

SECTION 12

GEAR SHIFTING CONTROL

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12-1. GENERAL DESCRIPTION

In this gear shifting control system, by its mechanical structure, the movement of the gear shift lever, which is located beside the driver's seat, directly actuates the gear shift fork shaft to shift the gear into the selected position. This system consists of the following parts.

1. Gear shift lever knob
2. Gear shift lever
3. Gear shift lever boot No. 2
4. Gear shift lever boot No. 1
5. Gear shift lever case cover
6. Gear shift lever locating bolt
7. Gear shift lever case
8. Reverse select pin screw
9. Reverse select locating springs
10. Reverse select locating ball
11. Reverse select guide pin
12. Reverse gear shift fork shaft
13. High speed gear shift fork shaft
14. Select return springs
15. Low speed select pin bolt
16. Low speed select guide pin
17. Low speed gear shift fork shaft
18. Gear shift lever wave washer
19. Gear shift lever seat

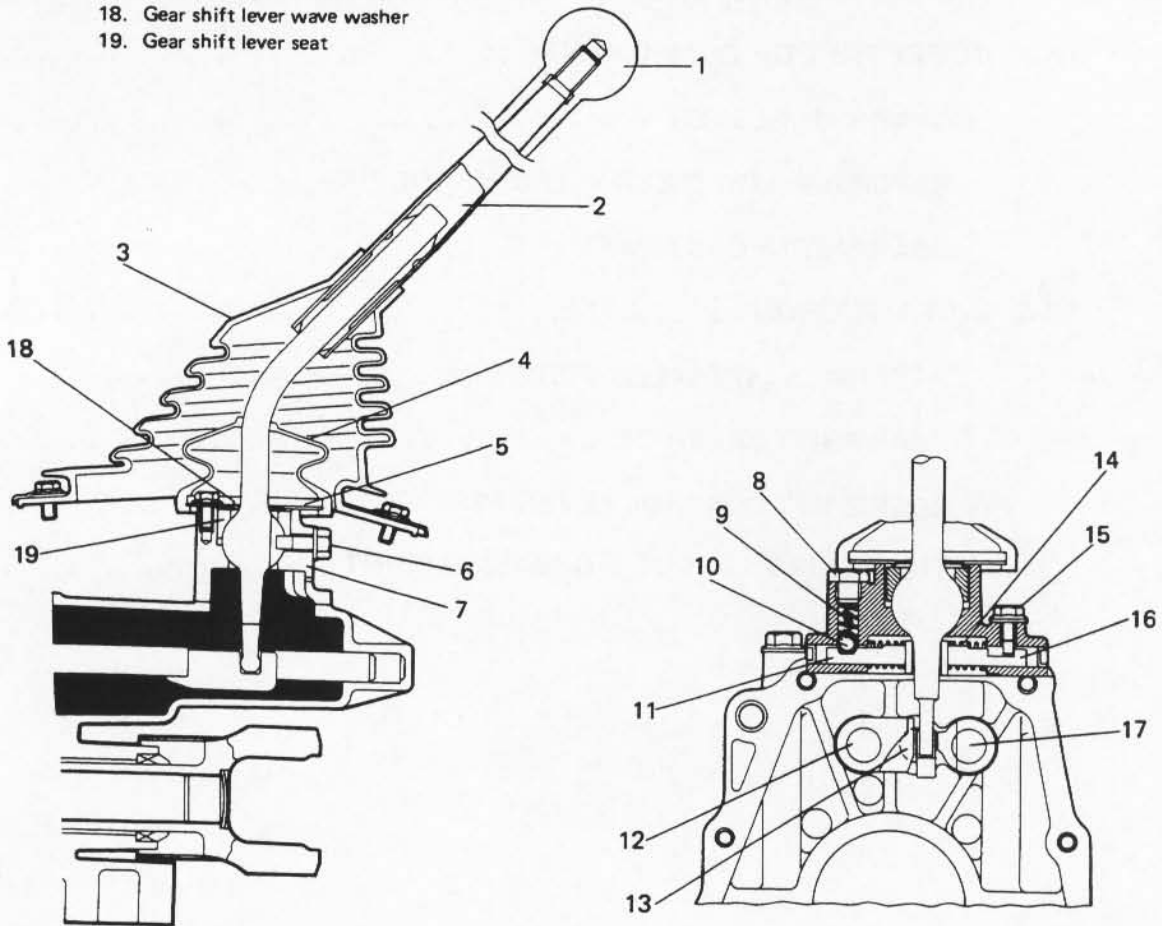


Fig. 12-1

12-2. REMOVAL

Gear Shift Lever

- 1) Remove bolts tightening gear shift lever boot No. 2 and take boot off floor center tunnel.

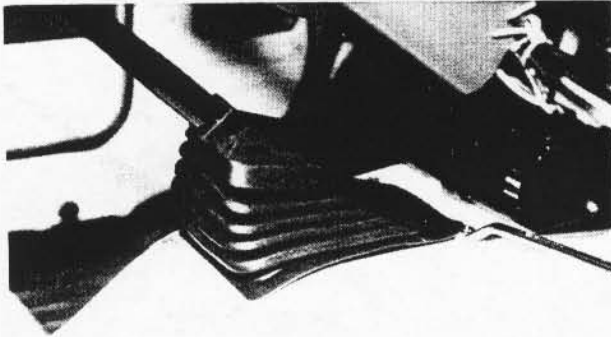


Fig. 12-2

- 2) Take boot No. 1 off gear shift lever case and move it up (toward knob).
- 3) Remove 3 bolts tightening gear shift lever case cover.

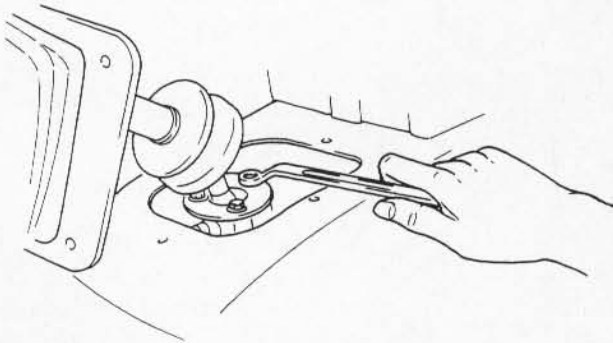


Fig. 12-3

- 4) Pull gear shift lever out of gear shift lever case.

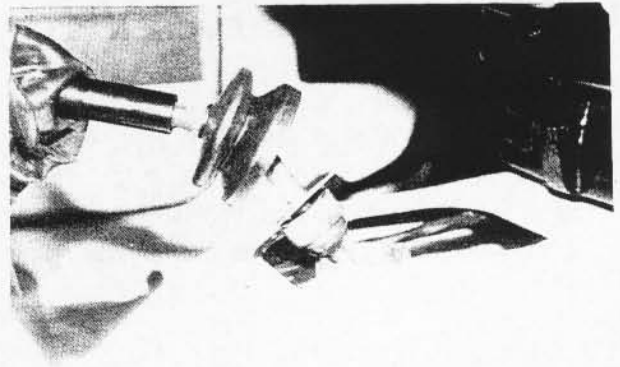


Fig. 12-4

Gear Shift Lever Select Guide Pins

- 1) After gear shift lever is removed according to foregoing steps 1) through 4), remove gear shift lever case by loosening its tightening bolts.



Fig. 12-5

- 2) Remove reverse select pin screw and take out spring and ball from case.
- 3) Remove low speed select pin bolt.
- 4) Compress reverse select guide pin ② against low speed select guide pin ① and take it out of gear shift lever case.

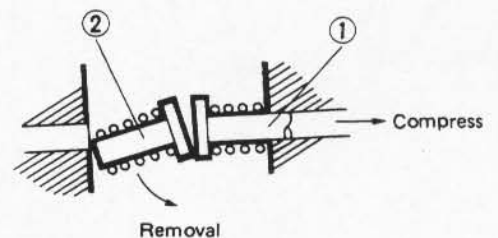


Fig. 12-6

12-3. INSPECTION OF COMPONENTS

Gear Shift Lever

Check lower end of gear shift lever where gear shift fork shaft contact, ① and ②, for wear and any kind of damage. Worn or damaged gear shift lever must be replaced with a new one.

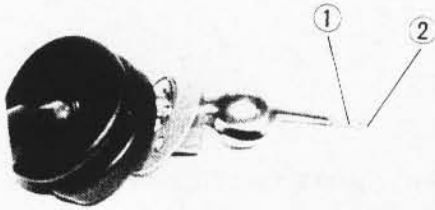


Fig. 12-7

Reverse & Low Speed Select Guide Pins

Check both select guide pins where gear shift lever contacts, ③, for stepped wear. Replace worn select guide pin.

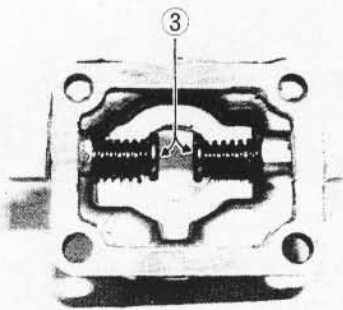


Fig. 12-8

Move shaft and check low speed select guide pin for smooth movement without rattle. If found defective, replace it and apply grease to pin.

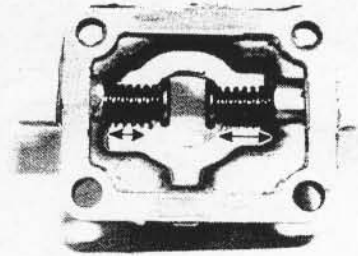


Fig. 12-9

Gear Shift Fork Shaft

Visually check each gear shift fork shaft (High, Low and Reverse) where gear shift lever contacts, ④, for wear. Worn shaft must be replaced.

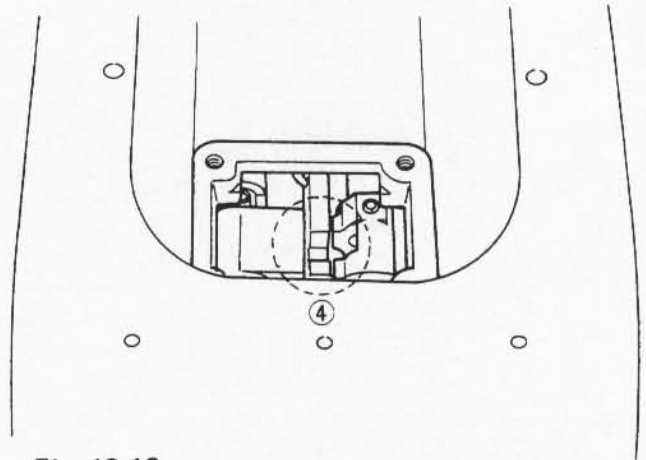


Fig. 12-10

12-4. INSTALLATION

Gear shift lever is installed by reversing removal procedure. Some important steps will be explained in detail.

Reverse & Low Speed Guide Pins

Be sure to apply grease to select guide pins before installing them into gear shift lever case.

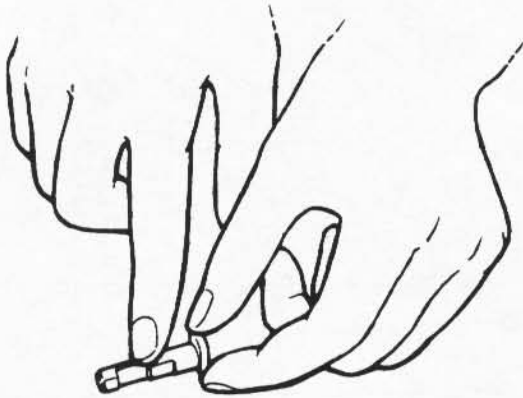


Fig. 12-11

When fitting low speed select guide pin into gear shift lever case, tighten locating bolt while pushing pin so that bolt goes in the groove provided in the pin. Then install reverse select guide pin in case and securely fit the locating ball in the groove provided in the pin.

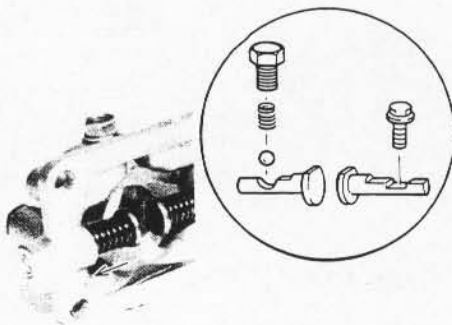


Fig. 12-12

NOTE:

After each guide pin is installed, make sure that flat surface ⑤ at the tip of pin faces upward (toward gear shift lever).

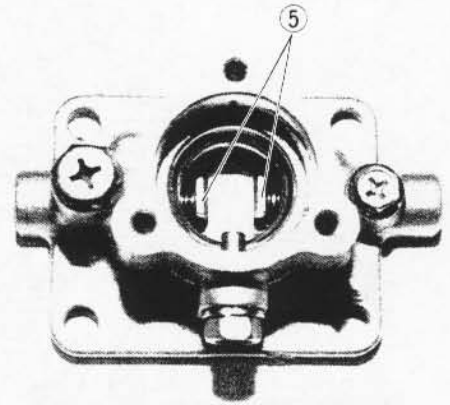


Fig. 12-13

Gear Shift Lever Case

When installing lever case to transmission extension case, clean joint faces, and then apply sealant (SUZUKI BOND NO. 1215, 99000-31110) to joint faces.

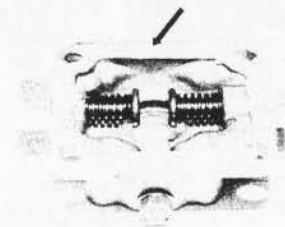


Fig. 12-14

Gear Shift Control Lever Seat

Make sure to fit control lever seat ⑥ into gear shift lever case so that locating bolt ⑦ goes in the groove of control lever seat. And fit wave washer ⑧ with its projection surface directed upward.

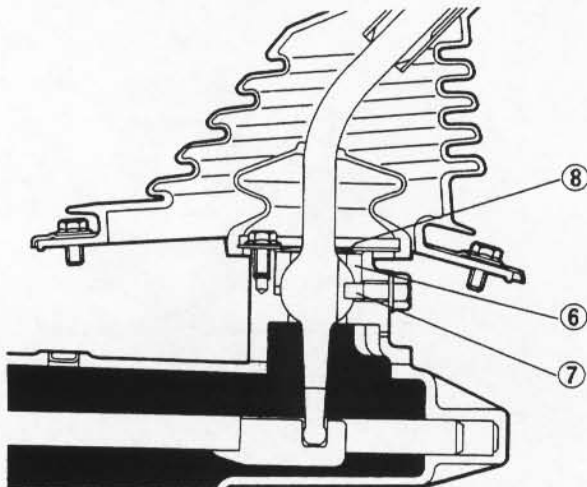


Fig. 12-15

Tightening Torque & Greasing point

To be tightened to:	N·m	kg·m	lb·ft
① Lever case cover bolt	4 - 7	0.4 - 0.7	3.0 - 5.0
② Reverse select pin screw	25 - 35	2.5 - 3.5	18.5 - 25.0
③ Lever boot bolt	4 - 7	0.4 - 0.7	3.0 - 5.0
④ Lever locating bolt	14 - 20	1.4 - 2.0	10.5 - 14.0
⑤ Lever case bolt	18 - 28	1.8 - 2.8	13.5 - 20.0
⑥ Low speed select pin bolt	4 - 7	0.4 - 0.7	3.0 - 5.0

Apply to

- Ⓐ : Between gear shift lever boot No. 1 and lever case cover
- Ⓑ : Between gear shift lever and lever seat
- Ⓒ : Between gear shift lever and lever case
- Ⓓ : Gear shift lever locating bolt

- * Grease to be used for each greasing point is SUZUKI SUPER GREASE A(99000-25010).
- * If gear shift lever locating bolt is removed from case, be sure to apply locking agent (THREAD LOCK CEMENT SUPER "1333B" 99000-32020) to bolt thread for reinstallation.

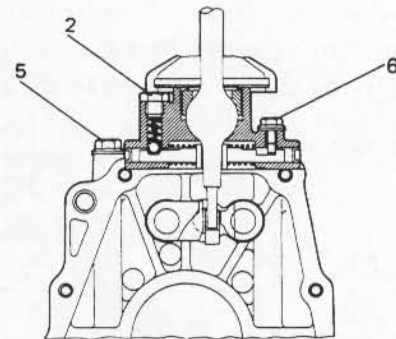
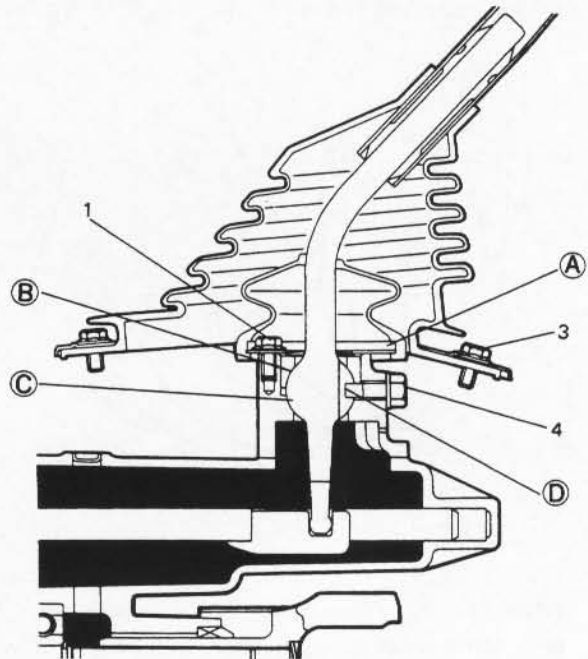


Fig. 12-16