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:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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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.