



Thorens
TD 160
Transcription
Turntable



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Built to the traditional THORENS quality, the Model TD 160 incorporates, at a lower selling price, many of the essential features of the prestige turntable TD 125 Mk II.

For instance, the dual chassis suspension for complete mechanical decoupling between the drive motor and sensitive pick-up system.

The tone arm and turntable platter are both mounted on an independent chassis which is resiliently suspended from the main rectangular chassis by means of a 3 point damped spring suspension with the motor fitted to the main chassis and directly driving the inner turntable via a long, resilient, precision ground rubber belt. This principle of construction, completely isolating the drive motor from the turntable/tone arm assembly, helps to reduce the rumble to a very low figure.

The TD 160 turntable is driven by a 16 pole two-phase synchronous motor. This motor has two identical stators which work on the rotor in an angle of precisely 90°, thus creating a perfectly circular rotating field and resulting in best wow and flutter as well as rumble figures.

This construction also assists in reducing the magnetic stray flux to a minimum, thus preventing any disturbing hum induction on very sensitive pick-up cartridges.

As is the case of any synchronous motor, the speed of rotation is determined by the power frequency and by the number of poles used and therefore this will always remain constant regardless of aging, dirt, or climatic conditions.

At a mains frequency of 50 Hz the motor rotates at a speed of only 375 rpm with a speed of 450 rpm at 60 Hz, and because of this low speed, both the motor rumble figure and bearing wear are reduced to the absolute minimum.

On removing the outer turntable platter, the belt drive system may be seen. A two-step pulley is mounted on the motor shaft for the two speeds 33 1/3 and 45 rpm and this drives the resilient belt which turns the inner turntable. The belt is shifted from one step of the pulley to the other by means of a fork.

The step pulley incorporates an acceleration clutch — a unique THORENS feature! It prevents the belt from stretching, thus reducing the starting time and eliminating chassis vibration.

The heavy 12" non magnetic zinc based alloy turntable platter weighing 7 lbs. has its mass distributed for optimum flywheel effectiveness, thus providing an exceptional freedom from speed irregularities.

Technical Data

16 pole two-phase synchronous motor with a precision ground rubber belt between the motor shaft pulley and inner turntable.

33 1/3 and 45 rpm.

non magnetic zinc alloy 12" (30 cm) diameter, with a weight of 7 lbs. (3,2 kg)

0,06 % according to DIN 45507, weighted

-43 db. |
-65 db. | according to DIN 45539

110-125 V, 210-240 V convertible.

50 and 60 Hz convertible through replacement of the drive pulley. 5 Watts.

44 x 34 x 14 cm with dust cover (18" x 14" x 5 1/2")

8,5 kg (19 lbs.)

TP 16 tone arm

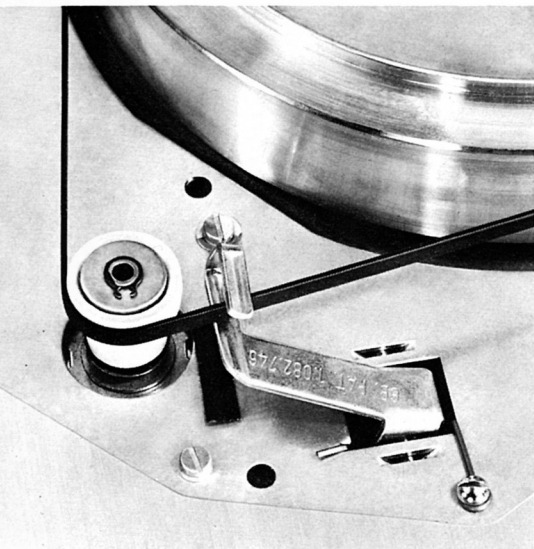
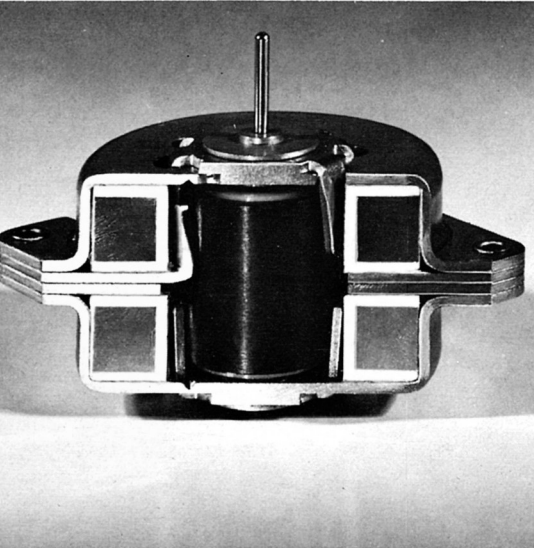
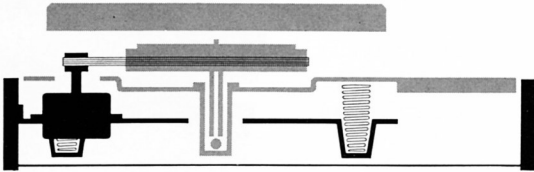
230 mm (9,06")

14,4 mm (0,55") adjustable

less than 0,2°/cm of radius

less than 20 milligrams in both planes measured at the stylus tip

adjustable for all cartridges with standard 1/2" fixing centres.



Drive system :

Speeds :

Turntable platter :

Wow and flutter :

Rumble — unweighted :

— weighted :

Power requirements :

Dimension :

Weight :

Length (distance between stylus tip and vertical tone arm bearing) :

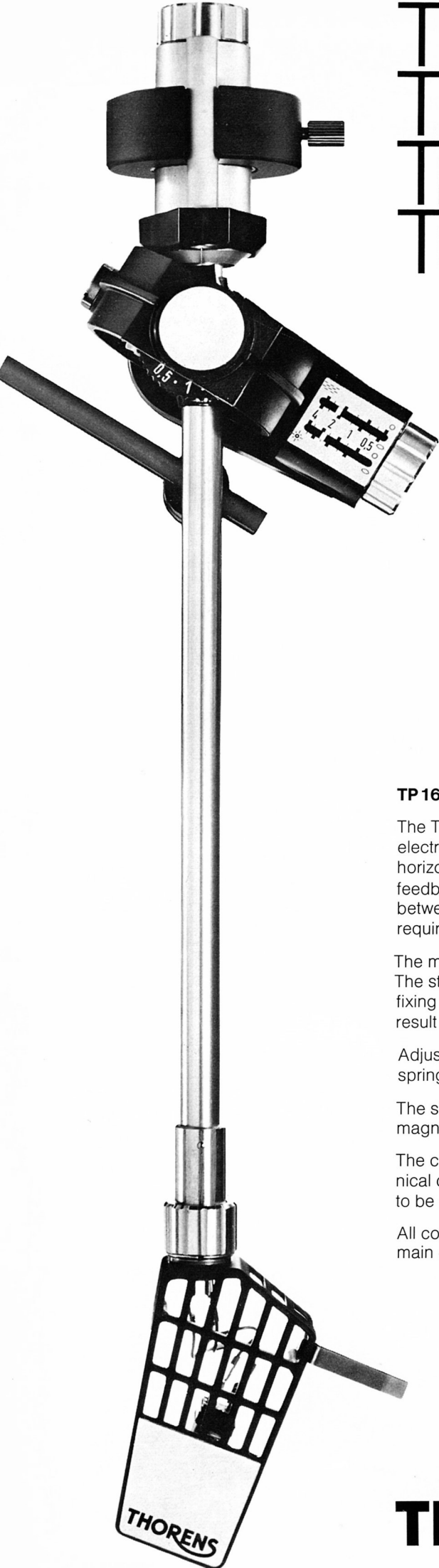
Stylus overhang :

Lateral tracking error :

Bearing friction :

Fitting of pick-up cartridge :

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TP 16 Tone arm

The TD 160 transcription turntable is equipped with the same TP 16 tone arm as used on the electronic THORENS TD 125 Mk II. The TP 16 tone arm is dynamically balanced in both the horizontal and vertical planes producing a great insensitivity to external shocks and acoustic feedback, even when playing at the lowest possible tracking force. The distance of 230 mm between the stylus tip and the pivots is the optimum figure resulting from the divergent requirements of a minimum horizontal tracking error and the lowest possible inertia.

The magnesium alloy plug-in shell TP 60 combines lowest inertia with maximum rigidity. The stylus overhang is adjustable in order to accommodate any cartridge with standard $\frac{1}{2}$ " fixing centres. Dust-proof precision ball races at both the horizontal and vertical pivot points result in minimum friction.

Adjustment of the stylus force is effected by means of a click knob acting on a calibrated spring in determined steps.

The skating compensation is obtained without any friction by means of a sophisticated magnet bias compensator, calibrated for four different playing modes.

The combination of the above mentioned features results in an arm in which only the technical characteristics of the pick-up cartridge used determine the necessary tracking force to be applied.

All controls including the knob operating the TP 16 tone arm lift are situated on the front of the main chassis for easy operation.

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