Evaluation (Enter number from 4, 3, 2, 1) :\_\_\_\_\_\_\_\_\_

**Meets ASE Task:** (A1-D-7) P-2 Inspect, remove, and replace water pump.

**Water Pump Replacement**

Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Date:\_\_\_\_\_\_\_\_\_\_\_\_\_

Time on Task:\_\_\_\_\_\_\_\_\_\_\_\_\_

Make/Model/Year:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

VIN:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Page 75

The water pump should be replaced if there is a coolant leak at the weep (vent) hole or pump gasket surface, or whenever a timing belt is replaced. The water pump can also be the cause of a lack of heat from the heater because a pump that has eroded fins or has an impeller that is slipping on the shaft will not be able to circulate heated coolant through the long heater hose.

**1.** Check service information for the specified water pump inspection and testing plus

replacement procedure. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

***NOTE:*** Drain the cooling system coolant into a suitable container and dispose of it properly or recycle it.

**2.** Remove other components and brackets necessary to remove the water pump from the

engine. The parts that needed to be removed included:

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**3.** Clean the gasket surfaces.

**4.** Attach a new gasket to the water pump and install the pump.

**5.** Torque the retaining bolts to factory specifications.

Water pump retaining bolts torque specification = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**6.** Reinstall all components, brackets, hoses, and belts that were removed to access the

water pump.

**7.** Refill the cooling system with new antifreeze coolant.

**CAUTION:** Be sure to open the cooling system bleeder valves(s), if equipped, to avoid trapping air.

**8.** Install the radiator pressure cap and start the engine. Check for leaks and proper

cooling system operation.