

Bulletin
Number 5014

Issue 2

Date 2.11.49

Sheet 1 of 3 Sheets

MODELS AFFECTED
1948-49 "60" and "75"
1948-50 LAND-ROVER

UNIT AFFECTED
WATER PUMP

COMPLAINT

SUBJECT

RE-CONDITIONING OF WATER PUMPS

1. TO REMOVE WATER PUMP

- (a) Drain off the water (drain taps at the bottom of the radiator block and on the right-hand side of the cylinder block).
- (b) Slacken the dynamo adjusting link; push the dynamo inwards.
- (c) Remove the thermostat housing :
 - (i) Slacken the lower hose-clip on the top water hose.
 - (ii) Slacken one hose-clip on the hose from the manifold water outlet pipe.
 - (iii) Disconnect one heater pipe union ($\frac{1}{2}$ in.) at the tap.
 - (iv) Remove the thermostat bulb ($\frac{7}{16}$ in. spanner).
 - (v) Remove the thermostat housing, together with joint washer (four $\frac{5}{16}$ in. set-bolts and spring washers).
 - (vi) Remove the rubber seal between the water pump and thermostat housing.
- (d) Remove the fan blades and pulley (four $\frac{1}{4}$ in. set bolts and spring washers).
- (e) Disconnect the bottom water hose at the pump end (one hose-clip) and the second heater pipe union ($\frac{1}{2}$ in.).
- (f) Remove the eight $\frac{1}{4}$ in. set bolts and spring washers securing the water pump to the cylinder block. Withdraw the water pump, together with inlet pipe and joint washer ; as the pump is spigoted into the cylinder block, it will be necessary to oscillate it slightly as it is removed.

2. TO STRIP WATER PUMP

- (a) Remove the impellor. A suitable extractor comprises a plate with two holes, attached to the impellor with two 2 B.A. bolts in the tapped holes provided. A tapped hole in the centre of the plate enables extraction to be made by means of a $\frac{1}{4}$ in. bolt pressing on the water pump spindle.

Should the impellor be of the original type, having two $\frac{1}{4}$ in. (19 mm.) slots for location of the carbon ring, it must be discarded and a new impellor and seal Part No. 233472 incorporated on assembly.

- (b) Remove the water seal parts :

Original pattern pump

- (i) Spring
- (ii) Brass cup washer
- (iii) Rubber seal
- (iv) Carbon thrust ring

Discard and fit new impellor and seal Part No. 233472 on assembly.

Latest pattern pump
Remove carbon ring and seal from bore of impellor.

- (c) Remove the $\frac{1}{4}$ in. set screw and spring washer locating the spindle bearing.
- (d) Drive out the spindle and bearing complete with fan pulley hub, towards the front of the body.
The pulley hub should not normally be withdrawn from the spindle as it is pressed on to a set dimension ; if this operation is necessary, a claw type extractor should be used.
The bearing **MUST NOT** be removed from the spindle ; this unit **MUST ALWAYS** be supplied and fitted complete.

This sheet replaces that already in your file which bears the SAME bulletin and sheet numbers, but of a LOWER issue number. The old copy should be removed and destroyed.

Bulletin
Number 5014

Issue 3

Date 2.11.49

Sheet 2 of 3 Sheets

MODELS AFFECTED
1948-49 "60" and "75"
1948-50 LAND-ROVER

UNIT AFFECTED
WATER PUMP

COMPLAINT

SUBJECT

RE-CONDITIONING OF WATER PUMPS

The 1950 pattern impellor and seal (supplied together under Part No. 233472) should be incorporated in all earlier water pumps undergoing repair, to provide a more efficient water seal.

The original type impellor and water seal components will not be supplied when present stocks are exhausted.

The improved impellor and seal are obtainable separately for replacement purposes under Part No. 233440 for the impellor and Part No. 231143 for the carbon ring and seal unit.

3. TO ASSEMBLE WATER PUMP

- (a) Examine the spindle and bearing assembly; it need not be renewed if the bearing is satisfactory and the spindle is free from excessive corrosion.

Clean any corroded portion of the spindle and paint with chlorinated rubber primer to prevent further action. This rubber primer is available from our Spares Department in half-pint tins under Part No. T1843.

As an alternative, good quality aluminium paint or other anti-corrosive paint can be used in place of rubber primer.

Insert a few drops of thick oil in the location hole in the bearing.

Press the spindle and bearing assembly into the front of the pump body with the longer end of the spindle leading. Locate with $\frac{1}{4}$ in. set-screw and spring washer.

- (b) If the fan pulley hub has been removed, this must be pressed on to the spindle to a set dimension between the front face of the pulley hub and the mounting face of the water pump body. For car engines this dimension should be 4.215 in. (107 mm.) when a pressed steel pulley is fitted, or 4.090 in. (104 mm.) where the cast-iron pulley is used (see Section 4 for further details). For Land-Rover engines the dimension should be 4.215 in. (107 mm.). Be careful to support the spindle during this operation to prevent pressure falling on the location set-screw.

- (c) Fit the carbon ring and seal Part No. 231143 into the bore of the impellor Part No. 233440 with the carbon ring to the front.

- (d) Press the impellor on to the spindle until there is .020 in. (0.5 mm.) clearance between the vanes and the pump body face (check with feeler gauge).

4. PRESSED STEEL AND CAST-IRON PULLEYS (CAR ENGINES ONLY)

Two types of fan pulley are in circulation:

Cast-iron, fitted to engines 8210001—8210010 and 8410001—8410030.

Pressed steel, fitted to engines 8210011 and 8410031 onwards.

It will be seen that only 40 engines were fitted with cast-iron pulleys and for this reason only the later type spindle and pulley hub assembly will be supplied. When replacement pumps or spindles are required for these 40 engines, one of two alternatives may be adopted.

- (a) A pressed steel pulley may be fitted in place of the cast-iron one, or

- (b) The pulley hub may be pressed on a further .125 in. (3 mm.); the cast-iron pulley may then be used. (See para. 3 (b) for dimensions.)

This sheet replaces that already in your file which bears the SAME bulletin and sheet numbers, but of a LOWER issue number. The old copy should be removed and destroyed.

Bulletin
Number 5014

Issue 3

Date 2.11.49

Sheet 3 of 3 Sheets

MODELS AFFECTED

1948-49 " 60 " and " 75 "
1948-50 LAND-ROVER

UNIT AFFECTED

WATER PUMP

COMPLAINT

SUBJECT

RE-CONDITIONING OF WATER PUMPS

5. TO REFIT WATER PUMP TO ENGINE

(a) Reverse operations 1 (a) to 1 (f) ; when re-fitting the pulley, first engage the fan belt in the groove.

6. SERVICE MODIFICATION FOR LEAKING WATER PUMP

(a) Remove and strip the water pump.

(b) Re-assemble the pump in accordance with the instructions given in Para 3 (Sheet 2).

7. THE SERVICE WATER PUMP ASSEMBLY

for these models comprises the following parts :

Pump casing.

Spindle, fan hub and bearing complete.

Carbon ring and seal.

Impellor.

Spring washer } locating bearing.
Set bolt }

When returning water pumps for re-conditioning, only the above components should be returned.

This sheet replaces that already in your file which bears the SAME bulletin and sheet numbers, but of a LOWER issue number. The old copy should be removed and destroyed.