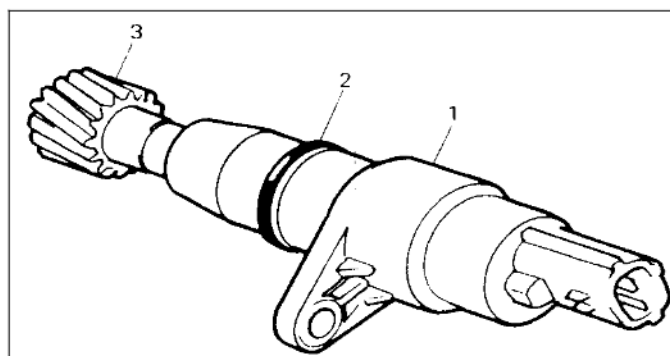


6. Check if the oil level is right.

Disassembly:

1. Disconnect the cathode of the battery.
2. Disconnect the speed sensor connect.

3. Remove the speed sensor



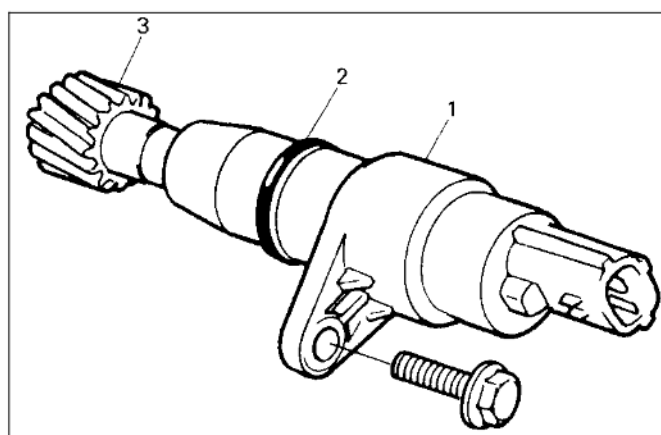
- 1-SPEED SENSOR
- 2- O--ring
- 3-Speedometer driven gear

Fig.2-10

Installation:

1. Check if there is any crack and disfigurement on the surface of the o-ring and SPEED SENSOR case, spread lubricant on the o-ring and Speedometer driven gear, install them on the transaxle assembly.

Screw tightly the torque : 8--12N • m.



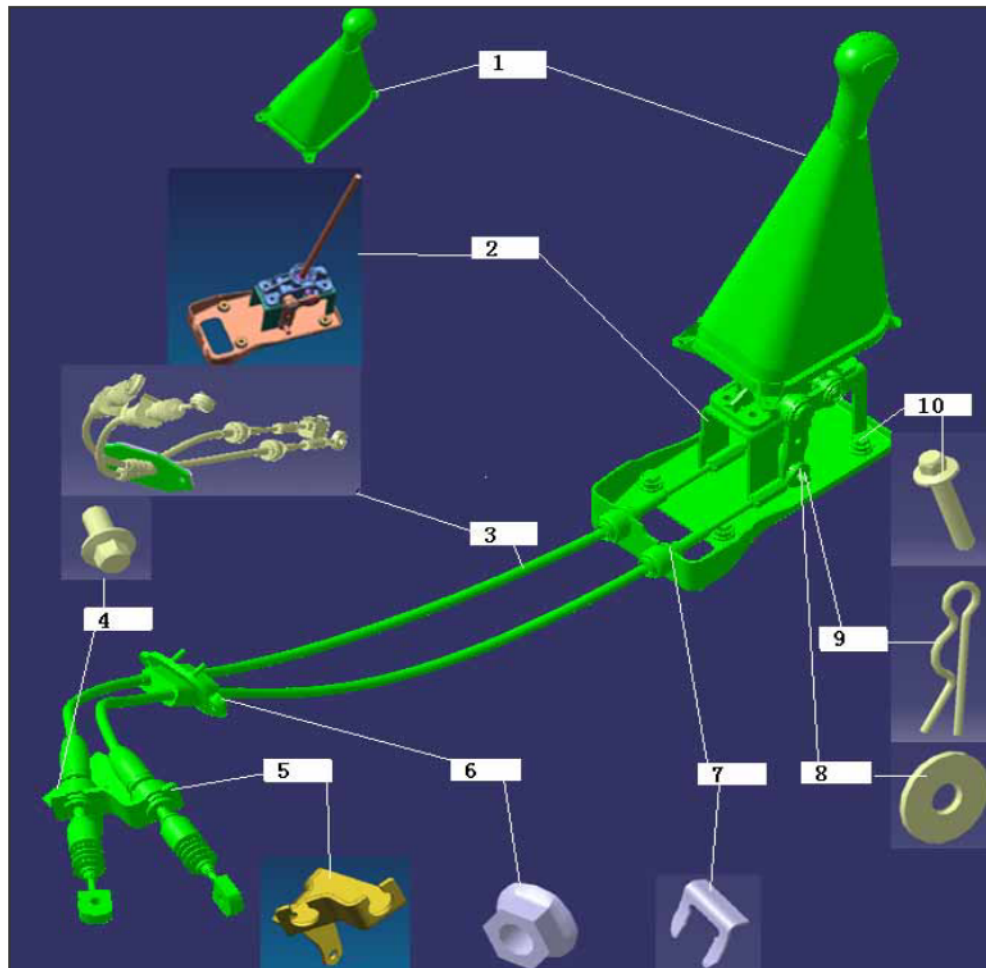
- 1- SPEED SENSOR
- 2- O-ring
- 3- Speedometer driven gear

Fig.2-11

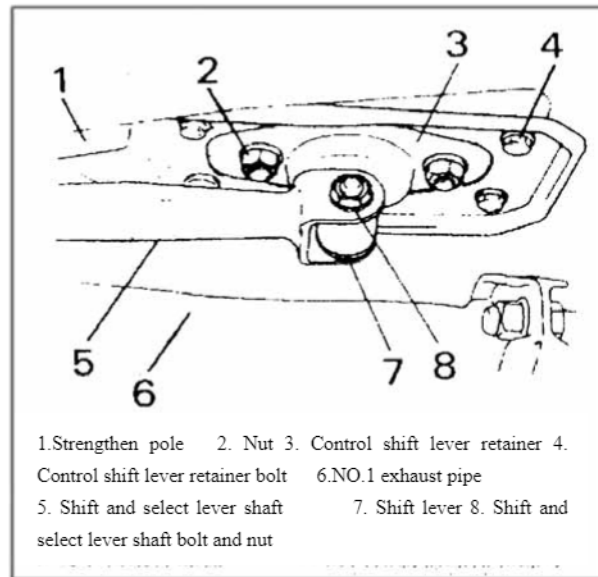
- 2.Connect the SPEED SENSOR connector.

- 3.Connect the cathode of the battery .

VI. Shift and select lever shaft control system



- | | | | |
|-------------------------|----------------------------|------------------------|----------|
| 1.Shift handle assembly | 2.Shift mechanism assembly | 3.Shift cable assembly | 4.Bolt |
| 5.Bracket | 6.Nut | 7.Clip | 8.Washer |
| | | 9.Cotter pin | 10.Bolt |



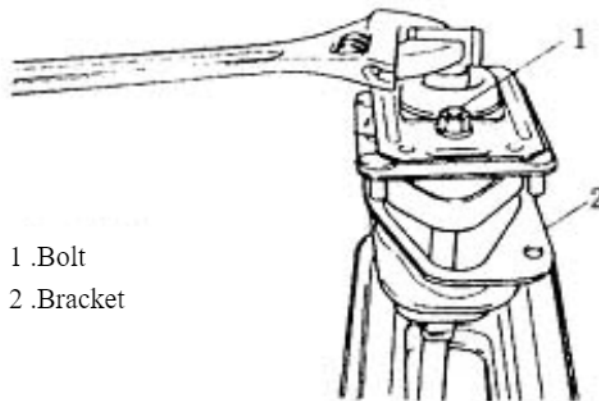
Disassembly:

On the lift.

1. Remove the shift and select lever shaft bolt and nut, take apart the shift and select lever shaft from the shift lever.
2. Remove the 4 pieces of control shift lever retainer bolt. Demount the strengthen pole nut beside the transaxle, and move the strengthen pole aside.

In the cab.

1. Have shift lever shaft housing, disassembly 2 bolt from shift lever shaft housing.
2. Demount the 4 nuts on the shift lever assembly, push the shift lever into the floor hole and pull out the shift lever assembly from the floor.



On the workbench;

1. Use the clamp to fix the holder of the shift lever, demount the bolt, remove the shift lever.
2. Demount the 2 shift lever assembly nut, break down the shift lever .

Installation

1. According to the reverse demounting order, install the shift lever , if necessary, replace the used parts.

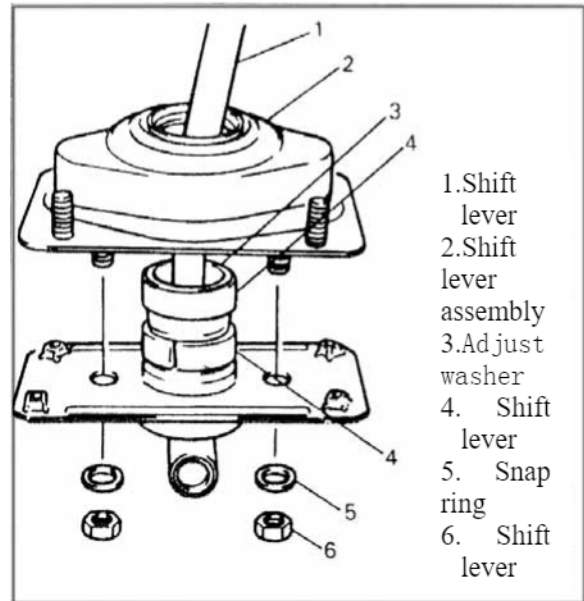
Notice:

After installation, please check if the shift lever works smoothly.

Shift lever vertical free play	0-0.2mm(0-0.007in)
Thickness of the optional adjust washer	0.8,1.0,1.2 and 1.4mm(0.03,0.04,0.05 and 0.06in)

2. Spread whorl glue, fix the handle on the shift lever ,check the handle level

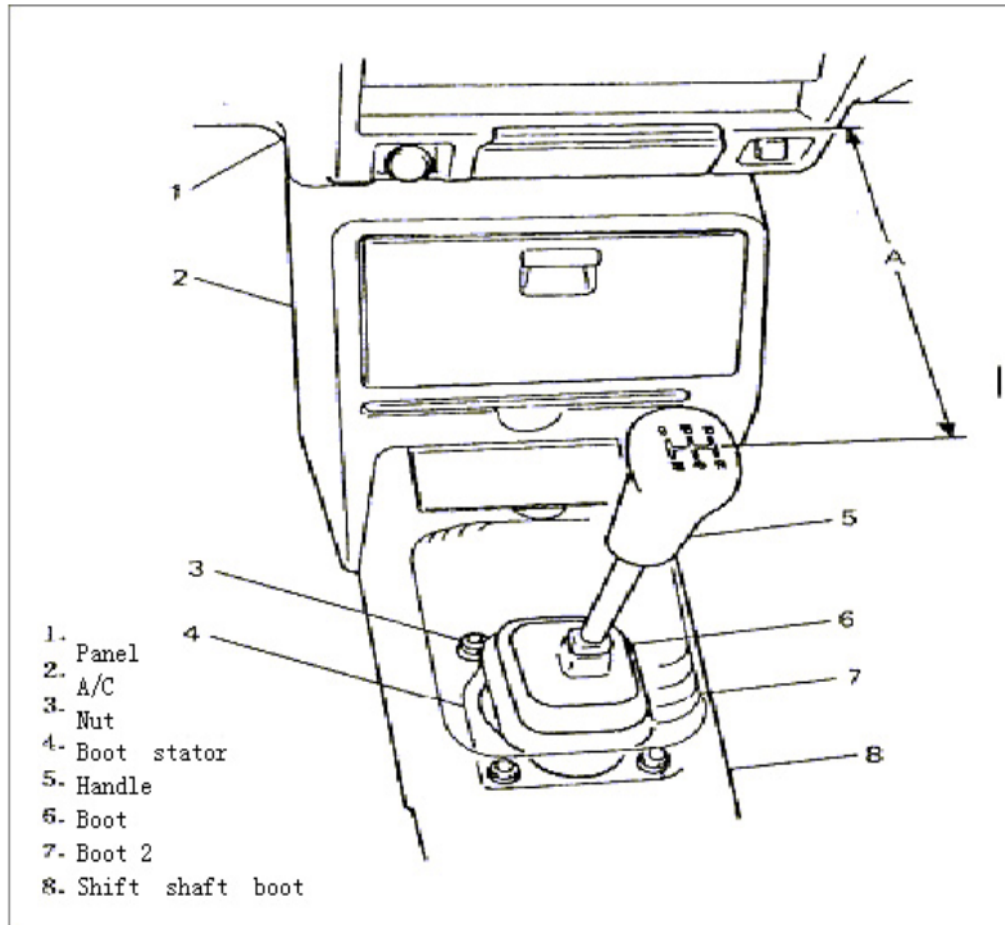
3. Install shift lever assembly and the related parts on the original position. When fixing the position of the shift lever, first install the 4 pieces of control shift lever retainer bolt and 4 pieces of shift lever assembly nut, adjust the position of, screw the bolt and nut tightly.



Notice:

- Do not spread lubricant on the strengthen pole spacer beside the transaxle.
- Spread lubricant on the shift and select lever shaft boot.
- Check if the boot has been installed correctly.

The position of the shift lever : Distance from A	270mm
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Section 3 Disassembly and installation of the transaxle

I Dismantle transaxle

Under the engine lid.

1. Disconnect the battery ground; remove the battery and the bracket.
2. Screw the clutch cable nut off, Remove the connector from the cable and dismantle the cable from the bracket.
3. Disconnect the wiring harness and connector.
4. Remove the speedometer cable boot, and dismantle the speedometer cable.
5. Remove the fixing transaxle bolt.
6. Remove the 2 starter bolt and starter, meanwhile disconnect the starter cable.
7. Disconnect the vacuum hose from the map.
8. Hang engine and bracket chain, keep engine calm.

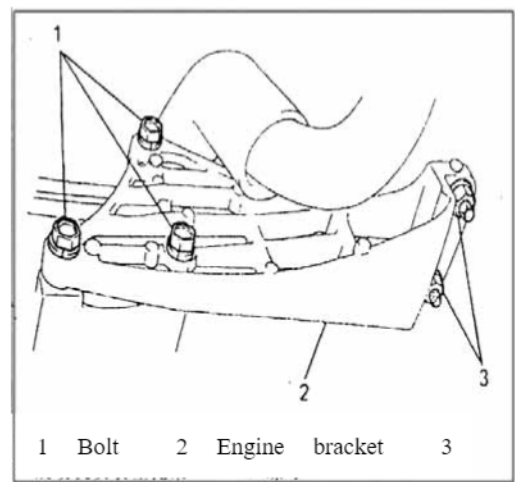
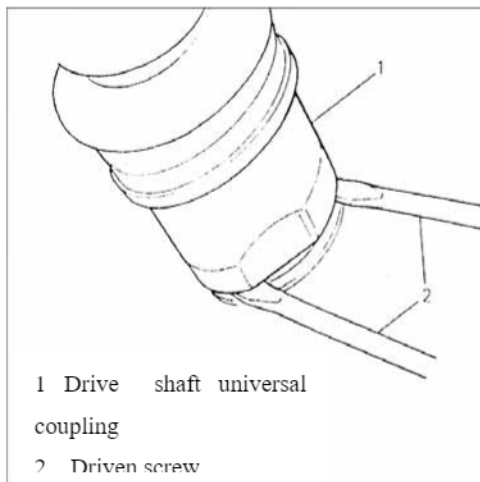
Caution:

Put gasket under the chain in order to prevent the damage of the vehicle surface.

On the Lift:

1. Use 10mm special tool and spanner to let out the transaxle oil.

2. Screw off the shift and select lever shaft bolt and nut, remove the control from the shift shaft.
3. Screw off the strengthen pole nut, remove the strengthen pole and gasket.
4. Disconnect the exhaust pipe.
5. Meanwhile, remove the exhaust pipe nut.
6. Remove the clutch down clapboard.
7. Remove Ball joint bolt and nut from the Steering, then remove each Suspension arm.
8. Use big drive screw disassembly drive shaft snap ring from differential side.
9. Screw the bolt and nut of the transaxle ,engine assembly.
10. Support the transaxle by transaxle jack.
11. From engine retainer bracket, disassembly 2 blot.
12. First remove the 3 bolt and 2 nut, then remove the bracket.
13. Down the jack and the transaxle, disassembly the bolt between the engine and transaxle, separate input shaft and clutch disc, take the transaxle.



II, Install transaxle

The following Fig. Shows the fastened torque:

Torque	N·m	kg·m	lb·ft
• Transaxle, engine assembly bolt, nut. • Engine nut • Engine bracket bolt • Exhaust pipe / nut • Exhaust pipe / muffler nut	40-60	4.0-6.0	29.0-43.0
Ball joint bolt nut	50-70	5.0-7.0	36.5-50.5
Strengthen pole nut	25-40	2.5-4.0	18.5-28.5
Shift and select lever shaft bolt , nut	15-20	1.5-2.0	11.0-14.5

• When lifting the transaxle, push drive shaft right universal coupling into differential.

• Push the drive shaft universal coupling to the right position, and joggle the Drive shaft and Differential.

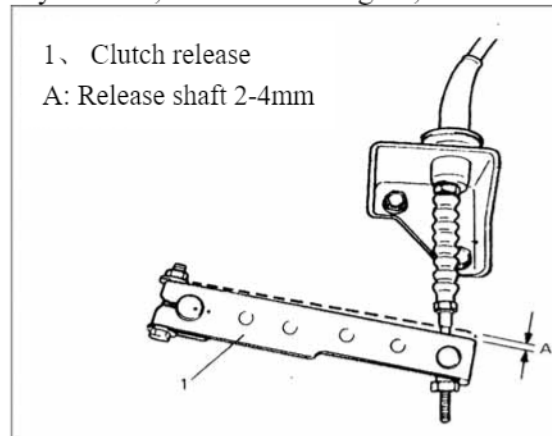
Caution:

Spread lubricant on the shift and select lever shaft spacer, do not spread lubricant on the strengthen pole spacer.

Caution:

- When hang the transaxle, drive shaft, do not scrape oil seal.
- When put the drive shaft universal coupling on the differential gear, do not hammer the universal coupling.

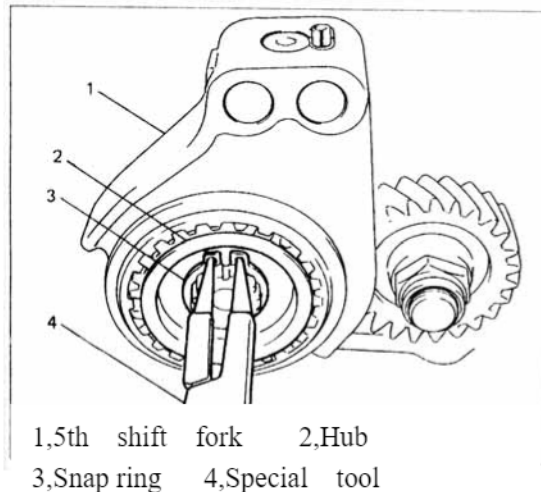
- Clip wiring harness.
- After connecting the clutch cable, be sure to adjust the pedal free play .
- Fill oil in the transaxle .
- Connect the battery cable, check if the engine, transaxle work normally.



III, Transaxle disassemble

(1) 5th gear

1. Loosen 8 bolt, remove the transaxle left side case.
2. Remove snap ring use special tool.



Caution:

Do not distort the left side case.

3. Remove the 5th shift fork bolt and guide ball.

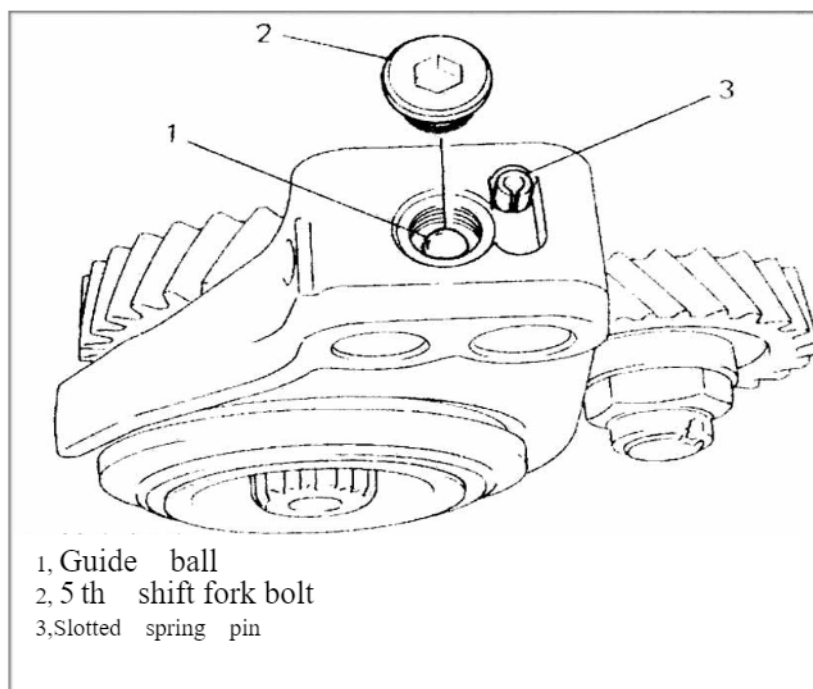
4. Hammer the slotted spring pin out.

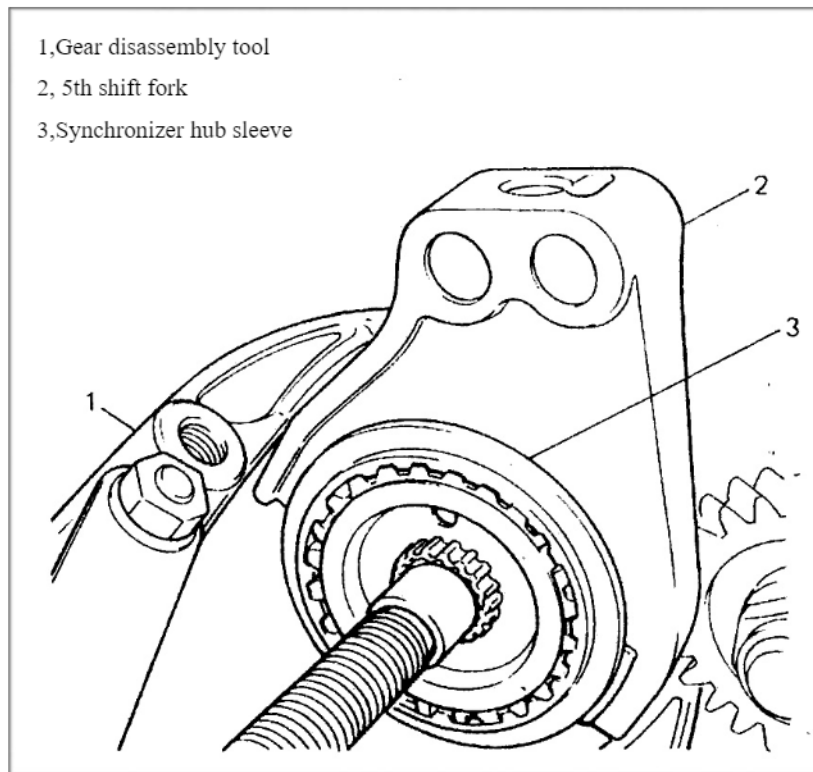
Notice: It is much easier to magnetize the guide ball.

5. Remove the 5th shift fork, hub sleeve, synchronizer ring and 5th gear with professional tools.

Caution:

Be sure not to press the synchronizer ring spring tightly.





Section 4 Maintenance of the transaxle

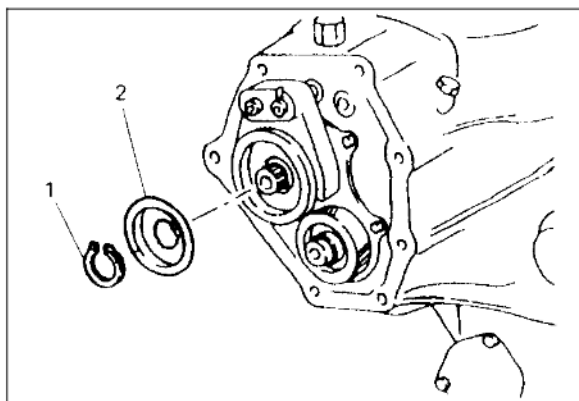
I, Disassemble

(1) 5th gear

1 Loosen 8 bolt , remove the rear gear box.

2 Remove the snap ring, thrust gasket.

Caution: do not distort the snap ring.



1- Snap ring

2- Thrust gasket

Fig.3-1

3 Remove the 5th shift fork bolt and placement.

It is much easier to magnetize the placement.

- 4 Remove the snap ring, and slotted spring pin.

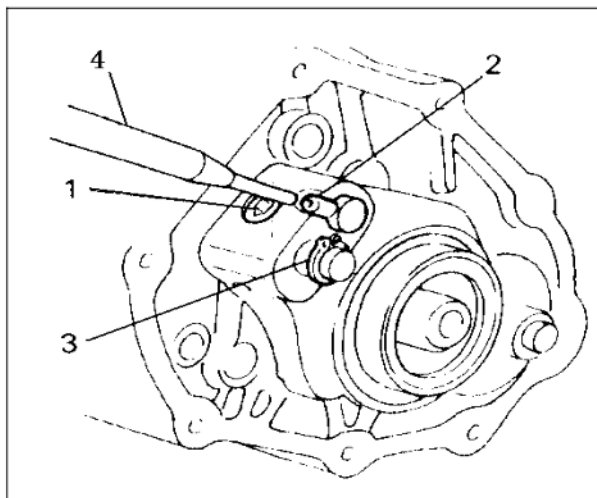


Fig.3-2

- 1- 5th Shift fork bolt
- 2- Slotted spring pin
- 3- Snap ring
- 4- Special tool

- 5 Remove the 5th Shift fork, 5th synchronizer assembly, synchronizer ring.

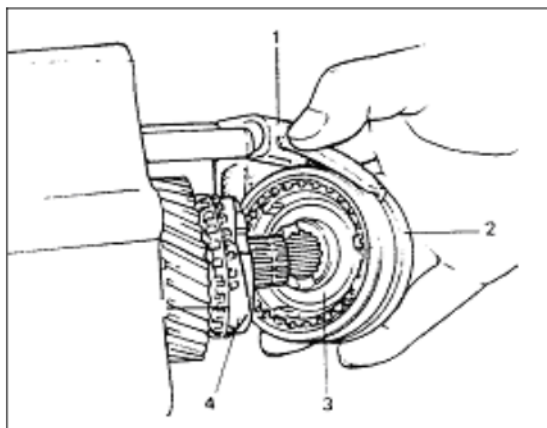


Fig.3-3

- 1- 5th shift fork
- 2- 5th hub sleeve
- 3- 5th hub
- 4- 5th synchronizer ring

- 6 Fasten the input shaft, output shaft, 5th gear, install special 5th gear lock tool on the input shaft 5th gear and transmission case.

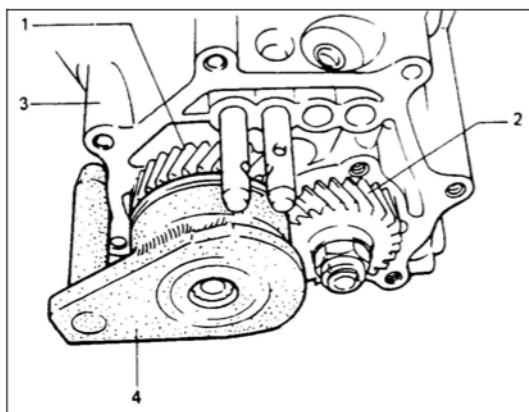


Fig.3-4

- 1- 5th gear
- 2- 5th driven gear
- 3- Transmission case
- 4- Special tool

7 The output shaft nut: Use chisel to loosen the welded part of the nut.

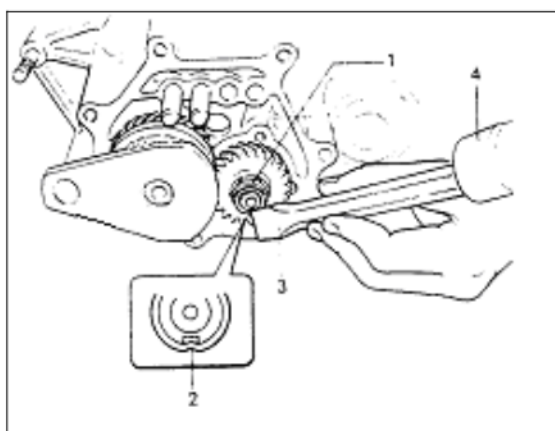


Fig.3-5

- 1- 5th lock nut
- 2- Nut
- 3- Chisel

8 Remove 5th driven gear, 5th gear, transmission thrust board.

(2) Shift and select lever shaft ,input shaft, output shaft

1 Loosen 3 bolt, remove the transmission cover board.

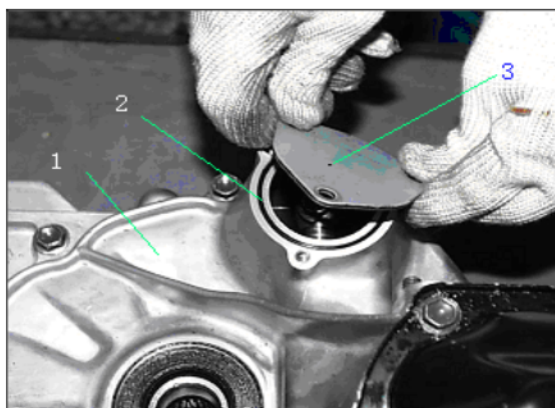


Fig.3-6

- 1- Transmission case
- 2- O-ring
- 3- Transmission cover board

2, Remove shift and select lever shaft fork.

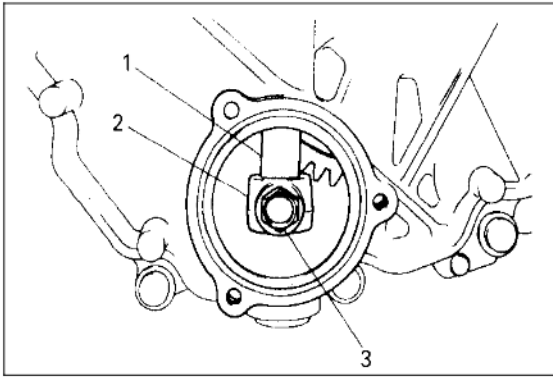


Fig.3-7

- 1- Shift and select lever shaft
- 2- Shift and select lever shaft fork
- 3- Bolt

- 3 Remove the 3 shift fork shaft bolt and gasket, take out the spring and ball.
- 4 Loosen the 4 bolt on the case, take out the clip, stationary rings and case.

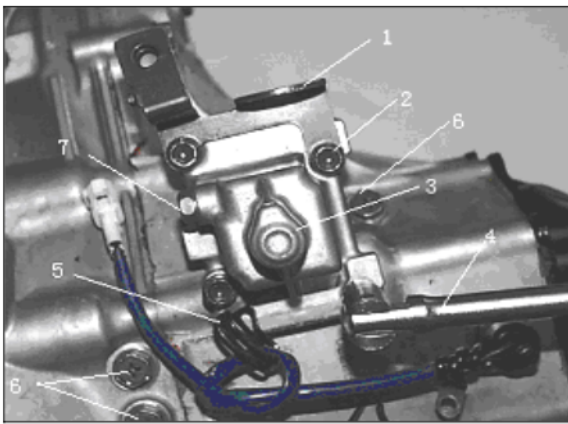


Fig.3-8

- 1-Stationary rings assembly
- 2-Bolt
- 3-Case
- 4- Special tool
- 5- Clip
- 6- Shift fork bolt
- 7-Reverse,5th Interlock roller

- 5 Screw off the restrict bolt and gasket.
- 6 Remove the backup light switch.

Notice: When removing the shift and select lever shaft assembly, reserve , 5th interlock roller need not be removed.

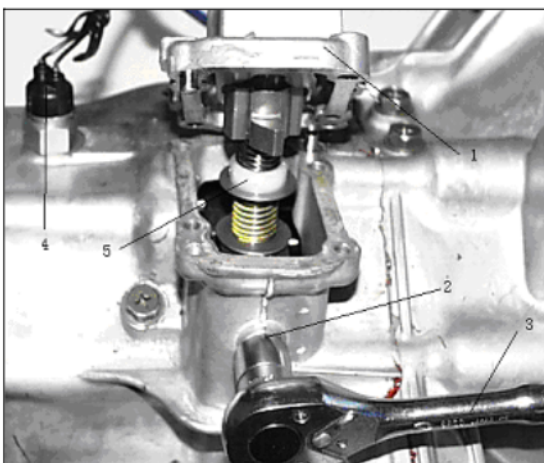
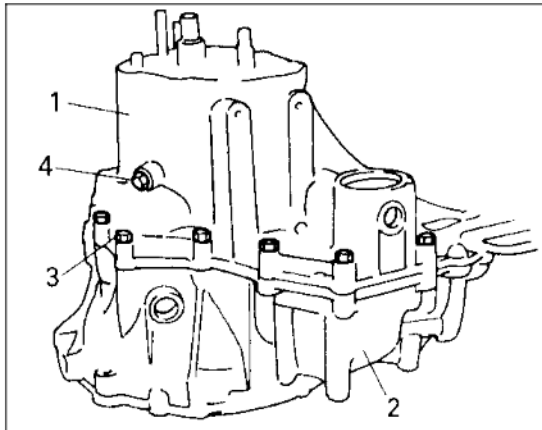


Fig.3-9

- 1-Case
- 2-Restrict bolt
- 3- Spanner
- 4- Backup light switch assembly
- 5- Shift and select lever shaft

- 7 Take out the shift and select lever shaft assembly.
- 8 Remove the reverse shaft bolt and gasket.
- 9 Loosen the 11 bolt from the case outer.



- 1-Transmission case
- 2- Clutch housing
- 3- Transmission case bolt
- 4- Reverse idler gear shaft bolt

Fig.3-10

10 Use screwdriver separate clutch housing and transmission case.

Caution: Do not insert the tools into the joint of the two crust, otherwise the joint can be damaged.



- 1- Aluminum Hammer
- 2- Special tool
- 3- Transmission case

Fig.3-11

11 Take apart the transmission assembly from the clutch case, lift the transmission assembly, now, all the parts such as input shaft, output shaft and differential still remain in the clutch case assembly.

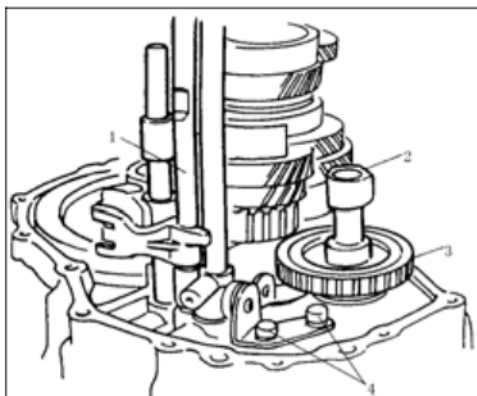


Fig.3-12

12 Loosen the 2 reserve shift fork bolt, remove the reserve shift fork assembly.

13 Remove the reverse idler gear shaft and gasket, take away the reverse idler gear shaft.

14 Remove the reserve,5th shift fork shaft assembly.



1-Reverse ,5th shift fork shaft assembly

2- Reverse idler gear shaft assembly

3- Reverse idler gear

4-Reverse Shift fork bolt

Fig.3-13

15 Use a rubber hammer to hit the end of the input shaft lightly and force it out a little, take out the input shaft assembly, output shaft assembly,1st,2nd Shift fork assembly and 3rd,4th shift fork assembly together.

16 Remove the output shaft bearing outer race from the transmission case.

17 Remove the differential oil seal.