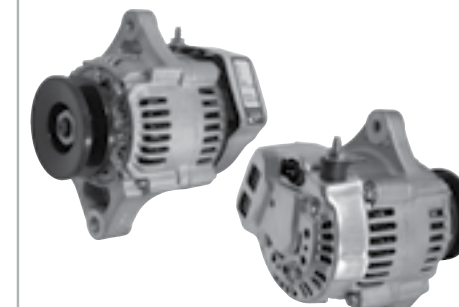
**For:** Toyota 5SG, 5SGL, 7FG, 7FGL W/ Toyot 4Y, 5K Engines  
**Replaces:** Denso 101211-8580, Toyota 27060-78156-71



### 12198N

**Alternator - Denso IR/IF**  
40 Amp/12 Volt, 1-Groove Pulley

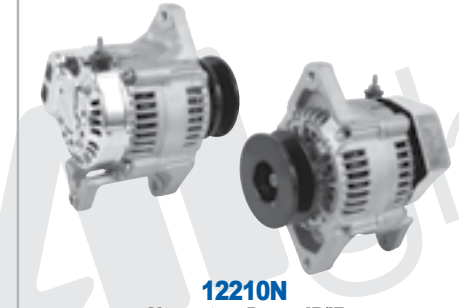
**For:** JLG, Snorkel w/ Kubota D600B, WG750 Eng  
**Replaces:** Denso 100211-4640, -4650, -4770, Kubota 16495-64011, 16705-64011, 34070-75600, 34070-75601



### 12200N

**Alternator - Denso IR/IF**  
45 Amp/12 Volts, 1-Groove Pulley

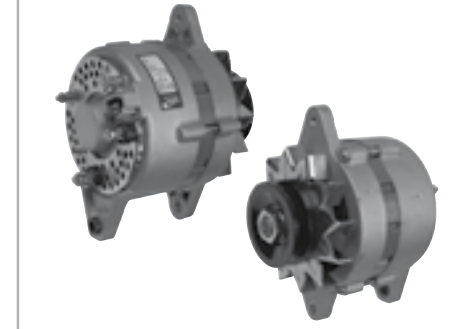
**Used on:** Kubota Loaders, Compact Tractors; Thomas Skid Steers w/ Kubota F2503DI, F2803DI, V1702, V1903B, V2203B, V2203DI Diesel Engines  
**Replaces:** Denso 100211-680; Kubota 17356-64010, -64011, -64012  
**Note:** 1V/69mm OD Pulley, 15mm ID.



### 12210N

**Alternator - Denso IR/IF**  
20 Amp/24 Volt, 1-Groove Pulley

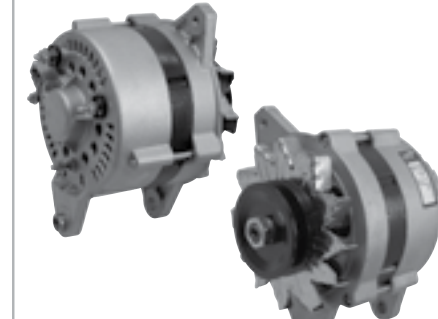
**For:** Toyota Lift Trucks with 1DZ, 1Z, 11Z, 12Z, 13Z, 14Z Engine  
**Replaces:** Denso 100211-4101, -4190, -6940, -6950, Toyota 27060-78300-71, 27060-78304-71, 27070-23060-71, 27070-23061-71



### 14129N

**Alternator - Denso ER/EF**  
30 Amp/12 Volt, CW, 1-Groove Pulley

**For:** Komatsu, Toyota w/ Toyota 3P, 4P, 5R, V1502, VAT1502 Eng  
**Replaces:** Denso 021000-5600, 021000-5601, Toyota 27020-76003-71



### 14130N

**Alternator - Denso ER/EF**  
45 Amp/12 Volt, CW, 1-Groove Pulley

**For:** Toyota w/ Toyota F, 2J, 5P Eng  
**Replaces:** Denso 021000-8040, Toyota 27020-76010-71



### 16614N

**Starter - Denso OSGR**  
4.5KW/24 Volt, CW, 11-Tooth Pinion

**For:** Toyota Lift Trucks w/ 2J Engine  
**Replaces:** Toyota, 28100-22061-71



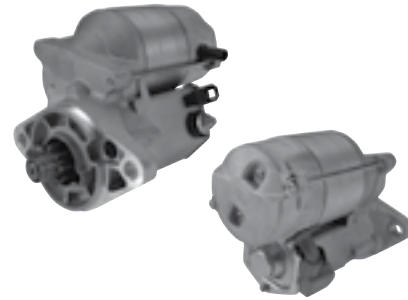
### 16658N

**Starter - Denso OSGR**  
2.5KW/12 Volt, CW, 13-Tooth Pinion

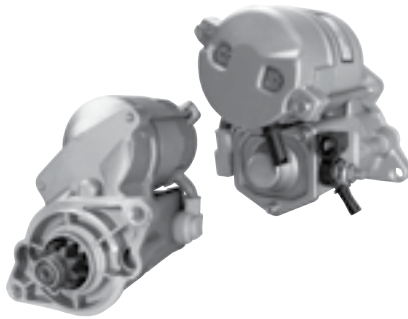
**For:** Case w/ Case 188 Eng  
**Replaces:** Case A-39341, R-39341, Denso 028000-5880, -5881, -5882, -5883



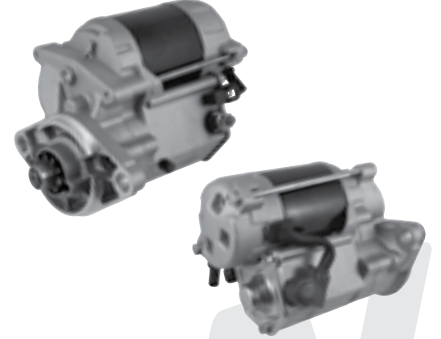
**16739N**  
**Starter - Denso OSGR**  
**2.0KW/12 Volt, CW, 9-Tooth Pinion**  
**For:** Gehl, Hyster Lift Trucks, Isuzu Industrial Engines  
**Replaces:** Hyster 1374083, 3001017R



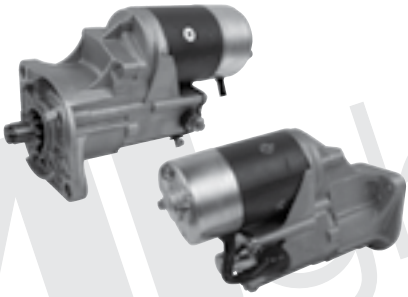
**16831N**  
**Starter - Denso OSGR**  
**1.4KW/12 Volt, CW, 9-Tooth Pinion**  
**For:** TCM, Toyota w/ Toyota 2F, 3F, 4Y, 5R; GM4-181 (3.0L) Eng  
**Replaces:** Denso 228000-4390, -4391, -4840, -4850, -4851, Toyota 28100-02120-71, -20553-71, U2100-71, U2120-71, 22003-71



**17028N**  
**Starter - Denso OSGR**  
**1.0KW/12 Volt, CW, 9-Tooth Pinion**  
**For:** Genie, Skyjack w/ Kubota D950B, D1105B Eng  
**Replaces:** Denso 028000-8320, 128000-3590; 228000-0790, Kubota 15471-63012, 15504-63011, 15741-63010, 15741-63011, 16612-63011



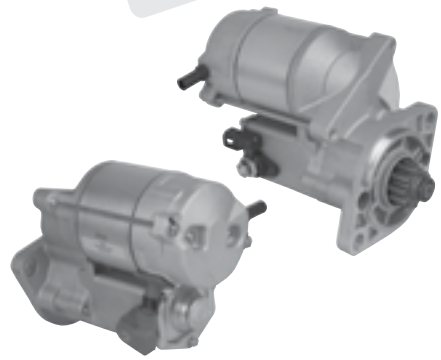
**16790N**  
**Starter - Denso OSGR**  
**1.4KW/12 Volt, CW, 9-Tooth Pinion**  
**For:** Toyota Lift Trucks  
**Replaces:** Denso 028000-451, -755, -927; 128000-062, -125; Toyota 28100-20551, -20552, -34050, -34051, -34052, -34053, -34053, -35020, -35040, -35140



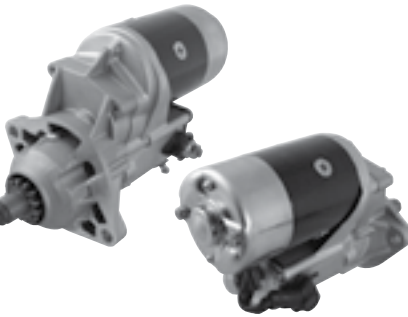
**16896N**  
**Starter - Denso OSGR**  
**4.5KW/24 Volt, CW, 11-Tooth Pinion**  
**For:** Toyota w/ Toyota 2H Eng  
**Replaces:** Denso 02800-7450, -7453, -7810, -7812, Toyota 28100-31625-71; 28300-31960-71



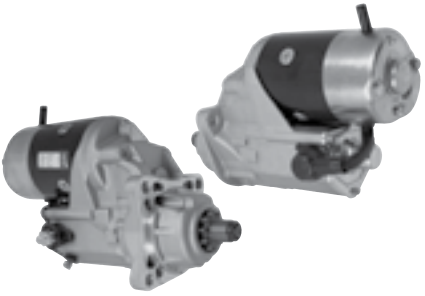
**17100N**  
**Starter - Denso OSGR**  
**1.4KW/12 Volt, CW, 10-Tooth Pinion**  
**For:** Caterpillar Lift Trucks w/ Cat 1404 Engine or Continental F-163, F-227 Engines  
**Replaces:** Caterpillar 3T5649, Denso 028000-8230



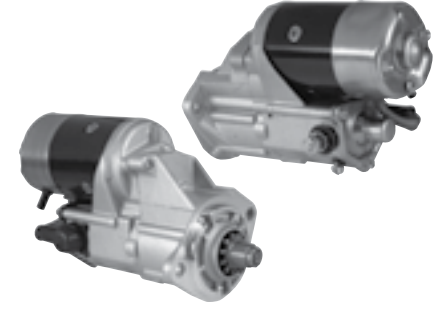
**16795N-ND**  
**Starter - Denso OSGR**  
**12 Volts, CW, 11-Tooth Pinion**  
**Used on:** Hyster, Tcm & Yale Forklifts  
**Replaces:** Hyster 3126282R



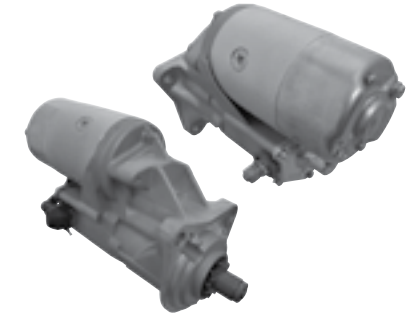
**16990N**  
**Starter - Denso OSGR**  
**2.5KW/12 Volt, CW, 13-Tooth Pinion**  
**For:** Case, Genie w/ Case 4-390; Cummins 4B-3.9 Eng  
**Replaces:** Case 104452A2, 104452A2R, A-170746, Cummins 3904466, 3926960, 3957594, Denso 128000-0210, -0216, -0540, -0544, -2270, -2273



**17198N**  
**Starter - Denso OSGR**  
**2.7KW/12 Volt, CW, 10-Tooth Pinion**  
**For:** Bobcat OPE & Ag & Industrial Skid Steer Loaders  
**Replaces:** Bobcat-Skid Steer Loaders 853 Isuzu 4JB1PK-03 Dsl 1990-1994, Skid Steer Loaders 853C Isuzu 4JB1PK-03 Dsl 1994-1999, Skid Steer Loaders 853H Isuzu 4JB1PK-03 Dsl 1991-1994, Skid Steer Loaders 853HC Isuzu 4JB1PK-03 Dsl 1994-1996, Clark-Skid Steer Loaders 853 / 853H Isuzu Engines 1991-1995



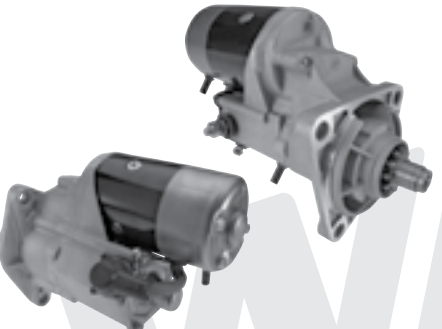
**17290N**  
**Starter - Denso OSGR**  
**2.5KW/12 Volt, CW, 11-Tooth Pinion**  
**For:** Toyota w/ Toyota 1DZ, 1Z, 11Z, 13Z, 2J, 2JT, 2Z Eng  
**Replaces:** Denso 128000-0970, -0974, -4110, -4113, Toyota 28100-23660-71, -40290-71; 28300-23040-71, -23041-71, -23660-71



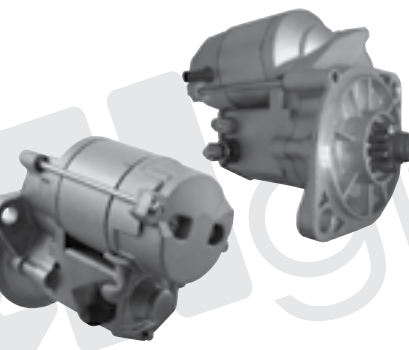
**17380N**  
**Starter - Denso OSGR**  
**2.5KW/12 Volt, CW, 10-Tooth Pinion**  
**For:** Caterpillar Industrial Lift Trucks Perkins 2032 Engines  
**Replaces:** Caterpillar 143-0535, 6T7001



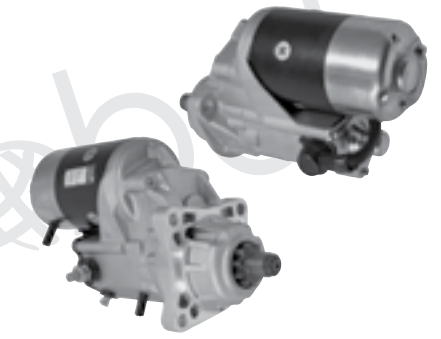
**17462N**  
**Starter - Denso OSGR**  
**2.7KW/12 Volts, CW, 11-Tooth Pinion**  
**Used on:** Bobcat Skid Loader, OPE & Industrial, Clark Skid Loader  
**Replaces:** Bobcat 6667587; Denso 228000-581



**17302N**  
**Starter - Denso OSGR**  
**2.5KW/12 Volt, CW, 11-Tooth Pinion**  
**For:** Daewoo w/ Isuzu 4BD1 Eng  
**Replaces:** Daewoo 65262017050, Denso 028000-4870, -5490, -6561; 128000-7750, -7753, Isuzu 5-81100-071-0, -108-1, -169-0, -169-3



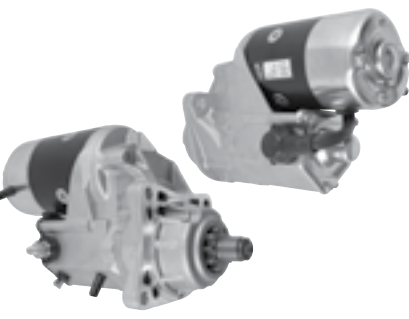
**17381N**  
**Starter - Denso OSGR**  
**1.4KW/12 Volt, CW, 9-Tooth Pinion**  
**For:** TCM w/ Isuzu 3AB1, 4FE4 Eng  
**Replaces:** Denso 128000-1100, -1101, -1102, Isuzu 5-81100-182-0; 8-94170-205-0, -205-2



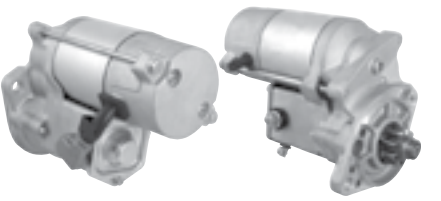
**17630N**  
**Starter - Denso OSGR**  
**2.5KW/12 Volt, CW, 10-Tooth Pinion**  
**For:** Caterpillar, Hyster, Yale w/ Perkins 4-236, 1000-4, 1004-4 DSL Eng  
**Replaces:** Caterpillar 143-0536, 3E-0079, 8T-8619, Denso 128000-4080, -4084, -9610; 228000-6400, -6401, Hyster 1453060, 8504305



**17311N**  
**Starter - Denso OSGR**  
**2.5KW/12 Volt, CW, 11-Tooth Pinion**  
**For:** Toyota 5FD, 6FD Series Lift Trucks w/ 1DZ, 1Z, 2J, 11Z Engines  
**Replaces:** Toyota 28100-23660-71, 40291-71

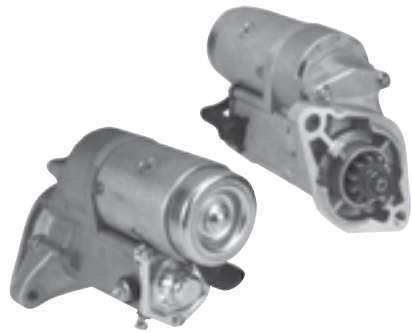


**17399N**  
**Starter - Denso OSGR**  
**2.5KW/12 Volt, CW, 10-Tooth Pinion**  
**For:** Caterpillar Lift Trucks w/ Perkins Engines  
**Replaces:** Caterpillar 7C2264, 8T8619; Denso 128000-408



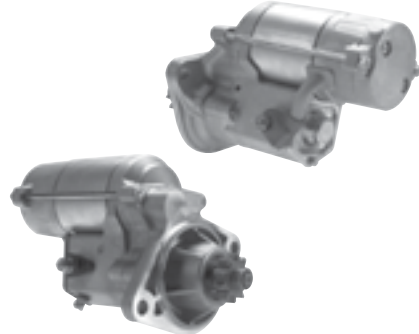
**18004N**  
**Starter - Denso OSGR**  
**2.0 KW/12 Volts, CW, 9-Tooth Pinion**  
**Used on:** Case Ag, GEHL Skid Steer, Ag, Thomas Equipment Ag  
**Replaces:** Denso 228000-457, -4572, -475; Kubota 15425-63014, -63015, -63016, 16652-63013





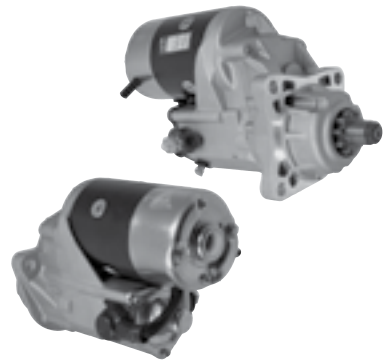
**18151N**

**Starter - Denso OSGR**  
**2.0KW/12 Volt, CW, 11-Tooth Pinion**  
**For:** Toyota Lift Trucks w/ 2.0L, L Diesel Engines  
**Replaces:** Denso 028000-737, Toyota 28100-54070



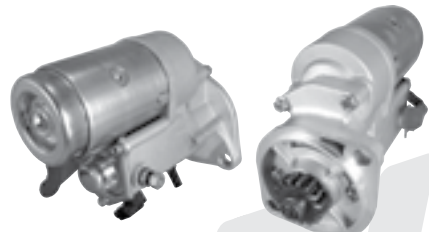
**18198N**

**Starter - Denso OSGR**  
**2.0KW/12 Volt, CW, 10-Tooth Pinion**  
**For:** Hyster Lift Trucks w/ GM 4.3L V6 engine  
**Replaces:** Hyster 1383240, Denso 228000-5863



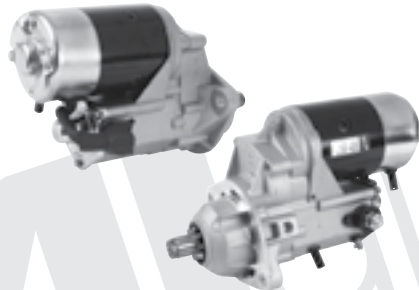
**18560N**

**Starter - Denso OSGR**  
**2.7KW/12 Volt, CW, 10-Tooth Pinion**  
**For:** Hyster Lift Trucks w/ Perkins 1000-4 Series Diesel Engines  
**Replaces:** Denso 228000-640, Hyster 8504305, Yale 1453060



**18178N**

**Starter - Denso OSGR**  
**2.0KW/12 Volts, CW, 15-Tooth Pinion**  
**Used on:** John Deere Skid Steer  
**Replaces:** Denso 128000-730, 228000-711; John Deere AM877284, AM879743, MIA10300; Yanmar 129429-77010, -77011; YM129429-77010



**18402N**

**Starter - Denso OSGR**  
**4.5KW/24 Volt, CW, 10-Tooth Pinion**  
**For:** Komatsu Wheel Loaders WA120 4B 1997- ON, Komatsu Wheel Loaders WA180 4B 1997-ON, Komatsu Wheel Loaders WA250 4B 1997-ON, Komatsu Wheel Loaders WA253 4B 1997-ON



**19911N**

**Starter - Denso OSGR**  
**1.4KW/12 Volts, CW, 10-Tooth Pinion**  
**Used on:** Halla Forklift  
**Replaces:** Denso 228000-2150, -2151; Teledyne TM27M00513



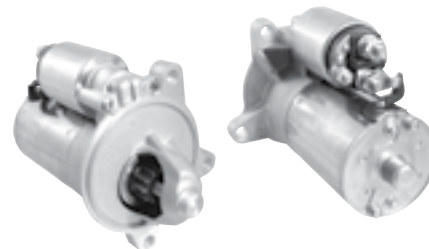
**18181N**

**Starter - Denso OSGR**  
**4.5KW/24 Volt, CW, 11-Tooth Pinion**  
**For:** Toyota Lift Trucks w/ B, 3B Diesel Engines  
**Replaces:** Denso 028000-553, Toyota 28100-56030



**18449N**

**Starter - Denso OSGR**  
**2.2KW/12 Volt, 9-Tooth Pinion**  
**For:** Hyster w/ Isuzu C240 (2.4L), 4 JB1 (2.8L), 4JG2 (3.1 L); Perkins 1000-4 Eng  
**Replaces:** Denso 128000-0830; 228000-1893, -8041, Hyster 1347064, 1519632, 3122813, Isuzu 8-97042-997-2, 8-94133-758-5 Perkins 2873K401



**3238N**

**Starter - Ford PMGR**  
**12 Volt, CW, 10-Tooth Pinion**  
**For:** Genie w/ Ford LRG425, LSG423 Eng  
**Replaces:** Ford F17U-11000-AB, F87U-11000-AA, F87Z-11002-AA, Mazda ZZMO-18-400, ZZP1-18-400, -400A

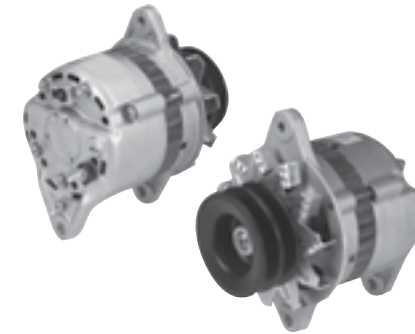
**Ford**

**Hitachi**



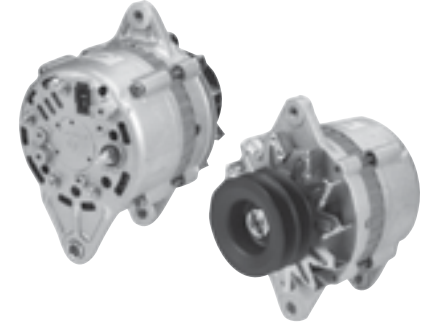
**12112N**

**Alternator - Hitachi IR/IF**  
**40 Amp/12 Volt, CW, 1-Groove Pulley**  
**For:** Kalmar AC, Komatsu w/ Komatsu 4D94E, Yanmar 4TNE94 Eng  
**Replaces:** Hitachi LR140-714, -714A, -714B, -721B, Yanmar119836-77200, -77201, -77202, -77203; 129930-77210



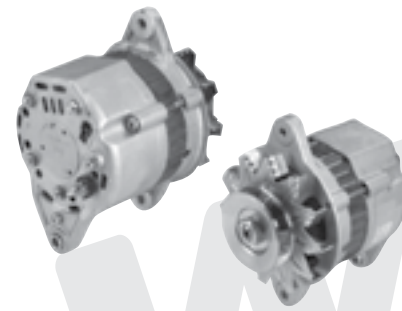
**12116N**

**Alternator - Hitachi ER/EF**  
**15 Amp/24 Volt, 2-Groove Pulley**  
**For:** Nissan Lift Trucks w/ SD33T Diesel Engine  
**Replaces:** Hitachi LT215-37C, Hyster 3046996, Nissan 23100-L6001



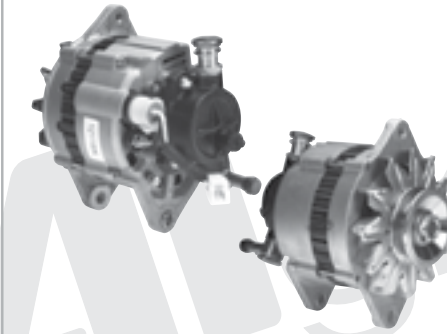
**12324N**

**Alternator - Hitachi IR/EF**  
**25 Amp/24 Volt, CW, 2-Groove Pulley**  
**For:** Nissan F03 Series Lift Trucks w/ TD42 Diesel Engine  
**Replaces:** Hitachi LR225-84, -84T, Nissan 23100-51H00



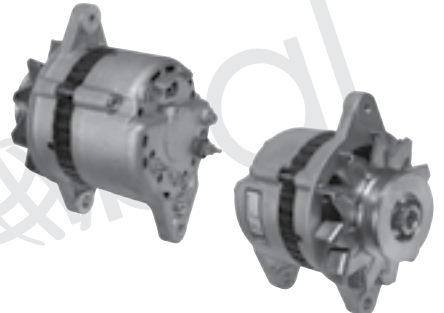
**12114N**

**Alternator - Hitachi IR/EF**  
**20 Amp/24 Volt, CW, 1-Groove Pulley**  
**For:** TCM Lift Trucks w/ Isuzu C240 Diesel Engine  
**Replaces:** Hitachi LR220-24; Isuzu 5-81200-335-0



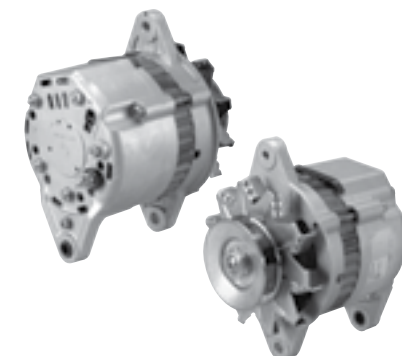
**12118N**

**Alternator - Hitachi IR/EF**  
**40 Amp/12 Volt, CW, 1-Groove Pulley**  
**For:** Nissan H02, KH02 Lift Trucks w/ SD25 Diesel Engine  
**Replaces:** LR140-130, -130B, -130P, Nissan 23099-R8109



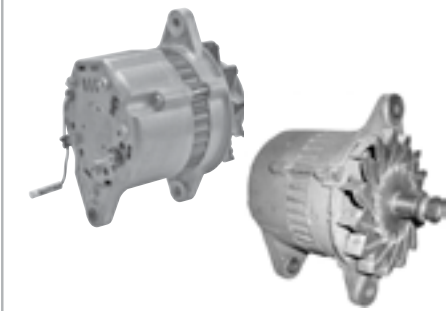
**14105N**

**Alternator - Hitachi ER/EF**  
**35 Amp/12 Volt, CW, 1-Groove Pulley**  
**For:** Komatsu, Nissan, TCM w/ Nissan A15, D11, H20, J15 Eng  
**Replaces:** Hitachi LR135-35, 68, Hyster 3000972, Mitsubishi A1T21171, A1T24371, Nissan 23110-C6000, -U0101, -U0113, U0114



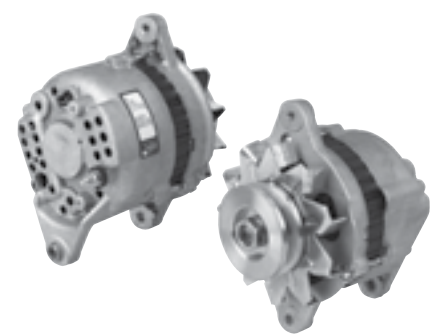
**12115N**

**Alternator - Hitachi IR/EF**  
**35 Amp/12 Volt, CW, 1-Groove Pulley**  
**For:** TCM Lift Trucks w/ Isuzu 3AB1, 4FEI Eng.  
**Replaces:** Hitachi LR135-127, -95, -95B, Isuzu 5-81200-341-0, 5-81200-341-1, 8-94423-756-0



**12288N**

**Alternator - Hitachi IR/EF**  
**35 Amp/12 Volts, CW, 1-Groove Pulley**  
**Used on:** Mustang Skid Steer Loader w/ Yanmar 3TN82E, 3TNA72E Engines  
**Replaces:** Hitachi LR135-91, Yanmar 124080-77201



**14231N**

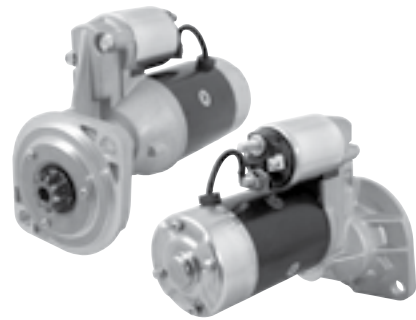
**Alternator - Hitachi, Mitsubishi IR/EF**  
**35 Amp/12 Volt, CW, 1-Groove Pulley**  
**For:** Kalmar AC, Nissan TCM w/ Nissan A15, H20, TB42, Z24 Eng  
**Replaces:** Kalmar AC 4949046, Mitsubishi A1T22971



**14255N**

**Alternator - Hitachi IR/EF**  
60 Amp/12 Volt, CW, 1-Groove Pulley

**For:** Nissan, TCM w/ Nissan H20, TB42, Z24 Eng  
**Replaces:** Mitsubishi A2T24371, Nissan 23100-R9011



**18050N**

**Starter - Hitachi OSGR**  
2.0KW/12 Volt, CW, 9-Tooth Pinion

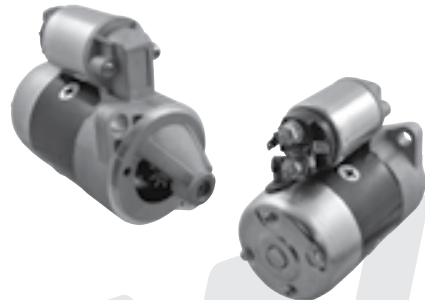
**For:** Hyster, TCM Lift Trucks w/ Isuzu C240 Diesel Engines  
**Replaces:** Hitachi S13-82, A, B; Isuzu 8-94136-400-0, -1



**18059N**

**Starter - Hitachi OSGR**  
4.5KW/24 Volt, CW, 11-Tooth Pinion

**For:** Nissan Lift Truck F05 w/ FD6 Diesel Engine, Nissan Lift Truck YE03, YGF03 w/ SD33T Diesel Engine  
**Replaces:** Nissan 23300-Z5005, 23300-Z5505, 23300-Z5507



**16203N**

**Starter - Hitachi DD**  
0.8KW/12 Volt, CW, 9-Tooth Pinion

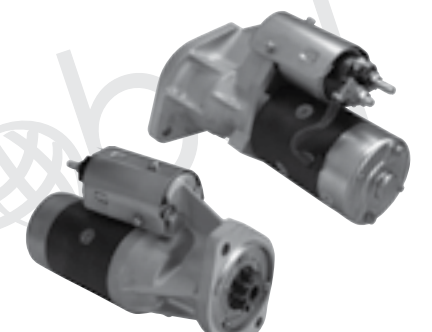
**For:** Nissan Ag & Industrial Lift Trucks  
**Replaces:** TCM Equipment-Lift Trucks FCG30N H30 Engine 1982, Lift Trucks FCG35N H30 Engine 1982, Lift Trucks FCG36N H30 Engine 1983, Lift Trucks FHG30N H30 Engine 1983, Lift Trucks FHG35N H30 Engine 1983



**18054N**

**Starter - Hitachi OSGR**  
1.4KW/12 Volt, CW, 9-Tooth Pinion

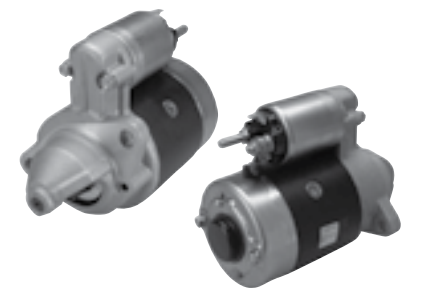
**For:** Nissan F03, F05, TCM w/ Nissan TB42 Eng,  
**Replaces:** Hitachi S114-482, Nissan 23300-52H00



**18061N**

**Starter - Hitachi OSGR**  
2.0KW/12 Volt, CW, 9-Tooth Pinion

**For:** Nissan Lift Trucks w/ SD25 Diesel Engine  
**Replaces:** Nissan 23300-10G02, 23300-80W00



**17300N**

**Starter - Hitachi DD**  
1.2KW/12 Volts, CW, 9-Tooth Pinion

**Used on:** Ford Skid loader 1310, 1510 Farm Tractors w/ 3-Cyl. Diesel Engine; New Holland Loader  
**Replaces:** Hitachi S114-381, Ishikawajima 185086321, Onan 185-2166, New Holland SBA18508-6321



**18058N**

**Starter - Hitachi OSGR**  
3.5KW/24 Volt, CW, 11-Tooth Pinion

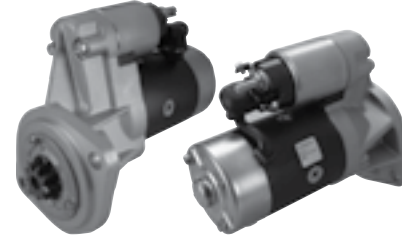
**For:** Nissan F03 w/ Nissan TD42 Eng  
**Replaces:** Hitachi S25-158, -158A, -158B, -160, Nissan 23300-06J01, -06J04, 34T00



**18110N**

**Starter - Hitachi DD**  
1.2KW/12 Volt, CW, 9-Tooth Pinion

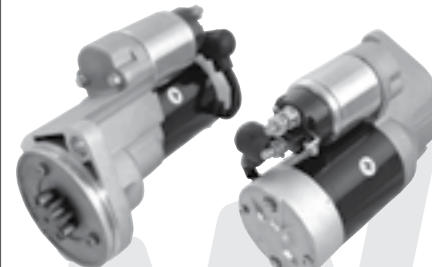
**For:** Komatsu, TCM w/ Nissan PF40 Eng  
**Replaces:** Hitachi S114-184, Nissan 23300-C0600



**18299N**

**Starter - Hitachi OSGR**  
2.2KW/12 Volts, CW, 9-Tooth Pinion

**Used on:** Isuzu Industrial 2AB1, 3AB1, 4JB1, C190, C190M Engines  
Mustang Skid Steer Loader 960, Takeuchi TL26 w/ Isuzu 4JB1 Engine  
**Replaces:** Hitachi S13-111, -136; Isuzu 8-94410-409-0, 8-97084-877-0  
**Note:** Will also replace Hitachi DD Starters: S12-48, S12-58



**18491N**

**Starter - Hitachi OSGR**  
2.3KW/12 Volt, CW, 9-Tooth Pinion

**For:** Hyster, Komatsu, Yale w/ Komatsu 4D94E, Yanmar 4TNE92 (206L), 4TNE98 (3.3L) Eng.  
**Replaces:** Hitachi S13-204, Hyster 1599845, Yale 5800627 48, Yanmar 129900-77010

## Iskra



**18422N**

**Starter - Iskra PLGR**  
3.4KW/12 Volts, CW, 10-Tooth Pinion

**Used on:** (1999-ON) John Deere Skid Steer 270, 280  
**Replaces:** Iskra 11-130-793, AZF4521; John Deere RE505670, RE505745, RE507670

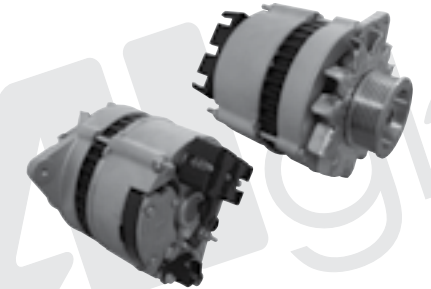
## Lucas



**12088N**

**Alternator - Lucas IR/EF**  
70 Amp/12 Volt, CW

**For:** Linde, Manitou w/ Perkins Eng  
**Replaces:** Lucas 24161, 24228, 24241, 24290, Magneti Marelli 54022589, 54022663, Perkins 2871A161



**12092N**

**Alternator - Lucas IR/EF**  
55 Amp/12 Volts, CW, 6-Groove Pulley

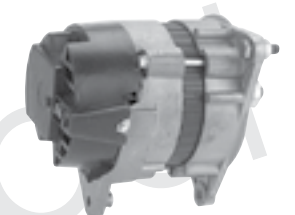
**Used on:** Ford and New Holland tractors, Komatsu Valmet Skid Loader 544X, series 2 W/268 Ford Ind.  
**Replaces:** Ford F0NN-10B376-AA; Lucas 24295, 25414, 25415; Marelli 63324295



**14029N**

**Alternator - Lucas IR/EF**  
36 Amp/12 Volt, CW, 1-Groove Pulley

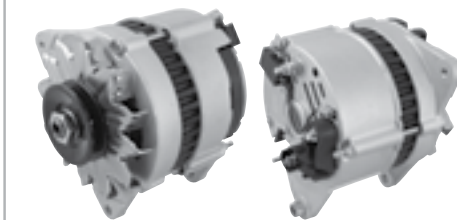
**Replaces:** Massey Ferguson-Lift Trucks MF-9500 1973-1980



**14037N**

**Alternator - Lucas IR/EF**  
43 Amp/12 Volts, CW, 1-Groove Pulley

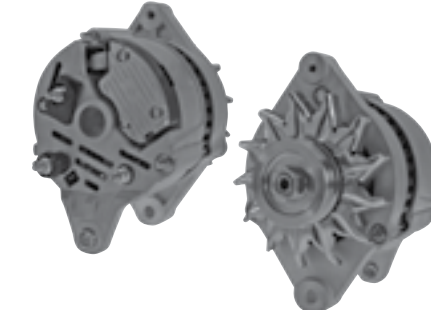
**Used on:** Berber Greene Finishers w/ Ford 2714E Engines, JC Bamford Excavators, Massey Ferguson Loaders  
**Replaces:** Lucas 23615A/B, 23615D/E, 23617A/B, 23617D, 23622A, 23622B, 23684A, 23684B, 23709A, 23709B/D, 23721A, 23737A/D, 23771A/B, 23779A/D, 23808A/F, 23811A/D, 23842A, 23848A, 23891A



**14054N**

**Alternator - Lucas IR/EF**  
70 Amp/12 Volts, CW, 1-Groove Pulley

**Used on:** Caterpillar Lift Trucks  
**Replaces:** Bosch 0-120-488-211, -228, -286; 0-120-489-346, -347, -408; Caterpillar 100-8223; Ford 86AB-10300-NA, -NB; 86AX-10300-MB; Jaguar C45-271, C46-234; Lucas 23868, 24017, 54022236, 54022603, 54022604; Perkins 2871C105; Rover YLE10088; Valeo 510-031, 510-102, 9AR2533P, 9AR2604L



**12291N**

**Alternator - Lucas IR/EF**  
70 Amp/12 Volt, CW, 4-Groove Pulley

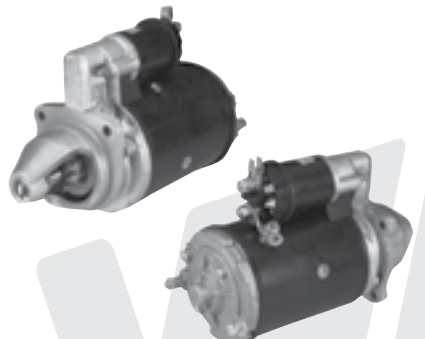
**For:** Hyster w/ Perkins Eng  
**Replaces:** Hyster 1457874, Lucas 24286, 24418, Magneti Marelli 54022662, 54022664, Perkins 2871A166



**16984N**

**Starter - Lucas M50, M127**  
2.8KW/12 Volts, CW, 10-Tooth Pinion

**Used on:** Case, International Loader, Massey Ferguson Farm Tractors  
**Replaces:** IHC 537140-R94; Lucas 26336, 26428, 26433, 27508, 27556, 27575  
**Note:** Dual stage solenoid



**17072N**

**Starter - Lucas M50, M127**  
2.8KW/12 Volt, CW, 10-Tooth Pinion

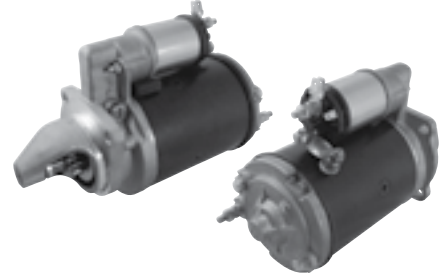
**For:** Perkins Industrial Engines - Industrial  
**Replaces:** Massey Ferguson-Lift Trucks MF-9500 1973-1980



**17649N**

**Starter - Lucas M50, M127**  
2.8KW/12 Volt, CW, 10-Tooth Pinion

**For:** Linde w/ Perkins 4-236, 1004 Eng  
**Replaces:** JCB 714/09100, 714/29300 Lucas 26294, 26344, 26369, 27518, 27520, 27570, 27588 Perkins 2873B056, 2873B071, 2873D056



**17652N**

**Starter - Lucas M50, M127**  
2.8KW/12 Volt, CW, 10-Tooth Pinion

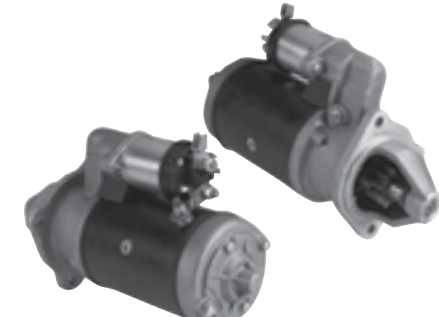
**For:** Lift King, JCB & Others w/ Perkins 4-236, 1004 Eng  
**Replaces:** JCB 714/09000, 714/14300, 714/40005, Lucas 26295, 26414, 27519, 27568, 27608, Perkins 2873A029, 2873B055, 2873B072



**17653N**

**Starter - Lucas M50, M127**  
2.8KW/12 Volt, CW, 10-Tooth Pinion

**For:** Agco Allis 5650, 5660 Tractors  
**Replaces:** Bosch 0001110066, Linde 0009710180, Lucas 26411, 27540, 27546, 27571, 27584, 27591; Massey Ferguson 1868-283-M2, 1868-283-M3, 1868-283-M5, 579-487-M91; Perkins 2873B061



**18261N**

**Starter - Lucas M45G, 2M113**  
2.1KW/12 Volt, CW, 10-Tooth Pinion

**For:** Lancer Boss Lift Trucks w/ Perkins Engine, Lister-Petters, Waukesha Industrial  
**Replaces:** Junghinrich 19960513, 19960514, Perkins 2873A105, 2873A107



**18261N**

**Starter - Lucas M45G, 2M113**  
2.1KW/12 Volts, CW, 10-Tooth Pinion

**For:** Lancer Boss Lift Trucks w/ Perkins Engine, Lister-Petters, Waukesha Industrial  
**Replaces:** Lister Petter 20234960, 20234963; Lucas 26166, 26286, 27419, 27481, 27489; Marelli 63227419; Perkins 2873126, 2873153

## Mando



**12390N**

**Alternator - Mando IR/IF**  
90 Amp/12 Volts, 1-Groove Pulley

**Used on:** Bobcat Steer Loader  
**Replaces:** Bobcat 6678205, Valeo TA000A48402

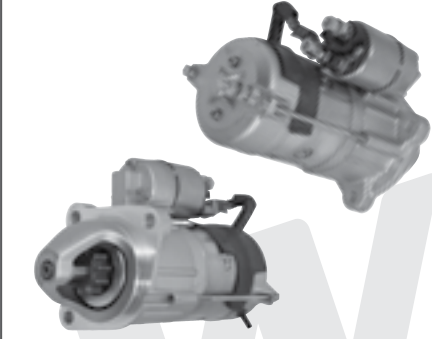
## Marelli



**12738N**

**Alternator - Marelli IR/IF**  
12 Volt, CW, 10-Tooth Pinion

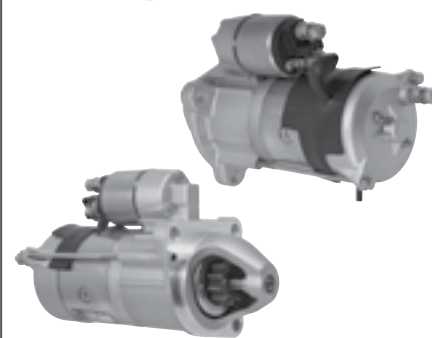
**For:** Perkins Engines  
**Replaces:** Caterpillar 225-3141, -3143, 305-3661; Denso 102211-816, -817, -818; Land Rover YLE10118; Marelli 63321466, 63377460, 63377461 63377462, MAN7461, MAN7462; Perkins 2871A168, 2871A301, 2871A302, 2871A303, 185046500, 185046522



**18940N**

**Starter - Marelli PLGR**  
3.0KW/12 Volt, CW, 10-Tooth Pinion

**For:** JCB w/ Perkins Engines  
**Replaces:** Denso 428000-129; JCB 71440231, 71440531; Marelli 63280041; Perkins 2873K405, 2873K624

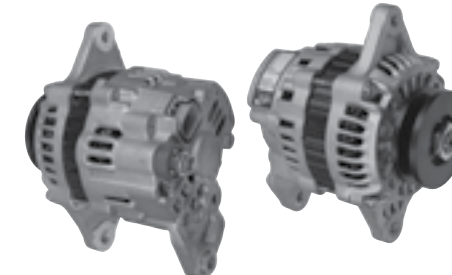


**18941N**

**Starter - Marelli PLGR**  
3.0KW/12 Volt, CW, 10-Tooth Pinion

**For:** Perkins Engines  
**Replaces:** Marelli 63280040; Massey Ferguson 3784889M2, 3784890M1, 3823621M91; Perkins 2873K404, 2873K621

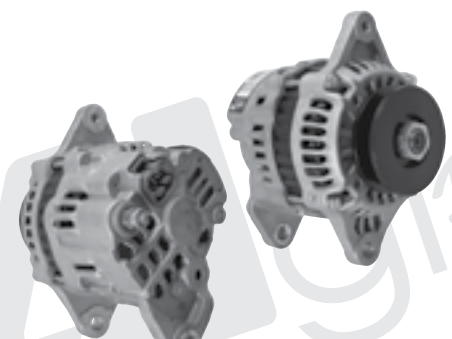
## Mitsubishi



**12136N**

**Alternator - Mitsubishi IR/IF**  
35 Amp/12 Volt, CW, 1-Groove Pulley

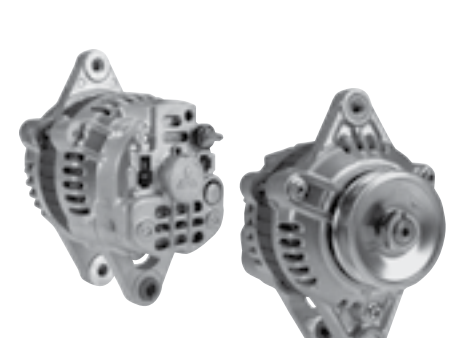
**For:** Nissan, TCM Lift Trucks w/ H20, H25 Engines  
**Replaces:** Kalmar AC 8762055, Mitsubishi A7T03371, A7T03371A, Nissan 23100-50K10



**12138N**

**Alternator - Mitsubishi IR/IF**  
40 Amp/12 Volt, CW, 1-Groove Pulley

**For:** Hyster w/ Mazda FE, F2, HA, XA, 2.0L Eng.  
**Replaces:** Hyster 1361853, 1450928, 3068342, 3123908, Mazda, S5Sn-18-300, 18-300a, Mitsubishi A7T03277, A7T03277A



**12231N**

**Alternator - Mitsubishi IR/IF**  
40 Amp/12 Volt, CW, 1-Groove Pulley

**For:** Caterpillar, Mitsubishi w/ Mitsubishi 6G72 Eng  
**Replaces:** Mitsubishi AOT25371, AOT25471, MM131020, MM435752



**12311N**

**Alternator - Mitsubishi IR/IF**  
50 Amp/12 Volts, CW, 1-Groove Pulley

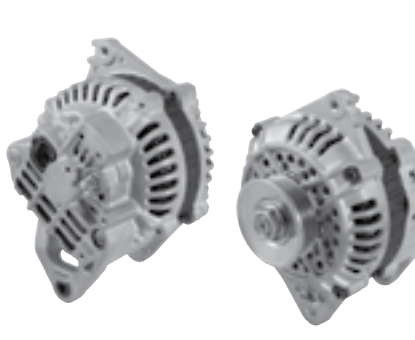
**Used on:** (1997-92) Caterpillar Lift Trucks (2000-95) Clark Lift Trucks  
**Replaces:** Mitsubishi A2TA2871, A2TA2871A; Mitsubishi Motors MD316418, MD354809, MD354809A, MD354809D



**12566N**

**Alternator - Mitsubishi IR/IF**  
50 Amp/12 Volt, CW, 1-Groove Pulley

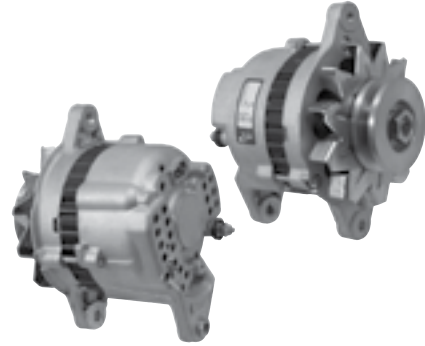
**For:** Nissan w/ Nissan K15, K21, K25 Eng.  
**Replaces:** Kalmar AC 8772271, Mitsubishi 91H20-03270, A7TA3377, Nissan 23100-FU410



**13271N**

**Alternator - Mitsubishi IR/IF**  
65 Amp/12 Volt, CW, 4-Groove Pulley

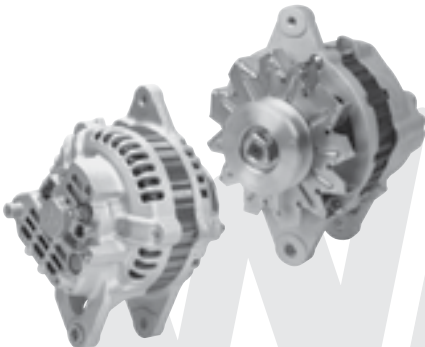
**For:** Caterpillar, Clark, Mitsubishi w/ Mitsubishi 4G63, 4G64 Eng  
**Replaces:** Clark 920244, Hyster 3141931, Mitsubishi A2TA2871, A2TA2871A, A3T03471



### 14213N

**Alternator - Mitsubishi IR/EF**  
35 Amp/12 Volt, CW, 1-Groove Pulley

**For:** Nissan, TCM Lift Trucks  
**Replaces:** Mitsubishi A1T21171, A1T22581, A1T24371, A1T24471, AG2025A, AG2030A, AG2035A, AG2035A2, AH2035N1; Nissan 23100-A4611, -A4810, -H0310, -M0410, -M0412, -M0413, -M0414, -U0110, -U0111, -U0112, -U0113, -U011

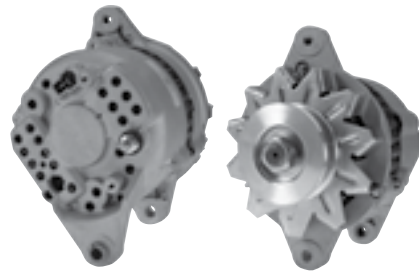


### 14267N

**Alternator - Mitsubishi IR/EF**  
55 Amp/12 Volt, CW, 1-Groove Pulley

**Replaces:** Hyster-Lift Trucks Various Models Mazda Engines 1970-1979, Mitsubishi-Lift Trucks FG-20 4G52 / 4G64 Engines 1979-1985, Lift Trucks FG-20B-G 4G52 / 4G64 Engines 1979-1985, Lift Trucks FG-20B-GLP 4G52 / 4G64 Engines 1979-1985, Lift Trucks FG-20B-GS 4G52 / 4G64 Engines 1979-1985, Lift Trucks FG-20B-LP 4G52 / 4G64 Engines 1979-1985, Lift Trucks FG-20B-LPS 4G52 / 4G64 Engines 1979-1985, Lift Trucks FG-20G 4G52 / 4G64 Engines 1979-1985, Lift Trucks FG-20GS 4G52 / 4G64 Engines 1979-1985, Lift Trucks FG-20LP 4G52 / 4G64 Engines 1979-1985, Lift Trucks FG-20LPS 4G52 / 4G64 Engines 1979-1985, Lift Trucks FG-20T 4G52 / 4G64 Engines 1979-1985, Lift Trucks FG-25 4G52 / 4G64 Engines 1979-1985, Lift Trucks FG-25B-G 4G52 / 4G64 Engines 1979-1985, Lift Trucks FG-25B-GLP 4G52 / 4G64 Engines 1979-1985, Lift Trucks FG-25B-GS 4G52 / 4G64 Engines 1979-1985, Lift Trucks FG-25B-LP 4G52 / 4G64 Engines 1979-1985, Lift Trucks FG-25B-LPS 4G52 / 4G64 Engines 1979-1985, Lift Trucks FG-25G 4G52 / 4G64 Engines 1979-1985, Lift Trucks FG-25GLP 4G52 / 4G64

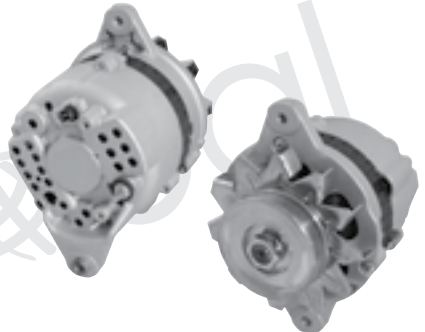
Engines 1979-1985, Lift Trucks FG-25GS 4G52 / 4G64 Engines 1979-1985, Lift Trucks FG-25LP 4G52 / 4G64 Engines 1979-1985, Lift Trucks FG-25LPS 4G52 / 4G64 Engines 1979-1985, Lift Trucks FG-25T 4G52 / 4G64 Engines 1979-1985, Lift Trucks FG-30 AG54 / AG64 Engines 1979-1985, Lift Trucks FG-30-GS AG54 / AG64 Engines 1979-1985, Lift Trucks FG-30-LP AG54 / AG64 Engines 1979-1985, Lift Trucks FG-30-LPS AG54 / AG64 Engines 1979-1985, Lift Trucks FG-30B-G AG54 / AG64 Engines 1979-1985, Lift Trucks FG-30B-GLP AG54 / AG64 Engines 1979-1985, Lift Trucks FG-30B-GS AG54 / AG64 Engines 1979-1985, Lift Trucks FG-30B-LP AG54 / AG64 Engines 1979-1985, Lift Trucks FG-30B-LPS AG54 / AG64 Engines 1979-1985, Lift Trucks FG-30G AG54 / AG64 Engines 1979-1985, Lift Trucks FG-30G-LP AG54 / AG64 Engines 1979-1985, Lift Trucks FG-30T AG54 / AG64 Engines 1979-1985, Lift Trucks FGC-20 4G52 Engine 1979-1985, Lift Trucks FGC-20-GLP 4G52 Engine 1979-1985, Lift Trucks FGC-20-LP 4G52 Engine 1979-1985, Lift Trucks FGC-20-LPS 4G52 Engine 1979-1985, Lift Trucks FGC-20B 4G52 Engine 1979-1985, Lift Trucks FGC-20B-G 4G52 Engine 1979-1985, Lift Trucks FGC-20B-GLP 4G52 Engine 1979-1985, Lift Trucks FGC-20B-LP 4G52 Engine 1979-1985, Lift Trucks FGC-20B-LPS 4G52 Engine 1979-1985, Lift Trucks FGC-20T-LP 4G52 Engine 1979-1985, Lift Trucks FGC-25 4G52 Engine 1979-1985, Lift Trucks FGC-25-LP 4G52 Engine 1979-1985, Lift Trucks FGC-25-LPS 4G52 Engine 1979-1985, Lift Trucks FGC-25B-G 4G52 Engine 1979-1985, Lift Trucks FGC-25B-GLP 4G52 Engine 1979-1985, Lift Trucks FGC-25B-GS 4G52 Engine 1979-1985, Lift Trucks FGC-25B-LP 4G52 Engine 1979-1985, Lift Trucks FGC-25B-LPS 4G52 Engine 1979-1985, Lift Trucks FGC-25G 4G52 Engine 1979-1985, Lift Trucks FGC-25G-LP 4G52 Engine 1979-1985, Lift Trucks FGC-25GS 4G52 Engine 1979-1985, Lift Trucks FGC-25T 4G52 Engine 1979-1985, Lift Trucks FGC-25T-LP 4G52 Engine 1979-1985, Lift Trucks FGC-30 AG54 / AG64 Engines 1979-1985, Lift Trucks FGC-30-LP AG54 / AG64 Engines 1979-1985, Lift Trucks FGC-30-LPS AG54 / AG64 Engines 1979-1985, Lift Trucks FGC-30B-G AG54 / AG64 Engines 1979-1985, Lift Trucks FGC-30B-GLP AG54 / AG64 Engines 1979-1985, Lift Trucks FGC-30B-LP AG54 / AG64 Engines 1979-1985, Lift Trucks FGC-30B-LPS AG54 / AG64 Engines 1979-1985, Lift Trucks FGC-30G AG54 / AG64 Engines 1979-1985, Lift Trucks FGC-30G-LP AG54 / AG64 Engines 1979-1985, Lift Trucks FGC-30GS AG54 / AG64 Engines 1979-1985, Lift Trucks FGC-30T AG54 / AG64 Engines 1979-1985, Lift Trucks FGC-30T-LP AG54 / AG64 Engines 1979-1985, Lift Trucks KFG-20 4G52 / 4G64 Engines 1979-1985



### 14597N

**Alternator - Mitsubishi IR/EF**  
35 Amp/12 Volt, CW, 1-Groove Pulley

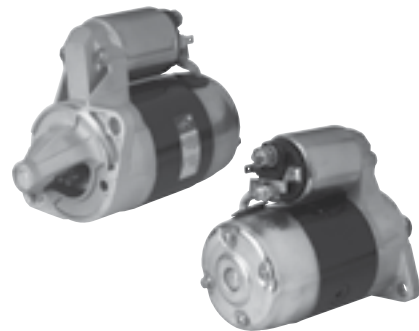
**For:** Hyster, TCM, Yale w/ Mazda D5, F2, FE, VA Eng  
**Replaces:** Hyster 1310962, Mazda D501-18-300, GE01-18-300, Mitsubishi A1T23377, A1T31371, Yale 1500145 02, 1500225 04



### 14687N

**Alternator - Mitsubishi IR/EF**  
35 Amp/12 Volt, CW, 1-Groove Pulley

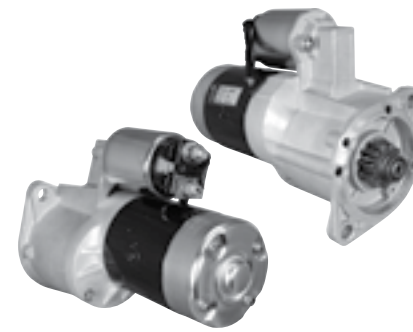
**For:** Mitsubishi Lift Trucks w/ S4E, S4S Engines  
**Replaces:** Mitsubishi A1T25077, A1T25083; Mitsubishi Industries 34468-18200, -28100, -28200; Toro 51-8250, 60-5420, 60-5421, 86-6400



### 16794N

**Starter - Mitsubishi DD**  
0.9KW/12 Volt, CW, 8-Tooth Pinion

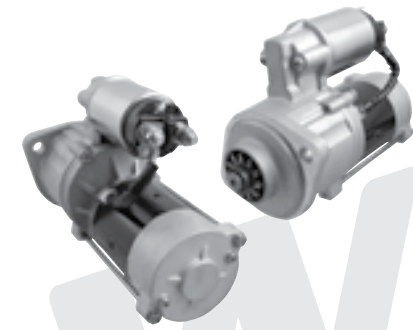
**For:** Nissan Lift Trucks, TCM Lift Trucks  
**Replaces:** Nissan 23300-00H10, 23300-L2910



### 16935N

**Starter - Mitsubishi OSGR**  
1.4KW/12 Volt, CW, 11-Tooth Pinion

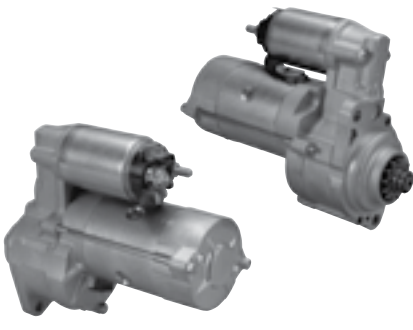
**For:** Nissan Industrial Lift Trucks  
**Replaces:** Nissan 23300-20H12



### 17081N

**Starter - Mitsubishi OSGR**  
2.2KW/12 Volt, CW, 11-Tooth Pinion

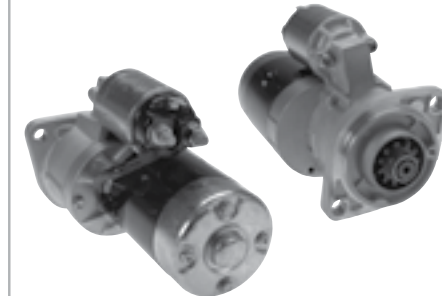
**For:** Mitsubishi w/ Mitsubishi S4E, S6E  
**Replaces:** Mitsubishi 34466-03200, -15202, -20201, -21301; 34766-21300, -41300, M2T56472, M2T61371, M3T64172



### 17096N

**Starter - Mitsubishi OSGR**  
2.0KW/12 Volt, CW, 13-Tooth Pinion

**For:** Clark w/ Mitsubishi K3D Eng  
**Replaces:** Clark 911410, Mitsubishi M2T56271, M2T56272



### 17110N

**Starter - Mitsubishi OSGR**  
1.2KW/12 Volt, CW, 11-Tooth Pinion

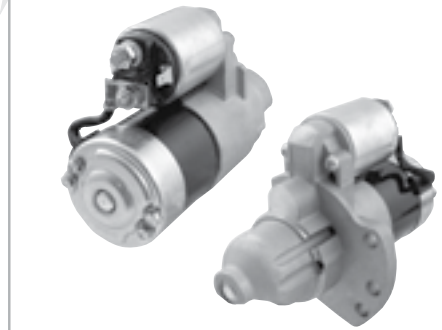
**For:** Clark, Mitsubishi Lift Trucks w/ 4G33, 4G52, 4G54, 6G72 Engines  
**Replaces:** Mitsubishi MM115515, M2T58581, Clark 911410, 918306, 4314765R



### 17176N

**Starter - Mitsubishi PMGR**  
1.2KW/12 Volt, CW, 10-Tooth Pinion

**For:** Caterpillar, Clark, Mitsubishi Lift Trucks w/ 4G63, 4G64, 6G72 Engines  
**Replaces:** Mitsubishi M1T79781, Md318086, 320618, M1T79681, Clark 920971, 921615R



### 17332N

**Starter - Mitsubishi DD Replacement**  
12 Volts, CCW, 9-Tooth Pinion

**Used on:** Onan Engines CCK, CCKA, CCKB, NH, NHA, NHAV, NHB, NHBV, NHC, NHCZ, NHP, NHPV, John Deer Skid Loader  
**Replaces:** Mitsubishi MEA10-7; Onan 191-1052, 191-1682-03, 191-1808-03, 191-1949-03



### 17425N

**Starter - Mitsubishi PMGR**  
1.4KW/12 Volt, CW, 9-Tooth Pinion

**For:** Nissan Lift Trucks  
**Replaces:** Mitsubishi M1T60281, M1T60285



### 17437N

**Starter - Mitsubishi PMGR**  
1.2KW/12 Volt, CW, 9-Tooth Pinion

**For:** Nissan Lift Trucks, TMC Lift Trucks  
**Replaces:** Nissan 23300-K9160, 23300-86G11



### 18096N

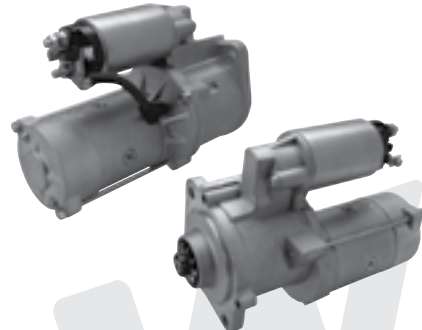
**Starter - Mitsubishi PMGR**  
1.2KW/12 Volt, CW, 8-Tooth Pinion

**For:** Eaton, Hyster, Sumitomo Yale, TCM, Yale Lift Trucks w/ Mazda Engine  
**Replaces:** Hyster 3114995, 2314322



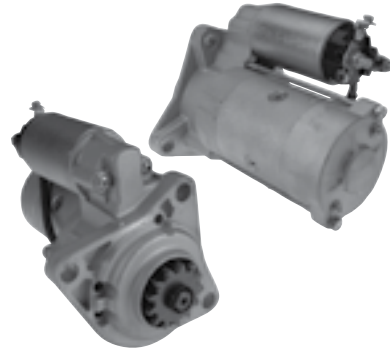
**18162N**  
Starter - Mitsubishi DD  
0.7KW/12 Volt, CW, 9-Tooth Pinion

**For:** Genie, Grive, JLG, Skyjack w/ Kubota D600B, WG750, LP Eng  
**Replaces:** Kubota 15852-63013, 16225-63012, 19007-63011, 19837-63013, Mitsubishi M2T30481, M2T42381, M3T33481, M3T49982



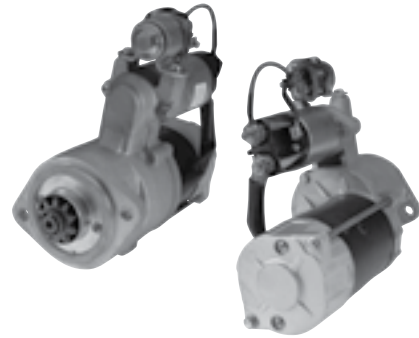
**18163N**  
Starter - Mitsubishi OSGR  
2.2KW/12 Volt, CW, 10-Tooth Pinion

**For:** Mitsubishi Lift Trucks w/ S4E, S4S Diesel Engines  
**Replaces:** Caterpillar 103-9827, Mitsubishi M2T62271, 32A66-00100, Clark 920670



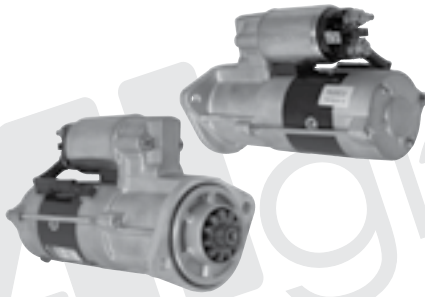
**18171N**  
Starter - Mitsubishi OSGR  
2.7KW/12 Volt, CW, 13-Tooth Pinion

**For:** Hyster, Sumitomo Yale, Yale Lift Trucks w/ Mazda HA, XA Engines  
**Replaces:** Jungheinrich 150022514, Mitsubishi M2T54572



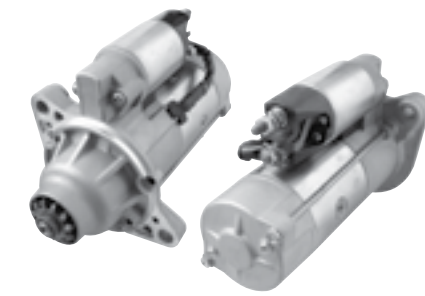
**18239N**  
Starter - Mitsubishi OSGR  
5.0KW/24 Volt, CW, 10-Tooth Pinion

**For:** Caterpillar, Mitsubishi Lift Trucks w/ S4E, S4S, S6E, S6S Engines  
**Replaces:** Caterpillar 114-6864, Mitsubishi M3T56172, M3T56183, 34766-20901, 32B66-10101



**18245N**  
Starter - Mitsubishi PLGR  
3.2KW/24 Volt, CW, 11-Tooth Pinion

**For:** Mitsubishi Lift Trucks w/ S4E, S4S Diesel Engines  
**Replaces:** Clark 3785426R, 379095R, Mitsubishi M2T65271, M2T65272, 334466-20100, 34466-20102



**18542N**  
Starter - Mitsubishi PLGR  
5.0KW/24 Volt, CW, 11-Tooth Pinion

**For:** Caterpillar, Mitsubishi w/ Mitsubishi 6D16 Eng  
**Replaces:** Caterpillar 114-9381, Mitsubishi M8T600741, M8T60071A



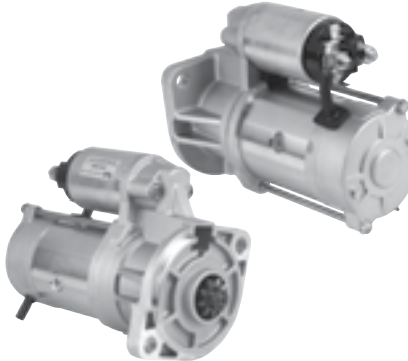
**18973N**  
Starter - Mitsubishi PMGR  
12 Volt, CW, 9-Tooth Pinion

**For:** Caterpillar, Komatsu, Mitsubishi, Nissan w/ Nissan K15, K21, K25 Eng  
**Replaces:** MCF A: 91H200-3330, Mitsubishi MOT65381, Nissan 23300-FU410



**19827N**  
Starter - Mitsubishi PMGR  
12 volts, CW, 8T, 0.9 W

**For:** Hyster with Mazda Engine  
**Replaces:** Mitsubishi M000T92581, M0T92581



**19829N**  
Starter - Mitsubishi OSGR  
12 Volt, CW, 9-Tooth Pinion

**For:** Daewoo Lift Trucks w/ Hercules 2.7L Engines  
**Replaces:** Daewoo 65262017059

## Motorola



**8047N**  
Alternator - Motorola / Prestolite 8EM Series  
65 Amp/12 Volt, w/o pulley

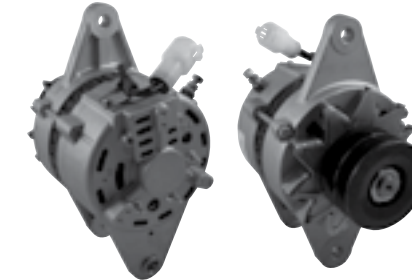
**For:** John Deere 482C, 485E, 486E, 488E w/ John Deere 4045 Eng  
**Replaces:** John Deere AT103344, AT125414, TY6670, TY6678



**7353N**  
Alternator - Motorola ER/EF  
37 Amp/12 Volts, CW

**For:** John Deere Lift Trucks  
**Replaces:** John Deere AT21618, AT21619; Motorola 10-30, A12NJD452, A12NJD454; Prestolite 110-30, -57

## Nikko



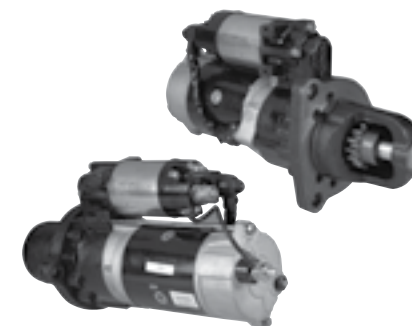
**12258N**  
Alternator - Nikko IR/EF  
35 Amp/24 Volts, CW, 2-Groove Pulley

**For:** Komatsu Industrial Lift Trucks FD200E, 6D108 Engine  
**Replaces:** Komatsu-Lift Trucks FD200E 6D108 Engine 1995-1997



**12267N**  
Alternator - Nikko IR/EF  
25 Amp/24 Volts, CW, 2-Groove Pulley

**Used on:** TCM Equipment Industrial Lift Trucks  
**Replaces:** Isuzu 1-81200-365-0; Nikko 0-33000-6000



**18087N**  
Starter - Nikko OSGR  
7.5KW/24 Volts, CW, 15-Tooth Pinion

**For:** Komatsu Crawlers, Generators, Graders, Lift Trucks w/ 6D105, 6D125 Engines  
**Replaces:** Komatsu 600-813-3530; Nikko 0-23000 6250, 0-23000-6251



**18100N-ND**  
Starter - Nikko OSGR  
4.5KW/24 Volt, CW, 11-Tooth Pinion

**For:** TCM Equipment-Lift Trucks FD100Z 6BD1 Engine 1983, Lift Trucks FD35Z 6BB1 Engine 1979, Lift Trucks FD35Z5 Isuzu D500 1983, Lift Trucks FD38Z 6BB1 Engine 1979, Lift Trucks FD38Z Isuzu D500 1983, Lift Trucks FD40Z 6BB1 Engine 1979, Lift Trucks FD40Z2 Isuzu D500 1983, Lift Trucks FD45Z 6BB1 Engine 1979, Lift Trucks FD50Z 6BB1 Engine 1979, Lift Trucks FD50Z6 Isuzu D500 1983, Lift Trucks FD60Z 6BB1 Engine 1979, Lift Trucks FD60Z5 Isuzu D500 1983, Lift Trucks FD70Z 6BB1 Engine 1979, Lift Trucks FD70Z2 Isuzu D500 1983, Lift Trucks FD80Z7 6BD1 Engine 1983  
**Note:** Denso version of Nikko replacement













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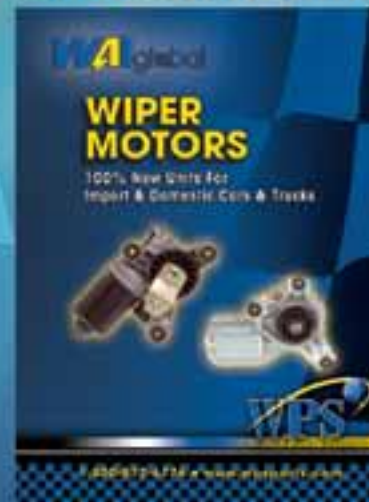
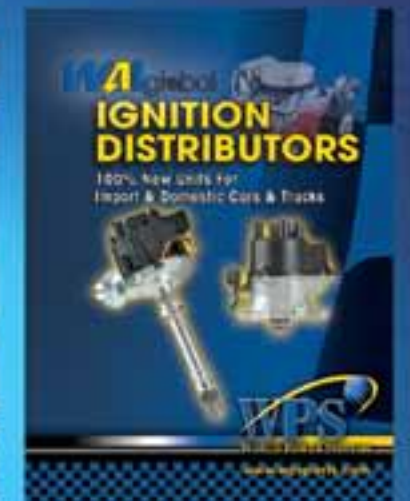
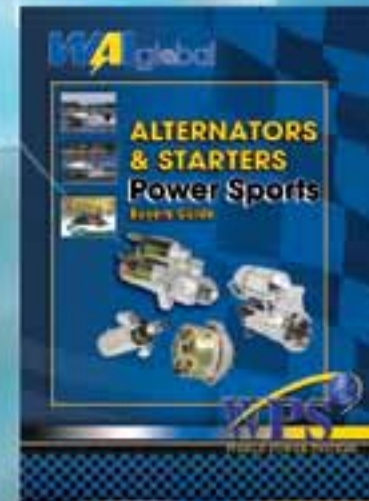
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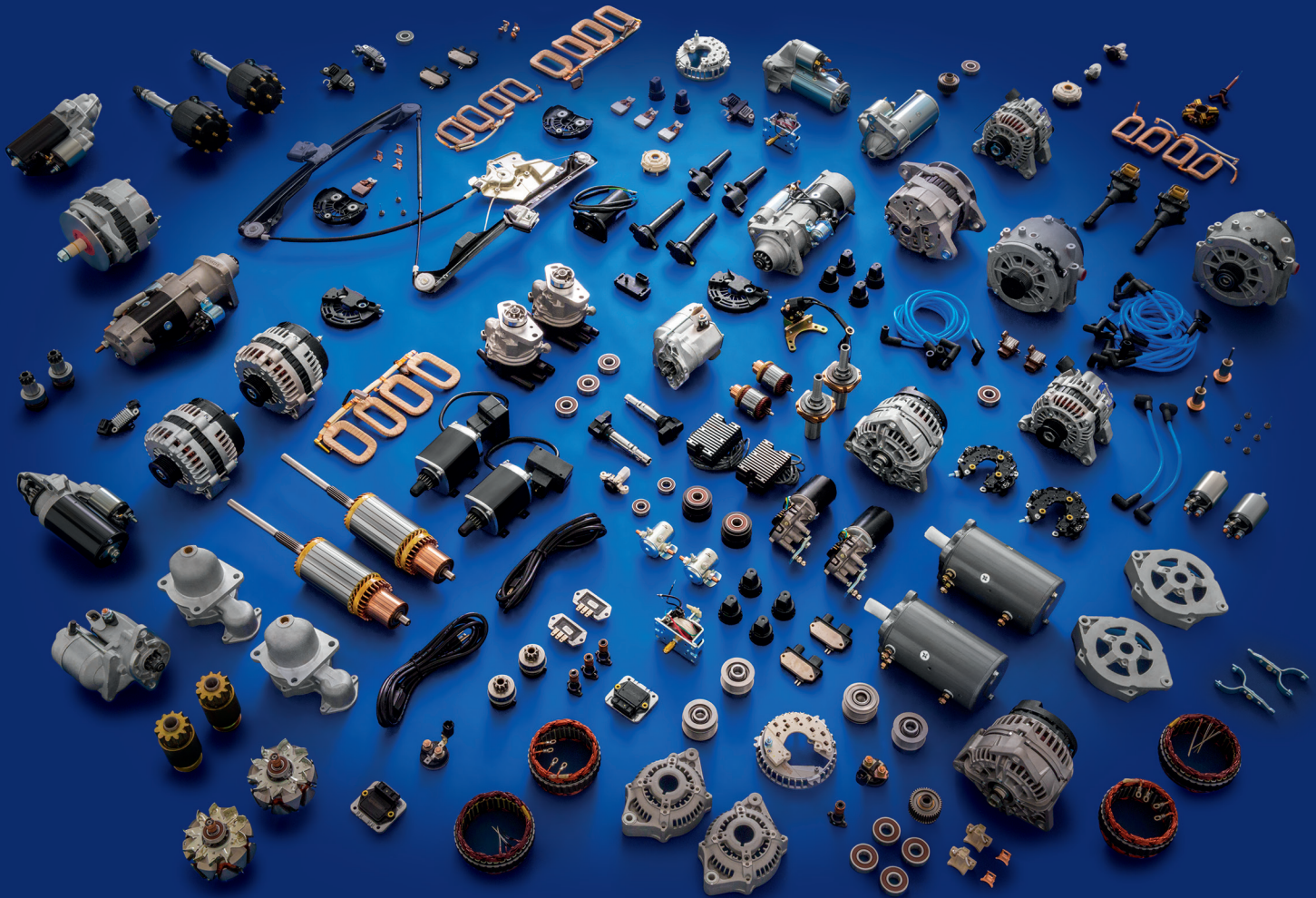
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For additional product offerings, please refer to the following publications:





**USA**

**WAI Corporate**

3300 Corporate Way  
Miramar  
Florida  
FL 33025

Toll Free: 1.800.877.3340

Fax: 800.948.6121

**Canada**

**Toronto**

535 Millway Avenue, Unit 1  
Vaughan, Ontario  
Canada  
L4K 3V4

Toll Free: 800.387.2807

Fax: 416.740.5348

**Europe**

**WAI Europe b.v.**

Klappolder 225  
2665 MR Bleiswijk  
The Netherlands

Phone: +31 (0)10.524.1980

Fax: +31 (0)10.524.1981

**United Kingdom**

**WAIglobal UK Ltd**

Christie Place  
Durban Road  
Bognor Regis  
West Sussex PO22 9RT

Phone: +44 (0)1243 833 420

Fax: +44 (0)1243 833 421

**China**

**Transpo Electronics Shanghai LTD**

Building No. 32 215 De Bao Rd  
Wai Gao Qiao Free Trade Zone  
Pudong, Shanghai 200131  
Peoples Republic of China

Phone: 86.21.5048.2700

Fax: 86.21.5048.2722