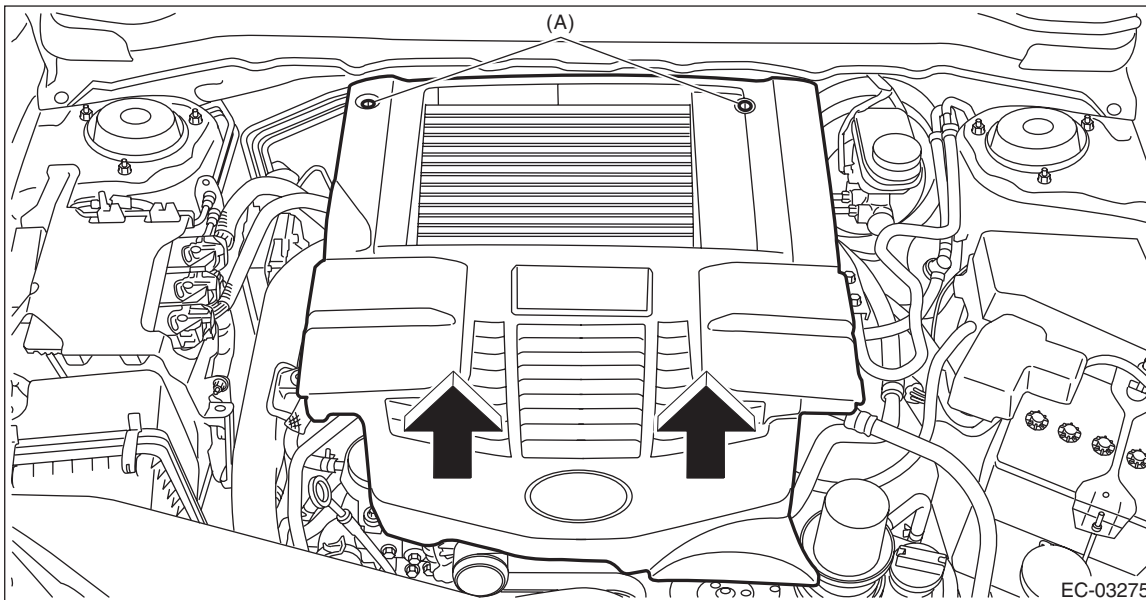


3. Center Exhaust Pipe

A: REMOVAL

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

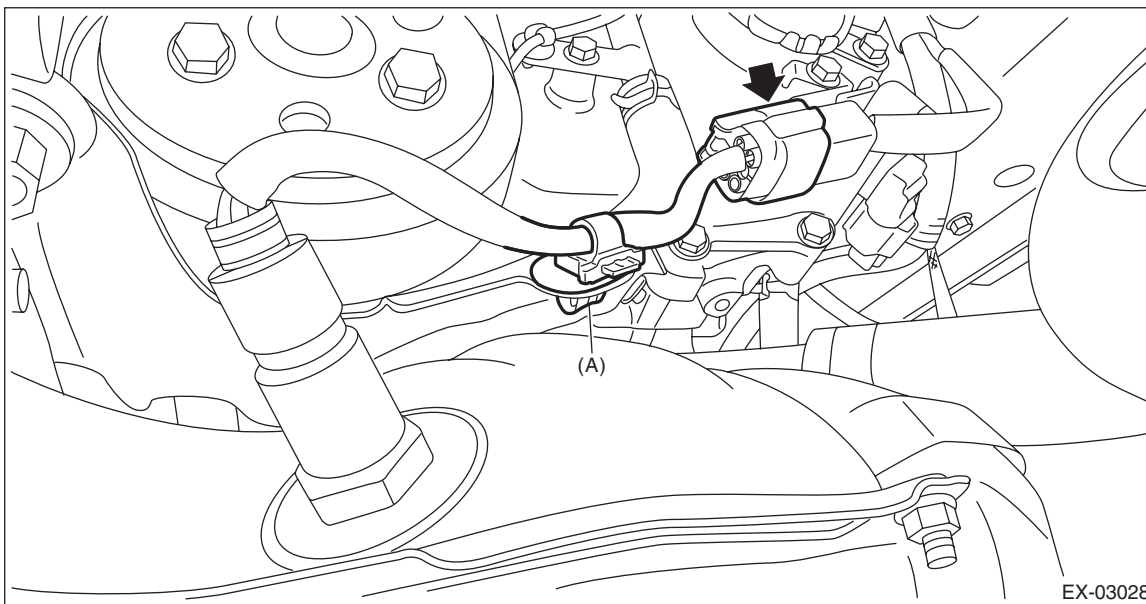


2) Disconnect the ground cable from battery.

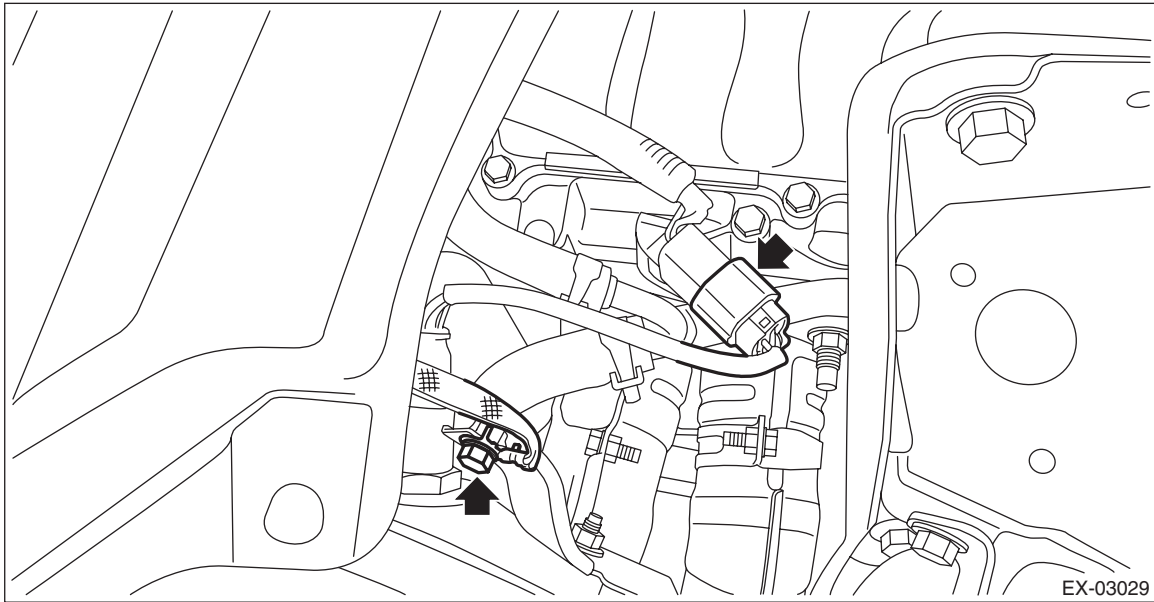
3) Lift up the vehicle.

4) Remove the under cover. <Ref. to EI-23, REMOVAL, Front Under Cover.>

5) Disconnect the connector on the front oxygen (A/F) sensor from the engine harness, and remove the clip (A) which secures the front oxygen (A/F) sensor harness to the water pump pulley cover.

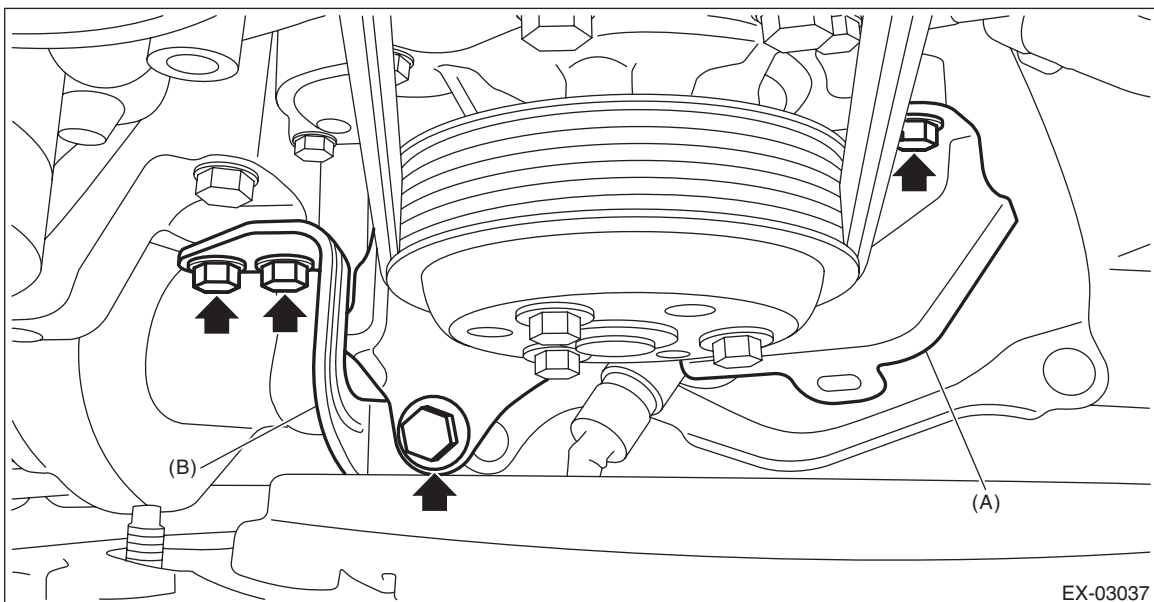


- 6) Disconnect the connector on the rear oxygen sensor from the engine harness, and disconnect the ground cable from the exhaust pipe cover.



- 7) Lower the vehicle.

- 8) Remove the bolts which secure the water pump pulley cover (A) and exhaust pipe stay (B) to the turbocharger stay, and remove the water pump pulley cover (A) and exhaust pipe stay (B) from the water pump and turbocharger stay.

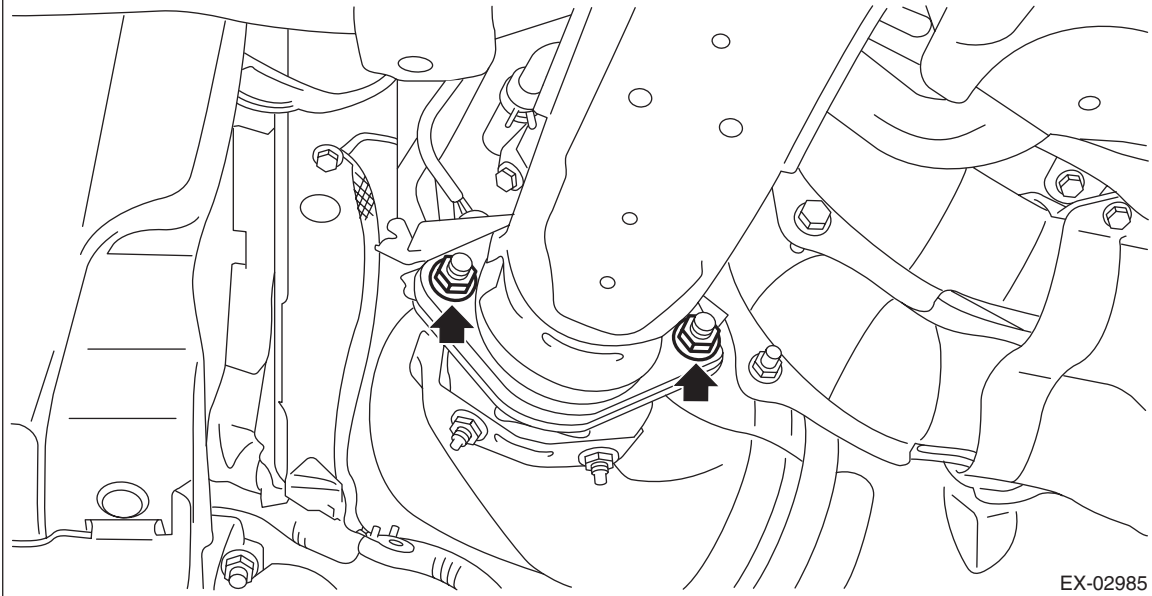


- 9) Lift up the vehicle.

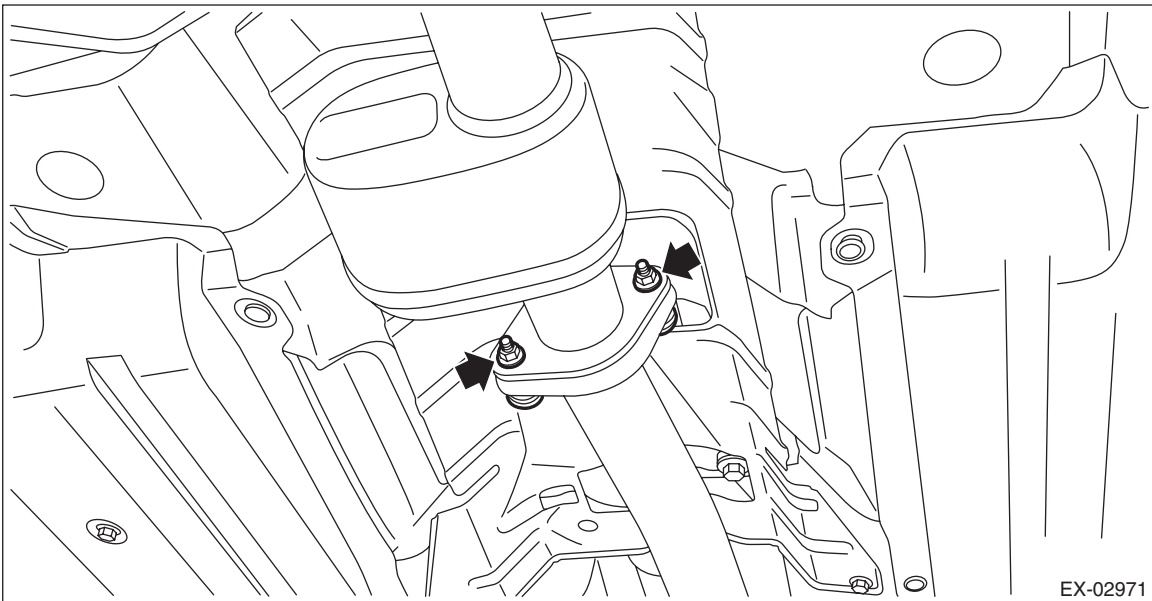
Center Exhaust Pipe

EXHAUST

- 10) Remove the nuts which secure the center exhaust pipe (rear) to the center exhaust pipe (front).



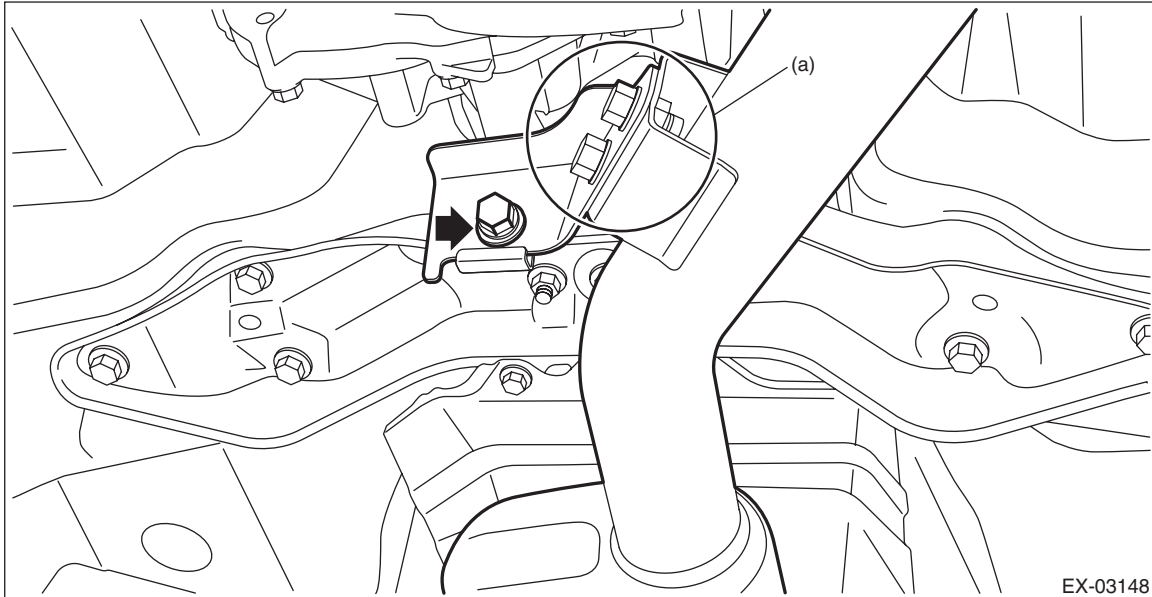
- 11) Remove the bolts, springs, and nuts which secure the rear exhaust pipe to the center exhaust pipe (rear).



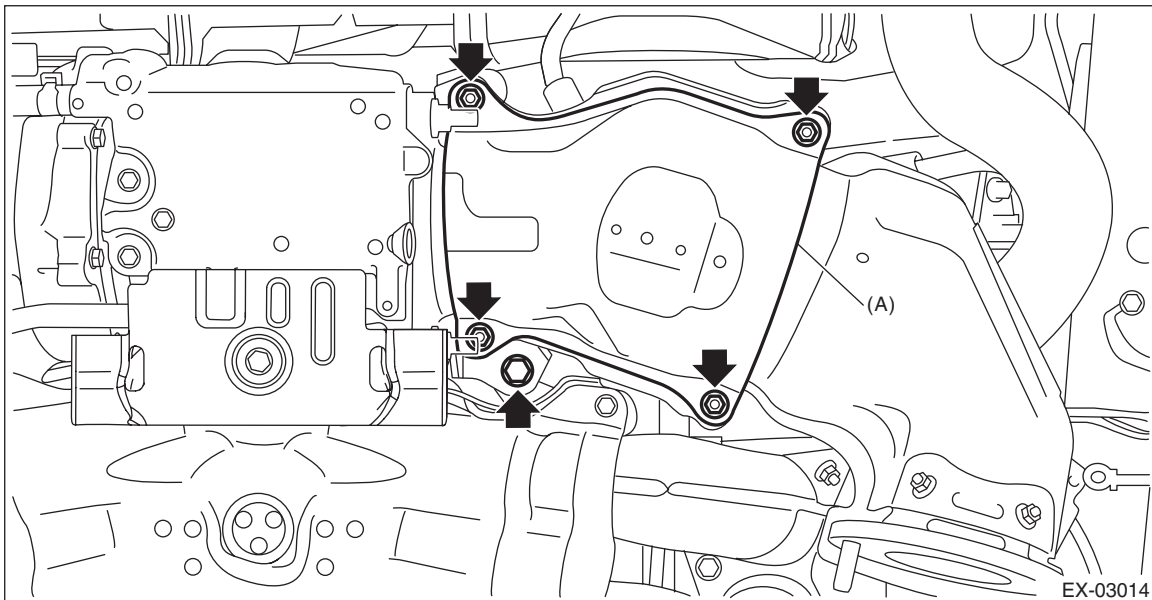
12) Remove the bolt which holds center exhaust pipe (rear) to the hanger bracket, and remove the center exhaust pipe (rear).

NOTE:

Removing the exhaust pipe bracket from the center exhaust pipe (rear) will adversely affect the positioning accuracy. Therefore, do not remove the bolts in section (a) shown in the figure.



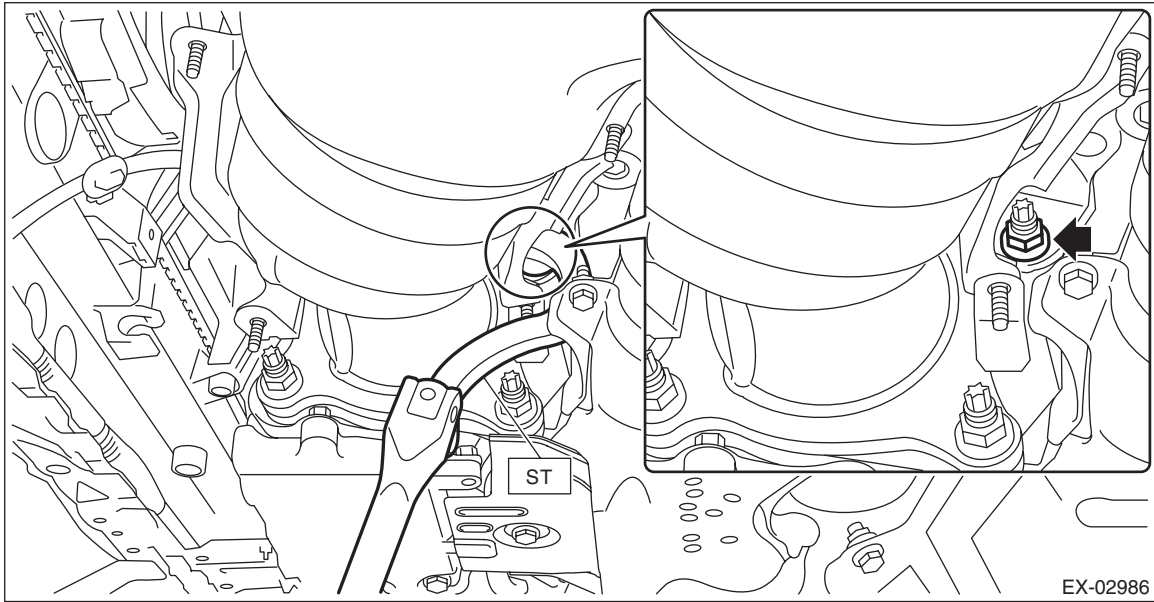
13) Remove the exhaust pipe cover (A) from the center exhaust pipe (front), and remove the bolts which secure the turbocharger stay.



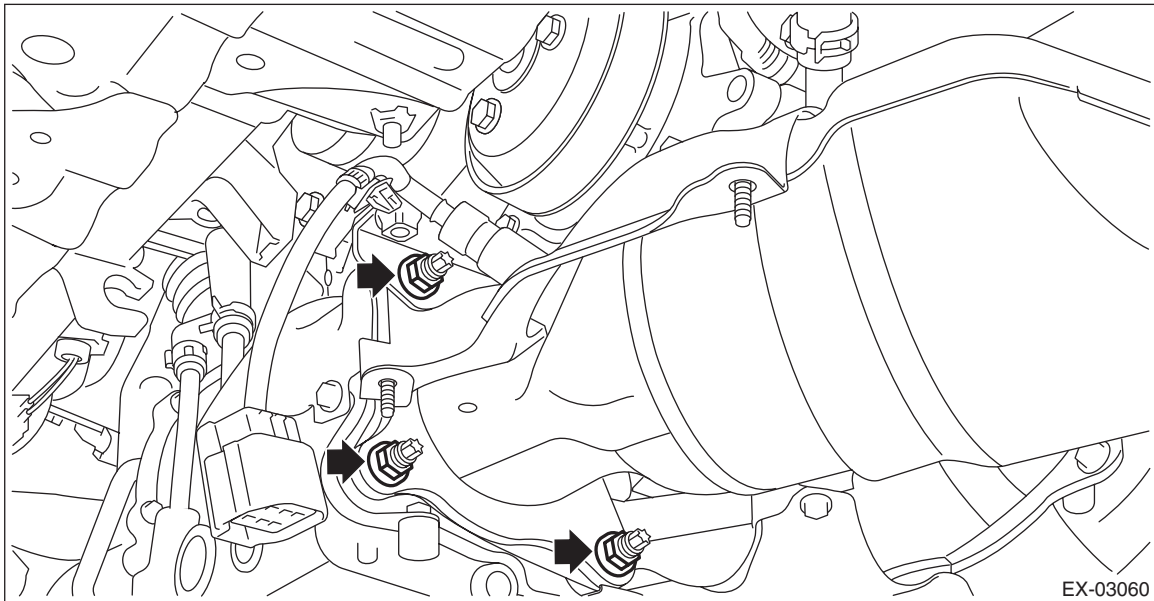
Center Exhaust Pipe

EXHAUST

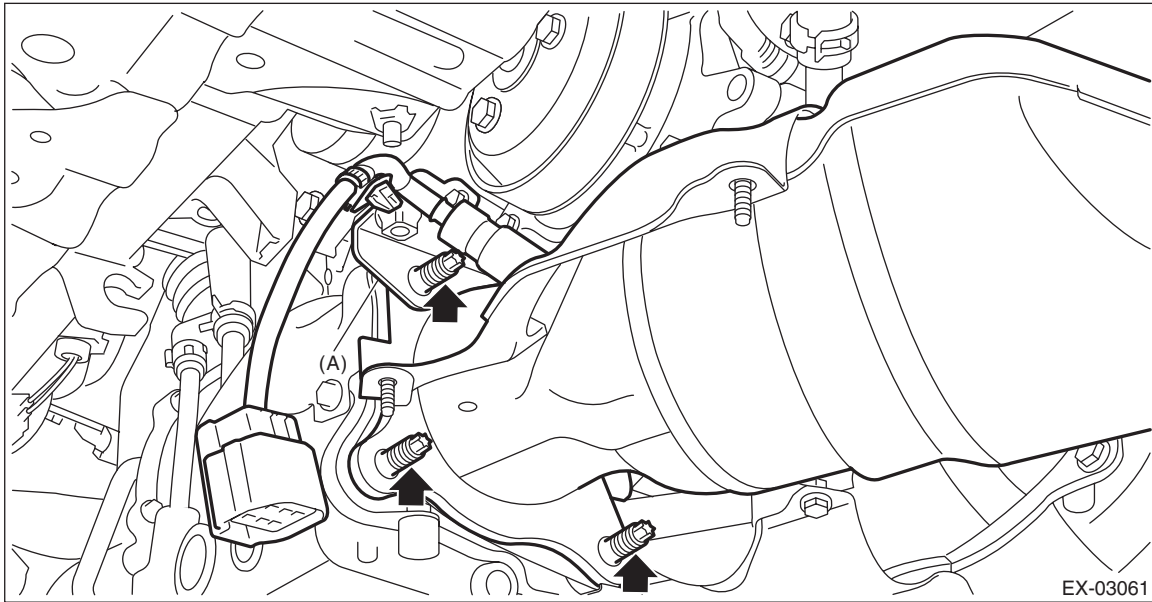
- 14) Using ST, remove the nut (1 place) which secures the center exhaust pipe (front) to the turbocharger.
ST 18283AA010 WRENCH ADAPTER



- 15) Remove the nuts (3 places) which secure the center exhaust pipe (front) to the turbocharger.



16) Using the TORX® socket E10, remove stud bolts (3 places) from the turbocharger, and remove the center exhaust pipe (front) together with turbocharger stay (A).



B: INSTALLATION

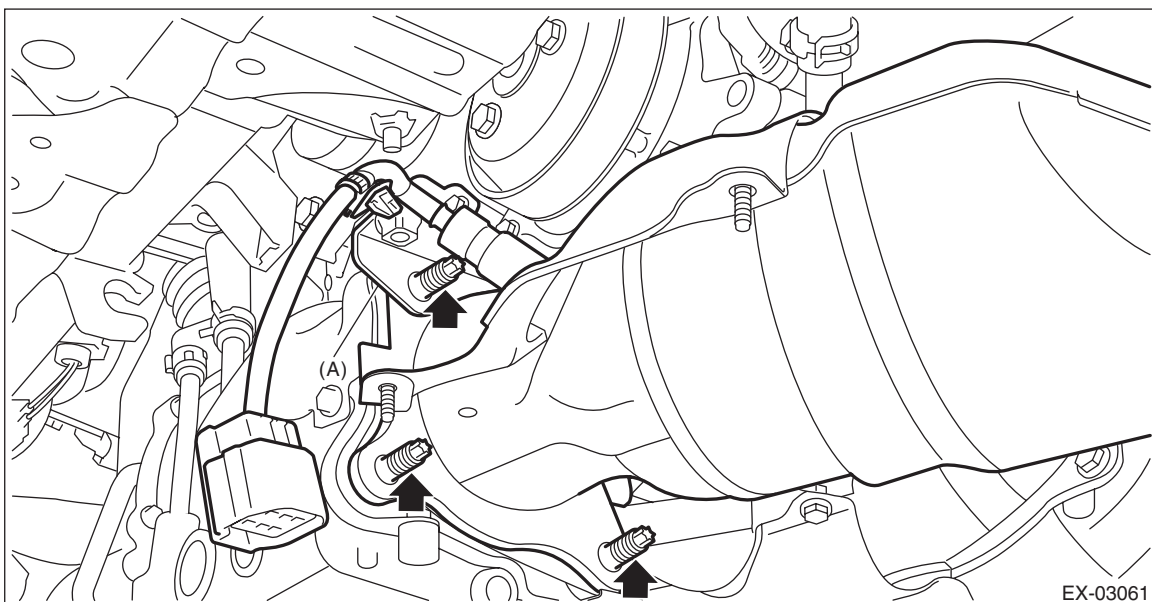
1) Set the center exhaust pipe (front) together with turbocharger upper stay (A), and install stud bolts (3 places) to the turbocharger by using the TORX® socket E10.

NOTE:

Use a new gasket.

Tightening torque:

14.7 N·m (1.5 kgf-m, 10.8 ft-lb)



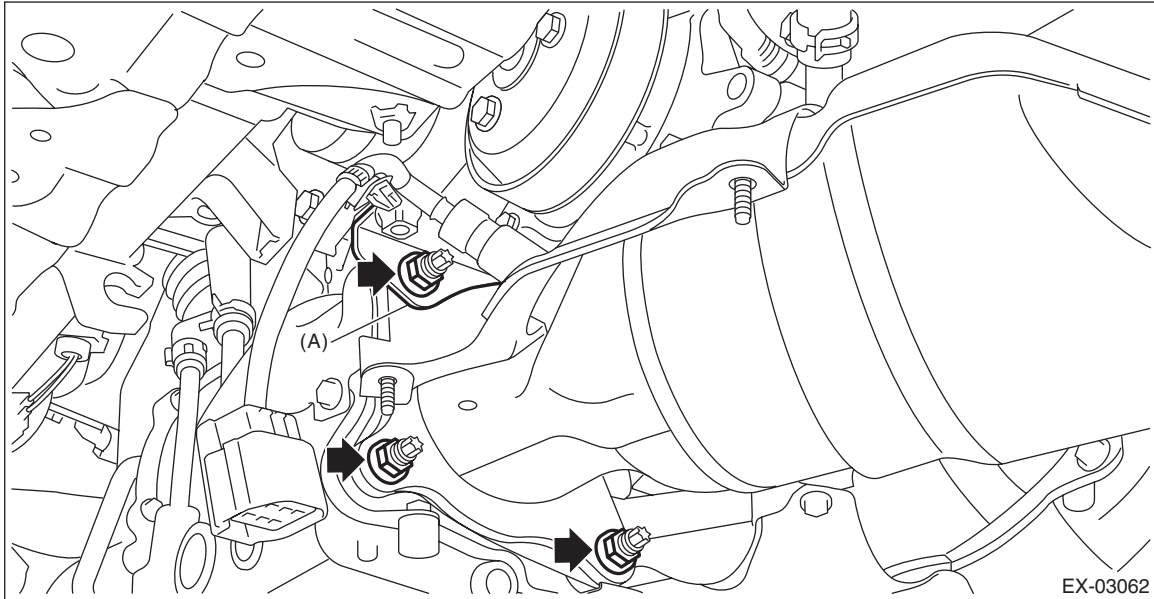
Center Exhaust Pipe

EXHAUST

2) Temporarily tighten the nuts (3 places) which secure the center exhaust pipe (front) to the turbocharger together with the turbocharger upper stay (A).

NOTE:

Use a new self-locking nut.



3) Using ST, install the nut (1 place) which secures the center exhaust pipe (front) to the turbocharger.

NOTE:

Use a new self-locking nut.

ST 18283AA010 WRENCH ADAPTER

Tightening torque:

Calculation formula

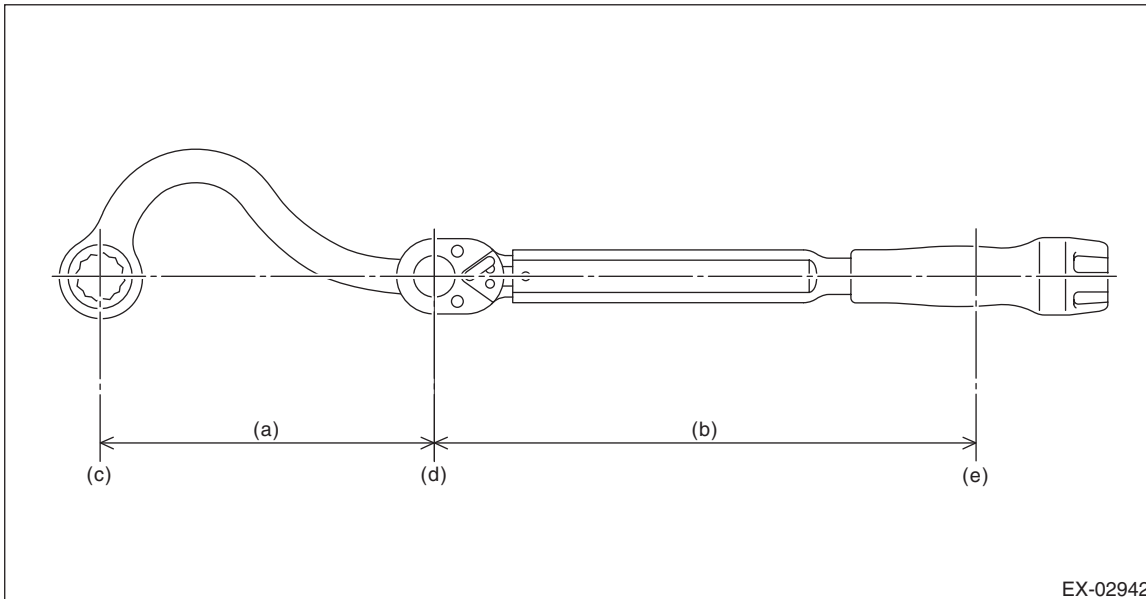
$$T = L / (120 \text{ mm (4.72 in)} + L) \times 42.5 \text{ N}\cdot\text{m (4.3 kgf}\cdot\text{m, 31.3 ft}\cdot\text{lb)}$$

T: Tightening torque

L: Effective length of torque wrench

NOTE:

If the effective length of the torque wrench used is unknown, consult the manufacturer of the torque wrench.



EX-02942

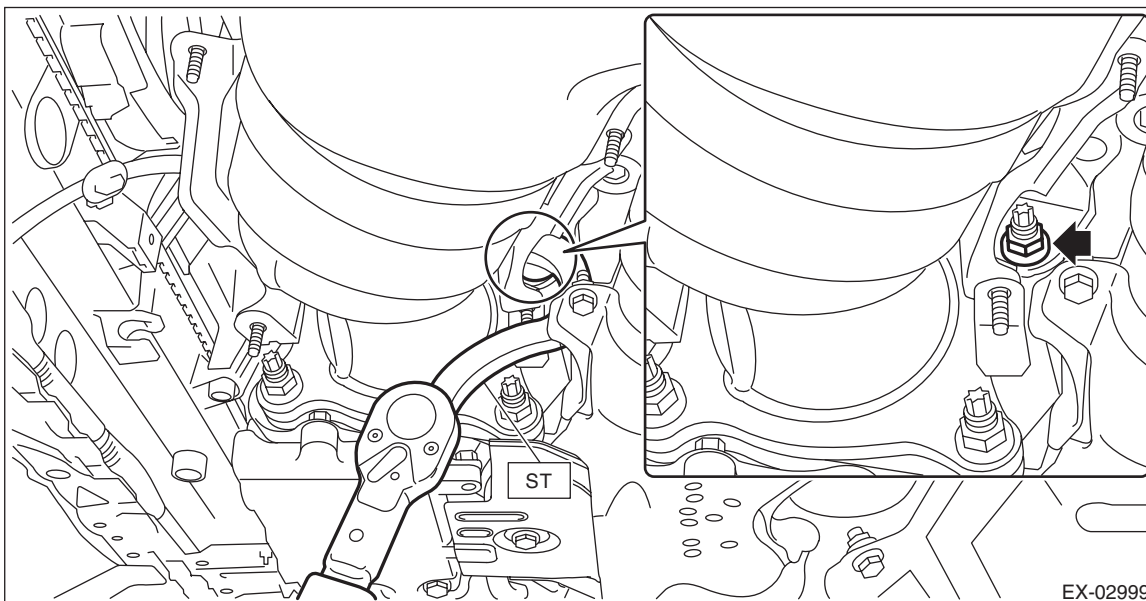
(a) Effective length of the ST

(b) Effective length of the torque wrench

(c) Center of drive angle of the ST

(d) Center of drive angle of the torque wrench

(e) Center of the position where a force is applied by hand



EX-02999

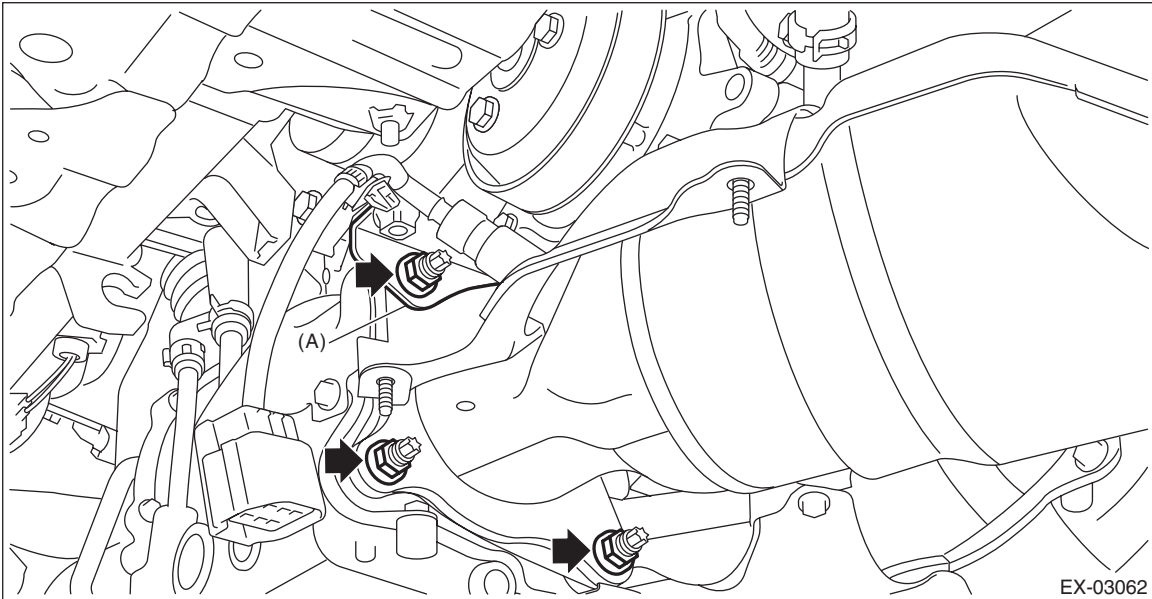
Center Exhaust Pipe

EXHAUST

4) Temporarily tighten the nuts (3 places) which secure the center exhaust pipe (front) to the turbocharger together with the turbocharger stay (A).

Tightening torque:

42.5 N·m (4.3 kgf-m, 31.3 ft-lb)

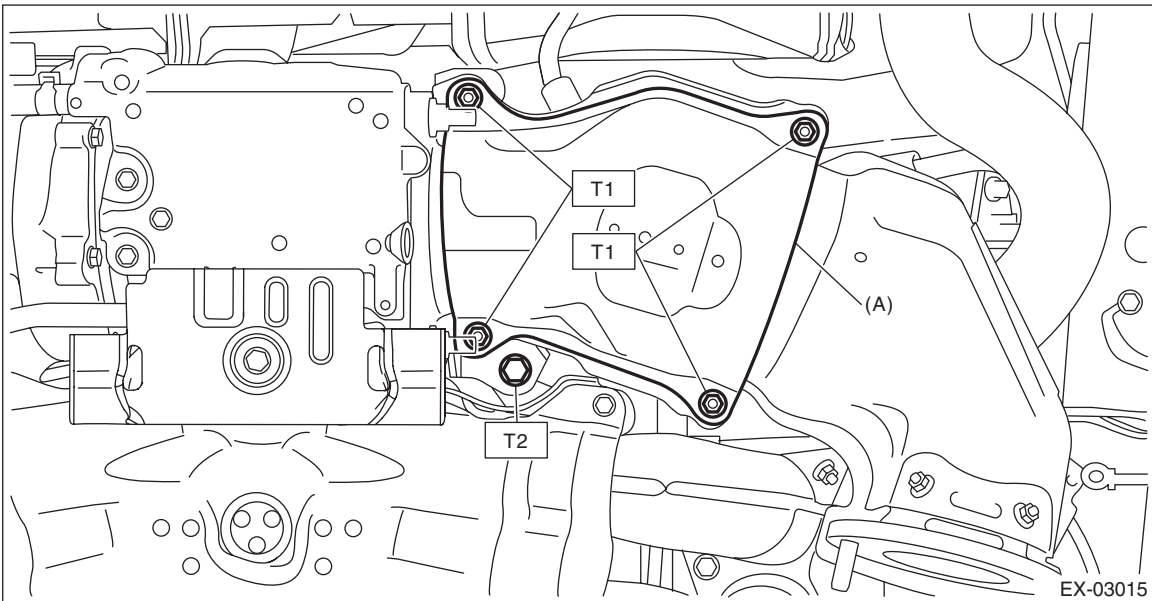


5) Install the bolt which secures the turbocharger stay, and install the exhaust pipe cover (A) to the center exhaust pipe (front).

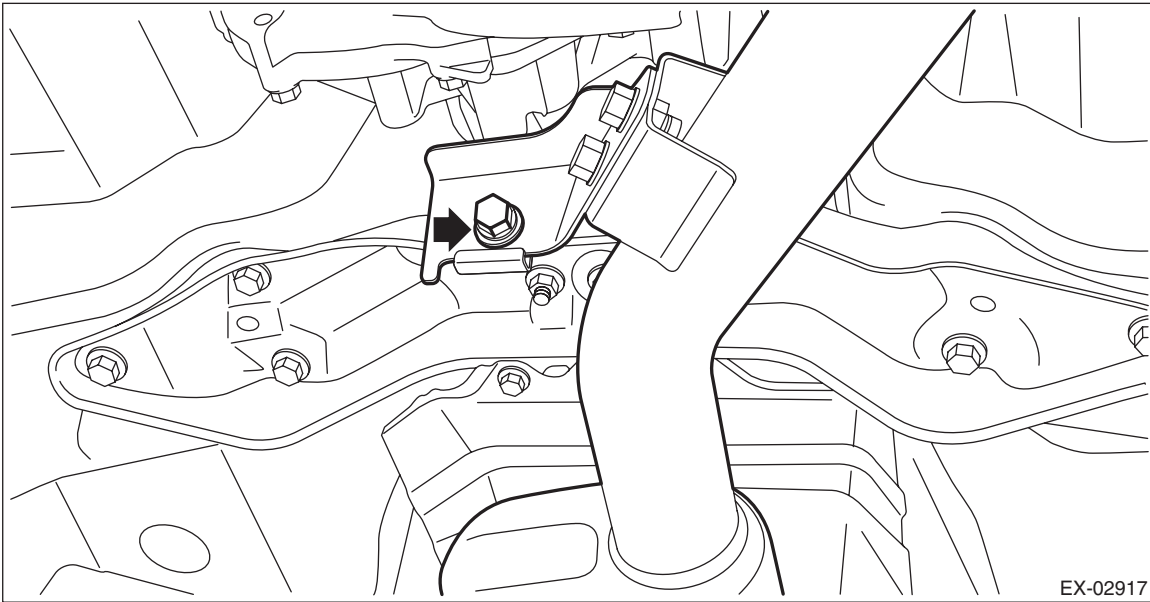
Tightening torque:

T1: 7.5 N·m (0.8 kgf-m, 5.5 ft-lb)

T2: 33 N·m (3.4 kgf-m, 24.3 ft-lb)



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



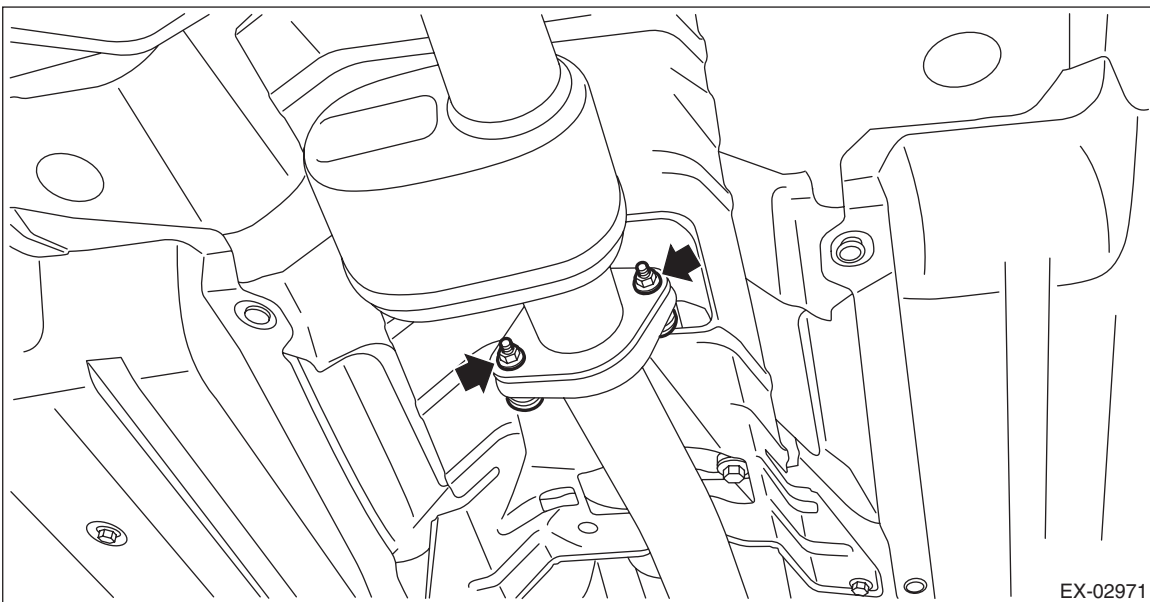
- 7) Install the bolts, springs, and nuts which secure the rear exhaust pipe to the center exhaust pipe (rear).

NOTE:

Use a new gasket.

Tightening torque:

18 N·m (1.8 kgf-m, 13.3 ft-lb)



Center Exhaust Pipe

EXHAUST

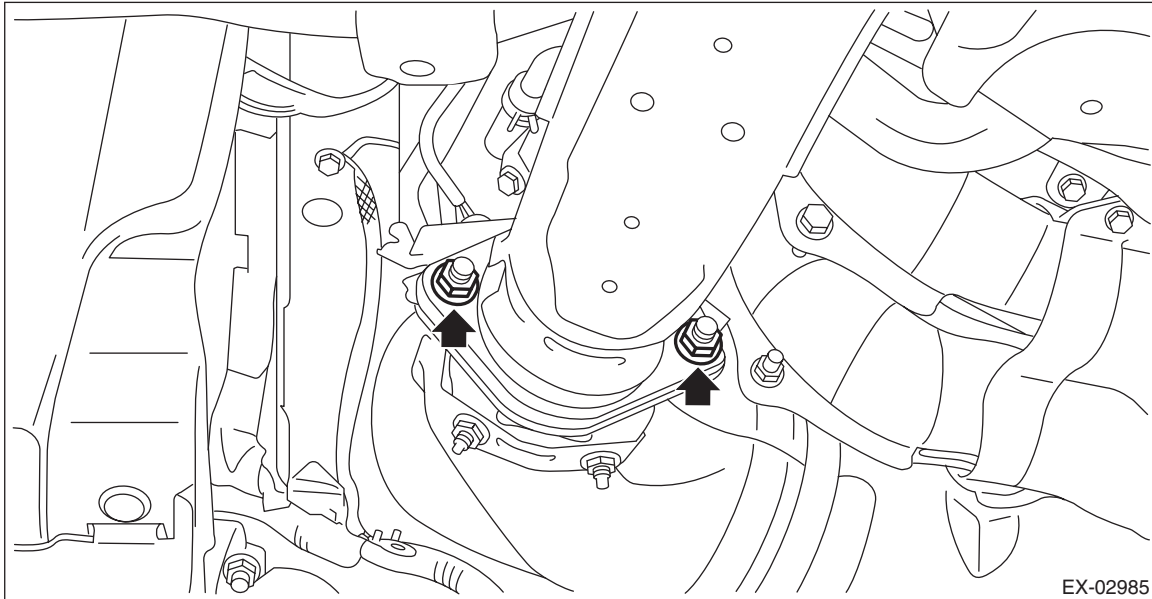
8) Install the nuts which secure the center exhaust pipe (front) to the center exhaust pipe (rear).

NOTE:

Use a new gasket.

Tightening torque:

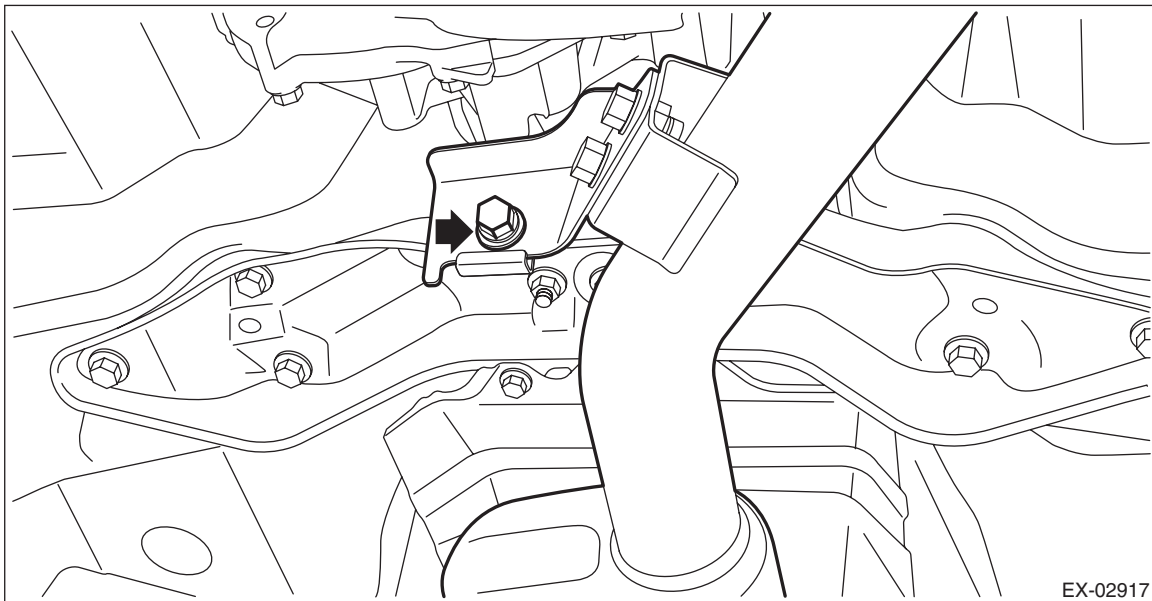
42.5 N·m (4.3 kgf-m, 31.3 ft-lb)



9) 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)



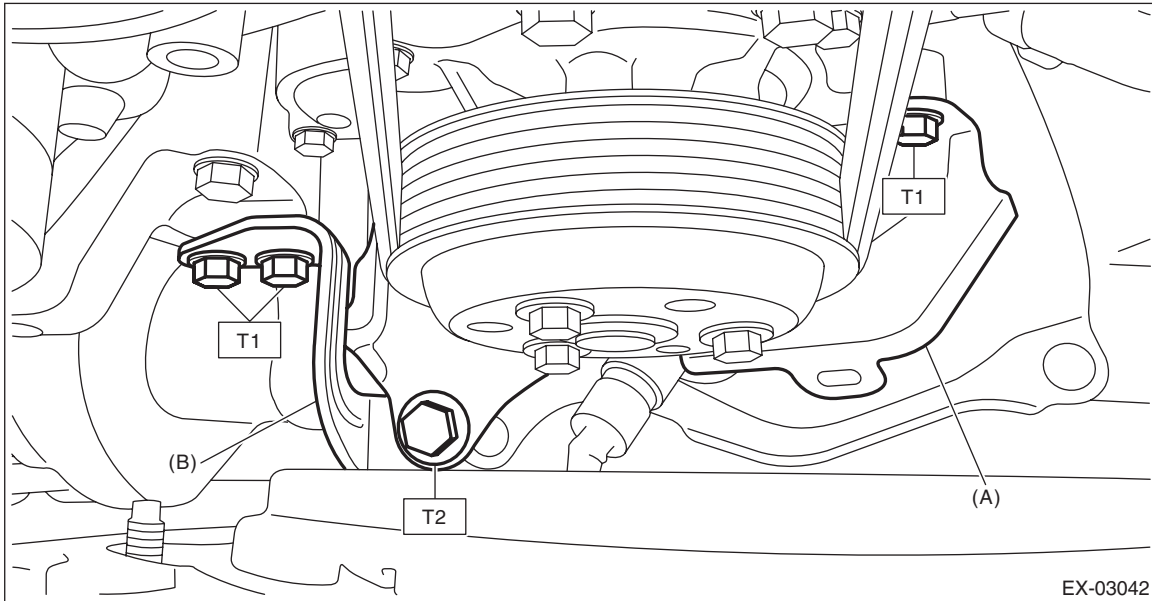
10) Lower the vehicle.

11) Install the exhaust pipe stay (B) and water pump pulley cover (A) to the turbocharger stay and water pump, and install the bolts which secure the water pump pulley cover (A) and exhaust pipe stay (B) to the turbocharger stay.

Tightening torque:

T1: 19 N·m (1.9 kgf-m, 14.0 ft-lb)

T2: 33 N·m (3.4 kgf-m, 24.3 ft-lb)

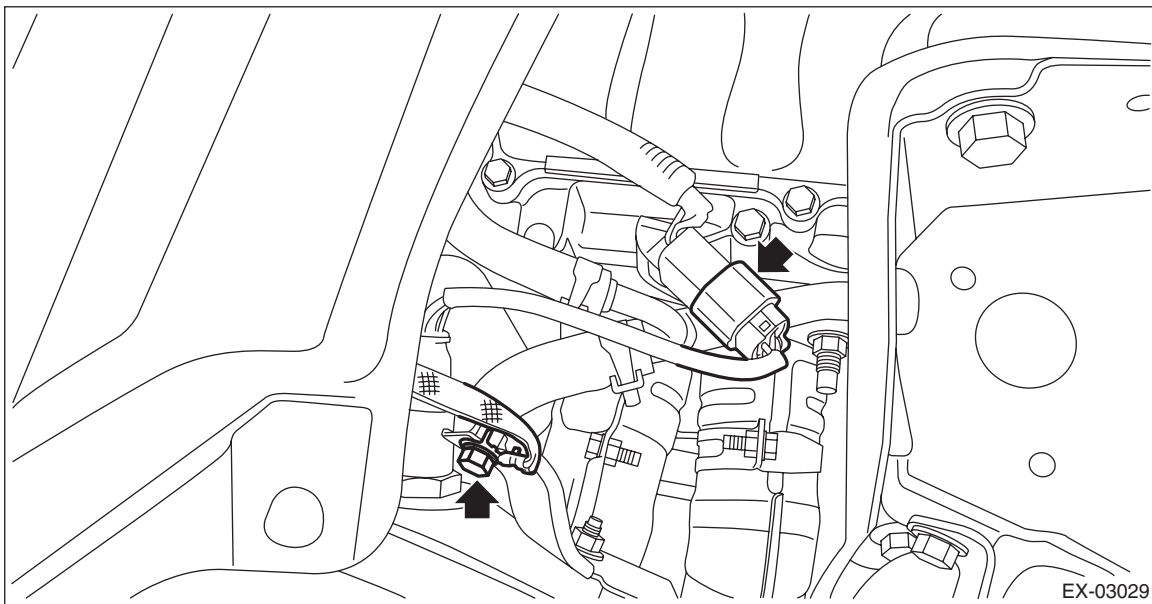


12) Lift up the vehicle.

13) Connect the connector on the rear oxygen sensor to the engine harness, and connect the ground cable to the exhaust pipe cover.

Tightening torque:

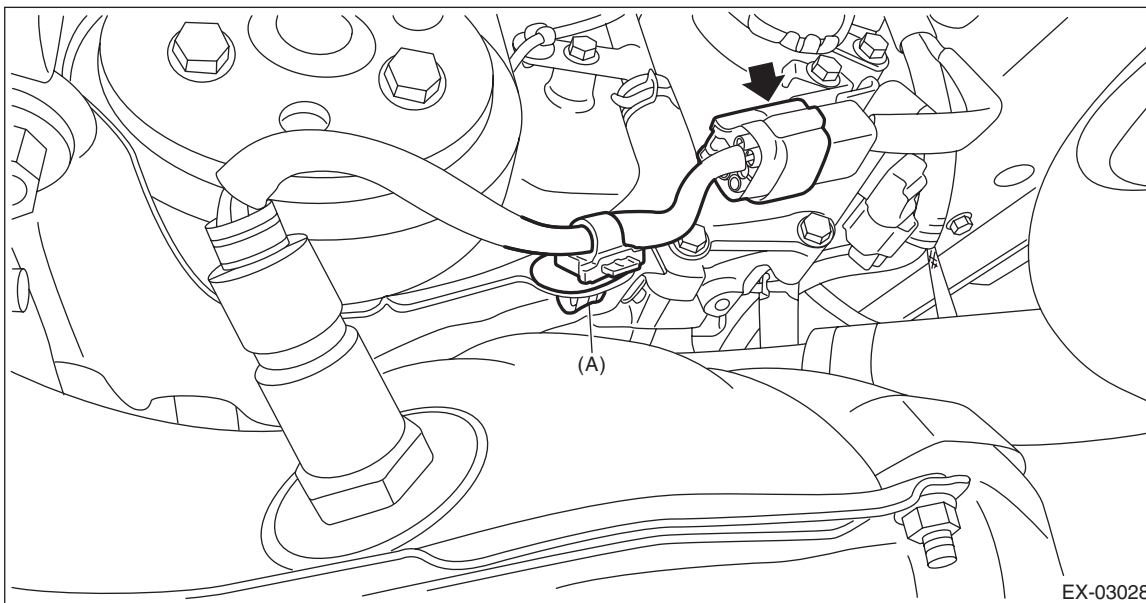
7 N·m (0.7 kgf-m, 5.2 ft-lb)



Center Exhaust Pipe

EXHAUST

14) Secure the front oxygen (A/F) sensor harness to the water pump pulley cover with the clip (A), and connect the front oxygen (A/F) sensor connector to the engine harness.



15) Install the under cover. <Ref. to EI-23, INSTALLATION, Front Under Cover.>

16) Lower the vehicle.

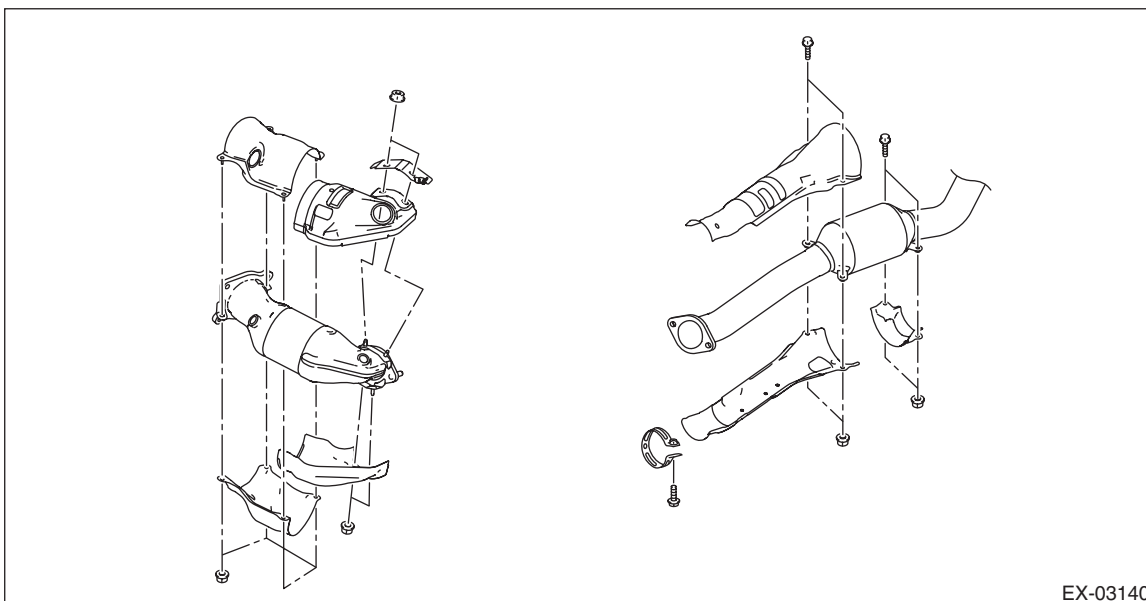
17) Connect the battery ground terminal.

18) Install the collector cover.

C: DISASSEMBLY

1) Remove the front oxygen (A/F) sensor and rear oxygen sensor.<Ref. to FU(H4DOTC)-128, REMOVAL, Front Oxygen (A/F) Sensor.> <Ref. to FU(H4DOTC)-131, REMOVAL, Rear Oxygen Sensor.>

2) Remove the exhaust pipe cover from the center exhaust pipe (front) and center exhaust pipe (rear).



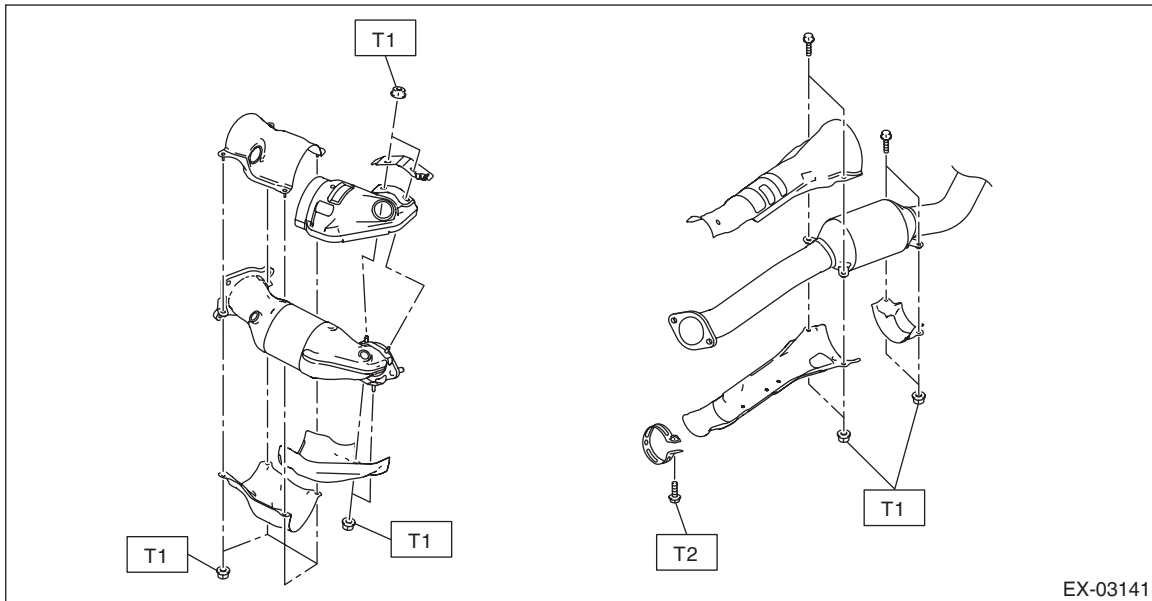
D: ASSEMBLY

1) Install the exhaust pipe cover to the center exhaust pipe (front) and center exhaust pipe (rear).

Tightening torque:

T1: 7.5 N·m (0.8 kgf-m, 5.5 ft-lb)

T2: 13 N·m (1.3 kgf-m, 9.6 ft-lb)



2) Install the front oxygen (A/F) sensor and rear oxygen sensor. <Ref. to FU(H4DOTC)-129, INSTALLATION, Front Oxygen (A/F) Sensor.> <Ref. to FU(H4DOTC)-132, INSTALLATION, Rear Oxygen Sensor.>

E: INSPECTION

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