

**6.247 ENGINE****THERMOSTAT****To Remove**

Disconnect battery.

Place heater control in HOT position.

Release clips and remove rear engine cover.

Open and secure bonnet.

Remove heater air ducting from its location at the bulkhead and inner wing.

Partially drain the coolant (Refer to Sub-section C200 -- PARTIAL DRAINING).

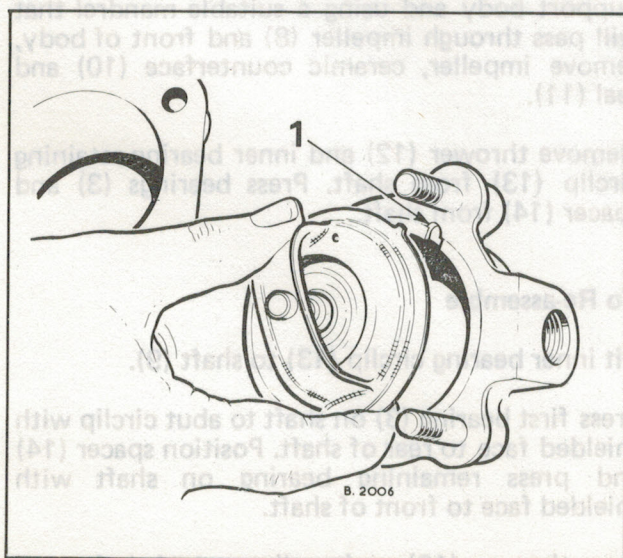
Release hose clip and displace top radiator hose from thermostat housing.

Remove the four bolts securing housing to the water rail.

Recover the thermostat and gasket.

**To Refit**

Refitting is a reversal of the removal instructions, ensuring that the tag on the flange of the thermostat is fitted in the location recess in the housing flange (1), Fig. 1.

**Fig. 1**

Clean all joint faces and use a new housing gasket.

Refill with coolant.

**WATER HEADER RAIL****To Remove**

Disconnect battery.

Release clips and remove rear engine cover.

Open and secure bonnet.

Remove heater air ducting from its location at the bulkhead and inner wing.

Partially drain the coolant (Refer to Sub-section C200 -- PARTIAL DRAINING).

Release hose clips and displace heater hose and water pump hose from water header rail.

Release hose clip and displace top radiator hose from thermostat housing.

Detach wire from water temperature sender unit.

Remove bolts, release 'Dzus' fasteners and detach undertray.

Remove nuts at exhaust down pipe to manifold joint and nut and bolt from down pipe steady bracket. Displace down pipe and collect sealing ring.

Remove nuts securing exhaust manifold and pull manifold from its location. Collect manifold gaskets.

Remove nuts securing water header rail to cylinder head and remove rail.

Collect gaskets.

**To Refit**

Refitting is a reversal of the removal instructions using new gaskets as necessary.

Refill with coolant.



#### To Remove and Refit Water Pump

1. Drain cooling system.
2. Release alternator and remove drive belt.
3. Remove fan and water pump pulley.
4. Release hose connections and remove pump, Fig. 2.

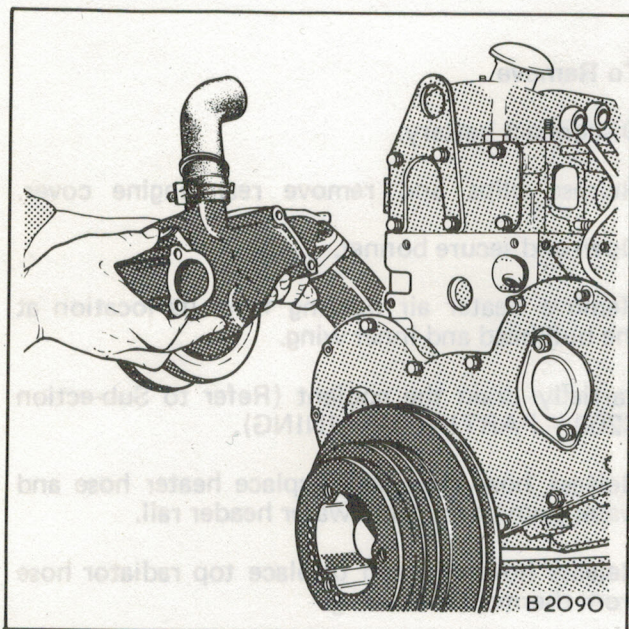


Fig. 2

5. Refit in reverse order, adjusting drive belt tension as detailed previously.

**Note:** If desired, the pump rotating assembly may be separated from the pump body leaving the body undisturbed on the engine, Fig. 3.

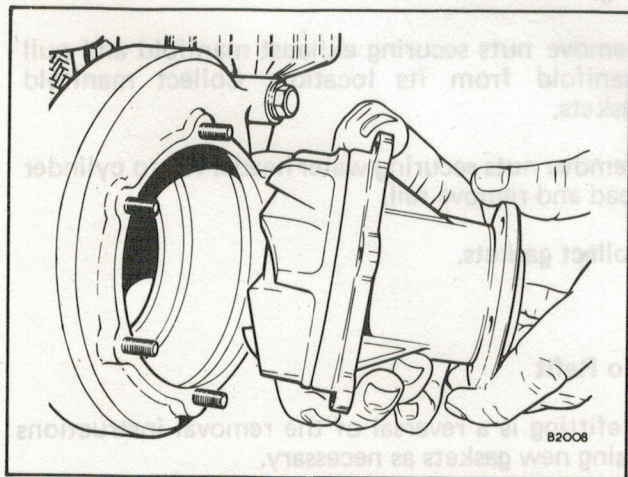


Fig. 3

#### To Dismantle Water Pump (Fig. 5)

Separate rotating assembly (4) from main body (7) after removing nuts and washers (5). Remove joint (6) and clean mating faces.

Using a suitable puller, withdraw pulley hub (1) from shaft (9), where necessary remove dust cover (2) from hub.

Remove outer bearing retaining circlip (15).

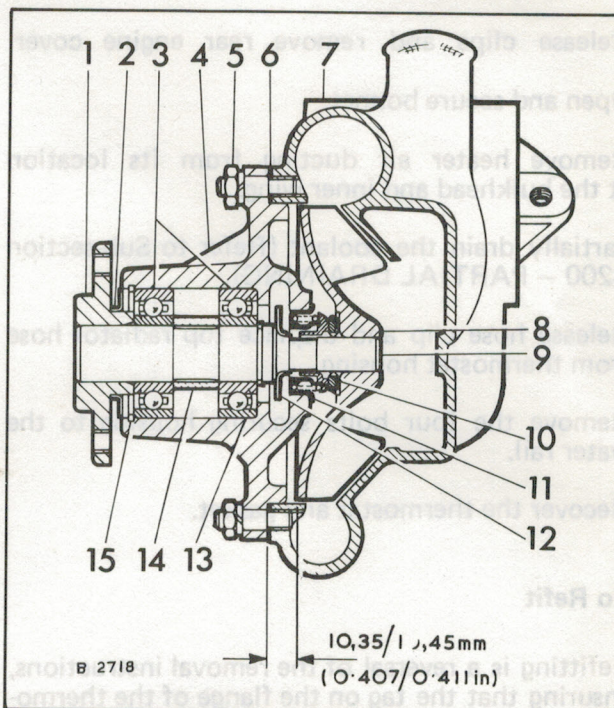


Fig. 5

Support body and using a suitable mandrel that will pass through impeller (8) and front of body, remove impeller, ceramic counterface (10) and seal (11).

Remove thrower (12) and inner bearing retaining circlip (13) from shaft. Press bearings (3) and spacer (14) from shaft.

#### To Re-assemble

Fit inner bearing circlip (13) to shaft (9).

Press first bearing (3) on shaft to abut circlip with shielded face to rear of shaft. Position spacer (14) and press remaining bearing on shaft with shielded face to front of shaft.

Press thrower (12) on impeller end of shaft until flat face of thrower abuts flange of shaft.



## DESCRIPTION AND MODIFICATIONS

This may seem a little out of place but I have heard about problems with people stealing work and selling it - for example on eBay.

If you're reading this and you bought this manual anywhere then you have been ripped off.

Please contact me via my email [mikejamson@hotmail.com](mailto:mikejamson@hotmail.com) Otherwise I can be found on the dodge50 facebook page, if not then get in contact with Greg and he can pass the message on to me.

I have not done this pdf manual for my own personal gain and wish to see the community of 50 series owners benefit from the information here, and I do not want to see the community get taken advantage of and somebody else gain from it unfairly.

The information in pdf format will hopefully allow more of these wonderful trucks to stay on the road by providing information to everybody.

This has been quite a long and involved process to scan the manual and to convert it into a pdf format. I do apologise as I have used several different scanners and several different computers to do it, so there are no doubt some errors hidden throughout, as well as some editing errors.

I have aimed to balance quality and file size and hope that this balance meets to everybody's approval.

If you see an error please let me know and I will fix it as soon as I can.



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**Cooling System**

Pack bearings and 1/3 of the space between the bearings with a high melting point grease, e.g. Shell Alvania 2.

Press shaft assembly into body (4) using a suitable dolly locating on inner face of bearing, wipe off any excess grease and fit outer bearing retaining circlip (15).

Where necessary, fit dust cover (2) to pulley hub (1) and, supporting impeller end of shaft, press hub into position.

Coat outside of brass case of seal (11) with a suitable jointing compound and press seal into body using a dolly locating on outside flange of seal. Wipe off excess jointing compound.

Ensure that carbon face of seal and ceramic face of counterface (10) are clean and fit counterface with ceramic face resting on carbon face of seal.

Supporting pulley end of shaft and with body unsupported, press on impeller (8) until front face of impeller is 10,35/10,45 mm (0.407/0.411 in) from rear flange face of body. Check for freedom of rotation.

Fit rotating assembly to main body (7) using a new joint (6) coated with a suitable jointing compound and secure with spring washers and nuts (5). Check for freedom of rotation.

**Water Pump Seal**

Where ceramic counterface water pump seals are fitted, if the engine is run without coolant, even for a few seconds, the heat build-up between the carbon seal and ceramic counterface is very rapid, resulting in the cracking of the ceramic. This often creates the misunderstanding that the cause of leakage is due to the incorrect assembly of the sealing arrangement of the water pump.