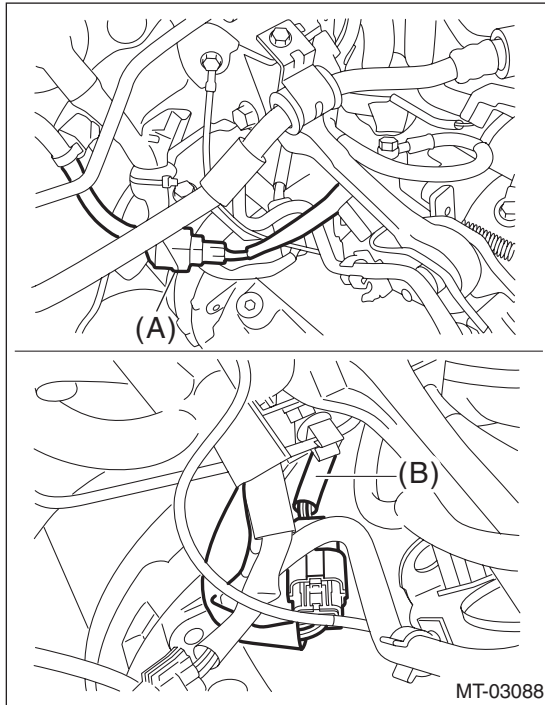


### 6. Manual Transmission Assembly

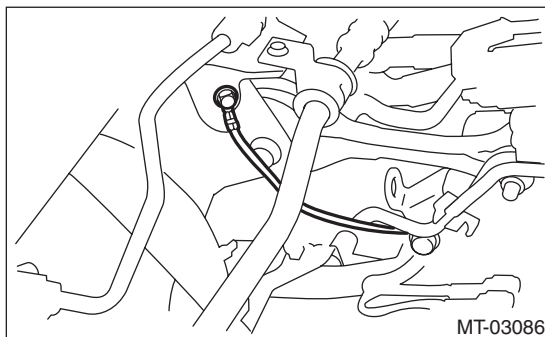
#### A: REMOVAL

- 1) Disconnect the ground cable from battery.
- 2) Remove the intercooler. <Ref. to IN(STI)-13, REMOVAL, Intercooler.>
- 3) Disconnect the following harness connectors, and then remove the engine hanger rear.



- (A) Rear oxygen sensor connector  
(B) Neutral position switch backup light switch connector

- 4) Remove the secondary air combination valve. <Ref. to EC(STI)-54, SECONDARY AIR COMBINATION VALVE LH, REMOVAL, Secondary Air Combination Valve.>
- 5) Disconnect the transmission radio ground cord terminal.

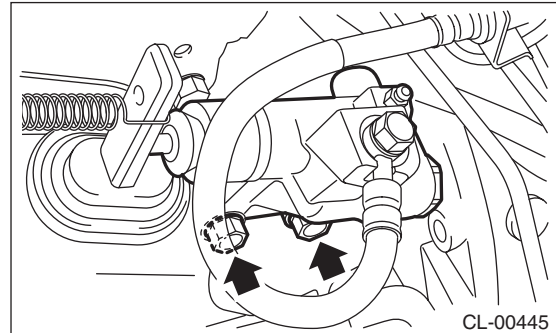


- 6) Remove the starter assembly. <Ref. to SC(STI)-7, REMOVAL, Starter.>

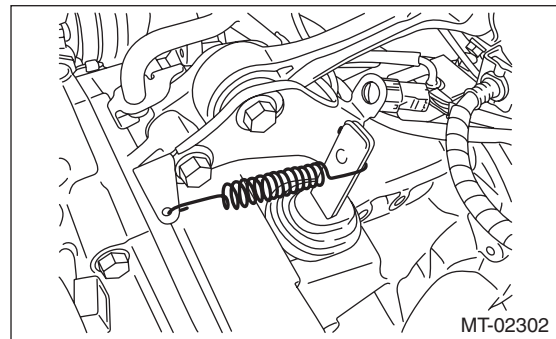
- 7) Remove the operating cylinder from the transmission.

#### NOTE:

Hang the removed operating cylinder with a piece of wire.



- 8) Remove the return spring from the release fork.



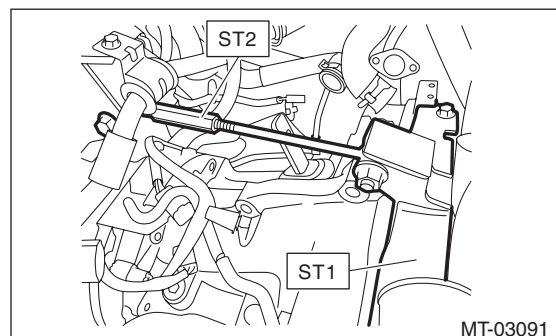
- 9) Remove the pitching stopper. <Ref. to 6MT(TY85)-29, PITCHING STOPPER, REMOVAL, Transmission Mounting System.>

- 10) Remove the pitching stopper bracket, return spring bracket, and transmission radio ground cable.

- 11) Set the ST.

ST1 41099AA011 ENGINE SUPPORT BRACKET

ST2 41099AA020 ENGINE SUPPORT



# Manual Transmission Assembly

## MANUAL TRANSMISSION AND DIFFERENTIAL

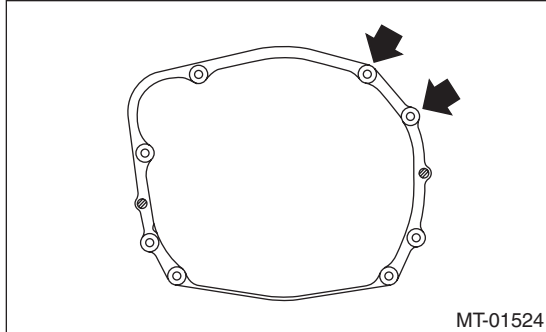
12) Remove the clutch release shaft.

- (1) Remove the plug using a hexagon wrench.
- (2) Attach a 6 mm (0.24 in) bolt to the release shaft, and pull out the release shaft.

(3) Lift the release fork, and remove from the claw of the release bearing. Pull the release fork to the engine side, and make it so that it moves freely.

13) Remove the center exhaust pipe. <Ref. to EX(STI)-7, REMOVAL, Center Exhaust Pipe.>

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



15) Remove the front wheels.

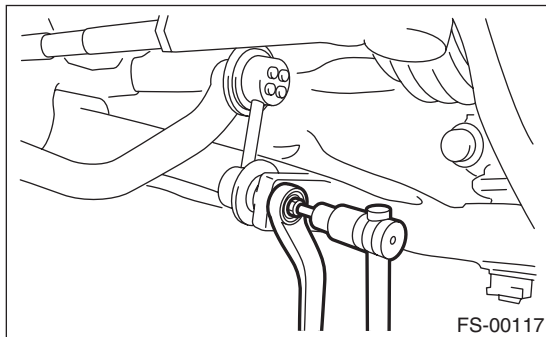
16) Lift up the vehicle, and remove the transmission under cover.

17) Drain transmission gear oil completely. <Ref. to 6MT(TY85)-26, REPLACEMENT, Transmission Gear Oil.>

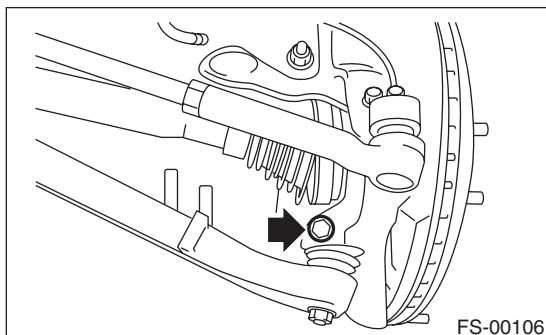
18) Remove the heat shield cover.

19) Remove the propeller shaft. <Ref. to DS-12, REMOVAL, Propeller Shaft.>

20) Remove the front stabilizer link.



21) Remove the ball joint of front arm from the housing.

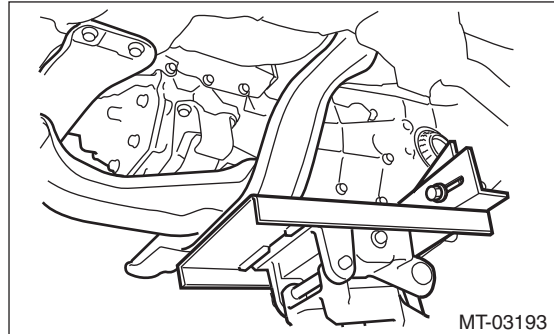


22) Remove the front drive shaft. <Ref. to DS-48, REMOVAL, Front Drive Shaft.>

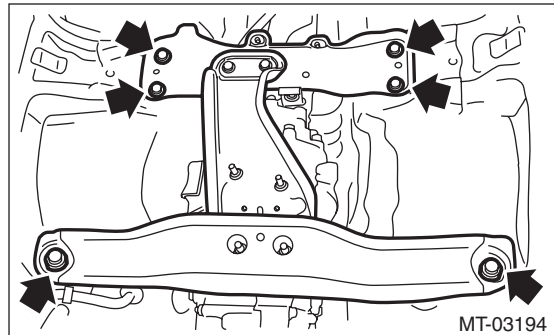
23) Place the transmission jack under the transmission.

### CAUTION:

**Always support the transmission case with a transmission jack.**



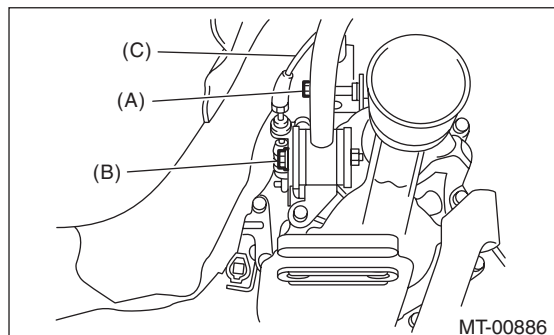
24) Remove the front crossmember and rear crossmember from the vehicle.



25) Move the transmission to the right side of the vehicle, and remove the joint COMPL, stay bolts and reverse check cable.

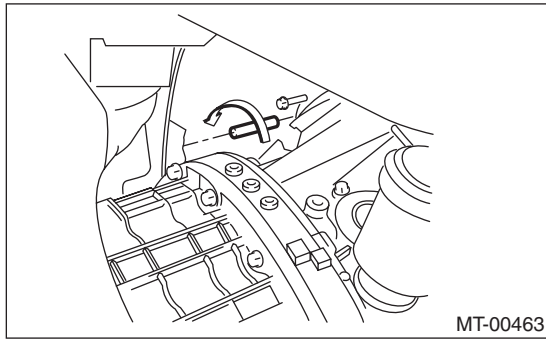
### NOTE:

If the transmission is not moved aside, the joint COMPL and stay bolts may contact the body and cause damage.



- (A) Joint COMPL bolt
- (B) Stay bolt
- (C) Reverse check cable

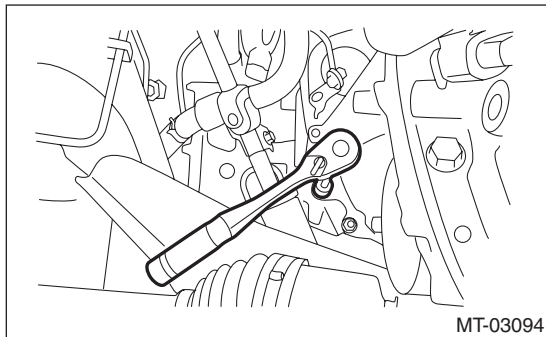
26) Tighten the turnbuckle of the ST to tilt the engine assembly towards the back.



27) Remove the bolts and nuts holding the bottom of transmission to the engine, and remove the transmission from the vehicle.

**NOTE:**

- During removal, be careful not to hit the transmission against the body when pulling towards the rear.
- The clutch pipe and breather pipe may interfere with each other. Remove carefully.



28) Remove the transmission cushion rubber from the transmission assembly.

## B: INSTALLATION

- 1) Set the release fork, release bearing and release shaft to the transmission. <Ref. to CL-17, INSTALLATION, Release Bearing and Lever.>
- 2) Replace the front differential side retainer oil seal. <Ref. to 6MT(TY85)-28, REPLACEMENT, Differential Side Retainer Oil Seal.>

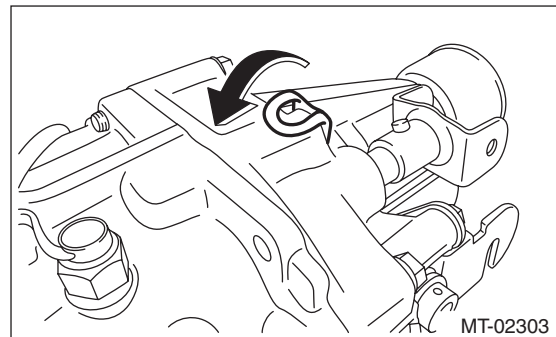
**NOTE:**

Be sure to replace the differential side oil seal after the procedure of removing front drive shaft from transmission.

- 3) Strike and bend the transmission hanger of transmission rear with a rubber hammer etc. so that it gets in contact with the transmission case.

**CAUTION:**

**Do not apply extra overload or impact to the transmission case.**

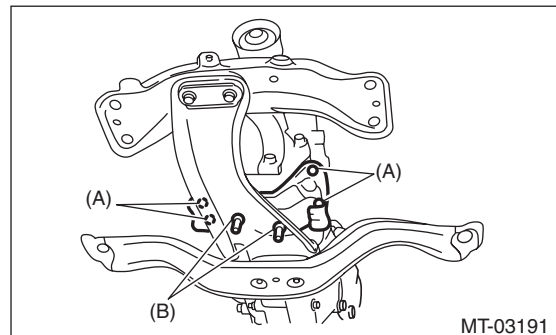


- 4) Install the transmission cushion rubber to the transmission, and tighten the bolt (A).
- 5) Install the transmission cushion rubber to the center crossmember, and temporarily tighten the nut (B).

**Tightening torque:**

**Bolt (A)**

**35 N·m (3.6 kgf-m, 25.8 ft-lb)**



- 6) Install the transmission onto the engine.

# Manual Transmission Assembly

## MANUAL TRANSMISSION AND DIFFERENTIAL

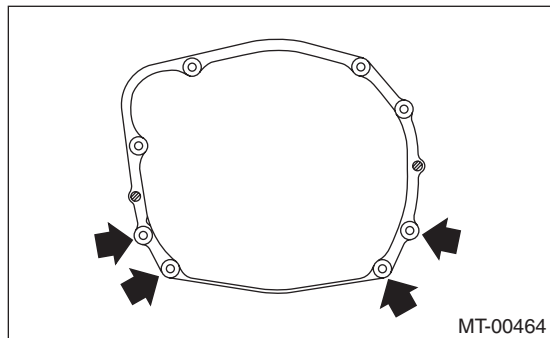
7) Tighten the bolts and nuts which hold the lower side of transmission to the engine.

### NOTE:

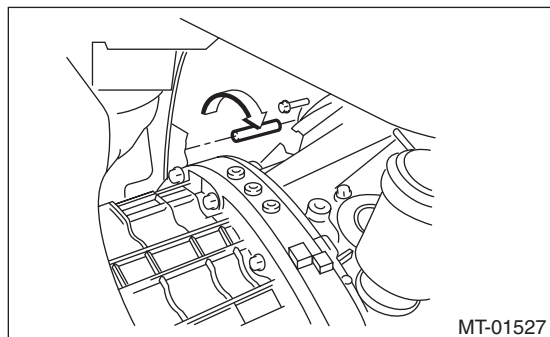
- Make sure that the main shaft spline is completely inserted.
- Make sure that the rear end of the engine is set low.

### Tightening torque:

**50 N·m (5.1 kgf-m, 36.9 ft-lb)**



8) Loosen the turnbuckle of ST to return the engine to its original position.

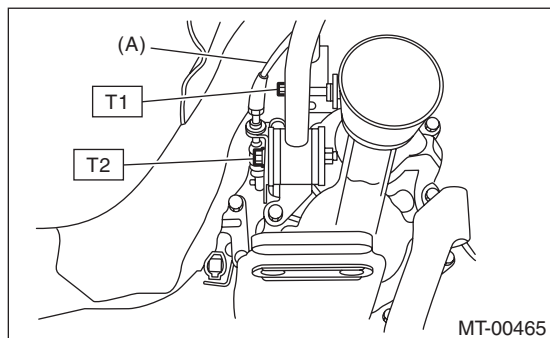


9) Move the transmission to the right side of the vehicle, and attach the joint COMPL, stay bolts and reverse check cable.

### Tightening torque:

**T1: 12 N·m (1.2 kgf-m, 8.9 ft-lb)**

**T2: 32 N·m (3.3 kgf-m, 23.6 ft-lb)**



(A) Reverse check cable

10) Tighten the mounting bolts for front crossmember and rear crossmember.

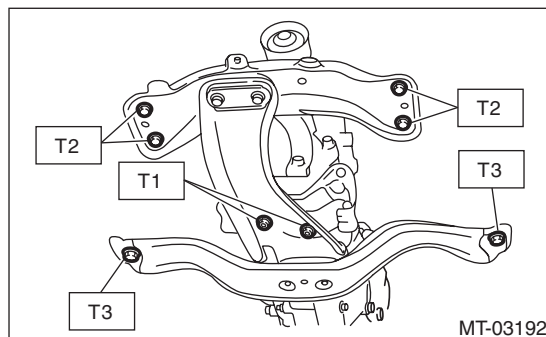
11) Tighten the transmission cushion rubber mounting nut.

### Tightening torque:

**T1: 35 N·m (3.6 kgf-m, 25.8 ft-lb)**

**T2: 70 N·m (7.1 kgf-m, 51.6 ft-lb)**

**T3: 140 N·m (14.3 kgf-m, 103 ft-lb)**



12) Lower the vehicle.

13) Install the starter. <Ref. to SC(STI)-7, INSTALLATION, Starter.>

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

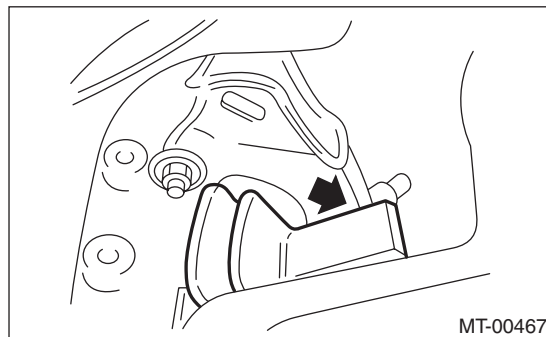
### Tightening torque:

**50 N·m (5.1 kgf-m, 36.9 ft-lb)**

15) Make sure that the release bearing is completely inserted.

### NOTE:

- Push the release fork towards the operating cylinder side until a clicking sound is heard. Pull the release fork towards the engine side. If the release fork is not in contact with the case, the setting is complete.
- Confirm that the boot cover is set securely.



16) Install the pitching stopper bracket, return spring bracket, and transmission radio ground cable.

### Tightening torque:

**41 N·m (4.2 kgf-m, 30.2 ft-lb)**

# Manual Transmission Assembly

## MANUAL TRANSMISSION AND DIFFERENTIAL

17) Install the pitching stopper. <Ref. to 6MT(TY85)-29, INSTALLATION, Transmission Mounting System.>

18) Install the return spring.

19) Install the clutch operating cylinder.

### **Tightening torque:**

**41 N·m (4.2 kgf-m, 30.2 ft-lb)**

### **NOTE:**

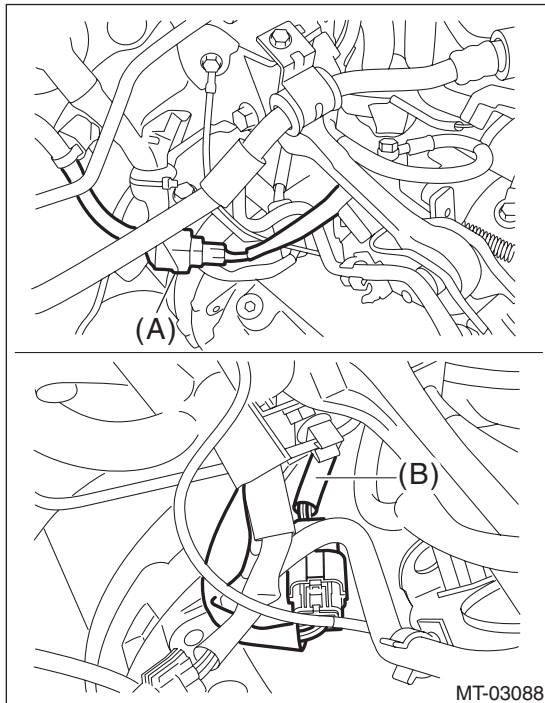
Check that the clutch hose is routed properly.

20) Install the starter assembly. <Ref. to SC(STI)-7, INSTALLATION, Starter.>

21) Install the transmission radio ground terminal.

22) Install the secondary air combination valve. <Ref. to EC(STI)-54, SECONDARY AIR COMBINATION VALVE LH, INSTALLATION, Secondary Air Combination Valve.>

23) Connect the following harness connectors, then attach the engine hanger rear.



(A) Rear oxygen sensor connector

(B) Neutral position switch backup light switch connector

24) Lift up the vehicle.

25) Set the ST to side retainer.

ST 28399SA010 OIL SEAL PROTECTOR

26) Install the front drive shaft into the transmission.

### **NOTE:**

Replace the circlip of drive shaft with a new part.

27) Install the front drive shaft into transmission, remove the ST and insert the drive shaft securely.

ST 28399SA010 OIL SEAL PROTECTOR

28) Install the ball joint of the front arm.

### **Tightening torque:**

**50 N·m (5.1 kgf-m, 36.9 ft-lb)**

29) Install the front stabilizer link.

### **Tightening torque:**

**45 N·m (4.6 kgf-m, 33.2 ft-lb)**

### **NOTE:**

Use a new self-locking nut.

30) Install the propeller shaft. <Ref. to DS-14, INSTALLATION, Propeller Shaft.>

31) Install the heat shield cover.

### **Tightening torque:**

**18 N·m (1.8 kgf-m, 13.3 ft-lb)**

32) Install the center exhaust pipe. <Ref. to EX(STI)-8, INSTALLATION, Center Exhaust Pipe.>

33) Fill the transmission gear oil. <Ref. to 6MT(TY85)-26, REPLACEMENT, Transmission Gear Oil.>

34) Install the transmission under cover.

35) Install the intercooler. <Ref. to IN(STI)-14, INSTALLATION, Intercooler.>

36) Connect the battery ground terminal.