

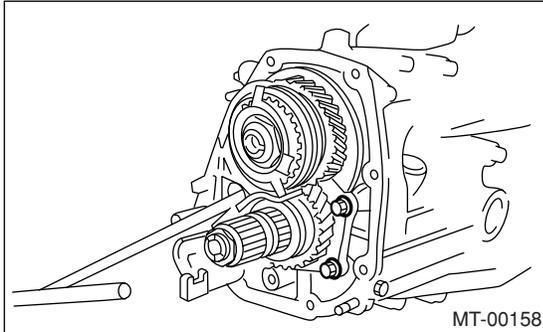
Transmission Case

MANUAL TRANSMISSION AND DIFFERENTIAL

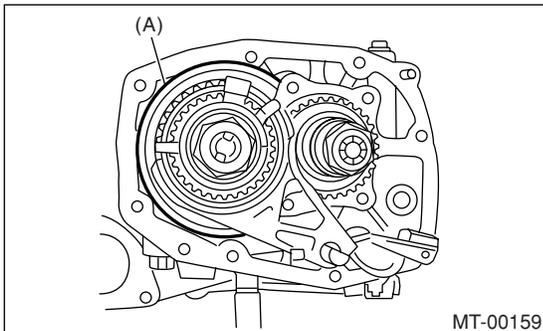
14. Transmission Case

A: REMOVAL

- 1) Remove the manual transmission assembly from vehicle. <Ref. to 5MT-25, REMOVAL, Manual Transmission Assembly.>
- 2) Remove the clutch release lever. <Ref. to CL-13, REMOVAL, Release Bearing and Lever.>
- 3) Remove the transfer case with extension case assembly. <Ref. to 5MT-37, REMOVAL, Transfer Case and Extension Case Assembly.>
- 4) Remove the bearing mounting bolts.

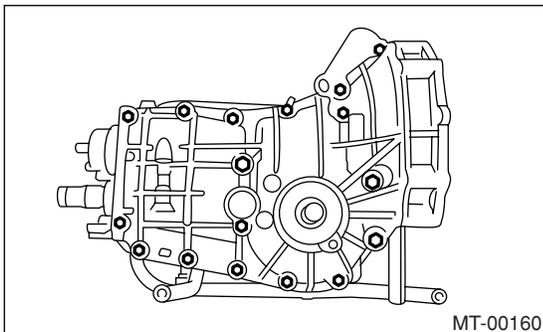


- 5) Remove the main shaft rear plate.



(A) Main shaft rear plate

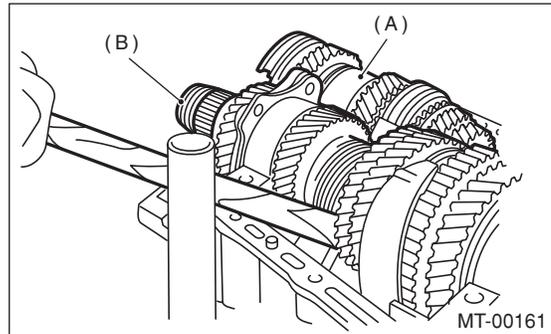
- 6) Separate the transmission case into the right and left cases by loosening coupling bolts and nuts.



- 7) Remove the drive pinion shaft assembly from the left side of transmission case.

NOTE:

Use a hammer handle, etc. to remove if too tight.



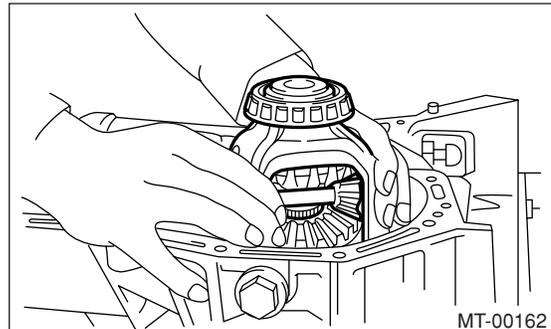
(A) Main shaft ASSY for single-range

(B) Drive pinion shaft ASSY

- 8) Remove the main shaft assembly for single-range.
- 9) Remove the front differential assembly.

NOTE:

- Be careful not to confuse right and left roller bearing outer races.
- Be careful not to damage the oil seal of retainer.



B: INSTALLATION

- 1) Wipe off grease, oil and dust on the mating surfaces of transmission cases with white gasoline.
- 2) Install the front differential assembly.
- 3) Install the main shaft assembly for single-range. Install the transmission case knock pin into needle bearing knock pin hole.
- 4) Install the drive pinion shaft assembly. Install the transmission case knock pin into roller bearing knock pin hole.
- 5) Apply liquid gasket, and then put the case RH and LH together.

Liquid gasket:

THREE BOND 1215 (Part No. 004403007) or equivalent

- 6) Tighten seventeen bolts with bracket, clip, etc. as shown in the figure.

NOTE:

Insert the bolts from the bottom and tighten nuts on the top.

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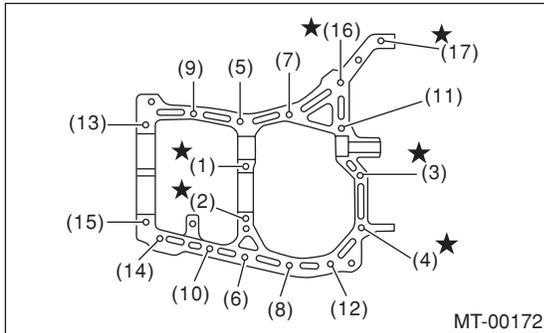
Tightening torque:

8 mm bolt

25 N·m (2.5 kgf·m, 18.1 ft·lb)

★ 10 mm bolt

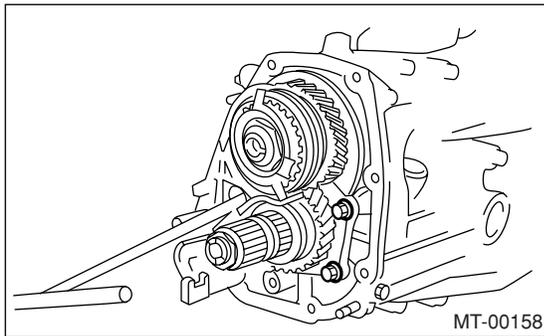
39 N·m (4.0 kgf·m, 28.9 ft·lb)



7) Tighten the ball bearing mounting bolts.

Tightening torque:

30 N·m (3.1 kgf·m, 22.1 ft·lb)

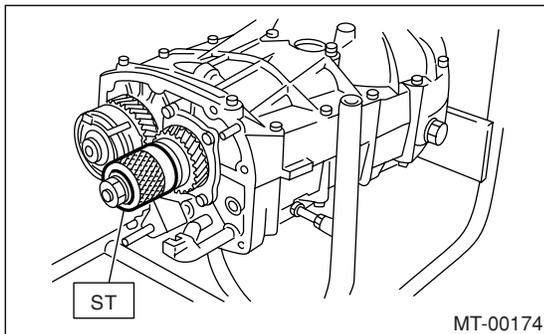


8) Backlash adjustment of hypoid gear and preload adjustment of roller bearing.

NOTE:

Set the ST on drive pinion assembly.

ST 498427100 STOPPER



9) Place the transmission with the left side of case facing downward, and put ST1 on bearing cup.

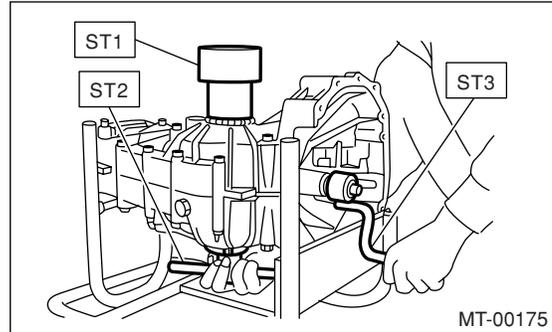
10) Screw the retainer assembly into left case from the bottom with ST2. Fit the ST3 on transmission main shaft. Shift the gear into 4th or 5th and turn the shaft several times. Screw in the retainer while turning ST3 until a slight resistance is felt on ST2.

This is the contact point of hypoid gear and drive pinion shaft. Repeat the above sequence several times to ensure the contact point.

ST1 399780104 WEIGHT

ST2 499787000 WRENCH ASSY

ST3 499927100 HANDLE

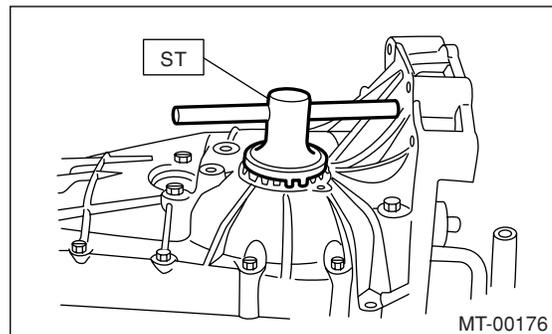


11) Remove the weight, and screw in the retainer without O-ring on the upper side and stop at the point where slight resistance is felt.

NOTE:

At this condition, the backlash between hypoid gear and drive pinion shaft is zero.

ST 499787000 WRENCH ASSY



12) Install the lock plate. Loosen the retainer on the lower side by 1-1/2 notches from lock plate, and turn the retainer on the upper side by the same amount in order to obtain the backlash.

NOTE:

The notch on the lock plate moves by 1/2 notch if the plate is turned upside down.

13) Turn in the retainer on the upper side additionally by 1 notch in order to apply preload on taper roller bearing.

14) Tighten temporarily both the upper and lower lock plates and mark both holder and lock plate for later readjustment.

15) Turn the transmission main shaft several times while tapping around retainer lightly with plastic hammer.

16) Inspect and adjust the backlash and tooth contact of hypoid gear. <Ref. to 5MT-68, INSPECTION, Front Differential Assembly.>

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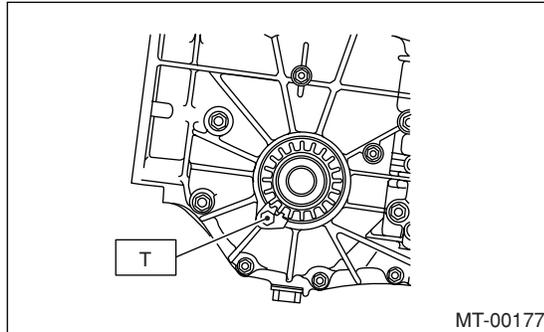
17) After checking the tooth contact of hypoid gears, remove the lock plate. Then loosen the retainer until the O-ring groove appears. Fit O-ring into the groove and tighten the retainer into the position where retainer has been tightened in. Tighten the lock plate.

NOTE:

Carry out this job on both upper and lower retainers.

Tightening torque:

T: 25 N·m (2.5 kgf-m, 18.4 ft-lb)



18) Selecting of main shaft rear plate: <Ref. to 5MT-56, ADJUSTMENT, Main Shaft Assembly for Single-Range.>

19) Install the clutch release lever and bearing. <Ref. to CL-13, INSTALLATION, Release Bearing and Lever.>

20) Install the transfer case with extension case assembly. <Ref. to 5MT-37, INSTALLATION, Transfer Case and Extension Case Assembly.>

21) Install the manual transmission assembly into vehicle. <Ref. to 5MT-27, INSTALLATION, Manual Transmission Assembly.>

C: INSPECTION

Check the transmission case for cracks, damage, or oil leaks.