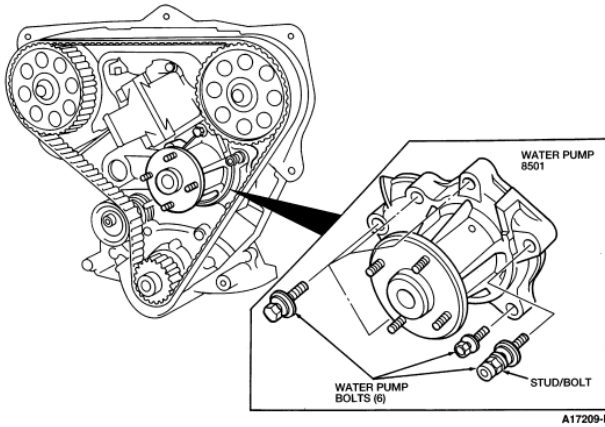
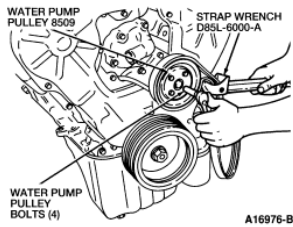
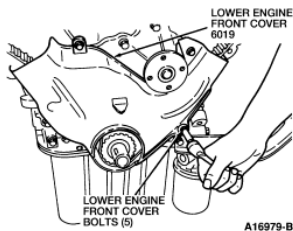


Water Pump**Removal**

1. Drain the cooling system. Refer to [Section 03-03](#) for the procedure.
2. Disconnect the battery ground cable (14301) .
3. Remove the generator drive belt, water pump and power steering pump drive belt, and the A/C compressor drive belt (if equipped). Refer to [Section 03-05](#) for the removal procedures.
4. Raise and support the vehicle.
5. Use Strap Wrench D85L-6000-A or equivalent to hold the water pump pulley (8509) while removing the four water pump pulley bolts.

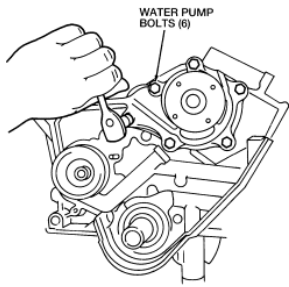


6. Remove the water pump pulley from the water pump (8501) .
7. Remove the crankshaft pulley (6312) . Refer to the procedure in this section
8. Remove the five lower engine front cover bolts and the lower engine front cover (6019) .



9. **NOTE: Make a note of the location of the one water pump stud/bolt for ease of installation.**

Remove the six water pump bolts.



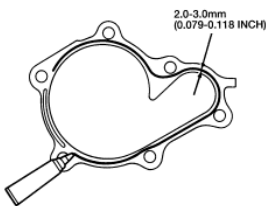
A17237-A

10. Remove the water pump .

Installation

1. **NOTE: Ensure the mating surfaces between the water pump and the cylinder block (6010) are cleaned of any sealant material.**

Install a continuous 2.0-3.0mm (0.079-0.118 inch) wide bead of Gasket Maker E2AZ-19562-B or equivalent meeting Ford specification WSK-M2G348-A5, on the water pump and position the water pump on the cylinder block .



A17931-B

2. **NOTE: Refer to the note made during removal for the location of the stud/bolt.**

Install the six water pump bolts. Tighten the water pump bolts to 16-21 Nm (12-15 lb-ft).

3. Position the water pump pulley on the water pump and install the four water pump pulley bolts.
 4. Use Strap Wrench D85L-6000-A or equivalent to hold the water pump pulley , and tighten the four water pump pulley bolts to 16-21 Nm (12-15 lb-ft).
 5. Install the lower engine front cover and the five lower engine front cover bolts. Tighten the five lower engine front cover bolts to 3-5 Nm (27-44 lb-in).
 6. Install the crankshaft pulley . Refer to the procedure in this section.
 7. Lower the vehicle.
 8. Install and adjust the generator drive belt, water pump and power steering pump drive belt, and the A/C compressor drive belt (if equipped). Refer to [Section 03-05](#) for the installation and adjustment procedures.
 9. Connect the battery ground cable .
 10. Fill the cooling system. Refer to [Section 03-03](#) for the procedure.
 11. Start the engine (6007) and check for leaks.
-