

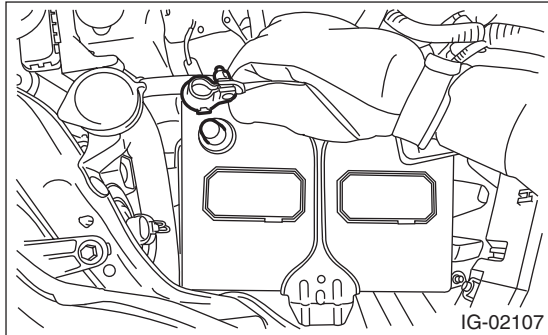
## 2. Front Exhaust Pipe

### A: REMOVAL

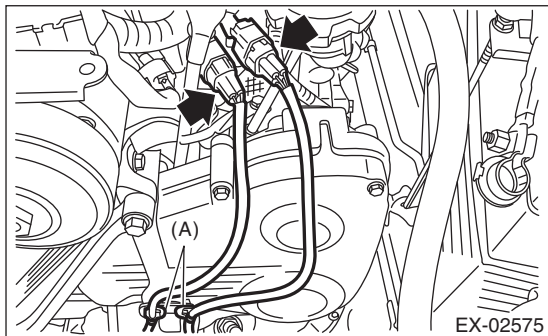
#### CAUTION:

Vehicle components are extremely hot after driving. Be wary of receiving burns from heated parts.

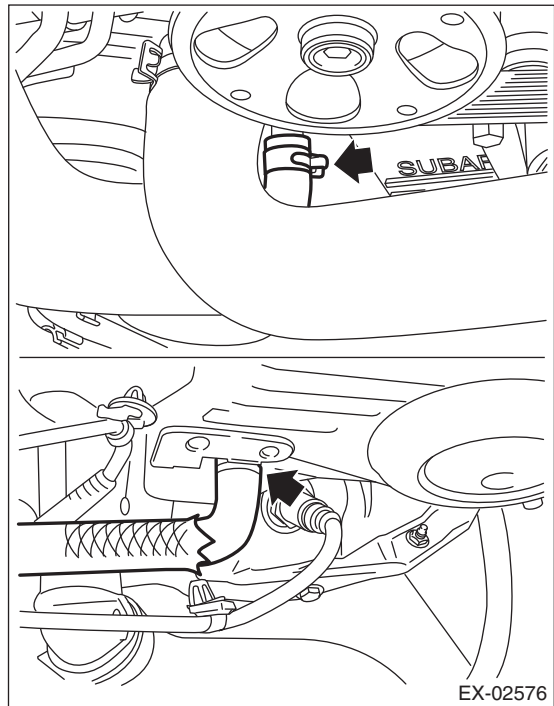
- 1) Remove the collector cover.
- 2) Disconnect the ground cable from battery.



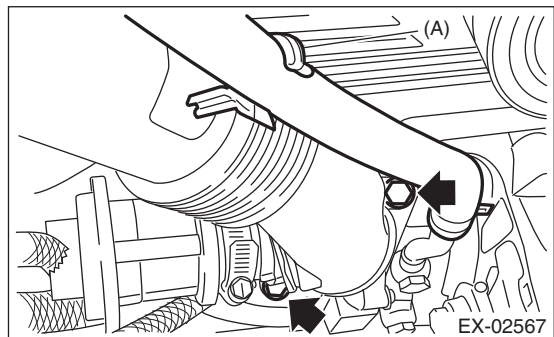
- 3) Remove the air intake duct. <Ref. to IN(H4DOTC)-12, REMOVAL, Air Intake Duct.>
- 4) Lift up the vehicle.
- 5) Remove the under cover. <Ref. to EI-35, REMOVAL, Front Under Cover.>
- 6) Drain engine coolant. <Ref. to CO(H4DOTC)-14, DRAINING OF ENGINE COOLANT, REPLACEMENT, Engine Coolant.>
- 7) Lower the vehicle.
- 8) Disconnect connectors from the front oxygen (A/F) sensor and rear oxygen sensor, and remove the clip (A) fastening the front oxygen (A/F) sensor harness and rear oxygen sensor harness.



- 9) Disconnect the engine coolant hose from the water tank pipe and water pump.



- 10) Remove the radiator sub fan motor assembly. <Ref. to CO(H4DOTC)-27, REMOVAL, Radiator Sub Fan and Fan Motor.>
- 11) Remove the engine coolant hose from clip (A), and remove the bolts which secure the intake duct to the turbocharger.



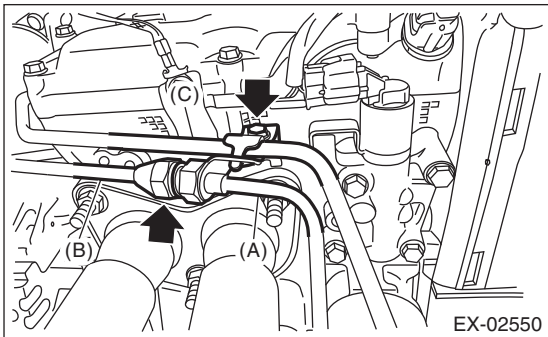
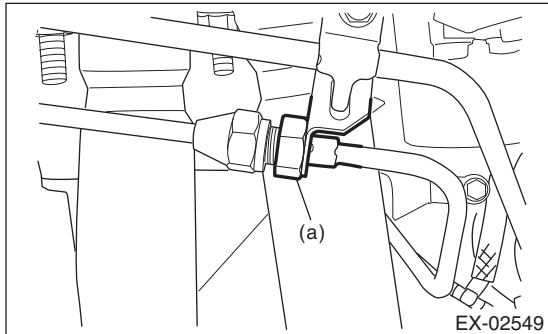
- 12) Lift up the vehicle.
- 13) Remove oil inlet pipe B (B) from oil inlet pipe A (A), and remove the bolt which holds oil inlet pipe C (C) and oil inlet pipe A (A).

## Front Exhaust Pipe

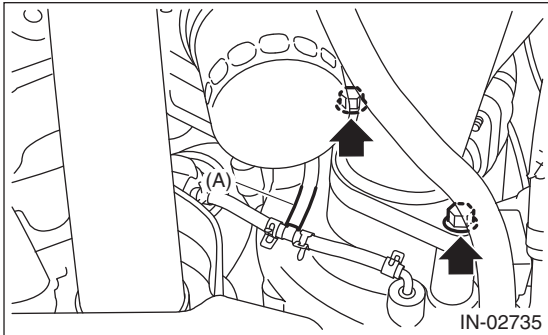
### EXHAUST

#### CAUTION:

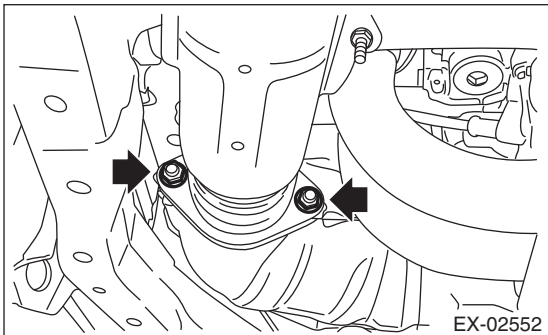
In order to prevent damaging the oil inlet pipe, fix the section (a) shown in the figure when loosening the oil inlet pipe flare nut, and avoid the part from rotating together while loosening the nut.



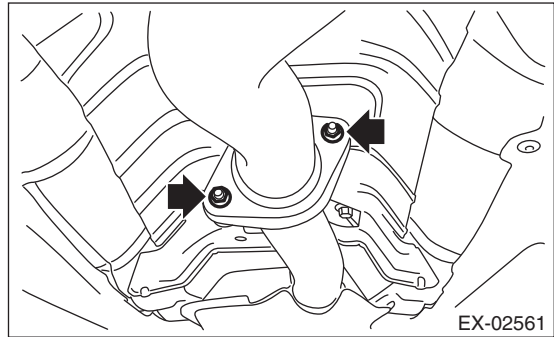
14) Disconnect the air control hose (A), and loosen the bolts which secure the intake duct to the turbocharger.



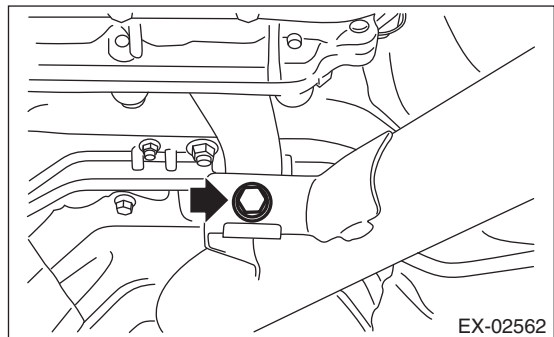
15) Remove the center exhaust pipe (rear) from the center exhaust pipe (front).



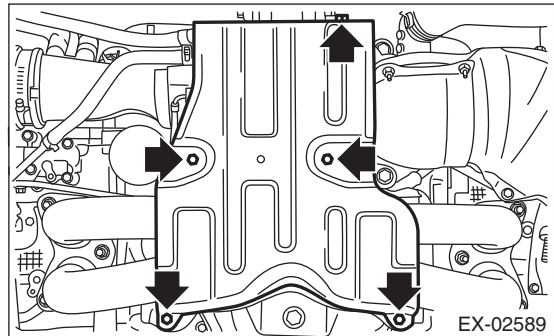
16) Remove the rear exhaust pipe from the center exhaust pipe (rear).



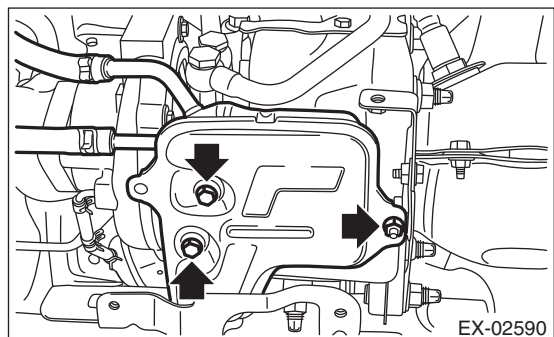
17) Remove the bolt which holds center exhaust pipe (rear) to the hanger bracket, and remove the center exhaust pipe (rear).



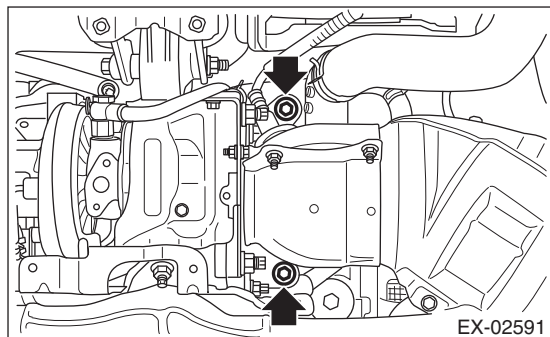
18) Remove the engine cover.



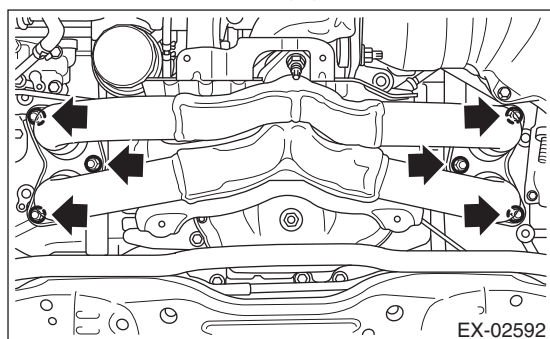
19) Remove bolts and nuts which secure the oil catch tank to the turbocharger and oil catch tank stay, and remove the oil catch tank from the turbocharger.



20) Remove the bolts which secure the turbocharger stay.



21) While holding the front exhaust pipe with transmission jack, remove the nuts which hold the front exhaust pipe to the cylinder head exhaust port, and remove the front exhaust pipe.



## B: INSTALLATION

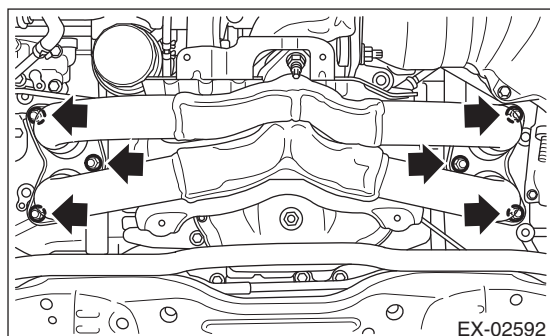
1) While holding the front exhaust pipe with transmission jack, set the front exhaust pipe, and install the nuts which hold the front exhaust pipe to the cylinder head exhaust port.

NOTE:

Use a new gasket.

**Tightening torque:**

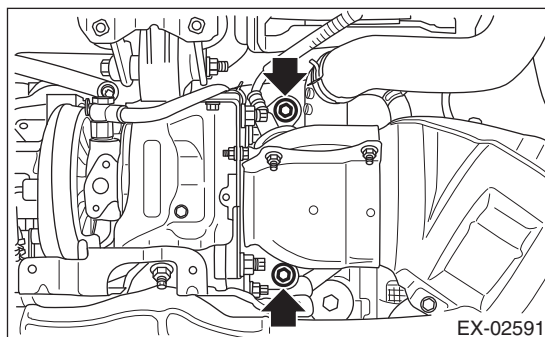
**42.5 N·m (4.3 kgf-m, 31.3 ft-lb)**



2) Attach the bolt which holds the turbocharger stay.

**Tightening torque:**

**33 N·m (3.4 kgf-m, 24.3 ft-lb)**



3) Set the oil catch tank to the turbocharger, and attach the bolt and nut which secure the oil catch tank to the turbocharger and oil catch tank stay.

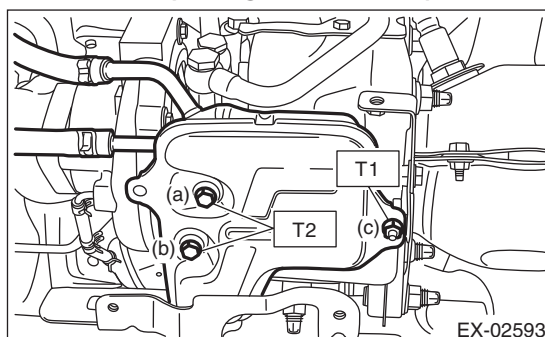
NOTE:

- Use a new gasket.
- When installing the oil catch tank, tighten to the specified torque in the alphabetical order shown in the figure.

**Tightening torque:**

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

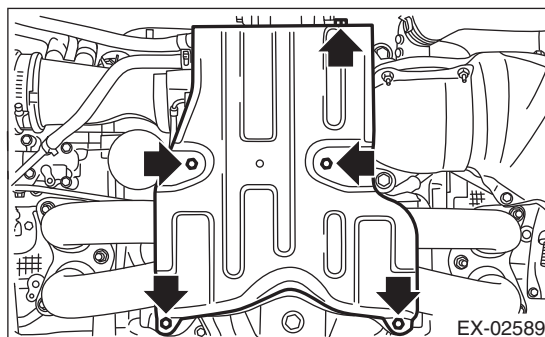
**T2: 10.5 N·m (1.1 kgf-m, 7.7 ft-lb)**



4) Install the engine cover.

**Tightening torque:**

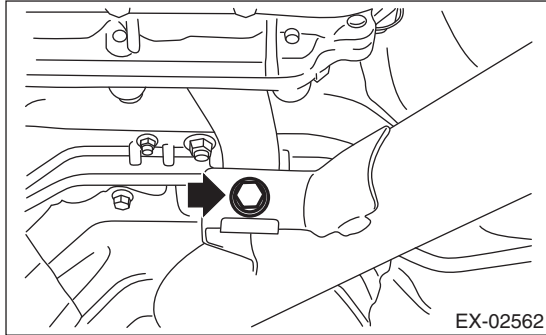
**6.4 N·m (0.7 kgf-m, 4.7 ft-lb)**



## Front Exhaust Pipe

### EXHAUST

5) Install the center exhaust pipe (rear) and temporarily tighten the bolt which holds center exhaust pipe (rear) to the hanger bracket.



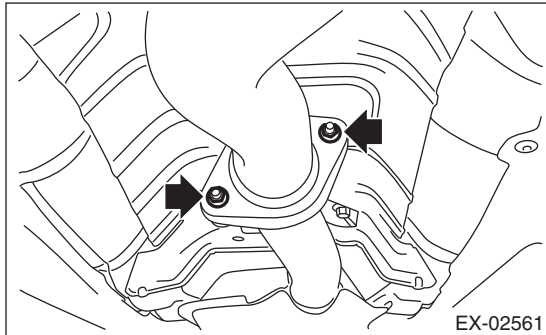
6) Install the rear exhaust pipe to the center exhaust pipe (rear).

**NOTE:**

Use a new gasket.

**Tightening torque:**

**18 N·m (1.8 kgf-m, 13.3 ft-lb)**



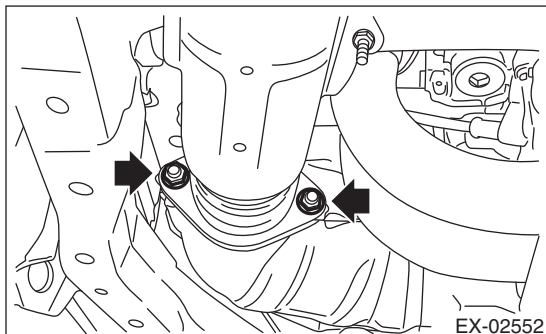
7) Assemble the center exhaust pipe (rear) to the center exhaust pipe (front).

**NOTE:**

Use a new gasket.

**Tightening torque:**

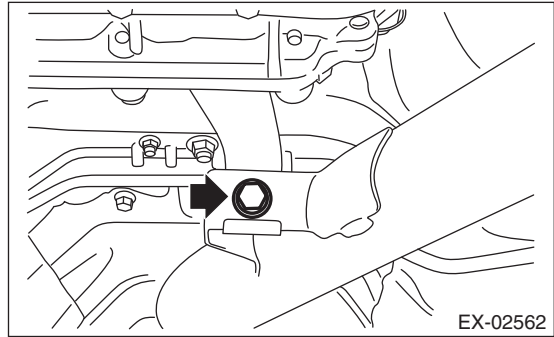
**42.5 N·m (4.3 kgf-m, 31.3 ft-lb)**



8) Tighten the bolts which hold center exhaust pipe (rear) to the hanger bracket.

**Tightening torque:**

**35 N·m (3.6 kgf-m, 25.8 ft-lb)**



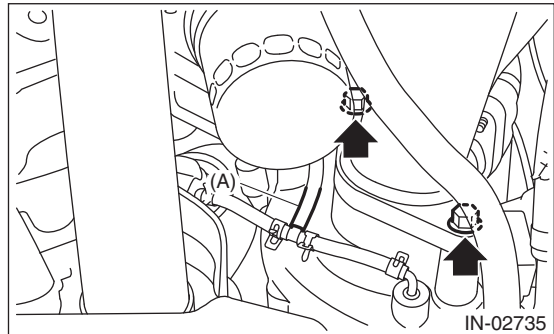
9) Install the bolts which secure the intake duct to the turbocharger, and connect the air control hose (A).

**NOTE:**

- Use new O-rings.
- Be careful not to pinch the O-ring.

**Tightening torque:**

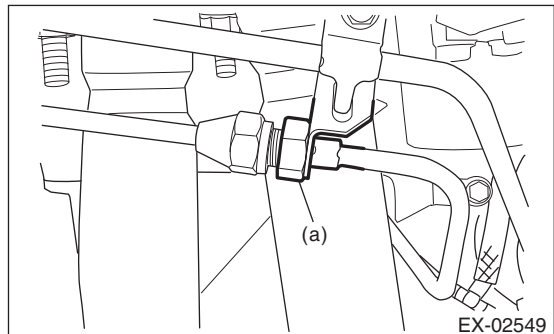
**6.4 N·m (0.7 kgf-m, 4.7 ft-lb)**



10) Install the bolt which holds oil inlet pipe C (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.

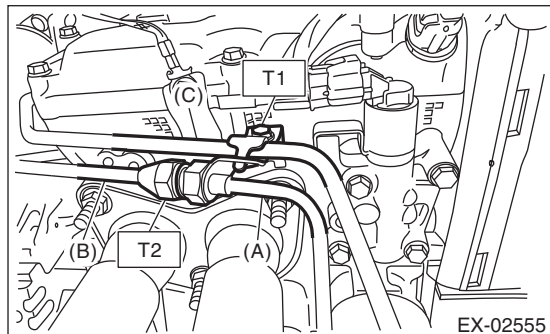




## Tightening torque:

**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)**



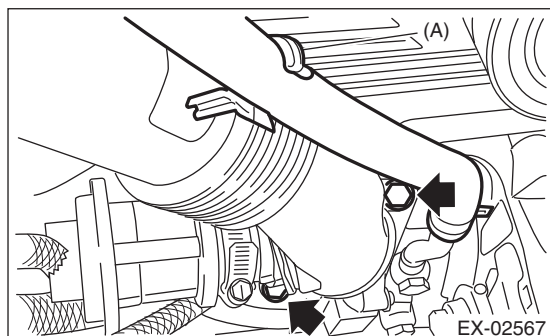
11) Install the under cover. <Ref. to EI-35, INSTALLATION, Front Under Cover.>

12) Lower the vehicle.

13) Install the engine coolant hose to the clip (A), and install the bolts which secure the intake duct to the turbocharger.

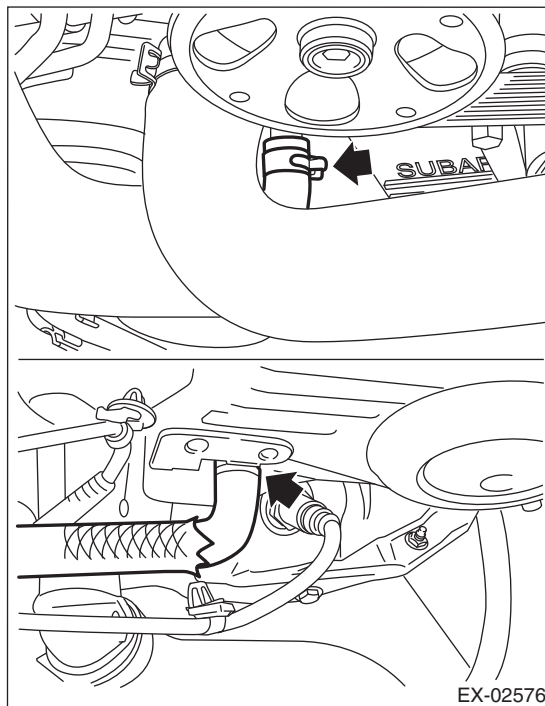
## Tightening torque:

**16 N·m (1.6 kgf-m, 11.8 ft-lb)**

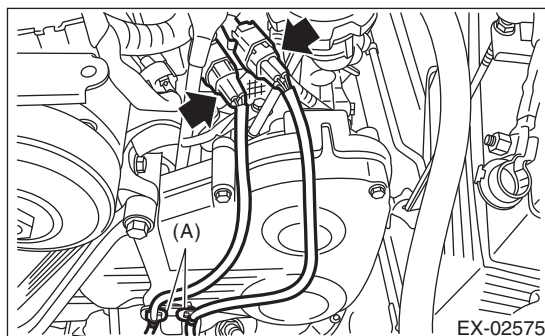


14) Install the radiator sub fan motor assembly. <Ref. to CO(H4DOTC)-27, INSTALLATION, Radiator Sub Fan and Fan Motor.>

15) Connect the engine coolant hoses to the water tank pipe and water pump.

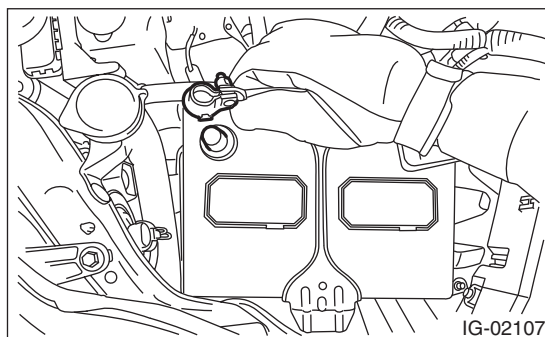


16) Connect connectors to the front oxygen (A/F) sensor and rear oxygen sensor, and secure the front oxygen (A/F) sensor harness and rear oxygen sensor harness with the clip (A).



17) Install the air intake duct. <Ref. to IN(H4DOTC)-12, INSTALLATION, Air Intake Duct.>

18) Connect the ground cable to battery.



## Front Exhaust Pipe

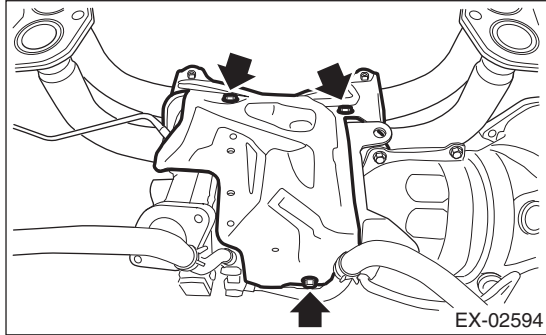
### EXHAUST

19) Fill engine coolant. <Ref. to CO(H4DOTC)-14, FILLING OF ENGINE COOLANT, REPLACEMENT, Engine Coolant.>

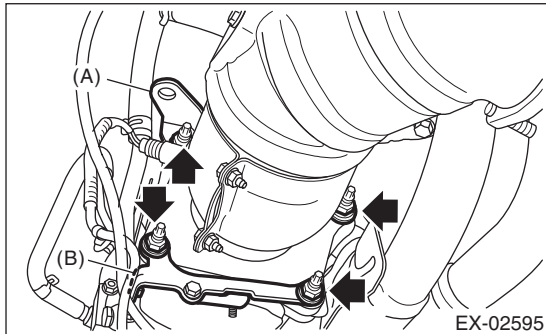
20) Install the collector cover.

### C: DISASSEMBLY

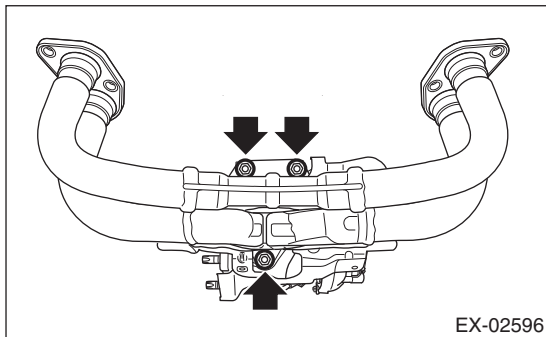
1) Remove the exhaust pipe cover.



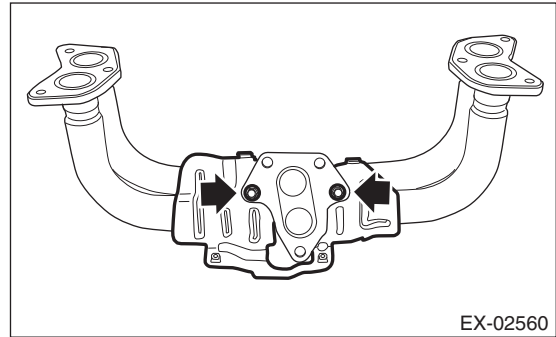
2) Remove nuts which secure the center exhaust pipe (front) to the turbocharger, and remove the center exhaust pipe (front) together with turbocharger upper stay (A) and turbocharger lower stay (B).



3) Remove the turbocharger from the front exhaust pipe.



4) Remove the exhaust pipe stay from the front exhaust pipe.

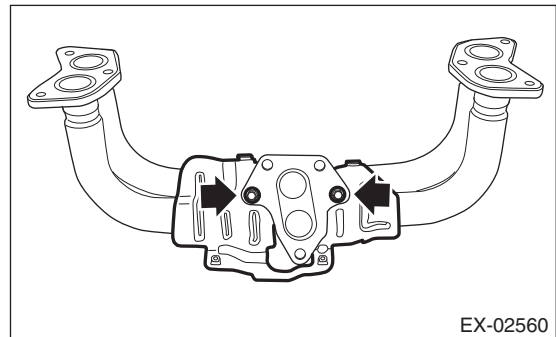


### D: ASSEMBLY

1) Install the exhaust pipe stay to the front exhaust pipe.

**Tightening torque:**

**33 N·m (3.4 kgf-m, 24.3 ft-lb)**



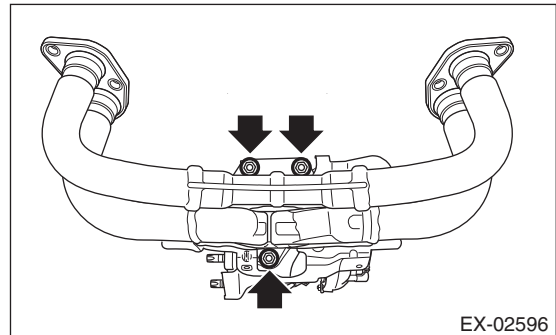
2) Install the turbocharger to the front exhaust pipe.

**NOTE:**

Use a new gasket and self-locking nut.

**Tightening torque:**

**42.5 N·m (4.3 kgf-m, 31.3 ft-lb)**



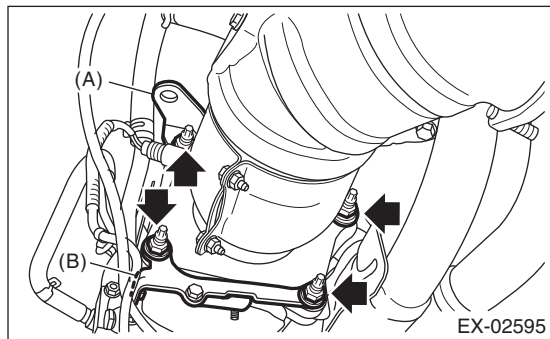
3) Install the center exhaust pipe (front) to the turbocharger together with turbocharger upper stay (A) and turbocharger lower stay (B).

**NOTE:**

Use a new gasket and self-locking nut.

**Tightening torque:**

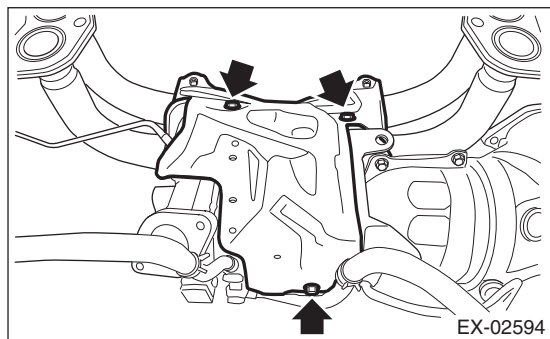
**42.5 N·m (4.3 kgf-m, 31.3 ft-lb)**



4) Install the exhaust pipe cover.

**Tightening torque:**

**6.4 N·m (0.7 kgf-m, 4.7 ft-lb)**



## E: INSPECTION

- 1) Check the connections and welds for exhaust leaks.
- 2) Make sure there are no holes or rusting.