

## Section A (Cooling System)

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**To remove**

Remove the radiator filler cap and drain the coolant by opening both the bottom radiator tap and the cylinder block tap.

Slacken the generator holding bolts and remove the driving belt.

Slacken the nut on the bolt which secures the rubber-shroud retaining-clip surrounding the fan cowl and displace the clip; if fitted, so that it rests adjacent to the second clip of its type.

Disconnect the battery.

Remove the three generator holding bolts, having first disconnected the cables at the Lucar connections, and detach the generator unit.

Slacken the hose clips and detach the hoses from the cylinder block, radiator bottom tank and the water pump by-pass inlet connection.

Remove the three long bolts which retain the mounting bracket assembly to the cylinder block mounting bosses and remove the pump and fan assembly to the bench.

The cooling fan is detached after the three retaining bolts have been unscrewed from the tri-angularly shaped driving member; collect the three distance pieces, if fitted.

To detach the fan cowl, remove the four long bolts which extend through the inlet and outlet bodies of the water pump.

**To dismantle**

Unscrew the large nuts at each end of the impellor spindle and draw off the tri-angular driving member and the driving pulley from their respective keys.

Holding one half of the pump steady turn the other half to break the joint between the bodies.

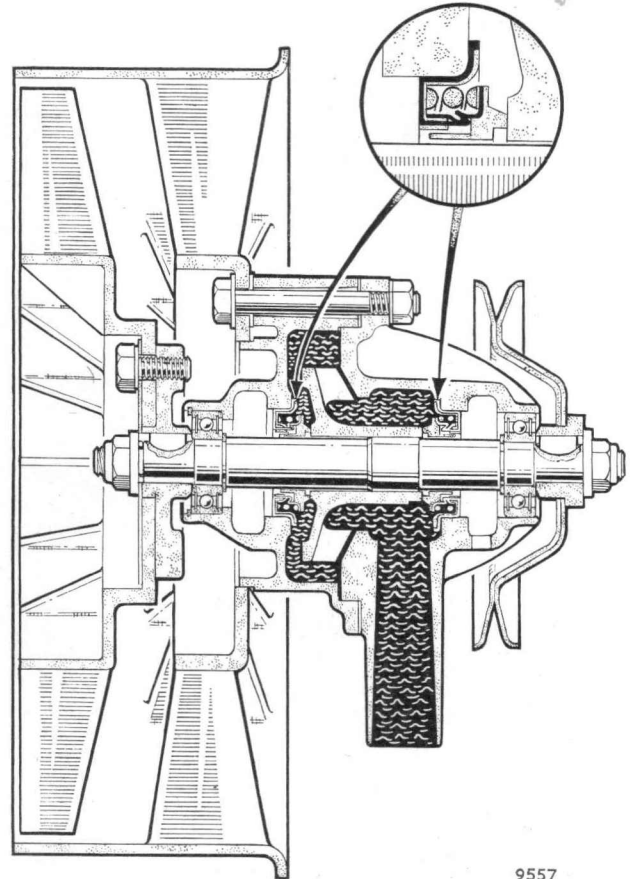
Using a hide faced hammer drive the pump spindle out of the fan end bearing. Then press the shaft or shaft and bearing, out of the pump outer housing. If a bearing remains on the shaft remove it with a puller.

Remove circlip retaining the other bearing and press the bearing out of its housing. Fig. 7 and 8 show the different positions of this circlip.

Remove seals.

**Note:** Coolant thrower abutment washers behind each bearing are only used on the type of pump shown in Fig. 6 and 7.

No attempt must be made to dismantle the impellor from its driving spindle.



**Fig. 8.** Latest type of water pump with pressure balanced type seals—inset shows a seal in dry state.

**To reassemble**

This is the reverse to the dismantling procedure.

If either the impellor or spindle are worn a new impellor/shaft assembly must be fitted.

New bearings, gasket and seals of a similar type should always be fitted.

When pressing in the bearings the replacing abor must press on both race tracks of the bearing together, while the other bearing is supported on both of its race tracks.

Before assembling the two halves of the water pump coat both jointing faces with Shell Ensis fluid 256 to prevent corrosion and to facilitate future dismantling.

**To refit**

On re-assembly, any spacing washers between the fan cowl and pump body, or distance pieces between the fan and fan centre should be re-fitted in their original positions.

The torque figures for tightening the pump through bolt nuts, the fan blade fixing bolts, and two nuts at the pump spindle ends are given under Torque Loading Figures under Cooling in General Data.