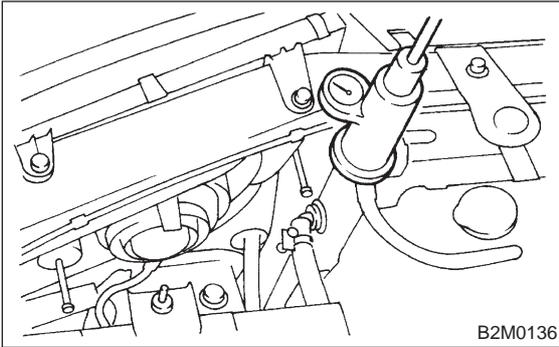


C: CHECKING OF COOLING SYSTEM

1) Remove radiator cap, top off radiator, and attach tester to radiator in place of cap.



2) Apply a pressure of 157 kPa (1.6 kg/cm², 23 psi) to radiator to check if:
(1) Engine coolant leaks at/around radiator.
(2) Engine coolant leaks at/around hoses or connections.

CAUTION:

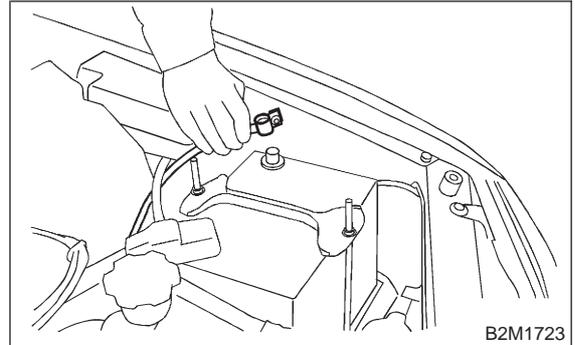
- Engine should be off.
- Wipe engine coolant from check points in advance.
- Be careful to prevent engine coolant from spurting out when removing tester.
- Be careful also not to deform filler neck of radiator when installing or removing tester.

2. Water Pump

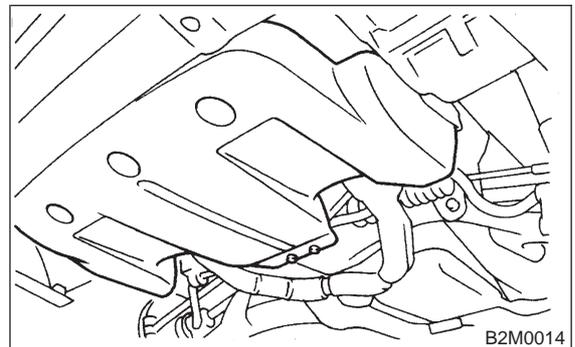
A: REMOVAL AND INSTALLATION

1. 2200 cc MODEL

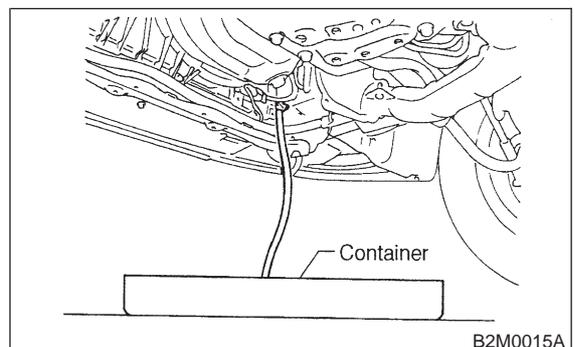
1) Disconnect ground cable from battery.



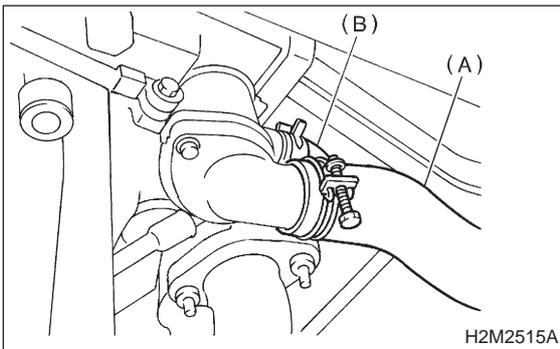
2) Lift-up the vehicle.
3) Remove under cover.



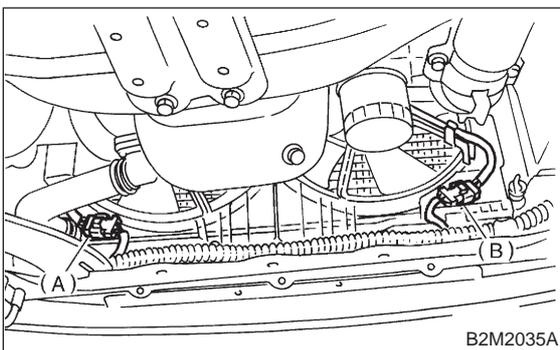
4) Drain engine coolant completely. <Ref. to 2-5 [W1A0].>



5) Disconnect radiator outlet hose (A) and heater by-pass hose (B) from water pump.

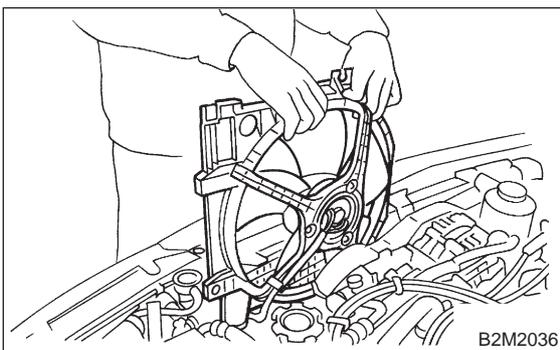


6) Disconnect connectors from radiator main fan (A) and sub fan (B) motors.

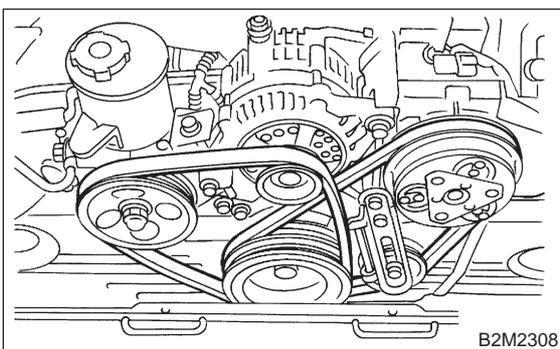


7) Lower the vehicles.

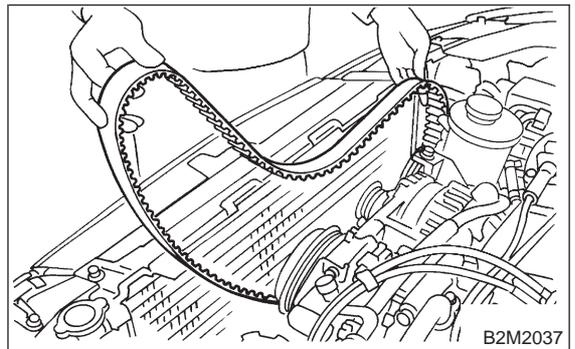
8) Remove radiator main fan <Ref. to 2-5 [W6A0].> and sub fan motor assembly <Ref. to 2-5 [W7A0].>.



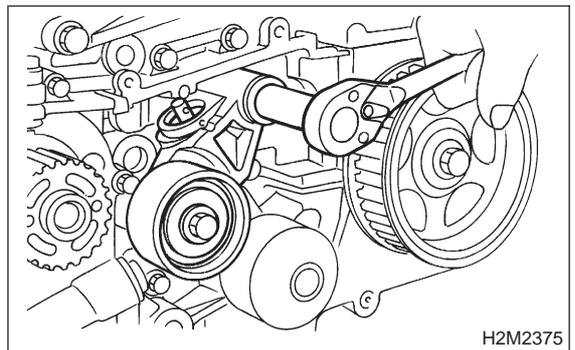
9) Remove V-belts.
<Ref. to 1-5 [G2B0].>



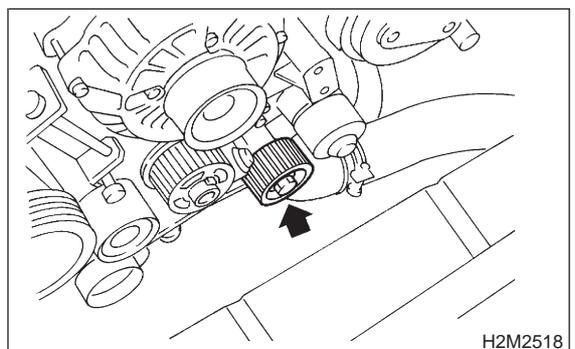
10) Remove timing belt.
<Ref. to 2-3a [W2A0].>



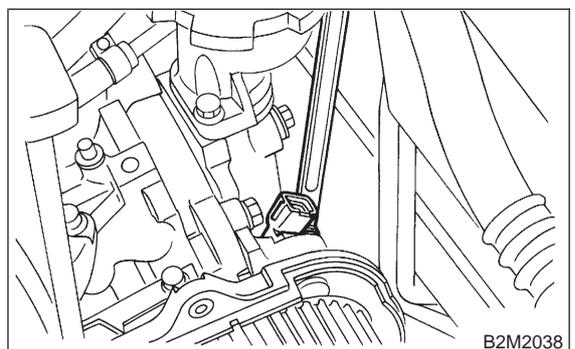
11) Remove automatic belt tension adjuster.



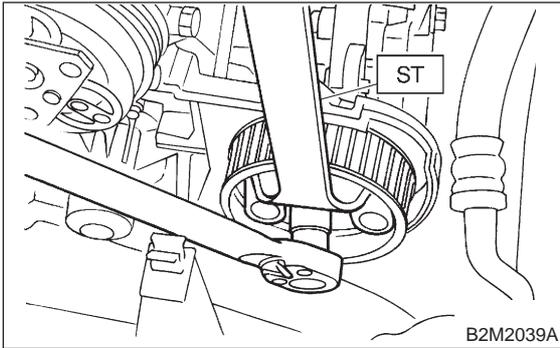
12) Remove belt idler No. 2.



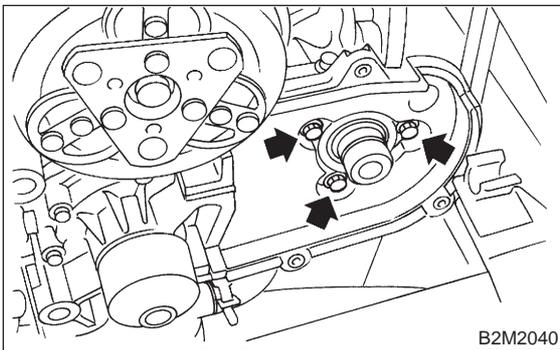
13) Remove camshaft position sensor.
<Ref. to 2-7 [W10A0].>



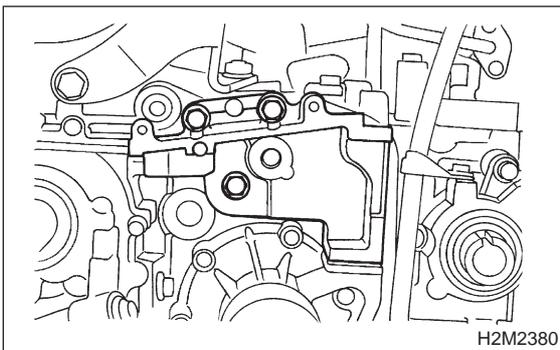
- 14) Remove left-hand camshaft sprocket by using ST.
ST 499207100 CAMSHAFT SPROCKET WRENCH



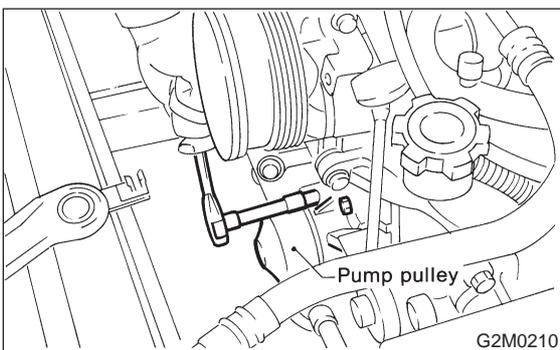
- 15) Remove left-hand belt cover No. 2.



- 16) Remove tensioner bracket.



- 17) Remove tensioner bracket.
18) Disconnect heater hose from water pump.
19) Remove water pump.



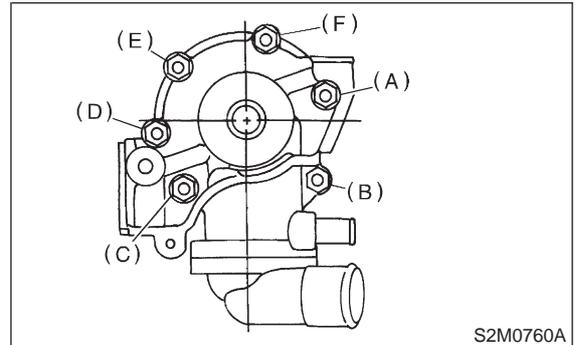
- 20) Installation is in the reverse order of removal.

CAUTION:

- Replace gasket with a new one.
- When installing water pump, tighten bolts in two stages in alphabetical sequence as shown in figure.

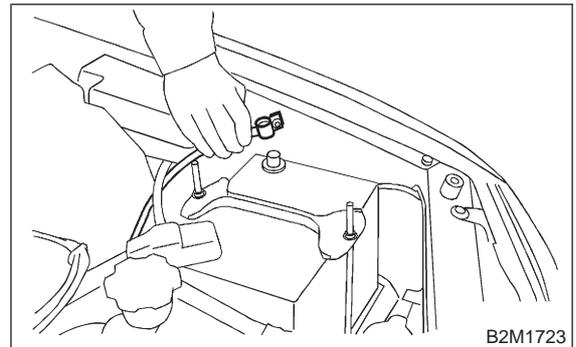
Tightening torque:

$10^{+4}/_{-0}$ N·m ($1.0^{+0.4}/_{-0}$ kg·m, $7.2^{+2.9}/_{-0}$ ft·lb)

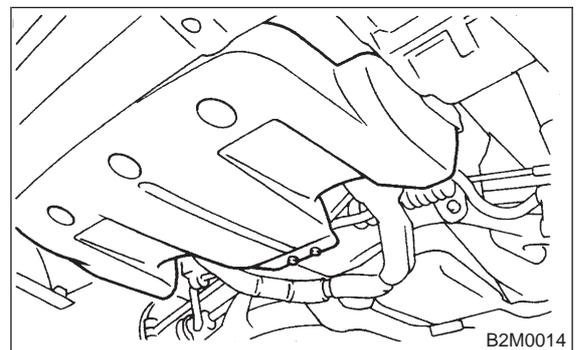


2. 2500 cc MODEL

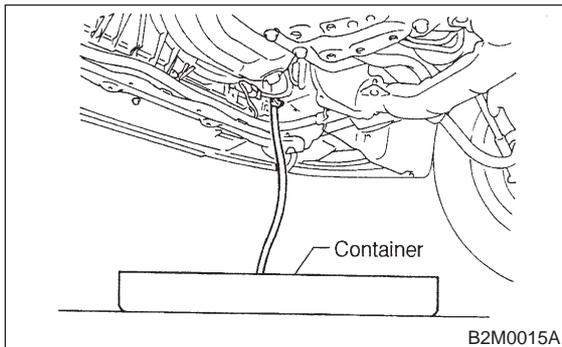
- 1) Disconnect ground cable from the battery.



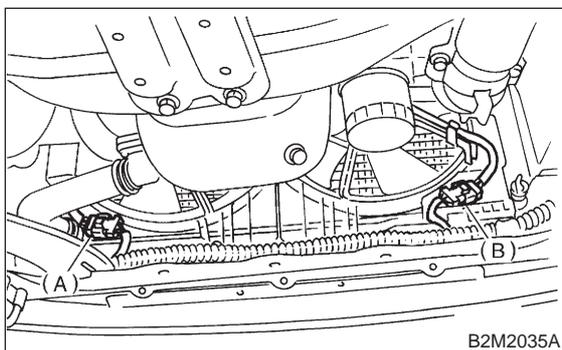
- 2) Lift-up the vehicle.
3) Remove under cover.



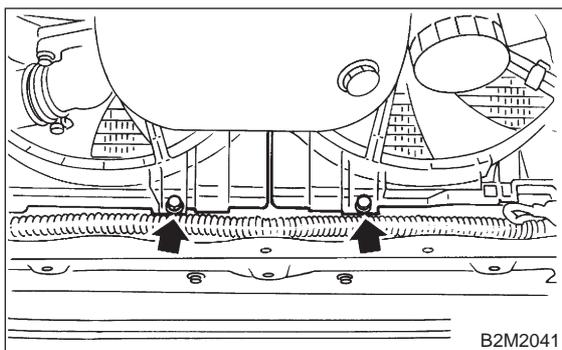
- 4) Drain engine coolant completely.
<Ref. to 2-5 [W1A0].>



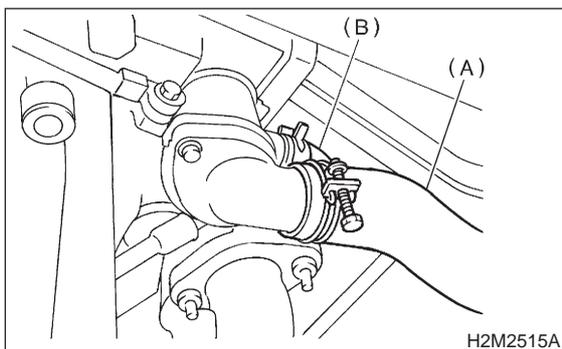
- 5) Disconnect connectors from radiator main fan (A) and sub fan (B) motors.



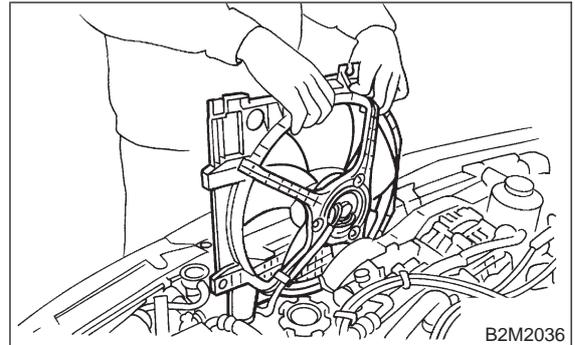
- 6) Loosen bolts which hold lower side of radiator main fan and sub fan shrouds.



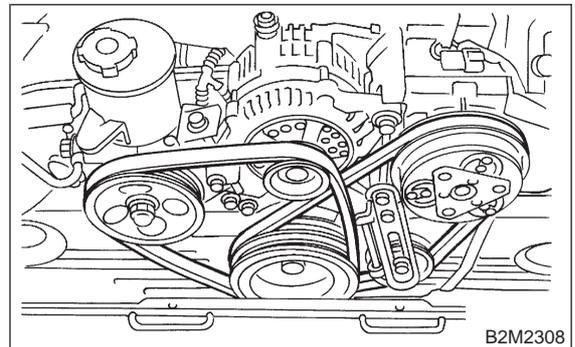
- 7) Disconnect radiator outlet hose (A) and heater by-pass hose (B) from water pump.



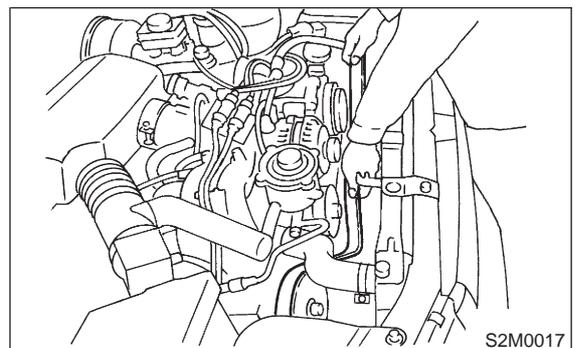
- 8) Lower the vehicle.
9) Remove radiator main fan <Ref. to 2-5 [W6A0].> and sub fan assemblies <Ref. to 2-5 [W7A0].>



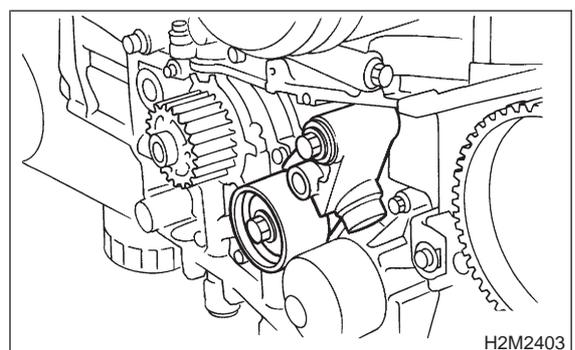
- 10) Remove V-belts.
<Ref. to 1-5 [G2B0].>



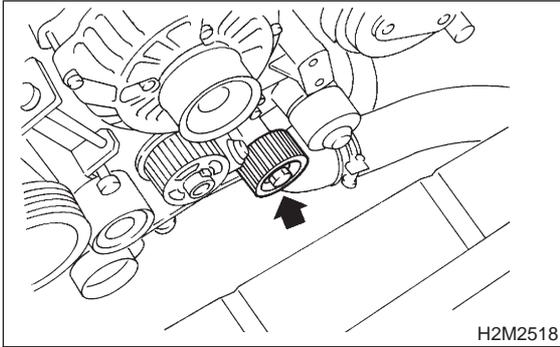
- 11) Remove timing belt.
<Ref. to 2-3b [W2A0].>



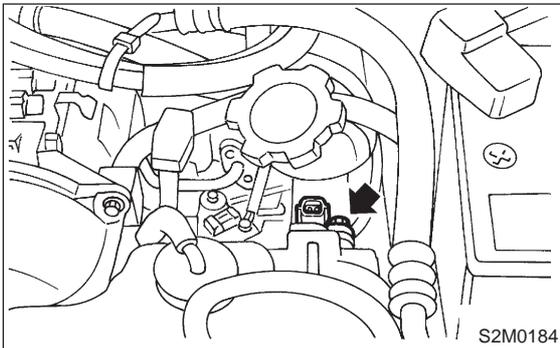
- 12) Remove automatic belt tension adjuster.



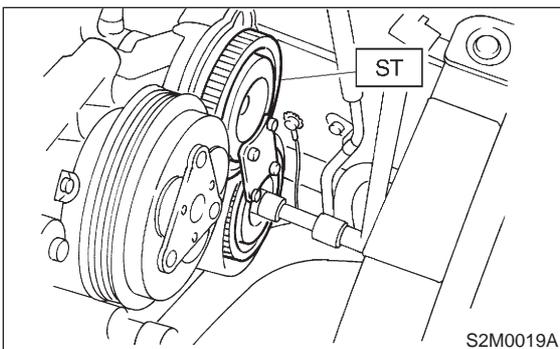
13) Remove belt idler No. 2.



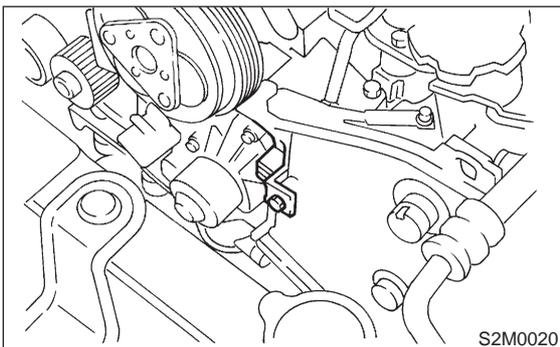
14) Remove camshaft position sensor.
 <Ref. to 2-7 [W10A0].>



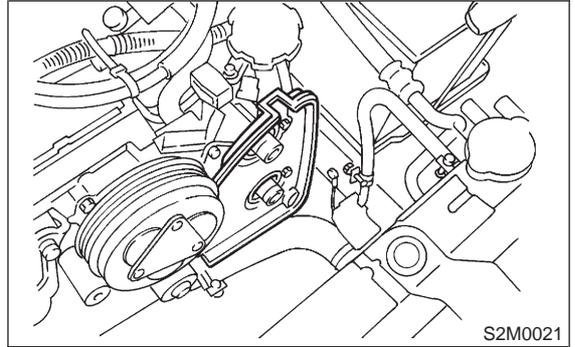
15) Remove left-hand camshaft sprockets by using ST.
 ST 499207300 CAMSHAFT SPROCKET WRENCH



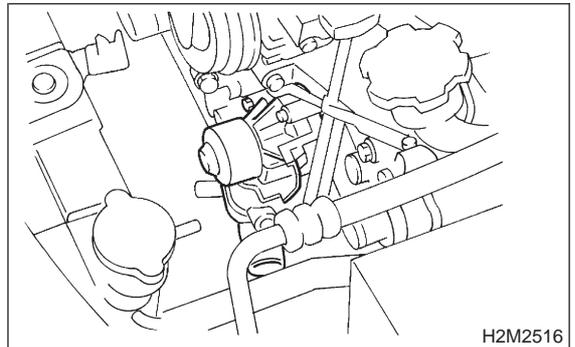
16) Remove tensioner bracket.



17) Remove left-hand belt cover No. 2.



18) Remove water pump.



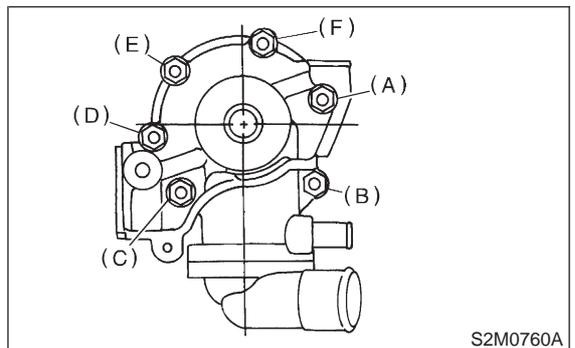
19) Installation is in the reverse order of removal.

CAUTION:

- Replace gasket with a new one.
- When installing water pump, tighten bolts in two stages in alphabetical sequence as shown in figure.

Tightening torque:

$10^{+4}/_{-0}$ N·m ($1.0^{+0.4}/_{-0}$ kg·m, $7.2^{+2.9}/_{-0}$ ft·lb)

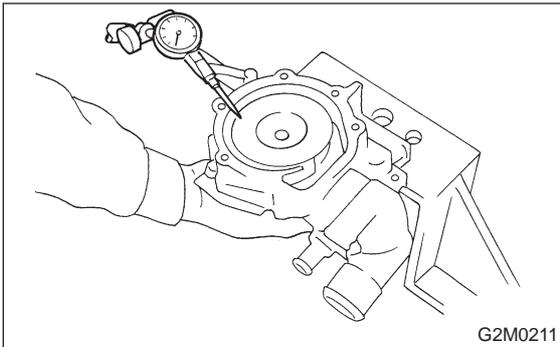


B: INSPECTION

- 1) Check water pump bearing for smooth rotation.
- 2) Check water pump pulley for abnormalities.

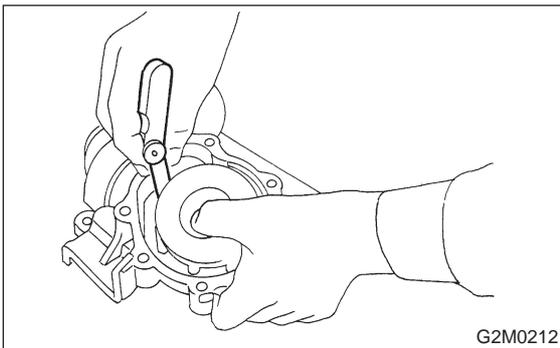
3) Using a dial gauge, measure impeller runout in thrust direction while rotating the pulley.

“Thrust” runout limit:
0.5 mm (0.020 in)



4) Check clearance between impeller and pump case.

Clearance between impeller and pump case:
Standard
0.5 — 0.7 mm (0.020 — 0.028 in)
Limit
1.0 mm (0.039 in)

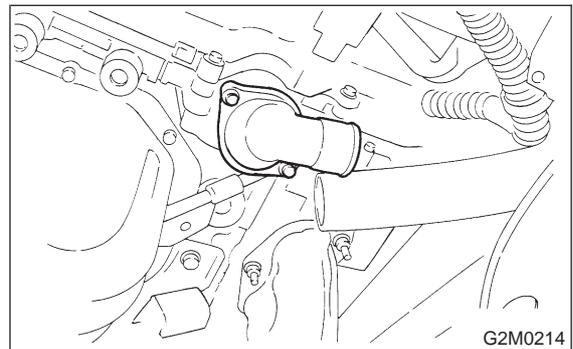


5) After water pump installation, check pulley shaft for engine coolant leaks. If leaks are noted, replace water pump assembly.

3. Thermostat

A: REMOVAL AND INSTALLATION

- 1) Drain engine coolant.
Set container under the vehicle, and remove drain cock from radiator.
- 2) Disconnect radiator outlet hose from thermostat cover.
- 3) Remove thermostat cover and gasket, and pull out the thermostat.



4) Install the thermostat in the intake manifold, and install the thermostat cover together with a gasket.

CAUTION:

- When reinstalling the thermostat, use a new gasket.
- The thermostat must be installed with the jiggle pin upward.
- In this time, set the jiggle pin of thermostat for front side.

