

Transfer Case and Extension Case Assembly

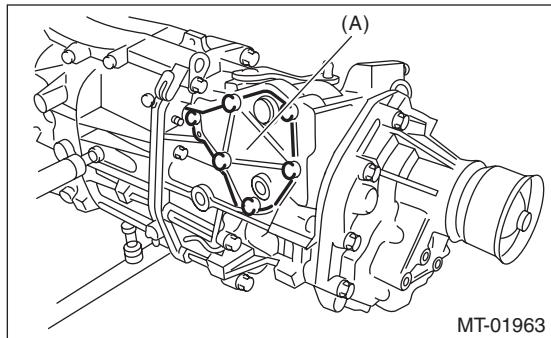
MANUAL TRANSMISSION AND DIFFERENTIAL

9. Transfer Case and Extension Case Assembly

A: REMOVAL

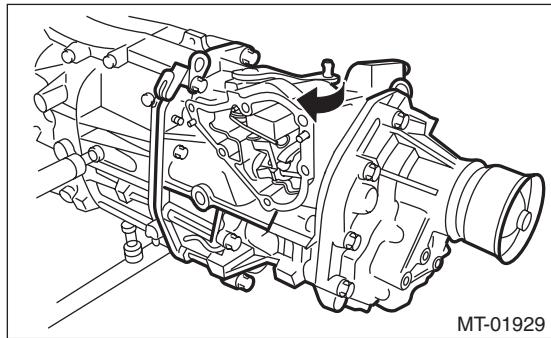
- 1) Remove the manual transmission assembly from the vehicle. <Ref. to 6MT-25, REMOVAL, Manual Transmission Assembly.>
- 2) Remove the back-up light switch and the neutral position switch. <Ref. to 6MT-37, REMOVAL, Switches and Harness.>
- 3) Remove the transfer case together with the extension case assembly.

(1) Remove the transmission cover.

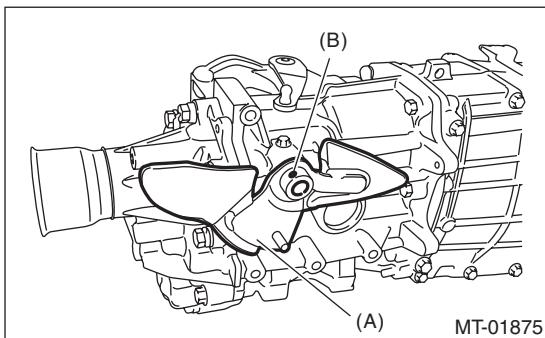


(A) Transmission cover

(2) Set and hold the selector lever COMPL to the 1st-2nd side, and remove the transfer case and extension case assembly as a unit.



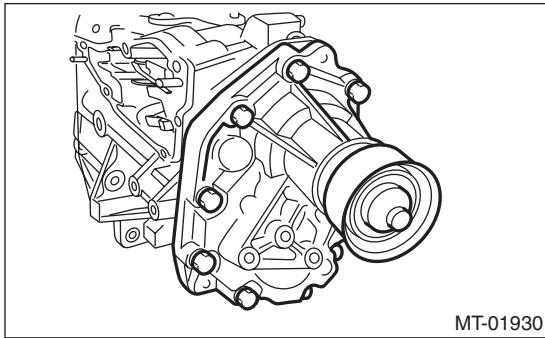
4) Use the ST to push out the spring pin and remove the shift lever COMPL from shifter arm No. 2. ST 398791700 SPRING PIN REMOVER 2



(A) Shift lever COMPL

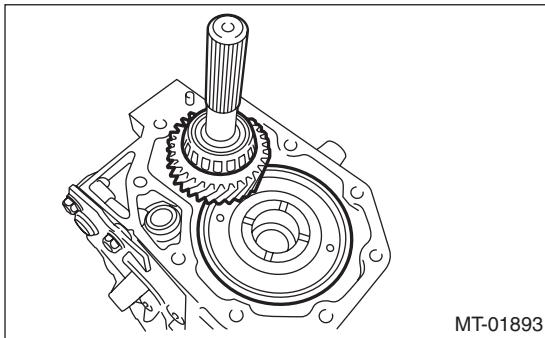
(B) Spring pin

5) Remove the extension case assembly.



B: INSTALLATION

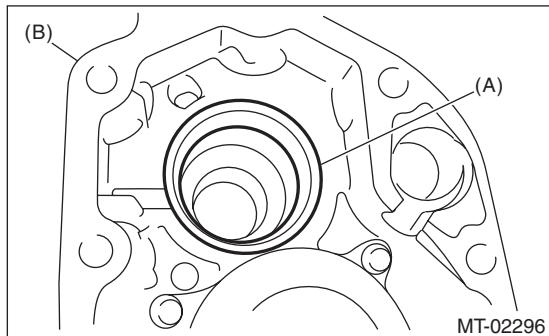
1) Install the center differential and transfer driven gear into the transfer case.



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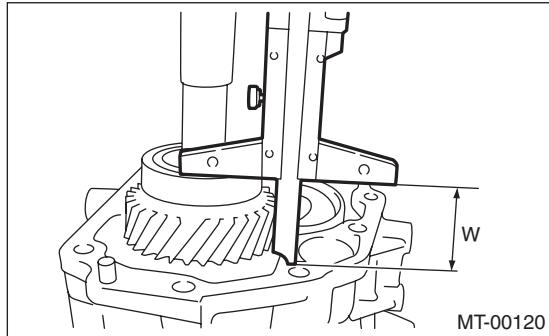
- 2) Remove the bearing outer race and thrust washer from the extension case.



(A) Bearing outer race
(B) Extension case

- 3) While pressing the bearing outer race horizontally, rotate the driven shaft for ten turns.

- 4) Measure the height "W" between transfer case and taper roller bearing on the transfer driven gear.

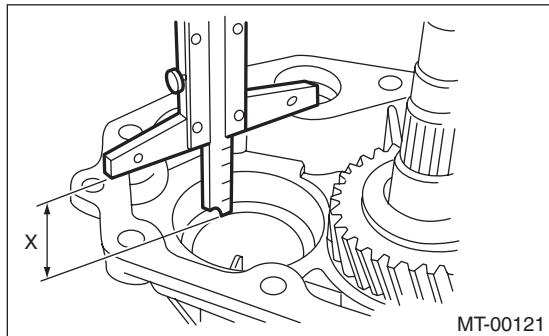


W Measured value

- 5) Measure depth "X" on bearing insertion part of the extension case.

NOTE:

Measure with bearing outer race and thrust washer removed.



X Measured value

- 6) Calculate the thrust washer thickness "t" using the following calculation.

$$t = X - W + (0.15 - 0.20 \text{ mm (0.006 — 0.008 in)})$$

- 7) Select the washer with the nearest value in the following table.

Preload of the taper roller bearing (amount of standard protrusion):

0.15 — 0.20 mm (0.006 — 0.008 in)

NOTE:

Be sure that it is always within the preload.

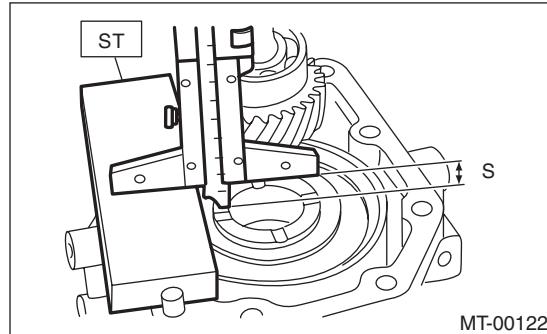
Thrust washer (50 x 61 x t)	
Part No.	Thickness mm (in)
803050060	0.50 (0.0197)
803050061	0.55 (0.0217)
803050062	0.60 (0.0236)
803050063	0.65 (0.0256)
803050064	0.70 (0.0276)
803050065	0.75 (0.0295)
803050066	0.80 (0.0315)
803050067	0.85 (0.0335)
803050068	0.90 (0.0354)
803050069	0.95 (0.0374)
803050070	1.00 (0.0394)
803050071	1.05 (0.0413)
803050072	1.10 (0.0433)
803050073	1.15 (0.0453)
803050074	1.20 (0.0472)
803050075	1.25 (0.0492)
803050076	1.30 (0.0512)
803050077	1.35 (0.0531)
803050078	1.40 (0.0551)
803050079	1.45 (0.0571)

- 8) Install the thrust washer to extension case.

- 9) Replace the bearing outer race attached to the transfer driven gear with the extension case.

- 10) Measure the depth "S" between transfer case and center differential.

ST 398643600 GAUGE

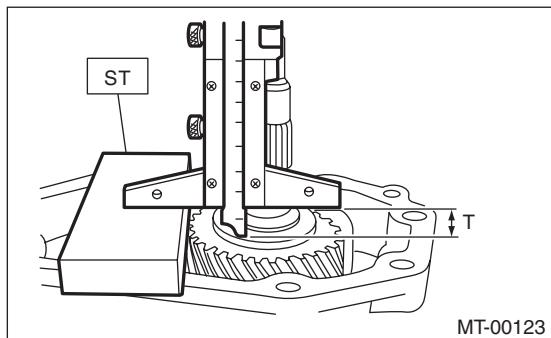


S Measured value

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- 11) Measure the height "T" between the extension case and transfer drive gear.
ST 398643600 GAUGE



T Measured value

- 12) Calculate the thrust washer thickness "U" using the following calculation.

$$U = S + T - 30 \text{ mm (1.18 in)} \text{ [Thickness of ST]}$$

NOTE:

Thickness of ST: 15 mm (0.59 in)

- 13) Select a suitable washer in the following table.

Standard clearance:

0.15 — 0.35 mm (0.0059 — 0.0138 in)

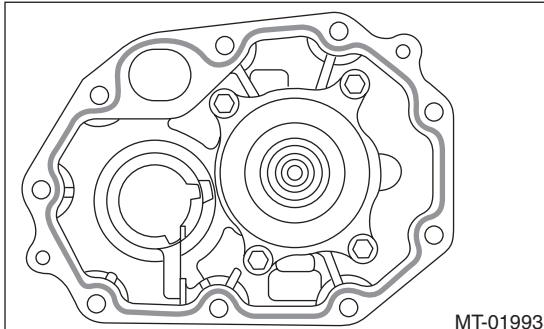
Thrust washer	
Part No.	Thickness mm (in)
803036050	0.9 (0.035)
803036054	1.0 (0.039)
803036051	1.1 (0.043)
803036055	1.2 (0.047)
803036052	1.3 (0.051)
803036056	1.4 (0.055)
803036053	1.5 (0.059)
803036057	1.6 (0.063)
803036058	1.7 (0.067)
803036080	1.8 (0.071)
803036081	1.9 (0.075)

- 14) Fit the thrust washer onto the center differential.

- 15) Apply a proper amount of liquid gasket to the transfer case mating surface.

Liquid gasket:

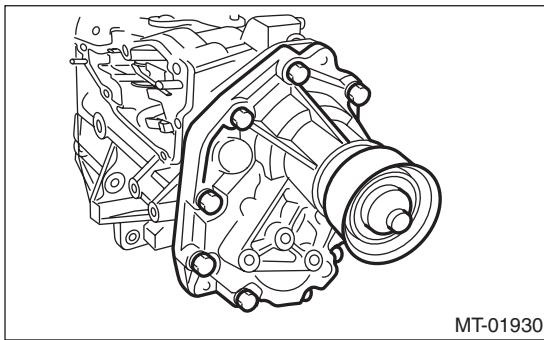
THREE BOND 1215 (Part No. 004403007) or equivalent



- 16) Install the extension case assembly to the transfer case.

Tightening torque:

40 N·m (4.1 kgf-m, 29.5 ft-lb)



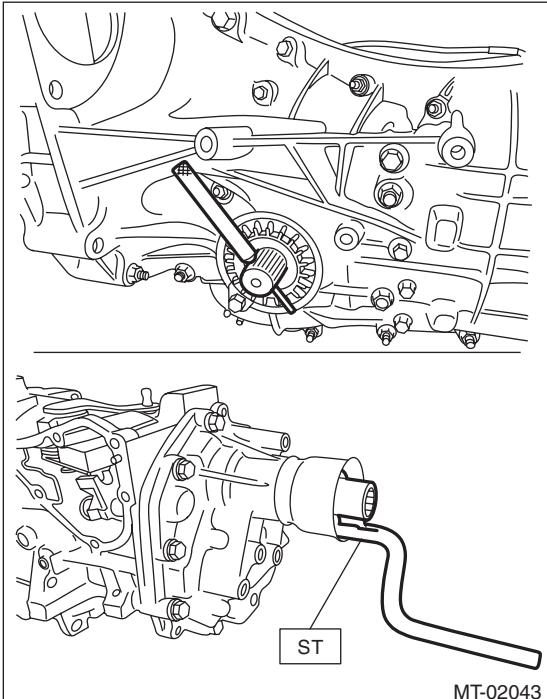
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17) Install the extension case assembly along with the transfer case to the transmission case.

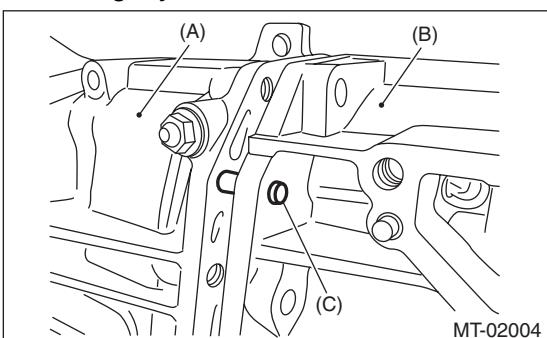
(1) Insert the axle shaft and hold, then move the HANDLE to align the spline position to install.

ST 18631AA000 HANDLE
Part No. 38415AA100 AXLE SHAFT



NOTE:

Push the transfer case assembly until the knock pin protrudes slightly from the transfer case.

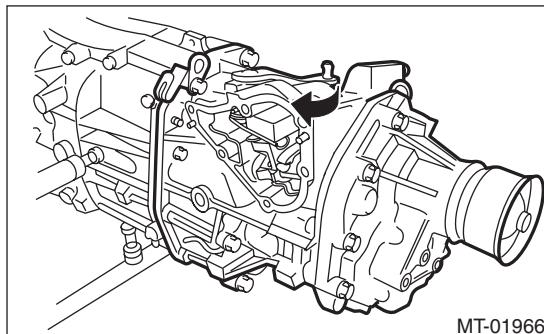


(A) Transmission case

(B) Transfer case

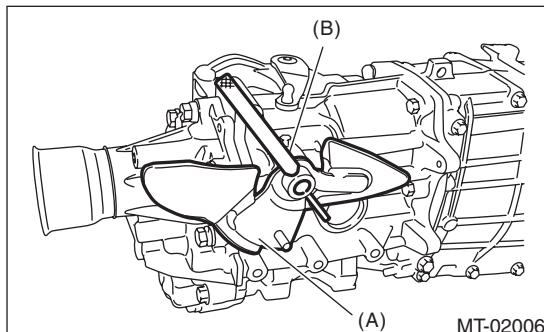
(C) Knock pin

(2) Set and hold the selector lever to the 1st-2nd side, and install the transfer case assembly so that the shifter arm edge and fork rod does not contact.



18) Temporarily tighten the transfer case assembly.

19) Install the shift lever COMPL to the shifter arm No. 2, then insert the remover or similar tool instead of spring pin.



(A) Shift lever COMPL

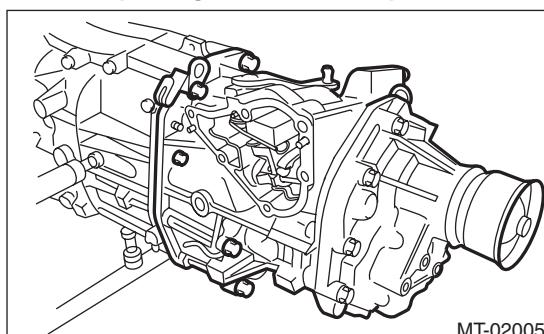
(B) REMOVER

20) Operate the selector arm and remover to confirm the correct shifting into each gear is possible.

21) Tighten the transfer case assembly to the specified torque.

Tightening torque:

24.5 N·m (2.5 kgf·m, 18.1 ft-lb)



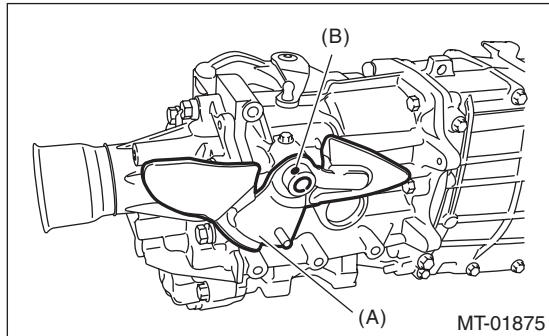
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22) Install the shift lever COMPL to the shifter arm No. 2, then fix it using a spring pin.

NOTE:

Use new spring pin.



(A) Shift lever COMPL

(B) Spring pin

23) Install the transmission cover. <Ref. to 6MT-53, INSTALLATION, Shift Link Assembly.>

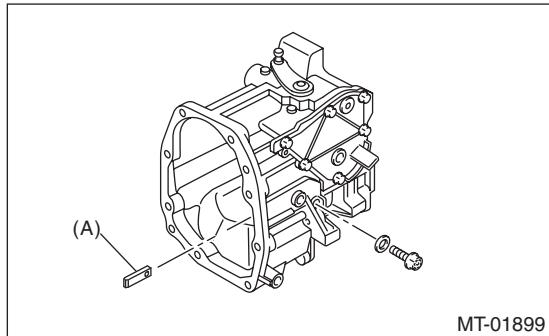
C: DISASSEMBLY

1. TRANSFER CASE

1) Remove the interlock plate.

NOTE:

Do not remove the interlock plate mounting bolt if the parts are assembled as a transmission assembly. Do not attempt to replace the interlock plate unless necessary. Do not reuse the bolts and gaskets once they are removed.



(A) Interlock plate

2) Remove the shift link assembly. <Ref. to 6MT-50, REMOVAL, Shift Link Assembly.>

2. EXTENSION CASE

1) Remove the transfer drive gear assembly. <Ref. to 6MT-45, REMOVAL, Transfer Drive Gear.>

2) Remove the oil seal from the extension case. <Ref. to 6MT-35, Oil Seal.>

D: ASSEMBLY

1. TRANSFER CASE

1) Install the shift link assembly to the transfer case. <Ref. to 6MT-53, INSTALLATION, Shift Link Assembly.>

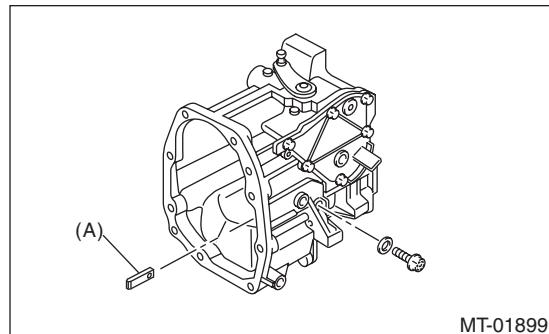
2) Install the interlock plate to the transfer case.

NOTE:

- Use a new bolt and gasket.
- Before installing the interlock plate, clean the screw threads.

Tightening torque:

20 N·m (2.0 kgf·m, 14.8 ft-lb)



MT-01899

(A) Interlock plate

2. EXTENSION CASE

1) Using the ST, install the oil seal to the extension case. <Ref. to 6MT-35, Oil Seal.>

NOTE:

Use a new oil seal.

2) Install the transfer drive gear to the extension case. <Ref. to 6MT-45, INSTALLATION, Transfer Drive Gear.>