

3-76. WATER PUMP PULLEY REPLACEMENT

This task covers:

a. Removal

b. Installation

INITIAL SETUP:

Tools

General mechanic's tool kit:
 automotive (Appendix B, Item 1)
 Maintenance and repair shop equipment:
 automotive (Appendix B, Item 2)

Special Tools

Hex head driver, 6 mm
 (Appendix B, Item 157)

Materials/Parts

Sealing compound (Appendix C, Item 44)

Manual References

TM 9-2320-280-24P

Equipment Condition

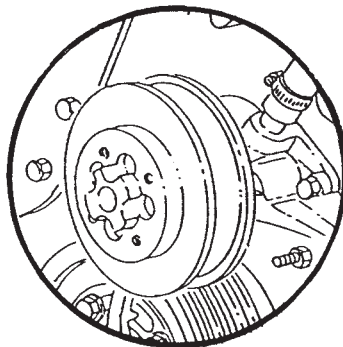
- Fan drive and fan blade removed (para. 3-78).
- Power steering drivebelt set removed (para. 3-80).
- Serpentine drivebelt removed (M1123 and "A2" vehicles) (para. 3-83).

a. Removal

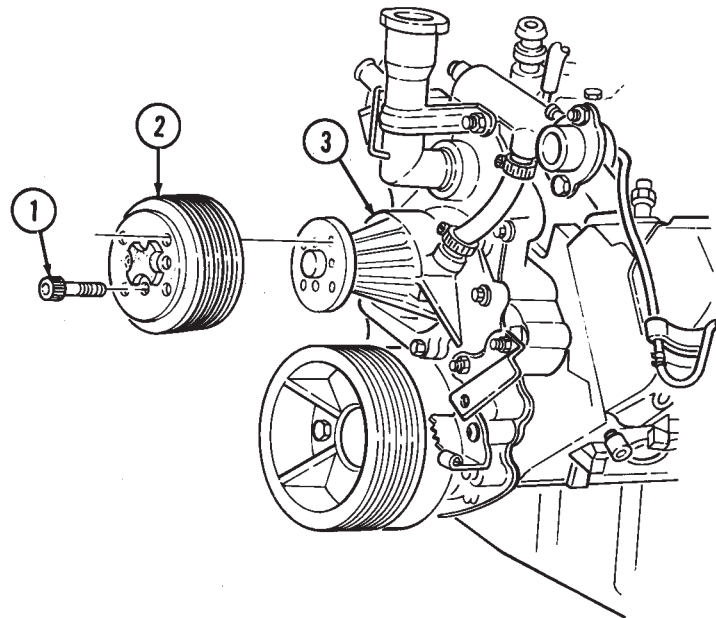
Remove four socket-head screws (1) and water pump pulley (2) from water pump (3).

b. Installation

1. Apply sealing compound to four socket-head screws (1).
2. Install water pump pulley (2) on water pump (3) with four socket-head screws (1). Tighten socket-head screws (1) to 15-20 lb-ft (20-27 N·m).



6.5L



- FOLLOW-ON TASKS:
- Install serpentine belt (M1123 and "A2" vehicles) (para. 3-83).
 - Install fan drive and fan blade (para. 3-78).
 - Install power steering drivebelt set (para. 3-80).

3-76.1. WATER PUMP AND ADAPTER PLATE MAINTENANCE

This task covers:

- | | |
|--|------------------------|
| <p>a. Removal</p> <p>b. Inspection</p> | <p>c. Installation</p> |
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INITIAL SETUP:

Tools

General mechanic's tool kit:
automotive (Appendix B, Item 1)

Manual References

TM 9-2320-280-24P

Materials/Parts

Water pump gasket (Appendix G, Item 62)
(6.2 L only)

Water pump gasket (Appendix G, Item 62.1)
(6.5 L only)

Pipe sealing compound (Appendix C, Item 44)

Sealing compound (Appendix C, Item 45)

Anaerobic gasket sealer
(Appendix C, Item 39)

Equipment Condition

- Engine oil filler tube removed (para. 3-3).
- Water pump inlet hose removed (para. 3-72).
- Water pump pulley removed (para. 3-76).
- Thermostat bypass hose removed (para. 3-67).
- Fan drive hose disconnected (para. 3-68).
- Tensioner, idler pulleys, and mounting hardware removed (para. 3-84).
- Power steering pump removed (para. 8-24).

NOTE

Water pump is different on M1123 and A2 series vehicles.

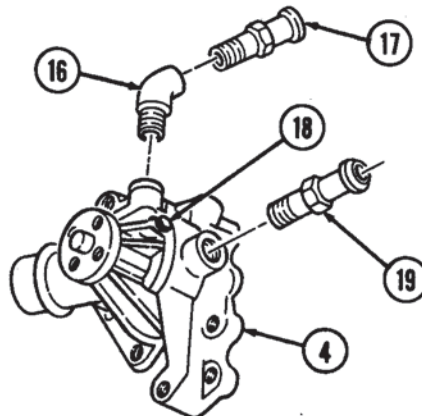
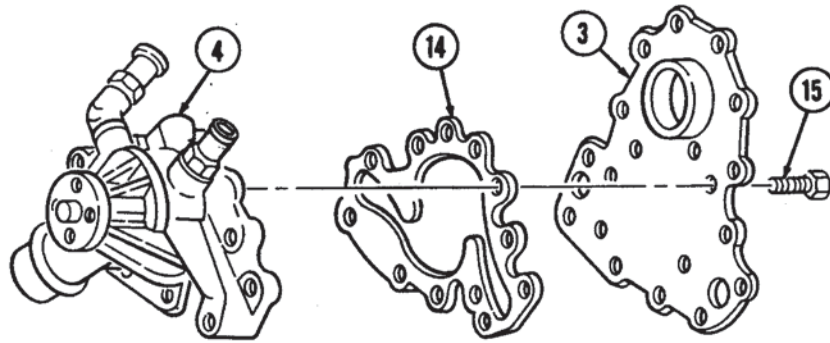
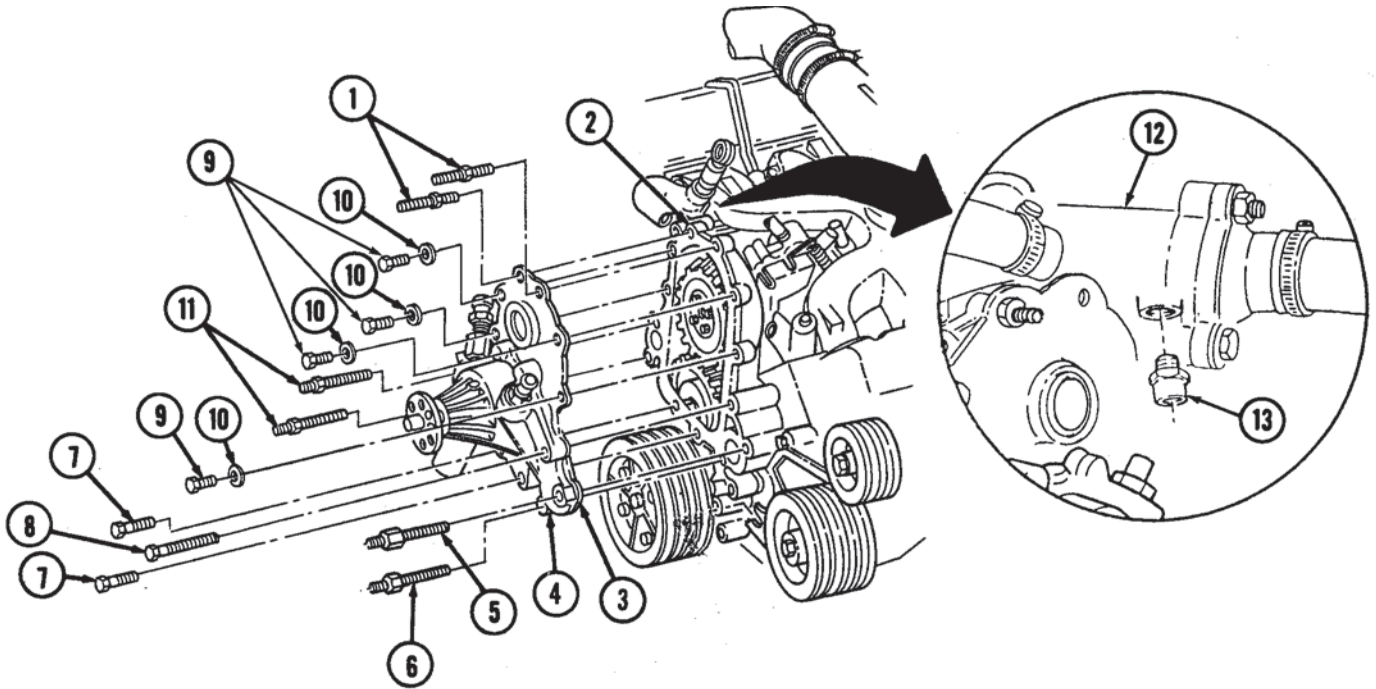
a. Removal

1. Remove bypass nipple (13) from water crossover (12).
2. Remove studs (1), (11), (6), and (5), four capscrews (9), washers (10), two capscrews (7), capscrew (8), water pump (4), and adapter plate (3) from timing gear cover (2).
3. Remove seven capscrews (15), adapter plate (3), and gasket (14) from water pump (4). Discard gasket (14).
4. Clean remaining gasket material and sealing compound from sealing surfaces of adapter plate (3), water pump (4), and timing gear cover (2).
5. Remove heater hose nipple (17), elbow (16), and bypass hose adapter (19) from water pump (4).

b. Inspection

1. Inspect water pump (4) for cracks, breaks, or loose impeller. Replace if cracked, broken, or impeller is loose.
2. Inspect adapter plate (3) for corrosion. If adapter plate (3) is excessively corroded, replace.
3. Inspect elbow (16), heater hose nipple (17), and bypass hose adapter (19) for stripped threads and breaks. If damaged, replace.
4. Inspect rivet (18) for damage or looseness. Replace if damaged or loose. Apply sealing compound to replacement rivet (18) prior to installation.

3-76.1. WATER PUMP AND ADAPTER PLATE MAINTENANCE (Cont'd)



3-76.1. WATER PUMP AND ADAPTER PLATE MAINTENANCE (Cont'd)

c. Installation

CAUTION

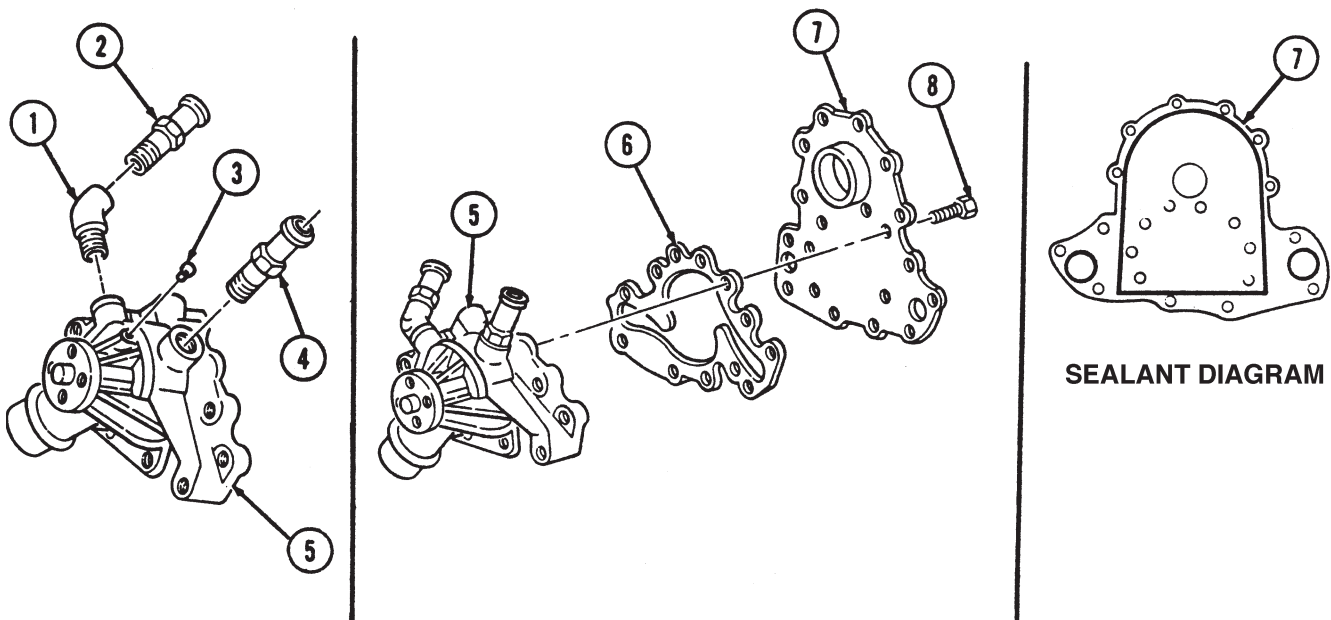
- Ensure water pump P/N 251-591 is used on 6.2L engines, or damage to equipment will result.
- Ensure water pump P/N 12534772 is used on 6.5L and 6.5L detuned engines, or damage to equipment will result.

1. Install gasket (6) and adapter plate (7) on water pump (5) with seven capscrews (8). Tighten capscrews (8) 13-20 lb-ft (18-27 N•m).

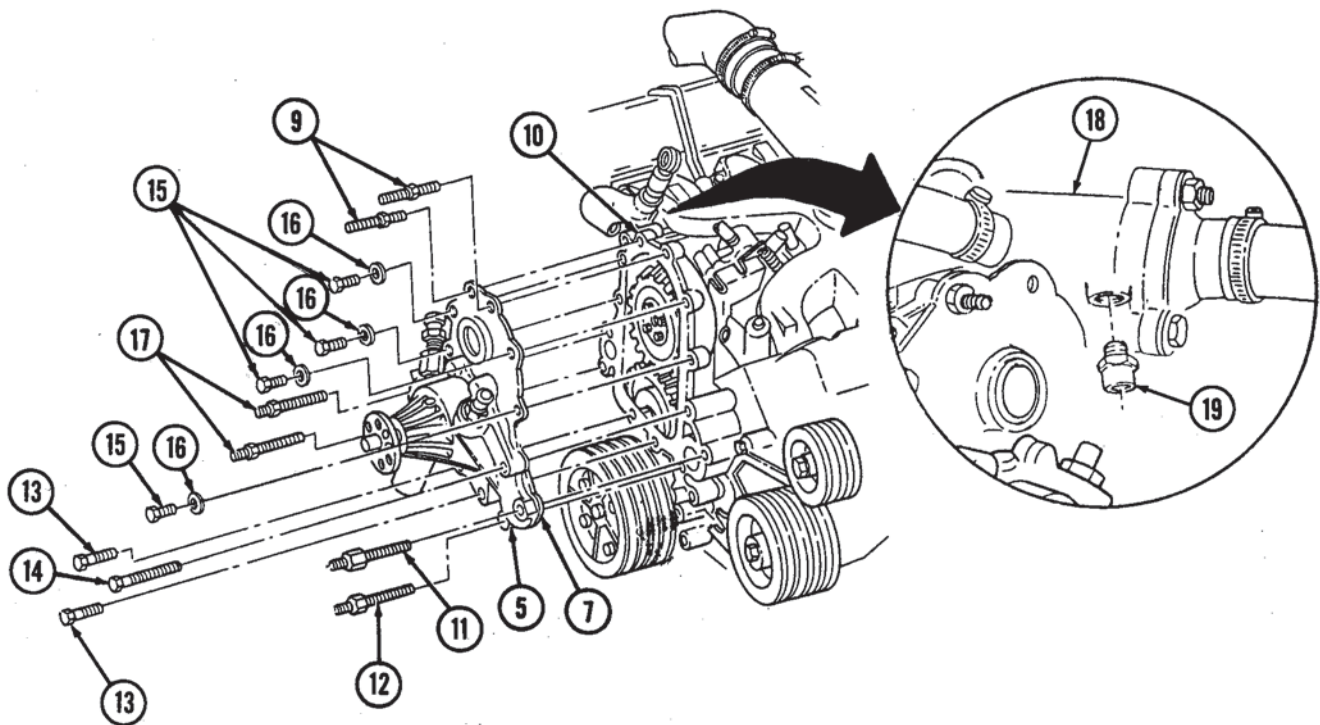
NOTE

Perform step 2 if a new water pump is being installed.

2. Apply sealing compound to rivet (3) and install in water pump (5).
3. Apply anaerobic gasket sealer to sealing surfaces on adapter plate (7), following diagram shown.
4. Apply pipe sealing compound to capscrew (14).
5. Install adapter plate (7) and water pump (5) on timing gear cover (10) with two long studs (17), stud (12), stud with thick hex (11), and capscrew (14).
6. Secure adapter plate (7) to timing gear cover (10) with two capscrews (13), studs (9), four washers (16), and capscrews (15). Tighten studs (9) and capscrews (13) and (15) to 13-20 lb-ft (18-27 N•m). Tighten studs (17), (12), and (11) to 25-37 lb-ft (34-50 N•m).
7. Apply pipe sealing compound to threads of elbow (1), heater hose nipple (2), and bypass hose adapter (4) and install in water pump (5).
8. Coat threads of bypass nipple (19) with pipe sealing compound and install in water crossover (18).



3-76.1. WATER PUMP AND ADAPTER PLATE MAINTENANCE (Cont'd)



- FOLLOW-ON TASKS:**
- Install power steering pump (para. 8-24).
 - Install tensioner, idler pulleys, and mounting hardware (para. 3-84).
 - Connect fan drive hose (para. 3-68).
 - Install water pump pulley (para. 3-76).
 - Install water pump inlet hose (para. 3-72).
 - Install engine oil filler tube (para. 3-3).
 - Install thermostat bypass hose (para. 3-67).