

STRIP, OVERHAUL & REASSEMBLY OF HW/RW FRESH WATER PUMP

The fresh water pumps fitted to HW & HRW engines are all of similar construction although rotation may be clockwise or anti-clockwise. In this case the end covers are interchangeable but the pump body is specific to the rotation.

Similarly, later pumps have a different seal comprising two items – counterface & seal unit - and in this case the pump body, shaft and impeller are specific to the seal type.

Strip & overhaul procedure is similar in all cases.

STRIP

- 1 Remove belt pulley from end of shaft.
- 2 Remove circlip (item 9)
- 3 Remove pump end cover – NB do not attempt to push end cover away from pump body using shaft since this will damage pump body.
- 4 Push pump shaft (1) out through pump body either with brass drift or under press.
- 5 In case of later pump remove seal unit from pump body.
- 6 Clean & inspect all parts.

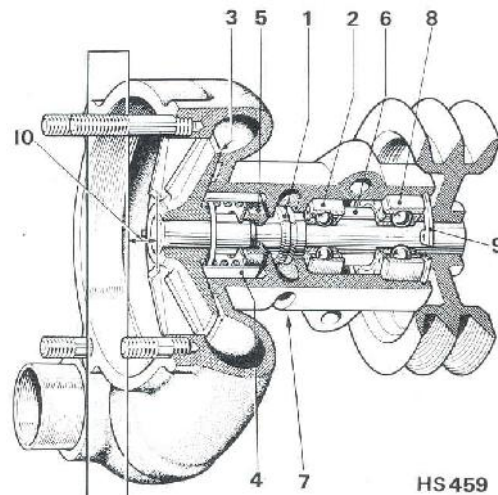
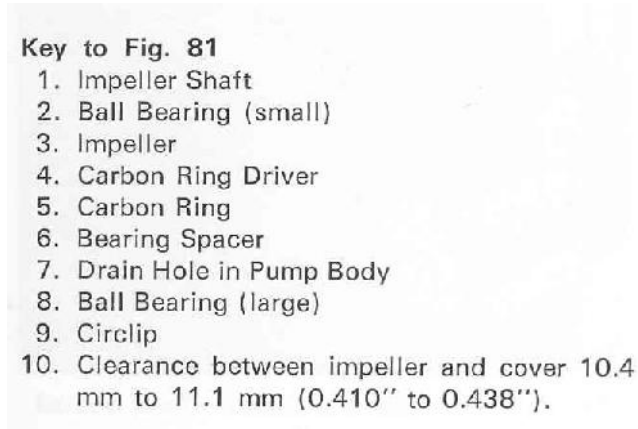
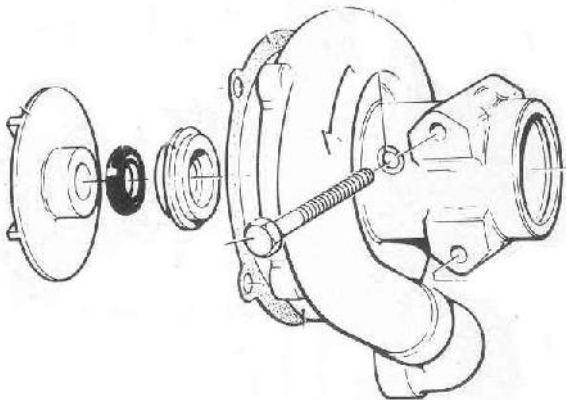


Fig. 81 Components of Water Pump



Seal Arrangement on later Pumps

REASSEMBLY

- 1 Fit shaft (1) and inner bearing into pump body.
- 2 Replace bearing spacer (6) and pack cavity with grease.
- 3 Fit outer bearing (8) and circlip (9).
- 4 Fit pulley. This should be done under a press with the shaft/body assembly being pushed into the pulley. No force should be applied to the pump body during assembly & pressure must be applied to the end of the shaft. When assembled, the pulley end of the shaft should be flush with the face and the bearings & spacer must be trapped between the shaft and pulley bosses.
- 5 Lightly grease the seal seating, smear rubber ring with soft soap and fit seal assembly to shaft. In case of later type seals, lightly grease recess and insert seal assembly into pump body.
- 6 Place pump upright under press, resting on the pulley, and fit the impeller (3) together with seal items. In case of early type (carbon) seals, care must be taken to ensure that the lugs on the carbon ring driver (4) enter the carbon ring correctly. A chalked or marked line on the shaft end and impeller will assist. In case of later seals, lightly smear faces with grease before assembly to shaft.
- 7 Before fitting the cover check that the face of the impeller boss is between 10.4 and 11.1 mm (0.410" & 0.438") below the level of the body joint facing as shown at (10).
- 8 Refit end cover with new joint – recommend Wellseal as sealant.

Peter Thompson

Marine Engine Services Ltd, Unit 3 / 549 Eskdale Road, Uxbridge, Middlesex UB8 2RT

Tel : 01895-236246. Fax : 01895-813322. e-mail : Peter@marineengine.co.uk