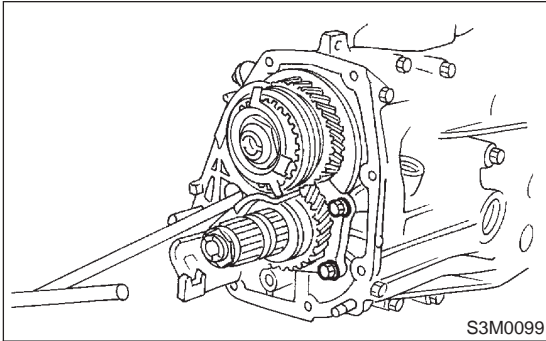


15. Transmission Case S503266

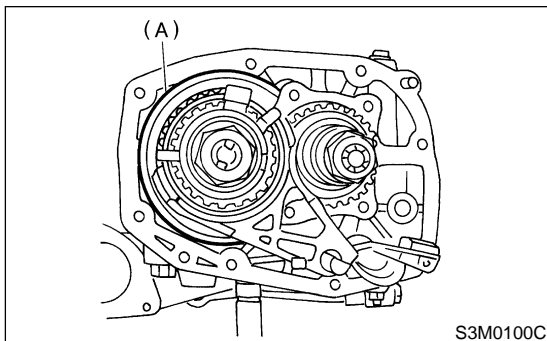
A: REMOVAL S503266A18

- 1) Remove the manual transmission assembly from vehicle. <Ref. to MT-27 REMOVAL, Manual Transmission Assembly.>
- 2) Remove clutch release lever. <Ref. to CL-12 REMOVAL, Release Bearing and Lever.>
- 3) Remove transfer case with extension case assembly. <Ref. to MT-39 REMOVAL, Transfer Case and Extension Case Assembly.>
- 4) Remove bearing mounting bolts.



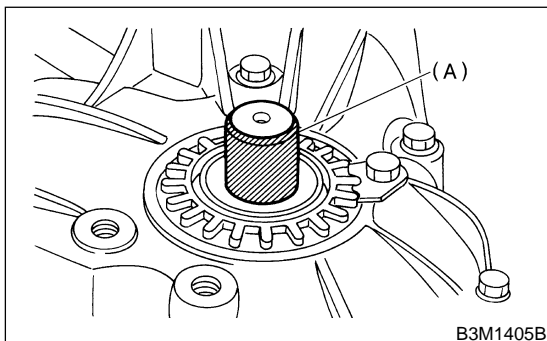
S3M0099

- 5) Remove main shaft rear plate.



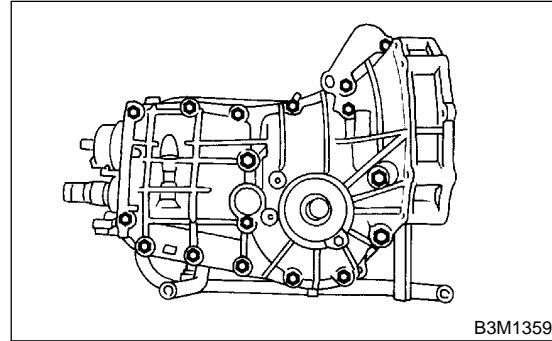
S3M0100C

- 6) Put vinyl tape around splines of right and left axle drive shafts to prevent damage to oil seal.



B3M1405B

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



B3M1359

B: INSTALLATION S503266A11

- 1) Wipe off grease, oil and dust on the mating surfaces of transmission cases with white gasoline, and apply liquid gasket, and then put case right side and left side together.

Liquid gasket:

THREE BOND 1215 or equivalent

- 2) Tighten 17 bolts with bracket, clip, etc. as shown in the figure.

NOTE:

- Insert bolts from the bottom and tighten nuts at the top.
- Put cases together so that drive pinion shim and input shaft holder shim are not caught up in between.
- Confirm that speedometer gear is meshed.

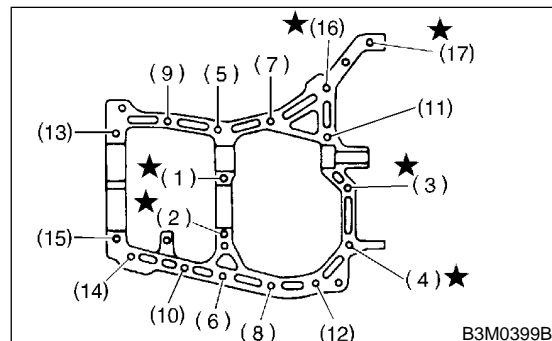
Tightening torque:

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)



B3M0399B

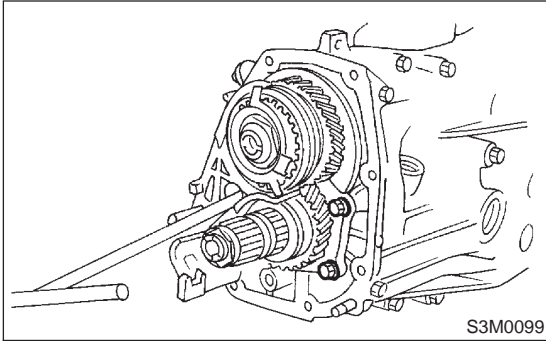
TRANSMISSION CASE

Manual Transmission and Differential

3) Tighten ball bearing attachment bolts.

Tightening torque:

29 N·m (3.0 kgf-m, 21.7 ft-lb)

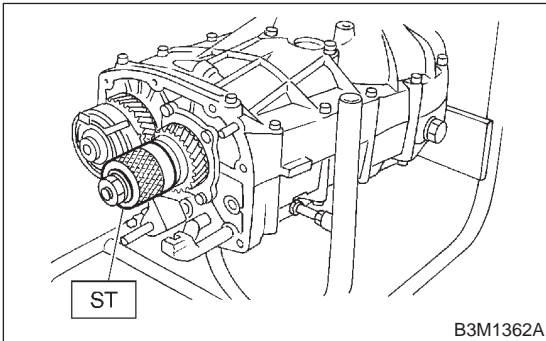


4) Backlash adjustment of hypoid gear and pre-load adjustment of roller bearing

NOTE:

Support drive pinion assembly with ST.

ST 498427100 STOPPER



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

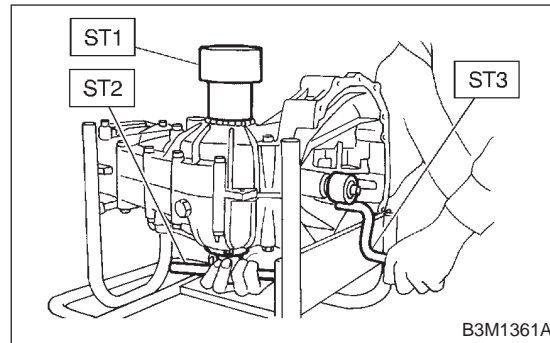
6) Screw retainer assembly into left case from the bottom with ST2. Fit ST3 on the transmission main shaft. Shift gear into 4th or 5th and turn the shaft several times. Screw in the retainer while turning ST3 until a slight resistance is felt on ST2.

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

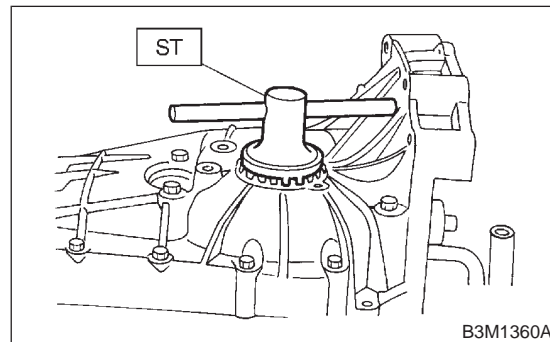


7) Remove weight and screw in retainer without O-ring on the upper side and stop at the point where slight resistance is felt.

NOTE:

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

ST 499787000 WRENCH ASSY



8) Fit lock plate. Loosen the retainer on the lower side by 1-1/2 notches of lock plate and turn in 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.

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

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

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

12) Inspect and adjust backlash and tooth contact of hypoid gear. <Ref. to MT-71 INSPECTION, Front Differential Assembly.>

TRANSMISSION CASE

Manual Transmission and Differential

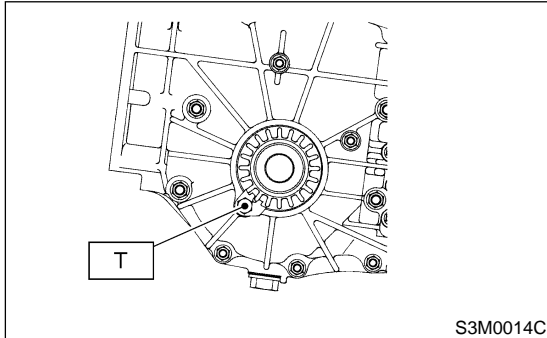
13) After checking the tooth contact of hypoid gears, remove the lock plate. Then loosen retainer until the O-ring groove appears. Fit O-ring into the groove and tighten retainer into the position where retainer has been tightened in. Tighten lock plate.

NOTE:

Carry out this job on both upper and lower retainers.

Tightening torque:

T: 25 N·m (2.5 kgf-m, 18.1 ft-lb)



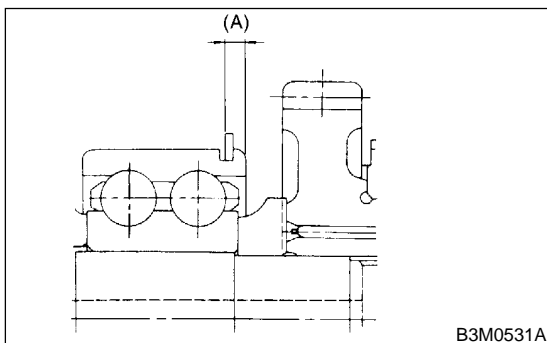
14) Selecting of main shaft rear plate
Using ST, measure the amount (A) of ball bearing protrusion from transmission main case surface and select the proper plate in the following table:

NOTE:

Before measuring, tap the end of main shaft with a plastic hammer lightly in order to make the clearance zero between the main case surface and the moving flange of bearing.

ST 498147000 DEPTH GAUGE

Dimension (A) mm (in)	Part No.	Mark
4.00 — 4.13 (0.1575 — 0.1626)	32294AA041	1
3.87 — 3.99 (0.1524 — 0.1571)	32294AA051	2



15) Install clutch release lever and bearing. <Ref. to CL13 INSTALLATION, Release Bearing and Lever.>

16) Install transfer case with extension case assembly. <Ref. to MT-39 INSTALLATION, Transfer Case and Extension Case Assembly.>

17) Install the manual transmission assembly into the vehicle. <Ref. to MT-30 INSTALLATION, Manual Transmission Assembly.>

C: INSPECTION S503266A10

- 1) Check the transmission case for cracks, damage, and oil leaks.
- 2) At neutral position, make sure that the gear shift is not leaning towards first, second, or back gear. If it is leaning, replace the shim and/or reverse accent shaft. <Ref. to MT-53 ADJUSTMENT, Transmission Case.>

D: ADJUSTMENT S503266A01

- 1) Make adjustment so that the heavy stroke (reverse side) is a little more than the light stroke (1st/2nd side).
- 2) To adjust, remove bolts holding reverse check sleeve assembly to the case, move sleeve assembly outward, and place adjustment shim (0 to 1 ea.) between sleeve assembly and case to adjust the clearance.

CAUTION:

Be careful not to break O-ring when placing shim(s).

NOTE:

- When shim is removed, the neutral position will move closer to reverse; when shim is added, the neutral position will move closer to 1st gear.
- If shims alone cannot adjust the clearance, replace reverse accent shaft and re-adjust.

Adjustment shim	
Part No.	Thickness mm (in)
32190AA000	0.15 (0.0059)
32190AA010	0.30 (0.0118)

Reverse accent shaft		
Part No.	Mark	Remarks
32188AA090	3	Neutral position is closer to 1st gear.
32188AA100	0	Standard
32188AA110	1	Neutral position is closer to reverse gear.