

EXHAUST

EX(H4SO U5)

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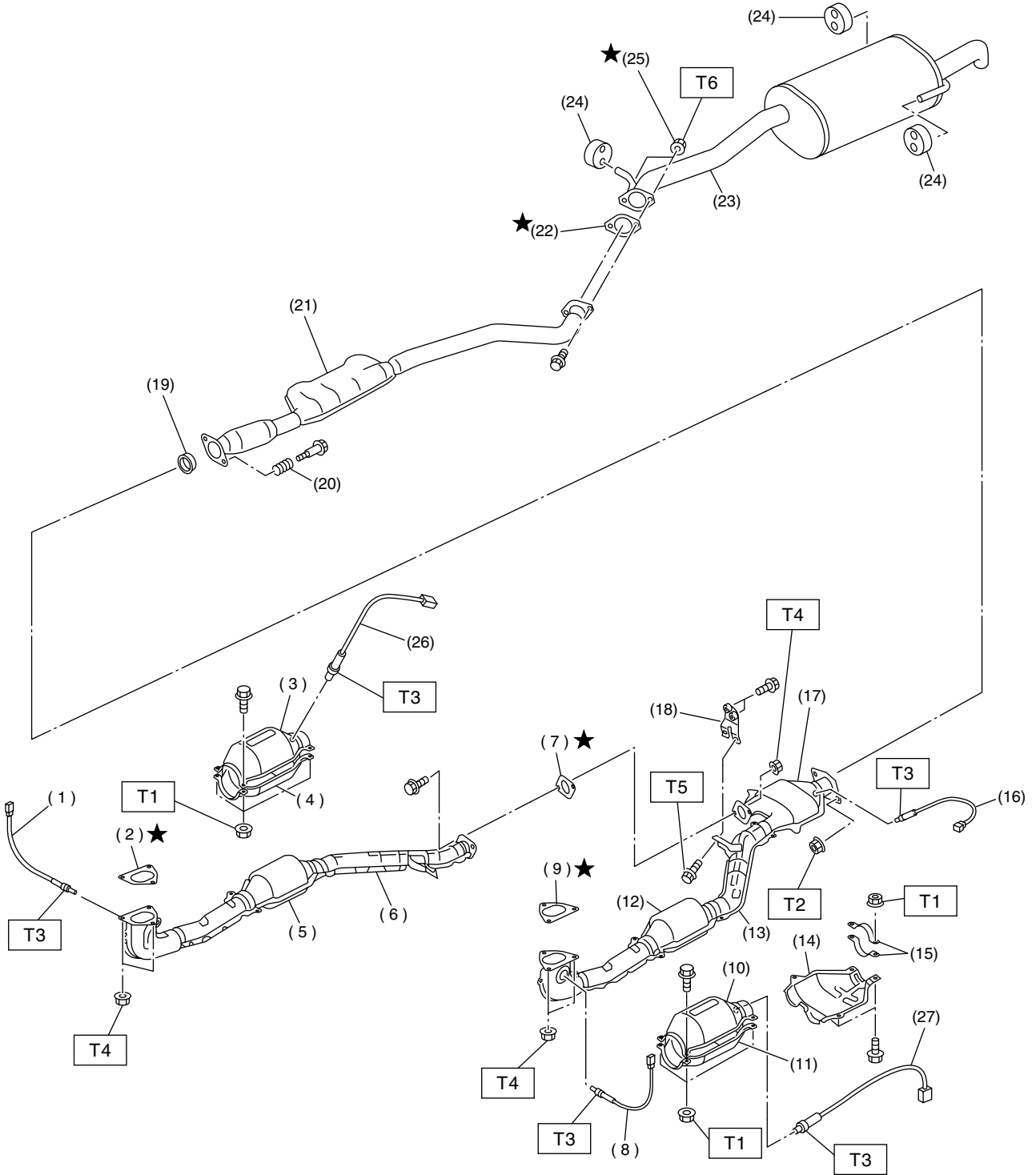


GENERAL DESCRIPTION

EXHAUST

1. General Description

A: COMPONENT



EX-00230

GENERAL DESCRIPTION

EXHAUST

-
- | | | |
|--------------------------------------|--------------------------------|-------------------------------|
| (1) Front oxygen (A/F) sensor (RH) | (12) Front catalyst (LH) | (23) Muffler |
| (2) Gasket | (13) Front exhaust pipe (LH) | (24) Cushion rubber |
| (3) Upper front catalyst cover (RH) | (14) Lower rear catalyst cover | (25) Self-locking nut |
| (4) Lower front catalyst cover (RH) | (15) Clamp | (26) Front oxygen sensor (RH) |
| (5) Front catalyst converter (RH) | (16) Rear oxygen sensor | (27) Front oxygen sensor (LH) |
| (6) Front exhaust pipe (RH) | (17) Rear catalyst | |
| (7) Gasket | (18) Bracket | |
| (8) Front oxygen (A/F) sensor (LH) | (19) Gasket | |
| (9) Gasket | (20) Spring | |
| (10) Upper front catalyst cover (LH) | (21) Rear exhaust pipe | |
| (11) Lower front catalyst cover (LH) | (22) Gasket | |

Tightening torque: N-m (kgf-m, ft-lb)

T1: 13 (1.3, 9.4)

T2: 18 (1.8, 13.0)

T3: 21 (2.1, 15)

T4: 30 (3.1, 22.4)

T5: 35 (3.6, 26.0)

T6: 48 (4.9, 35.4)

GENERAL DESCRIPTION

EXHAUST

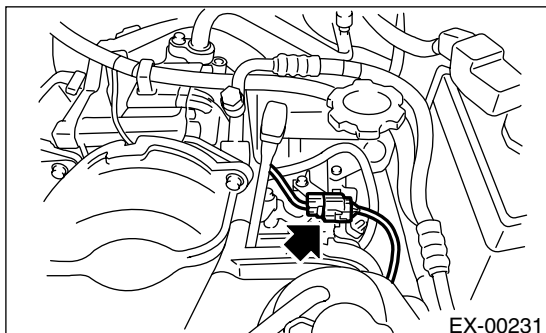
B: CAUTION

- Wear working clothing, including a cap, protective goggles, and protective shoes during operation.
- Remove contamination including dirt and corrosion before removal, installation or disassembly.
- Keep the disassembled parts in order and protect them from dust or dirt.
- Before removal, installation or disassembly, be sure to clarify the failure. Avoid unnecessary removal, installation, disassembly, and replacement.
- Be careful not to burn your hands, because each part on the vehicle is hot after running.
- Be sure to tighten fasteners including bolts and nuts to the specified torque.
- Place shop jacks or safety stands at the specified points.
- Before disconnecting electrical connectors of sensors or units, be sure to disconnect ground cable from battery.

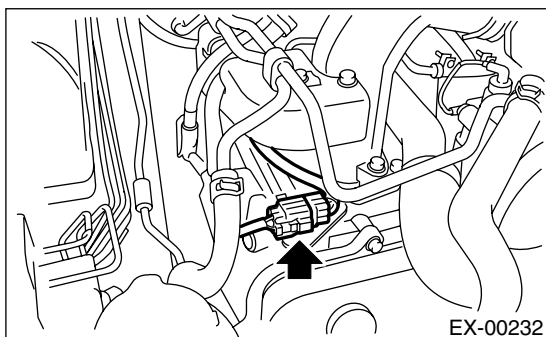
2. Front Exhaust Pipe

A: REMOVAL

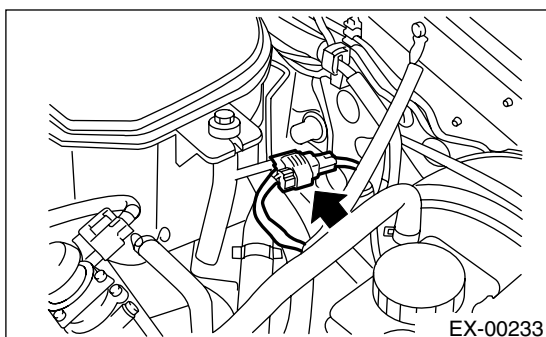
- 1) Disconnect ground cable from battery.
 - 2) Disconnect front oxygen (A/F) sensor connector.
- LH side



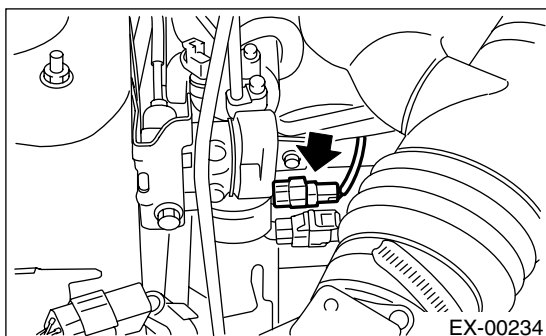
- RH side



- 3) Disconnect front oxygen sensor connector.
- LH side

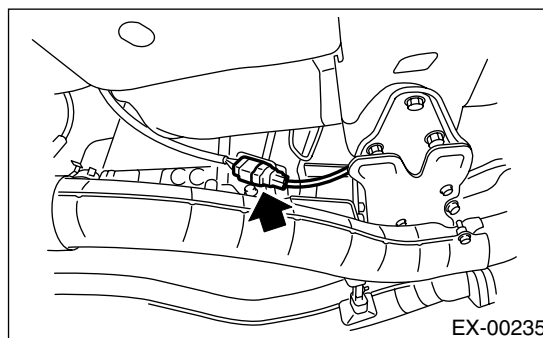


- RH side



- 4) Lift-up the vehicle.

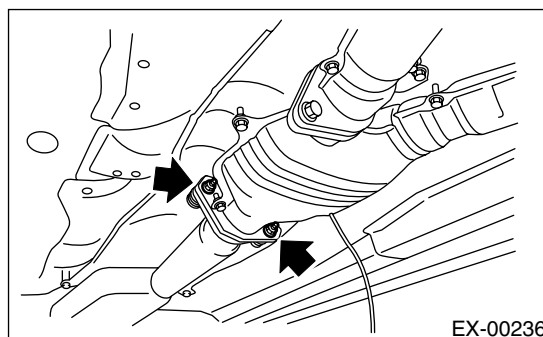
- 5) Remove under cover.
- 6) Disconnect rear oxygen sensor connector.



- 7) Separate front exhaust pipe assembly from rear exhaust pipe.

WARNING:

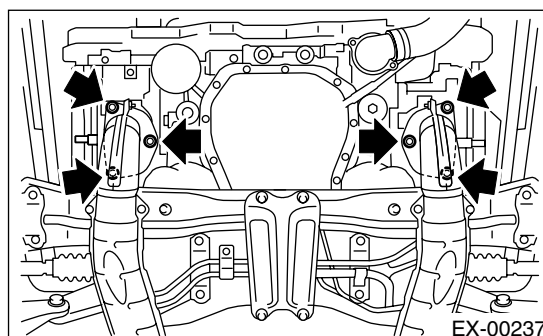
Be careful, exhaust pipe is hot.



- 8) Remove nuts which hold front exhaust pipe onto cylinder heads.

CAUTION:

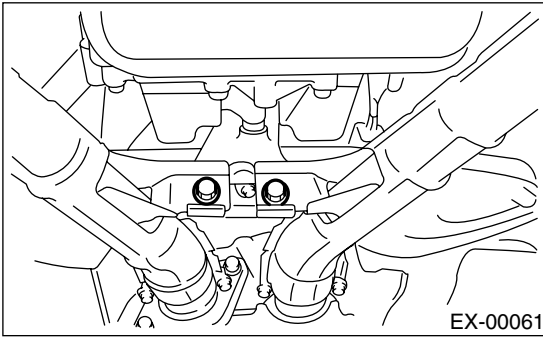
Be careful not to pull down front exhaust pipe assembly.



FRONT EXHAUST PIPE

EXHAUST

9) Remove bolt which secures front exhaust pipe assembly to hanger bracket.

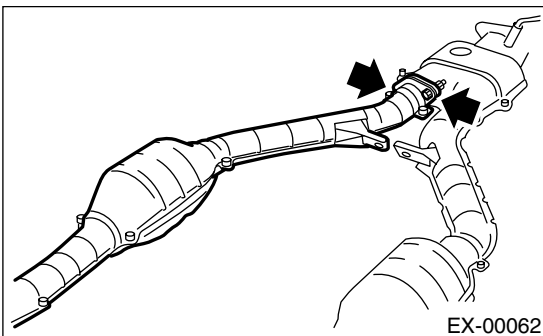


10) Remove front exhaust pipe from the vehicle.

CAUTION:

- Disconnect front oxygen (A/F) sensor, front oxygen sensor and rear oxygen sensor harness from bracket.
- Be careful not to let front exhaust pipe assembly fall off when removing as it is quite heavy.
- After removing front exhaust assembly, do not apply excessive pulling force on rear exhaust pipe.

11) Separate front exhaust pipe (RH) from front exhaust pipe assembly.



12) Disconnect front oxygen (A/F) sensor, front oxygen sensor and rear oxygen sensor. <Ref. to FU(H4SO U5)-42, REMOVAL, Front Oxygen (A/F) Sensor.>, <Ref. to FU(H4SO U5)-45, REMOVAL, Front Oxygen Sensor.> and <Ref. to FU(H4SO U5)-48, REMOVAL, Rear Oxygen Sensor.>

B: INSTALLATION

1) Install front oxygen (A/F) sensor, front oxygen sensor and rear oxygen sensor. <Ref. to FU(H4SO U5)-43, INSTALLATION, Front Oxygen (A/F) Sensor.>, <Ref. to FU(H4SO U5)-46, INSTALLATION, Front Oxygen Sensor.> and <Ref. to FU(H4SO U5)-48, INSTALLATION, Rear Oxygen Sensor.>

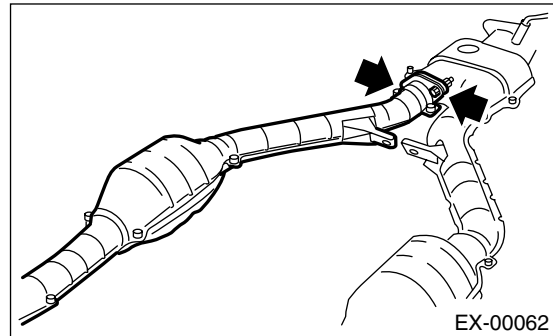
2) Install front exhaust pipe (RH) to front exhaust pipe assembly.

NOTE:

Replace gaskets with new ones.

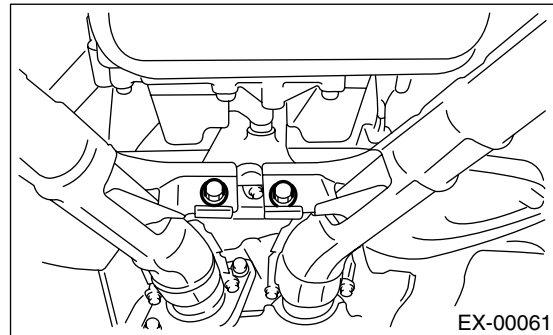
Tightening torque:

30 N·m (3.1 kgf-m, 22.4 ft-lb)



3) Install front exhaust pipe assembly to the vehicle.

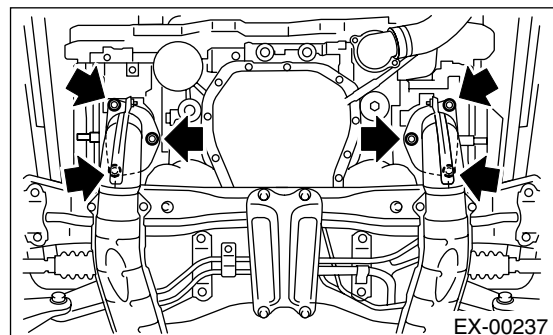
4) Temporarily tighten bolt which installs front exhaust pipe assembly to hanger bracket.



5) Tighten nuts which hold front exhaust pipe onto cylinder heads.

Tightening torque:

30 N·m (3.1 kgf-m, 22.4 ft-lb)



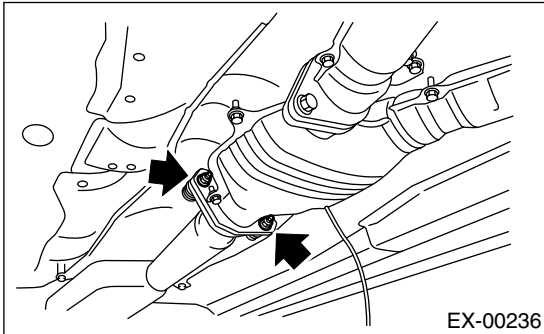
FRONT EXHAUST PIPE

EXHAUST

6) Tighten bolts which install front exhaust pipe to rear exhaust pipe.

Tightening torque:

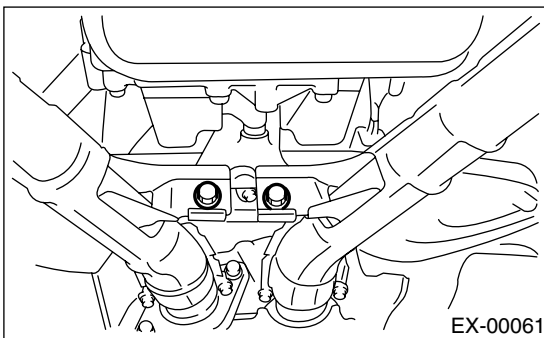
18 N·m (1.8 kgf·m, 13.0 ft·lb)



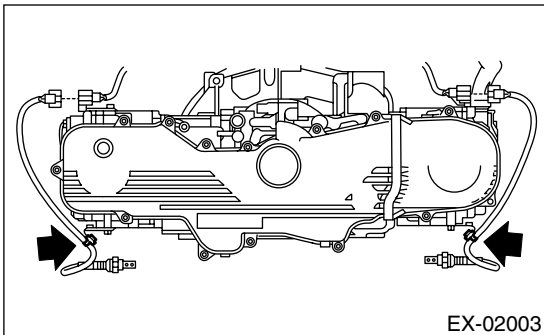
7) Tighten bolt which holds front exhaust pipe assembly to hanger bracket.

Tightening torque:

35 N·m (3.6 kgf·m, 26.0 ft·lb)

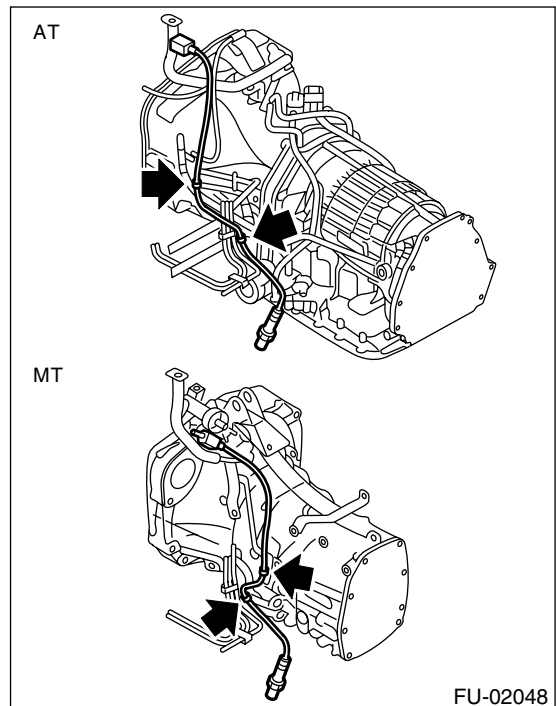


8) Install front oxygen (A/F) sensor harness to bracket.

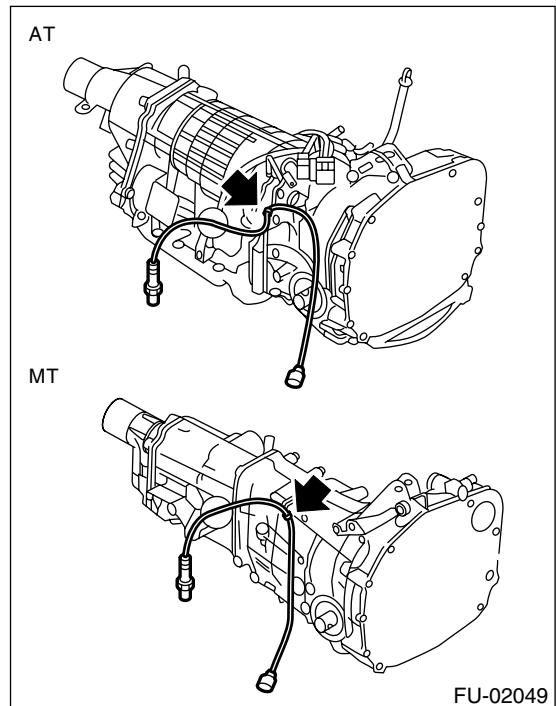


9) Install front oxygen sensor harness to bracket.

- LH side



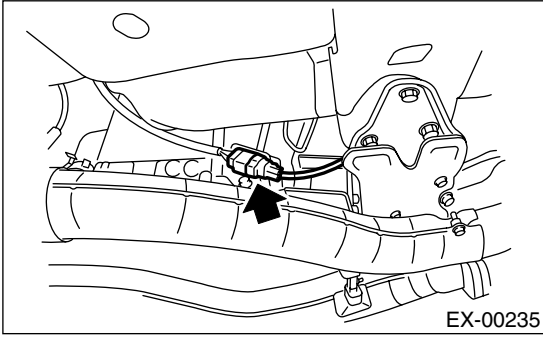
- RH side



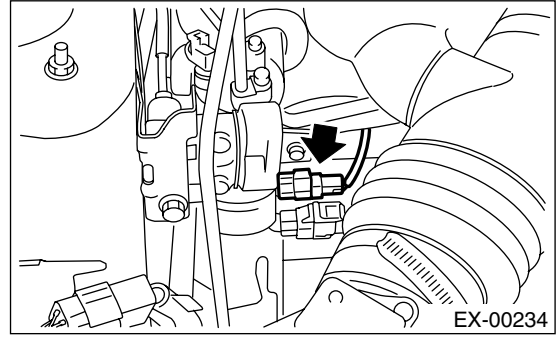
FRONT EXHAUST PIPE

EXHAUST

10) Connect rear oxygen sensor connector.



• RH side

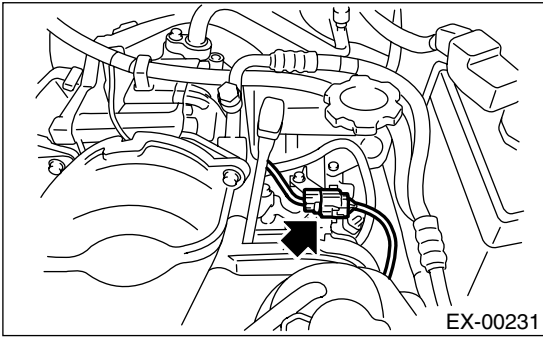


11) Install under cover.

12) Lower the vehicle.

13) Disconnect front oxygen (A/F) sensor connector.

• LH side



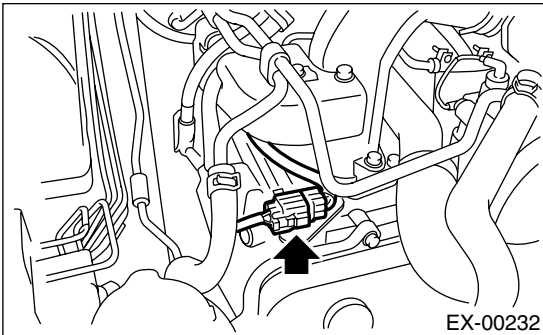
15) Install battery.

C: INSPECTION

1) Make sure there are no exhaust leaks from connections and welds.

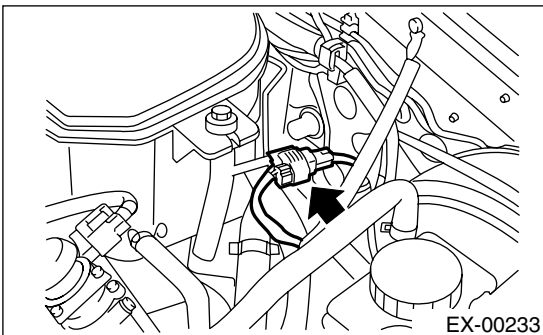
2) Make sure there are no holes or rusting.

• RH side



14) Connect front oxygen sensor connector.

• LH side



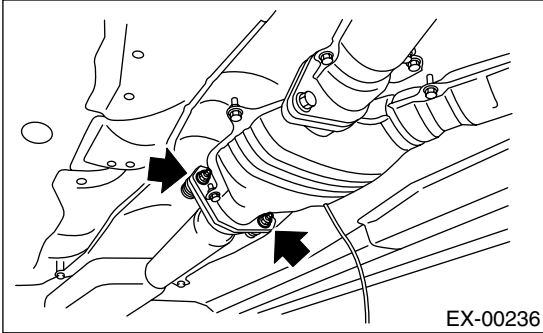
3. Rear Exhaust Pipe

A: REMOVAL

1) Separate rear exhaust pipe from front exhaust pipe.

CAUTION:

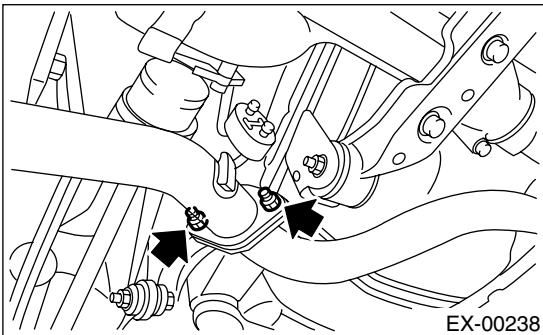
Be careful, exhaust pipe is hot.



2) Separate rear exhaust pipe from muffler.

CAUTION:

Be careful not to pull down rear exhaust pipe.



3) Remove rear exhaust pipe.

B: INSTALLATION

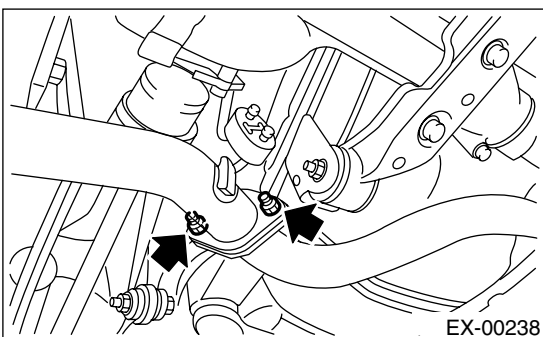
NOTE:

Replace gaskets and self-lock nut with new ones.

1) Install rear exhaust pipe to muffler.

Tightening torque:

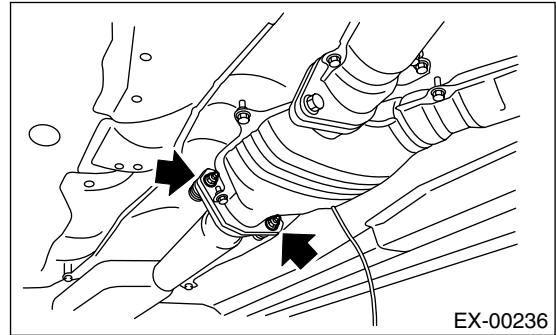
48 N·m (4.9 kgf-m, 35.4 ft-lb)



2) Install rear exhaust pipe to front exhaust pipe.

Tightening torque:

18 N·m (1.8 kgf-m, 13.0 ft-lb)



C: INSPECTION

1) Make sure there are no exhaust leaks from connections and welds.

2) Make sure there are no holes or rusting.

MUFFLER

EXHAUST

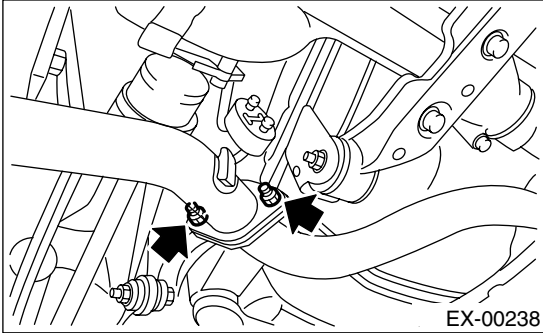
4. Muffler

A: REMOVAL

1) Separate muffler from rear exhaust pipe.

CAUTION:

Be careful, exhaust pipe is hot.



2) Remove left and right rubber cushions.

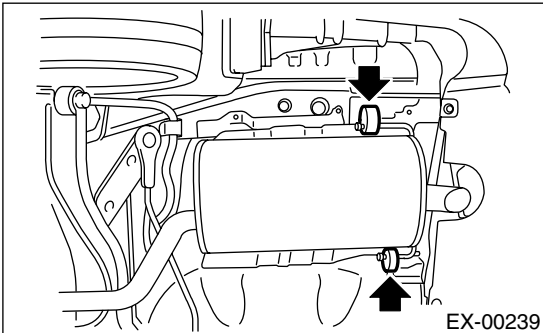
CAUTION:

Be careful not to drop the muffler during removal.

NOTE:

To facilitate removal, apply a coat of SUBARU CRC to mating area of rubber cushions in advance.

SUBARU CRC (Part No. 004301003)

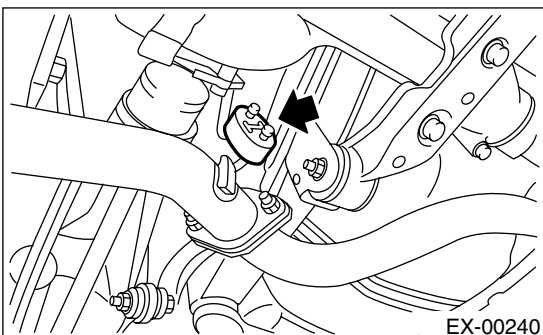


3) Remove front rubber cushion, and detach muffler assembly.

NOTE:

To facilitate removal, apply a coat of SUBARU CRC to mating area of rubber cushion in advance.

SUBARU CRC (Part No. 004301003)



B: INSTALLATION

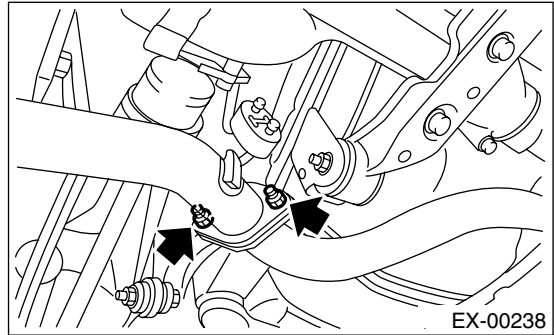
Install in the reverse order of removal.

NOTE:

Replace gasket and self-lock nut with a new one.

Tightening torque:

48 N·m (4.9 kgf-m, 35.4 ft-lb)



C: INSPECTION

- 1) Make sure there are no exhaust leaks from connections and welds.
- 2) Make sure there are no holes or rusting.
- 3) Make sure the cushion rubber is not worn or cracked.