

MANUAL TRANSMISSION ASSEMBLY

MANUAL TRANSMISSION AND DIFFERENTIAL

3. Manual Transmission Assembly

A: REMOVAL

- 1) Open the front hood fully, and support with stay or the air intake chamber.
- 2) Disconnect ground cable from battery.
- 3) Remove the air intake duct and cleaner case or the air intake chamber. (Non-TURBO model)

U5 model

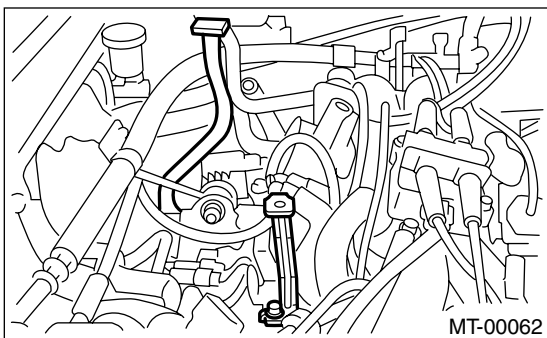
<Ref. to IN(H4SO U5)-6, REMOVAL, Air Intake Chamber.>

<Ref. to IN(H4SO U5)-7, REMOVAL, Air Intake Duct.>

Except U5 model

<Ref. to IN(H4SO)-6, REMOVAL, Air Intake Duct.>
<Ref. to IN(H4SO)-5, REMOVAL, Air Cleaner Case.>

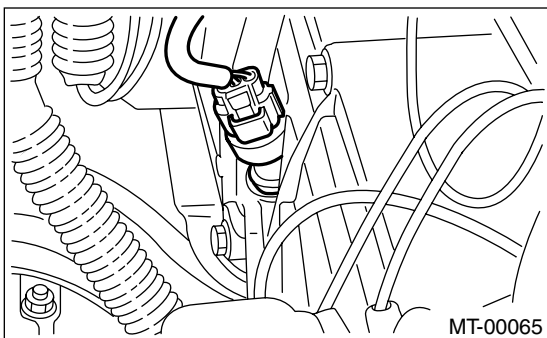
- 4) Remove the air cleaner case stay. (Non-TURBO model)



- 5) Remove the intercooler. (Turbo model) <Ref. to IN(H4DOTC)-10, REMOVAL, Intercooler.>

- 6) Disconnect the following connectors:

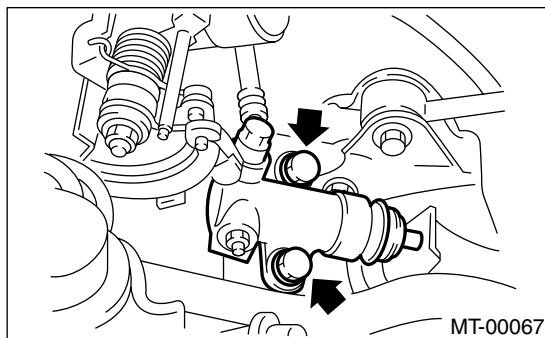
- (1) Neutral position switch connector
- (2) Back-up light switch connector
- (3) Vehicle speed sensor



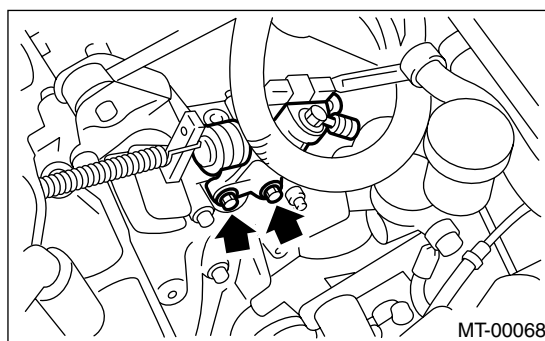
- 7) Remove the starter. <Ref. to SC(H4SO)-7, REMOVAL, Starter.>

- 8) Remove the operating cylinder from transmission.

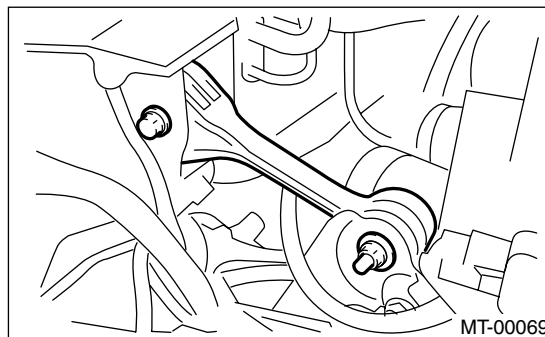
• NON-TURBO MODEL



• TURBO MODEL

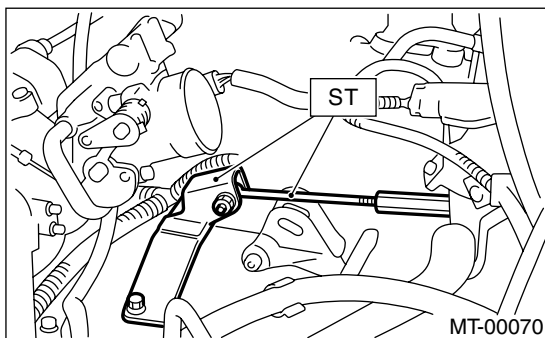


- 9) Remove the pitching stopper.



- 10) Set the ST.

ST 41099AA000 ENGINE SUPPORT ASSY

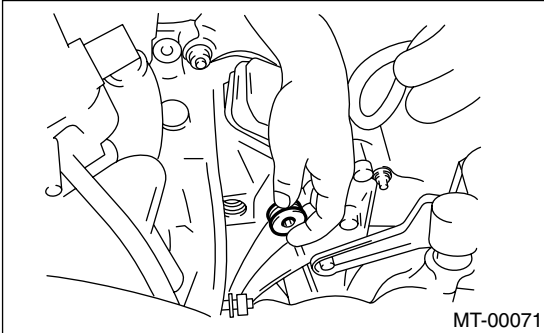


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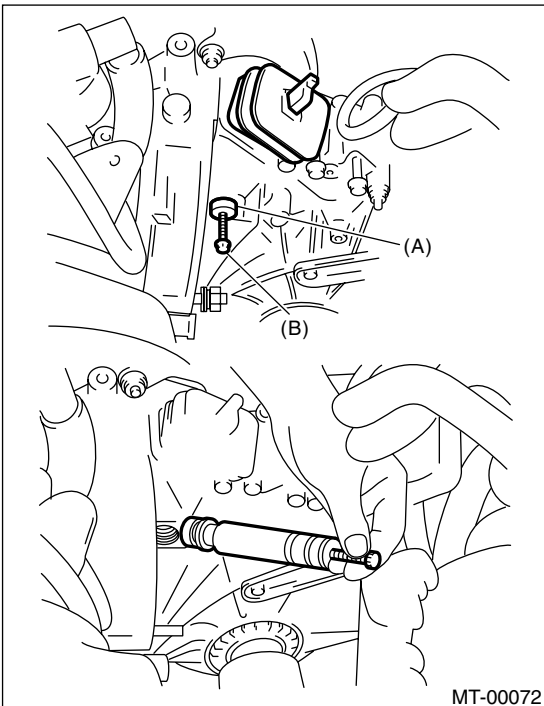
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11) Separate the clutch release fork from release bearing. (Turbo model)

- (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 then remove it.



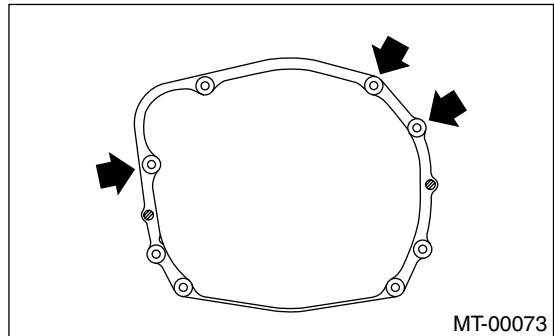
- (A) Shaft
(B) Bolt

(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.

12) Remove the bolt which holds the right upper side of transmission to engine.



13) Remove the front and center exhaust pipes. (Non-TURBO model) <Ref. to EX(H4SO)-5, REMOVAL, Front Exhaust Pipe.>

14) Remove the center exhaust pipe. (Turbo model). <Ref. to EX(H4DOTC)-9, REMOVAL, Center Exhaust Pipe.>

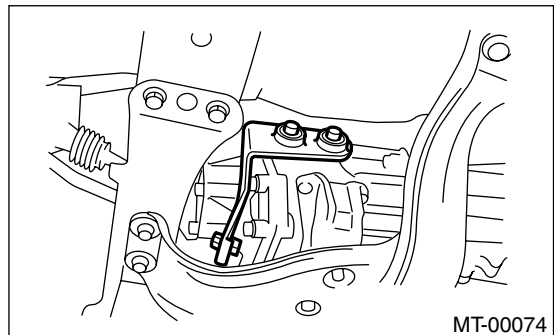
15) Remove the rear exhaust pipe and muffler.

CAUTION:

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

16) Remove the heat shield cover. (If equipped)

17) Remove the hanger bracket from right side of transmission.



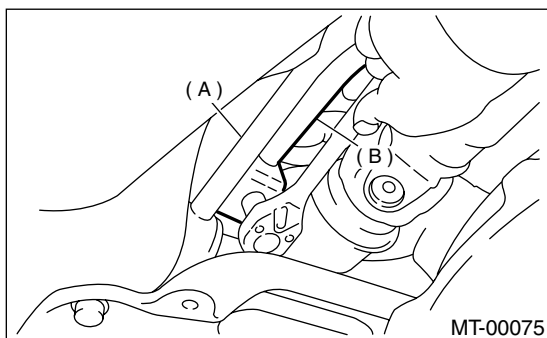
18) Remove the propeller shaft. <Ref. to DS-15, REMOVAL, Propeller Shaft.>

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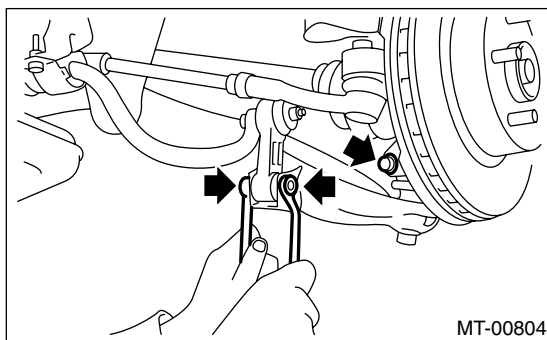
19) Remove the gear shift rod and stay from transmission.

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



- (A) Stay
(B) Rod

20) Disconnect the stabilizer link from transverse link.

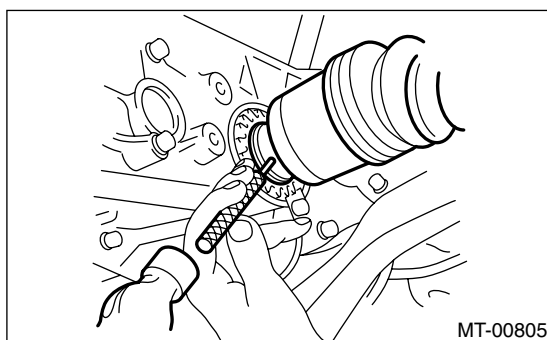


21) Remove the bolt securing ball joint of transverse link to housing.

22) Remove the spring pins and separate the front drive shafts from each side of transmission (Non-TURBO model).

NOTE:

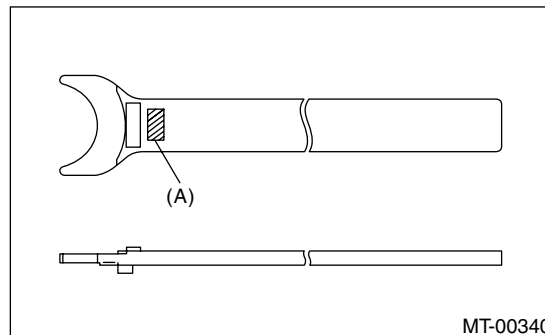
Discard the removing spring pin. Replace with a new one.



23) Pull out the front drive shaft from transmission (TURBO model).

- (1) Face the "MT" mark on ST toward transmission side.

ST 28399SA000 DRIVE SHAFT REMOVER



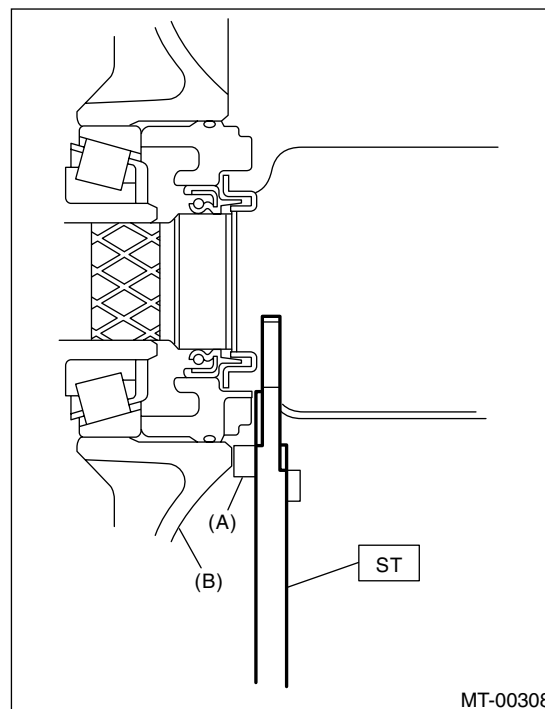
- (A) "MT" mark

- (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



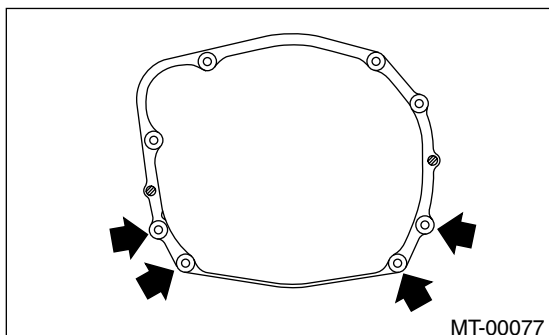
- (A) Protrusion part of ST
(B) Transmission case

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

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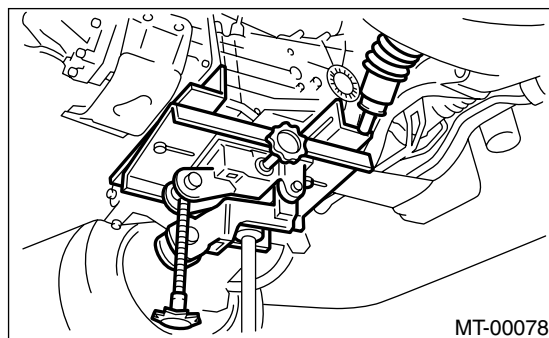
24) Remove the nuts which hold the lower side of transmission to engine.



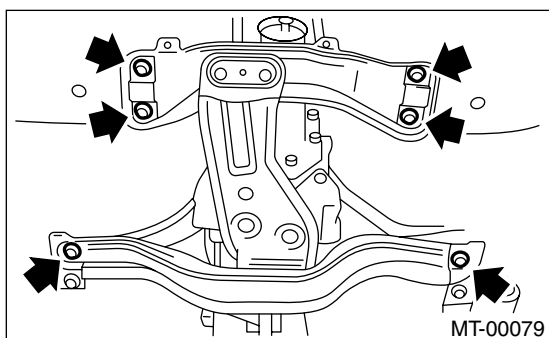
25) Place the transmission jack under transmission.

CAUTION:

Always support the transmission case with a transmission jack.



26) Remove the transmission rear crossmember from vehicle.



27) Remove the transmission.

NOTE:

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

28) Separate the transmission assembly and rear cushion rubber.

29) Remove the clutch release bearing from engine side. (Turbo model) <Ref. to CL-15, REMOVAL, Release Bearing and Lever.>

B: INSTALLATION

1) Replace the differential side oil seal with a new one. <Ref. to 5MT-38, REPLACEMENT, Differential Side Retainer Oil Seal.>

NOTE:

It is not necessary to replace the oil seal if a new one installed.

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-15, 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:

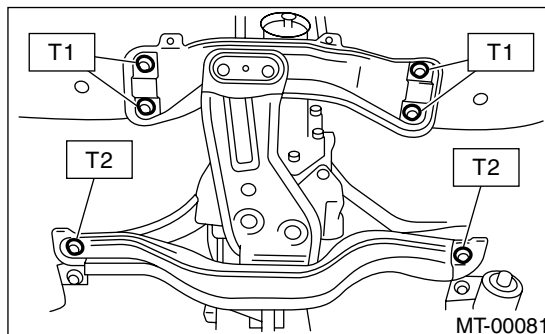
Be careful not to strike the main shaft against clutch cover.

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)

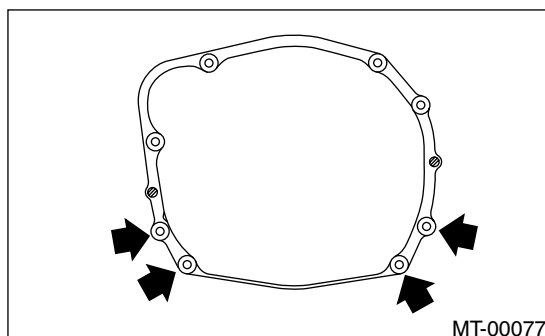


6) Take off the transmission jack.

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

Tightening torque:

50 N·m (5.1 kgf-m, 36.9 ft-lb)



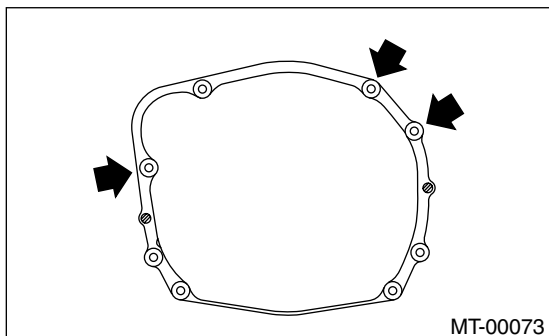
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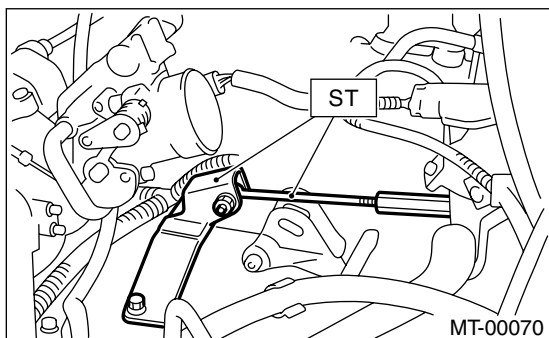
- 8) Connect the engine and transmission.
(1) Install the starter.
<Ref. to SC(H4SO)-7, INSTALLATION, Starter.>
(2) Tighten the bolt which holds right upper side of transmission to engine.

Tightening torque:

50 N·m (5.1 kgf-m, 36.9 ft-lb)



- 9) Remove the ST.

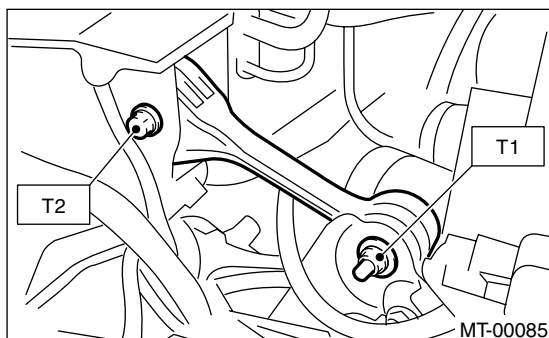


- 10) Install the pitching stopper.

Tightening torque:

T1: 50 N·m (5.1 kgf-m, 37 ft-lb)

T2: 58 N·m (5.9 kgf-m, 43 ft-lb)

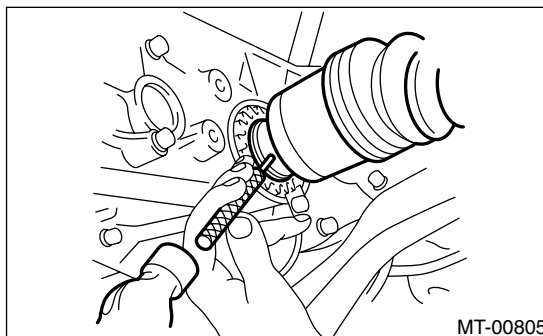


- 11) Lift-up the vehicle.
12) Install the front drive shaft into transmission.

- 13) Drive the spring pin into chamfered hole of drive shaft. (Non-TURBO model)

NOTE:

Always use a new spring pin.

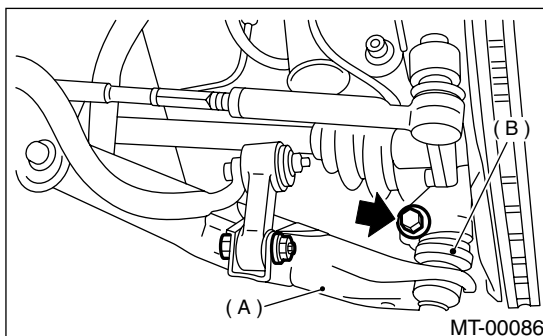


- 14) Replace the circlip with a new one, and insert the front drive shaft to transmission. (TURBO model) <Ref. to DS-29, REMOVAL, Front Drive Shaft.>
ST 28399SA010 FRONT DRIVE SHAFT OIL SEAL PROTECTOR

- 15) 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)



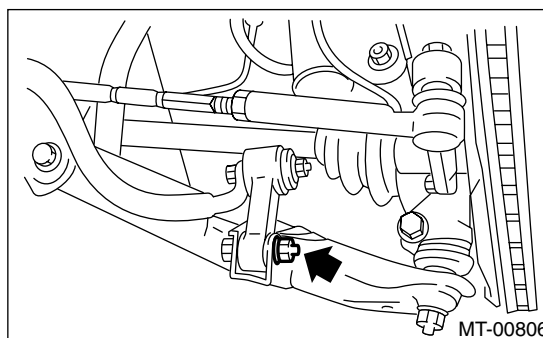
(A) Transverse link

(B) Ball joint

- 16) Install the stabilizer link from transverse link.

Tightening torque:

30 N·m (3.1 kgf-m, 22.1 ft-lb)

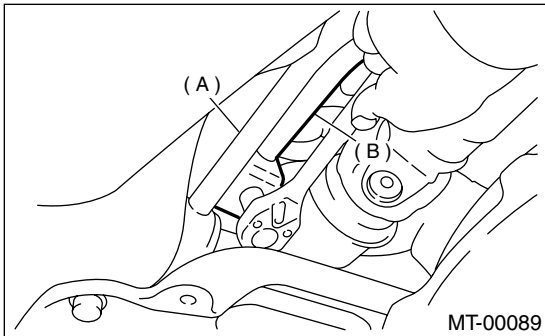


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17) Install the gear shift rod and stay.

(1) Install the gear shift rod onto transmission.



(A) Stay

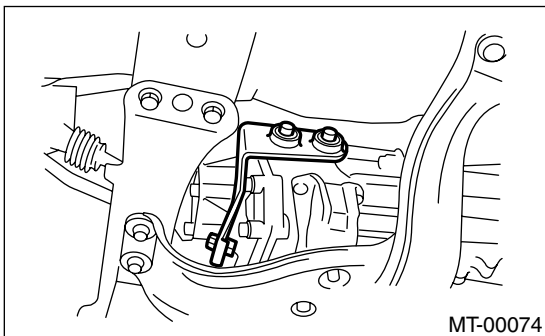
(B) Rod

(2) Install the stay onto transmission.

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

19) Install the heat shield cover. (If equipped)

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



21) Install the rear exhaust pipe and muffler.

22) Install the front exhaust pipe and center exhaust pipe. (Non-TURBO model)

Except U5 model

<Ref. to EX(H4SO)-6, INSTALLATION, Front Exhaust Pipe.>

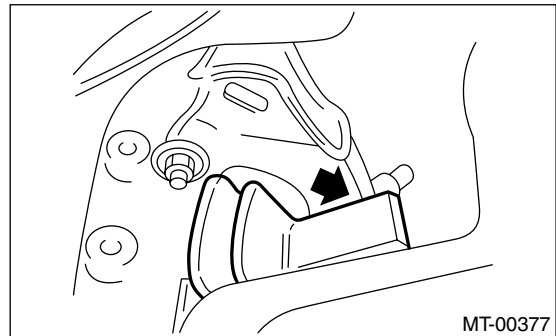
U5 model

<Ref. to EX(H4DOTC)-7, INSTALLATION, Front Exhaust Pipe.>

23) Install the center exhaust pipe. (TURBO model) <Ref. to EX(H4DOTC)-7, INSTALLATION, Front Exhaust Pipe.>

24) Install the under cover.

25) Push the clutch release lever to fit the bearing into clutch cover. (TURBO model)

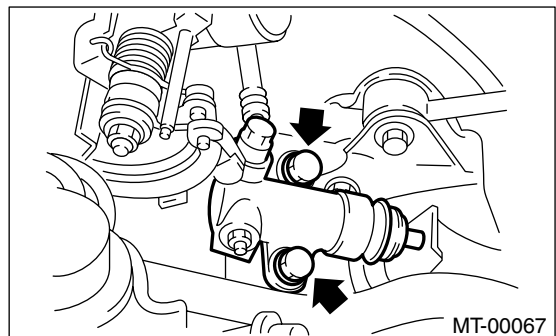


26) Install the operating cylinder.

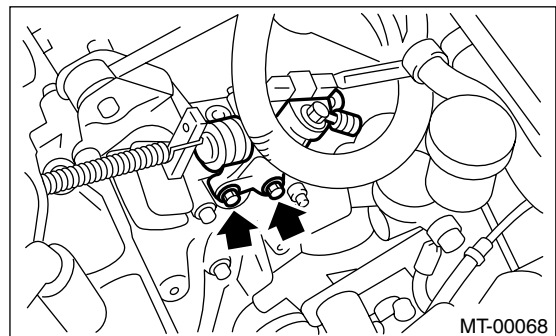
Tightening torque:

37 N·m (3.8 kgf-m, 27.5 ft-lb)

• Non-TURBO MODEL



• TURBO MODEL



27) 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

28) Install the air cleaner case stay. (Non-TURBO model)

Tightening torque:

16 N·m (1.6 kgf-m, 11.6 ft-lb)

29) Install the air cleaner case or the air intake chamber and duct. (Non-TURBO model)

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30) Install the intercooler. (TURBO model)