

# SHIFTER FORK AND ROD

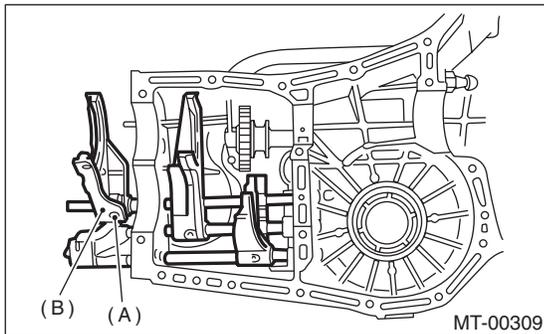
MANUAL TRANSMISSION AND DIFFERENTIAL

## 21. Shifter Fork and Rod

### A: REMOVAL

- 1) Remove the manual transmission assembly from vehicle. <Ref. to 5MT-28, REMOVAL, Manual Transmission Assembly.>
- 2) Remove the back-up light switch and neutral position switch. <Ref. to 5MT-38, REMOVAL, Switches and Harness.>
- 3) Remove the transfer case with extension case assembly. <Ref. to 5MT-42, REMOVAL, Transfer Case and Extension Case Assembly.>
- 4) Remove the transmission case. <Ref. to 5MT-54, REMOVAL, Transmission Case.>
- 5) Remove the drive pinion shaft assembly. <Ref. to 5MT-63, REMOVAL, Drive Pinion Shaft Assembly.>
- 6) Remove the main shaft assembly. <Ref. to 5MT-57, REMOVAL, Main Shaft Assembly (Single-Range).>
- 7) Remove the differential assembly. <Ref. to 5MT-71, REMOVAL, Front Differential Assembly.>
- 8) Drive out the straight pin with ST, and 5th shifter fork.

ST 398791700 STRAIGHT PIN REMOVER



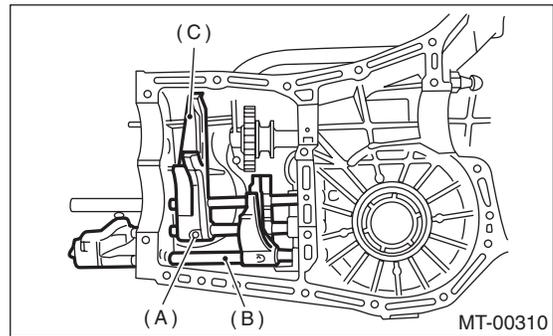
- (A) Straight pin  
(B) 5th shifter fork

- 9) Remove the plugs, springs and checking balls.

- 10) Drive out the straight pin, and pull out 3-4 fork rod and shifter fork.

NOTE:

When removing the rod, keep other rods in neutral.



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

- 11) Drive out the straight pin, and pull out 1st-2nd fork rod and shifter fork.

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

And then remove the rod.

NOTE:

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

- 13) Remove the reverse shifter lever.

### B: INSTALLATION

- 1) Apply grease to plunger.

ST 399411700 ACCENT BALL INSTALLER

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

- 3) Position the ball, spring and new gasket in reverse shifter rod hole, on left side transmission case, and tighten the checking ball plug.

- 4) Install the 1st-2nd fork rod into 1st-2nd shifter fork via the hole on the rear of transmission case.

- 5) Align the holes in rod and fork, and new drive straight pin into these holes using ST.

NOTE:

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

ST 398791700 STRAIGHT PIN REMOVER

- 6) Apply a coat of grease to plunger.

- 7) Install the interlock plunger onto 3rd-4th fork rod.

- 8) Install the 3rd-4th fork rod into 3rd-4th shifter fork via the hole on the rear of transmission case.

# SHIFTER FORK AND ROD

## MANUAL TRANSMISSION AND DIFFERENTIAL

9) Align the holes in rod and fork, and new drive straight pin into these holes.

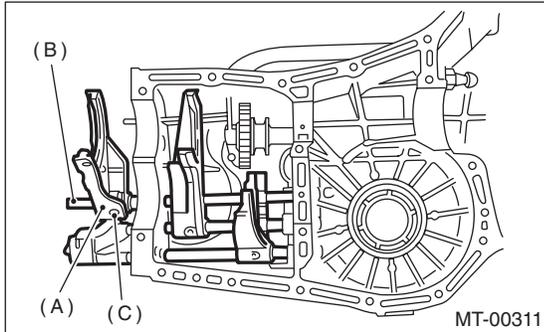
**NOTE:**

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

ST 398791700 STRAIGHT PIN REMOVER

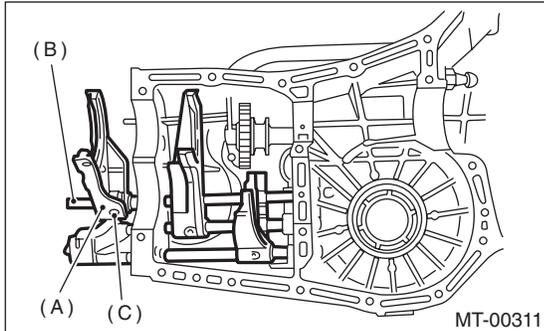
10) Install the 5th shifter fork onto the rear of reverse fork rod. Align holes in the two parts and new drive straight pin into place.

ST 398791700 STRAIGHT PIN REMOVER



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

11) Position the balls, checking ball springs and new gaskets into 3rd-4th and 1st-2nd fork rod holes, and install plugs.



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

12) Install the differential assembly. <Ref. to 5MT-71, INSTALLATION, Front Differential Assembly.>

13) Install the main shaft assembly. <Ref. to 5MT-57, INSTALLATION, Main Shaft Assembly (Single-Range).>

14) Install the drive pinion shaft assembly. <Ref. to 5MT-63, INSTALLATION, Drive Pinion Shaft Assembly.>

15) Install the transmission case. <Ref. to 5MT-54, INSTALLATION, Transmission Case.>

16) Install the transfer case with extension case assembly. <Ref. to 5MT-42, INSTALLATION, Transfer Case and Extension Case Assembly.>

17) Install the back-up light switch and neutral position switch. <Ref. to 5MT-38, INSTALLATION, Switches and Harness.>

18) Install the manual transmission assembly to vehicle. <Ref. to 5MT-31, INSTALLATION, Manual Transmission Assembly.>

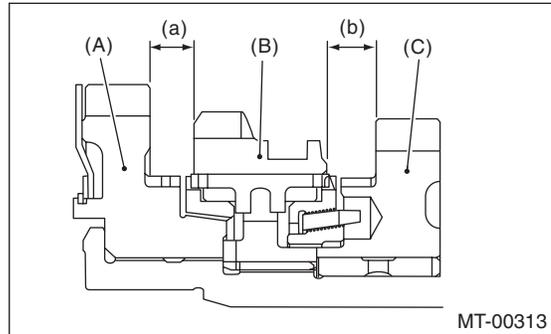
### C: INSPECTION

1) Check the shift shaft and shift rod for damage. Replace if 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

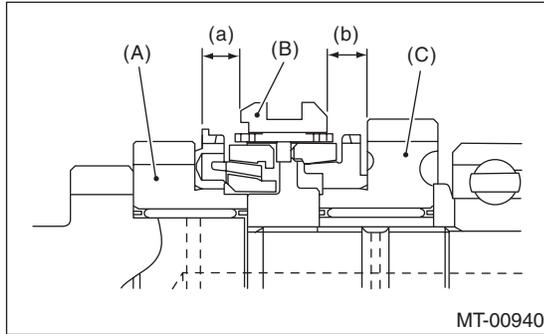
1st-2nd shifter fork		
Part No.	Mark	Remarks
32804AA060	1	Approach to 1st gear by 0.2 mm (0.008 in).
32804AA070	—	Standard
32804AA080	3	Approach to 2nd gear by 0.2 mm (0.008 in).

# SHIFTER FORK AND ROD

## MANUAL TRANSMISSION AND DIFFERENTIAL

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.

**Clearance (a) and (b):**  
**9.3 mm (0.366 in)**

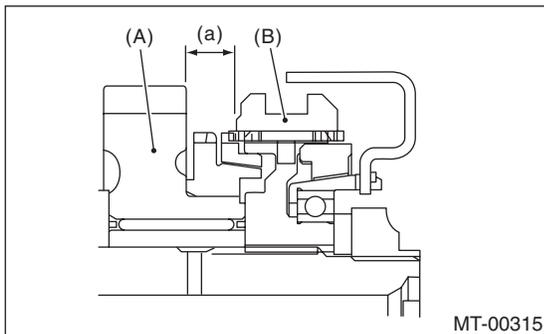


- (A) 3rd drive gear
- (B) Coupling sleeve
- (C) 4th drive gear

3rd-4th shifter fork		
Part No.	Mark	Remarks
32810AA061	1	Approach to 4th gear by 0.2 mm (0.008 in).
32810AA071	—	Standard
32810AA101	3	Approach to 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 (Non-turbo model)		
Part No.	Mark	Remarks
32812AA201	7	Approach to 5th gear by 0.2 mm (0.008 in).
32812AA211	—	Standard
32812AA221	9	Approach to 5th gear by 0.2 mm (0.008 in).

5th shifter fork (Turbo model)		
Part No.	Mark	Remarks
32812AA231	7	Approach to 5th gear by 0.2 mm (0.008 in).
32812AA241	—	Standard
32812AA251	9	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):**  
**1st-2nd to 3rd-4th:**  
**0.4 — 1.4 mm (0.016 — 0.055 in)**

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

