

# <u>T025 – Changing Bearings & Oil Seals Maxivac</u>

## ver1.0 Nov 2015

#### Changing a Maxivac Oil Seal

Switch off mains electrical supply to vacuum pump and motor and remove vee belts.

Remove end plate cover screws (1) remove end plate cover (2). See figure 1

Carefully remove the old oil seal (3) making sure you do not damage the pump bearing. Clean the oil seal housing and lightly smear with oil.

Fit the new oil seal taking care to make sure it is the correct way round (see figure 2) Refit the end plate cover.

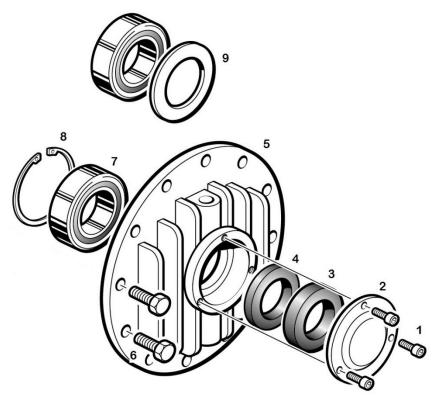


Figure 1





Figure 2

#### Changing a Maxivac bearing

Remove vee belts and end plate cover as described above.

Remove end plate screws (6). Using an end plate removing tool (see figure 3) screw the 3 bolts into the 3 holes in the end plate, adjust the nuts on the 3 bolts. Screw the central pin into the shaft end and pull the end plate (5) from the pump (the rotor shaft must be supported). Using circlip pliers remove the circlip (8) and carefully remove the bearing (7). Clean the bearing housing and smear with oil. Fit the new bearing into position using a bearing punch. The bearings have serial numbers on one side. The bearing **must** be placed so that the number is facing to the inside of the pump. Replace the circlip (8), fit new oil seal and slide the end plate (5) back onto the rotor shaft. Replace end plate screws (6), end plate cover and end plate cover screws.



Figure 3



### Changing a bearing on a Maxivac 5 Vacuum Pump (with 6 character serial number)

The original Maxivac 5 pumps to be manufactured (having 6 character serial numbers e.g. 700300) used shims between the end plate and the bearing (**see figure 1** item 9).

The later models of Maxivac 5 pumps that have 9 character serial numbers (e.g. 060010697) have machined bearings and end plates so do not require shims. **NOTE** Original end plates and bearings cannot be interchanged with the latest type.

When changing the bearing at the **Non Drive End** of the pump it is important before fitting to measure the bearing width using a micrometer. Refer to 'A' in Figure 4. This bearing width must comply with precise tolerances.

If the width 'A' is between 17.95 mm and 18.00 mm the bearing can be used without shims. For bearings with widths 17.90 mm and 17.95 mm ONE shim is fitted. Bearing widths outside 17.88 mm - 18.00 mm must NOT be fitted to this version Maxivac 5 pump.

NOTE – Shims are fitted between the bearing and its housing in the end plate (see figure 1 Upper part)

If required fit the shims (9) between the end plate and the bearing before drifting the bearing in place using a bearing punch.

Replace the circlip (8), fit new oil seal and fit end plate back onto rotor shaft. Replace the end plate screws (6), end plate cover (2) and screws (1).

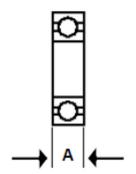


Figure 4