

The Gramophone Company Limited

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Extension.....

E.P.U. 100 SERVICE INSTRUCTIONS PICK-UP ARM

REPLACEMENT OF DAMPING FLUID

Damping fluid leakage can occur as a result of severe transit conditions or if the pick up is inadvertantly turned over once the wedge is removed. Due to the high viscosity of the fluid, a small amount of leakage can also occur if the wedge is removed too quickly after the pick-up has been turned from a non-upright position to the normal fixed position on the turntable baseplate.

1. CHECK WHETHER FLUID REPLACEMENT IS NECESSARY - AS FOLLOWS -

- (a) Before carrying out this test, the pick up should have been mounted in its normal position for at least 2 hrs to allow the high viscosity fluid to settle.
- (b) Swing pick up clear of record.
- (c) Lower Pick-up by lowering device.
- (d) Lift pick-up clear of rest to the maximum possible extent.
- (e) Allow pick-up to fall on to the rest.

The time taken to fall on the rest should be approximately 1 second and the pick-up should not bounce on the rest more than once.

If the arm bounces less than 4 times there is little possibility of record damage being caused if it is used in this condition. On the other hand under this condition channel separation, rumble and flutter are likely to be sub-standard.

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2. IF SUFFICIENT LEAKAGE HAS OCCURED TO WARRANT REFILLING PROCEED AS FOLLOWS:

- (a) Carry out these instructions with the pick-up fitted in its normal position.
- (b) Insert Plastic Wedge.
- (c) Remove Hub Cap Assembly with C spanner.
- (d) Inject fluid into space between wall of hub and damping paddle so that top level of fluid on completion is 0.35 ins. from bottom.

NOTE

The total volume of fluid needed is 1.35 c.c.

- (e) Coat the top edge of the Hub with the thin layer of Red Hermetite jointing compound.
- (f) Apply a spot of damping fluid to the pivot bearing in the Cap assembly.
- (g) Screw the Cap Assembly tightly into the Hub with a "C" spanner.

3. TO CORRECT MISALIGNMENT BETWEEN HUB AND PIVOT MOUNT

The arm should be balanced so that if the pivot mount pillar is vertical the gap left by removal of the transit wedge is approximately equal on each side looking along the line of the arm.

- (a) Remove white wax from counterweight securing screw holes with suitable tool.
- (b) Free one socket screw completely and loosen the other to "Just Contact" position, being careful not to let counterweight swing out of position.
- (c) Rotate the counterweight carefully until absolute alignment between hub and pivot mount is achieved.
- (d) Tighten screws. - Refill holes with Suitable wax.

NOTE

Alignment should be checked when P.U. Head is lowered to record surface, care being taken to prevent damage to pick-up and record. Care should be taken when adjusting for alignment not to disturb Playing weight.

4. TO CORRECT MINOR ERRORS IN PLAYING WEIGHT

- (a) Loosen socket screws as described previously.
- (b) Adjust counterweight along the arm until the correct playing weight of $2\frac{1}{4}$ - $2\frac{3}{4}$ grms is achieved.
- (c) Tighten screws and fill holes with suitable wax.

Great care should be taken when adjusting for playing weight not to disturb the hub to pivot mount alignment previously described.

NOTE

A suitable Allen key for these adjustments is included in all Pick-up Packs.

5. TO CORRECT STYLUS ALIGNMENT

The stylus is cut so that a deviation of 5° - 10° off vertical is not critical.

If, looking along the line of the arm the error appears to be greater than this:

- (a) Check alignment between hub and pivot mount as described above.

