

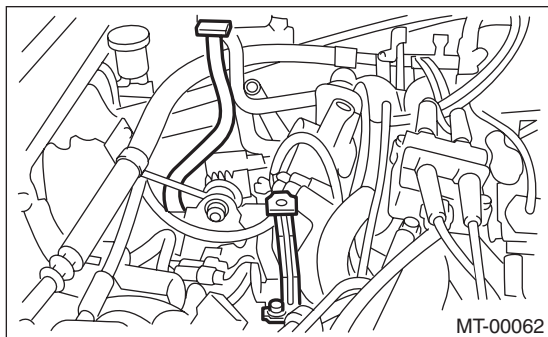
Manual Transmission Assembly

MANUAL TRANSMISSION AND DIFFERENTIAL

3. Manual Transmission Assembly

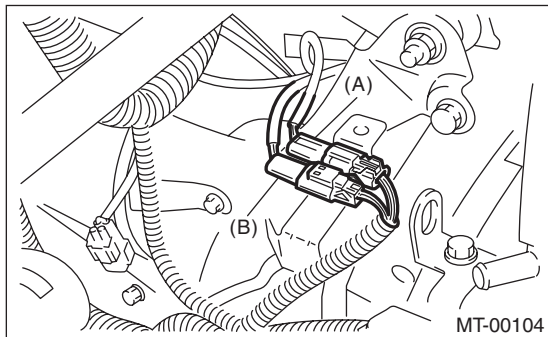
A: REMOVAL

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



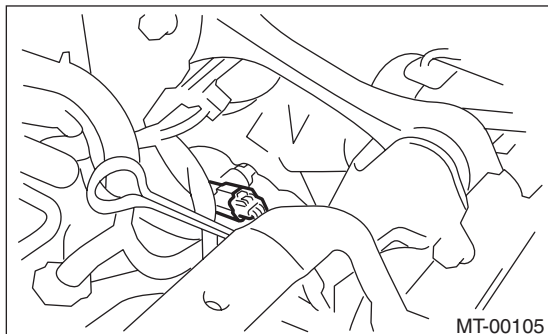
- 7) Remove the intercooler. (Turbo model) <Ref. to IN(H4DOTC)-12, REMOVAL, Intercooler.>
- 8) Disconnect the connector back-up light switch & neutral position switch.

- Non-turbo model

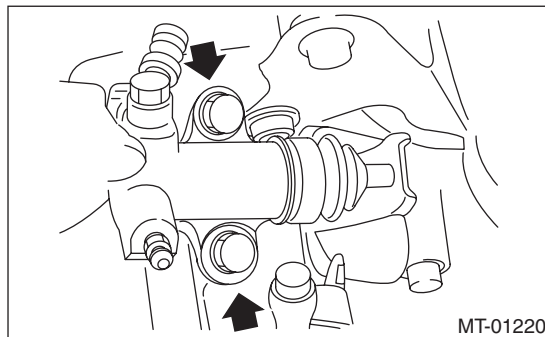


- (A) Neutral position switch connector (Brown)
(B) Back-up light switch connector (Gray)

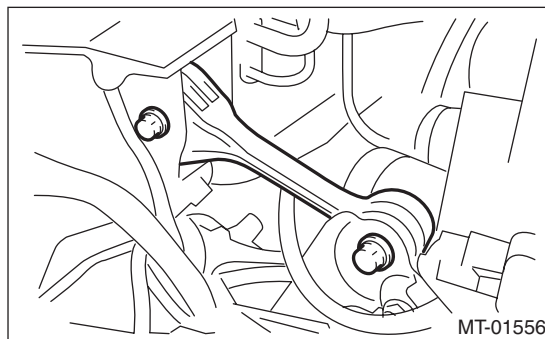
- Turbo model



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

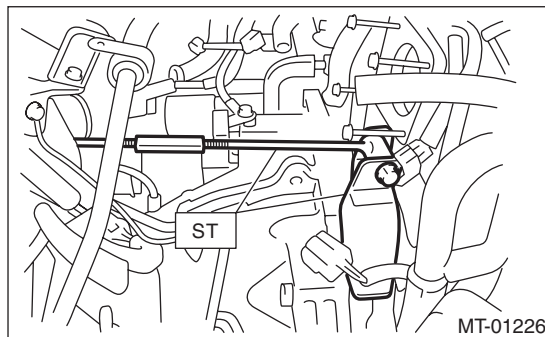


- 11) Remove the pitching stopper.

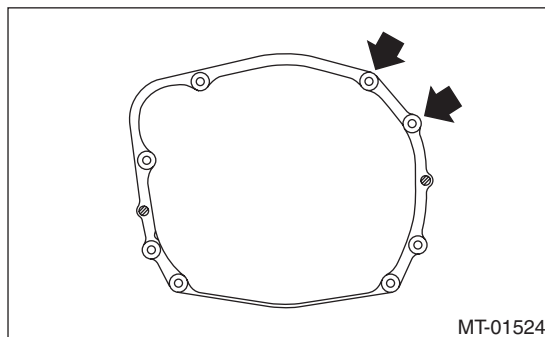


- 12) Set the ST.

ST 41099AC000 ENGINE SUPPORT ASSY



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



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

Manual Transmission Assembly

MANUAL TRANSMISSION AND DIFFERENTIAL

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.

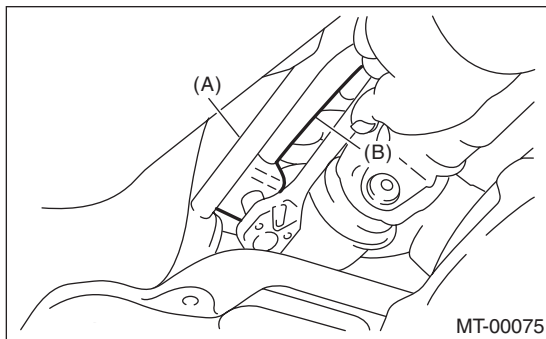
18) Remove the heat shield cover. (If equipped)

19) Remove the propeller shaft. <Ref. to DS-10, REMOVAL, Propeller Shaft.>

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

(1) Disconnect the stay from the transmission.

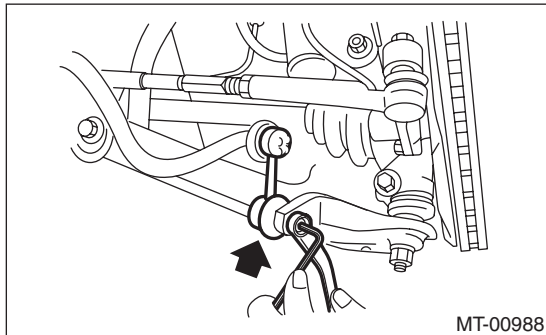
(2) Remove the gear shift rod from the transmission.



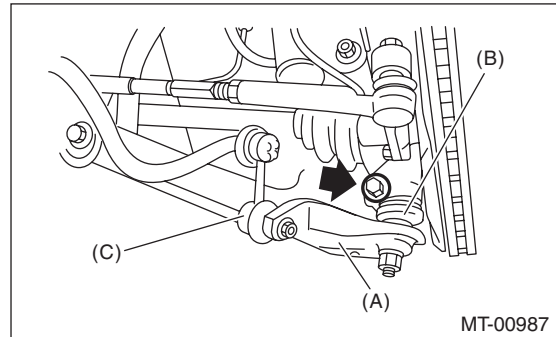
(A) Stay

(B) Gear shift rod

21) Remove the stabilizer link from the front arm.



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

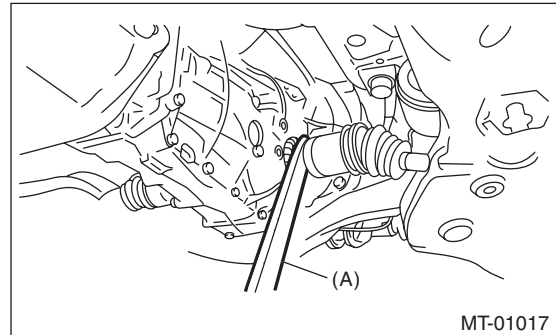


(A) Front arm

(B) Ball joint

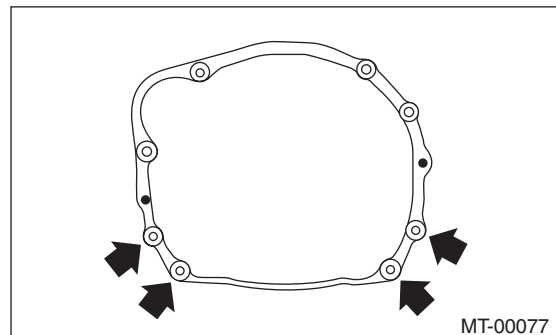
(C) Stabilizer link

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



(A) Bar

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



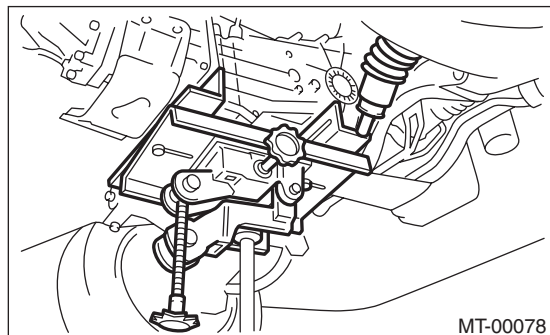
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MANUAL TRANSMISSION AND DIFFERENTIAL

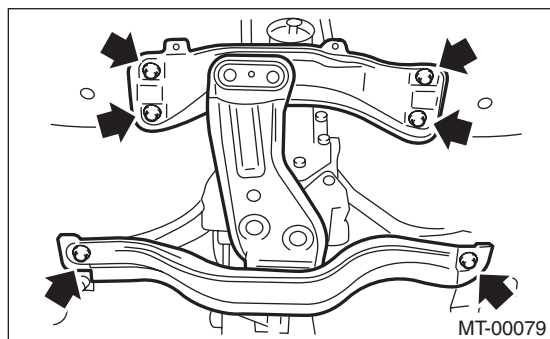
25) Place the transmission jack under the transmission.

CAUTION:

Always support the transmission case with a transmission jack.



26) Remove the transmission rear crossmember from the vehicle.



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

28) Remove the transmission.

NOTE:

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

29) Separate the transmission assembly from the rear cushion rubber.

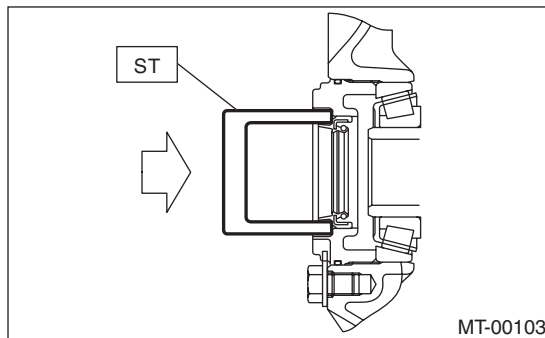
B: INSTALLATION

1) Replace the differential side retainer oil seal. <Ref. to 5MT-32, 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 rear cushion rubber to the transmission assembly.

Tightening torque:

35 N·m (3.6 kgf-m, 26 ft-lb)

3) 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 housing cover.

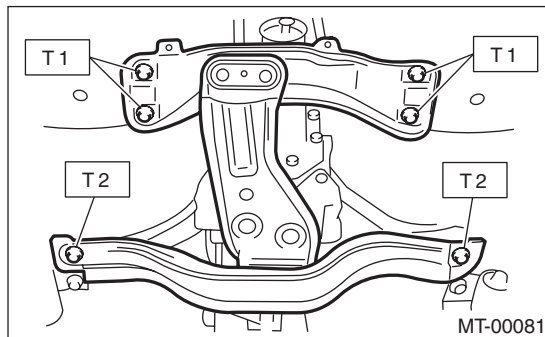
4) Loosen the turnbuckle of the ST while raising the transmission jack to return the engine to its original position.

5) Install the transmission rear crossmember.

Tightening torque:

T1: 75 N·m (7.6 kgf-m, 55 ft-lb)

T2: 140 N·m (14.3 kgf-m, 103 ft-lb)



6) Take out the transmission jack.

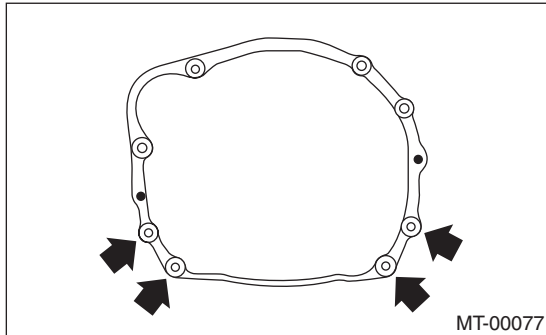
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MANUAL TRANSMISSION AND DIFFERENTIAL

7) 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)



8) Connect the transmission to the engine.

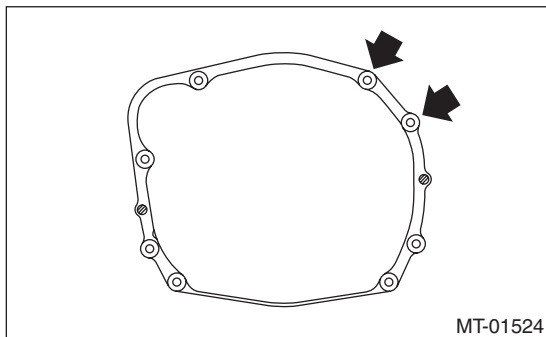
(1) Install the starter.

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

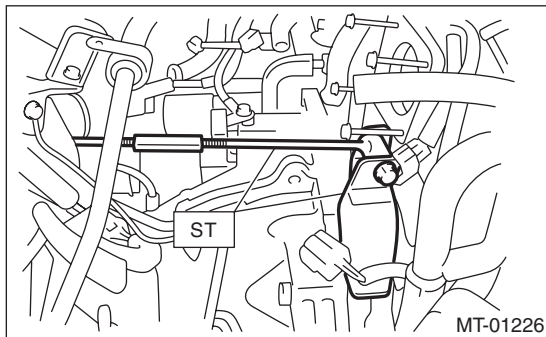
(2) Tighten the bolts which hold the upper side of the transmission to the engine.

Tightening torque:

50 N·m (5.1 kgf-m, 36.9 ft-lb)



9) Remove the ST.

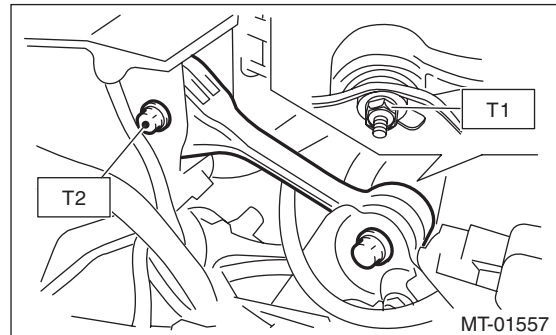


10) Install the pitching stopper.

Tightening torque:

T1: 50 N·m (5.1 kgf-m, 36.9 ft-lb)

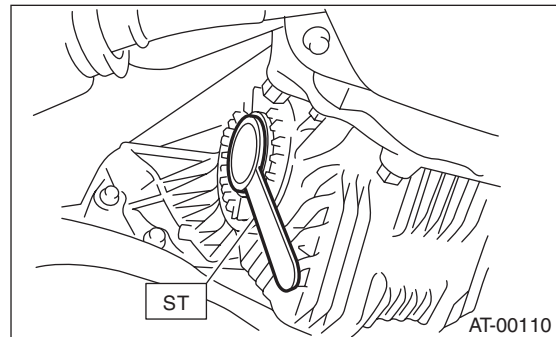
T2: 58 N·m (5.9 kgf-m, 42.8 ft-lb)



11) Lift the vehicle.

12) Install the front drive shaft into the transmission.

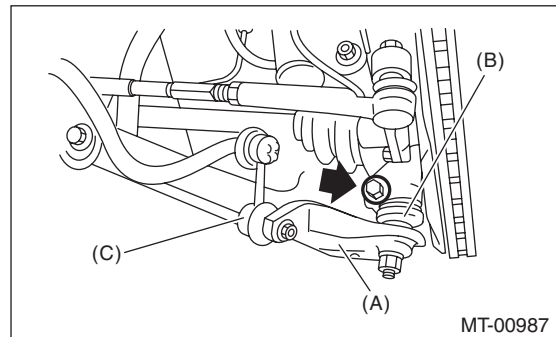
ST 28399SA010 FRONT DRIVE SHAFT OIL SEAL PROTECTOR



13) 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

(C) Stabilizer link

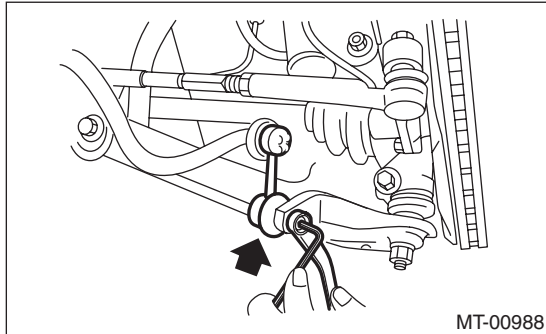
Manual Transmission Assembly

MANUAL TRANSMISSION AND DIFFERENTIAL

14) Attach the stabilizer link to the front arm.

Tightening torque:

45 N·m (4.6 kgf-m, 33.2 ft-lb)

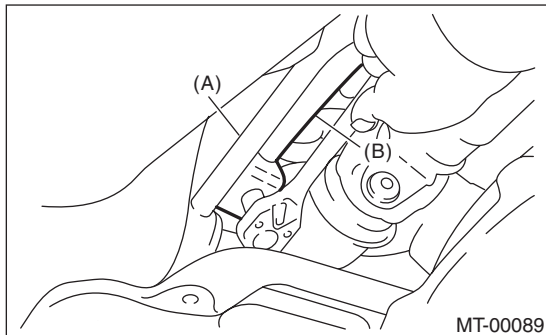


15) Attach the gear shift rod and stay.

(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) Attach the stay to the transmission.

Tightening torque:

18 N·m (1.8 kgf-m, 13.0 ft-lb)

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

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

18) Install the rear exhaust pipe and muffler.

19) Install the front exhaust pipe and the center exhaust pipe. (Non-turbo model)

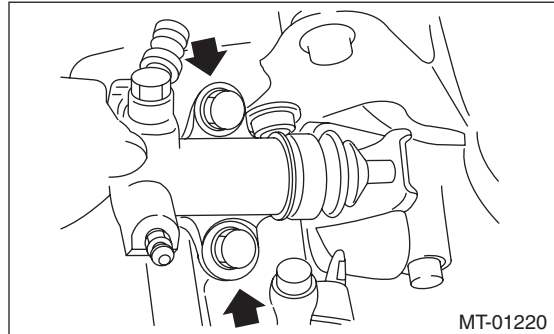
<Ref. to EX(H4SO)-5, INSTALLATION, Front Exhaust Pipe.>

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

21) Install the operating cylinder.

Tightening torque:

37 N·m (3.8 kgf-m, 27.5 ft-lb)



22) Connect the following connectors.

(1) Transmission ground cable

Tightening torque:

13 N·m (1.3 kgf-m, 9.4 ft-lb)

(2) Neutral position switch connector

(3) Back-up light switch connector

23) Fill transmission gear oil through the transmission level gauge hole.

24) Install the air intake chamber stay. (Non-turbo model)

Tightening torque:

16 N·m (1.6 kgf-m, 11.6 ft-lb)

25) Install the air intake chamber and air cleaner case. (Non-turbo model) <Ref. to IN(H4SO)-6, INSTALLATION, Air Cleaner Case.> <Ref. to IN(H4SO)-7, INSTALLATION, Air Intake Chamber.>

26) Install the intercooler. (Turbo model) <Ref. to IN(H4DOTC)-12, INSTALLATION, Intercooler.>

27) Connect the battery ground cable to the battery.

28) Take off the vehicle from lift arms.