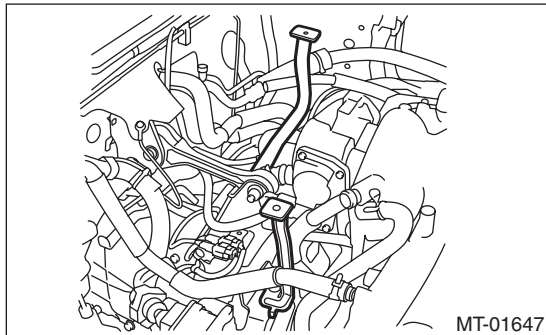


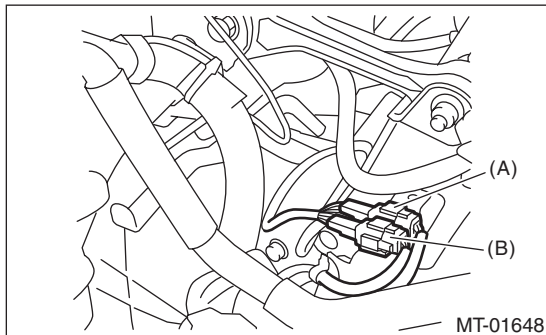
3. Manual Transmission Assembly

A: REMOVAL

- 1) Set the vehicle on a lift.
- 2) Open the front hood.
- 3) Disconnect the ground cable from battery.
- 4) Drain transmission gear oil completely. <Ref. to 5MT-22, REPLACEMENT, Transmission Gear Oil.>
- 5) Remove the air intake chamber and intake boot. <Ref. to IN(H4SO)-7, REMOVAL, Air Intake Chamber.>
- 6) Remove the air intake chamber stay.

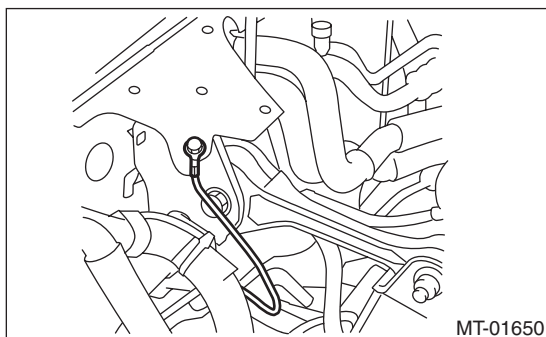


- 7) Disconnect the following connector.

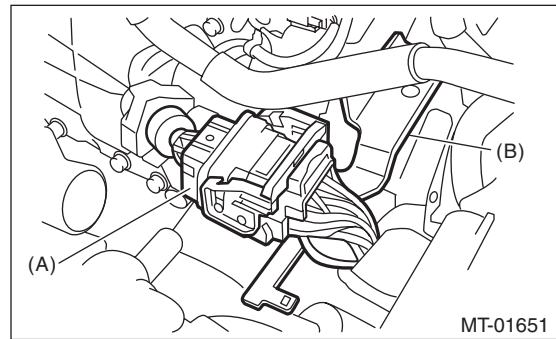


- (A) Neutral position switch connector (Brown)
- (B) Back-up light switch connector (Gray)

- 8) Disconnect the transmission radio ground terminal.



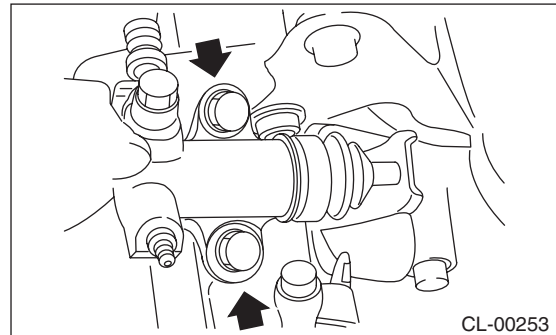
- 9) Disconnect the engine harness connectors, and then remove the engine hanger rear.



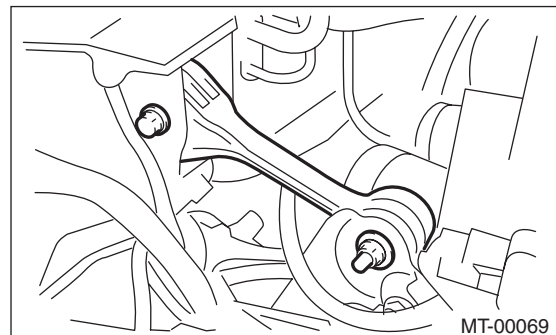
- (A) Engine harness connectors
- (B) Engine hanger rear

- 10) Remove the starter. <Ref. to SC(H4SO)-7, REMOVAL, Starter.>

- 11) Remove the operating cylinder from the transmission, and suspend on a wire.



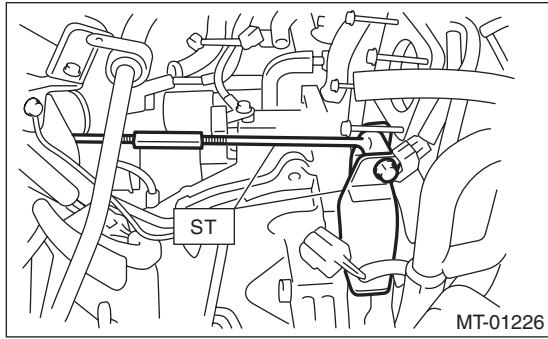
- 12) Remove the throttle body. <Ref. to FU(H4SO)-14, REMOVAL, Throttle Body.>
- 13) Remove the pitching stopper.



Manual Transmission Assembly

MANUAL TRANSMISSION AND DIFFERENTIAL

- 14) Set the ST.
ST 41099AC000 ENGINE SUPPORT ASSY

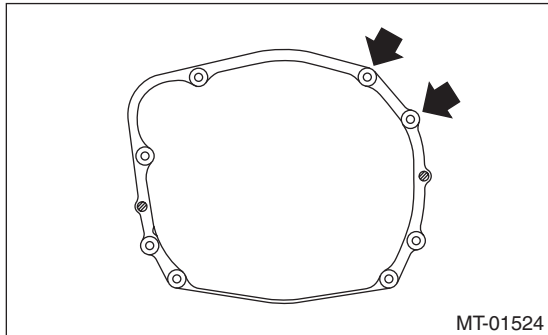


- 15) Lift up the vehicle.
16) Remove the front and center exhaust pipes.
<Ref. to EX(H4SO)-6, REMOVAL, Front Exhaust Pipe.> <Ref. to EX(H4SO)-9, REMOVAL, Center Exhaust Pipe.>
17) Remove the rear exhaust pipe and muffler.
<Ref. to EX(H4SO)-10, REMOVAL, Rear Exhaust Pipe.> <Ref. to EX(H4SO)-12, REMOVAL, Muffler.>

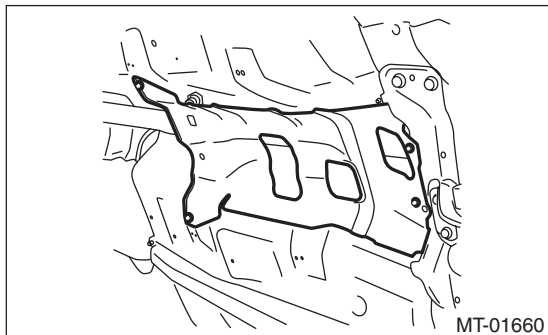
CAUTION:

When removing the exhaust pipes, make sure that each exhaust pipe does not drop off.

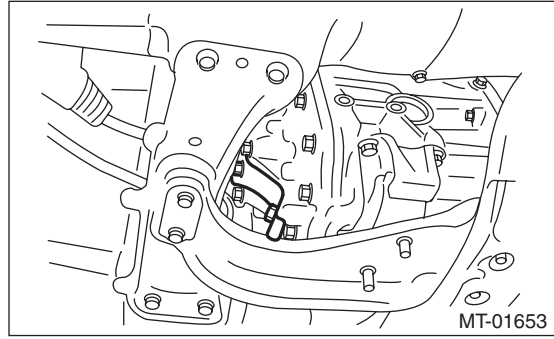
- 18) Remove the bolts which hold upper side of transmission to engine.



- 19) Remove the heat shield cover.

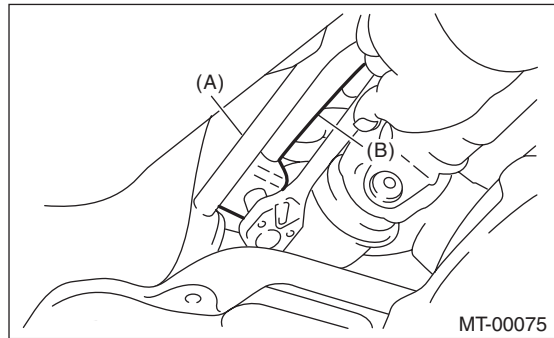


- 20) Remove the hanger bracket from the right side of transmission.



- 21) Remove the propeller shaft. <Ref. to DS-10, REMOVAL, Propeller Shaft.>
22) Remove the gear shift rod and the stay from the transmission.

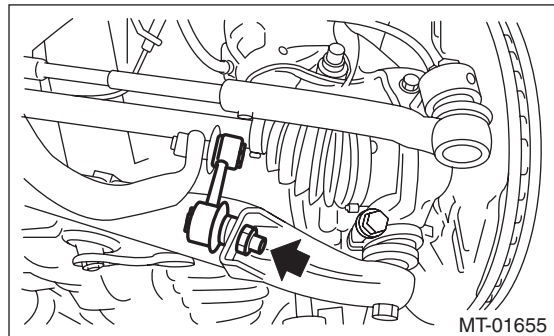
- (1) Disconnect the stay from the transmission.
(2) Disconnect the gear shift rod from the transmission.



(A) Stay

(B) Gear shift rod

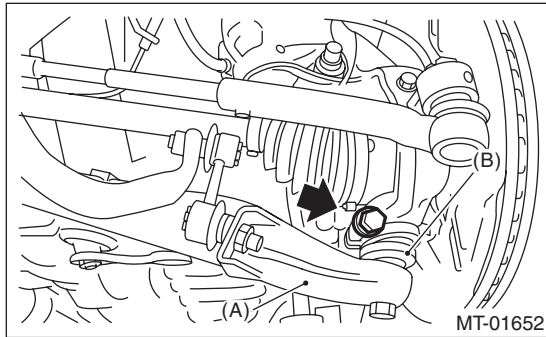
- 23) Disconnect the stabilizer link from the front arm.



Manual Transmission Assembly

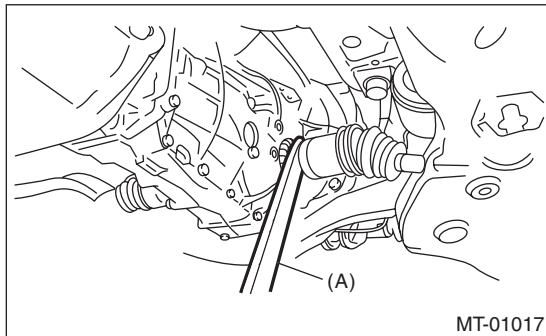
MANUAL TRANSMISSION AND DIFFERENTIAL

24) Remove the bolt securing the ball joint of the front arm to the housing, then separate the front arms and the housing.



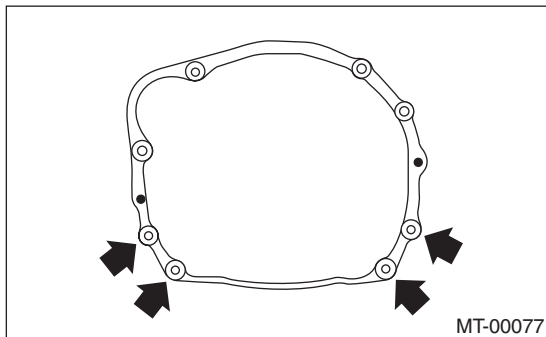
- (A) Front arm
(B) Ball joint

25) Using a crowbar, remove the left and right front drive shaft from the transmission.



- (A) Crowbar

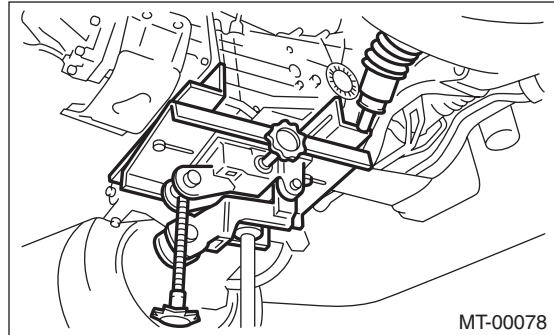
26) Remove the bolts and nuts which hold lower side of transmission to engine.



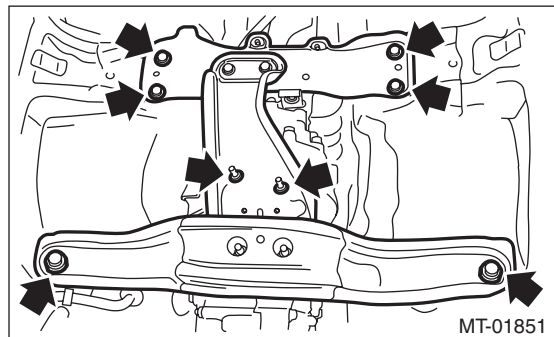
27) Place the transmission jack under the transmission.

CAUTION:

Always support the transmission case with a transmission jack.



28) Remove the front crossmember and rear crossmember from the vehicle.



29) While lowering the transmission jack, tighten the turnbuckle of the ST, and incline the engine unit rearward.

30) Remove the transmission.

NOTE:

Move the transmission jack towards the rear until the main shaft is withdrawn from the clutch disc.

31) Separate the transmission assembly from the transmission cushion rubber.

B: INSTALLATION

1) Replace the differential side retainer oil seal. <Ref. to 5MT-32, REPLACEMENT, Differential Side Retainer Oil Seal.>

NOTE:

Be sure to replace the differential side retainer oil seal after removing the front drive shaft.

2) Tap the transmission hanger in the rear side of transmission with a rubber hammer to bend it until it is in close contact with the transmission case.

CAUTION:

Do not apply excessive load or impact to the transmission case.

3) Install the transmission cushion rubber to the transmission, and tighten the bolt (A).

Manual Transmission Assembly

MANUAL TRANSMISSION AND DIFFERENTIAL

- 4) Install the transmission cushion rubber to the center crossmember, and tighten the nut (B).

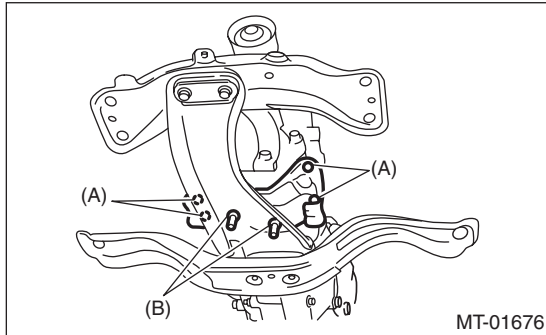
Tightening torque:

Bolt (A)

35 N·m (3.6 kgf-m, 25.8 ft-lb)

Nut (B)

35 N·m (3.6 kgf-m, 25.8 ft-lb)



- 5) Install the transmission onto the engine.
(1) Lift up the transmission gradually using a transmission jack.
(2) Engage at the spline section.

NOTE:

Be careful not to hit the main shaft against the clutch cover.

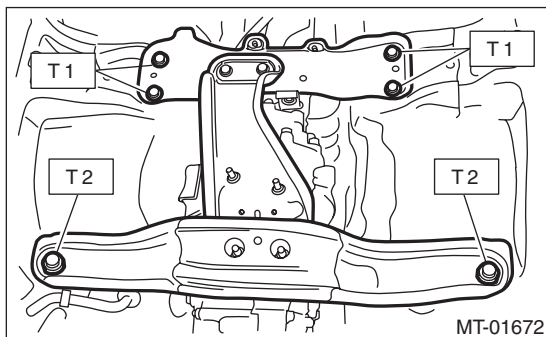
- 6) While raising the transmission jack, loosen the turnbuckle of the ST, and set the engine unit to the original position.

- 7) Install the front crossmember and rear crossmember.

Tightening torque:

T1: 70 N·m (7.1 kgf-m, 51.6 ft-lb)

T2: 140 N·m (14.3 kgf-m, 103.3 ft-lb)

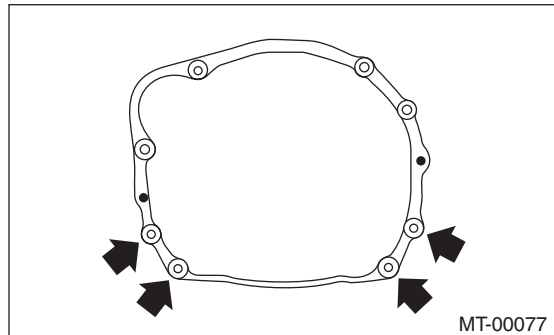


- 8) Take out the transmission jack.

- 9) Tighten the bolts and nuts which hold the lower side of transmission to the engine.

Tightening torque:

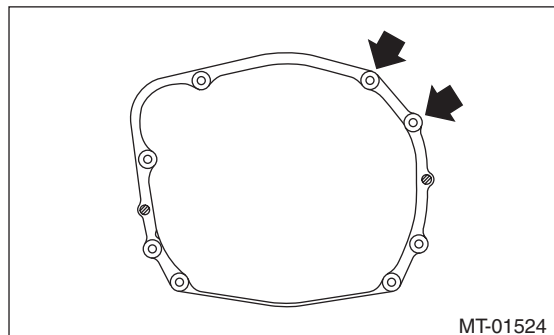
50 N·m (5.1 kgf-m, 36.9 ft-lb)



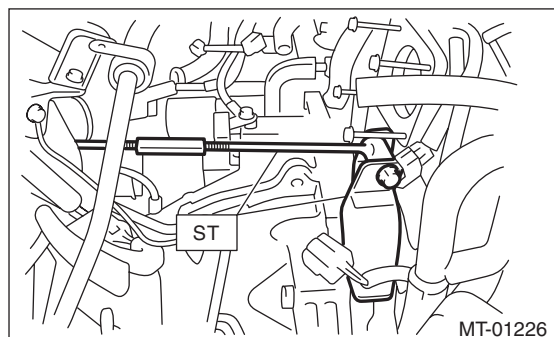
- 10) Connect the transmission to the engine.
(1) Install the starter. <Ref. to SC(H4SO)-7, INSTALLATION, Starter.>
(2) Tighten the bolts which hold the upper side of the transmission to the engine.

Tightening torque:

50 N·m (5.1 kgf-m, 36.9 ft-lb)



- 11) Remove the ST.



Manual Transmission Assembly

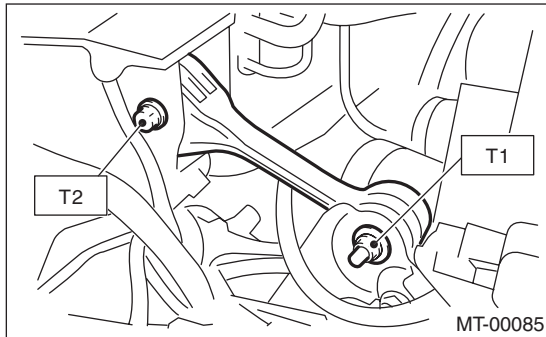
MANUAL TRANSMISSION AND DIFFERENTIAL

12) Install the pitching stopper.

Tightening torque:

T1: 50 N·m (5.1 kgf-m, 36.9 ft-lb)

T2: 58 N·m (5.9 kgf-m, 42.8 ft-lb)

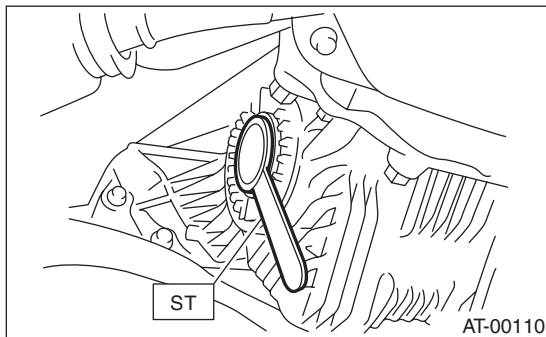


13) Install the throttle body. <Ref. to FU(H4SO)-14, INSTALLATION, Throttle Body.>

14) Lift up the vehicle.

15) Install the front drive shaft into the transmission.

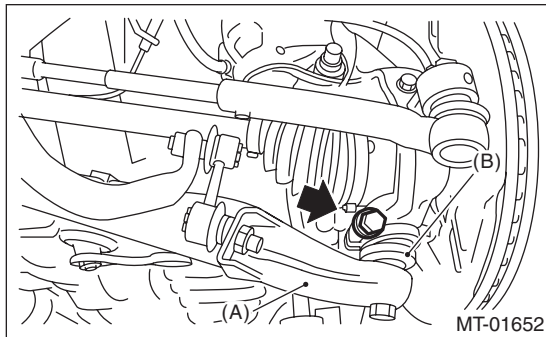
ST 28399SA010 OIL SEAL PROTECTOR



16) Insert the front arm ball joint into the housing lower part, and tighten the mounting bolt.

Tightening torque:

50 N·m (5.1 kgf-m, 36.9 ft-lb)



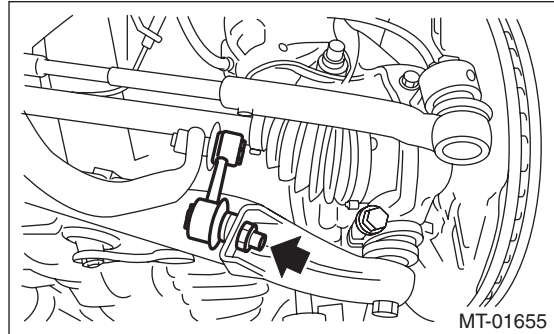
(A) Front arm

(B) Ball joint

17) Attach the stabilizer link to the front arm.

Tightening torque:

30 N·m (3.1 kgf-m, 22.1 ft-lb)

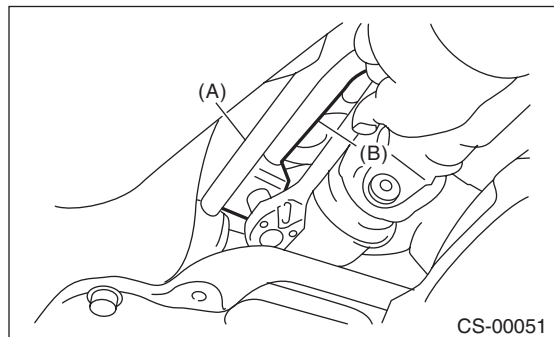


18) Attach the gear shift rod and stay.

(1) Attach the gear shift rod to the transmission.

Tightening torque:

12 N·m (1.2 kgf-m, 8.9 ft-lb)



(A) Stay

(B) Gear shift rod

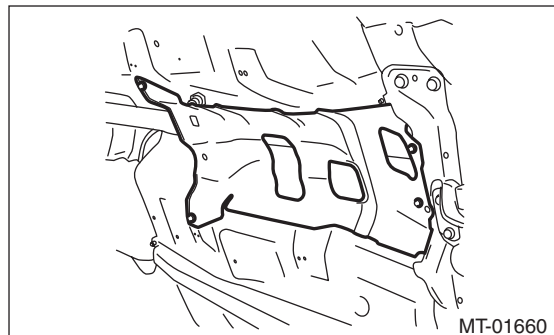
(2) Install the stay to the transmission bracket.

Tightening torque:

18 N·m (1.8 kgf-m, 13.3 ft-lb)

19) Install the propeller shaft. <Ref. to DS-11, INSTALLATION, Propeller Shaft.>

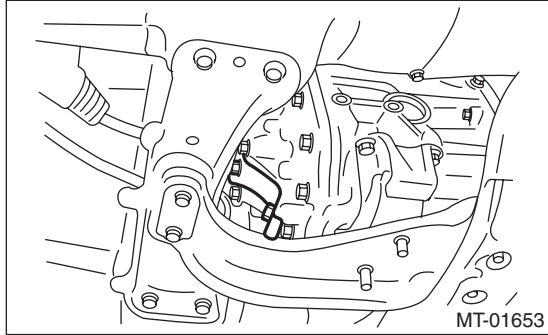
20) Install the heat shield cover.



Manual Transmission Assembly

MANUAL TRANSMISSION AND DIFFERENTIAL

21) Install the hanger bracket to the transmission.



22) Install the rear exhaust pipe and muffler. <Ref. to EX(H4SO)-10, INSTALLATION, Rear Exhaust Pipe.> <Ref. to EX(H4SO)-12, INSTALLATION, Muffler.>

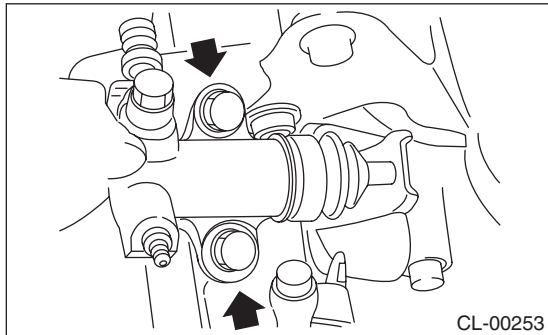
23) Install the front and center exhaust pipe. <Ref. to EX(H4SO)-7, INSTALLATION, Front Exhaust Pipe.> <Ref. to EX(H4SO)-9, INSTALLATION, Center Exhaust Pipe.>

24) Install the under cover. <Ref. to EI-24, INSTALLATION, Front Under Cover.>

25) Install the operating cylinder.

Tightening torque:

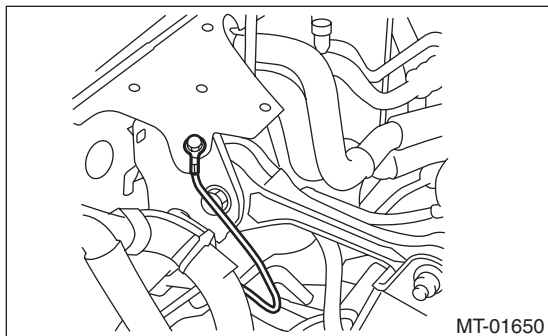
37 N·m (3.8 kgf-m, 27.3 ft-lb)



26) Install the transmission radio ground cable terminal.

Tightening torque:

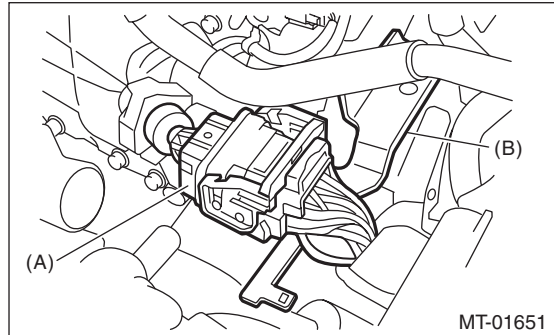
13 N·m (1.3 kgf-m, 9.6 ft-lb)



27) Install the engine hanger rear, and then connect the engine harness connector.

Tightening torque:

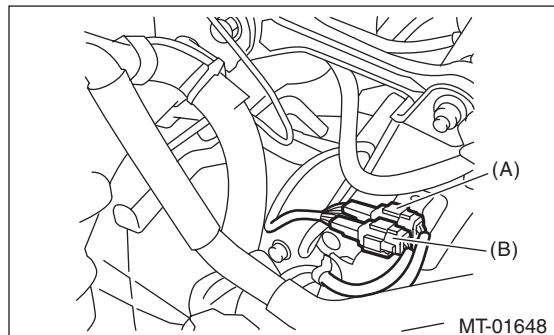
16 N·m (1.6 kgf-m, 11.8 ft-lb)



(A) Engine harness connectors

(B) Engine hanger rear

28) Connect the following connectors.



(A) Neutral position switch connector (Brown)

(B) Back-up light switch connector (Gray)

29) Install the air intake chamber stay.

Tightening torque:

16 N·m (1.6 kgf-m, 11.8 ft-lb)

30) Install the air intake chamber and intake boot. <Ref. to IN(H4SO)-7, INSTALLATION, Air Intake Chamber.>

31) Connect the battery ground terminal.

32) Remove the lift arm from vehicle.