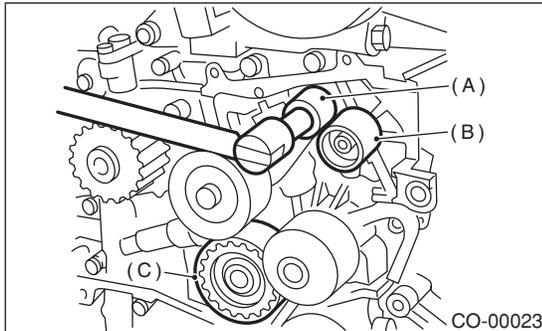


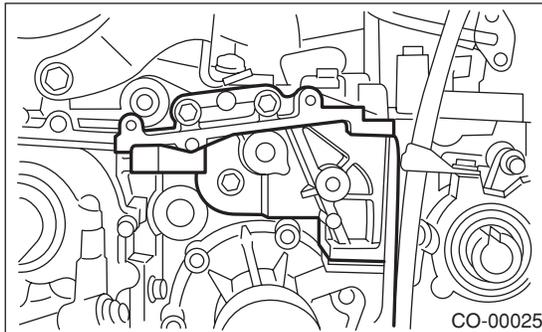
4. Water Pump

A: REMOVAL

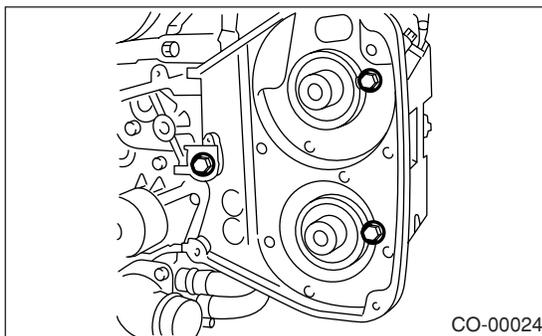
- 1) Remove the collector cover.
- 2) Remove the radiator. <Ref. to CO(H4DOTC)-19, REMOVAL, Radiator.>
- 3) Remove the V-belts. <Ref. to ME(H4DOTC)-37, REMOVAL, V-belt.>
- 4) Remove the timing belt. <Ref. to ME(H4DOTC)-41, REMOVAL, Timing Belt.>
- 5) Remove the automatic belt tension adjuster (A).
- 6) Remove the belt idler (B).
- 7) Remove the belt idler No. 2 (C).



- 8) Remove the camshaft position sensor. <Ref. to FU(H4DOTC)-24, REMOVAL, Camshaft Position Sensor.>
- 9) Remove the cam sprocket (LH) using ST. <Ref. to ME(H4DOTC)-49, REMOVAL, Cam Sprocket.>
- 10) Remove the tensioner bracket.

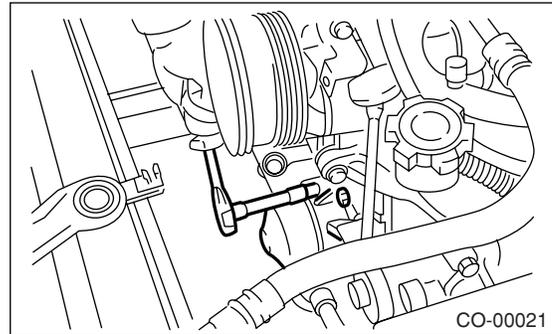


- 11) Remove the belt cover No. 2 (LH).



- 12) Disconnect the hose from water pump.

- 13) Remove the water pump.



B: INSTALLATION

- 1) Install the water pump onto cylinder block (LH).

NOTE:

- Always use new gasket.
- When installing the water pump, tighten the bolts in two stages in alphabetical sequence as shown in the figure.

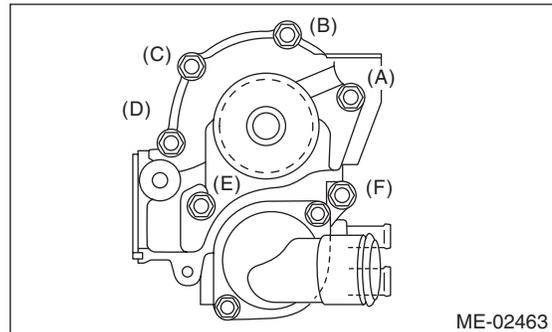
Tightening torque:

First:

12 N·m (1.2 kgf-m, 8.9 ft-lb)

Second:

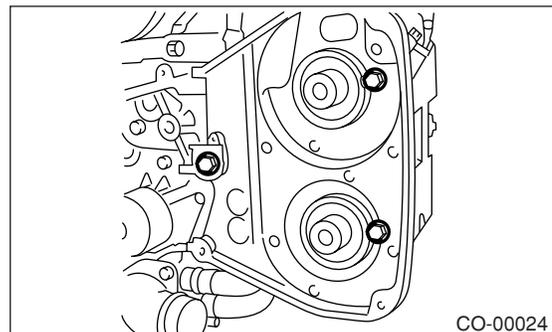
12 N·m (1.2 kgf-m, 8.9 ft-lb)



- 2) Install the hose to water pump.
- 3) Install the belt cover No. 2 (LH).

Tightening torque:

5 N·m (0.5 kgf-m, 3.6 ft-lb)

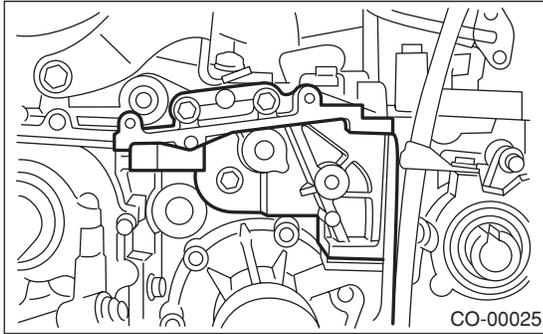


- 4) Install the tensioner bracket.

Water Pump

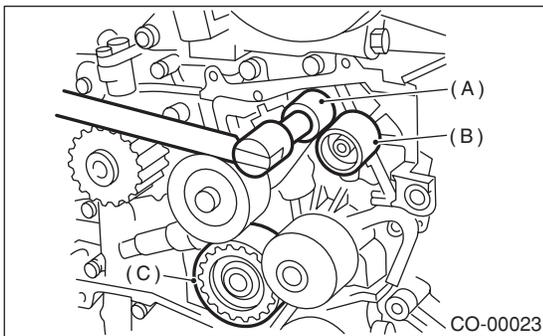
COOLING

Tightening torque:
25 N·m (2.5 kgf·m, 18.1 ft·lb)



- 5) Install the cam sprocket (LH) using ST. <Ref. to ME(H4DOTC)-49, INSTALLATION, Cam Sprocket.>
- 6) Install the camshaft position sensor. <Ref. to FU(H4DOTC)-24, INSTALLATION, Camshaft Position Sensor.>
- 7) Install the belt idler No. 2 (C).
- 8) Install the belt idler (B).
- 9) Install the automatic belt tension adjuster (A) which has a tension rod held by a pin. <Ref. to ME(H4DOTC)-42, AUTOMATIC BELT TENSION ADJUSTER ASSEMBLY AND BELT IDLER, INSTALLATION, Timing Belt.>

Tightening torque:
39 N·m (4.0 kgf·m, 28.9 ft·lb)

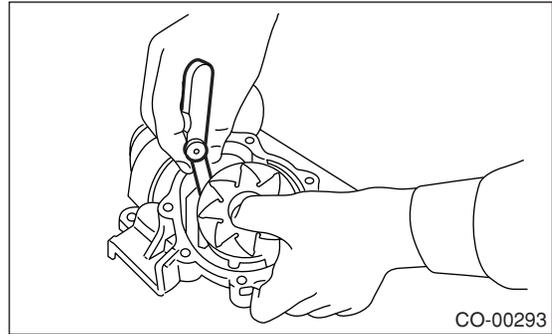


- 10) Install the timing belt. <Ref. to ME(H4DOTC)-43, TIMING BELT, INSTALLATION, Timing Belt.>
- 11) Install the V-belts. <Ref. to ME(H4DOTC)-37, INSTALLATION, V-belt.>
- 12) Install the radiator. <Ref. to CO(H4DOTC)-20, INSTALLATION, Radiator.>
- 13) Install the collector cover.

C: INSPECTION

- 1) Check the water pump bearing for smooth rotation.
- 2) Check the water pump pulley for abnormalities.
- 3) Make sure the impeller is not deformed or damaged.
- 4) Inspect the clearance between impeller and pump case.

Clearance between impeller and pump case:
Standard value
0.5 — 1.5 mm (0.020 — 0.059 in)



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