

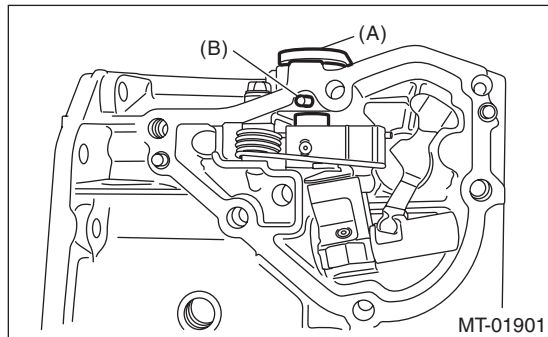
# Shift Link Assembly

MANUAL TRANSMISSION AND DIFFERENTIAL

## 14. Shift Link Assembly

### A: REMOVAL

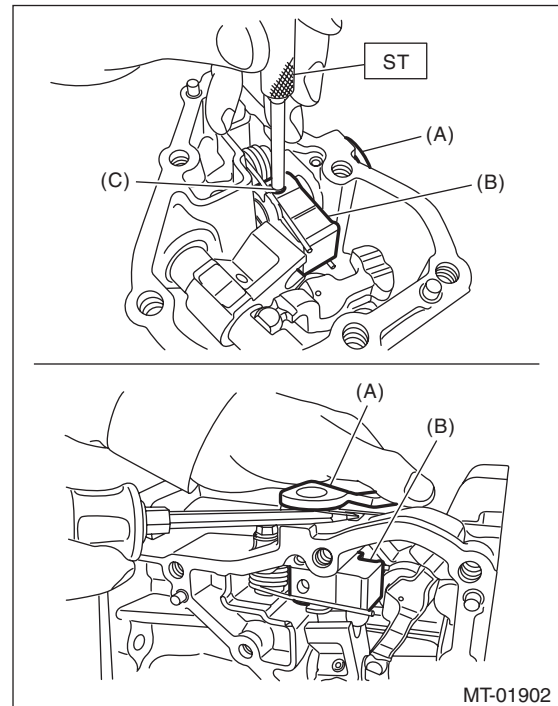
- 1) Remove the manual transmission assembly from the vehicle. <Ref. to 6MT-26, REMOVAL, Manual Transmission Assembly.>
- 2) Remove the back-up light switch and the neutral position switch. <Ref. to 6MT-40, REMOVAL, Switches and Harness.>
- 3) Remove the transfer case together with the extension case assembly. <Ref. to 6MT-44, REMOVAL, Transfer Case and Extension Case Assembly.>
- 4) Remove the extension case assembly. <Ref. to 6MT-44, REMOVAL, Transfer Case and Extension Case Assembly.>
- 5) Remove the center differential and transfer driven gear as a unit. <Ref. to 6MT-52, REMOVAL, Transfer Driven Gear.>
- 6) Pull out the straight pin.



- (A) Selector lever COMPL
- (B) Straight pin

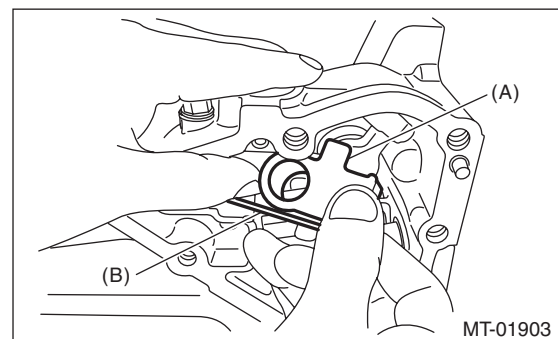
- 7) Use the ST to remove the spring pin, and remove the selector lever COMPL.

ST 398791700 SPRING PIN REMOVER 2



- (A) Selector lever COMPL
- (B) Selector arm No. 2
- (C) Spring pin

- 8) Pull out the selector arm No. 2 from neutral set spring.

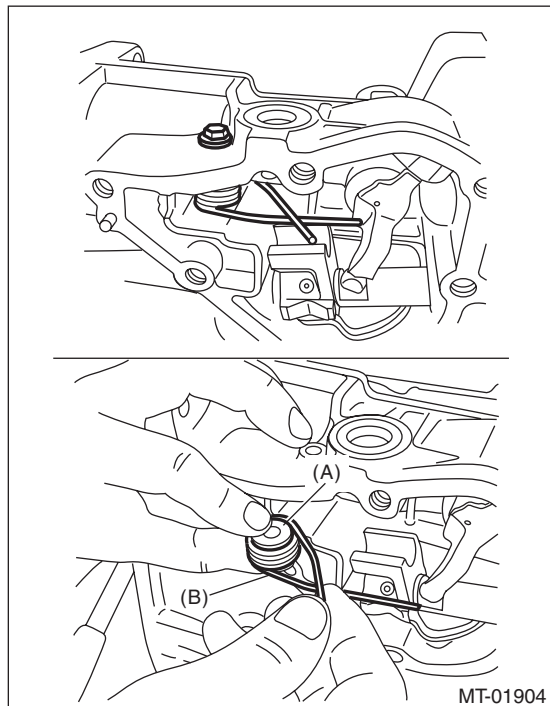


- (A) Selector arm No. 2
- (B) Neutral set spring

# Shift Link Assembly

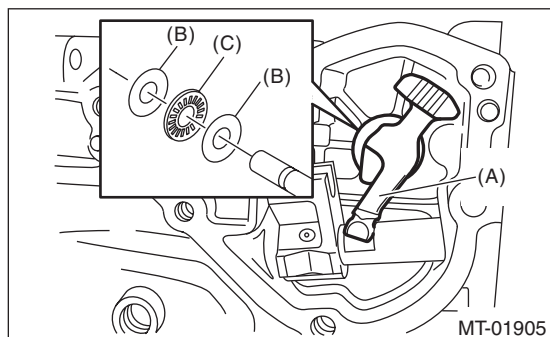
## MANUAL TRANSMISSION AND DIFFERENTIAL

9) Remove the bolts and remove the shifter arm collar and neutral set spring from transfer case.



- (A) Shifter arm collar
- (B) Neutral set spring

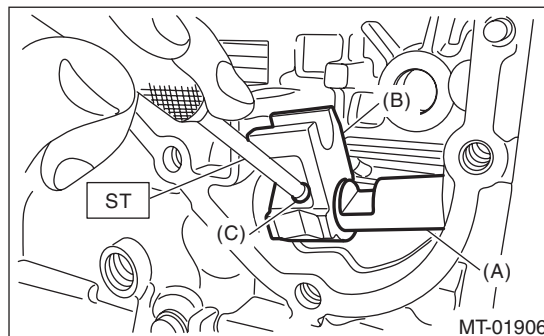
10) Remove the shifter arm No. 2, washers and thrust bearing from transfer case.



- (A) Shifter arm No. 2
- (B) Washer
- (C) Thrust bearing

11) Use the ST to remove the spring pin, and remove the shifter arm and selector arm.

ST 398791700 SPRING PIN REMOVER 2

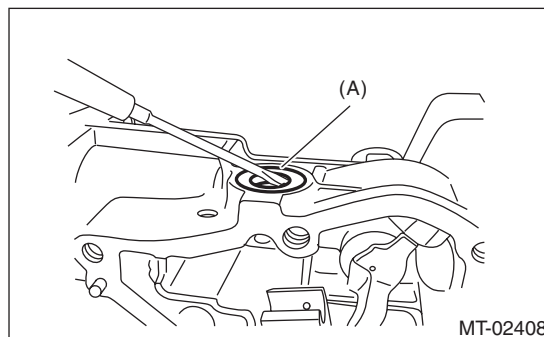


- (A) Shifter arm
- (B) Selector arm
- (C) Spring pin

12) Remove the oil seal from the transfer case by using a screwdriver wrapped with vinyl tape etc.

### NOTE:

The illustration shows the oil seal of selector lever COMPL. Perform the same procedures for removing the shifter arm No. 2.

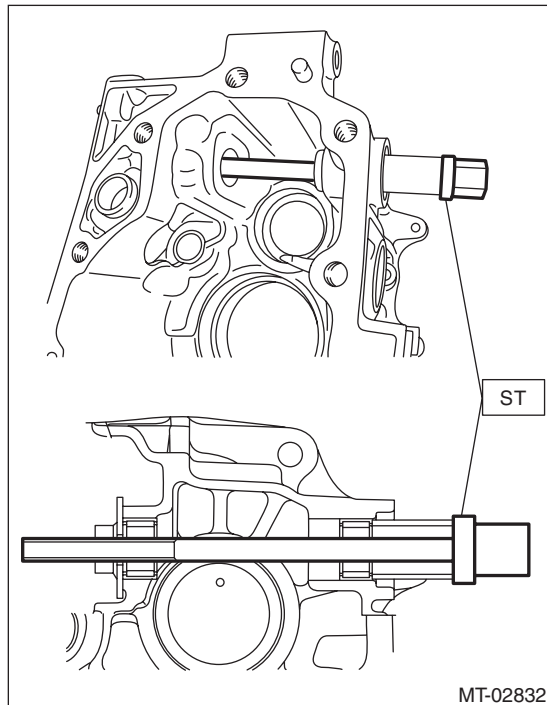
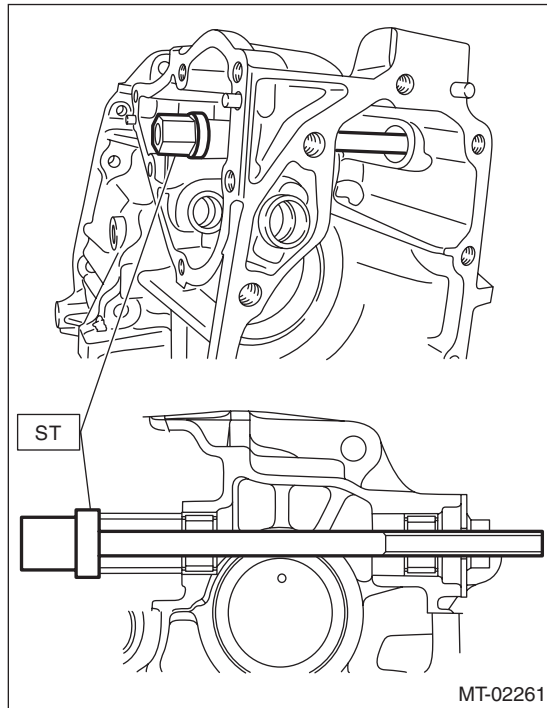


- (A) Oil seal

# Shift Link Assembly

MANUAL TRANSMISSION AND DIFFERENTIAL

- 13) Remove the needle bearing from the transfer case by using a tube with the diameter of 20 mm (0.79 in) or 21 mm (0.83 in) and the ST.  
ST 18763AA000 COMPRESSOR SHAFT

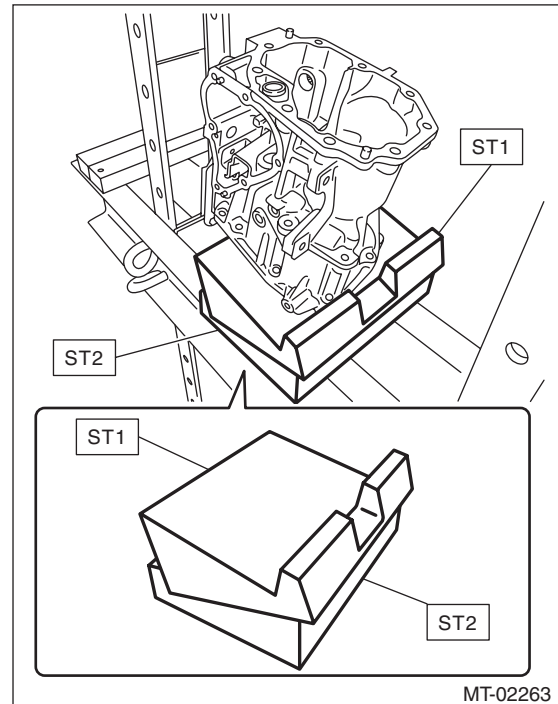


- 14) Set ST1, ST2 and transfer case to a press.

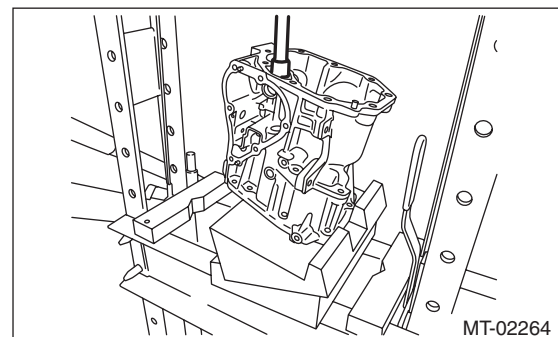
NOTE:

- Set the ST2 under ST1.
- Set the transfer case so that the hole for shifter arm is positioned vertically.

ST1 498267300 CYLINDER HEAD TABLE  
ST2 498267200 CYLINDER HEAD TABLE



- 15) Remove the roller bearing by using a round bar with the diameter of 22 mm (0.87 in) or 23 mm (0.91 in).



- 16) Flip over the transfer case, and set an iron plate between transfer case and ST.

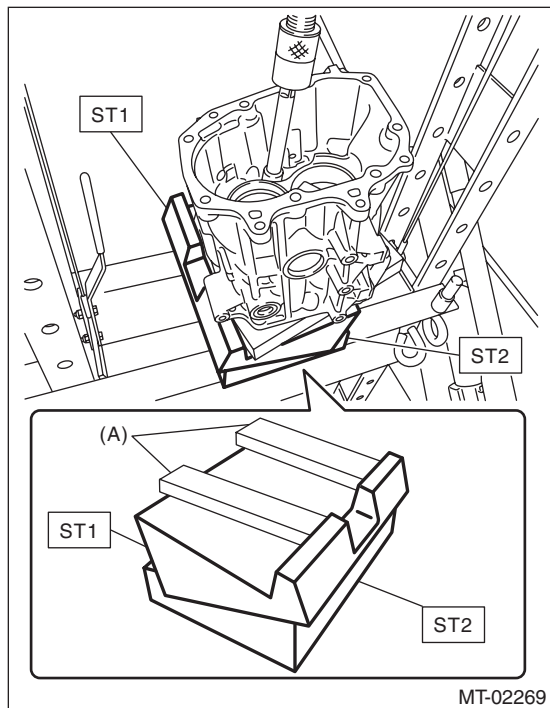
NOTE:

- Insert the iron plate which is thicker than the exposed length of the transfer case knock pin between the ST and transfer case.
- Set the iron plate so that the transfer case knock pin does not ride on the iron plate.

# Shift Link Assembly

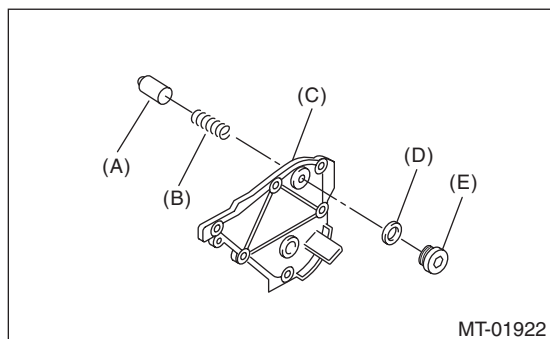
## MANUAL TRANSMISSION AND DIFFERENTIAL

17) Remove the roller bearing by using a tube with the diameter of 22 mm (0.87 in) or 23 mm (0.91 in).



(A) Iron plate

18) Remove the plunger and check ball spring from transmission cover.



(A) Plunger  
(B) Checking ball spring  
(C) Transmission cover  
(D) Seal ring  
(E) Seal bolt

## B: INSTALLATION

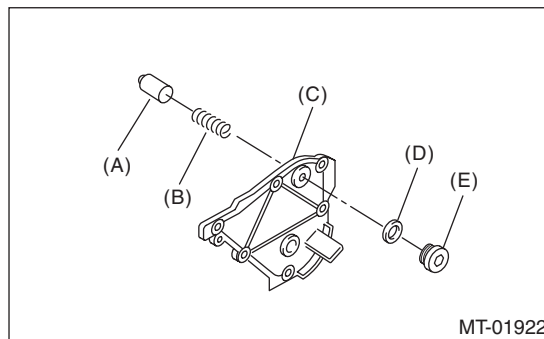
- 1) Clean the mating surface of the transmission cover and transfer case.
- 2) Install the plunger and check ball spring to transmission cover.

### NOTE:

Use a new seal ring.

### Tightening torque:

**25 N·m (2.5 kgf·m, 18.4 ft·lb)**



(A) Plunger  
(B) Checking ball spring  
(C) Transmission cover  
(D) Seal ring  
(E) Seal bolt

# Shift Link Assembly

3) Using the ST, install the needle bearing to the transfer case.

**NOTE:**

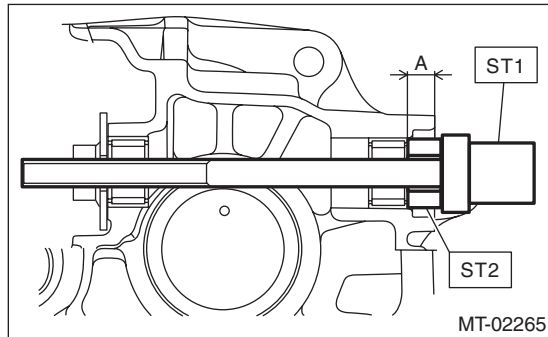
- Use a new needle bearing.
- If the press-fit depth exceeds the service limit, replace with a new needle bearing.

ST1 18763AA000 COMPRESSOR SHAFT

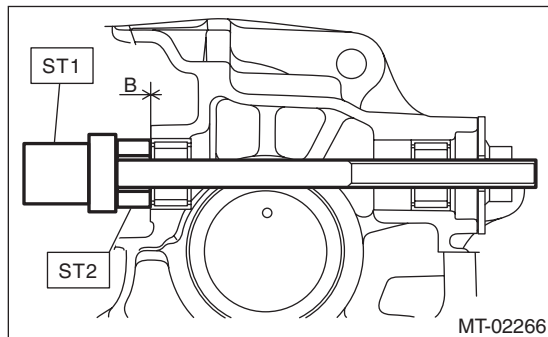
ST2 498277200 STOPPER SET

**Press-fit depth of needle bearing:**

**A:  $8.5 \pm 0.2$  mm ( $0.33 \pm 0.01$  in) from the end of transfer case**



**B:  $0.2 \pm 0.2$  mm ( $0.01 \pm 0.01$  in) from the end of transfer case**



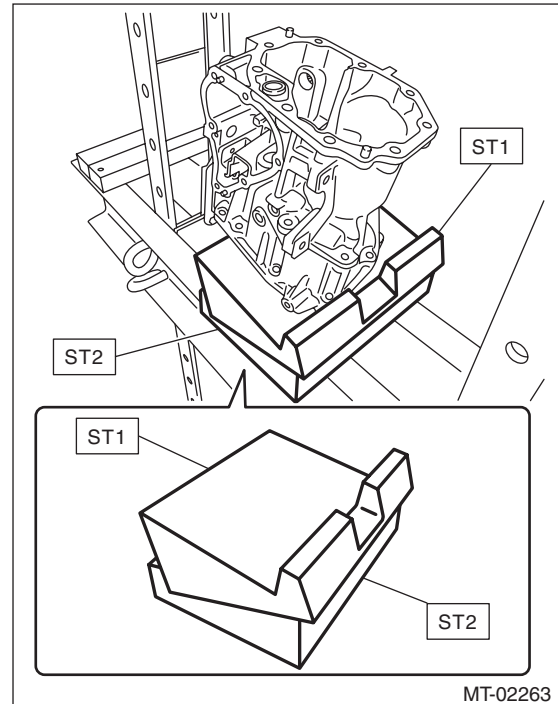
4) Set ST1, ST2 and transfer case to a press.

**NOTE:**

- Set the ST2 under ST1.
- Set the transfer case so that the hole for shifter arm is positioned vertically.

ST1 498267300 CYLINDER HEAD TABLE

ST2 498267200 CYLINDER HEAD TABLE



# Shift Link Assembly

## MANUAL TRANSMISSION AND DIFFERENTIAL

5) Using the ST, install the roller bearing to the transfer case.

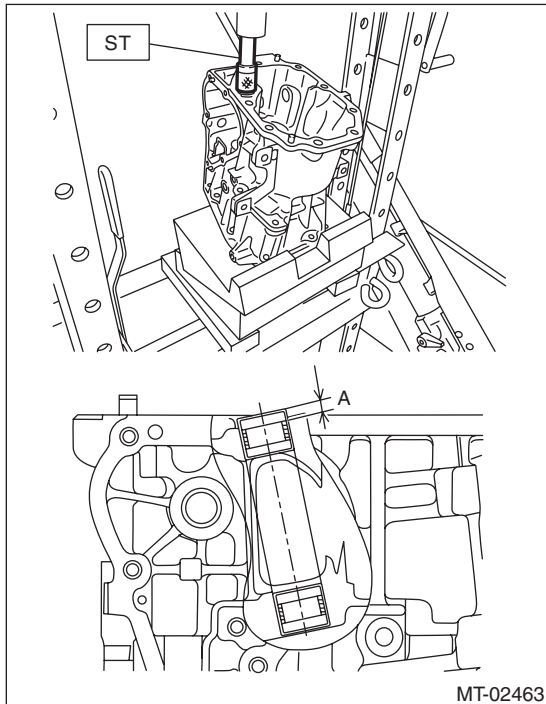
### NOTE:

- Use a new roller bearing.
- Gradually perform the press-fit operation while measuring the press-fit depth.
- If the press-fit depth exceeds the service limit, replace with a new bearing.

ST 899864100 REMOVER

### **Press-fit depth of roller bearing:**

**A:  $5.1 \pm 0.2$  mm ( $0.20 \pm 0.01$  in) from the finished surface of transfer case**



6) Flip over the transfer case, and set an iron plate between transfer case and ST.

### NOTE:

- Insert the iron plate which is thicker than the exposed length of the transfer case knock pin between the ST and transfer case.
- Set the parts while taking care that the transfer case knock pin and the roller bearing do not ride over the iron plate.

7) Using the ST, install the roller bearing to the transfer case.

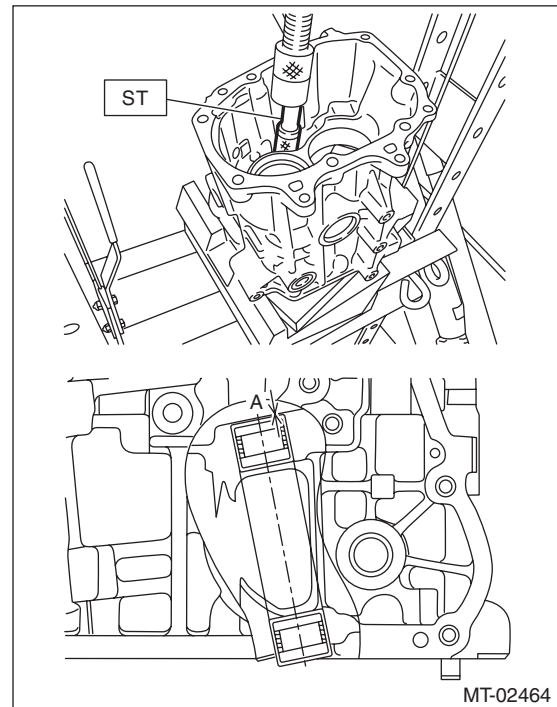
### NOTE:

- Use a new roller bearing.
- Gradually perform the press-fit operation while measuring the press-fit depth.
- If the press-fit depth exceeds the service limit, replace with a new bearing.

ST 899864100 REMOVER

### **Press-fit depth of roller bearing:**

**A:  $0 \pm 0.2$  mm ( $0 \pm 0.01$  in) from the end of transfer case**





# Shift Link Assembly

MANUAL TRANSMISSION AND DIFFERENTIAL

8) Using the ST, install the oil seal to the transfer case.

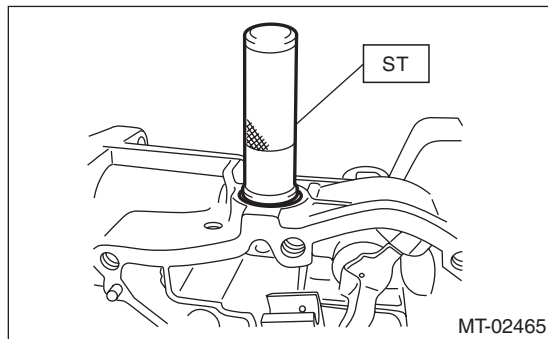
**NOTE:**

- Use a new oil seal.
- The illustration shows the oil seal of selector lever COMPL. Perform the same procedures for installing the oil seal of shifter arm No. 2.
- Apply transmission gear oil to the oil seal lips.

ST 18657AA000 INSTALLER

**Press-fit depth of oil seal:**

**$1 \pm 0.2$  mm ( $0.04 \pm 0.01$  in) from the end of transfer case**

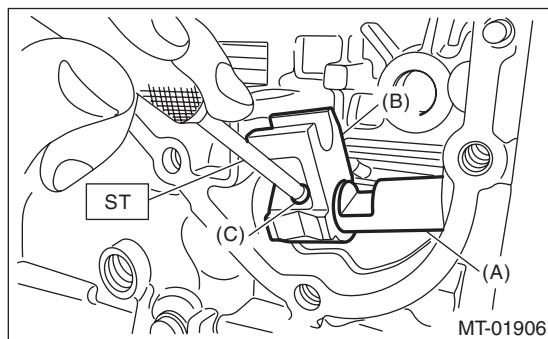


9) Insert the shifter arm into the selector arm, and fix with a spring pin.

**NOTE:**

Use new spring pin.

ST 398791700 SPRING PIN REMOVER 2

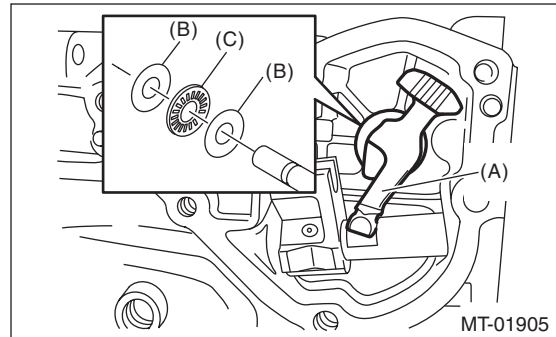


- (A) Shifter arm
- (B) Selector arm
- (C) Spring pin

10) Install the shifter arm No. 2, washers and thrust bearing to transfer case.

**CAUTION:**

**Be careful not to damage the oil seal.**



- (A) Shifter arm No. 2
- (B) Washer
- (C) Thrust bearing

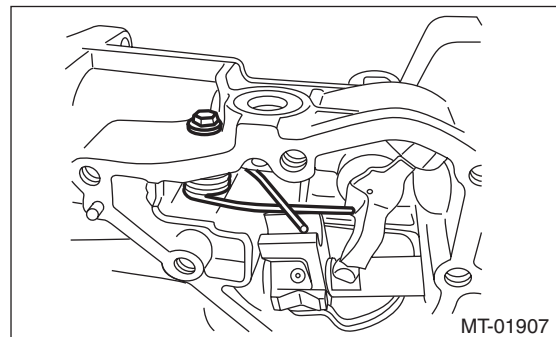
11) Install the shifter arm collar and neutral set spring to transfer case.

**NOTE:**

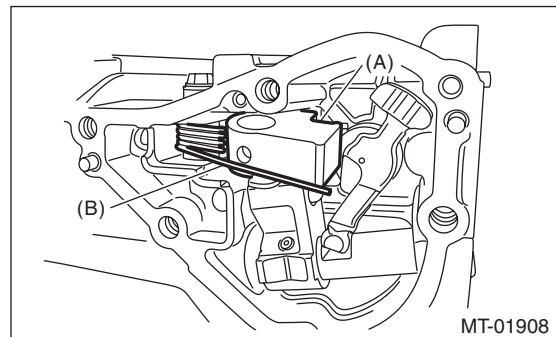
Use a new gasket.

**Tightening torque:**

**$6.4$  N·m ( $0.7$  kgf·m,  $4.7$  ft·lb)**



12) Install the selector arm No. 2 to neutral set spring.



- (A) Selector arm No. 2
- (B) Neutral set spring

# Shift Link Assembly

## MANUAL TRANSMISSION AND DIFFERENTIAL

13) Insert the selector lever COMPL into the selector arm No. 2, and fix with a spring pin.

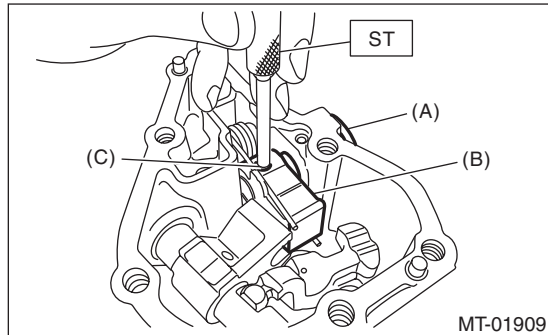
### CAUTION:

Be careful not to damage the oil seal.

### NOTE:

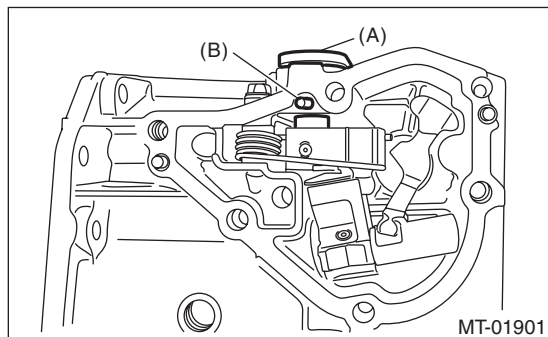
Use new spring pin.

ST 398791700 SPRING PIN REMOVER 2



- (A) Selector lever COMPL
- (B) Selector arm No. 2
- (C) Spring pin

14) Insert a new straight pin.



- (A) Selector lever COMPL
- (B) Straight pin

15) Install the center differential and transfer driven gear as a unit.

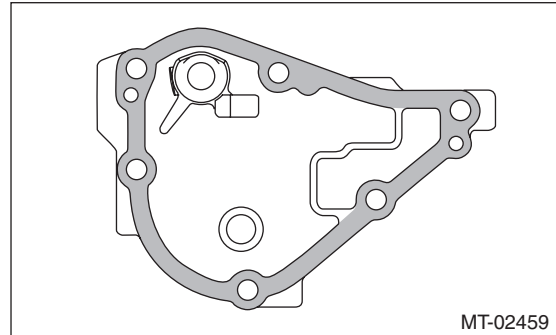
16) Install the extension case assembly to the transfer case. <Ref. to 6MT-45, INSTALLATION, Transfer Case and Extension Case Assembly.>

17) Install the transfer case and the extension case assembly. <Ref. to 6MT-45, INSTALLATION, Transfer Case and Extension Case Assembly.>

18) Apply liquid gasket seamlessly to the mating surface of transmission cover.

### Liquid gasket:

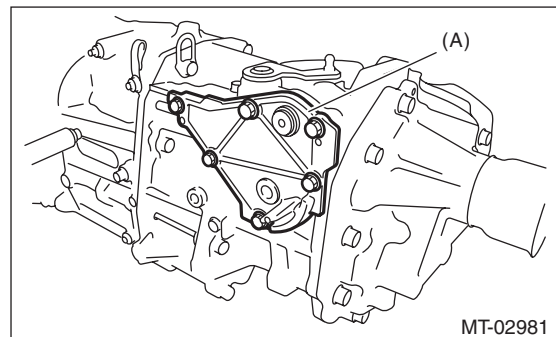
**THREE BOND 1215 (Part No. 004403007)**



19) Install the transmission cover to transfer case.

### Tightening torque:

**25 N·m (2.5 kgf·m, 18.4 ft·lb)**



- (A) Transmission cover

20) Install the back-up light switch and the neutral position switch. <Ref. to 6MT-40, INSTALLATION, Switches and Harness.>

21) Install the manual transmission assembly to the vehicle. <Ref. to 6MT-29, INSTALLATION, Manual Transmission Assembly.>