

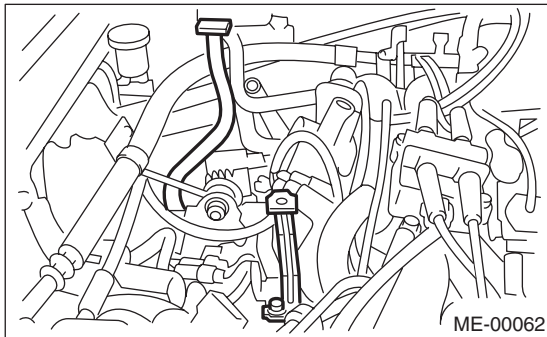
MANUAL TRANSMISSION ASSEMBLY

MANUAL TRANSMISSION AND DIFFERENTIAL

3. Manual Transmission Assembly

A: REMOVAL

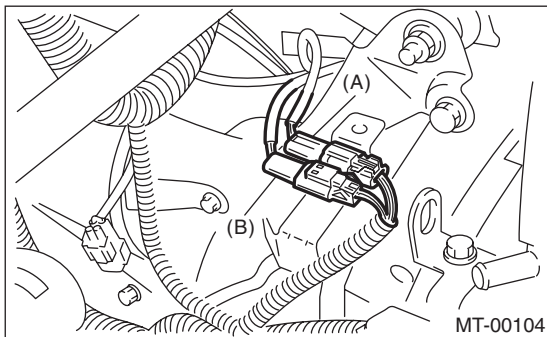
- 1) Set the vehicle on a lift.
- 2) Disconnect the ground cable from battery.
- 3) Drain the transmission gear oil completely. <Ref. to 5MT-27, REPLACEMENT, Transmission Gear Oil.>
- 4) Open the front hood fully, and support with stay.
- 5) Remove the air intake duct and air cleaner case. (Non-turbo model) <Ref. to IN(H4SO)-7, REMOVAL, Air Intake Duct.>, <Ref. to IN(H4SO)-6, REMOVAL, Air Cleaner Case.>
- 6) Remove the air cleaner case stay. (Non-turbo model)



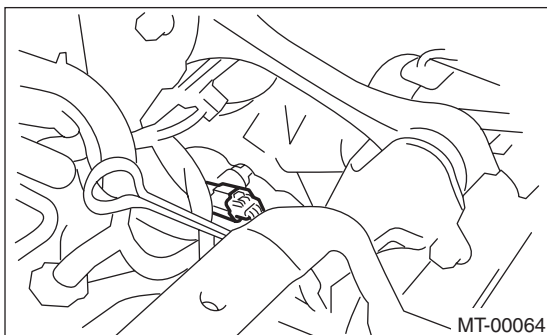
- 7) Remove the intercooler. (Turbo model) <Ref. to IN(H4DOTC)-10, REMOVAL, Intercooler.>
- 8) Disconnect the following connectors:

- (1) Neutral position switch connector (A)
- (2) Back-up light switch connector (B)

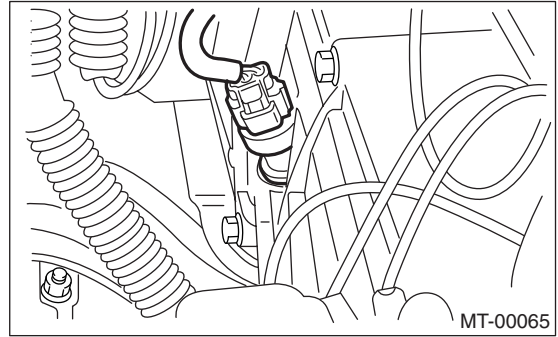
- NON-TURBO MODEL



- TURBO MODEL



- (3) Vehicle speed sensor

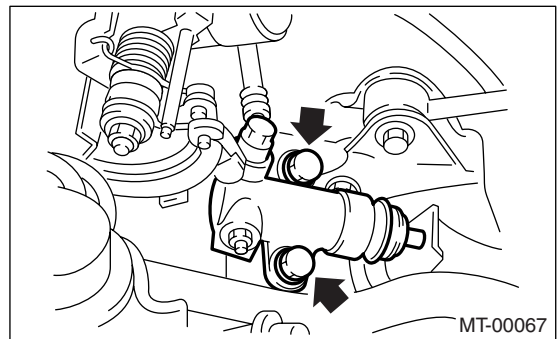


- (4) Transmission ground cable

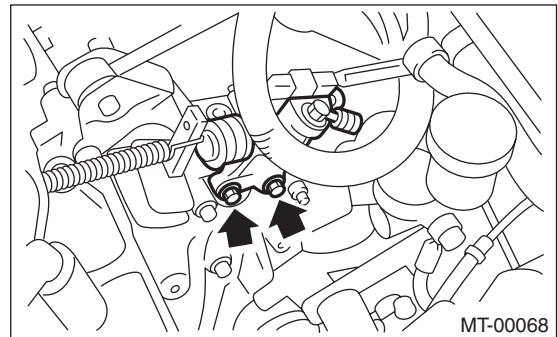
- 9) Remove the starter. <Ref. to SC(H4SO)-6, REMOVAL, Starter.>

- 10) Remove the operating cylinder from transmission, and then hold it with wires.

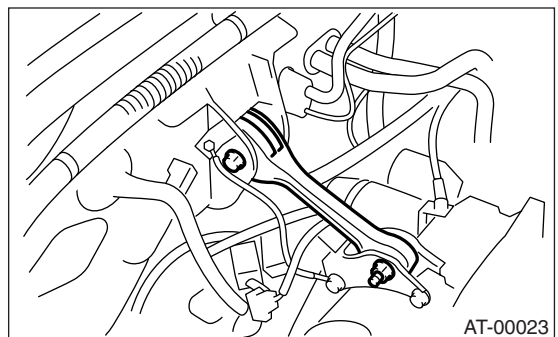
- NON-TURBO MODEL



- TURBO MODEL



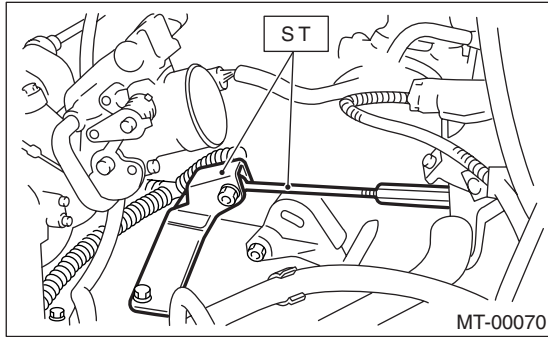
- 11) Remove the pitching stopper.



MANUAL TRANSMISSION ASSEMBLY

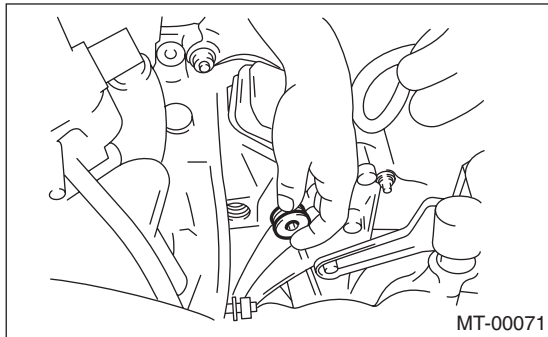
MANUAL TRANSMISSION AND DIFFERENTIAL

- 12) Set the ST.
ST 41099AA020 ENGINE SUPPORT ASSY

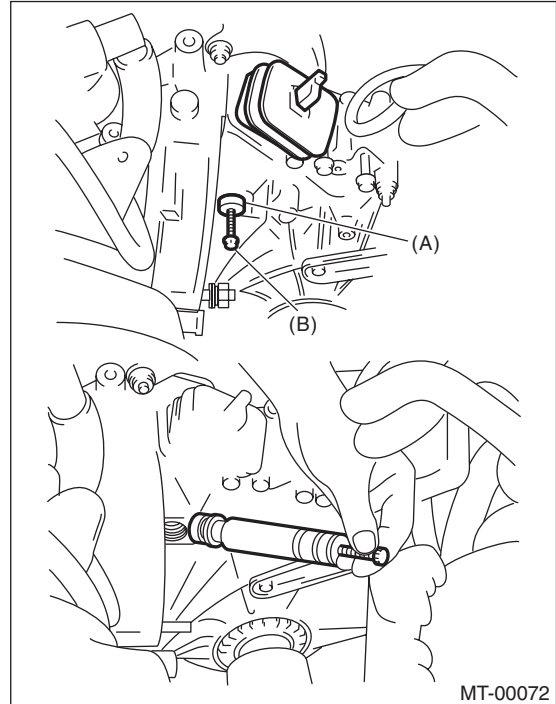


- 13) Separate the clutch release fork from release bearing. (Turbo model)

- (1) Remove the clutch operating cylinder from transmission.
(2) Remove the plug using 10 mm hexagon wrench.



- (3) Screw the 6 mm dia. bolt into release fork shaft, and remove it.



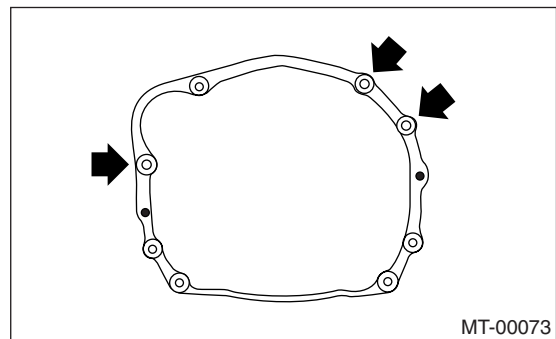
- (A) Shaft
(B) Bolt

- (4) Raise the release fork and unfasten the release bearing tabs to free release fork.

NOTE:

Step (4) is required to prevent interference with engine when removing the engine from transmission.

- 14) Remove the bolt which holds upper side of transmission to engine.



- 15) Remove the front and center exhaust pipes. (Non-turbo model) <Ref. to EX(H4SO)-4, REMOVAL, Front Exhaust Pipe.>

- 16) Remove the center exhaust pipe. (Turbo model) <Ref. to EX(H4DOTC)-8, REMOVAL, Center Exhaust Pipe.>

- 17) Remove the rear exhaust pipe and muffler.

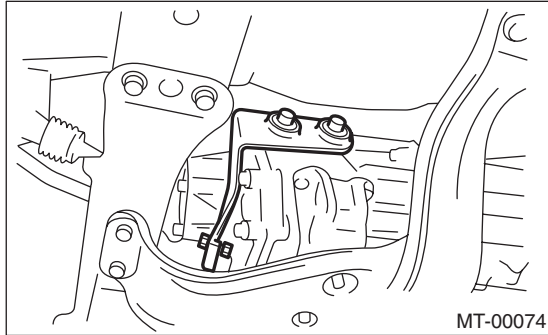
CAUTION:

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

MANUAL TRANSMISSION ASSEMBLY

MANUAL TRANSMISSION AND DIFFERENTIAL

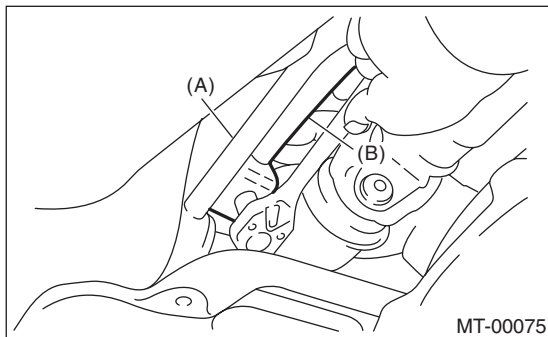
- 18) Remove the heat shield cover. (Non-turbo model)
- 19) Remove the hanger bracket from right side of transmission.



- 20) Remove the propeller shaft. <Ref. to DS-15, REMOVAL, Propeller Shaft.>

- 21) Remove the gear shift rod and stay from transmission.

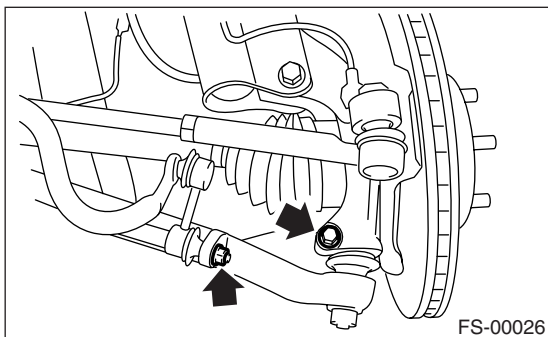
- (1) Disconnect the stay from transmission.
- (2) Disconnect the rod from transmission.



- (A) Stay
(B) Rod

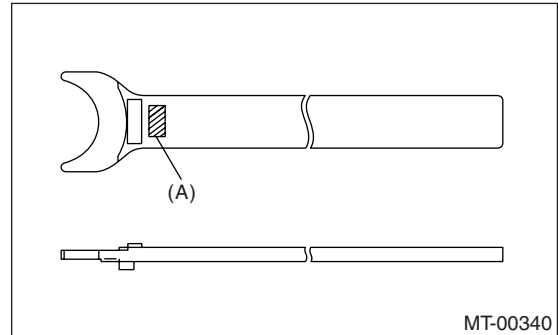
- 22) Disconnect the stabilizer link from transverse link.

- 23) Remove the bolt securing ball joint of transverse link to housing, and then separate transverse link from housing.



- 24) Pull out the front drive shaft from transmission.
 - (1) Face the "MT" letter stamped of ST to transmission side.

ST 28399SA000 DRIVE SHAFT REMOVER



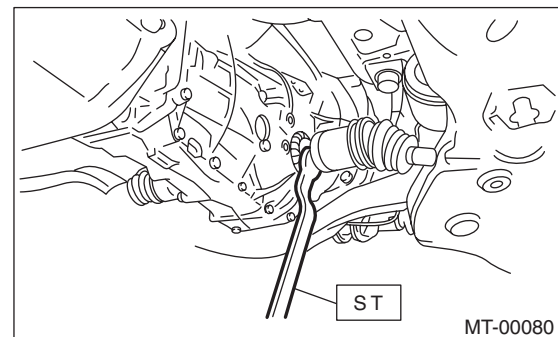
- (A) "MT" letter stamped

- (2) Insert the ST into between transmission and front drive shaft.

NOTE:

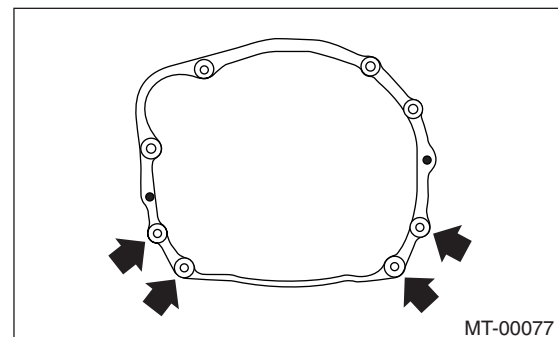
Contact the protrusion part of ST to transmission case.

ST 28399SA000 DRIVE SHAFT REMOVER



- (3) While holding the joint portion (AAR) of front drive shaft with your hand, push the housing outside to remove from transmission.

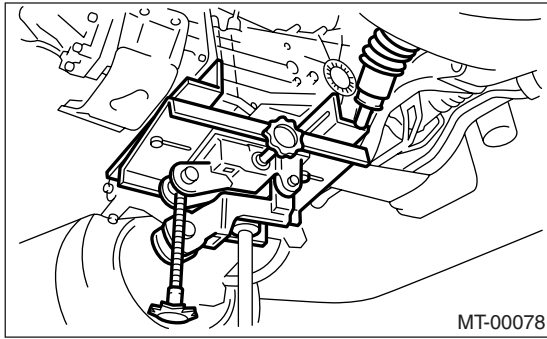
- 25) Remove the nuts which hold lower side of transmission to engine.



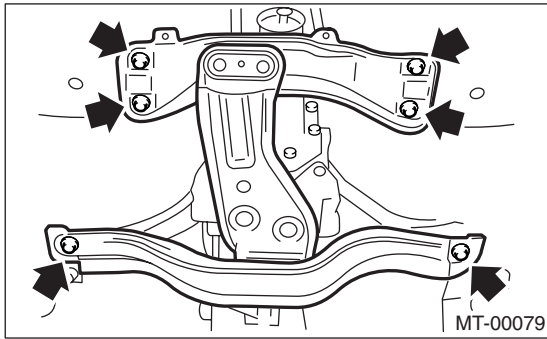
MANUAL TRANSMISSION ASSEMBLY

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26) Place the transmission jack under transmission.



27) Remove the transmission rear crossmember from vehicle.



28) Remove the transmission.

NOTE:

Move the transmission jack toward rear until main shaft is withdrawn from clutch cover.

29) Separate the transmission assembly and rear cushion rubber.

B: INSTALLATION

1) Replace the differential side retainer oil seal with a new one. <Ref. to 5MT-37, REPLACEMENT, Differential Side Retainer Oil Seal.>

NOTE:

When pulling out the front drive shaft, always replace the differential side retainer oil seal.

2) Install the rear cushion rubber to transmission assembly.

Tightening torque:

35 N·m (3.57 kgf-m, 25.8 ft-lb)

3) Install the clutch release lever and bearing onto transmission. (Turbo model) <Ref. to CL-14, INSTALLATION, Release Bearing and Lever.>

4) Install the transmission onto engine.

(1) Gradually raise the transmission with transmission jack.

(2) Engage them at splines.

NOTE:

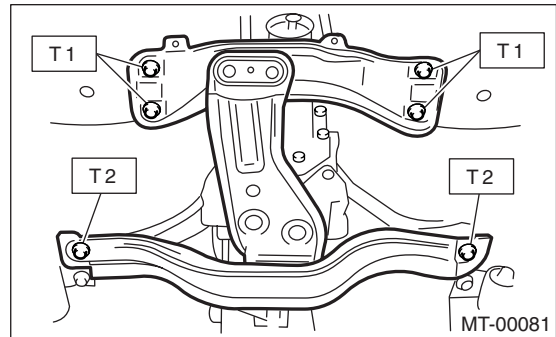
Be careful not to strike the main shaft against clutch cover.

5) Install the transmission rear crossmember.

Tightening torque:

T1: 70 N·m (7.1 kgf-m, 51 ft-lb)

T2: 140 N·m (14.3 kgf-m, 103 ft-lb)

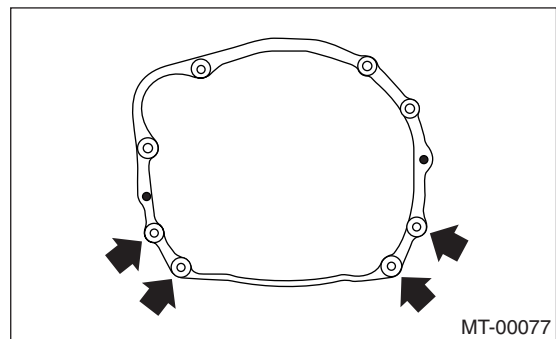


6) Take off the transmission jack.

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

Tightening torque:

50 N·m (5.1 kgf-m, 36.9 ft-lb)



8) Connect the engine and transmission.

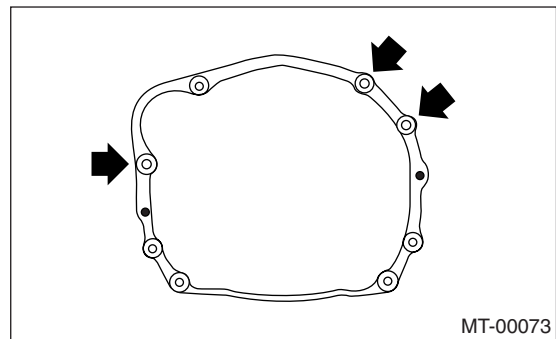
(1) Install the starter.

<Ref. to SC(H4SO)-6, INSTALLATION, Starter.>

(2) Tighten the bolt which holds upper side of transmission to engine.

Tightening torque:

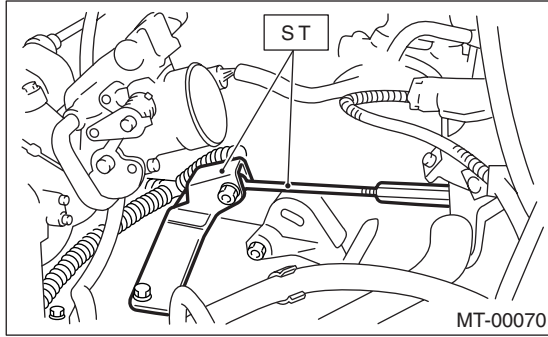
50 N·m (5.1 kgf-m, 36.9 ft-lb)



MANUAL TRANSMISSION ASSEMBLY

MANUAL TRANSMISSION AND DIFFERENTIAL

9) Remove the ST.

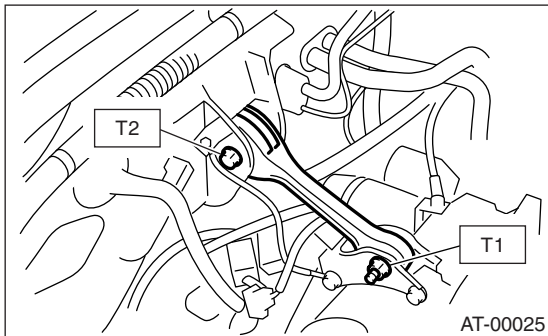


10) Install the pitching stopper.

Tightening torque:

T1: 50 N·m (5.1 kgf-m, 37 ft-lb)

T2: 58 N·m (5.9 kgf-m, 43 ft-lb)



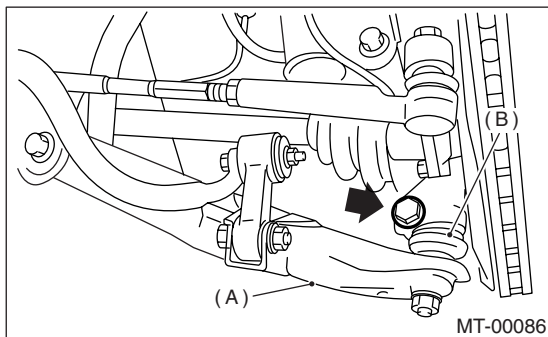
11) Lift-up the vehicle.

12) Install the front drive shaft into transmission.
<Ref. to DS-34, INSTALLATION, Front Drive Shaft.>

13) Install the ball joints of lower arm into knuckle arm of housing, and tighten the installing bolts.

Tightening torque:

49 N·m (5.0 kgf-m, 36 ft-lb)



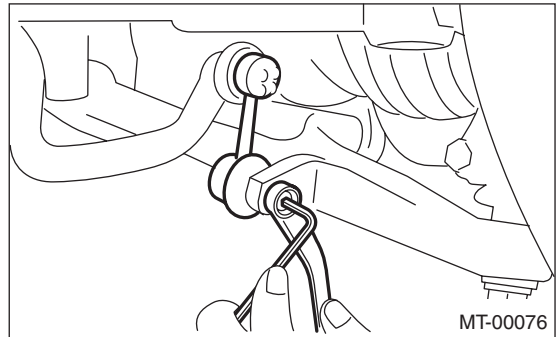
(A) Transverse link

(B) Ball joint

14) Install the stabilizer link from transverse link.

Tightening torque:

45 N·m (4.6 kgf-m, 33.2 ft-lb)



15) Install the gear shift rod and stay.

(1) Install the gear shift rod onto transmission.

Tightening torque:

18 N·m (1.8 kgf-m, 13.0 ft-lb)



(A) Stay

(B) Rod

(2) Install the stay onto transmission.

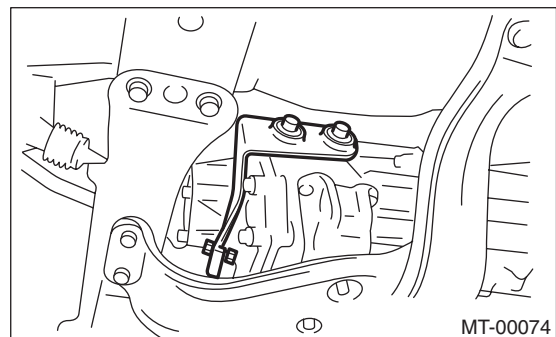
Tightening torque:

18 N·m (1.8 kgf-m, 13.0 ft-lb)

16) Install the propeller shaft. <Ref. to DS-16, INSTALLATION, Propeller Shaft.>

17) Install the heat shield cover.

18) Install the hanger bracket on right side of transmission.



19) Install the rear exhaust pipe and muffler.

MANUAL TRANSMISSION ASSEMBLY

MANUAL TRANSMISSION AND DIFFERENTIAL

20) Install the front exhaust pipe and center exhaust pipe.

<Ref. to EX(H4SO)-5, INSTALLATION, Front Exhaust Pipe.>

21) Install the center exhaust pipe. (Turbo model)
<Ref. to EX(H4DOTC)-9, INSTALLATION, Center Exhaust Pipe.>

22) Install the under cover.

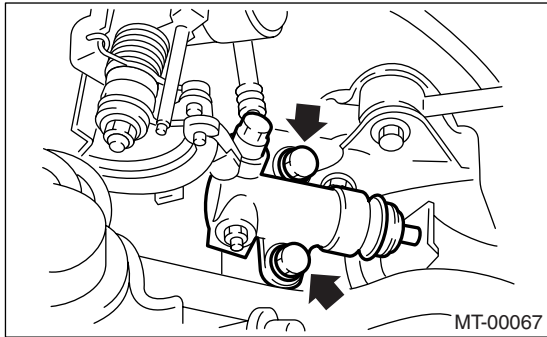
23) Push clutch release lever to fit bearing into clutch cover.

24) Install the operating cylinder.

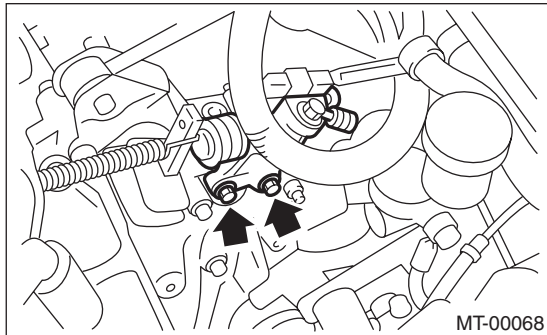
Tightening torque:

37 N·m (3.8 kgf-m, 27.5 ft-lb)

• NON-TURBO MODEL



• TURBO MODEL



25) Connect the following connectors:

- (1) Transmission ground cable

Tightening torque:

13 N·m (1.3 kgf-m, 9.4 ft-lb)

- (2) Vehicle speed sensor connector
- (3) Neutral position switch connector
- (4) Back-up light switch connector

26) Install the air cleaner case stay.

27) Install the air cleaner case and duct. <Ref. to IN(H4SO)-6, INSTALLATION, Air Cleaner Case.> and <Ref. to IN(H4SO)-7, INSTALLATION, Air Intake Duct.>

28) Install the intercooler. (TURBO MODEL) <Ref. to IN(H4DOTC)-11, INSTALLATION, Intercooler.>

29) Fill gear oil into the gauge hole.

<Ref. to 5MT-27, REPLACEMENT, Transmission Gear Oil.>

Tightening torque:

16 N·m (1.6 kgf-m, 11.6 ft-lb)

30) Install the air intake chamber and duct.

31) Connect the battery ground cable to battery.

32) Take off the vehicle from lift.