

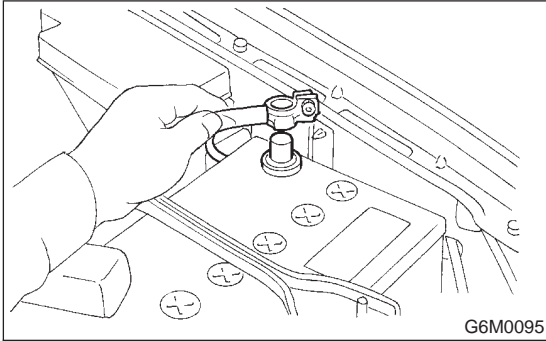
WATER PUMP

Cooling

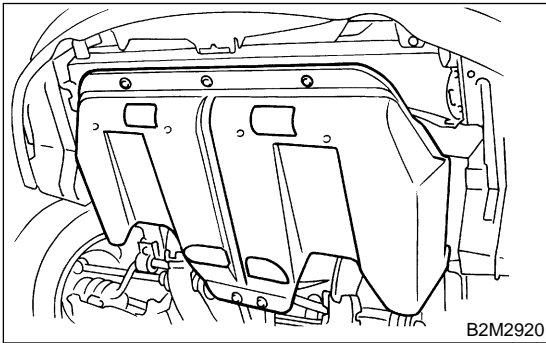
3. Water Pump S106061

A: REMOVAL S106061A18

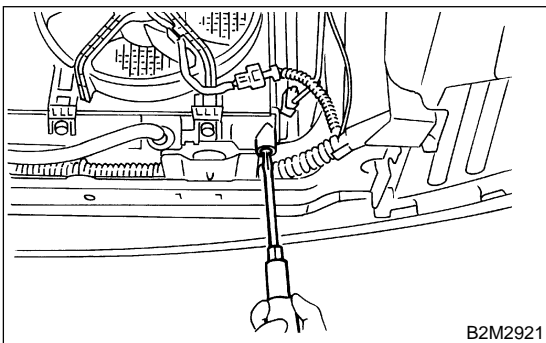
- 1) Disconnect ground cable from the battery.



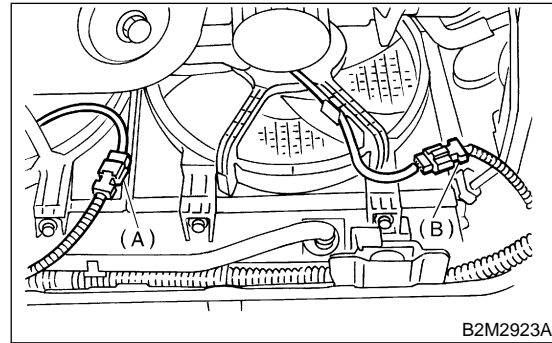
- 2) Lift-up the vehicle.
- 3) Remove under cover.



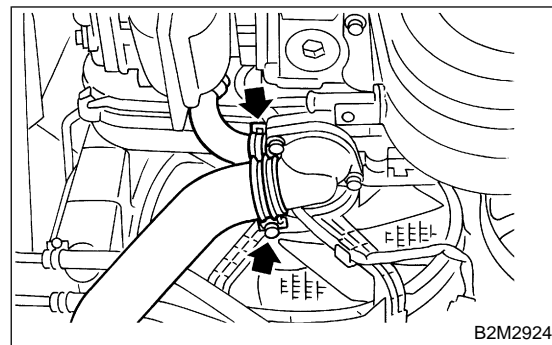
- 4) Drain engine coolant completely.
<Ref. to CO(H4)-6 DRAINING OF ENGINE COOLANT, REPLACEMENT, Engine Coolant.>



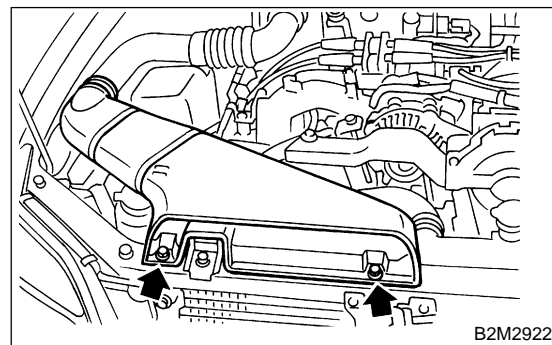
- 5) Disconnect connectors from radiator main fan (A) and sub fan (B) motors.



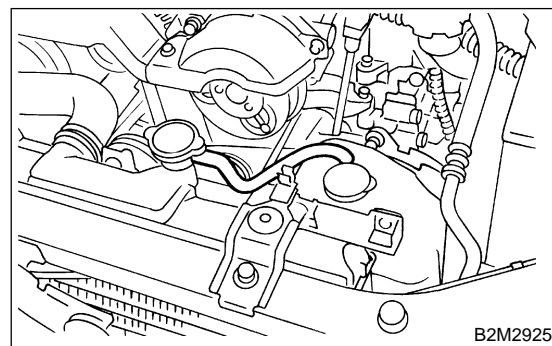
- 6) Disconnect radiator outlet hose and heater hose from water pump.



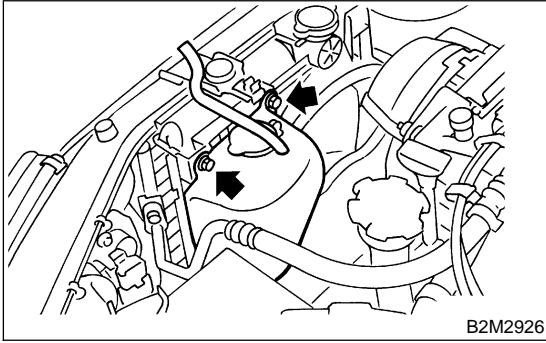
- 7) Lower the vehicle.
- 8) Remove air intake duct.



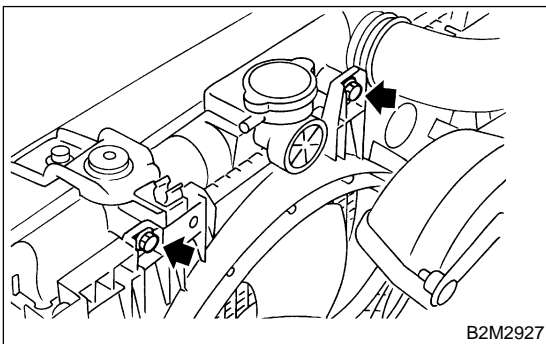
- 9) Disconnect over flow hose.



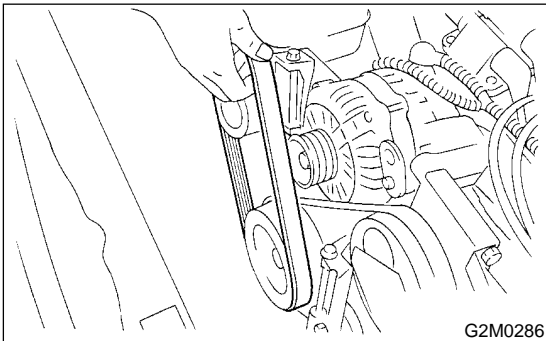
10) Remove reservoir tank.



11) Remove radiator main fan and sub fan assemblies. <Ref. to CO(H4)-20 REMOVAL, Radiator Main Fan and Fan Motor.> and <Ref. to CO(H4)-23 REMOVAL, Radiator Sub Fan and Fan Motor.>

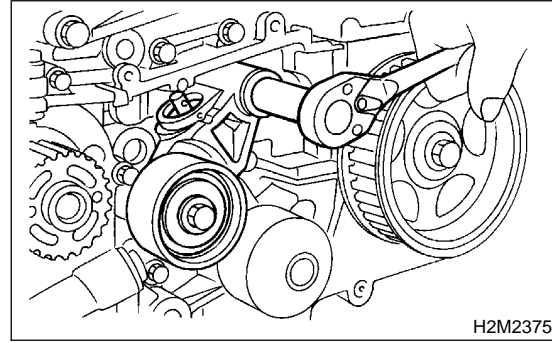


12) Remove V-belts.
<Ref. to ME(H4)-43 REMOVAL, V-belt.>

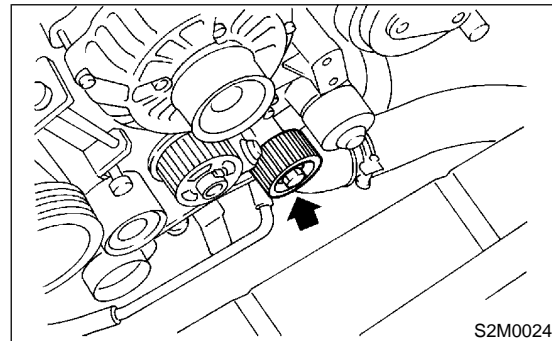


13) Remove timing belt.
<Ref. to ME(H4)-46 TIMING BELT, REMOVAL, Timing Belt Assembly.>

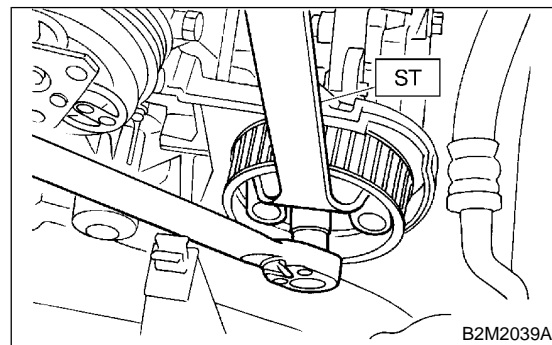
14) Remove automatic belt tension adjuster.



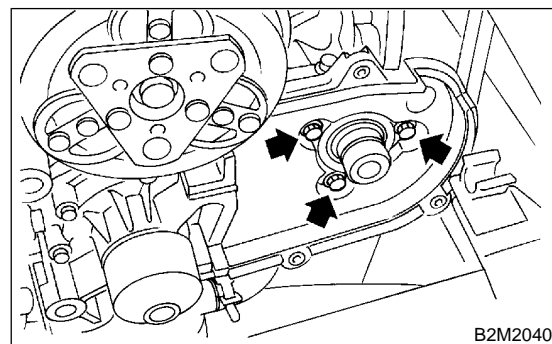
15) Remove belt idler No. 2.



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



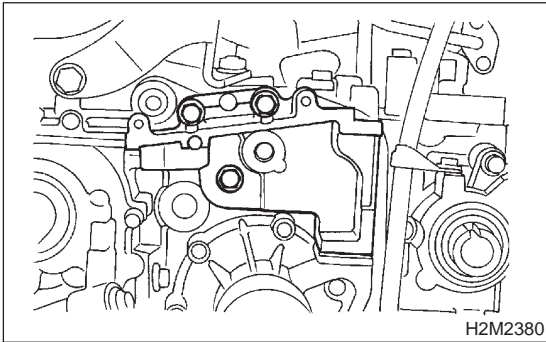
17) Remove left-hand belt cover No. 2.



WATER PUMP

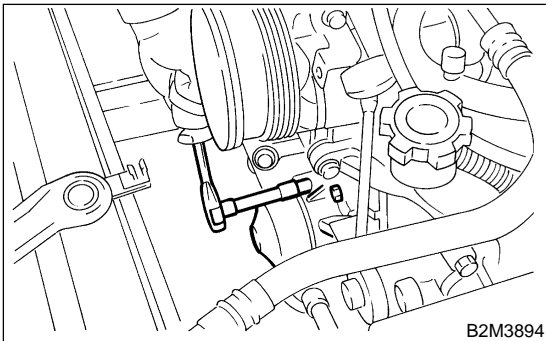
Cooling

18) Remove tensioner bracket.



19) Disconnect heater hose from water pump.

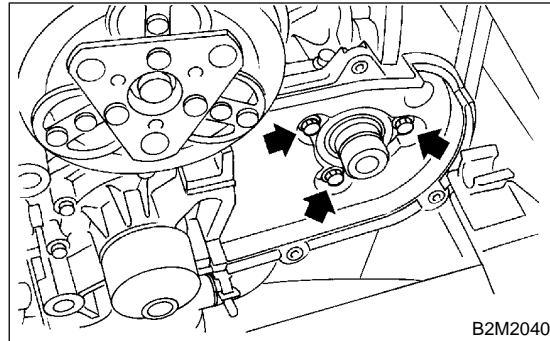
20) Remove water pump.



2) Install left-hand belt cover No. 2.

Tightening torque:

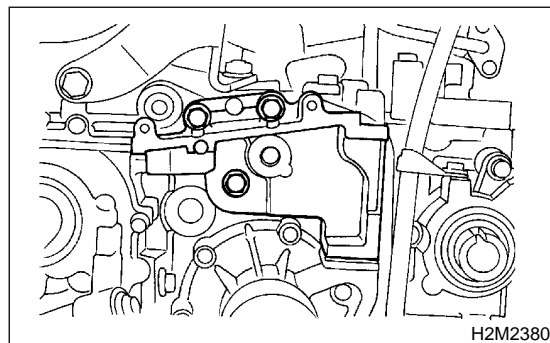
5 N·m (0.5 kgf-m, 3.6 ft-lb)



3) Install tensioner bracket.

Tightening torque:

25 N·m (2.5 kgf-m, 18.1 ft-lb)



B: INSTALLATION

S106061A11

1) Install water pump onto left-hand cylinder head.

CAUTION:

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

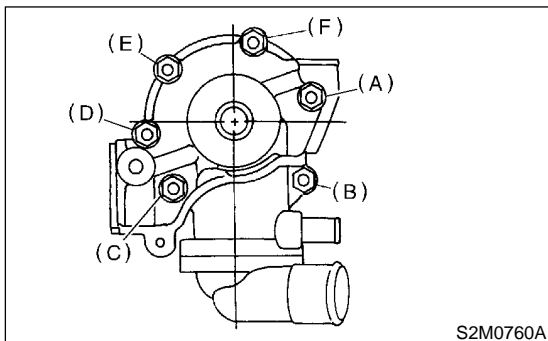
Tightening torque:

First:

12 N·m (1.2 kgf-m, 8.7 ft-lb)

Second:

12 N·m (1.2 kgf-m, 8.7 ft-lb)

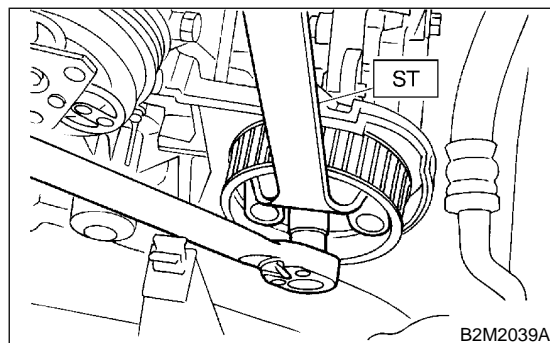


4) Install left-hand camshaft sprockets by using ST.

ST 4992707100 CAMSHAFT SPROCKET WRENCH

Tightening torque:

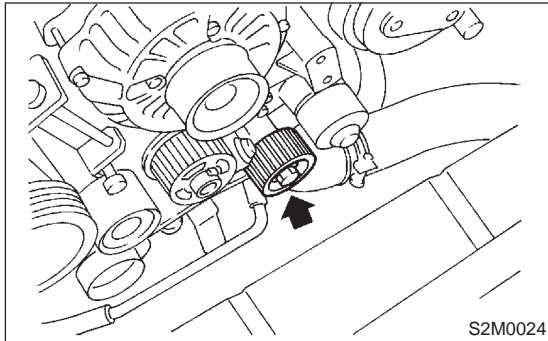
78 N·m (8.0 kgf-m, 57.9 ft-lb)



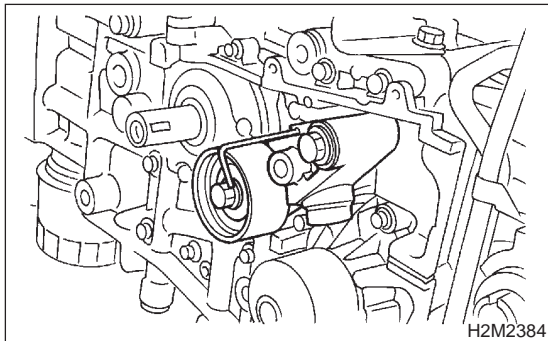
5) Install belt idler No. 2.

Tightening torque:

39 N·m (4.0 kgf·m, 28.9 ft·lb)

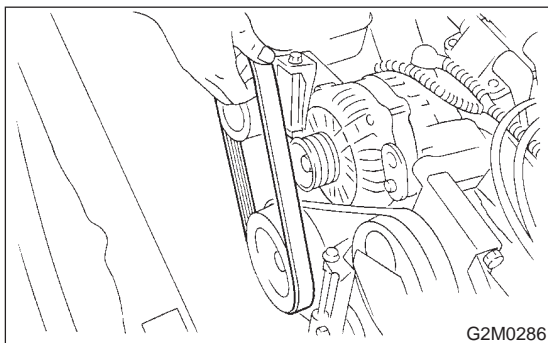


6) Install automatic belt tension adjuster which tension rod is held with pin. <Ref. to ME(H4)-47 AUTOMATIC BELT TENSION ADJUSTER ASSEMBLY AND BELT IDLER, INSTALLATION, Timing Belt Assembly.>

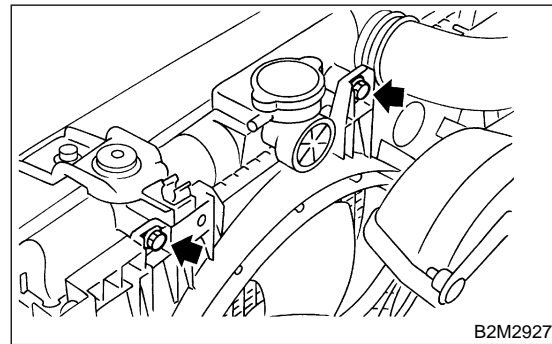


7) Install timing belt. <Ref. to ME(H4)-48 TIMING BELT, INSTALLATION, Timing Belt Assembly.>

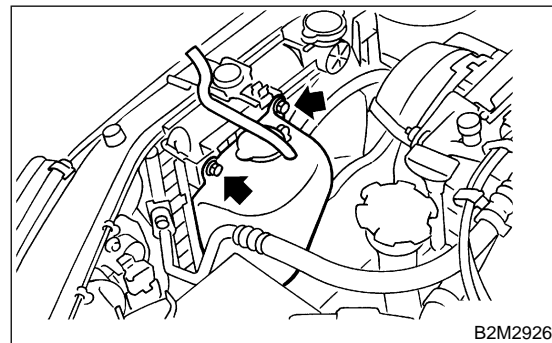
8) Install V-belts. <Ref. to ME(H4)-43 INSTALLATION, V-belt.>



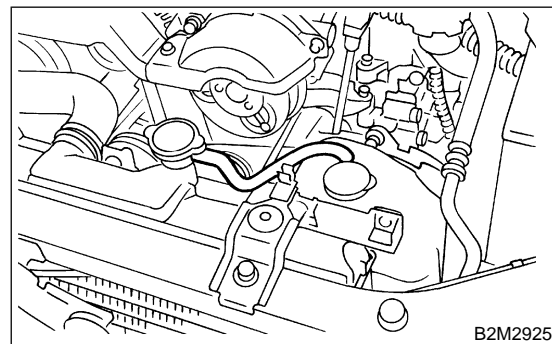
9) Install radiator main fan and sub fan motor assemblies. <Ref. to CO(H4)-21 INSTALLATION, Radiator Main Fan and Fan Motor.> and <Ref. to CO(H4)-23 INSTALLATION, Radiator Sub Fan and Fan Motor.>



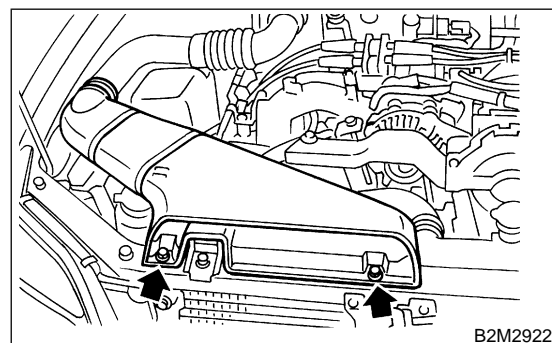
10) Install reservoir tank.



11) Connect over flow hose.



12) Install air intake duct.

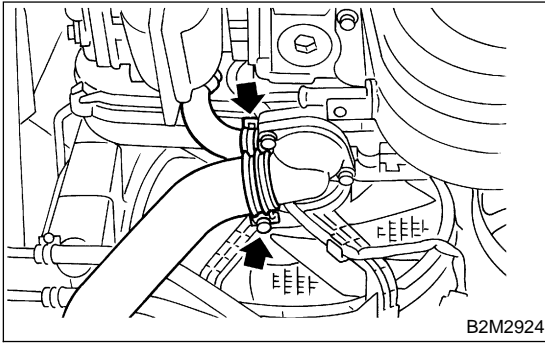


13) Lift-up the vehicle.

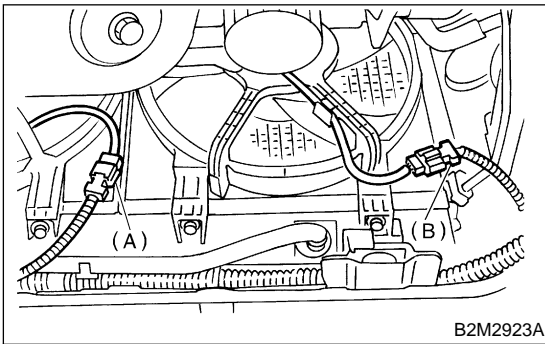
WATER PUMP

Cooling

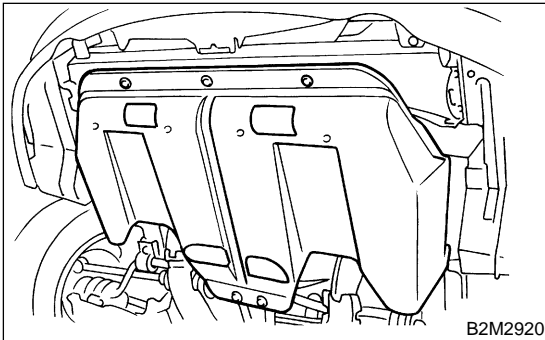
- 14) Connect radiator outlet hose and heater hose to water pump.



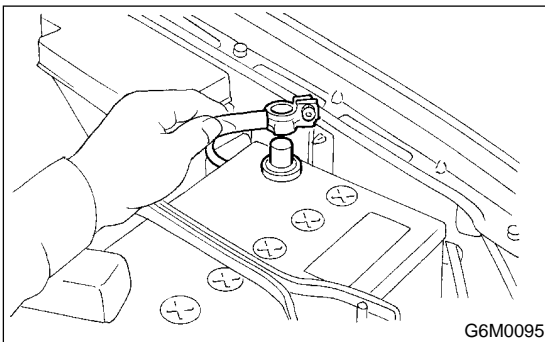
- 15) Connect connectors to radiator main fan (A) and sub fan (B) motors.



- 16) Install under cover.



- 17) Lower the vehicle.
18) Connect battery ground cable.

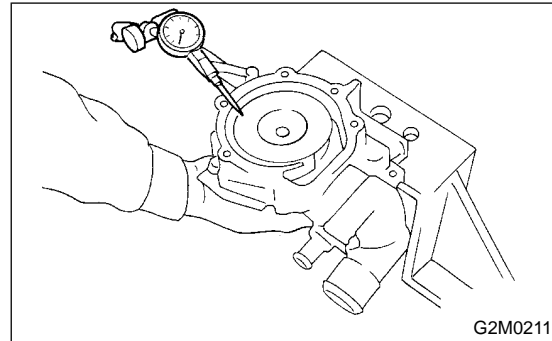


- 19) Fill coolant. <Ref. to CO(H4)-6 FILLING OF ENGINE COOLANT, REPLACEMENT, Engine Coolant.>

C: INSPECTION S106061A10

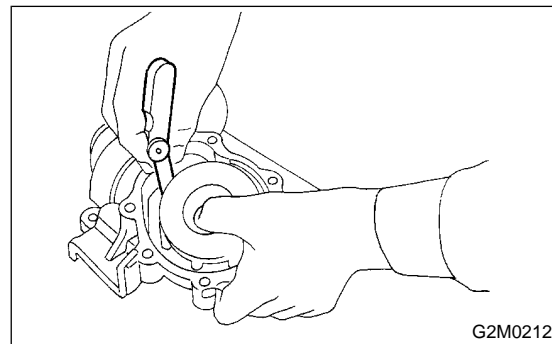
- 1) Check water pump bearing for smooth rotation.
- 2) Check water pump pulley for abnormalities.
- 3) Using a dial gauge, measure impeller runout in thrust direction while rotating the pulley.

“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.