

SMD ACOUSTICS BEARING GARRARD 301 & 401



Thank you for purchasing the SMD Acoustics bearing upgrade for the Garrard 301/401. The bearing is a precision made component and should give many years of trouble free service provided these simple instructions are followed.

The Bearing Assembly comprises of the following components: -

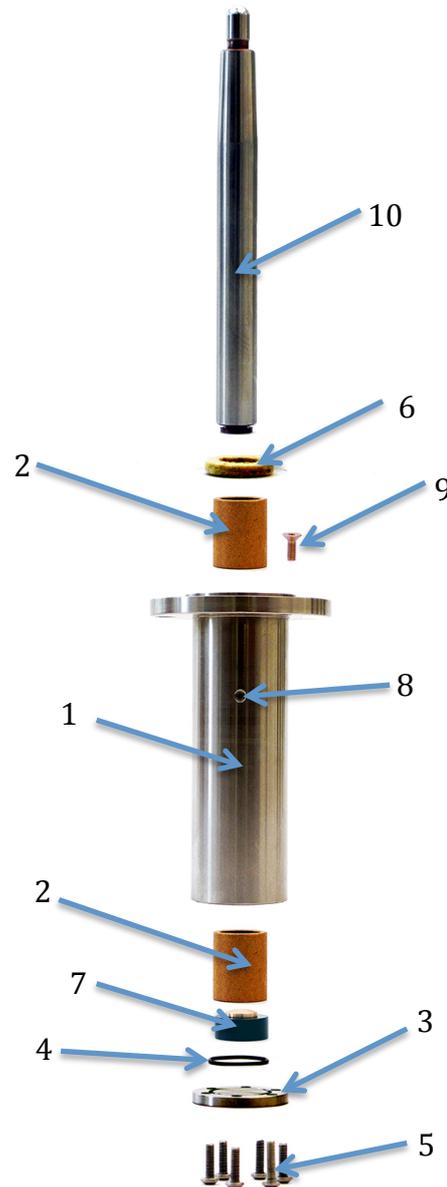
1. Bearing Housing
2. 2 x Oilite bushes
3. Base Plate
4. O Ring Seal
5. Base Plate Fixing Screws
6. Felt oil ring
7. Thrust Pad
8. M3 Plug (Note A)
9. 3 Oil Screw
10. Spindle (Note B)

The bearing assembly features an extremely rigid bearing housing (1) machined from either solid stainless steel or solid brass bar depending on the chosen model giving the advantage that it does not flex and move like the original cast aluminium bearing housings.

The bearing housing (1) is fitted with two Oilite bushes (2), these are precision honed for an extremely accurate match with the hardened tool steel spindle (10). Spindles are ground to an extremely demanding tolerance of ± 3 microns.

Oilite bushes are selected because they are porous and absorb oil which is a very important feature when running a spindle in a shaft that has very little clearance as a layer of oil can not easily get between the shaft and the bush hence an "oiled" bush is vital to spindle and bush life.

The spindle rides on a high quality phosphor bronze thrust pad (7) that wears in preference to the spindle.



The bearing comes pre lubricated from the factory but before use the felt washer (6) should be loaded with several drops of the oil provided to ensure it is quite moist. It is worth checking periodically that the felt washer has not dried out as this feeds the Oilite bushes (2), keeps them lubricated and prevents them from drying out. The oil will work its way down to the bottom bush and keep it sufficiently "oiled"

Every 12 -24 months the oil screw (9) should be removed with an allen key and two drops of oil delivered into the hole where the oil screw (9) fits. The oil screw (9) should be refitted, don't be tempted to overload with oil as this could create hydraulic pressure in the bearing when the screw is refitted a couple of drops is quite sufficient.

When refitting the oil screw (9) a small amount of oil may spill into the rim but this is OK because the felt washer will soak this up.

Beware that only the recommended clean oil is used because even a very small particle of grit could cause the spindle to bind in the bushes.

Notes:

A) The small M3 Plug (8) on the side of the bearing should not be removed. This is held in place by thread lock to prevent oil seepage.

B) The spindle (10) in the Garrard 301 is longer than the 401 and the thrust pad (7) in the 301 is not as deep as the 401 thrust pad (7) other than that the bearings are the same and these instructions cover both types of bearing. The spindle (10) has a circlip fitted that is not shown in the diagram.

C) This is a precision component with very close tolerances and designed to be run at <100RPM...**UNDER NO CIRCUMSTANCES EXCEED** this speed by either motor drive or by free spinning by hand. To do so will result in forces that drive away the oil layer that protect the spindle and bushes which could result in unlubricated metal to metal contact and wear/damage to your bearing.

Fitting Instructions

Stage 1:

Remove the turntable platter and then remove your original bearing from the Garrard by unfastening the 3 screws, nuts and washers that retain the bearing housing, once done the bearing can be removed from the chassis. Note these fasteners should be retained for fixing the new bearing into the chassis.

Stage 2

Now it's time to fit the new bearing into the turntable by using the screws, washers and nuts you removed earlier. Once you have tightened the new bearing assembly into the chassis you can refit the platter and you are ready to go.

The bearing is part run in during testing and assembly but a further period of 24 – 48 hours of running in will be required to achieve optimum performance from your product but it will immediately be a noticeable upgrade on the standard bearing.