

## 18. Rocker Cover

### A: REMOVAL

#### 1. ROCKER COVER RH

NOTE:

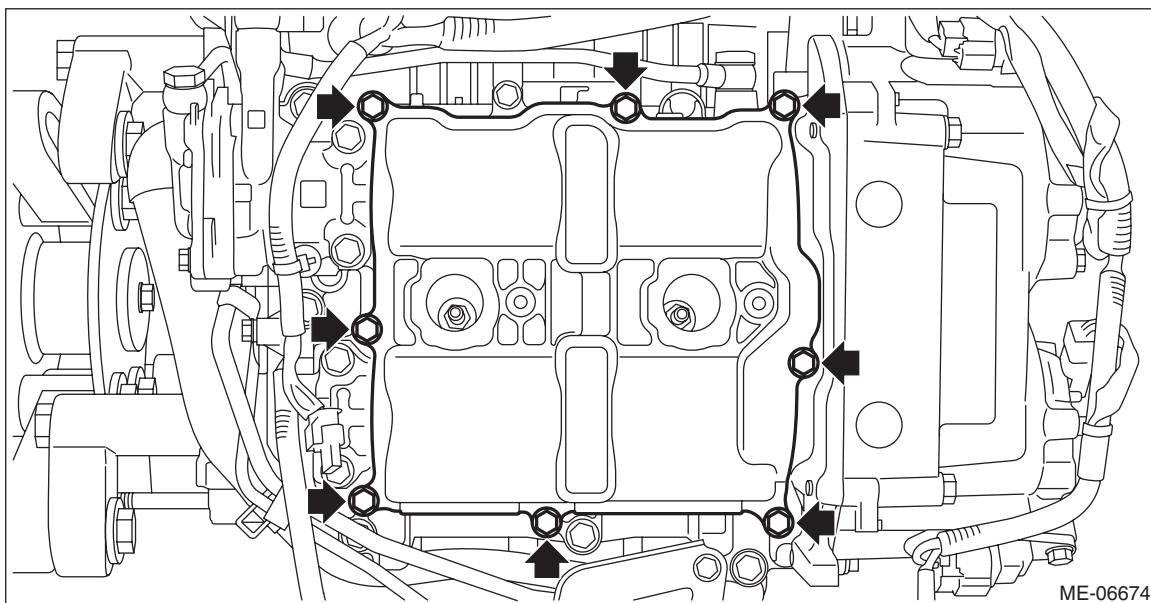
When replacing a single part, perform the work with the engine assembly installed to body.

1) When working on the vehicle

NOTE:

When working on the vehicle, perform the following steps also.

- (1) Remove the air cleaner case. <Ref. to IN(H4DOTC)-9, REMOVAL, Air Cleaner Case.>
- 2) Remove the #1 ignition coil and the #3 ignition coil. <Ref. to IG(H4DOTC)-9, REMOVAL, Ignition Coil.>
- 3) Remove the rocker cover RH.



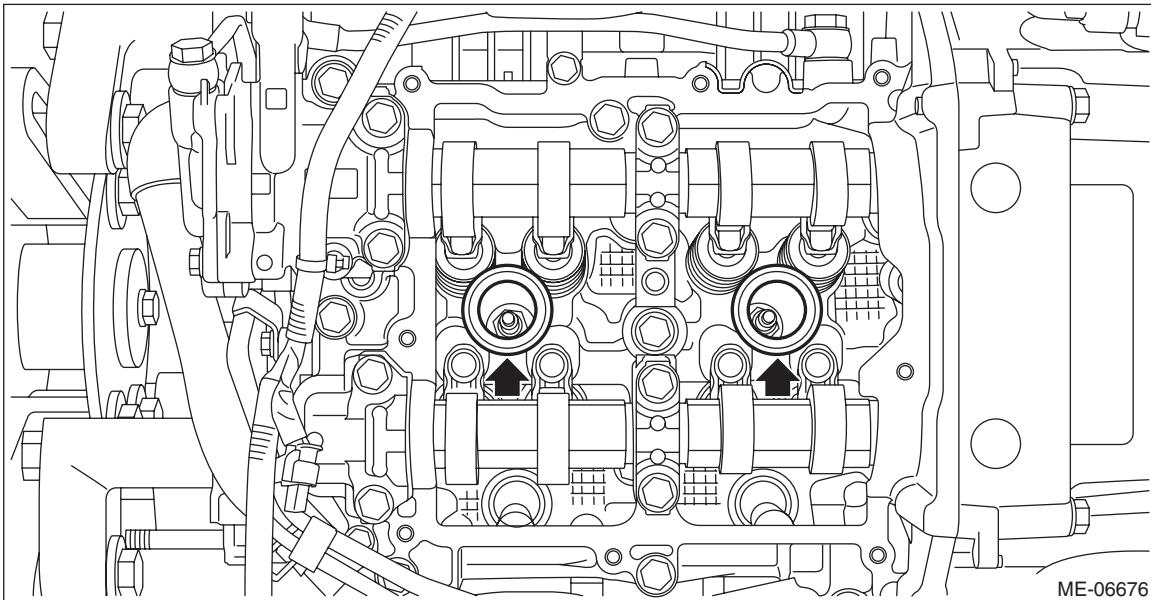
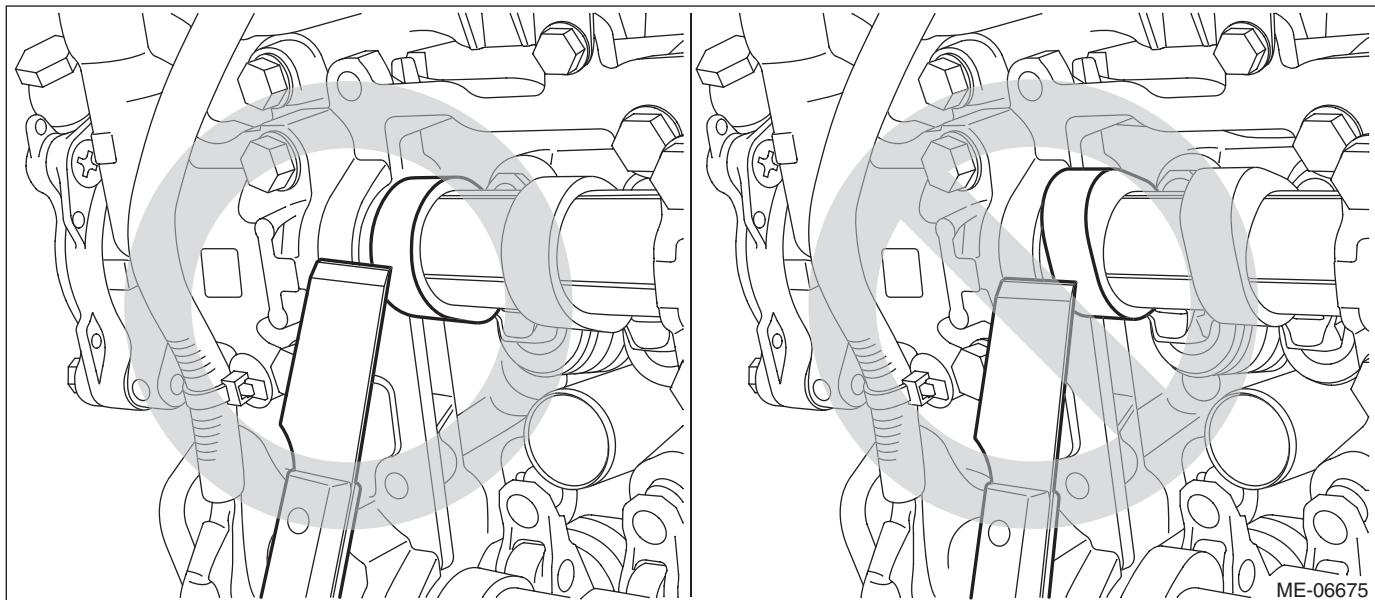
## Rocker Cover

### MECHANICAL

4) Remove the rocker cover gasket RH, #1 spark plug pipe gasket and #3 spark plug pipe gasket, and remove the liquid gasket.

#### CAUTION:

- When removing the liquid gasket from engine unit using scraper, use special care not to damage the cam lobe of camshaft RH.
- If the cam lobe of camshaft RH interferes, turn the crankshaft to the position where the scraper does not touch.



## 2. ROCKER COVER LH

NOTE:

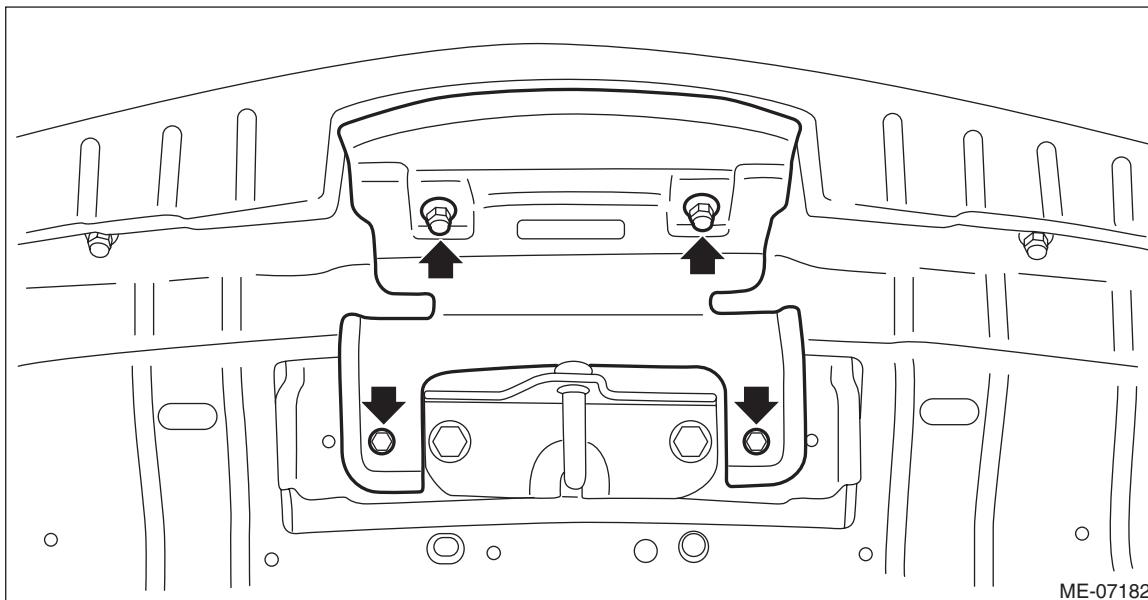
When replacing a single part, perform the work with the engine assembly installed to body.

- 1) When working on the vehicle

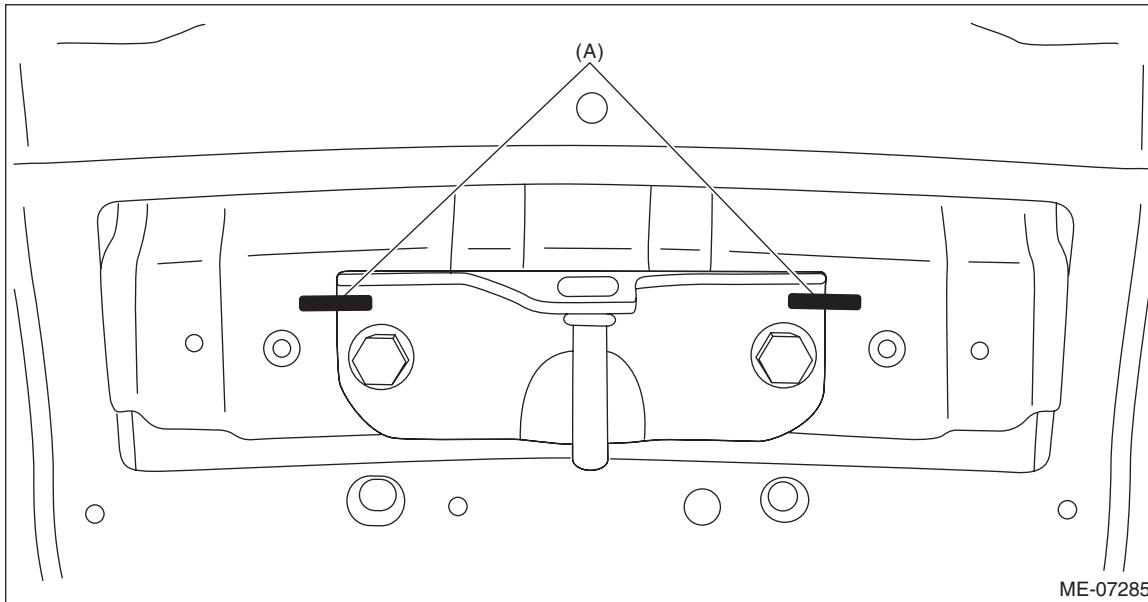
NOTE:

When working on the vehicle, perform the following steps also.

- (1) Open the front hood, and remove the upper grille bracket from the front hood.



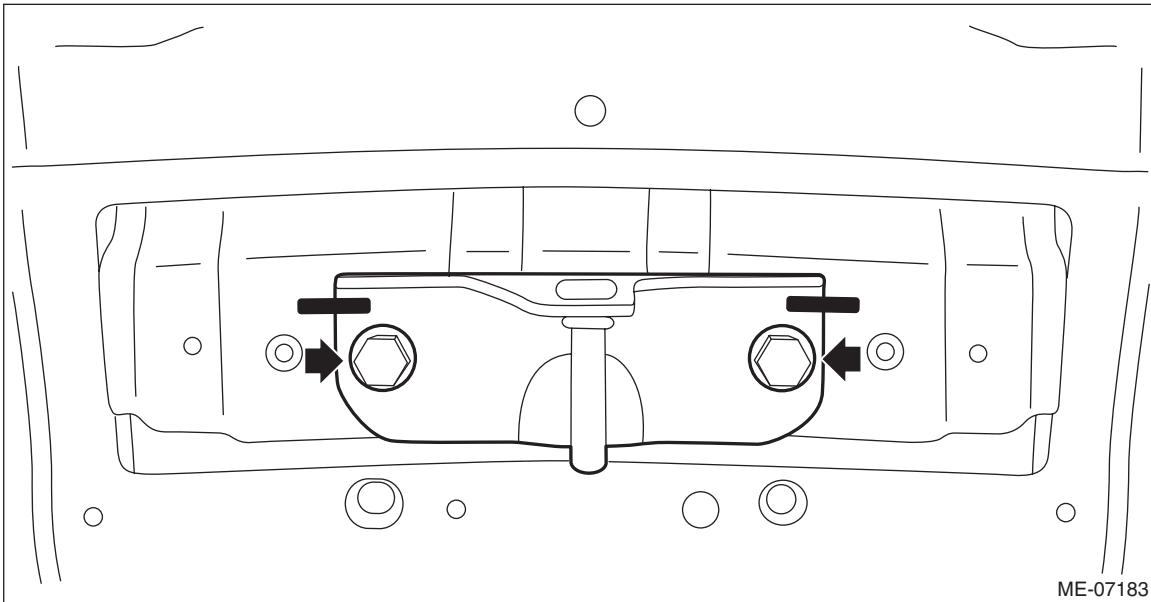
- (2) Using a marker pen, make alignment marks (A) on both the front hood and the front hood striker.



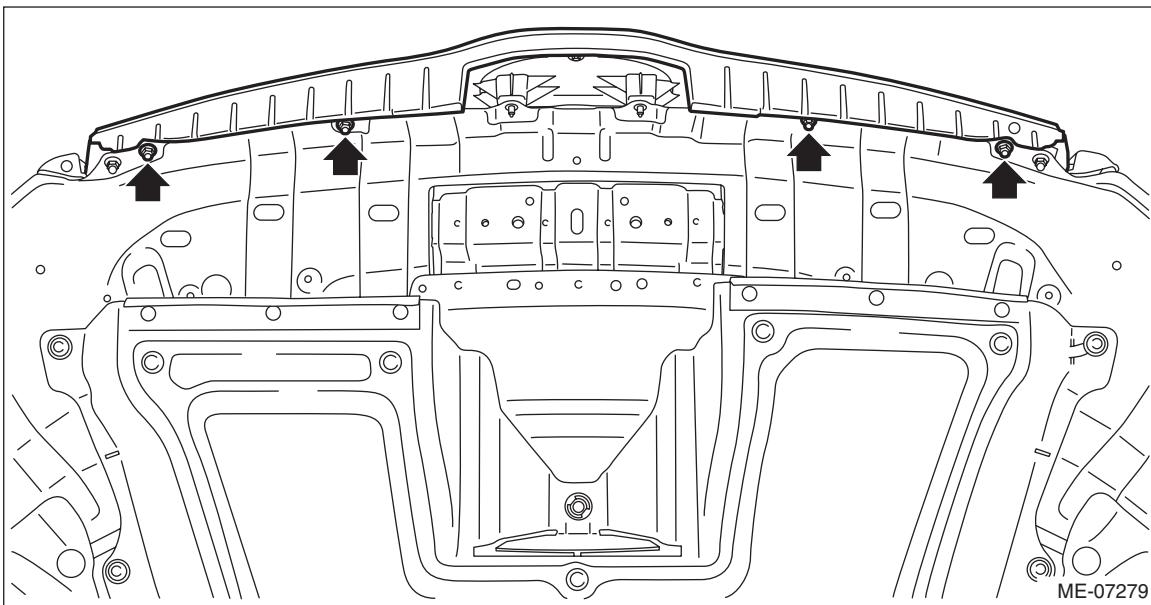
## Rocker Cover

### MECHANICAL

(3) Remove the front hood striker from the front hood.



(4) Remove the front center grille assembly from the front hood.



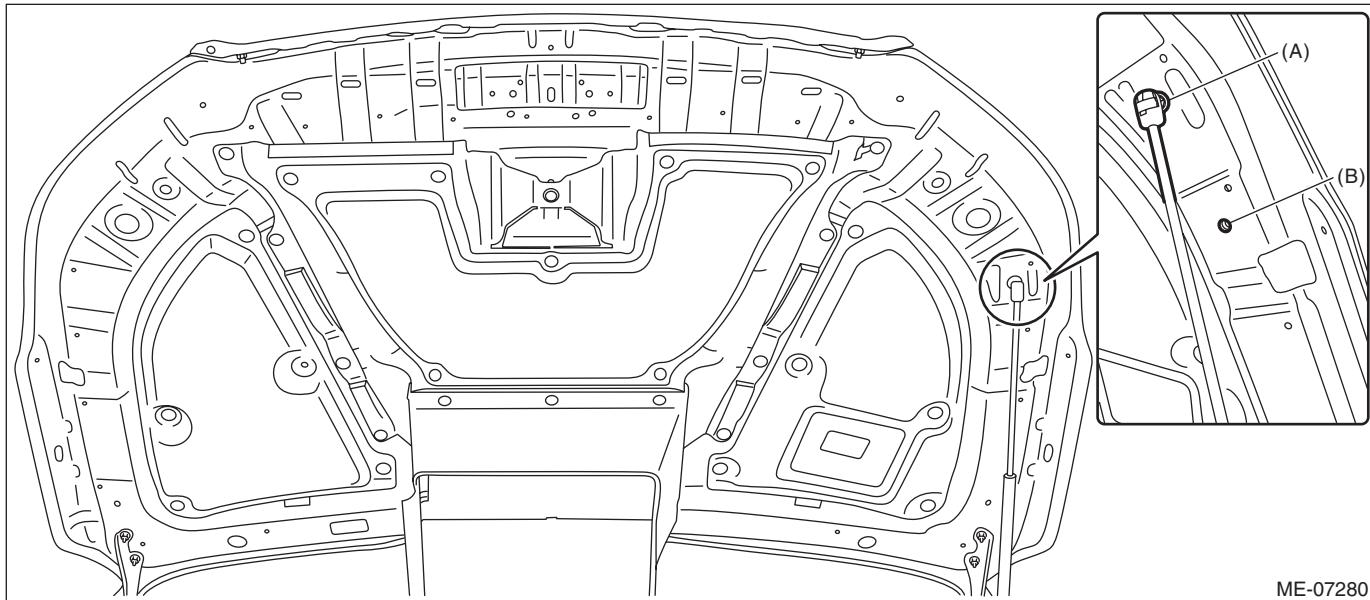
# Rocker Cover

## MECHANICAL

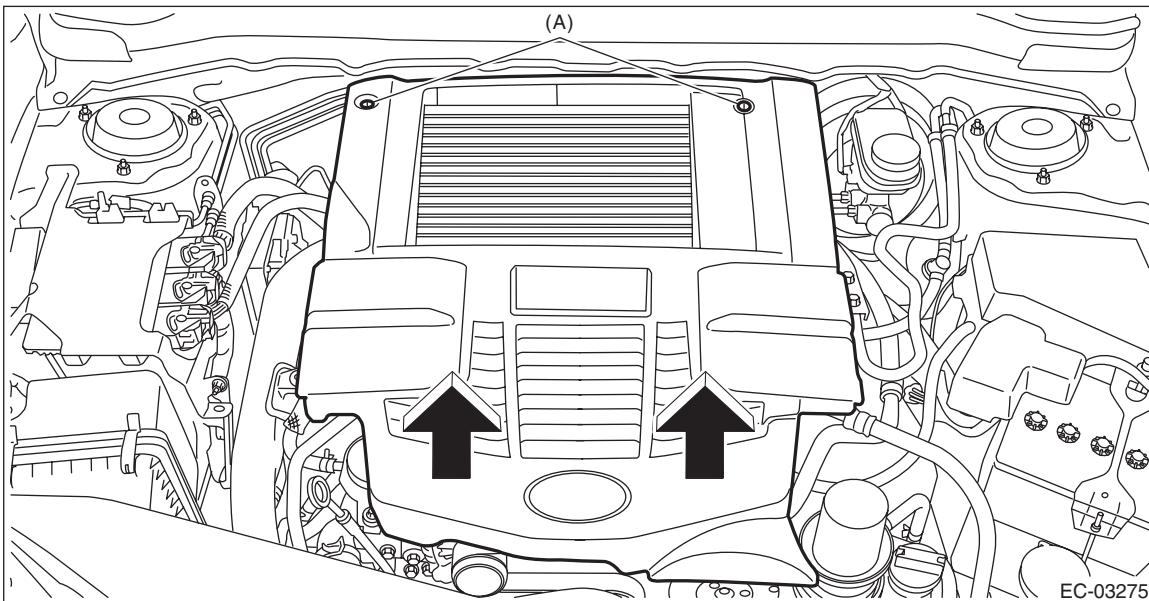
(5) Change the front hood damper mounting position from (A) to (B), and completely open the front hood.

### Tightening torque:

20 N·m (2.0 kgf·m, 14.8 ft·lb)



(6) Remove the clip (A), lift the front of the collector cover in the direction of arrow, and then remove the collector cover.



(7) Remove the battery. <Ref. to SC(H4DO)-63, REMOVAL, Battery.>

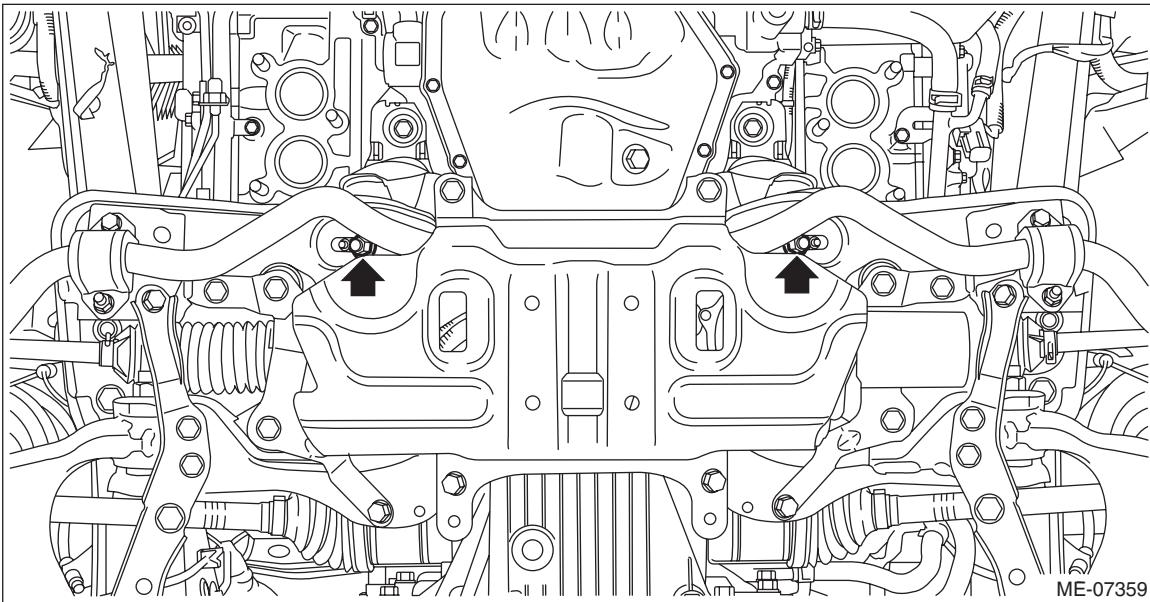
(8) Remove the air intake duct (rear). <Ref. to IN(H4DOTC)-19, REMOVAL, Air Intake Duct.>

(9) Remove the front exhaust pipe. <Ref. to EX(H4DOTC)-7, REMOVAL, Front Exhaust Pipe.>

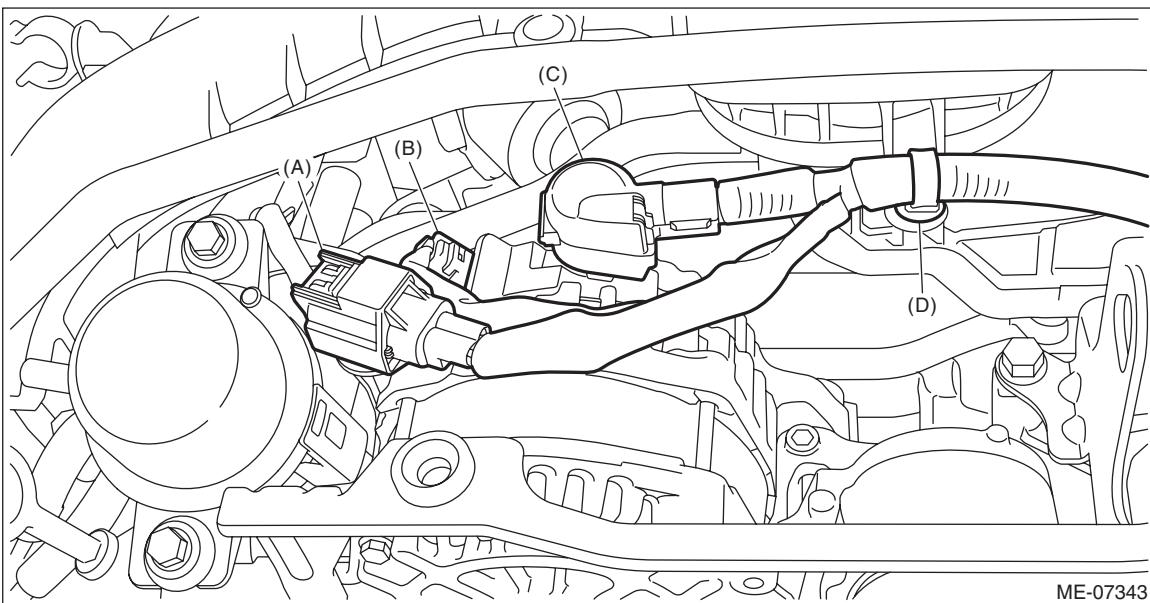
## Rocker Cover

### MECHANICAL

(10) Remove the nuts which secure the engine mounting to the front crossmember.



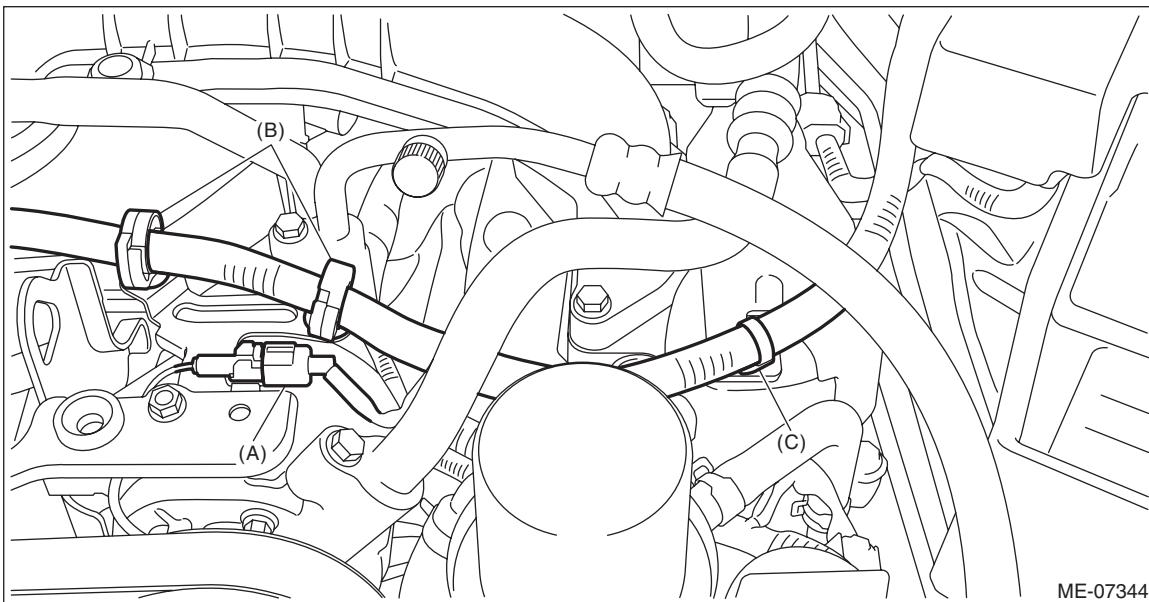
(11) Lower the vehicle.  
(12) Remove the intercooler. <Ref. to IN(H4DOTC)-35, REMOVAL, Intercooler.>  
(13) Disconnect the connector (A) from the brake vacuum pump.  
(14) Disconnect connector (B) and terminal (C) from the generator, and remove the clip (D) securing the generator cord to the intake manifold.



## Rocker Cover

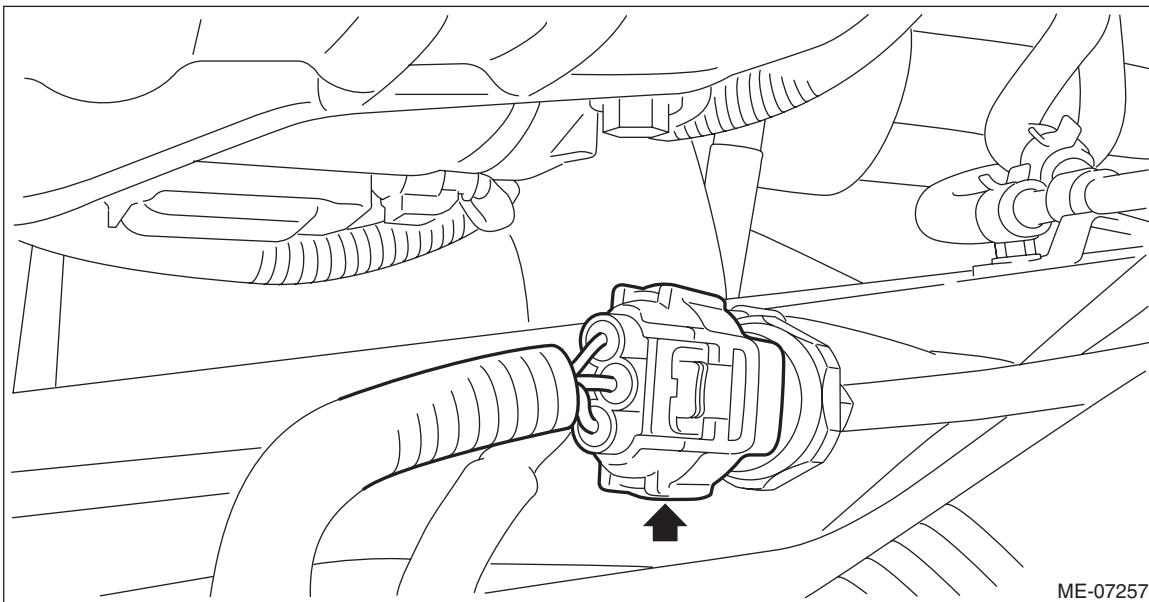
### MECHANICAL

(15) Disconnect connector (A) from A/C compressor, and remove the generator cord from clip (B).  
(16) Remove the clip (C) securing the generator cord to the fuel pipe protector, and move the generator cord to the left side wheel apron.



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(17) Disconnect the connector from pressure switch (triple pressure switch).

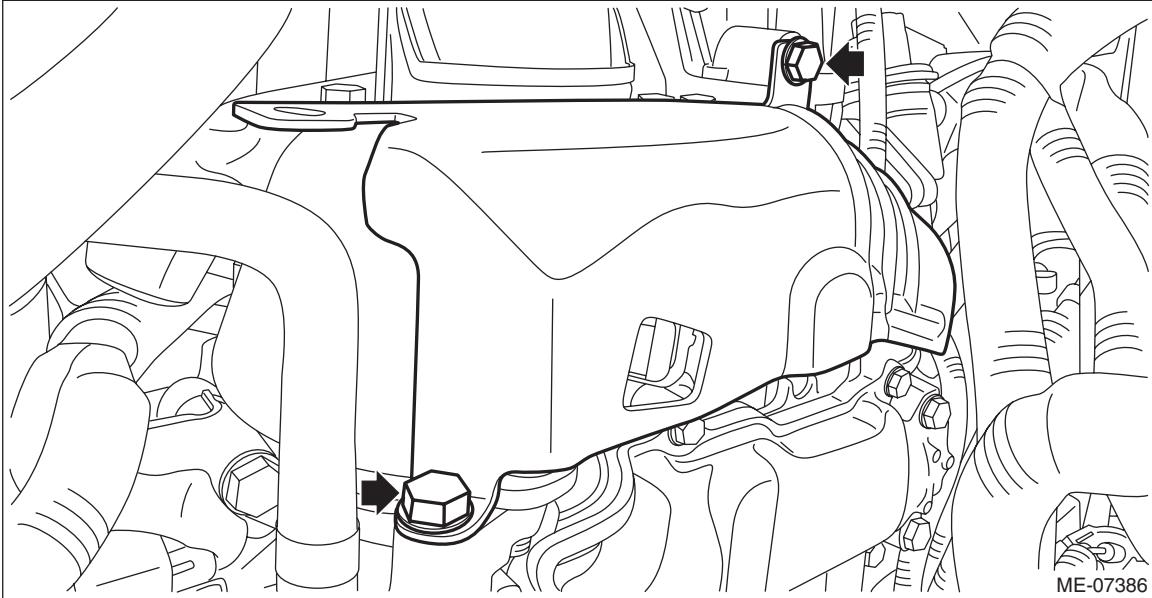


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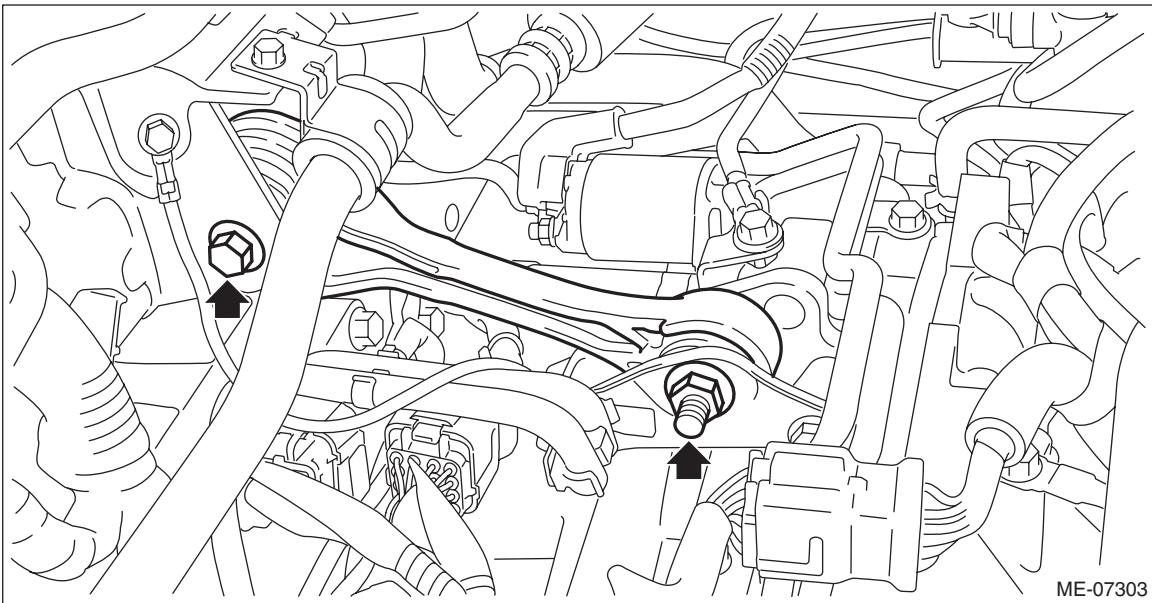
## Rocker Cover

### MECHANICAL

(18) Remove the fuel pipe protector from the high-pressure fuel pump case and intake manifold.



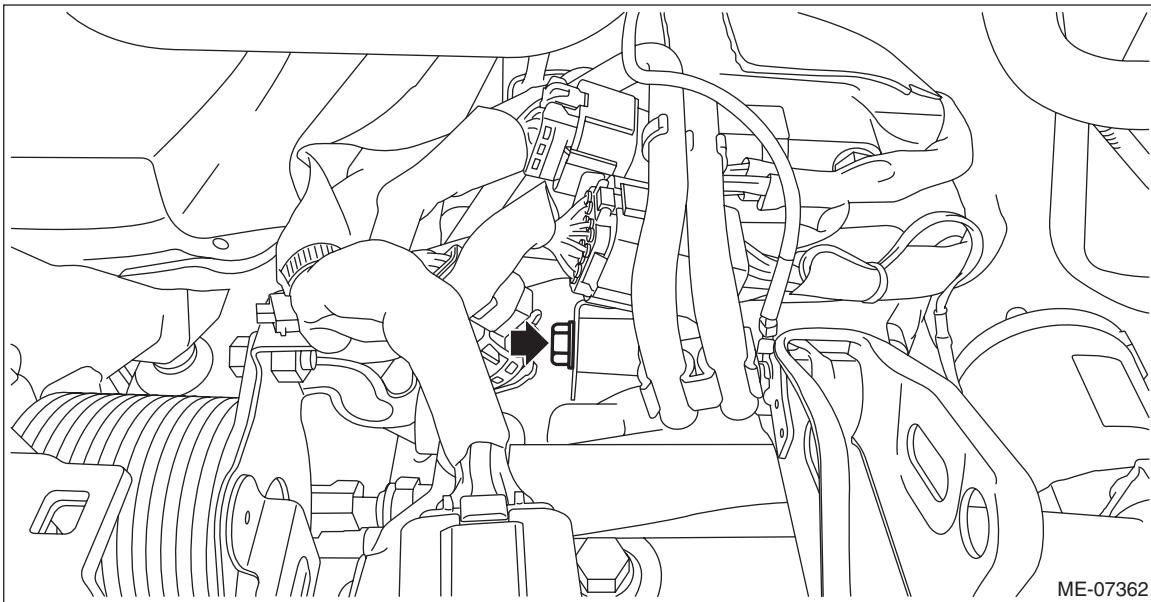
(19) Remove the pitching stopper.



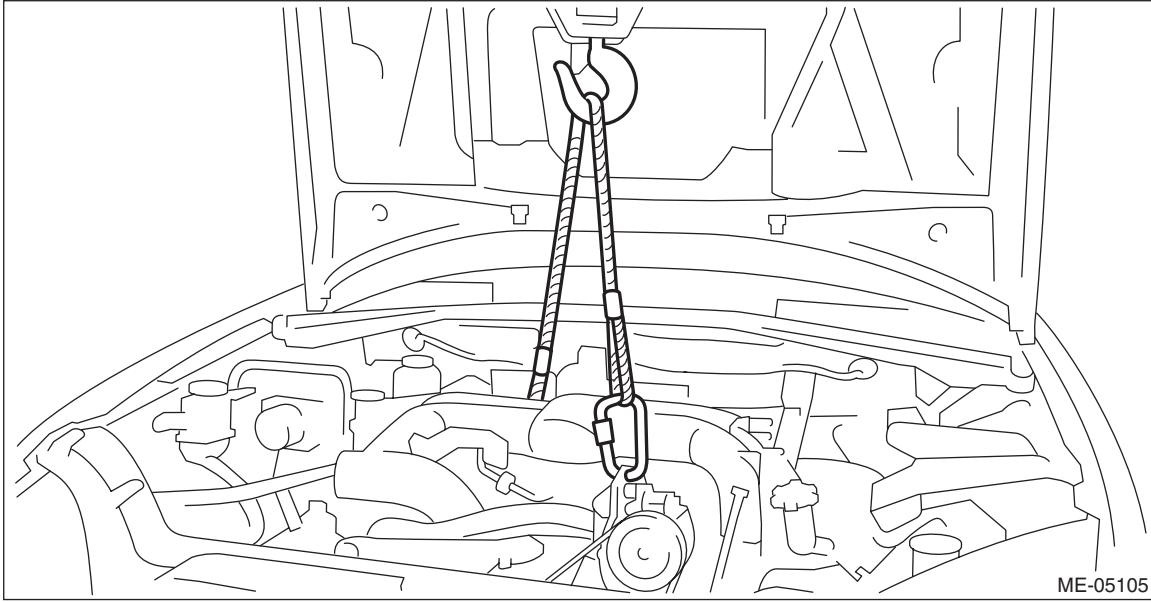
(20) Remove the bolt securing the transmission harness stay to the CVT.

**NOTE:**

This procedure is required to prevent the transmission connector from touching the A/C pressure hose during engine removal/installation.



(21) Support the engine with a lifting device and wire ropes.



(22) Lift the engine high enough until the stud bolt of the engine mount is drawn out of the crossmember.

**CAUTION:**

**When lifting up the engine, pay attention to the clearance of each part and be careful not to lift the engine too much, in order to prevent damaging the vehicle.**

# Rocker Cover

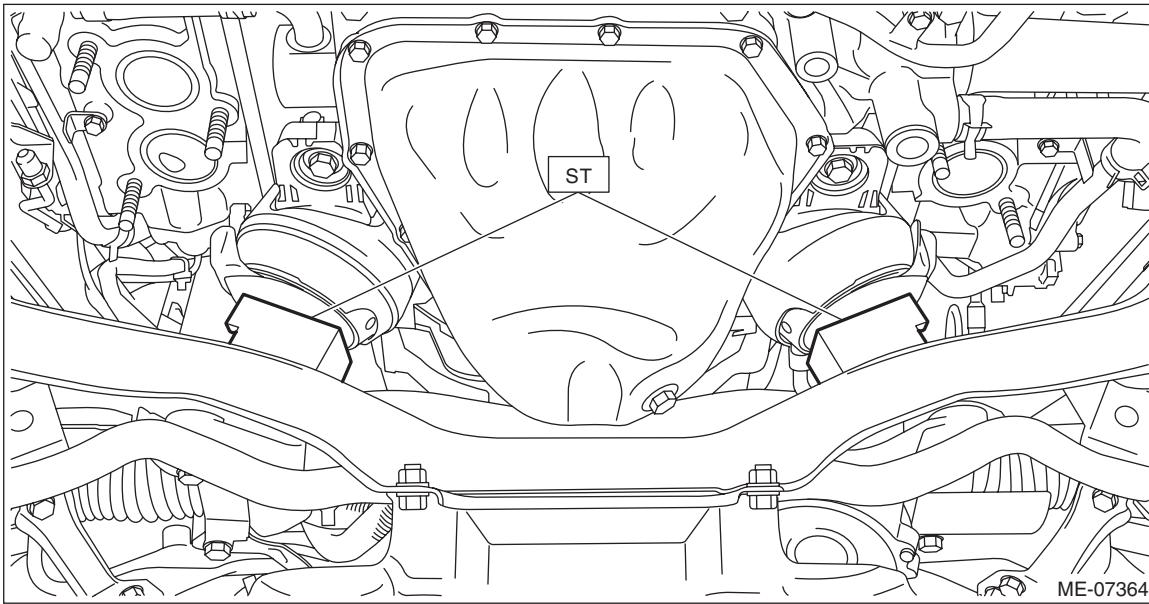
## MECHANICAL

(23) Set the ST between the engine mount and crossmember, and slowly lower the engine.

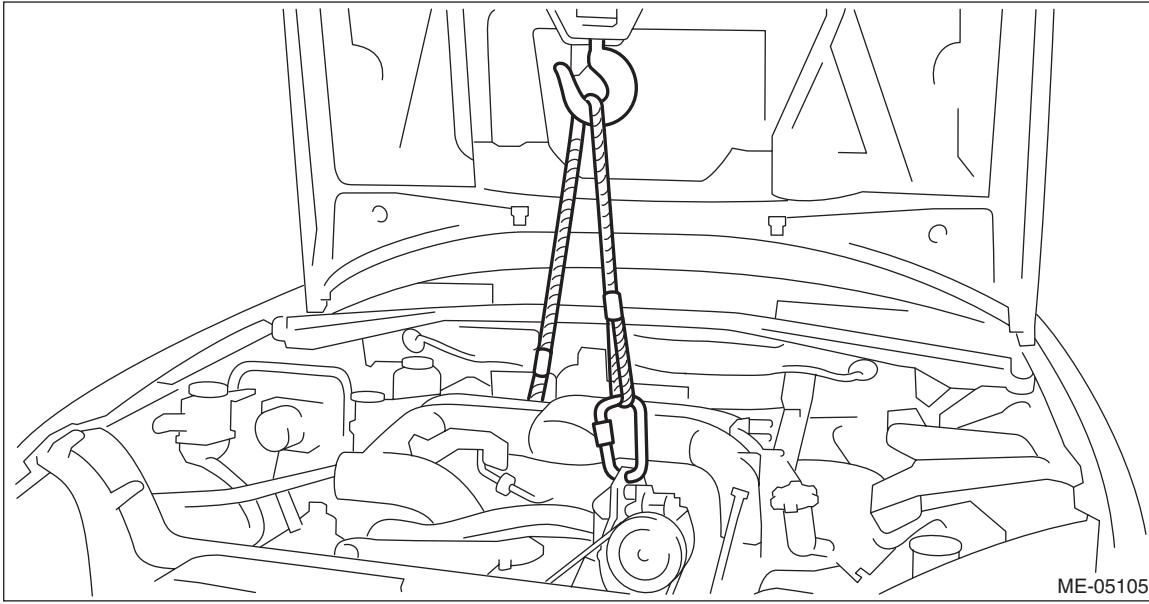
### CAUTION:

**After lowering the engine, check that the ST does not come off even if the engine is bounced.**

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(24) Remove the lifting device and wire ropes.



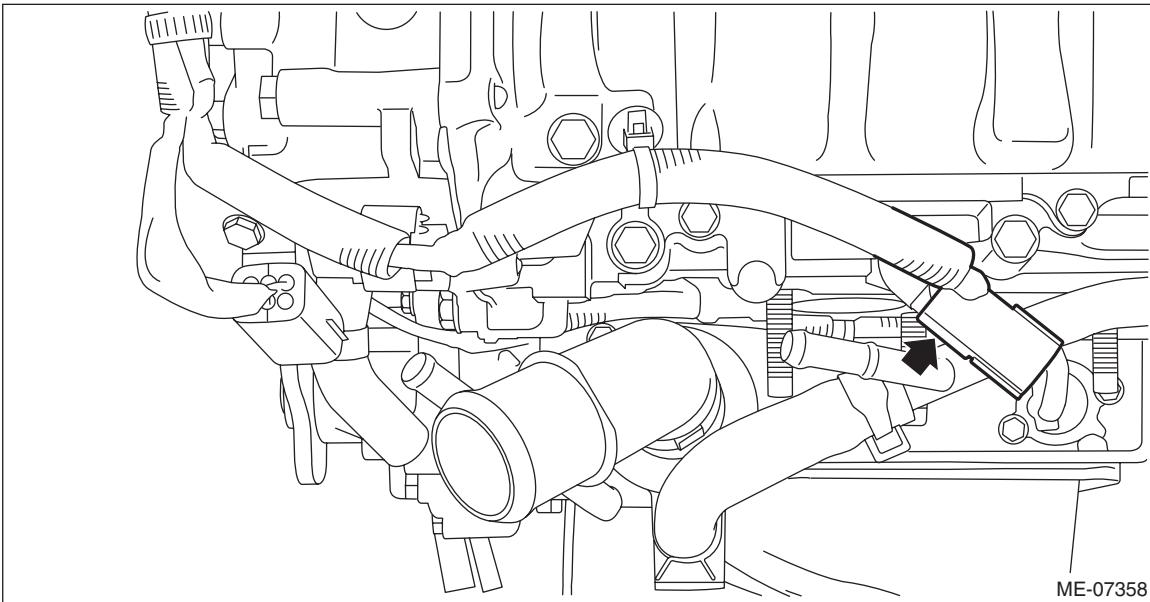
2) Remove the side engine oil cooler pipe assembly. <Ref. to LU(H4DO)-49, SIDE ENGINE OIL COOLER PIPE, REMOVAL, Engine Oil Cooler Pipe.>

3) Remove the #2 ignition coil and the #4 ignition coil. <Ref. to IG(H4DOTC)-9, REMOVAL, Ignition Coil.>

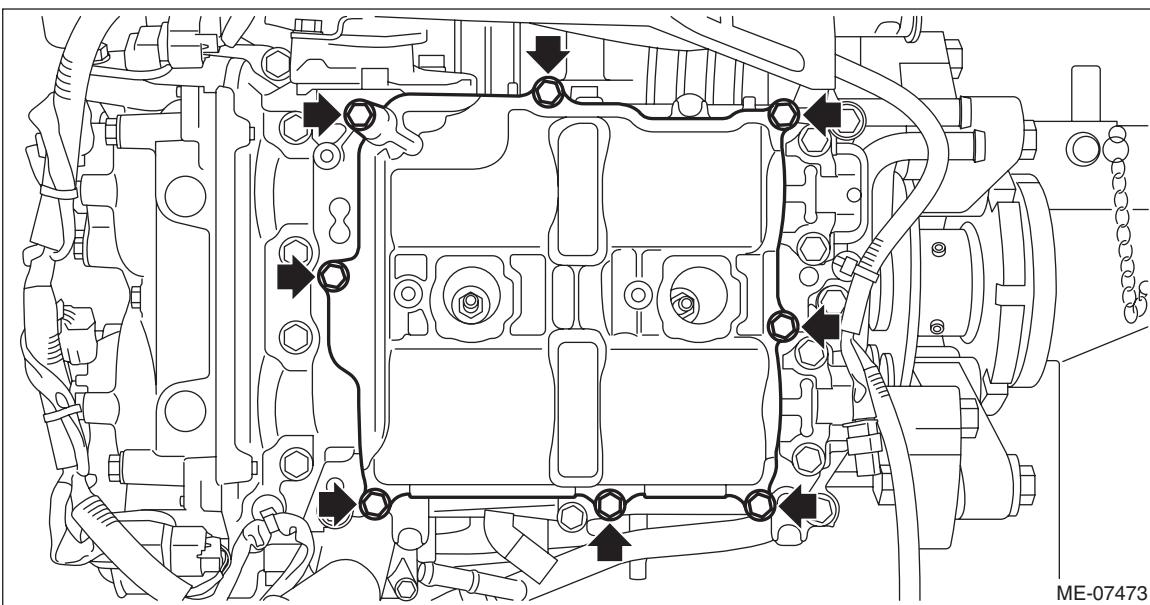
## Rocker Cover

### MECHANICAL

4) Remove the connector from the water pipe LH.



5) Remove the rocker cover LH.



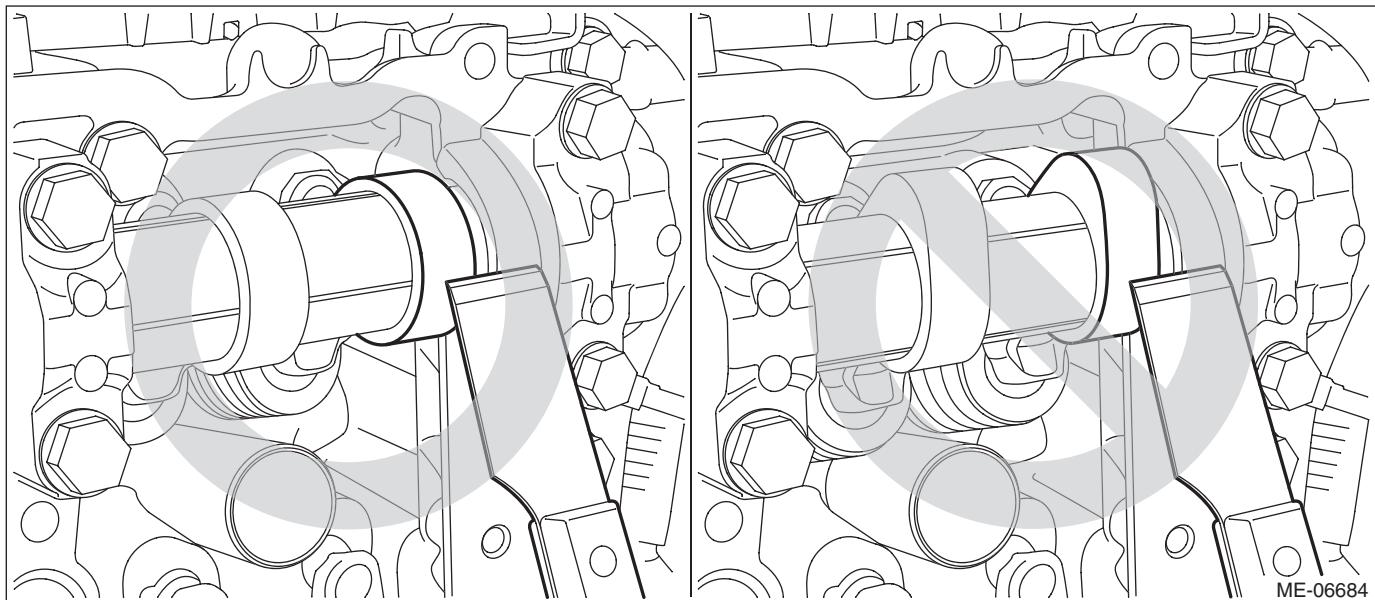
## Rocker Cover

### MECHANICAL

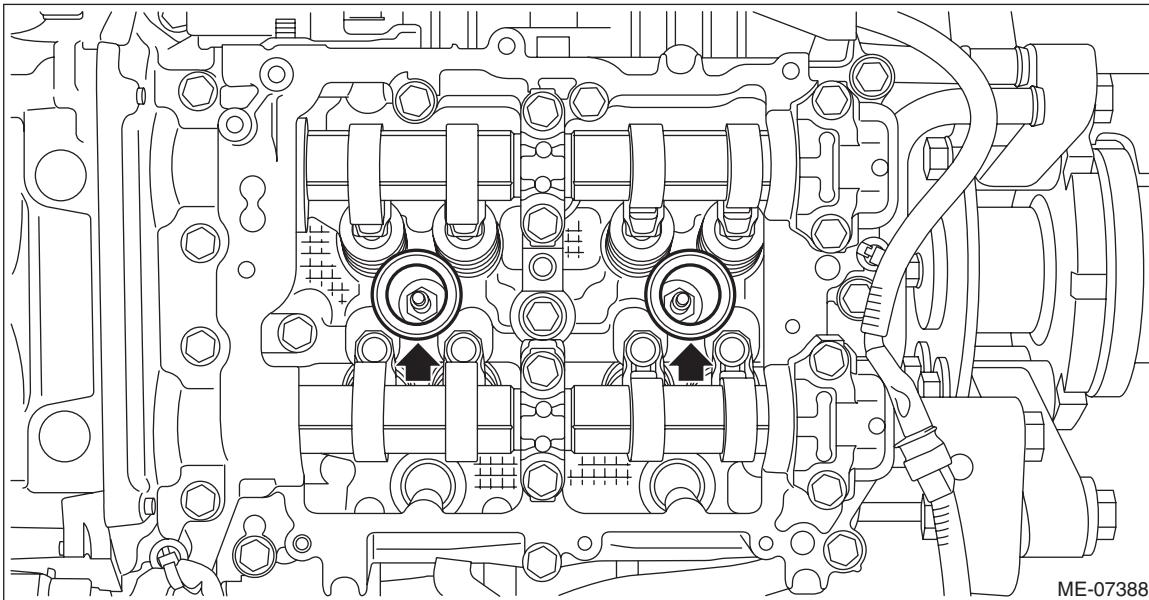
6) Remove the rocker cover gasket LH, #2 spark plug pipe gasket and #4 spark plug pipe gasket, and remove the liquid gasket.

#### CAUTION:

- When removing the liquid gasket from engine unit using scraper, use special care not to damage the cam lobe of camshaft LH.
- If the cam lobe of camshaft LH interferes, turn the crankshaft to the position where the scraper does not touch.



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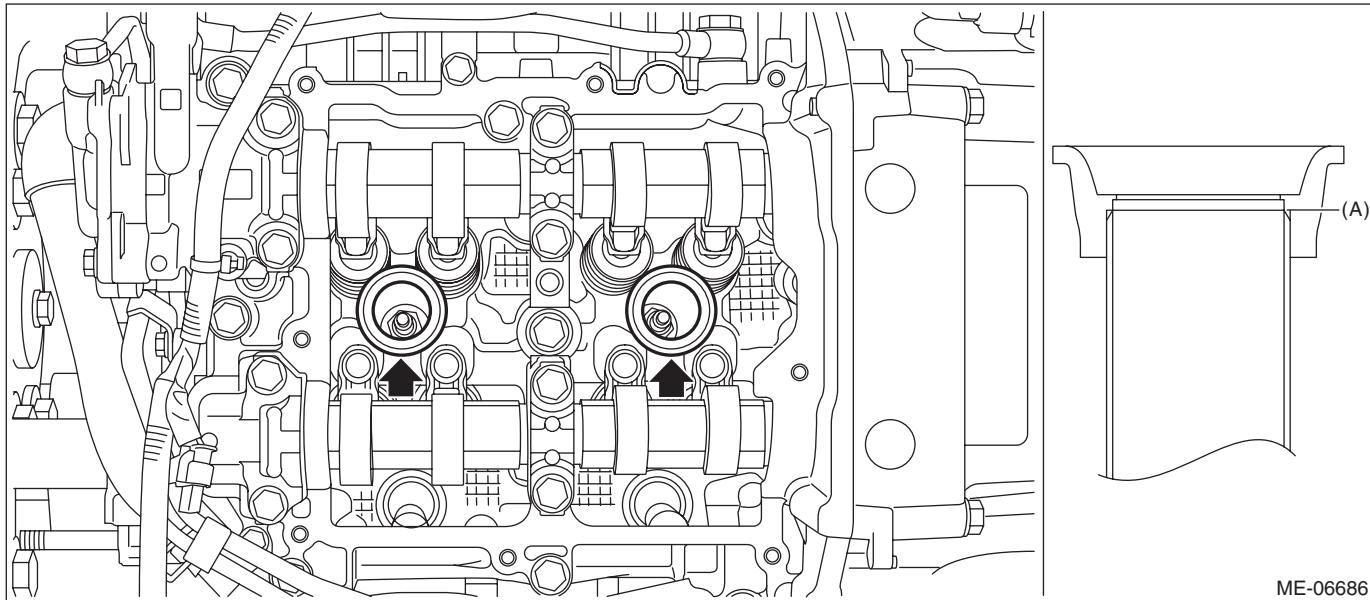
## B: INSTALLATION

### 1. ROCKER COVER RH

1) Install the #1 spark plug pipe gasket and #3 spark plug pipe gasket to the #1 spark plug pipe and #3 spark plug pipe.

NOTE:

- Use a new #1 spark plug pipe gasket and #3 spark plug pipe gasket.
- Apply a light coat of engine oil to the #1 spark plug pipe gasket and #3 spark plug pipe gasket, and insert them onto the spark plug pipe edge (A).



2) Install the rocker cover gasket RH to the rocker cover RH.

NOTE:

Use a new rocker cover gasket RH.

# Rocker Cover

## MECHANICAL

3) Apply liquid gasket to the mating surface of rocker cover RH as shown in the figure.

NOTE:

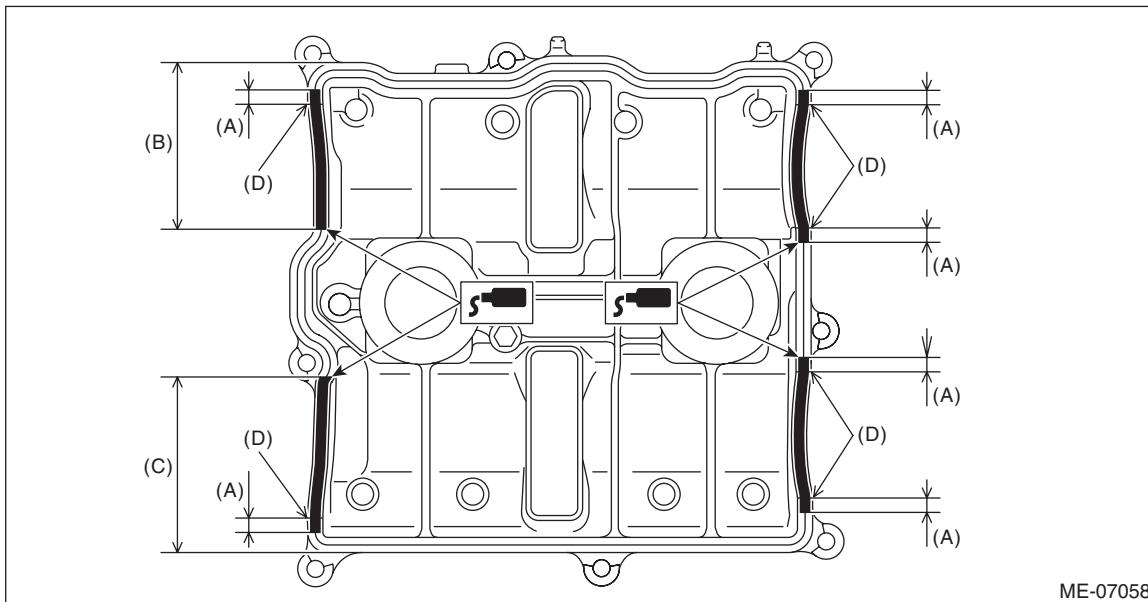
- Before applying liquid gasket, degrease the old liquid gasket seal surface of the engine.
- Be careful not to allow liquid gasket to be squeezed out from rocker cover RH.
- Install within 5 min. after applying liquid gasket.

**Liquid gasket:**

**THREE BOND 1217G (Part No. K0877Y0100) or equivalent**

**Liquid gasket applying diameter:**

**$3 \pm 1$  mm (0.1181  $\pm$  0.0394 in)**



(A) 10 mm (0.394 in) or more

(C) 70.7 mm (2.783 in) or more

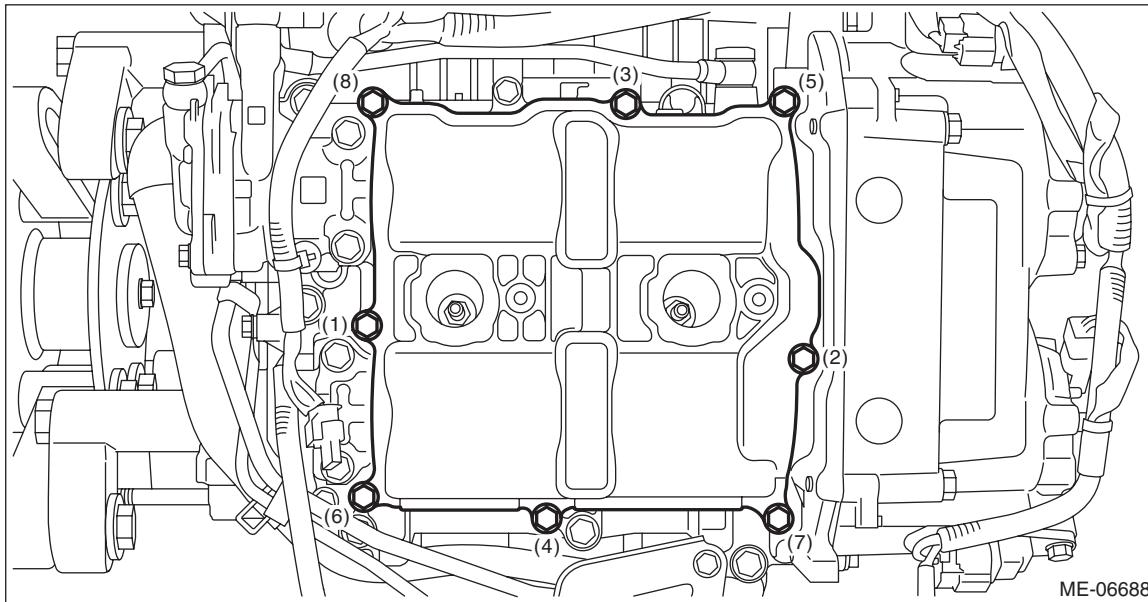
(D) Arch starting point

(B) 68 mm (2.677 in) or more

4) Set the rocker cover RH, and tighten the bolts in numerical order as shown in the figure.

**Tightening torque:**

**6.4 N·m (0.7 kgf·m, 4.7 ft-lb)**



5) Install the #1 ignition coil and the #3 ignition coil. <Ref. to IG(H4DOTC)-9, INSTALLATION, Ignition Coil.>

6) When working on the vehicle

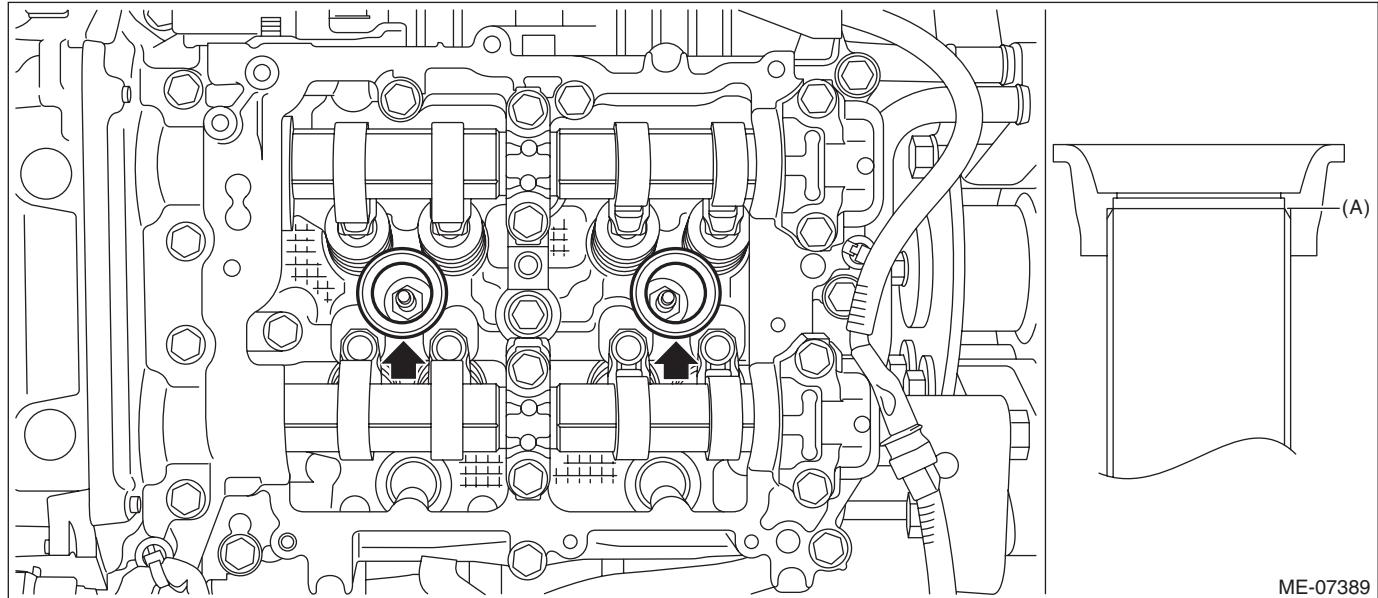
(1) Install the air cleaner case. <Ref. to IN(H4DOTC)-11, INSTALLATION, Air Cleaner Case.>

## 2. ROCKER COVER LH

1) Install the #2 spark plug pipe gasket and #4 spark plug pipe gasket to the #2 spark plug pipe and #4 spark plug pipe.

NOTE:

- Use a new #2 spark plug pipe gasket and #4 spark plug pipe gasket.
- Apply a light coat of engine oil to the #2 spark plug pipe gasket and #4 spark plug pipe gasket, and insert them onto the spark plug pipe edge (A).



2) Install the rocker cover gasket LH to the rocker cover LH.

NOTE:

Use a new rocker cover gasket LH.

# Rocker Cover

## MECHANICAL

3) Apply liquid gasket to the mating surface of rocker cover LH as shown in the figure.

NOTE:

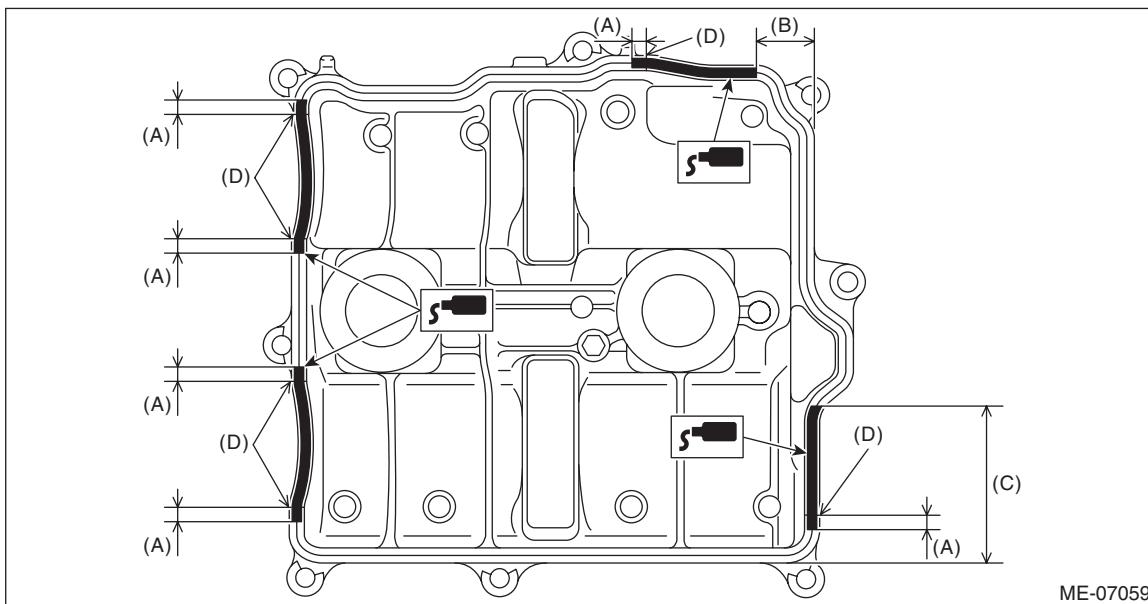
- Before applying liquid gasket, degrease the old liquid gasket seal surface of the engine.
- Be careful not to allow liquid gasket to be squeezed out from rocker cover LH.
- Install within 5 min. after applying liquid gasket.

**Liquid gasket:**

**THREE BOND 1217G (Part No. K0877Y0100) or equivalent**

**Liquid gasket applying diameter:**

**$3 \pm 1$  mm (0.1181  $\pm$  0.0394 in)**



ME-07059

(A) 10 mm (0.394 in) or more

(C) 63 mm (2.480 in) or more

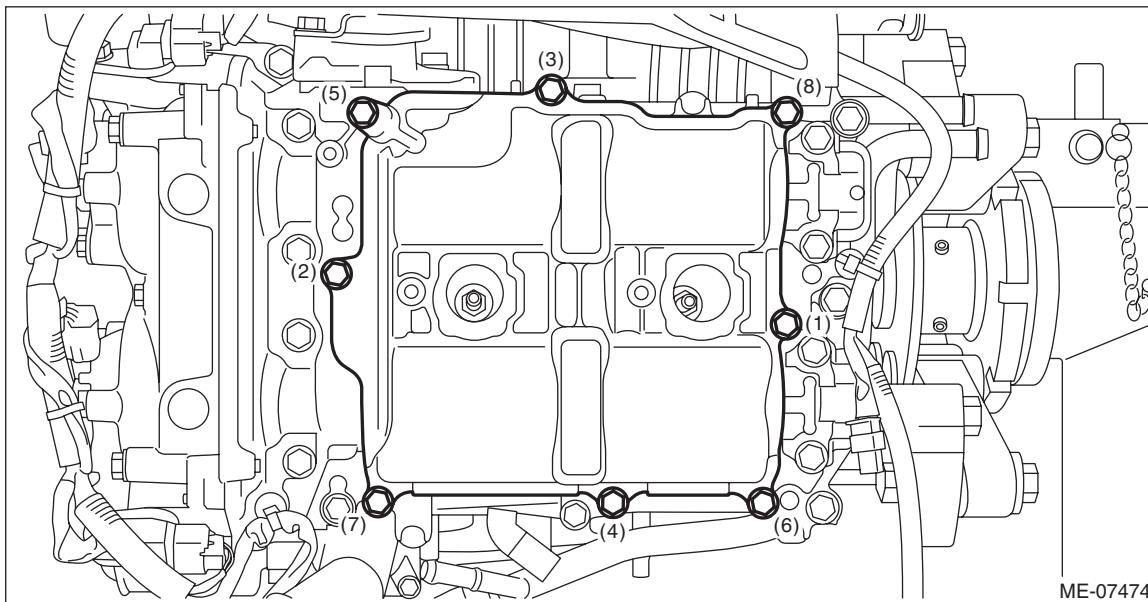
(D) Arch starting point

(B) 18.8 mm (0.7402 in) or more

4) Set the rocker cover LH, and tighten the bolts in numerical order as shown in the figure.

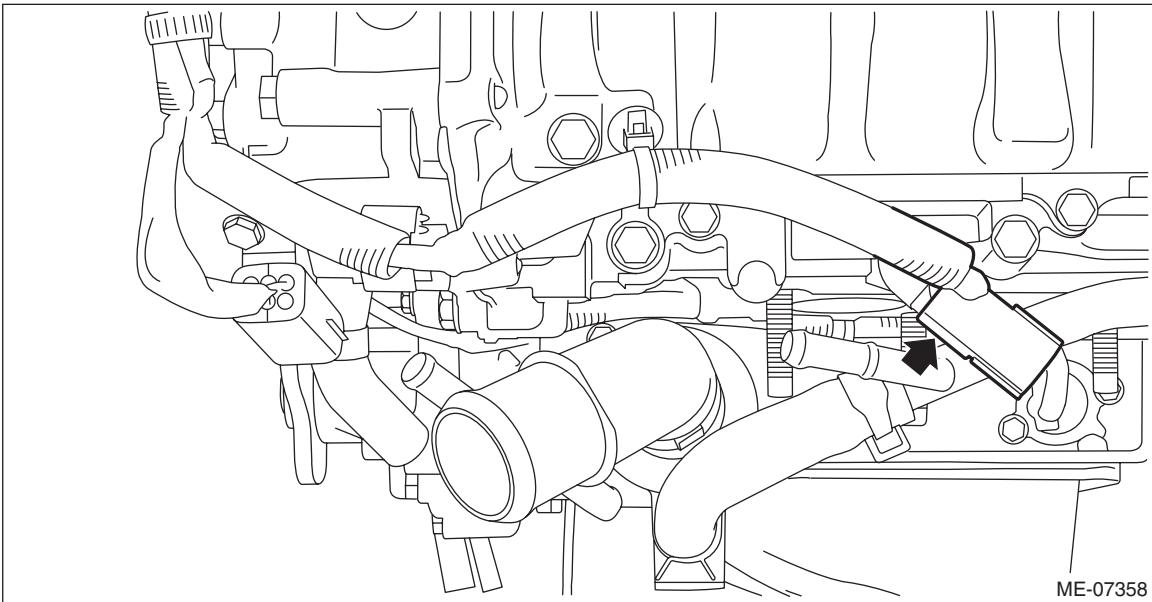
**Tightening torque:**

**6.4 N·m (0.7 kgf·m, 4.7 ft-lb)**



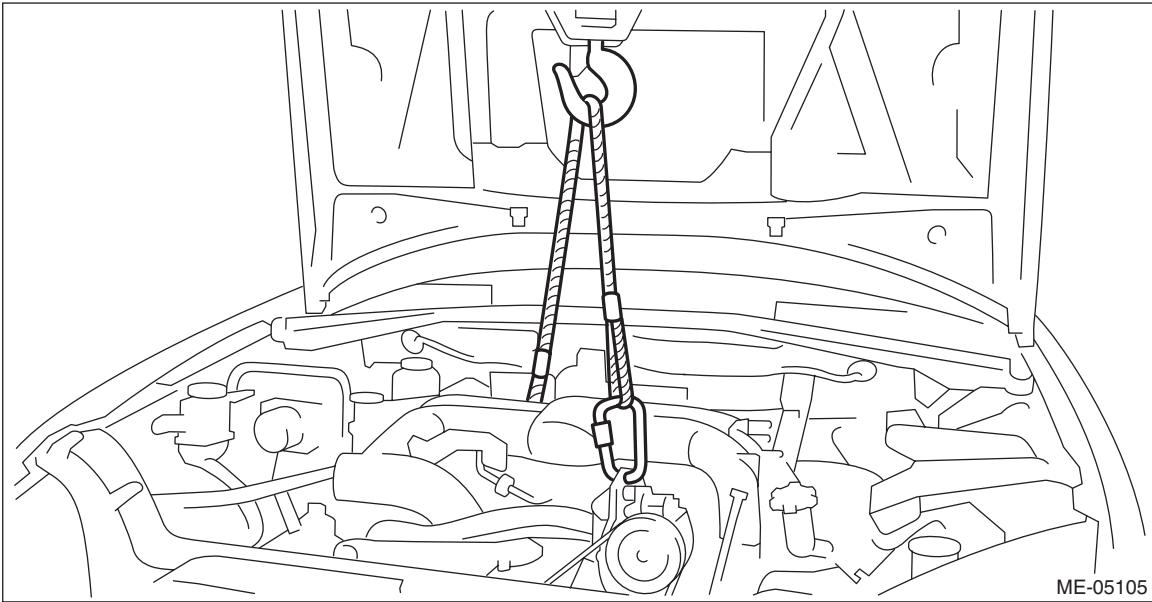
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5) Connect the connector to the water pipe LH.



6) Install the #2 ignition coil and the #4 ignition coil. <Ref. to IG(H4DOTC)-9, INSTALLATION, Ignition Coil.>  
7) Install the side engine oil cooler pipe assembly. <Ref. to LU(H4DO)-51, SIDE ENGINE OIL COOLER PIPE, INSTALLATION, Engine Oil Cooler Pipe.>  
8) When working on the vehicle

(1) Support the engine with a lifting device and wire ropes.



# Rocker Cover

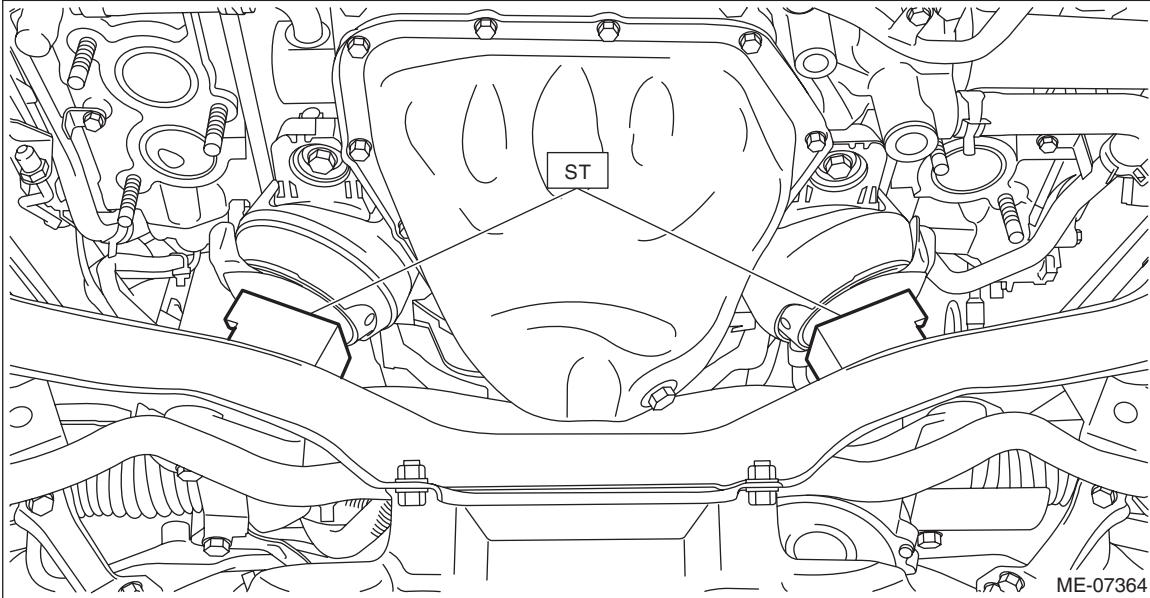
## MECHANICAL

(2) Lift the engine, and remove the ST.

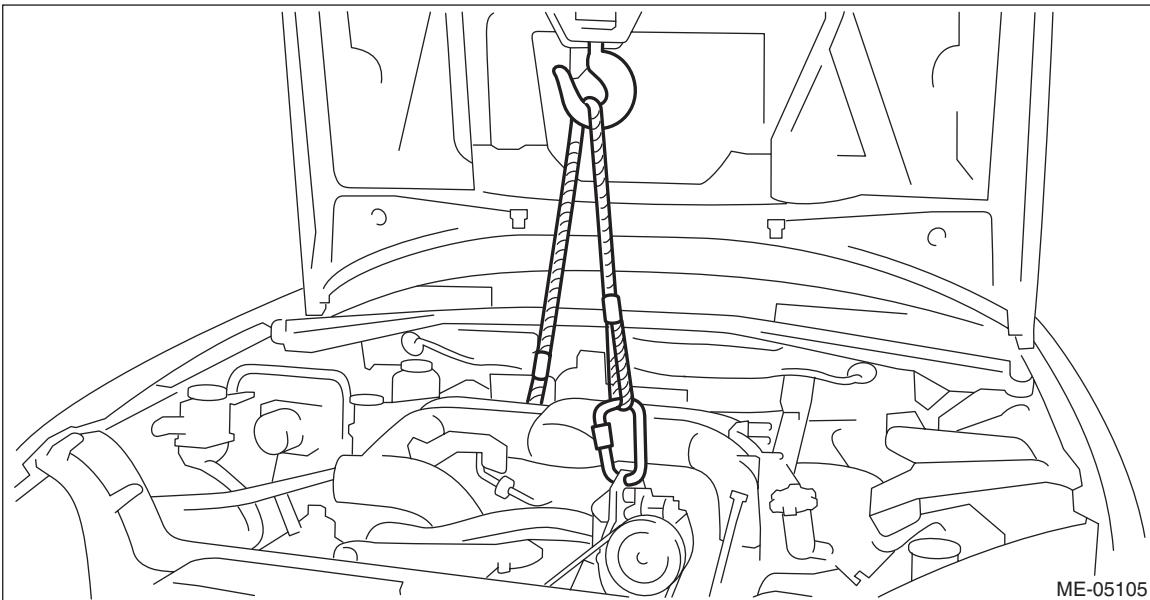
### CAUTION:

When lifting up the engine, pay attention to the clearance of each part and be careful not to lift the engine too much, in order to prevent damaging the vehicle.

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(3) Lower the engine and remove the lifting device and wire ropes.

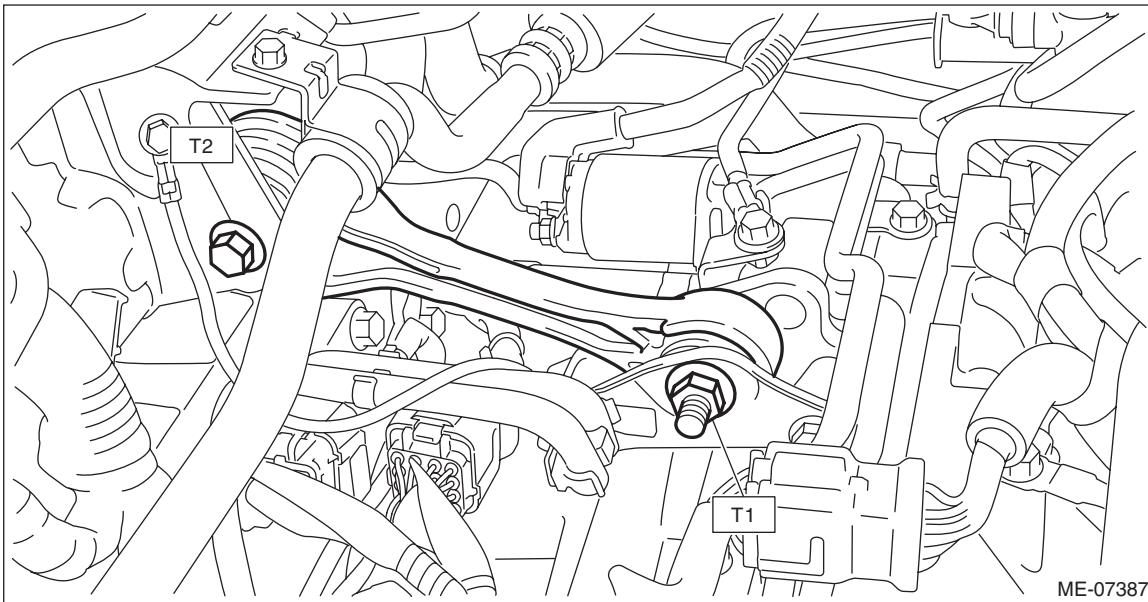


(4) Install the pitching stopper.

**Tightening torque:**

**T1: 50 N·m (5.1 kgf-m, 36.9 ft-lb)**

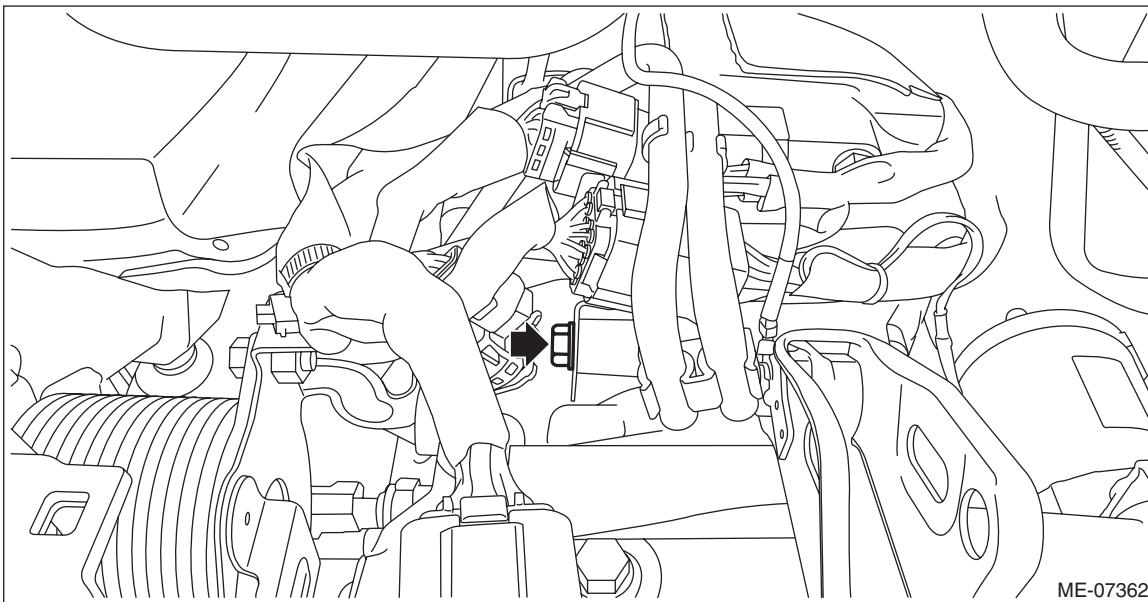
**T2: 58 N·m (5.9 kgf-m, 42.8 ft-lb)**



(5) Install the bolt which secures the transmission harness stay to the CVT.

**Tightening torque:**

**15 N·m (1.6 kgf-m, 11.8 ft-lb)**



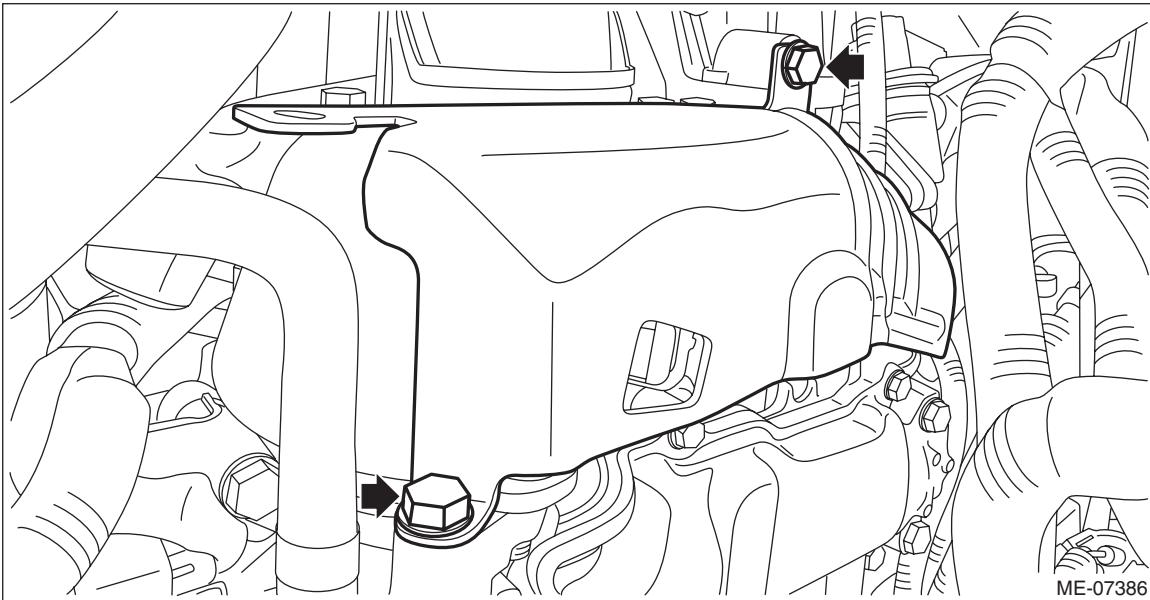
## Rocker Cover

### MECHANICAL

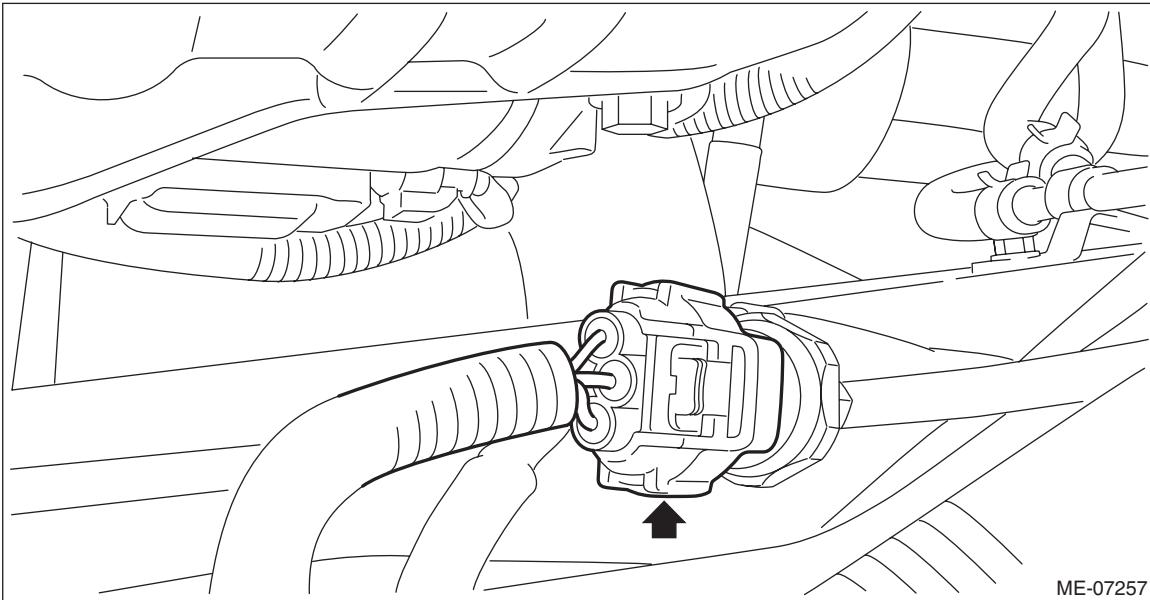
(6) Install the fuel pipe protector to the high-pressure fuel pump case and intake manifold.

**Tightening torque:**

19 N·m (1.9 kgf·m, 14.0 ft-lb)



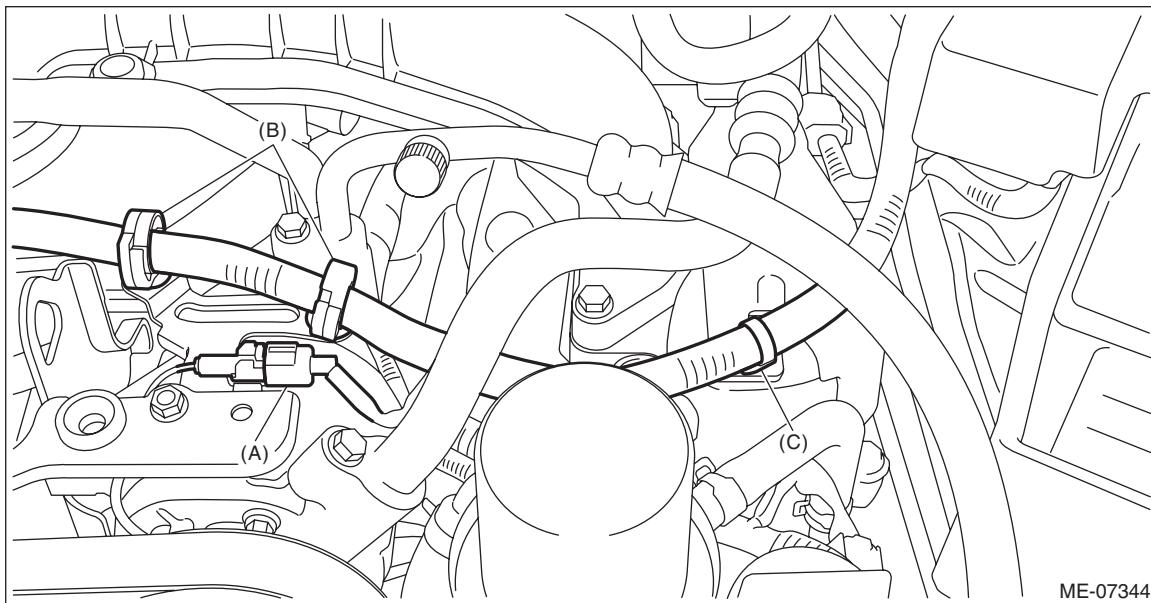
(7) Connect the connector to the pressure switch (triple pressure switch).



# Rocker Cover

## MECHANICAL

- (8) Set the generator cord, and fix the generator cord to the fuel pipe protector using clip (C).
- (9) Install the generator cord to clip (B), and connect the connector (A) to A/C compressor.

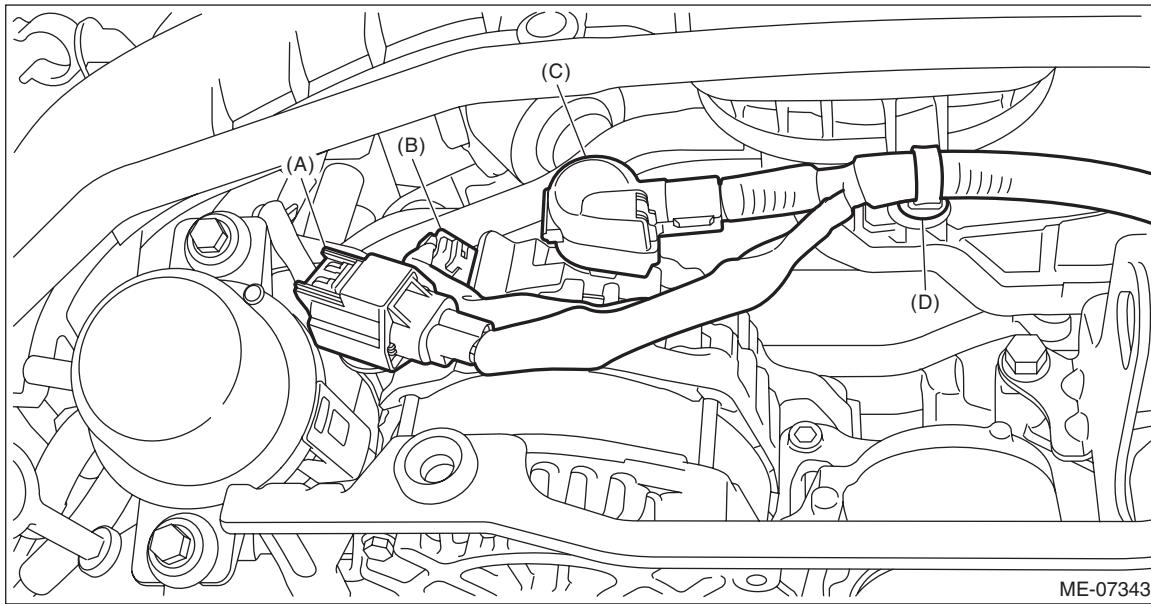


- (10) Using clip (D), fix the generator cord to the generator cord stay, and connect the connector (B) to the terminal (C) to the generator.

### **Tightening torque:**

**15 N·m (1.5 kgf·m, 11.1 ft-lb)**

- (11) Connect the connector (A) to the brake vacuum pump.



## Rocker Cover

### MECHANICAL

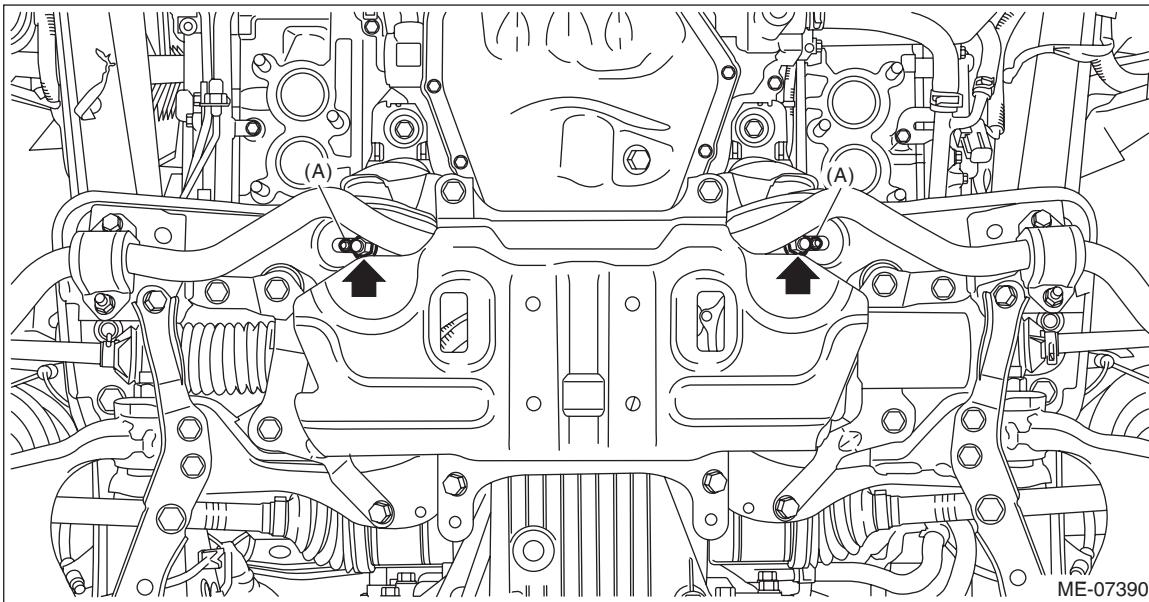
- (12) Install the intercooler. <Ref. to IN(H4DOTC)-37, INSTALLATION, Intercooler.>
- (13) Lift up the vehicle.
- (14) Install the nuts which hold the engine mounting to the crossmember.

#### NOTE:

Make sure that locators (A) of the engine mounting are securely inserted.

#### Tightening torque:

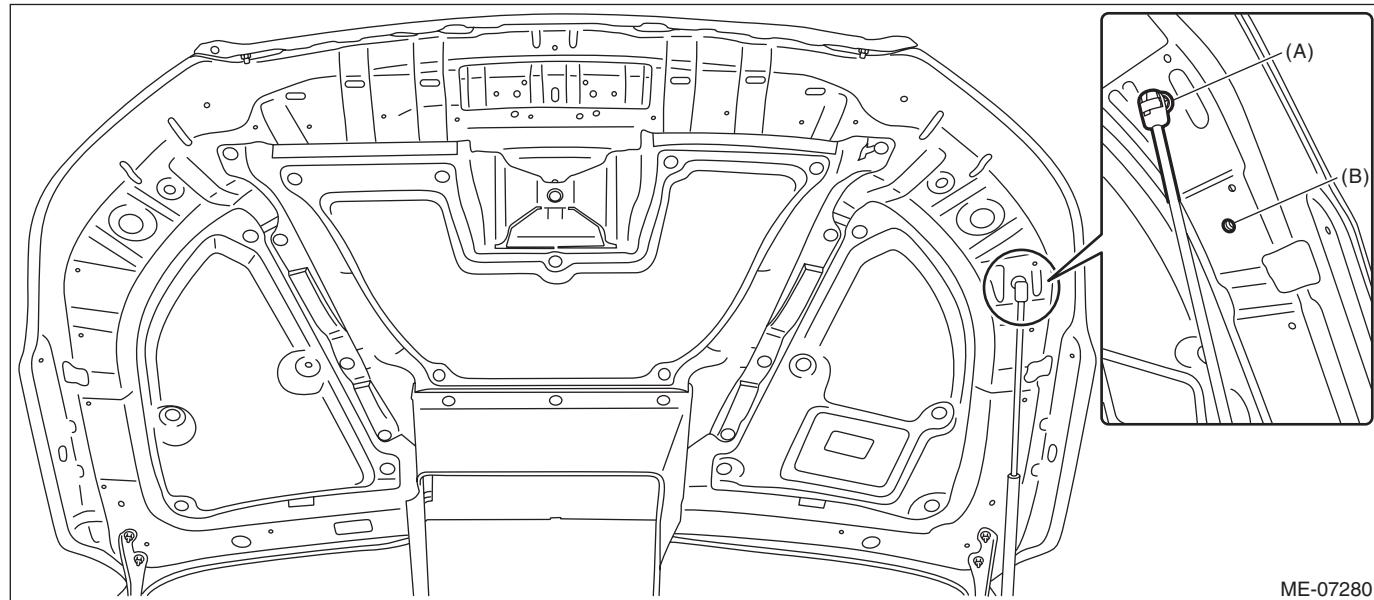
**45 N·m (4.6 kgf·m, 33.2 ft-lb)**



- (15) Install the front exhaust pipe. <Ref. to EX(H4DOTC)-15, INSTALLATION, Front Exhaust Pipe.>
- (16) Install the air intake duct (rear). <Ref. to IN(H4DOTC)-19, INSTALLATION, Air Intake Duct.>
- (17) Install the battery. <Ref. to SC(H4DO)-63, INSTALLATION, Battery.>
- (18) Fill engine coolant. <Ref. to CO(H4DOTC)-14, FILLING OF ENGINE COOLANT, REPLACEMENT, Engine Coolant.>
- (19) Install the collector cover.
- (20) Change the installation position of the front hood damper from (B) to (A).

#### Tightening torque:

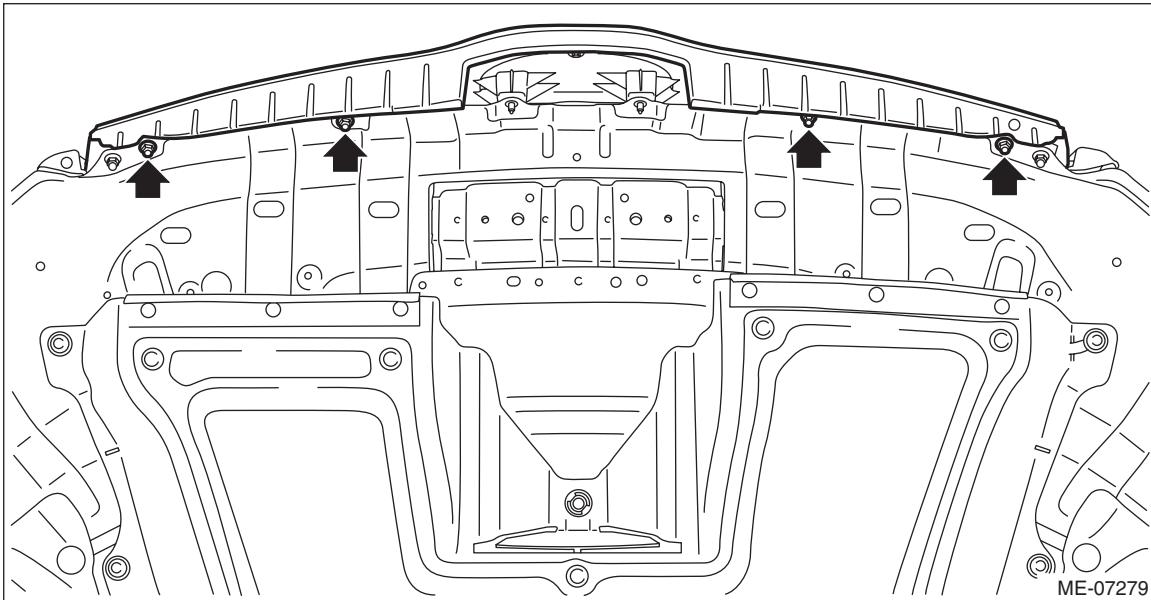
**20 N·m (2.0 kgf·m, 14.8 ft-lb)**



(21) Install the front center grille assembly to the front hood.

**Tightening torque:**

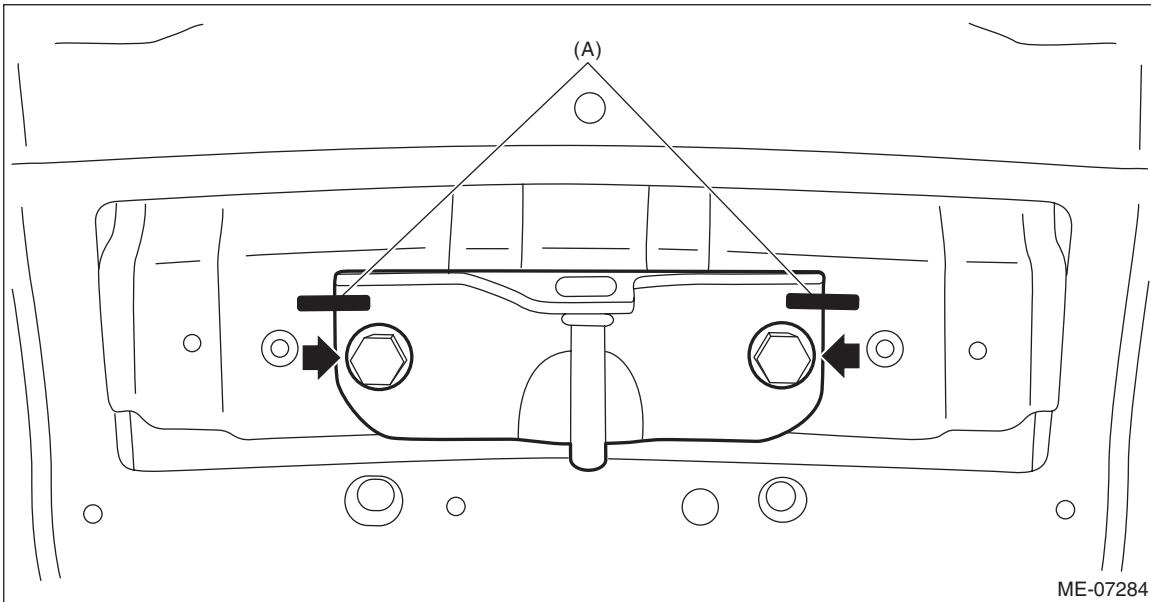
**4.5 N·m (0.5 kgf·m, 3.3 ft-lb)**



(22) Align the alignment marks (A), and install the front hood striker to the front hood.

**Tightening torque:**

**33 N·m (3.4 kgf·m, 24.3 ft-lb)**



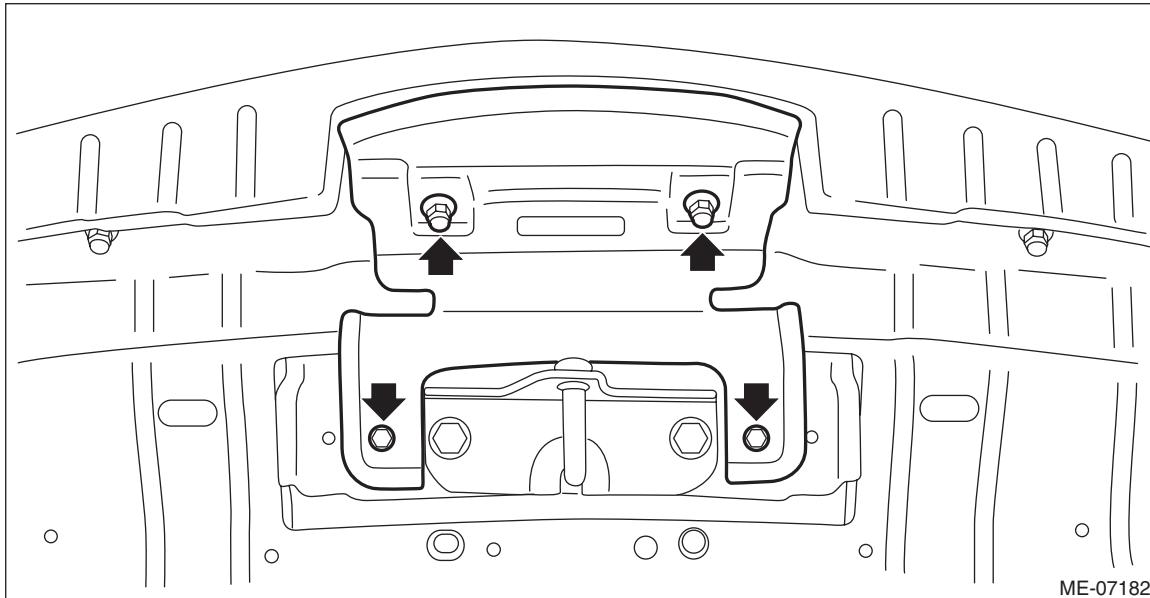
# Rocker Cover

## MECHANICAL

(23) Install the upper grille bracket to the front hood, and close the front hood.

### ***Tightening torque:***

**4.5 N·m (0.5 kgf·m, 3.3 ft-lb)**



## **C: INSPECTION**

Check that the rocker cover does not have deformation, cracks and any other damage.