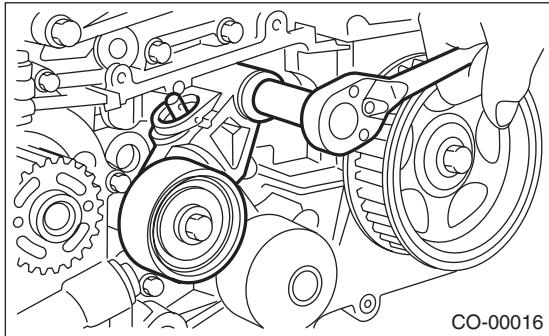


4. Water Pump

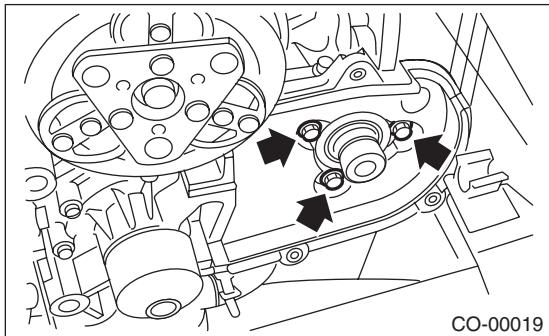
A: REMOVAL

- 1) Remove the radiator. <Ref. to CO(H4SO)-19, REMOVAL, Radiator.>
- 2) Remove the V-belts. <Ref. to ME(H4SO)-39, REMOVAL, V-belt.>
- 3) Remove the crank pulley. <Ref. to ME(H4SO)-46, REMOVAL, Crank Pulley.>
- 4) Remove the timing belt cover. <Ref. to ME(H4SO)-49, REMOVAL, Timing Belt Cover.>
- 5) Remove the timing belt. <Ref. to ME(H4SO)-50, TIMING BELT, REMOVAL, Timing Belt.>
- 6) Remove the automatic belt tension adjuster.



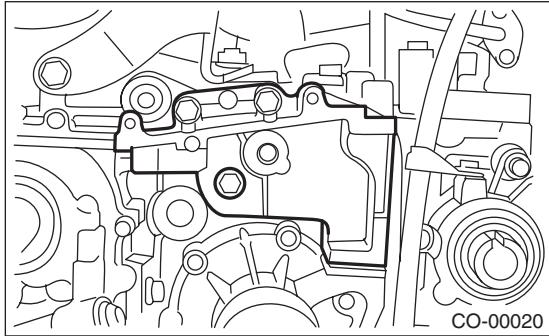
CO-00016

- 7) Remove the camshaft position sensor. <Ref. to FU(H4SO)-28, REMOVAL, Camshaft Position Sensor.>
- 8) Remove the cam sprocket LH. <Ref. to ME(H4SO)-55, REMOVAL, Cam Sprocket.>
- 9) Remove the belt cover LH No. 2.



CO-00019

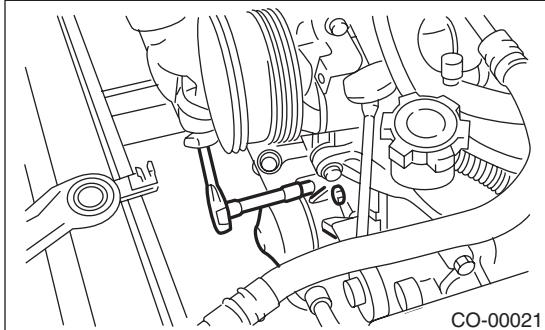
- 10) Remove the tensioner bracket.



CO-00020

- 11) Disconnect the hose from water pump.

- 12) Remove the water pump.



CO-00021

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.

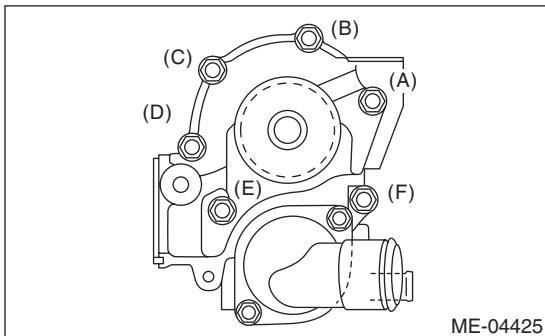
Tightening torque:

1st

12 N·m (1.2 kgf-m, 8.9 ft-lb)

Second

12 N·m (1.2 kgf-m, 8.9 ft-lb)



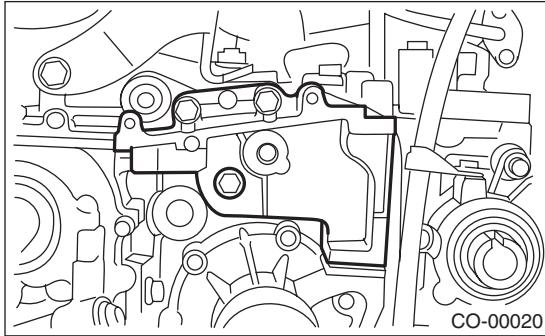
ME-04425

- 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)



CO-00020

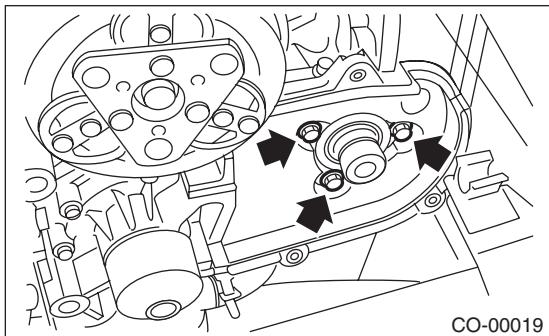
Water Pump

COOLING

- 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(H4SO)-55, INSTALLATION, Cam Sprocket.>
- 6) Install the camshaft position sensor. <Ref. to FU(H4SO)-28, INSTALLATION, Camshaft Position Sensor.>

- 7) Install an automatic belt tension adjuster with the tension rod held by a pin. <Ref. to ME(H4SO)-51, AUTOMATIC BELT TENSION ADJUSTER ASSEMBLY AND BELT IDLER, INSTALLATION, Timing Belt.>

- 8) Install the timing belt. <Ref. to ME(H4SO)-52, TIMING BELT, INSTALLATION, Timing Belt.>

- 9) Install the timing belt cover. <Ref. to ME(H4SO)-49, INSTALLATION, Timing Belt Cover.>

- 10) Install the crank pulley. <Ref. to ME(H4SO)-46, INSTALLATION, Crank Pulley.>

- 11) Install the V-belts. <Ref. to ME(H4SO)-39, INSTALLATION, V-belt.>

- 12) Install the radiator. <Ref. to CO(H4SO)-20, INSTALLATION, Radiator.>

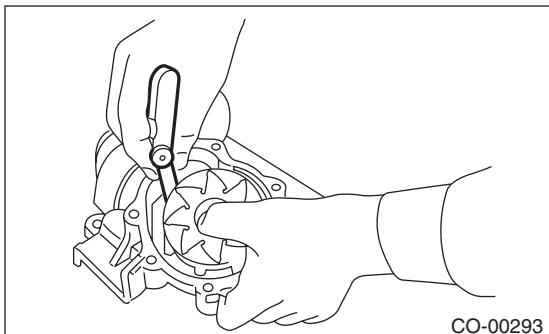
C: INSPECTION

- 1) Check the water pump bearing for smooth rotation.
- 2) Check the water pump pulley for abnormalities.
- 3) Make sure the impeller is not abnormally deformed 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 — 0.060 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.