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## Section A (Cooling System)

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 refit

This will be the reversal of the foregoing procedure for removal.

On re-assembly, it is important that the four spacing washers are inserted between the hub of the fan cowl and the outlet pump-body on the four bolts which pass through the water pump bodies.

On completion of assembly, refer to the appropriate paragraph which describes how "to refill" the cooling system.

## WATER PUMP ASSEMBLY (See Figs. 6, 7 and 8)

The water pump is of the centrifugal impellor type, the impellor being mounted on a steel spindle which runs in two identical ball bearings. Adjacent to the inner face of each bearing is an abutment washer; this acts as a thrower in the event of coolant finding its way past the carbonfaced spring-loaded seals positioned one at each end of the impellor.

At the bearing end of the inlet and outlet pump body a small hole is drilled in the casting which permits any coolant, which has seeped past the spring-loaded seals, to drain away.

The latest water pump is shown in Fig. 8. It has more space between the bearings and seals which are of an improved type. These seals are not affected by increase of coolant pressure within the pump at higher engine speeds. There are no throwers behind the bearings on this pump.

Some of these later pumps are fitted with the first type of seal shown in Fig. 7. The two types of seals are not interchangeable, because, the impellor sealing face has been modified to suit the latest seal. Similar seals, to those removed, must be used when replacement seals are fitted.

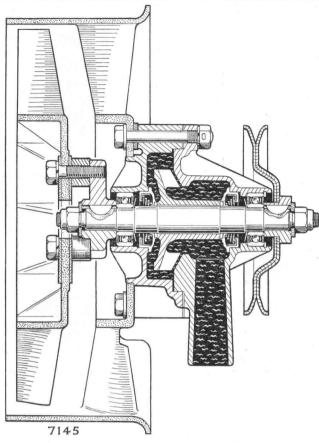


Fig. 6. Sectioned view of water pump and fan assembly. (Early models)

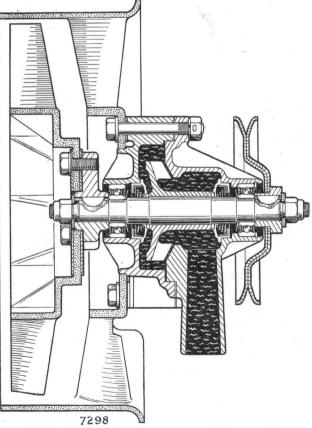


Fig. 7. Sectioned view of water pump and fan assembly. (Later models)