

EXHAUST

EX(SOHC)

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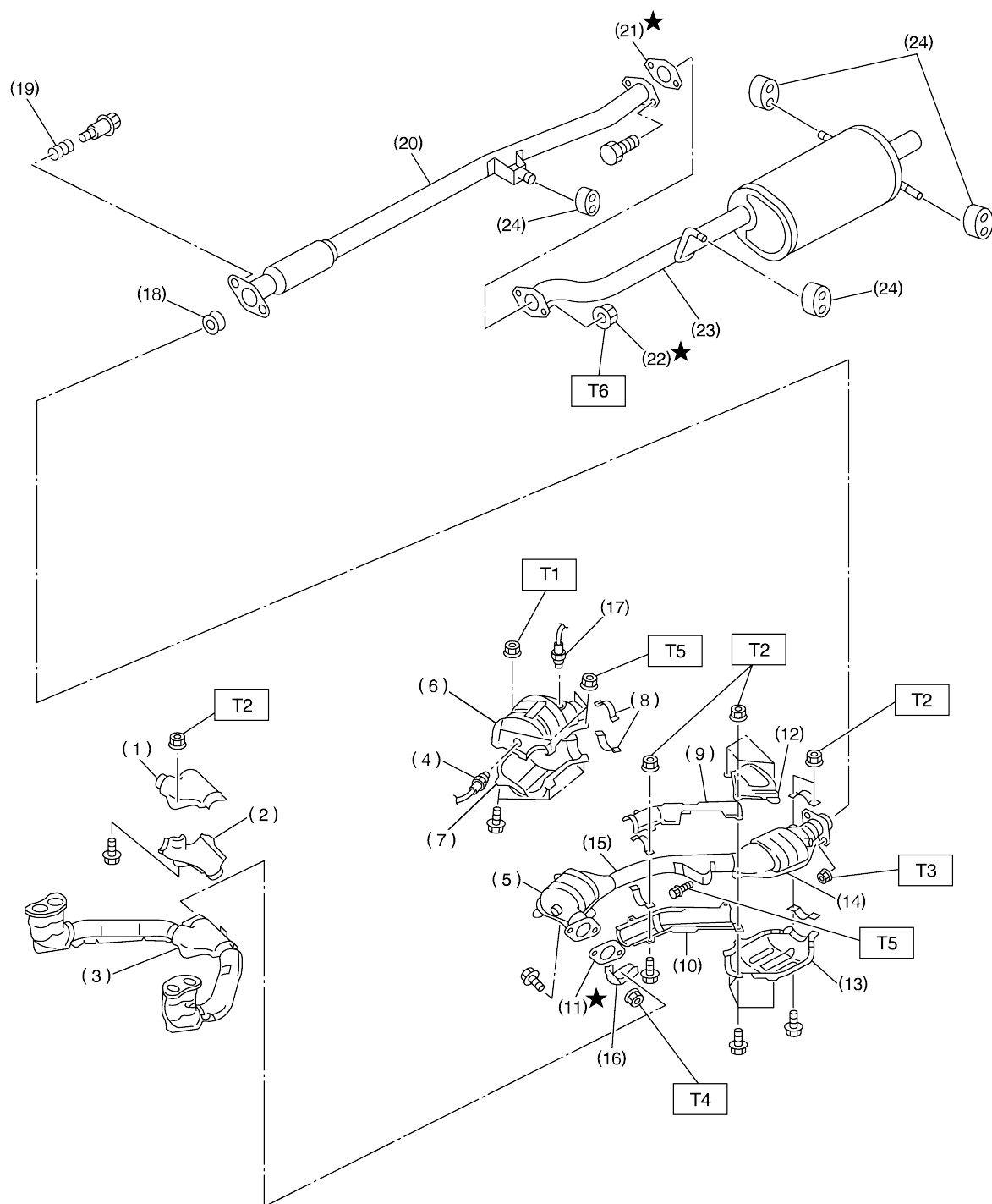
GENERAL DESCRIPTION

1. General Description

S152001

A: COMPONENT

S152001A05



S2M2132A

EX(SOHC)-2

GENERAL DESCRIPTION

Exhaust

- (1) Upper front exhaust pipe cover CTR
- (2) Lower front exhaust pipe cover CTR
- (3) Front exhaust pipe
- (4) Front oxygen (A/F) sensor
- (5) Front catalytic converter
- (6) Upper front catalytic converter cover
- (7) Lower front catalytic converter cover
- (8) Clamp
- (9) Upper center exhaust pipe cover

- (10) Lower center exhaust pipe cover
- (11) Gasket
- (12) Upper rear catalytic converter cover
- (13) Lower rear catalytic converter cover
- (14) Rear catalytic converter
- (15) Center exhaust pipe
- (16) Protector
- (17) Rear oxygen sensor
- (18) Gasket
- (19) Spring
- (20) Rear exhaust pipe

- (21) Gasket
- (22) Self-lock nut
- (23) Muffler
- (24) Cushion rubber

Tightening torque: N·m (kgf-m, ft-lb)

T1: 8 (0.8, 5.8)

T2: 13 (1.3, 9.4)

T3: 18 (1.8, 13.0)

T4: 30 (3.1, 22.4)

T5: 35 (3.6, 26.0)

T6: 48 (4.9, 35.4)

GENERAL DESCRIPTION

Exhaust

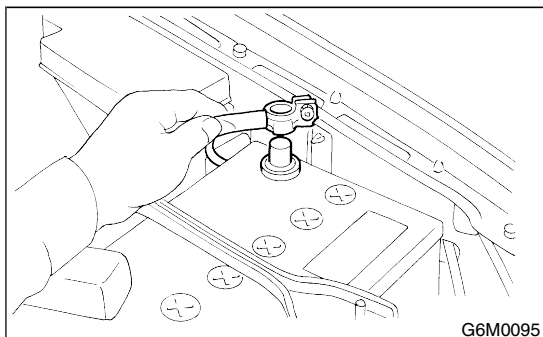
B: CAUTION S152001A03

- 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 negative terminal from battery.

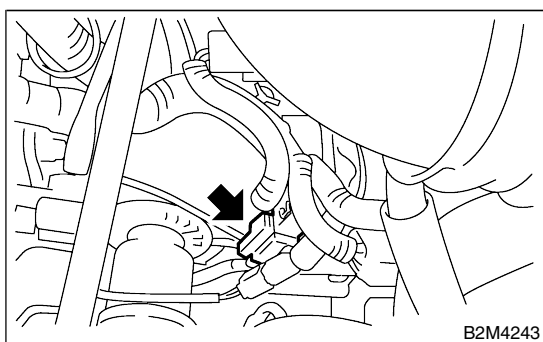
2. Front Exhaust Pipe S152065

A: REMOVAL S152065A18

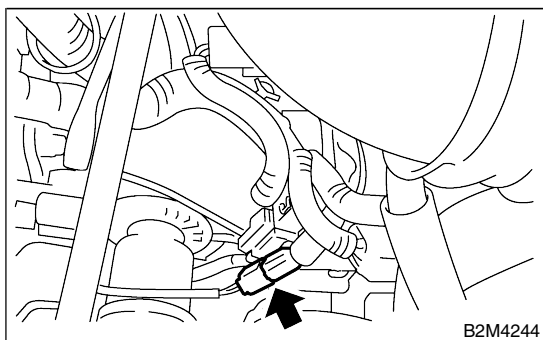
- 1) Disconnect battery ground cable.



- 2) Disconnect front oxygen (A/F) sensor connector.



- 3) Disconnect rear oxygen sensor connector.

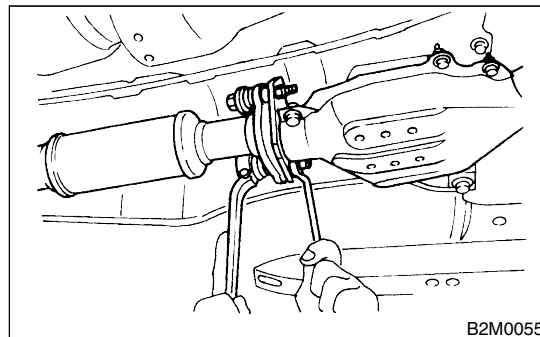


- 4) Lift-up the vehicle.
- 5) Remove under cover. <Ref. EI-11, REMOVAL, Front Under Cover.>

- 6) Separate front and center exhaust pipe assembly from rear exhaust pipe.

WARNING:

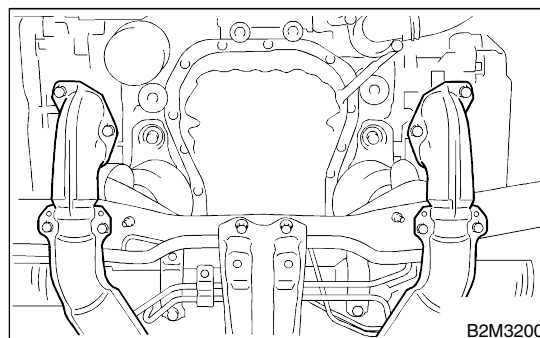
Be careful, exhaust pipe is hot.



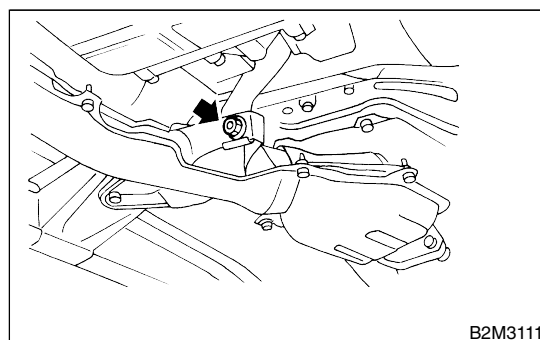
- 7) Remove bolts which hold front exhaust pipe onto cylinder heads.

CAUTION:

Be careful not to pull down front and center exhaust pipe assembly.



- 8) Remove bolt which installs front and center exhaust pipe assembly to hanger bracket.



- 9) Remove front and center exhaust pipe assembly from the vehicle.

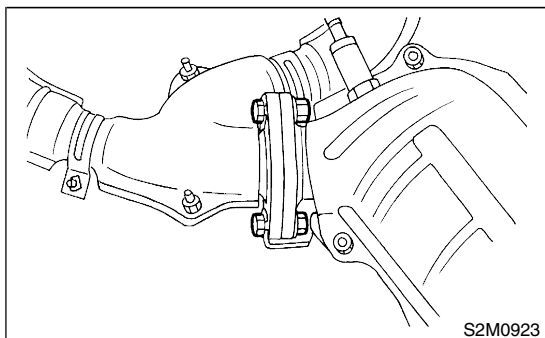
CAUTION:

- Be careful not to let front and center exhaust pipe assembly fall off when removing as it is quite heavy.
- After removing front and center exhaust assembly, do not apply excessive pulling force on rear exhaust pipe.

FRONT EXHAUST PIPE

Exhaust

- 10) Separate front exhaust pipe from center exhaust pipe.



B: INSTALLATION

S152065A11

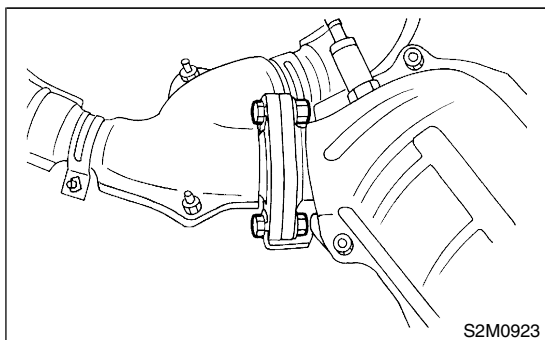
- 1) Install front exhaust pipe to center exhaust pipe.

CAUTION:

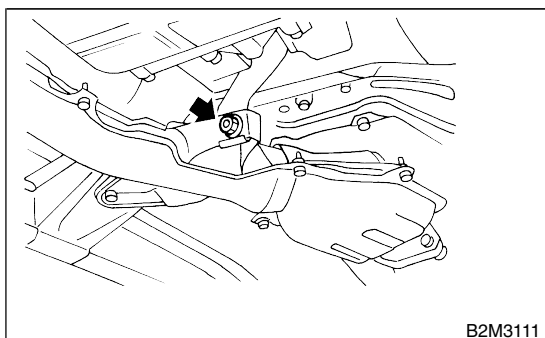
Replace gaskets with new ones.

Tightening torque:

30 N·m (3.1 kgf-m, 22.4 ft-lb)



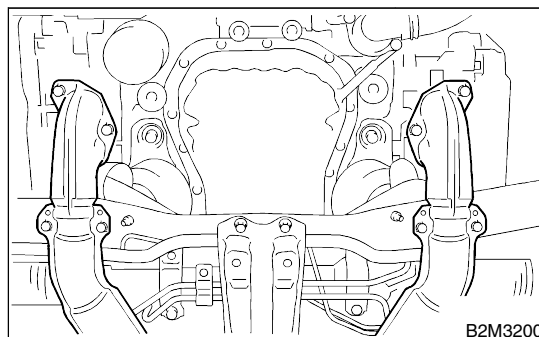
- 2) Install front and center exhaust pipe assembly to the vehicle.
3) Temporarily tighten bolt which installs front and center exhaust pipe assembly to hanger bracket.



- 4) Tighten bolts which hold front exhaust pipe onto cylinder heads.

Tightening torque:

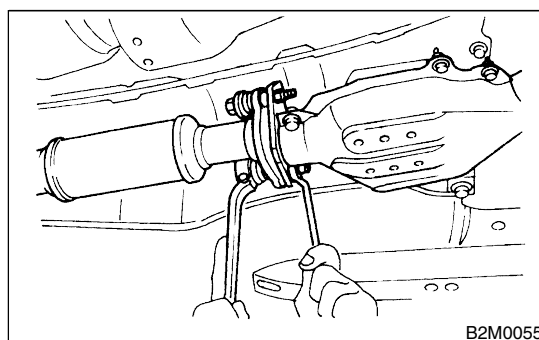
30 N·m (3.1 kgf-m, 22.4 ft-lb)



- 5) Tighten bolts which install front and center exhaust pipe assembly to rear exhaust pipe.

Tightening torque:

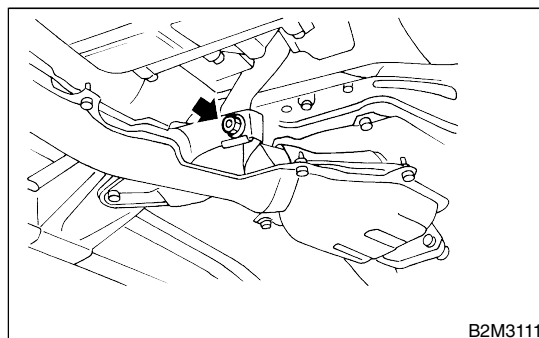
18 N·m (1.8 kgf-m, 13.0 ft-lb)



- 6) Tighten bolt which holds front and center exhaust pipe assembly to hanger bracket.

Tightening torque:

35 N·m (3.6 kgf-m, 26.0 ft-lb)

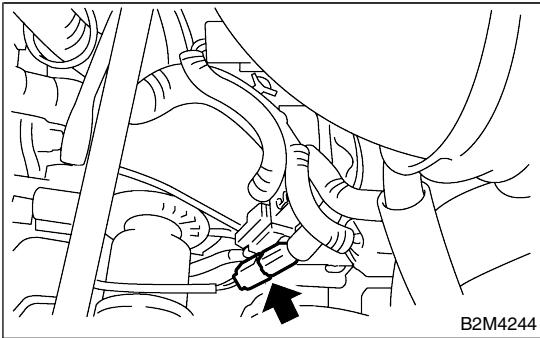


- 7) Install under cover. <Ref. EI-11, INSTALLATION, Front Under Cover.>
8) Lower the vehicle.

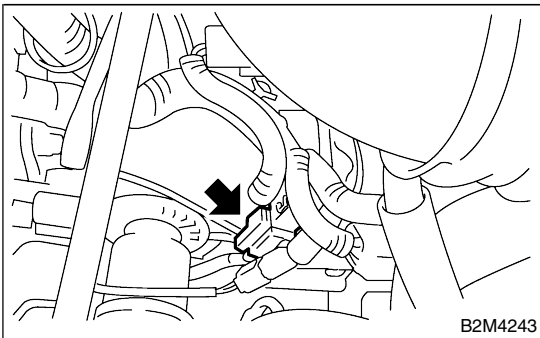
FRONT EXHAUST PIPE

Exhaust

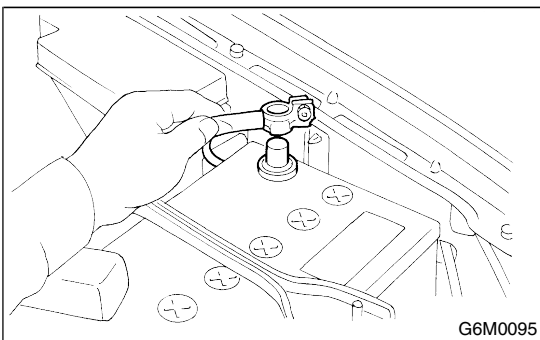
- 9) Connect rear oxygen sensor connector.



- 10) Connect front oxygen (A/F) sensor connector.



- 11) Connect battery ground cable.



C: INSPECTION S152065A10

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

3. Center Exhaust Pipe S152067

A: REMOVAL S152067A18

After removing the center and front exhaust pipes as one unit, separate them. Refer to the procedure for removing the front exhaust pipe. <Ref. to EX(SOHC)-5 REMOVAL, Front Exhaust Pipe.>

B: INSTALLATION S152067A11

Install the center exhaust pipe and front exhaust pipe as one unit. Refer to the procedure for installing the front exhaust pipe. <Ref. to EX(SOHC)-6 INSTALLATION, Front Exhaust Pipe.>

C: INSPECTION S152067A10

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

4. Rear Exhaust Pipe

S152068

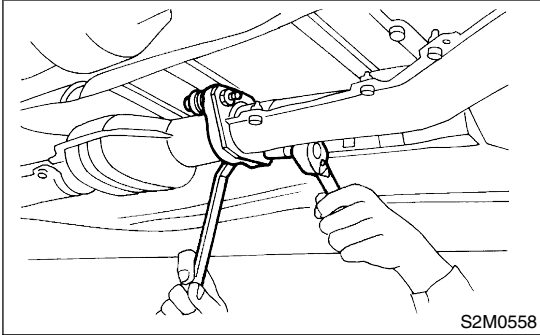
A: REMOVAL

S152068A18

- 1) Separate rear exhaust pipe from center exhaust pipe.

CAUTION:

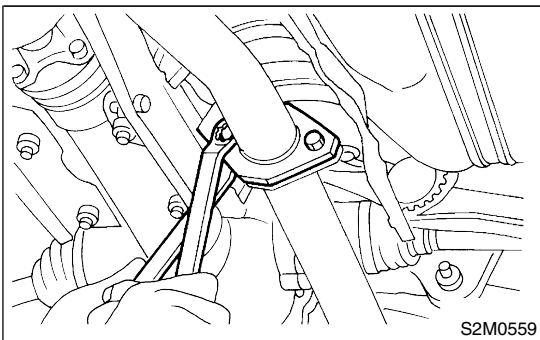
Be careful, exhaust pipe is hot.



- 2) Separate rear exhaust pipe from muffler.

CAUTION:

Be careful not to pull down rear exhaust pipe.

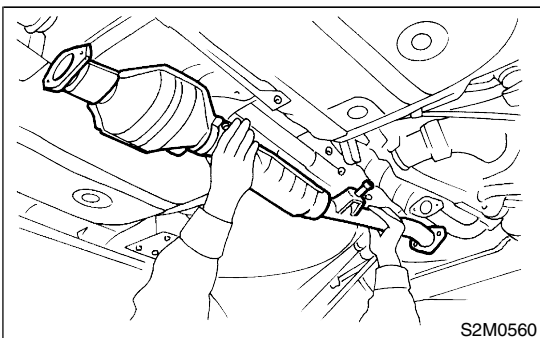


- 3) Remove rear exhaust pipe bracket from rubber cushion.

NOTE:

To facilitate removal, apply a coat of SUBARU CRC to pipe bracket in advance.

SUBARU CRC (Part No. 004301003)



B: INSTALLATION

S152068A11

CAUTION:

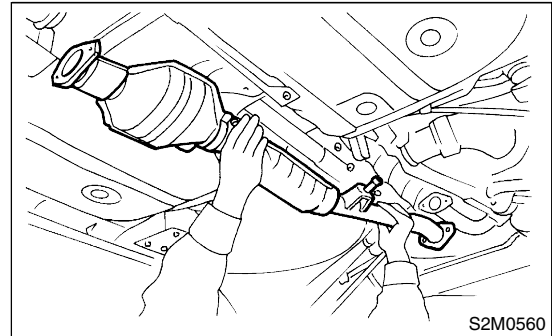
Replace gaskets with new ones.

- 1) Install rear exhaust pipe bracket to rubber cushion.

NOTE:

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

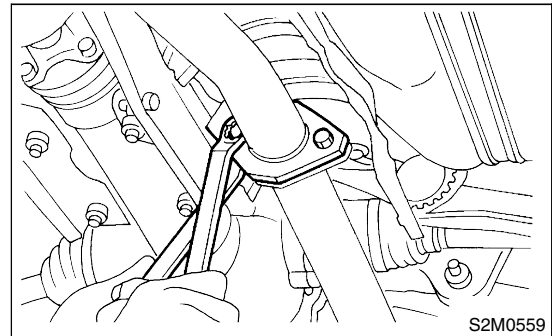
SUBARU CRC (Part No. 004301003)



- 2) Install rear exhaust pipe to muffler.

Tightening torque:

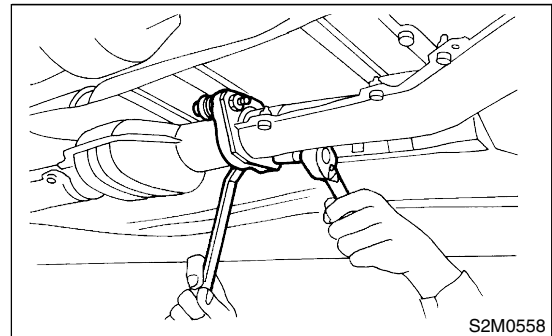
48 N·m (4.9 kgf-m, 35.4 ft-lb)



- 3) Install rear exhaust pipe to center exhaust pipe.

Tightening torque:

18 N·m (1.8 kgf-m, 13.0 ft-lb)



REAR EXHAUST PIPE

Exhaust

C: INSPECTION S152068A10

- 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.

MUFFLER

Exhaust

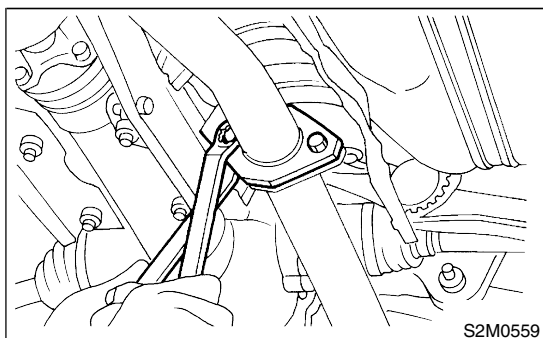
5. Muffler S152066

A: REMOVAL S152066A18

- 1) Separate muffler from rear exhaust pipe.

CAUTION:

Be careful, exhaust pipe is hot.



- 2) Remove left and right rubber cushions.

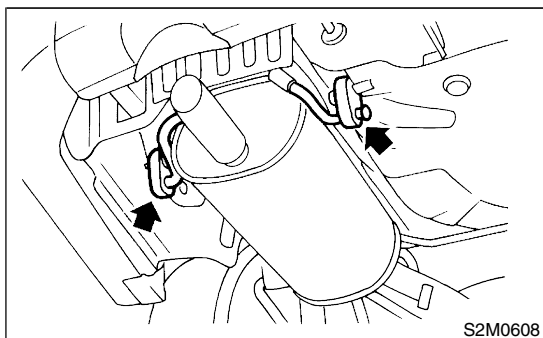
CAUTION:

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)

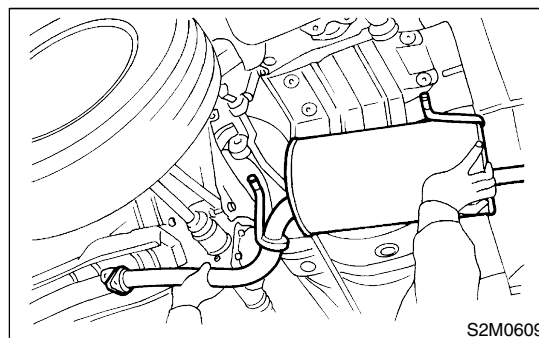


- 3) Remove front rubber cushion, and detach muffler assembly.

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 S152066A11

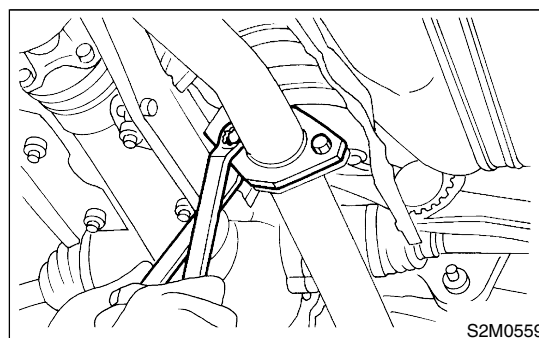
Install in the reverse order of removal.

CAUTION:

Replace gasket with a new one.

Tightening torque:

48 N·m (4.9 kgf-m, 35.4 ft-lb)



C: INSPECTION S152066A10

- 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.

MUFFLER

Exhaust

MEMO:

EX(SOHC)-12