

FORD

WATER PUMP

3.8L "F" MODELS

Removal

1) Drain cooling system and remove air cleaner assembly and air intake duct. Remove fan/clutch assembly and shroud. Remove drive belt and water pump pulley.

2) If equipped with power steering, remove pump mounting bracket attaching bolts. Leave hoses connected, and push pump/bracket assembly aside. Be sure fluid does not leak from assembly.

3) If equipped with air conditioning, remove compressor front support bracket. Disconnect coolant by-pass hose and heater hose. Remove water pump.

Installation

Clean all gasket surfaces, install new hoses, if required and replace gaskets. Reverse removal procedures. Tighten bolts, adjust drive belt tension and refill cooling system.

4.9L "E", "F" & BRONCO MODELS

Removal

Drain cooling system. Loosen alternator adjusting arm bolt and remove drive belt. Remove air conditioning drive belt, if equipped. Remove fan, pulley and bolts from water pump hub. Disconnect heater hose and lower radiator hose at water pump. Remove water pump attaching bolts and water pump assembly.

Installation

Clean all gasket surfaces, install new hoses, as required and replace gaskets. Reverse removal procedure. Tighten bolts, adjust drive belt tension and refill cooling system.

4.2L, 5.0L, & 5.8L E100/250 MODELS

Removal

1) Remove air cleaner and intake duct assembly including closed crankcase ventilation hose. Drain cooling system. Disconnect radiator hoses at radiator and oil cooler lines, if equipped. Remove radiator attaching bolts and remove radiator.

2) Remove drive belts, fan, spacer, pulley and bolts from water pump hub. Disconnect heater hose and by-pass hose at water pump. Remove water pump attaching bolts and water pump assembly.

Installation

Clean all gasket surfaces. Install new hoses, as required, and replace gaskets. Reverse removal procedure. Tighten bolts, adjust drive belt tension and refill cooling system.

5.0L & 5.8L F100/250 & BRONCO MODELS

Removal

1) Drain cooling system. Remove bolts securing fan shroud, if equipped, to radiator and position shroud over fan. Disconnect lower radiator hose, heater hose, and by-pass hose at water pump. Remove drive belts, fan, spacer, pulley and bolts from water pump hub. Remove fan shroud. Loosen alternator pivot bolt and adjusting arm-to-water pump bolt.

2) On California exhaust emission control vehicles, disconnect suppressor wire from coil. Remove coil securing bolt from water pump. Remove coil and strap

assembly. On all models, remove water pump attaching bolts and water pump assembly.

Installation

Clean all gasket surfaces. Install new hoses, as required and replace gaskets. Reverse removal procedure. Tighten bolts, adjust drive belt tension and refill cooling system.

6.6L "E" MODELS

Removal

1) Drain cooling system and disconnect battery ground cable. Remove fan shroud bolts and position out of the way. Remove fan and spacer from pump. Remove air conditioning drive belt, lower idler pulley and compressor mounting bracket, if equipped.

2) Loosen alternator and remove drive belt. Loosen power steering pump and remove drive belt. Remove water pump pulley. Remove alternator and bracket without disconnecting wires and position out of way.

3) Remove power steering pump bracket and position out of way. Remove radiator and heater hoses from water pump. Remove water pump attaching bolts and water pump.

Installation

Clean all gasket surfaces. Install new hoses, if required, and replace gaskets. Reverse the removal procedure. Tighten bolts, adjust drive belt tension and refill cooling system.

7.5L "E" MODELS

Removal

1) Drain cooling system and remove fan shroud bolts. Remove fan assembly from water pump and remove shroud. Loosen power steering pump bolts. If equipped with air conditioning, loosen compressor top bracket bolts and remove bracket. Remove air conditioning idler arm and bracket assembly. Remove compressor and power steering drive belts.

2) If equipped with air pump, remove pump pulley and belt. Disconnect by-pass hose and remove pump pivot bolt. Loosen adjustment arm and remove air pump. Loosen alternator pivot bolt and remove attaching bolts and spacer. Remove adjustment arm bolt and remove alternator and bracket as an assembly.

3) Remove power steering pump and set aside. Disconnect radiator lower hose and heater hose from water pump. Loosen by-pass hose clamp at pump and remove attaching bolts and remove water pump.

Installation

Clean all gasket surfaces. Install new hoses, as required, and replace gaskets. Reverse removal procedure. Tighten bolts, adjust drive belt tension and refill cooling system.

Engine Cooling Systems

FORD (Cont.)

SPECIFICATIONS

TIGHTENING SPECIFICATIONS

Application	Ft. Lbs. (N.m)
All Models	
Water Pump Attaching Bolts	
3.8L	15-22 (20-30)
4.2L, 4.9L, 5.0L, 5.8L & 6.6L	12-18 (16-24)
7.5L	15-21 (20-29)
Fan-to-Hub Bolts	12-18 (16-24)

COOLING CAPACITIES

Application	Quarts (Liters)
3.8L V6	
F100	
Standard or Extra Cooling	10.0 (9.5)
Super Cooling	11.0 (10.4)
4.2L V8	
F100	
Standard or Extra Cooling	13.0 (12.2)
Super Cooling	14.0 (13.2)
4.9L 6-Cyl.	
All "E" Models ¹	
With Heater	15.0 (14.2)
With Heater & A/C	20.0 (18.9)
F100/350 & Bronco	
Standard or Extra Cooling	13.0 (12.2)
Super Cooling	14.0 (13.2)
With Heater	13.0 (12.2)
With Heater & A/C	14.0 (13.2)
5.0L V8	
E100/250 Federal	
Standard Cooling	15.0 (14.2)
Extra Cooling	17.5 (16.6)
Super Cooling	18.5 (17.5)
F150/350 & Bronco	
Standard or Extra Cooling	13.0 (12.2)
Super Cooling	14.0 (13.2)
5.8L V8	
E100/250 Calif. Only	
Standard or Extra Cooling	20.0 (18.9)
Super Cooling	21.0 (20.0)
F150/350 & Bronco	
Standard or Extra Cooling	15.0 (14.2)
Super Cooling	16.0 (15.1)
6.6L V8	
F250/350 & Bronco	
Standard Cooling	15.0 (14.2)
Super Cooling	16.0 (15.1)
7.5L V8	
E350	
All Options	28.0 (26.5)

¹ — Add .8 quart (.76) for auxiliary heater.

THERMOSTAT

NOTE: Due to the variations in emission control devices and the geographical areas for which the vehicles are manufactured, thermostats will vary from one model to another. Either a 160°F (71°C), 180°F (82°C) or a 190°F (88°C) thermostat may be used.

PRESSURE CAP

Application	psi (kg/cm ²)
All Models	13 (.9)