

Shifter Fork and Rod

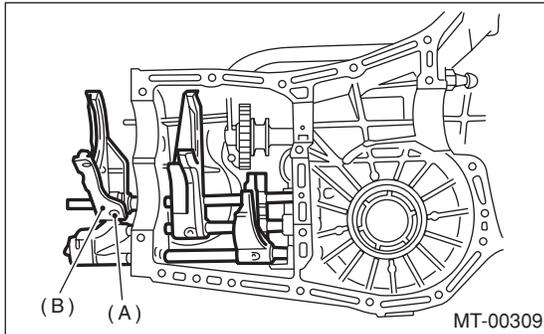
MANUAL TRANSMISSION AND DIFFERENTIAL

19. Shifter Fork and Rod

A: REMOVAL

- 1) Remove the manual transmission assembly from vehicle. <Ref. to 5MT-25, REMOVAL, Manual Transmission Assembly.>
- 2) Remove the back-up light switch and neutral position switch. <Ref. to 5MT-34, REMOVAL, Switches and Harness.>
- 3) Remove the transfer case with extension case assembly. <Ref. to 5MT-37, REMOVAL, Transfer Case and Extension Case Assembly.>
- 4) Remove transmission case. <Ref. to 5MT-49, REMOVAL, Transmission Case.>
- 5) Remove the drive pinion shaft assembly. <Ref. to 5MT-57, REMOVAL, Drive Pinion Shaft Assembly.>
- 6) Remove the main shaft assembly. <Ref. to 5MT-52, REMOVAL, Main Shaft Assembly for Single-Range.>
- 7) Remove the differential assembly. <Ref. to 5MT-65, REMOVAL, Front Differential Assembly.>
- 8) Drive out the straight pin tapping by ST, and pull out the 5th shifter fork.

ST 398791700 STRAIGHT PIN REMOVER



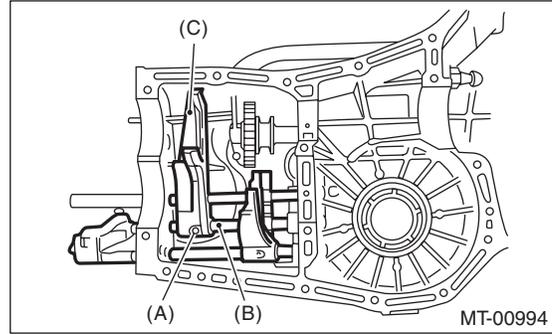
- (A) Straight pin
- (B) 5th shifter fork

- 9) Remove the plugs, springs and checking balls.
- 10) Drive out the straight pin tapping by ST, and pull out the 3-4 fork rod and shifter fork.

NOTE:

When removing a rod, keep other rods in neutral. Also, when pulling out the straight pin, remove it toward the inside of case so that it does not hit against the case.

ST 398791700 STRAIGHT PIN REMOVER



- (A) Straight pin
- (B) 3-4 fork rod
- (C) Shifter fork

- 11) Drive out the straight pin tapping by ST, and pull out the 1-2 fork rod and shifter fork.

ST 398791700 STRAIGHT PIN REMOVER

- 12) Remove the outer snap ring, and pull out reverse fork rod from reverse shifter rod arm. Then take out the ball, spring and interlock plunger from rod.

And then remove the rod.

NOTE:

When pulling out reverse shifter rod arm, be careful not to let ball pop out of arm.

- 13) Remove the reverse shifter lever.

B: INSTALLATION

- 1) Install the reverse arm fork spring, ball and interlock plunger to reverse fork rod arm. Insert the reverse fork rod into the hole in reverse fork rod arm, and hold it with outer snap ring using ST.

NOTE:

Apply a coat of grease to plunger to prevent it from falling.

ST 399411700 ACCENT BALL INSTALLER

- 2) Position the ball, spring and new gasket in the reverse shifter rod hole on the left side of transmission case, and tighten the checking ball plug.
- 3) Install the 1-2 fork rod into 1-2 shifter fork through the hole on the rear of transmission case.
- 4) Align the holes in rod and fork, and drive new straight pin into these holes using ST.

NOTE:

- Set other rods to neutral.
- Make sure the interlock plunger is on the 3-4 fork rod side.

ST 398791700 STRAIGHT PIN REMOVER

- 5) Install the interlock plunger onto 3-4 fork rod.

NOTE:

Apply a coat of grease to plunger to prevent it from falling.

Shifter Fork and Rod

- 6) Install the 3-4 fork rod into 3-4 shifter fork through the hole on the rear of transmission case.
- 7) Align the holes in rod and fork, and drive new straight pin into these holes.

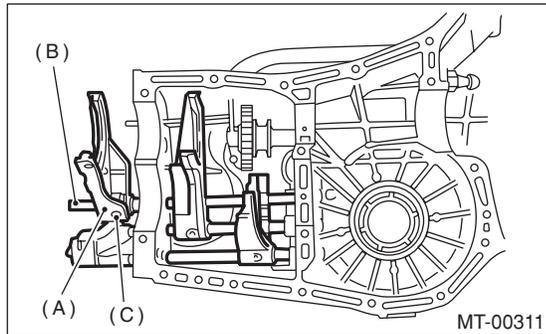
NOTE:

- Set the reverse fork rod to neutral.
- Make sure the interlock plunger (before installation) is on the reverse fork rod side.

ST 398791700 STRAIGHT PIN REMOVER

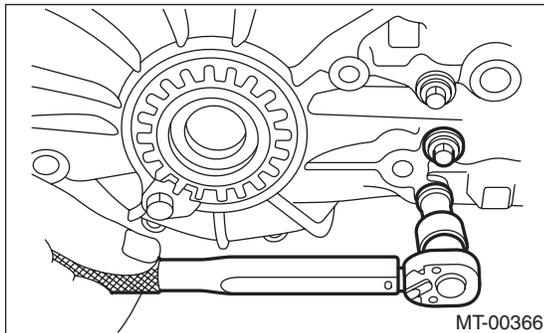
- 8) Install the 5th shifter fork onto the rear of reverse fork rod. Align the holes in the two parts and drive new straight pin into the specified place.

ST 398791700 STRAIGHT PIN REMOVER



- (A) 5th shifter fork
- (B) Reverse fork rod
- (C) Straight pin

- 9) Position the balls, checking ball springs and new gaskets into 3-4 and 1-2 rod holes, and install plugs.



- 10) Install the differential assembly. <Ref. to 5MT-65, INSTALLATION, Front Differential Assembly.>

- 11) Install the main shaft assembly. <Ref. to 5MT-52, INSTALLATION, Main Shaft Assembly for Single-Range.>

- 12) Install the drive pinion shaft assembly. <Ref. to 5MT-57, INSTALLATION, Drive Pinion Shaft Assembly.>

- 13) Install the transmission case. <Ref. to 5MT-49, INSTALLATION, Transmission Case.>

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

- 15) Install the back-up light switch and neutral position switch. <Ref. to 5MT-34, INSTALLATION, Switches and Harness.>

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

C: INSPECTION

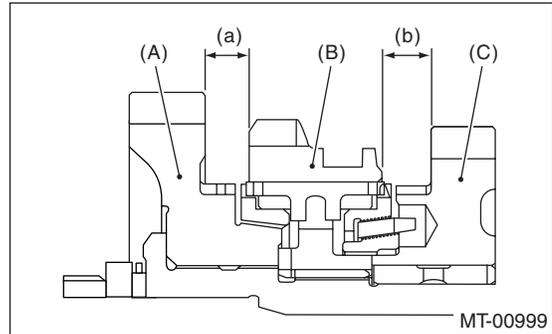
- 1) Inspect the fork and rod for damage. Replace if it is damaged.

2) Gearshift mechanism

Repair or replace the gearshift mechanism if excessively worn, bent, or defective in any way.

- 3) Inspect the clearance between 1st, 2nd driven gear and reverse driven gear. If any clearance is not within specifications, replace the shifter fork as required.

Clearance (a) and (b):
9.5 mm (0.374 in)



- (A) 1st driven gear
- (B) Reverse driven gear
- (C) 2nd driven gear

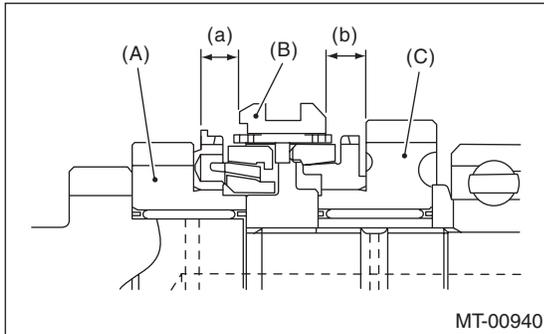
1st-2nd shifter fork		
Part Number	Marking	Remarks
32804AA060	1	Approach to 1st gear by 0.2 mm (0.008 in).
32804AA070	—	Standard
32804AA080	3	Become distant from 2nd gear by 0.2 mm (0.008 in).

- 4) Inspect the clearance between 3rd, 4th drive gear and coupling sleeve. If any clearance is not within specifications, replace the shifter fork as required.

Shifter Fork and Rod

MANUAL TRANSMISSION AND DIFFERENTIAL

Clearance (a) and (b):
7.3 mm (0.287 in)

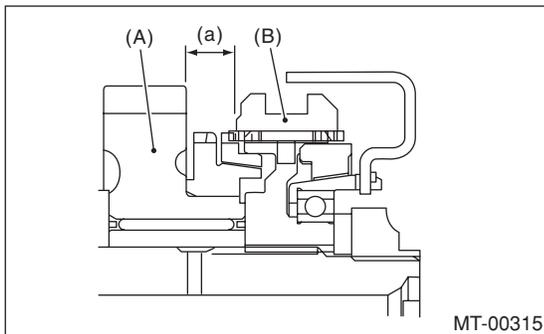


- (A) 3rd drive gear
- (B) Coupling sleeve
- (C) 4th drive gear

3rd-4th shifter fork		
Part Number	Marking	Remarks
32810AA061	1	Approach to 4th gear by 0.2 mm (0.008 in).
32810AA071	—	Standard
32810AA101	3	Become distant from 3rd gear by 0.2 mm (0.008 in).

5) Inspect the clearance between 5th drive gear and coupling sleeve. If any clearance is not within specifications, replace the shifter fork as required.

Clearance (a):
9.3 mm (0.366 in)



- (A) 5th drive gear
- (B) Coupling sleeve

5th shifter fork		
Part Number	Marking	Remarks
32812AA201	4	Approach to 5th gear by 0.2 mm (0.008 in).
32812AA211	5	Standard
32812AA221	6	Become distant from 5th gear by 0.2 mm (0.008 in).

6) Inspect the rod end clearances (A) and (B). If any clearance is not within specifications, replace the rod or fork as required.

Clearance (A):
3rd-4th — 5th:
0.5 — 1.3 mm (0.020 — 0.051 in)

Clearance (B):
1st-2nd — 3rd-4th
0.4 — 1.4 mm (0.016 — 0.055 in)

