

Engine Cooling Systems

GENERAL MOTORS (Cont.)

WATER PUMP

Removal — 1) Disconnect battery cable and drain cooling system. Remove accessory drive belts and disconnect water hoses from water pump. Remove fan (or fan clutch) to water pump hub attaching bolts and remove fan and pulley.

NOTE — On some vehicles, it may be necessary to loosen or remove alternator and (if equipped) air conditioning, power steering brackets to prevent removal interference.

2) Remove pump-to-block attaching bolts and remove water pump.

Installation — 1) Clean mating surfaces of pump and block. Place a 1/8" bead of suitable sealer along sealing edge of pump.

NOTE — 6 Cylinder and 350" Diesel engines use gaskets.

2) Position pump on block and retain with attaching bolts. Replace brackets (if removed) and reverse removal procedures to complete installation.

TIGHTENING SPECIFICATIONS

Application	Ft. Lbs.
Water Pump Attaching Bolts	
6 Cyl. Engines	15
V8 Engines	30
V8 Diesel Engines	13

INTERNATIONAL HARVESTER

COOLING SYSTEM CAPACITY

Application	Quarts
4 Cyl. Engine	12
6 Cyl. Diesel Engine	12.5
V8 Engines	20

THERMOSTAT

Application	Ⓢ Initial Open	Ⓢ Full Open
4 Cylinder Engine	167-174.....	192
V8 Engines.....	167-174.....	192

Ⓢ — Specifications are in °F.

WATER PUMP

NOTE — Water pump removal information for International Harvester models was not available from manufacturer at time of publication.

JEEP

COOLING SYSTEM CAPACITY

Application	Quarts
All Models	
258" Engines	10.5
304" Engines	13
360" Engines	14

THERMOSTAT

Application	Ⓢ Initial Open	Ⓢ Full Open
6 Cylinder Engines	192-198.....	218
V8 Engines.....	192-198.....	218

Ⓢ — Specifications are in °F.

WATER PUMP

ALL 6 CYLINDER MODELS

Removal — 1) Drain cooling system and disconnect all hoses at water pump. Remove drive belts and separate fan shroud (if equipped) from radiator.

PRESSURE CAP

Application	PSI
All Models	15

JEEP (Cont.)

2) Remove fan and hub assembly and remove fan shroud. Remove water pump and gasket.

NOTE — On some models, fan removal may be easier if shroud is rotated 1/2 turn.

Installation — Clean gasket surfaces, install new hoses (as required) and gaskets. Reverse removal procedure, tighten bolts, adjust drive belt tension and refill cooling system.

ALL V8 MODELS

Removal — 1) Drain cooling system and disconnect negative battery cable. Disconnect upper radiator hose at radiator. Loosen all drive belts. Separate fan shroud (if equipped) from radiator and position rearward on engine.

2) If equipped with a fluid drive fan, remove fan assembly (do not unbolt fan blades) and shroud at the same time. There is sufficient room to move fan assembly toward radiator and clear water pump. On all other models, remove fan and hub assembly.

3) If equipped with air conditioning, install a double nut on compressor bracket-to-water pump stud and remove stud.

NOTE — Removing this stud eliminates removing mounting bracket. Remove alternator and mount bracket assembly (position to one side with wires attached). If equipped with power steering, remove nuts attaching pump to rear half of mounting

bracket. Remove bolts attaching front half of bracket to rear half.

4) Remove remaining upper bolt from inner air pump support brace, loosen lower bolt and drop brace away from power steering front bracket. Remove front half of power steering bracket from water pump mounting stud. Disconnect heater hose, by-pass hose and lower hose at water pump. Remove water pump attaching bolts and water pump assembly.

Installation — Clean all gasket surfaces, install new hoses (as required) and gaskets. Reverse removal procedure, tighten nuts and bolts, adjust drive belt tension and refill cooling system.

CAUTION — Check to be sure wire coil is installed in lower radiator hose. Failure to install this coil will result in the hose collapsing at high engine RPM.

TIGHTENING SPECIFICATIONS

Application	Ft. Lbs.
Water Pump-to-Block	
258" Engines	9-18
All V8 Engines.....	18-33
Water Pump-to-Timing Cover	
304" & 360" Engines	3.3-4.6
Fan Blade-to-Hub	
All Models	12-25