

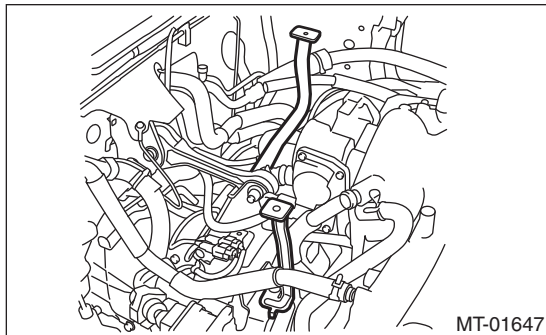
Manual Transmission Assembly

MANUAL TRANSMISSION AND DIFFERENTIAL

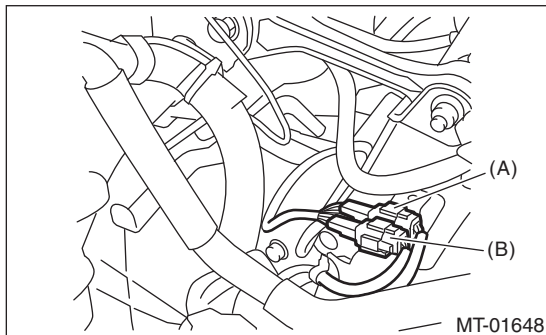
3. Manual Transmission Assembly

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-23, 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.

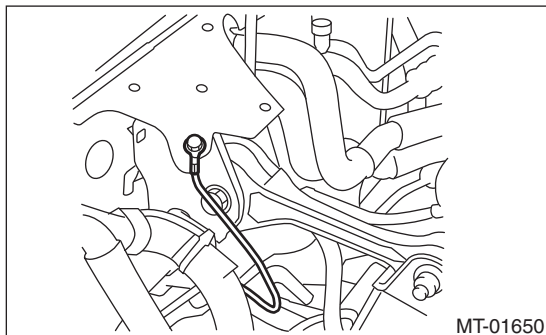


- 7) Disconnect the following connector.

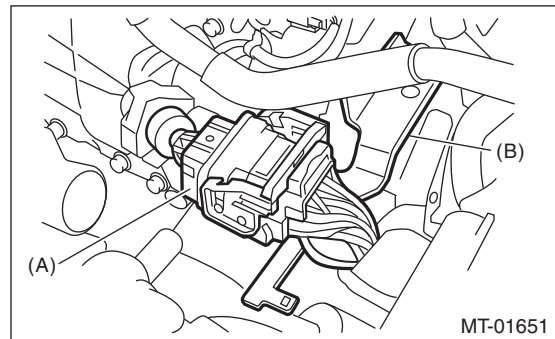


- (A) Neutral position switch connector (Brown)
(B) Back-up light switch connector (Gray)

- 8) Disconnect the ground cable.

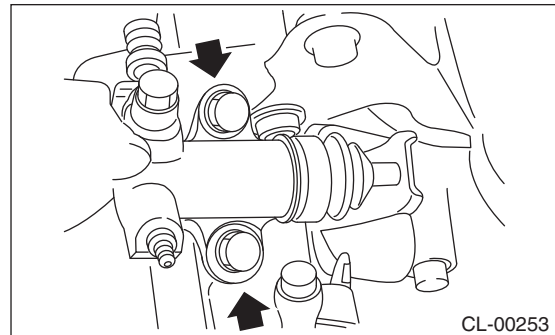


- 9) Disconnect the engine harness connectors, and then remove the engine hanger rear.

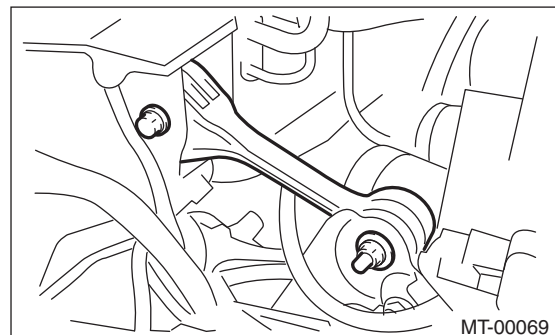


- (A) Engine harness connectors
(B) Engine hanger rear

- 10) Remove the starter. <Ref. to SC(H4SO)-6, REMOVAL, Starter.>
- 11) Remove the operating cylinder from the transmission, and suspend on a wire.



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

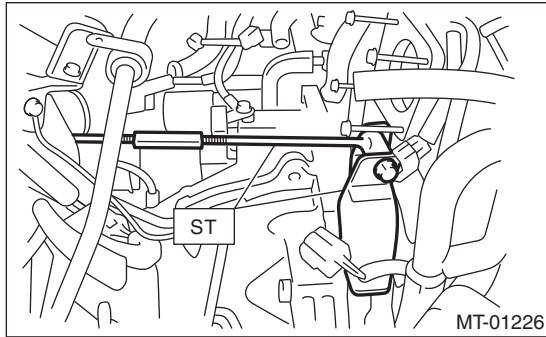


Manual Transmission Assembly

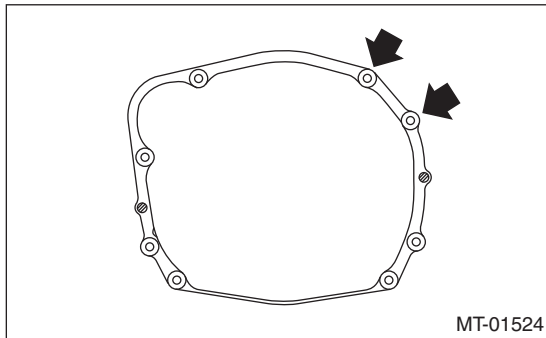
MANUAL TRANSMISSION AND DIFFERENTIAL

- 14) Set the ST.
ST 41099AC000

ENGINE SUPPORT ASSY



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

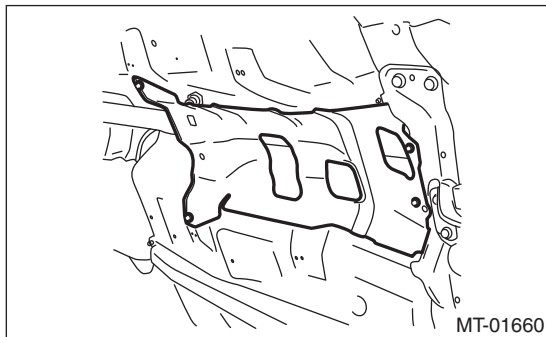


- 16) Lift up the vehicle.
17) Remove the front and center exhaust pipe. <Ref. to EX(H4SO)-4, REMOVAL, Front Exhaust Pipe.>
18) Remove the rear exhaust pipe and muffler. <Ref. to EX(H4SO)-8, REMOVAL, Rear Exhaust Pipe.>

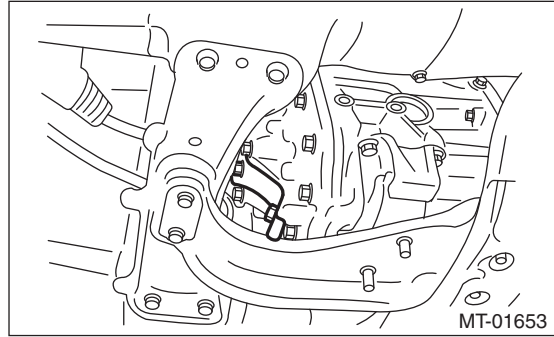
CAUTION:

When removing the exhaust pipes, be careful each exhaust pipe does not drop out.

- 19) Remove the heat shield cover.



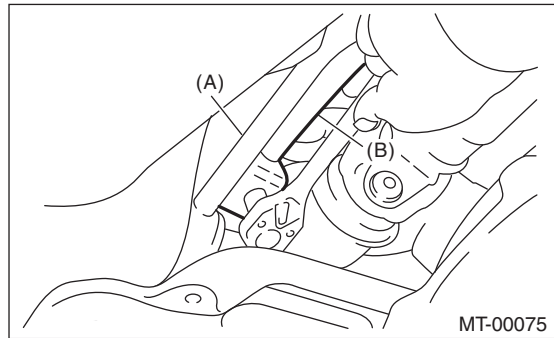
- 20) Remove the hanger bracket from the right side of transmission.



- 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.

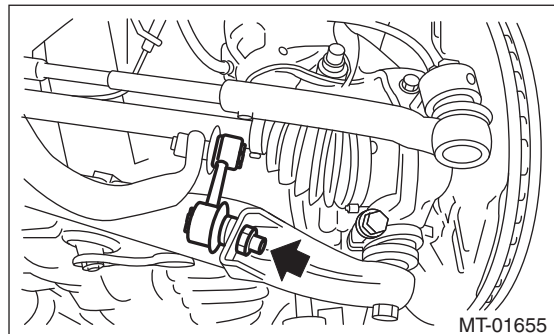


(A) Stay

(B) Gear shift rod

- 23) Remove the front height sensor. <Ref. to LI-40, REMOVAL, Front Height Sensor.>

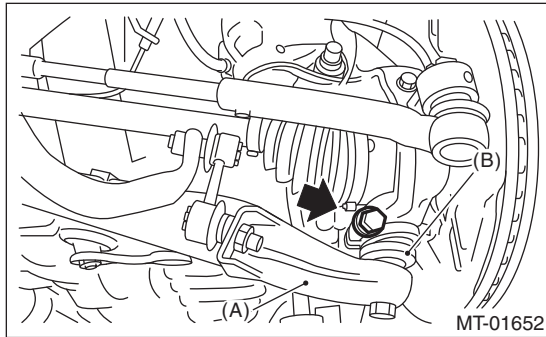
- 24) Disconnect the stabilizer link from the front arm.



Manual Transmission Assembly

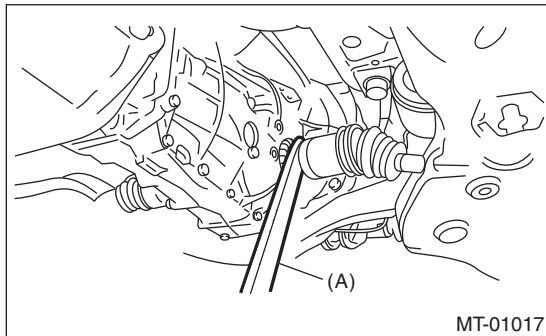
MANUAL TRANSMISSION AND DIFFERENTIAL

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



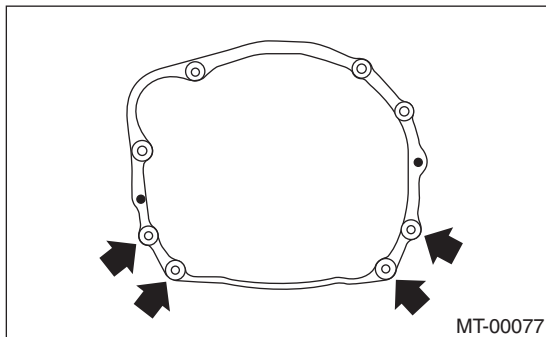
- (A) Front arm
- (B) Ball joint

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



- (A) Bar

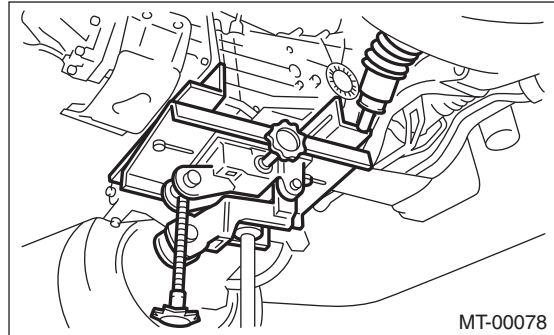
27) Remove the bolts and nuts which hold lower side of transmission to engine.



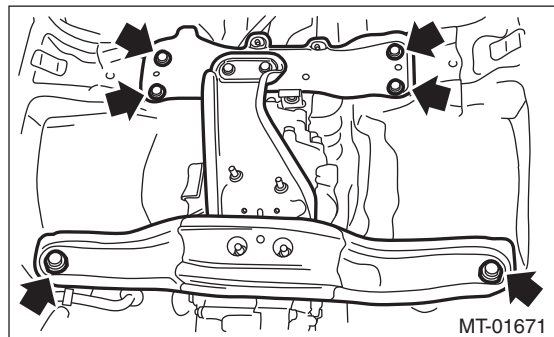
28) Place the transmission jack under the transmission.

CAUTION:

Always support the transmission case with a transmission jack.



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



30) Tighten the turnbuckle of the ST while lowering the transmission jack to tilt the engine assembly towards the back.

31) Remove the transmission.

NOTE:

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

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

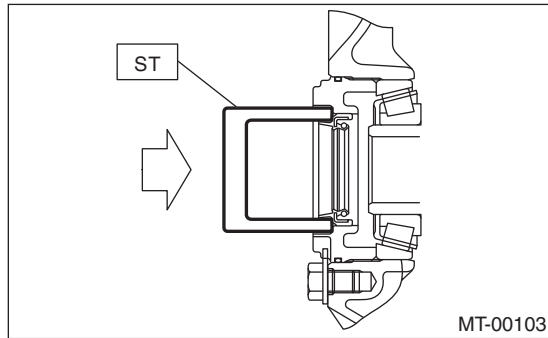
B: INSTALLATION

1) Replace the differential side retainer oil seal.
<Ref. to 5MT-34, REPLACEMENT, Differential Side Retainer Oil Seal.>

ST 18675AA000 DIFFERENTIAL SIDE OIL SEAL INSTALLER

NOTE:

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



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

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

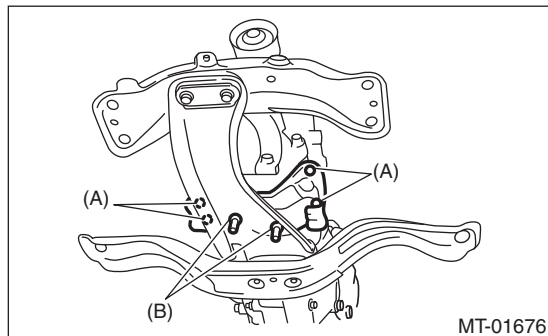
Tightening torque:

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)



4) 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.

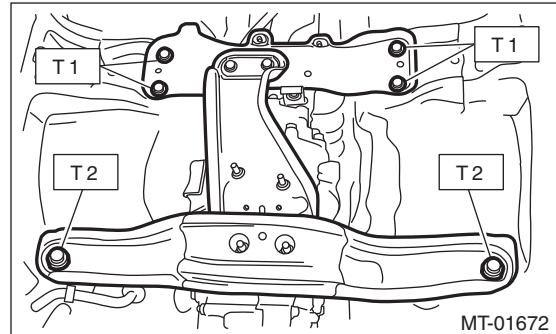
5) Loosen the turnbuckle of the ST while raising the transmission jack to return the engine to its original position.

6) 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)

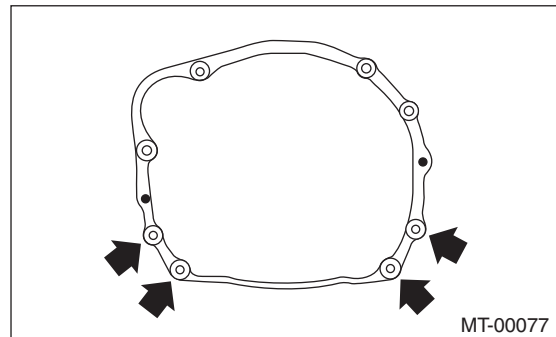


7) Take out the transmission jack.

8) 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)

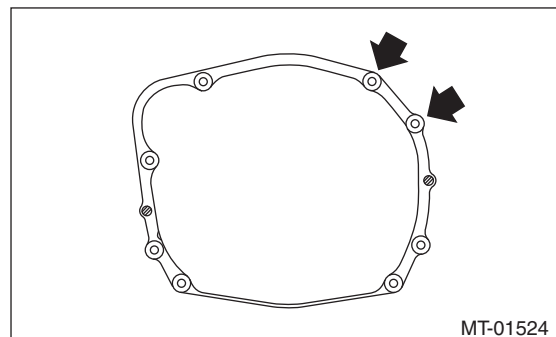


9) Connect the transmission to the engine.

- (1) Install the starter. <Ref. to SC(H4SO)-6, INSTALLATION, Starter.>
- (2) Tighten the bolts which hold the upper side of the transmission to the engine.

Tightening torque:

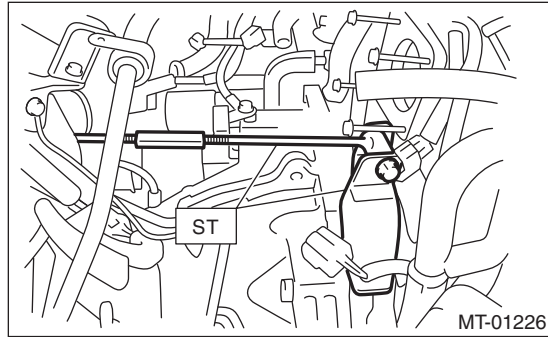
50 N·m (5.1 kgf-m, 36.9 ft-lb)



Manual Transmission Assembly

MANUAL TRANSMISSION AND DIFFERENTIAL

10) Remove the ST.

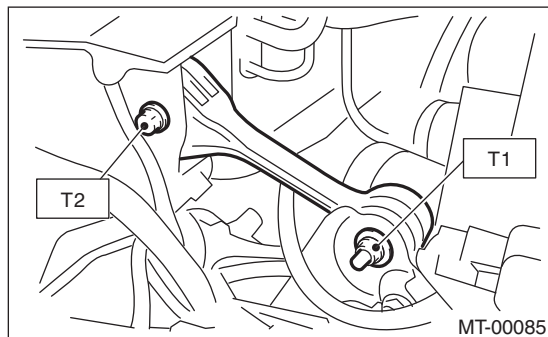


11) Install the pitching stopper.

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)

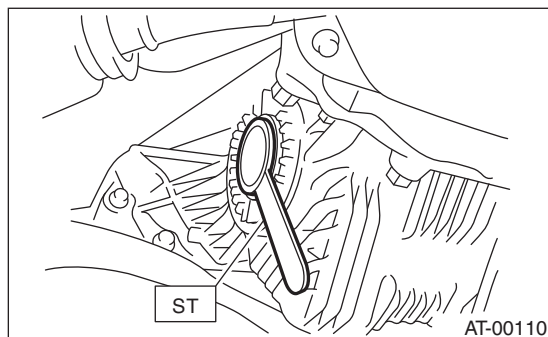


12) Install the throttle body. <Ref. to FU(H4SO)-13, INSTALLATION, Throttle Body.>

13) Lift up the vehicle.

14) Install the front drive shaft into the transmission.

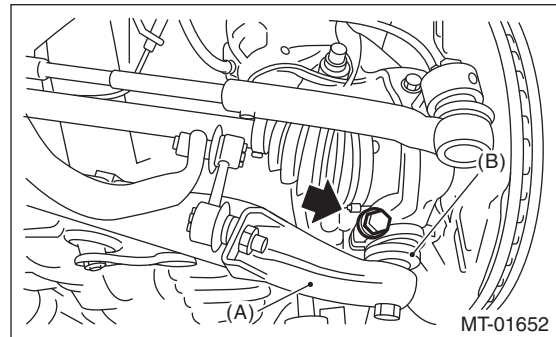
ST 28399SA010 OIL SEAL PROTECTOR



15) Insert the ball joints of the front arm into the housing, then tighten the installing bolts.

Tightening torque:

50 N·m (5.1 kgf-m, 36.9 ft-lb)



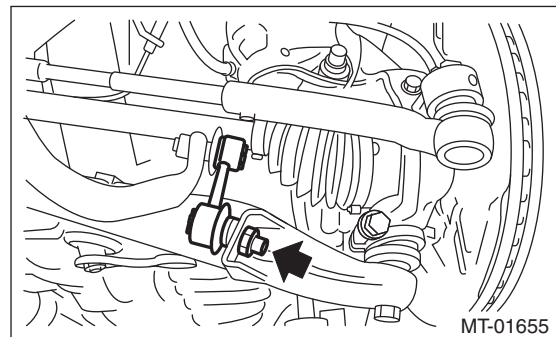
(A) Front arm

(B) Ball joint

16) Attach the stabilizer link to the front arm.

Tightening torque:

30 N·m (3.1 kgf-m, 22.1 ft-lb)



17) Install the front height sensor. <Ref. to LI-40, INSTALLATION, Front Height Sensor.>

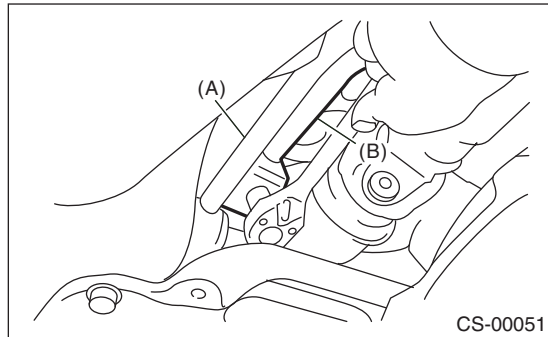
Manual Transmission Assembly

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- 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)

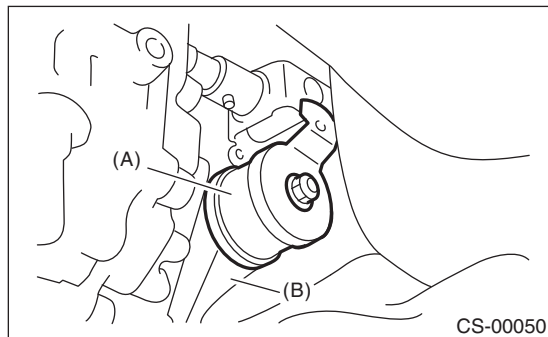


- (A) Stay
(B) Gear shift rod

- (2) Install the stay to the transmission bracket.

Tightening torque:

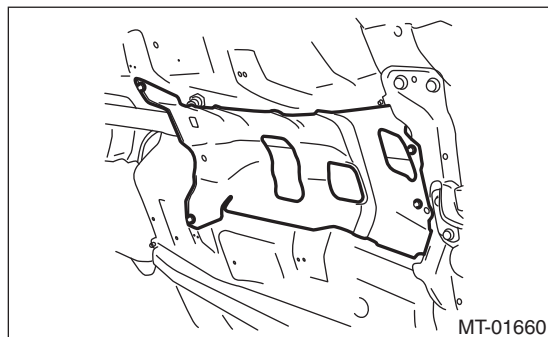
18 N·m (1.8 kgf-m, 13.3 ft-lb)



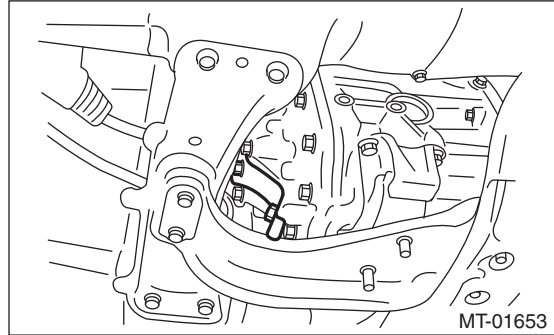
- (A) Stay
(B) Transmission bracket

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

- 20) Install the heat shield cover.



- 21) Install the hanger bracket to the transmission.



- 22) Install the rear exhaust pipe and muffler. <Ref. to EX(H4SO)-8, INSTALLATION, Rear Exhaust Pipe.>
<Ref. to EX(H4SO)-10, INSTALLATION, Muffler.>

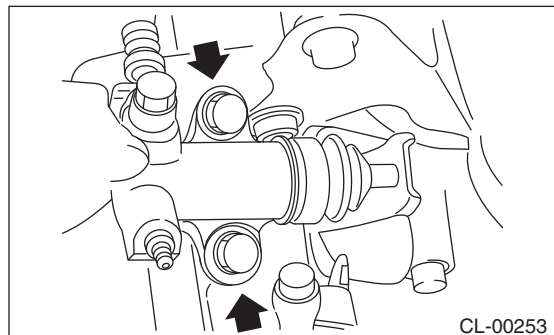
- 23) Install the front and center exhaust pipe. <Ref. to EX(H4SO)-5, INSTALLATION, Front Exhaust Pipe.>

- 24) Install the under cover. <Ref. to EI-25, INSTALLATION, Front Under Cover.>

- 25) Install the operating cylinder.

Tightening torque:

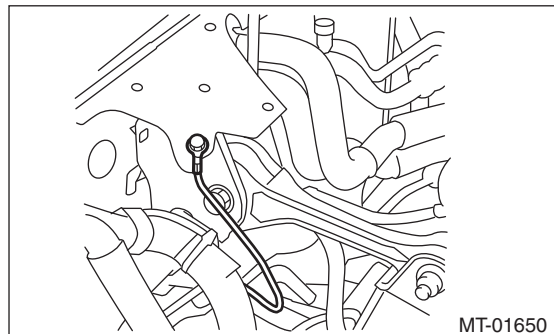
37 N·m (3.8 kgf-m, 27.3 ft-lb)



- 26) Install the ground cable.

Tightening torque:

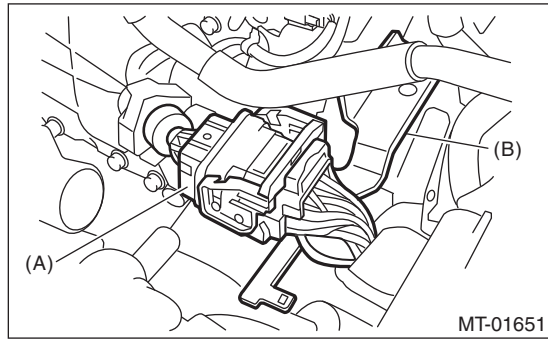
13 N·m (1.3 kgf-m, 9.6 ft-lb)



Manual Transmission Assembly

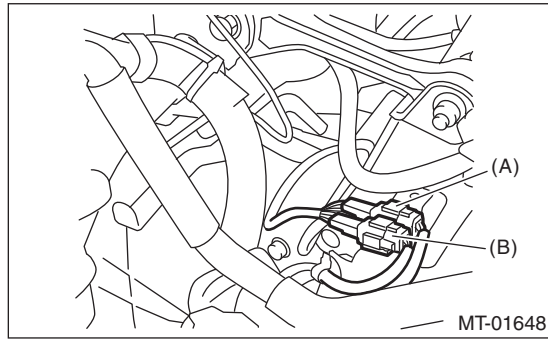
MANUAL TRANSMISSION AND DIFFERENTIAL

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



- (A) Engine harness connectors
- (B) Engine connector

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 cable to the battery.

32) Remove the lift arm from vehicle.

33) Reinitialize the auto headlight levelizer. <Ref. to LI-15, PROCEDURE, Auto Headlight Beam Leveler System.>