

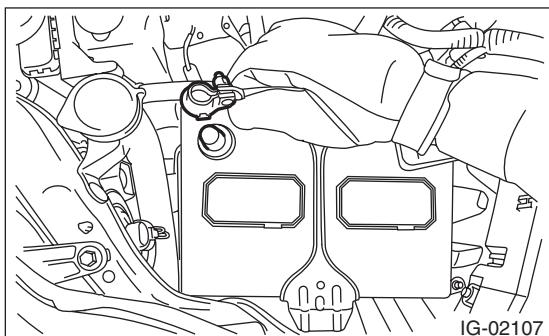
## 10. Oil Pipe

### A: REMOVAL

NOTE:

Turbo model is equipped with oil pipe.

- 1) Remove the collector cover.
- 2) Disconnect the ground cable from battery.



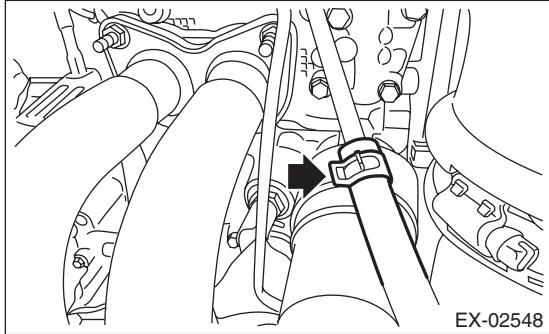
- 3) Remove the intercooler. <Ref. to IN(H4DOTC)-17, REMOVAL, Intercooler.>

4) Lift up the vehicle.

- 5) Remove the under cover. <Ref. to EI-35, REMOVAL, Front Under Cover.>

- 6) Remove the ground cable from the oil outlet pipe.

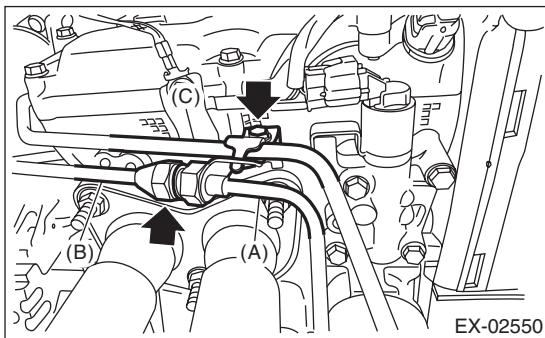
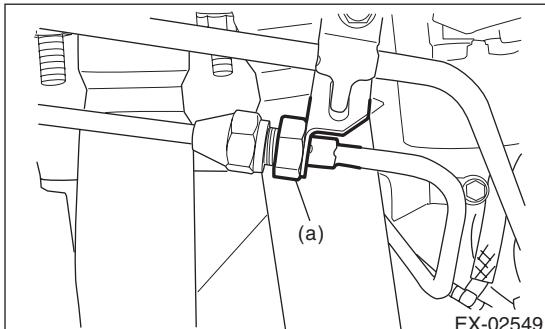
- 7) Disconnect the oil outlet hose from the oil outlet pipe.



- 8) Remove oil inlet pipe B (B) from oil inlet pipe A (A), and remove the bolt which holds oil outlet pipe C (C) and oil inlet pipe A (A).

**CAUTION:**

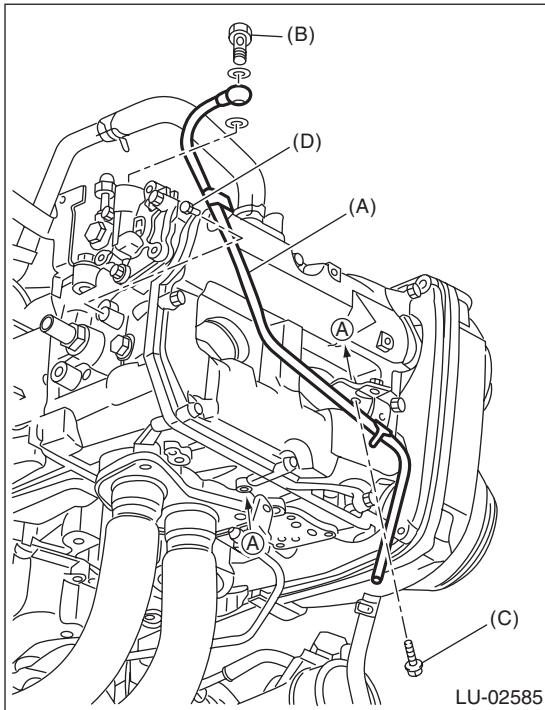
In order to prevent damaging the oil inlet pipe, fix the section (a) shown in the figure when loosening the oil inlet pipe flare nut, and avoid the part from rotating together while loosening the nut.



- 9) Lower the vehicle.

- 10) Remove the union bolt (B) securing the oil outlet pipe (A) from the scavenge pump.

- 11) Remove the bolts (C) and (D) securing the oil outlet pipe (A) to the cylinder head, and remove the oil outlet pipe (A).



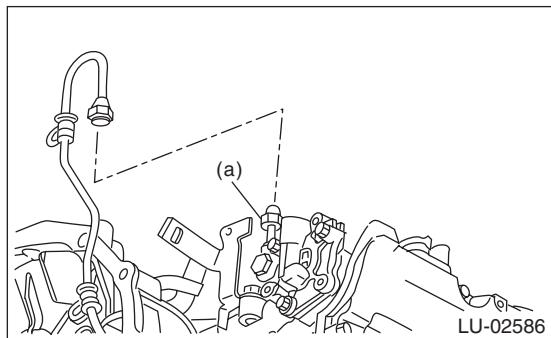
# Oil Pipe

## LUBRICATION

12) Remove the oil inlet pipe B (A) from the oil inlet pipe C (C).

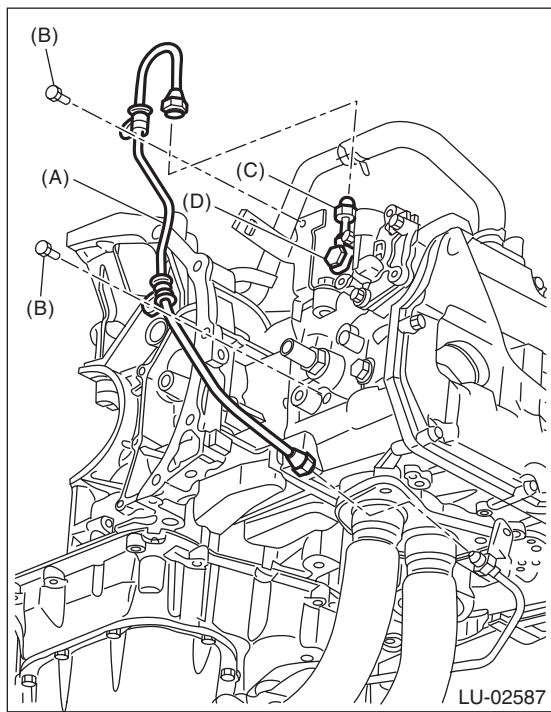
### CAUTION:

In order to avoid damaging the oil inlet pipe C (C), fix the section (a) shown in the figure so that it will not rotate together when loosening the flare nut of the oil inlet pipe B (A).



13) Remove the bolt (B) securing the oil inlet pipe B (A) to the cylinder head and stay, and remove the oil inlet pipe B (A).

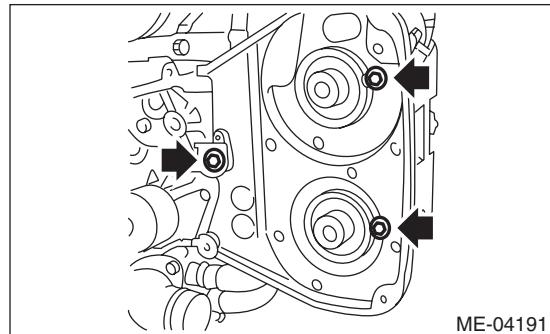
14) Remove the union bolt (D) securing the oil inlet pipe C (C) to the cylinder head, and remove the oil inlet pipe C (C).



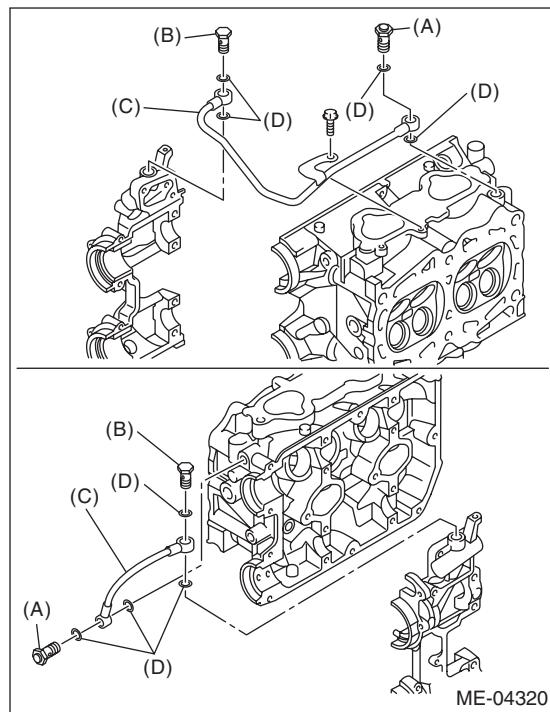
15) Remove the intake manifold. <Ref. to FU(H4DOTC)-17, REMOVAL, Intake Manifold.>

16) Remove the radiator main fan and radiator sub fan. <Ref. to CO(H4DOTC)-25, REMOVAL, Radiator Main Fan and Fan Motor. > <Ref. to CO(H4DOTC)-27, REMOVAL, Radiator Sub Fan and Fan Motor.>

- 17) Remove the V-belts. <Ref. to ME(H4DOTC)-41, REMOVAL, V-belt.>
- 18) Remove the crank pulley. <Ref. to ME(H4DOTC)-43, REMOVAL, Crank Pulley.>
- 19) Remove the timing belt cover. <Ref. to ME(H4DOTC)-45, REMOVAL, Timing Belt Cover.>
- 20) Remove the timing belt. <Ref. to ME(H4DOTC)-50, REMOVAL, Timing Belt.>
- 21) Remove the cam sprocket LH. <Ref. to ME(H4DOTC)-59, REMOVAL, Cam Sprocket.>
- 22) Remove the belt cover No. 2 LH.



23) Remove the oil pipe.



- (A) Union bolt with filter (with protrusion)
- (B) Union bolt without filter (without protrusion)
- (C) Oil pipe
- (D) Gasket

## B: INSTALLATION

1) Inspect the union bolt with filter. <Ref. to LU(H4SO)-33, INSPECTING UNION BOLT WITH FILTER, INSPECTION, Oil Pipe.>

2) Install the oil pipe.

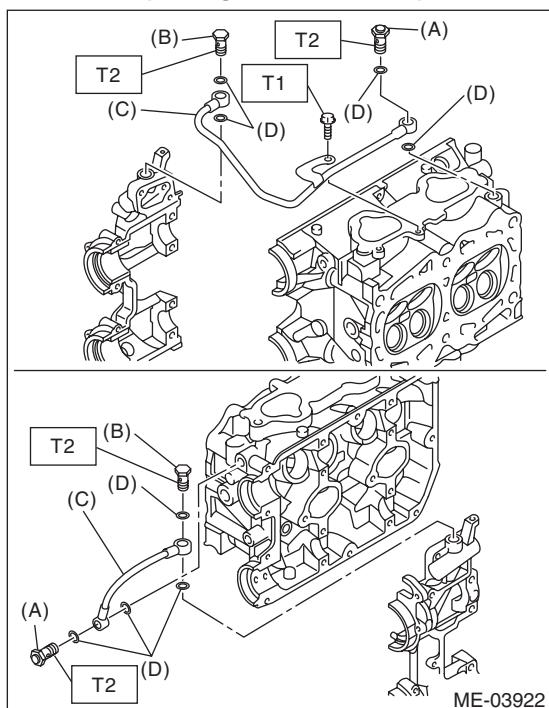
NOTE:

- Be careful of the install location of the union bolt; the location will differ depending on the presence of filter.
- Use a new gasket.

**Tightening torque:**

**T1: 6.4 N·m (0.7 kgf-m, 4.7 ft-lb)**

**T2: 29 N·m (3.0 kgf-m, 21.4 ft-lb)**

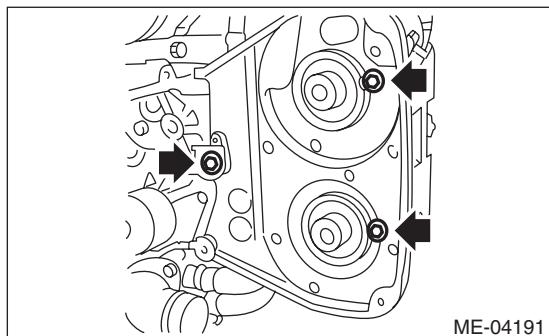


- (A) Union bolt with filter (with protrusion)
- (B) Union bolt without filter (without protrusion)
- (C) Oil pipe
- (D) Gasket

3) Install the belt cover No. 2 LH.

**Tightening torque:**

**5 N·m (0.5 kgf-m, 3.7 ft-lb)**



4) Install the cam sprocket LH. <Ref. to ME(H4DOTC)-59, INSTALLATION, Cam Sprocket.>

5) Install the timing belt. <Ref. to ME(H4DOTC)-53, TIMING BELT, INSTALLATION, Timing Belt.>

6) Install the timing belt cover. <Ref. to ME(H4DOTC)-48, INSTALLATION, Timing Belt Cover.>

7) Install the crank pulley. <Ref. to ME(H4DOTC)-43, INSTALLATION, Crank Pulley.>

8) Install the V-belts. <Ref. to ME(H4DOTC)-41, INSTALLATION, V-belt.>

9) Install the radiator main fan and the radiator sub fan. <Ref. to CO(H4DOTC)-25, INSTALLATION, Radiator Main Fan and Fan Motor.> <Ref. to CO(H4DOTC)-27, INSTALLATION, Radiator Sub Fan and Fan Motor.>

10) Install the intake manifold. <Ref. to FU(H4DOTC)-21, INSTALLATION, Intake Manifold.>

11) Install the oil inlet pipe C (C) to the cylinder head with the union bolt (D).

NOTE:

Use a new gasket.

**Tightening torque:**

**29 N·m (3.0 kgf-m, 21.4 ft-lb)**

12) Temporarily install the oil inlet pipe B (A) to the oil inlet pipe C (C).

13) Install the oil inlet pipe B (A) to the cylinder head with the bolt (B).

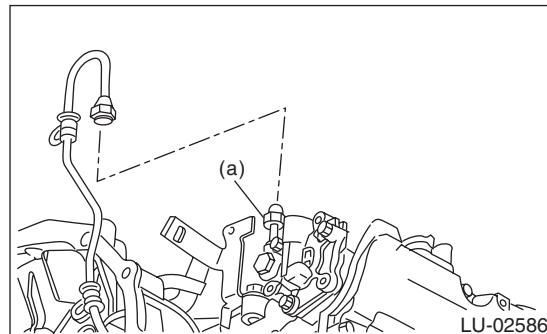
**Tightening torque:**

**6.4 N·m (0.7 kgf-m, 4.7 ft-lb)**

14) Tighten the flare nut of the oil inlet pipe B (A).

**CAUTION:**

**In order to avoid damaging the oil inlet pipe C (C), fix the section (a) shown in the figure so that it will not rotate together when tightening the flare nut of the oil inlet pipe B (A).**

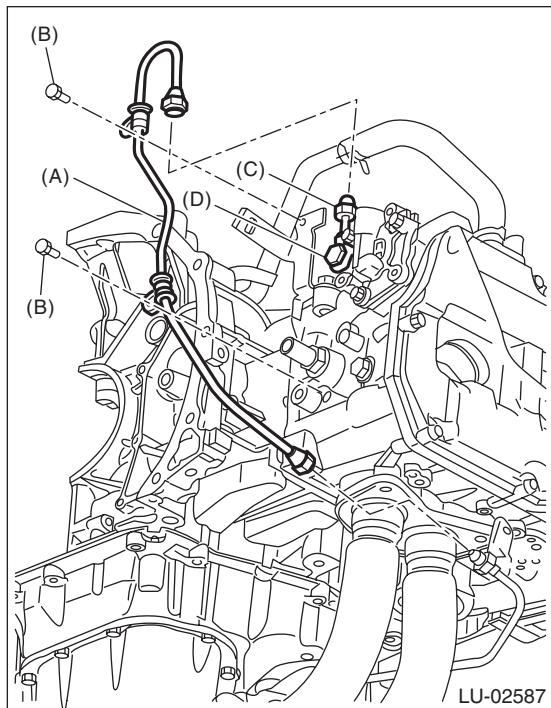


# Oil Pipe

## LUBRICATION

### Tightening torque:

20 N·m (2.0 kgf·m, 14.8 ft-lb)



15) Temporarily install the oil outlet pipe (A) to the scavange pump using the union bolt (B).

16) Secure the oil outlet pipe (A) to the cylinder head and stay with bolts (C) and (D).

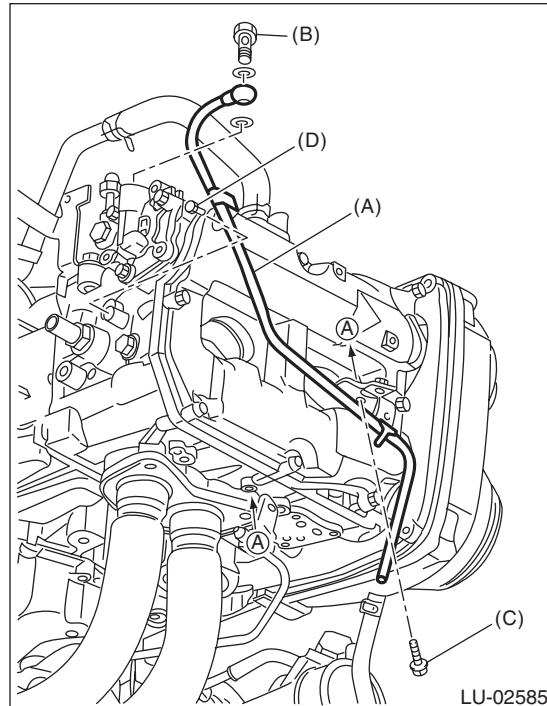
### Tightening torque:

6.4 N·m (0.7 kgf·m, 4.7 ft-lb)

17) Tighten the union bolt (B) of the oil outlet pipe (A).

### Tightening torque:

29 N·m (3.0 kgf·m, 21.4 ft-lb)

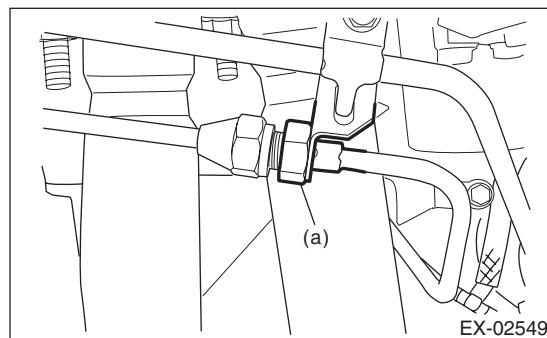


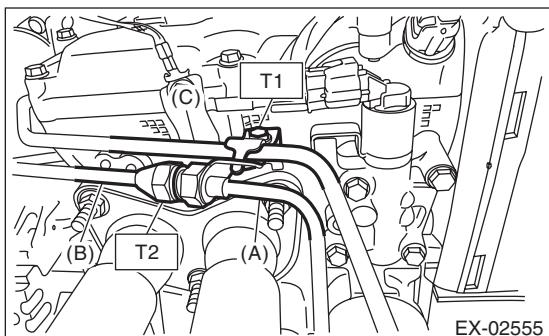
18) Lift up the vehicle.

19) Install the bolt which holds oil outlet pipe (C) and oil inlet pipe A (A), and install oil inlet pipe B (B) to oil inlet pipe A (A).

### CAUTION:

In order to prevent damaging the oil inlet pipe, fix the section (a) shown in the figure when tightening the oil inlet pipe flare nut, and avoid the part from rotating together while tightening the nut.

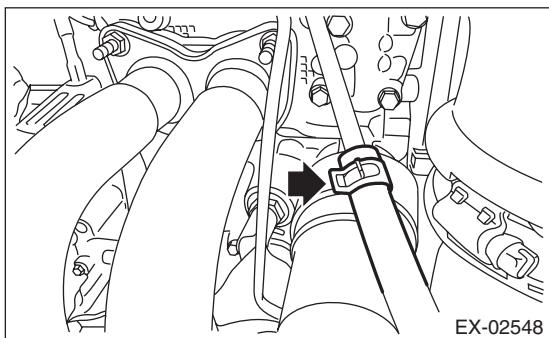


**Tightening torque:****T1: 6.4 N·m (0.7 kgf-m, 4.7 ft-lb)****T2: 20 N·m (2.0 kgf-m, 14.8 ft-lb)**

20) Attach the ground cable to the oil outlet pipe.

**Tightening torque:****7 N·m (0.7 kgf-m, 5.2 ft-lb)**

21) Connect the oil outlet hose to the oil outlet pipe.

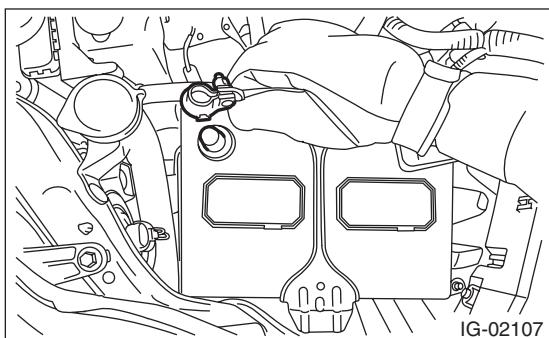


22) Install the under cover. <Ref. to EI-35, INSTALLATION, Front Under Cover.>

23) Lower the vehicle.

24) Install the intercooler. <Ref. to IN(H4DOTC)-18, INSTALLATION, Intercooler.>

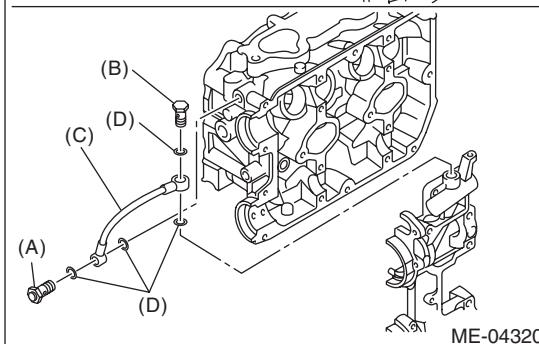
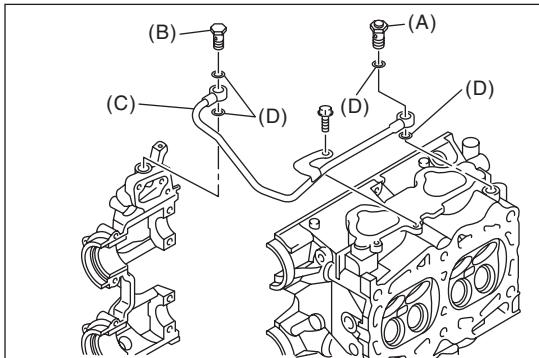
25) Connect the battery ground terminal.



26) Install the collector cover.

**C: INSPECTION****1. INSPECTING UNION BOLT WITH FILTER**

Check the filter part of union bolt for clogging or damage, and if defective, replace the union bolt with filter with the new part.



(A) Union bolt with filter (with protrusion)

(B) Union bolt without filter (without protrusion)

(C) Oil pipe

(D) Gasket

**2. OTHER INSPECTIONS**

1) Check that the oil pipe and union bolt have no deformation, cracks and other damages.

2) Check that there are no oil leaks or oil oozing from the oil pipe attachment section.