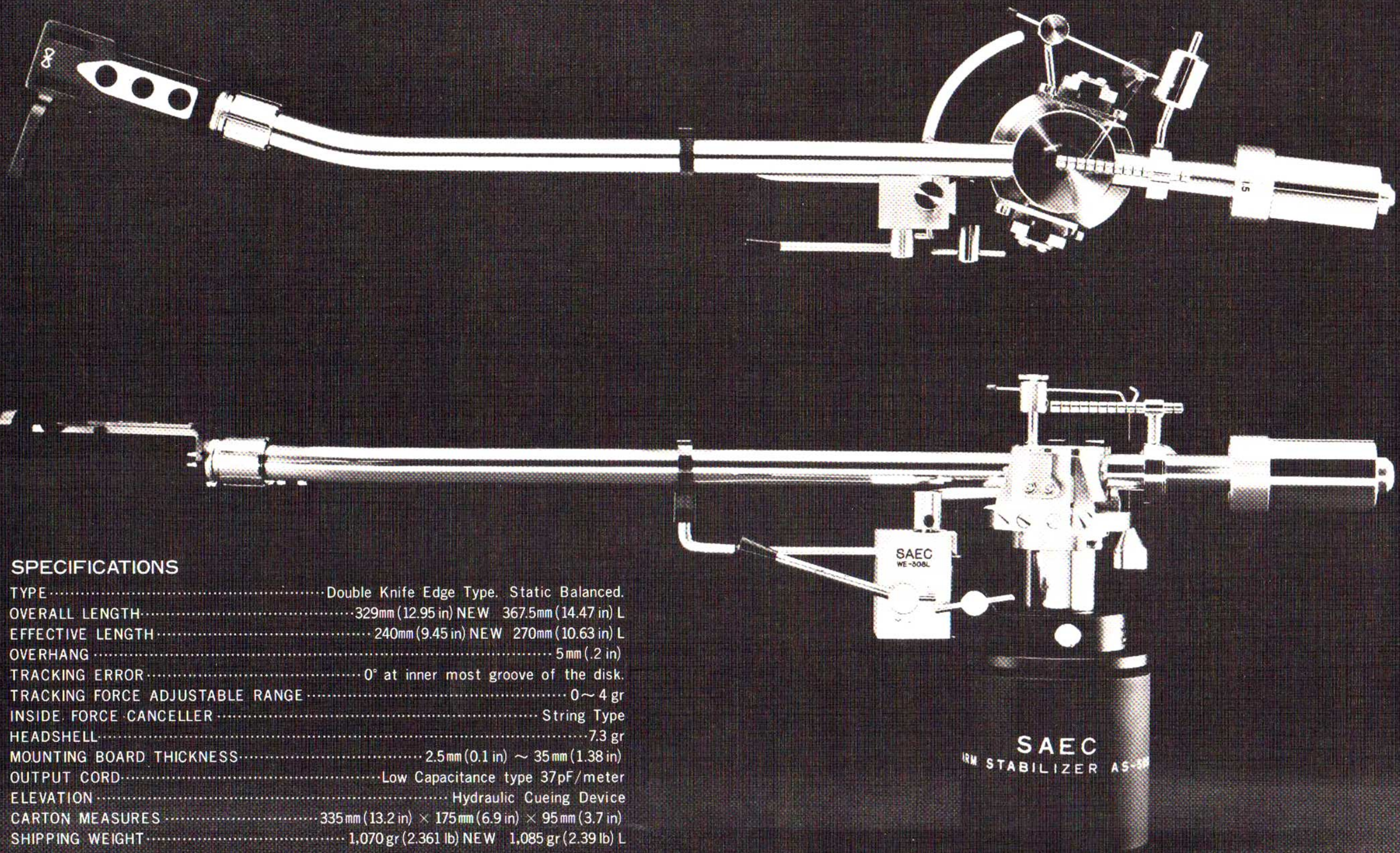


SAEC

DOUBLE KNIFE EDGE TONE ARMS & SYSTEM PARTS



AUDIO ENGINEERING CORP. JAPAN



SPECIFICATIONS

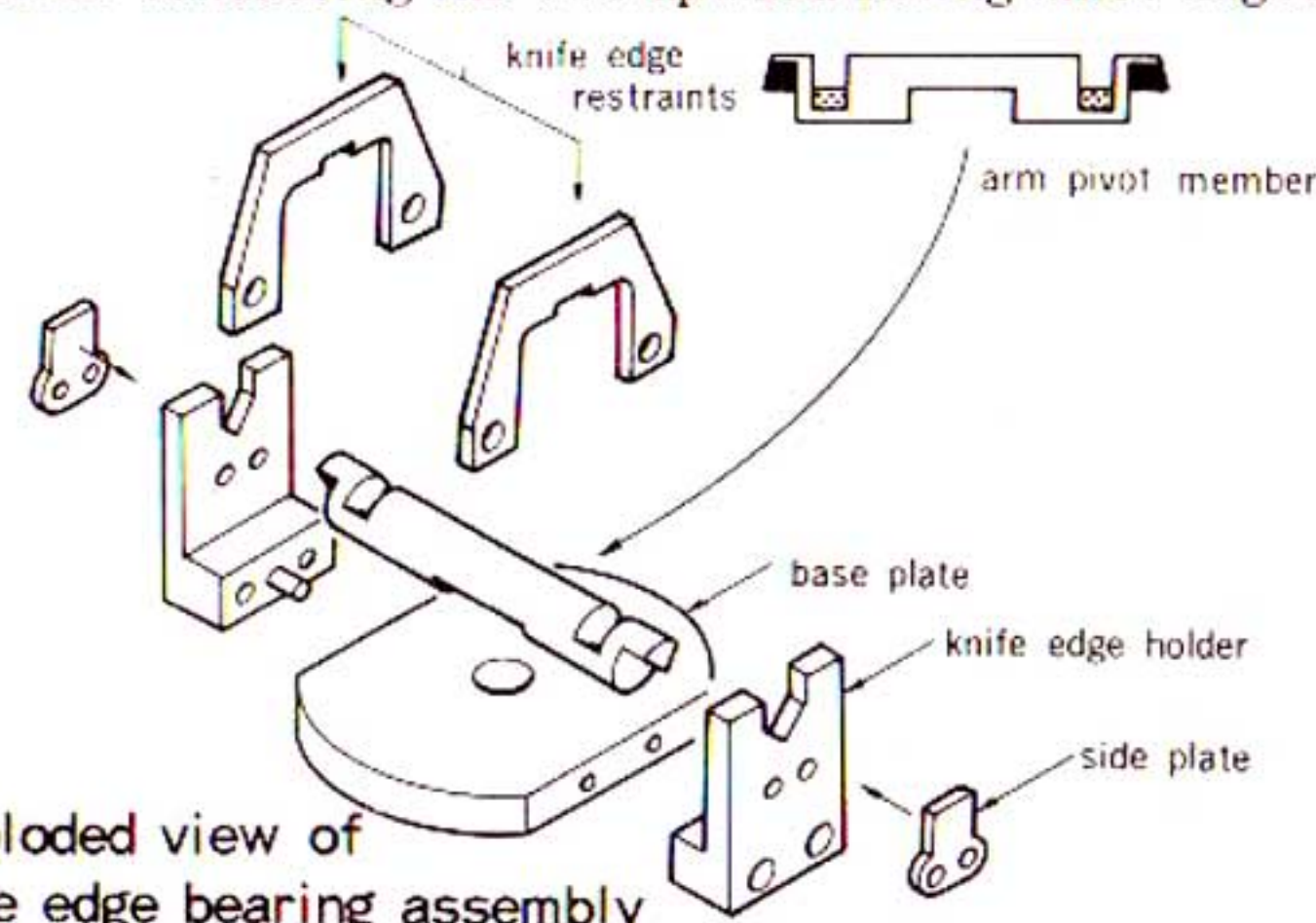
TYPE	Double Knife Edge Type. Static Balanced.
OVERALL LENGTH	329mm (12.95 in) NEW 367.5mm (14.47 in) L
EFFECTIVE LENGTH	240mm (9.45 in) NEW 270mm (10.63 in) L
OVERHANG	5mm (.2 in)
TRACKING ERROR	0° at inner most groove of the disk.
TRACKING FORCE ADJUSTABLE RANGE	0 ~ 4 gr
INSIDE FORCE CANCELLER	String Type
HEADSHELL	7.3 gr
MOUNTING BOARD THICKNESS	2.5mm (0.1 in) ~ 35mm (1.38 in)
OUTPUT CORD	Low Capacitance type 37pF/meter
ELEVATION	Hydraulic Cueing Device
CARTON MEASURES	335mm (13.2 in) × 175mm (6.9 in) × 95mm (3.7 in)
SHIPPING WEIGHT	1,070 gr (2.361 lb) NEW 1,085 gr (2.39 lb) L

WE-308NEW-WE-308L

WE-308 TONE ARM

DOUBLE KNIFE EDGE BEARING ASSEMBLY

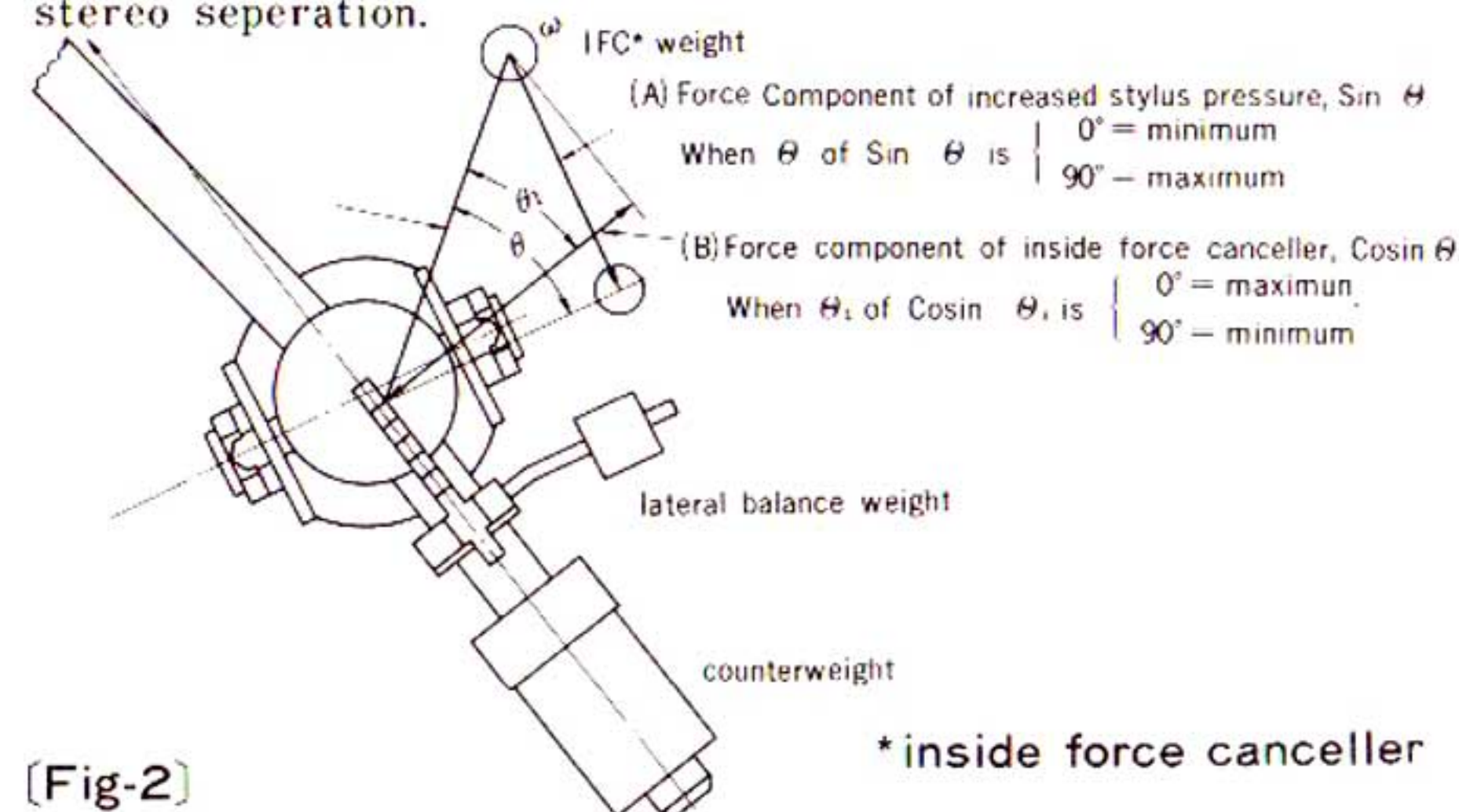
Machined at both ends of the arm pivot member are four knife edges, two on each end 180° opposed to each other and which are hand finished to rigid tolerances so that all four knife edges are in perfect alignment. The arm pivot member is borne by the two outermost and downward facing knife edges resting on the knife edge holders. The arm pivot member is restrained from lateral movement by side plates attached to the outside surface of the knife edge holders and perpendicular movement is constrained by two knife edge restraints contacting the two upward facing knife edges.



[Fig-1] Exploded view of double knife edge bearing assembly

AUTOMATIC TRACKING PRESSURE COMPENSATION

The automatic tracking pressure device gradually and minutely increases stylus pressure as the arm approaches the inner grooves of the record. This prevents the stylus from "floating" within the innermost grooves and allows the cartridge to reproduce high frequency information accurately and without increasing distortion products or degrading stereo separation.

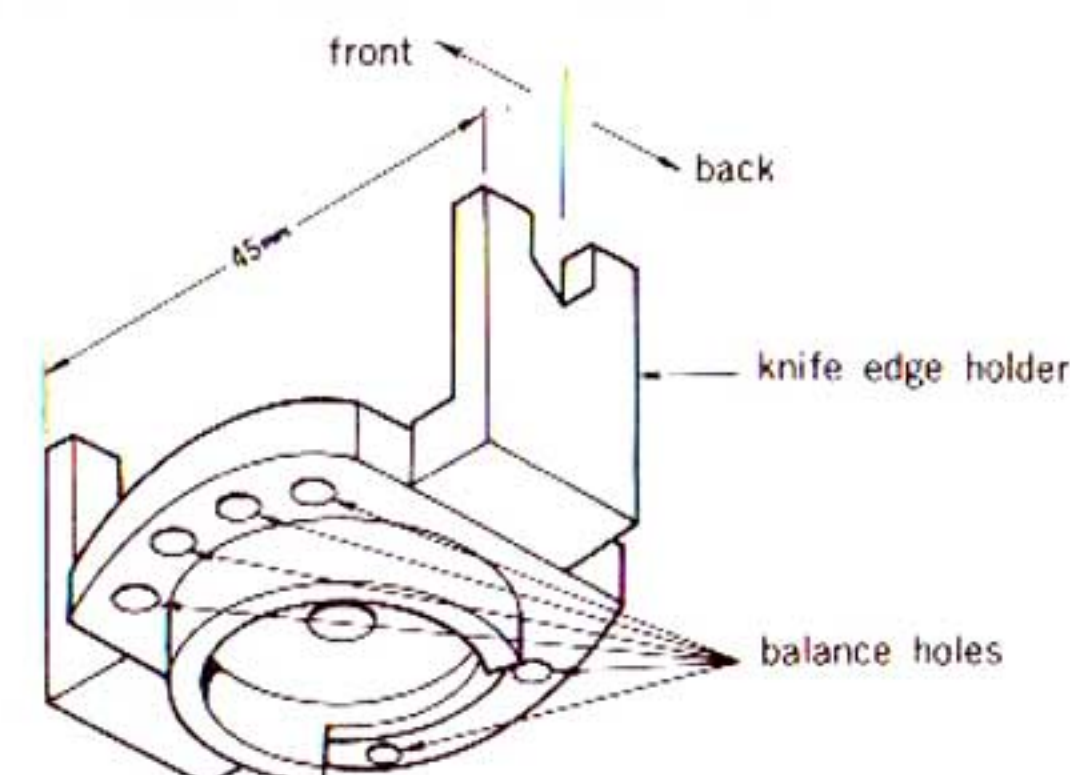


[Fig-2]

*inside force canceller

BEARING ASSEMBLY BASE PLATE

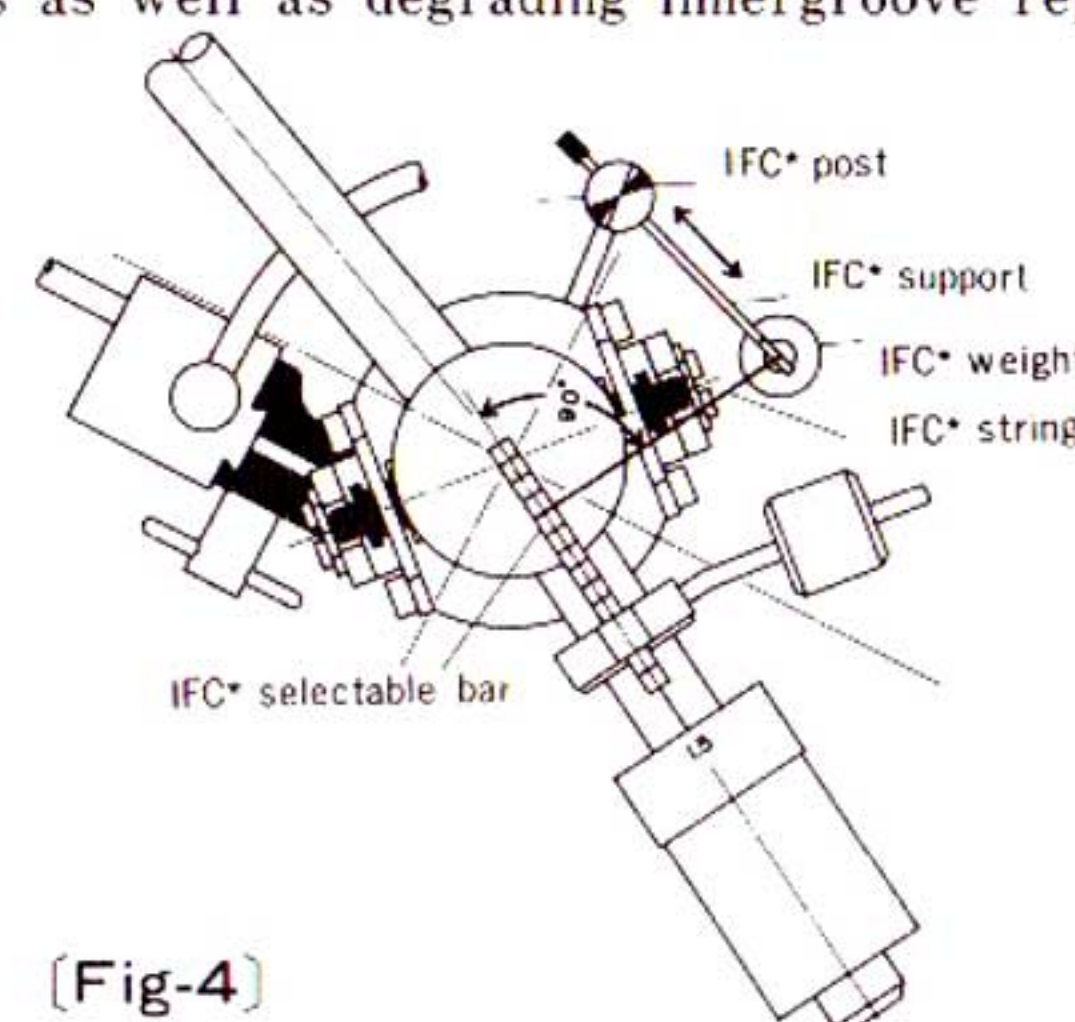
To assure absolute balance the double knife edge bearing assembly base plate is statically balanced. This procedure is particularly important since the complete tone arm rests and depends on the horizontal integrity of this base plate. When the lateral balance of the tone arm is adjusted with the lateral balance adjuster and as a result of the static balancing of the bearing assembly base plate, three axis are in perfect balance. Even if the turntable is not leveled correctly, the tone arm will function as if it were level.



[Fig-3]

INSIDE FORCE CANCELLER

Since all pivot tone arms track records in an arc, it is necessary to position the stylus a small distance from the spindle (overhang) so that the least amount of tracking error is present at all points of the record. Because of this overhang, a systematic unbalance is created past the midpoint of the arc. This unbalance causes the stylus to be forced inward on the inner grooves and this force increases as the stylus approaches the innermost grooves of the record. This inside force must be cancelled otherwise the stylus will exert undo pressure on the inner wall of the groove causing increased wear and damage to the delicate record grooves as well as degrading innergroove reproduction.



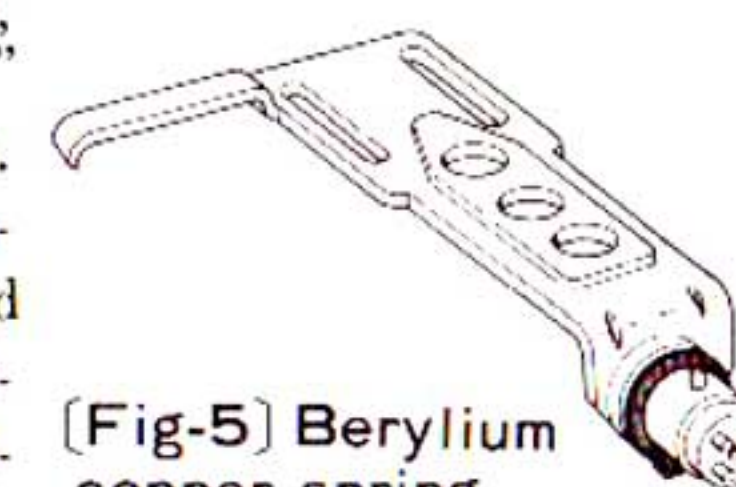
[Fig-4]

OVERHANG

The WE-308's overhang has been set at just 5mm (.2 in.), considerable less than most tone arms and in combination with its accurate inside force canceller and automatic pressure compensation, guarantees virtually perfect tracking of even the most intricate innermost grooves.

ULTIMATE HEADSHELL

Ultra low resonance, 7.3 gram (.26 oz.) weight and extreme rigidity make the ultimate headshell. But the ultimate headshell is unusable if it can not be attached to the tone arm tube so as to form an integral extension of that tube. The ultimate headshell incorporates a beryllium copper spring washer fitted onto its connector post and is compressed between the headshell and tone arm tube by twisting the locking ring. The compression of the beryllium copper spring washer exerts such strong frictional force between the headshell and tone arm tube, that they are literally "one," even though they are detachable. Thus, the convenience of a detachable headshell is provided without the alignment and movement problems normally associated with detachable headshells.



[Fig-5] Beryllium copper spring

TRACKING PRESSURE ADJUSTMENT

The nominal tracking pressure is adjusted by the conventional movable counterweight method. However, because of the wide veneer threading of the counter through hole, an ease and accuracy of stylus pressure adjustment is accomplished. The stylus pressure is directly readable on the counterweight scale ring and provides a level of accuracy heretofore available only with external scales.

An optional twin counterweight is available for cartridges weighing from 11 grams (.39 oz.) to 40 grams (1.4 oz.).

HYDRAULIC CUEING DEVICE

An oil hydraulic cueing device is provided for the gentle lowering and rising of the tone arm. Particular attention has been paid to make sure that the stylus "sets down" in the desired groove as accurately as possible.

OPTIONAL ACCESSORIES

For those needing more than a single tone arm on a turntable, a complete selection of optional parts are available to facilitate multiple arm installations. These accessories as well as other parts applicable to single and multiple arm uses are shown on the page overleaf.

DOUBLE KNIFE EDGE PRECISION TONE ARMS



① ARM BRACKET

This massive 1kg (2.2lbs.) arm bracket is machined to exacting standards and provides a mounting base for the WE-308 tone arm and is attached to an appropriate outside surface of a turntable base. As many as three arm brackets can be used on a turntable providing the turntable is of the proper shape and construction to support them.

This would provide up to four arms including the one mounted in the conventional manner around a single disc.

MODEL S-1

② ARM BRACKET SPACER RINGS

Spacer rings are not normally required to mount the WE-308 tone arm to a turntable utilizing the arm bracket, however, with certain turntables which have particularly thick motor boards, the height of the tone arm is insufficient. Under these rare circumstances, the arm bracket spacer rings will allow the installation of the WE-308 tone arm on virtually any turntable, regardless of thickness.

MODEL R-1 5" (1.2in)

MODEL R-2 10" (2.4in)

③ TWIN COUNTERWEIGHT

When a more massive cartridge is to be used, a heavier twin counterweight is available so that the tone arm will balance. When the twin counterweight is used with the WE-308 NEW tone arm, cartridges weighing from 11grams (.39oz.) to 40 grams (1.41oz.) can be balanced and when used with the WE-308 L, cartridges weighing from 12.5grams (.44oz.) to 42grams (1.48oz.) can be balanced.

MODEL W-2 for WE-308 NEW

MODEL W-2L for WE-308 L

④ ARM STABILIZER

The WE-308 tone arm has been designed to reduce acoustic feedback to a minimum but not all turntables and their suspensions are so unsusceptible to acoustic feedback. Thus, under certain conditions and/or turntables, acoustic feedback is still a problem. Usually, acoustic feedback is not a problem when using the WE-308 tone arm, however when it is, the arm stabilizer is offered. The arm stabilizer is a massive cylinder which threads onto the tone arm stand underneath the turntable mounting board or the external arm bracket.

This considerable weight, hung on the bottom of the tone arm stand, increases its mass so as to virtually eliminate lingering acoustic feedback problems and improve overall s/n ratio.

MODEL AS-500

⑤ ULTIMATE HEADSHELL

A perfect headshell is defined as having ultra low resonance and low weight while being extremely rigid. The ultimate headshell satisfies all these parameters while weighing a scant 7.3grams (.26ozs.). Additionally, a newly designed beryllium copper spring washer is utilized to provide a perfect and unmovable connection to the tone arm tube. The ultimate headshell is available either separately or as a pair enclosed in a deluxe case which also serves to hold the headshells with mounted cartridges when not in use.

MODEL ULS-20 (2 headshells)

MODEL ULS-2 (1 headshell)

TONE ARM SYSTEM PARTS