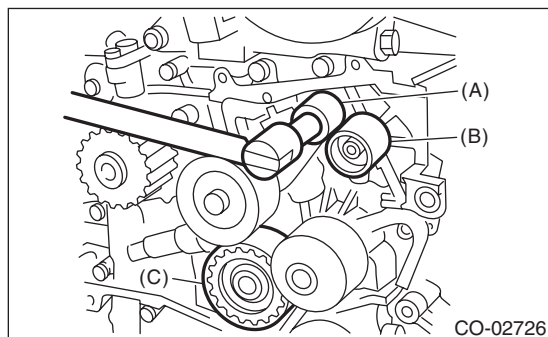


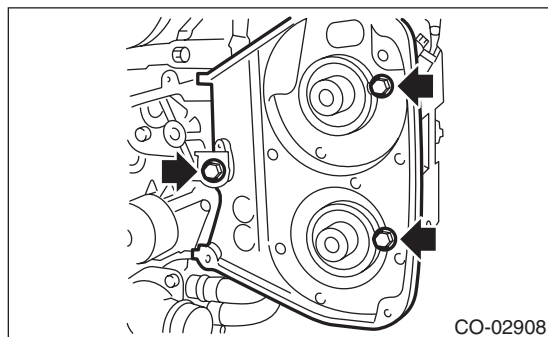
4. Water Pump

A: REMOVAL

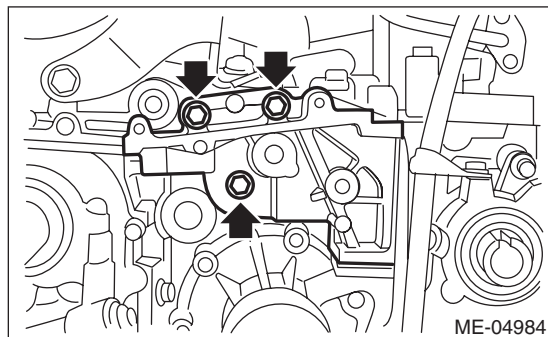
- 1) Remove the radiator. <Ref. to CO(w/o STI)-19, REMOVAL, Radiator.>
- 2) Remove the V-belts. <Ref. to ME(w/o STI)-38, REMOVAL, V-belt.>
- 3) Remove the crank pulley. <Ref. to ME(w/o STI)-45, REMOVAL, Crank Pulley.>
- 4) Remove the timing belt cover. <Ref. to ME(w/o STI)-47, REMOVAL, Timing Belt Cover.>
- 5) Remove the timing belt. <Ref. to ME(w/o STI)-48, REMOVAL, Timing Belt.>
- 6) Remove the automatic belt tension adjuster (A).
- 7) Remove the belt idler (B).
- 8) Remove the belt idler No. 2 (C).



- 9) Remove the cam sprocket LH. <Ref. to ME(w/o STI)-57, REMOVAL, Cam Sprocket.>
- 10) Remove the belt cover No. 2 LH.

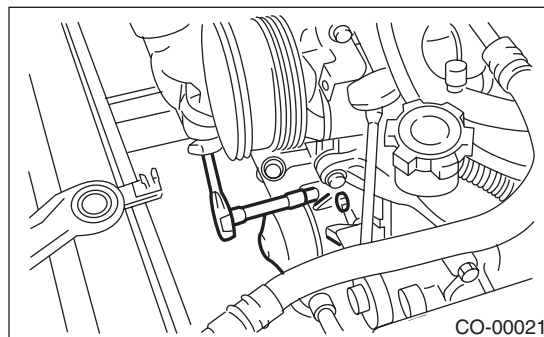


- 11) Remove the tensioner bracket.



- 12) Disconnect the hose from water pump.

- 13) Remove the water pump.



B: INSTALLATION

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

NOTE:

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

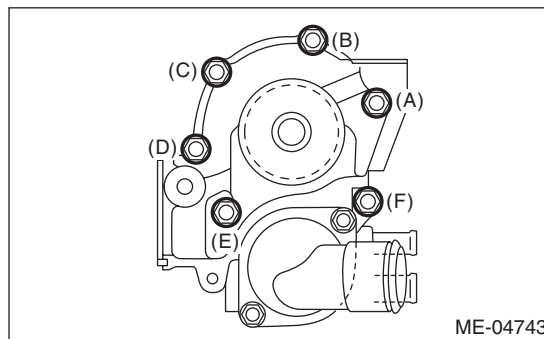
Tightening torque:

First:

12 N·m (1.2 kgf-m, 8.9 ft-lb)

Second:

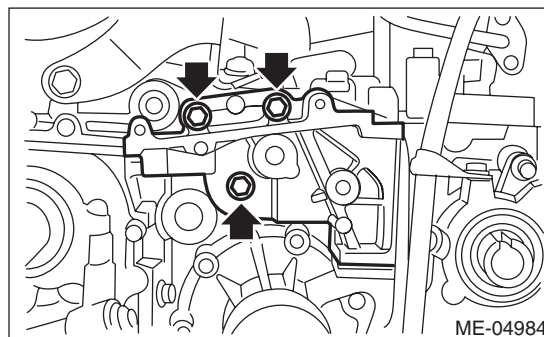
12 N·m (1.2 kgf-m, 8.9 ft-lb)



- 2) Install the hose to water pump.
- 3) Install the tensioner bracket.

Tightening torque:

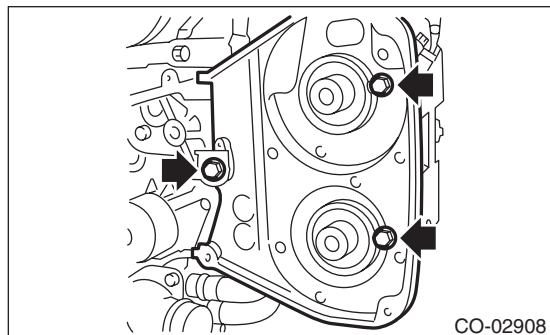
24.5 N·m (2.5 kgf-m, 18.1 ft-lb)



4) Install the belt cover No. 2 LH.

Tightening torque:

5 N·m (0.5 kgf-m, 3.7 ft-lb)



5) Install the cam sprocket LH. <Ref. to ME(w/o STI)-57, INSTALLATION, Cam Sprocket.>

6) Install the belt idler No. 2 (C).

Tightening torque:

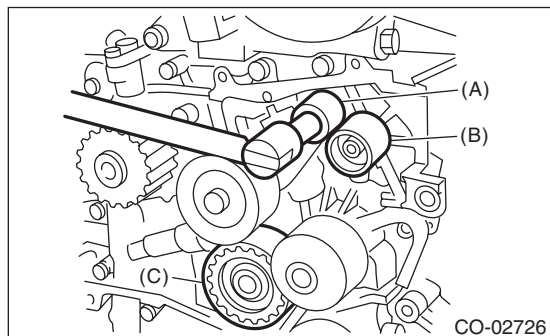
39 N·m (4.0 kgf-m, 28.8 ft-lb)

7) Install the belt idler (B).

Tightening torque:

25 N·m (2.5 kgf-m, 18.4 ft-lb)

8) Install the automatic belt tension adjuster (A) with the tension rod held by a pin. <Ref. to ME(w/o STI)-50, AUTOMATIC BELT TENSION ADJUST-ER ASSEMBLY AND BELT IDLER, INSTALLA-TION, Timing Belt.>



9) Install the timing belt. <Ref. to ME(w/o STI)-51, TIMING BELT, INSTALLATION, Timing Belt.>

10) Install the timing belt cover. <Ref. to ME(w/o STI)-47, INSTALLATION, Timing Belt Cover.>

11) Install the crank pulley. <Ref. to ME(w/o STI)-45, INSTALLATION, Crank Pulley.>

12) Install the V-belts. <Ref. to ME(w/o STI)-38, IN-STALLATION, V-belt.>

13) Install the radiator. <Ref. to CO(w/o STI)-20, INSTALLATION, Radiator.>

C: INSPECTION

1) Check the water pump bearing for smooth rota-tion.

2) Check the water pump pulley for abnormalities.

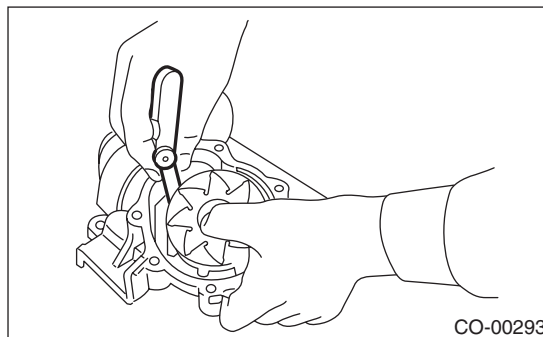
3) Make sure the impeller is not abnormally de-formed or damaged.

4) Inspect the clearance between impeller and pump case.

Clearance between impeller and pump case:

Standard

0.5 — 1.5 mm (0.020 — 0.059 in)



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