

## DISASSEMBLY

### 1. REMOVE BACK –UP LIGHT SWITCH

Torque: 44 N·m (450 kgf·cm, 33 ft·lbf)

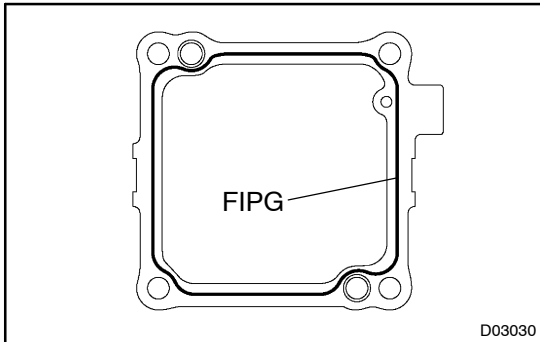
### 2. REMOVE CLUTCH HOUSING FROM TRANSMISSION CASE

Remove the 10 bolts and clutch housing.

Torque: 37 N·m (380 kgf·cm, 27 ft·lbf)

### 3. REMOVE 2 RESTRICT PINS

Torque: 37 N·m (380 kgf·cm, 27 ft·lbf)



### 4. Separate Seat:

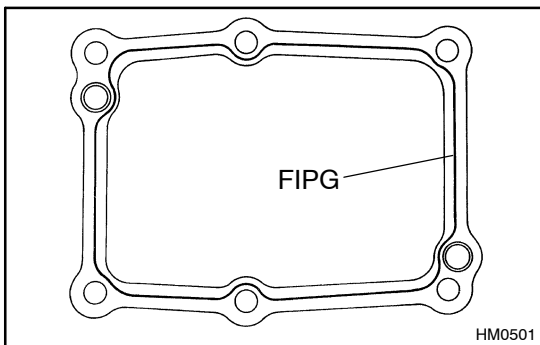
#### REMOVE CONTROL SHIFT LEVER RETAINER

Remove the 4 bolts and control shift lever retainer from the transfer adaptor.

Sealant: Part No.08833 – 00080, THREE BOND 1344, LOCTITE 242 or equivalent

FIPG: Part No.08826 – 00090, THREE BOND 1281 or equivalent

Torque: 17 N·m ( 170 kgf·cm, 12 ft·lbf)



### 5. Bench Seat:

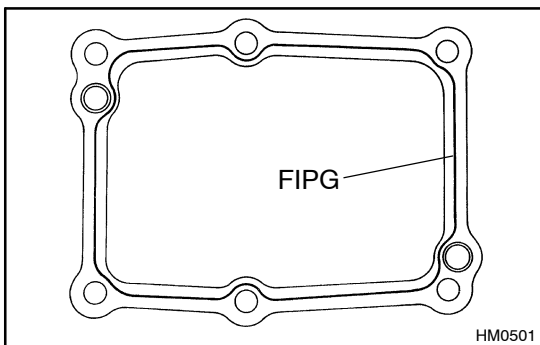
#### REMOVE CONTROL SHIFT LEVER RETAINER

Remove the 6 bolts and control shift lever retainer from the transmission case.

Sealant: Part No.08833 – 00080, THREE BOND 1344, LOCTITE 242 or equivalent

FIPG: Part No.08826 – 00090, THREE BOND 1281 or equivalent

Torque: 17 N·m ( 170 kgf·cm, 12 ft·lbf)



### 6. Separate Seat:

#### REMOVE CONTROL SHAFT COVER

Remove 6 bolts and control shaft cover from the transmission case.

Sealant: Part No.08833 – 00080, THREE BOND 1344, LOCTITE 242 or equivalent

FIPG: Part No.08826 – 00090, THREE BOND 1281 or equivalent

Torque: 17 N·m ( 170 kgf·cm, 12 ft·lbf)

### 7. REMOVE REVERSE RESTRICT PIN

- Mount the control shift lever retainer in a vice.
- Using a pin punch and hammer, drive out the slotted spring pin from the retainer.
- Remove the reverse restrict pin.

**8. Separate Seat:****REMOVE SHIFT AND SELECT LEVER SHAFT, SHIFT LEVER HOUSING AND SHIFT AND SELECT LEVER**

- (a) Using a hexagon wrench, remove the straight screw with head plug.

**Torque: 37 N·m (380 kgf·cm, 27 ft·lbf)**

- (b) Remove the shift and select lever set bolt.

**Torque: 38 N·m (390 kgf·cm, 28 ft·lbf)**

- (c) Remove the shift lever housing set bolt.

**Torque: 38 N·m (390 kgf·cm, 28 ft·lbf)**

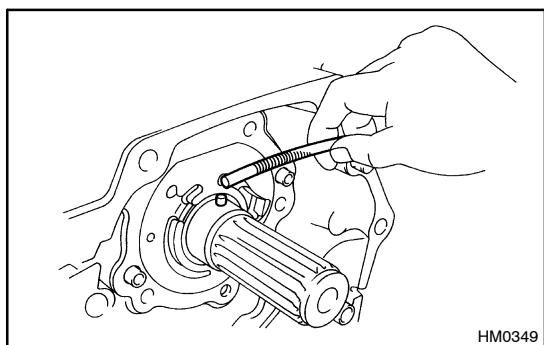
- (d) Remove the shift and select lever, shift lever housing and shift and select lever shaft.

**9. REMOVE OIL PUMP COVER ASSEMBLY**

- (a) Remove the 5 bolts and oil pump cover assembly.

**Sealant: Part No.08833 – 00080, THREE BOND 1344, LOCTITE 242 or equivalent**

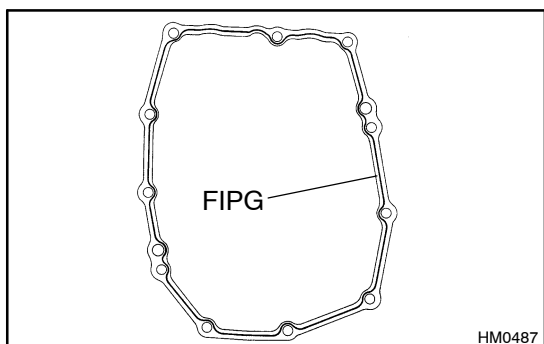
**Torque: 17 N·m ( 170 kgf·cm, 12 ft·lbf)**



- (b) Using a magnetic finger, remove the 2 pins.

**HINT:**

At the time of reassembly, please refer to the following item.  
Apply MP grease to the pins.

**10. REMOVE TRANSFER ADAPTOR**

Remove the 11 bolts and transfer adaptor.

**HINT:**

If necessary, tap the transfer adaptor with a plastic hammer.

**FIPG: Part No.08826 – 00090, THREE BOND 1281 or equivalent**

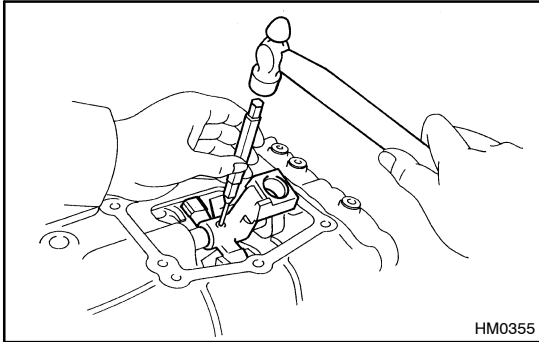
**Torque: 37 N·m (380 kgf·cm, 27 ft·lbf)**

**11. REMOVE OIL STRAINER FROM TRANSFER ADAPTOR**

Remove the 2 bolts and oil strainer.

**Torque: 12 N·m ( 120 kgf·cm, 9 ft·lbf)**

**12. REMOVE MAGNET FROM INTERMEDIATE PLATE**

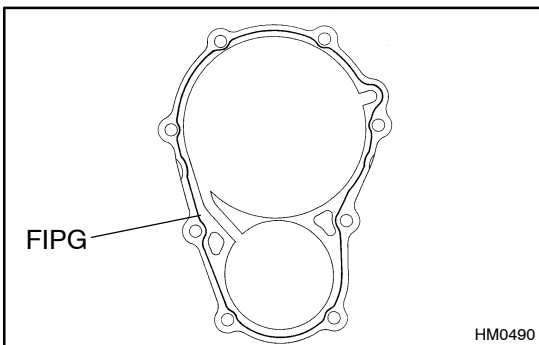
**13. Bench Seat:****REMOVE SHIFT LEVER SHAFT AND SHIFT LEVER HOUSING**

- (a) Using a hexagon wrench, remove the straight screw with head plug.

**Torque: 37 N·m (380 kgf·cm, 27 ft·lbf)**

- (b) Using a pin punch and hammer, drive out the slotted spring pin from the shift lever housing and shift lever shaft.  
 (c) Remove the shift lever shaft and shift lever housing.

**Sealant: Part No.08833 – 00080, THREE BOND 1344, LOCTITE 242 or equivalent**

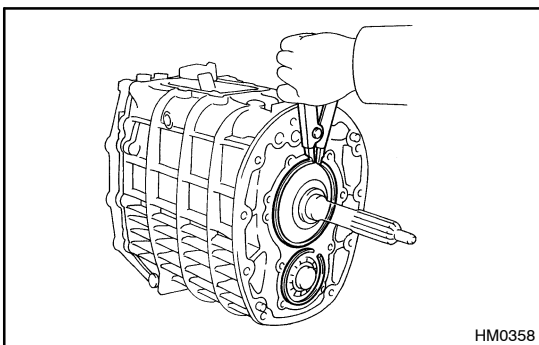
**14. REMOVE FRONT BEARING RETAINER**

- (a) Remove the 8 bolts and front bearing retainer.

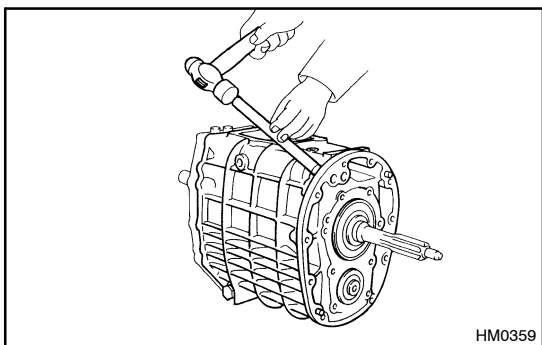
**Sealant: Part No.08833 – 00080, THREE BOND 1344, LOCTITE 242 or equivalent**

**FIPG: Part No.08826 – 00090, THREE BOND 1281 or equivalent**

**Torque: 16 N·m ( 170 kgf·cm, 12 ft·lbf)**



- (b) Using a snap ring expander, remove the 2 snap rings from the input shaft and counter gear.

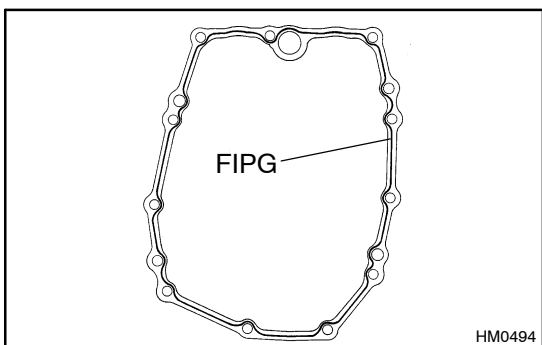


### 15. SEPARATE TRANSMISSION CASE FROM INTER-MEDIATE PLATE

- Using a brass bar and hammer, carefully tap the transmission case.
- Remove the transmission case from the intermediate plate.

#### HINT:

At the time of reassembly, please refer to the following item. Align each bearing outer race, each fork shaft end and reverse idler gear shaft end with the case installation holes, and install the case.



**FIPG: Part No. 08826 – 00090, THREE BOND 1281 or equivalent**

### 16. REMOVE OIL RECEIVER FROM TRANSMISSION CASE

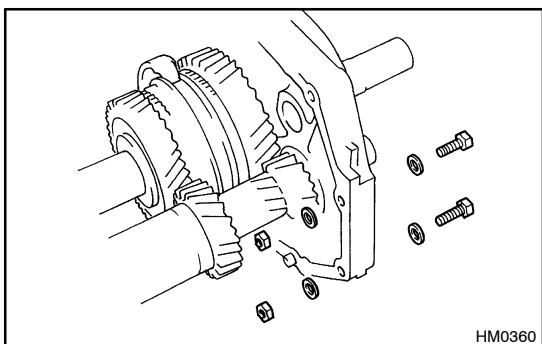
Remove the 2 bolts and oil receiver.

**Torque: 12 N·m ( 120 kgf·cm, 9 ft·lbf)**

### 17. REMOVE OIL RECEIVER FROM INTERMEDIATE PLATE

Remove the 3 bolts and oil receiver.

**Torque: 18 N·m ( 185 kgf·cm, 13 ft·lbf)**



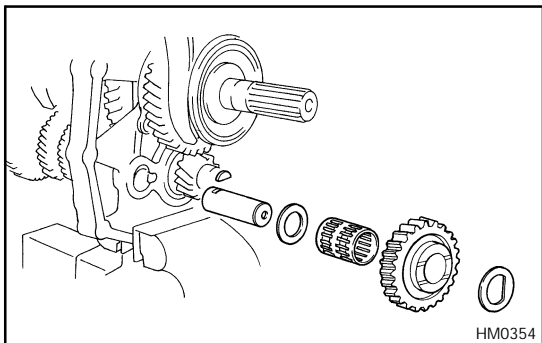
### 18. MOUNT INTERMEDIATE PLATE IN VISE

- Use the 2 clutch housing bolts, plate washers and suitable nuts, as shown.

#### HINT:

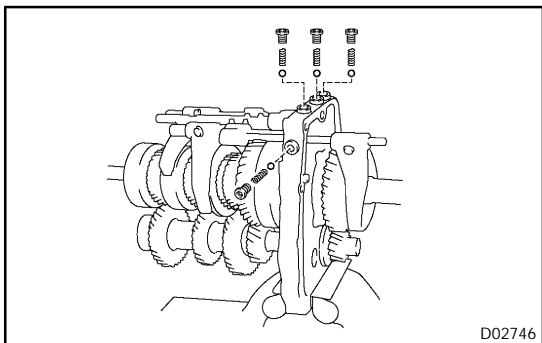
Increase or decrease the number of plate washers so that the bolt tip does not protrude from the nut.

- Mount the intermediate plate in a vise.



### 19. REMOVE REVERSE IDLER GEAR SHAFT FROM INTERMEDIATE PLATE

Remove the 2 thrust washers, reverse idler gear, needle roller bearing, reverse idler gear shaft and woodruff key from intermediate plate.



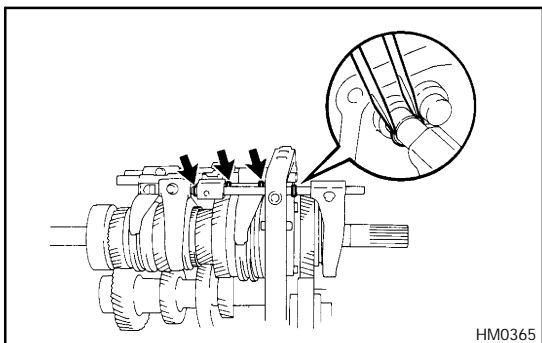
### 20. REMOVE STRAIGHT SCREW PLUG, LOCKING BALL AND SPRING

- (a) Using a torx socket wrench (T40), remove the 4 screw plugs.

**Sealant:** Part No.08833 – 00080, THREE BOND 1344, LOCTITE 242 or equivalent

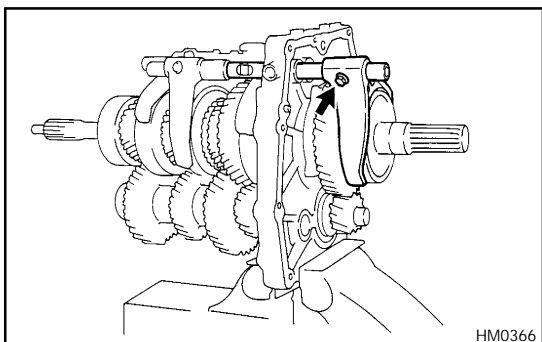
**Torque:** 19 N·m (190 kgf·cm, 14 ft·lbf)

- (b) Using a magnetic finger, remove the 4 springs and balls.



### 21. REMOVE FORK SHAFT SNAP RING

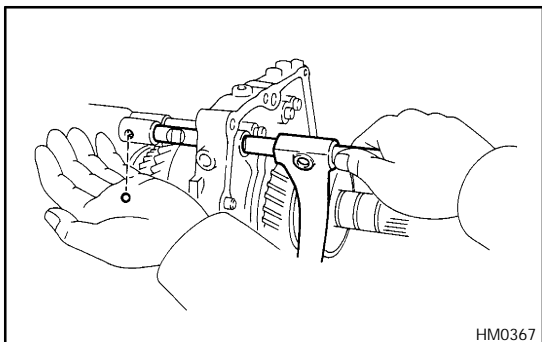
Using 2 screwdrivers and a hammer, tap out the 4 snap rings.



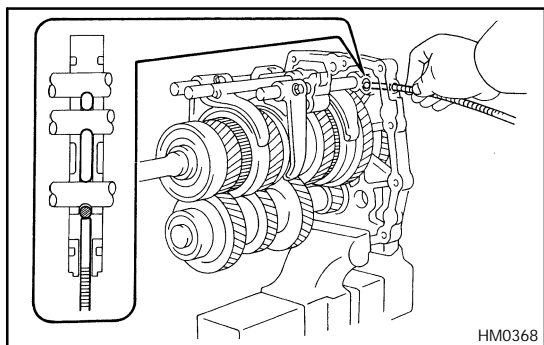
### 22. REMOVE SHIFT FORK SHAFT NO.4 AND REVERSE SHIFT FORK

- (a) Remove the reverse shift fork set bolt.

**Torque:** 36 N·m (370 kgf·cm, 27 ft·lbf)

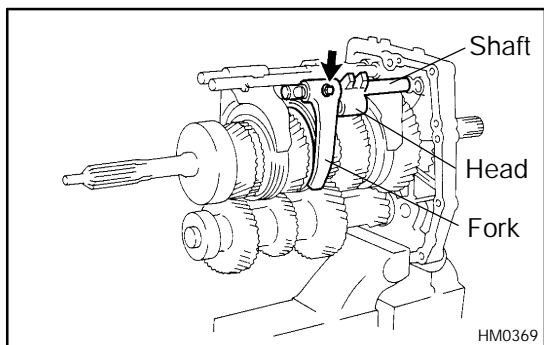


- (b) Remove the shift fork shaft No.4, reverse shift fork and ball.



**23. REMOVE SHIFT FORK SHAFT NO.3, SHIFT FORK NO.3 AND REVERSE SHIFT HEAD**

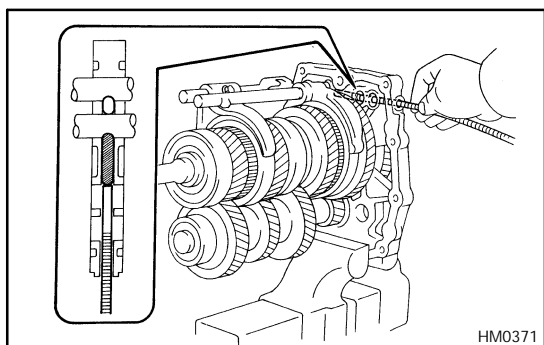
- (a) Using a magnetic finger, remove the ball.



- (b) Remove the shift fork No.3 set bolt.

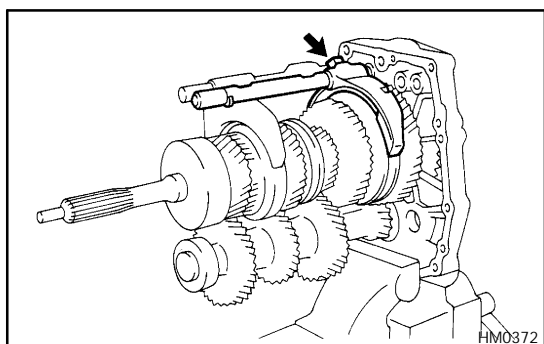
**Torque: 36 N·m (370 kgf·cm, 27 ft·lbf)**

- (c) Remove the shift fork shaft No.3, shift fork No.3 and reverse shift head.  
 (d) Using a magnetic finger, remove the interlock pin from the shift fork shaft No.3.



**24. REMOVE SHIFT FORK SHAFT NO.1 AND SHIFT FORK NO.1**

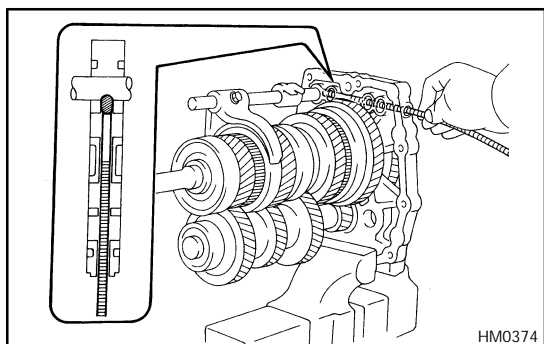
- (a) Using a magnetic finger, remove the interlock pin.



- (b) Remove the shift fork No.1 set bolt.

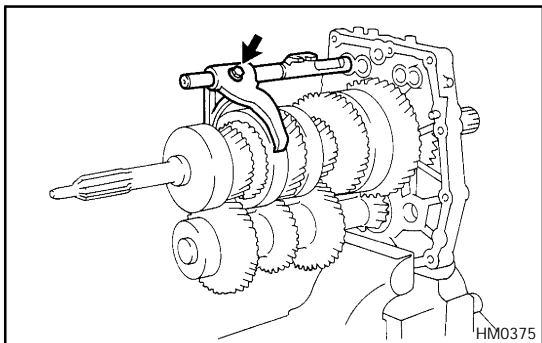
**Torque: 36 N·m (370 kgf·cm, 27 ft·lbf)**

- (c) Remove the shift fork shaft No.1 and shift fork No.1.  
 (d) Using a magnetic finger, remove the interlock pin from the shift fork shaft No.1.

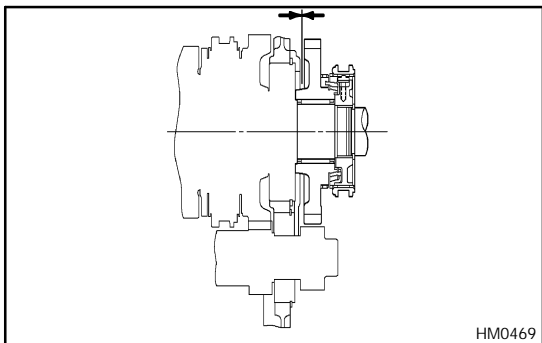


**25. REMOVE SHIFT FORK SHAFT NO.2 AND SHIFT FORK NO.2**

- (a) Using a magnetic finger, remove the interlock pin.



- (b) Remove the shift fork No.2 set bolt.  
**Torque: 36 N·m (370 kgf·cm, 27 ft·lbf)**
- (c) Remove the shift fork shaft No.2 and shift fork No.2.



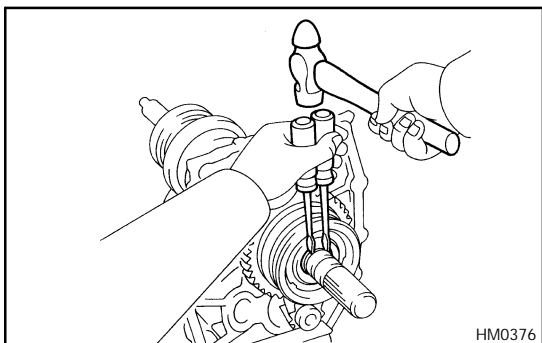
## 26. MEASURE REVERSE GEAR THRUST CLEARANCE

Using a feeler gauge, measure the reverse gear clearance.

**Standard clearance:**

**0.15–0.52 mm (0.0006– 0.0023 in.)**

**Maximum clearance: 0.52 mm (0.0023 in.)**



## 27. REMOVE REVERSE GEAR AND CLUTCH HUB NO.4 ASSEMBLY

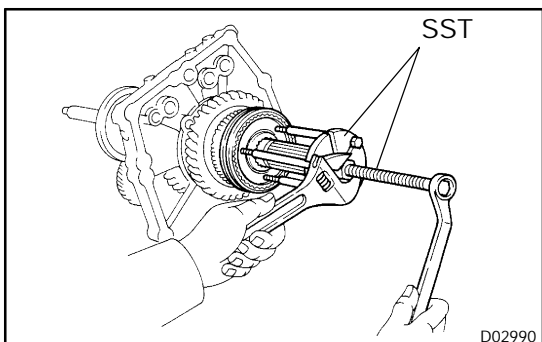
- (a) Using 2 screwdrivers and a hammer, drive out the snap ring.

**HINT:**

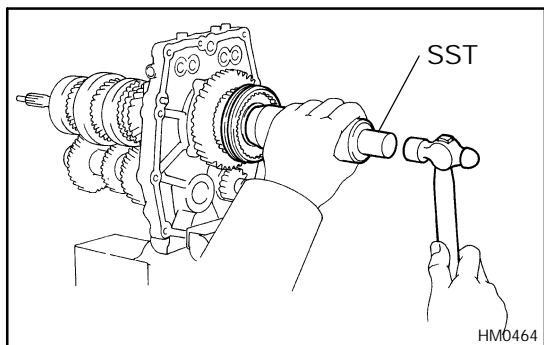
At the time of reassembly, please refer to the following item.

Select a snap ring that allows the minimum axial play.

Mark	Thickness mm (in.)
A	2.40 – 2.45 (0.0945 – 0.0965)
B	2.45 – 2.50 (0.0965 – 0.0984)
C	2.50 – 2.55 (0.0984 – 0.1004)
D	2.55 – 2.60 (0.1004 – 0.1024)
E	2.60 – 2.65 (0.1024 – 0.1043)
F	2.65 – 2.70 (0.1043 – 0.1063)

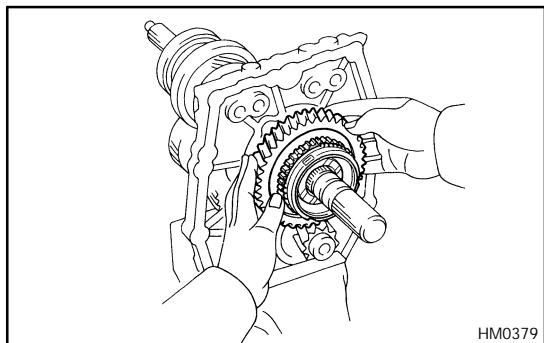


- (b) Using SST and 3 bolts (90101–08136), remove the clutch hub No.4 assembly.  
**SST 09950–30010**

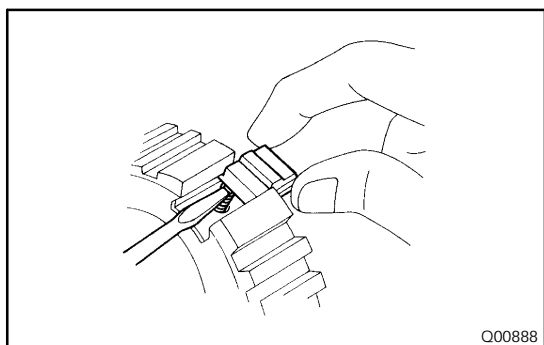
**HINT:**

At the time of reassembly, please refer to the following item.  
Using SST and a hammer, install the clutch hub No.4 assembly.

SST 09316-60011 (09316-00011)



- (c) Remove the synchronizer ring, reverse gear and needle roller bearing.



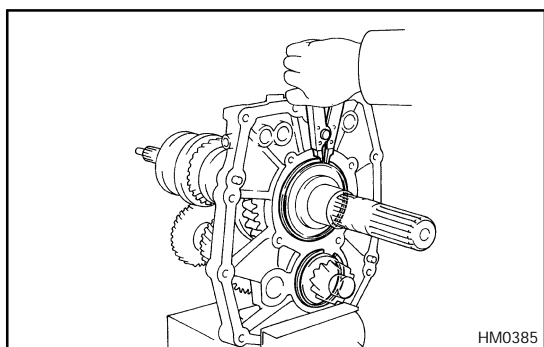
**28. REMOVE HUB SLEEVE NO.4, SHIFTING KEY AND SPRING FROM CLUTCH HUB NO.4**

- (a) Remove the hub sleeve No.4 from the clutch hub No.4.  
(b) Push the shifting key spring with a screwdriver, remove 3 shifting keys and key springs from clutch hub No.4.

**29. REMOVE REAR BEARING RETAINER**

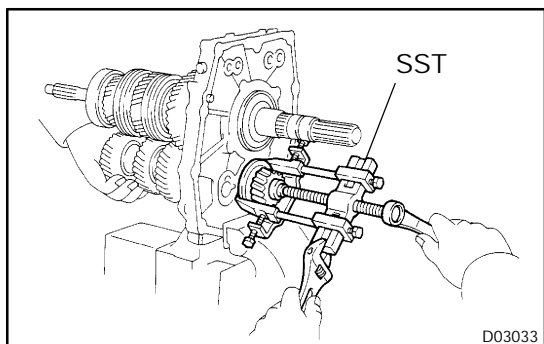
Remove the 4 bolts and rear bearing retainer.

**Torque: 18 N·m (185 kgf·cm, 13 ft·lbf)**



**30. REMOVE SNAP RING**

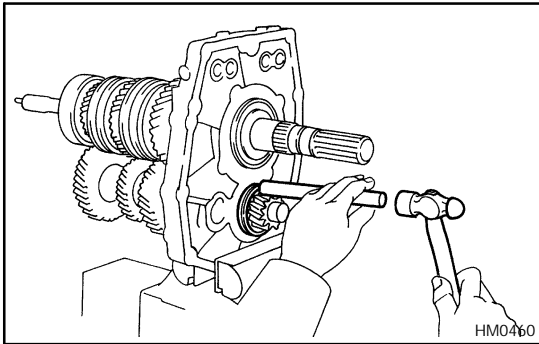
Using a snap ring expander, remove the 2 snap rings.



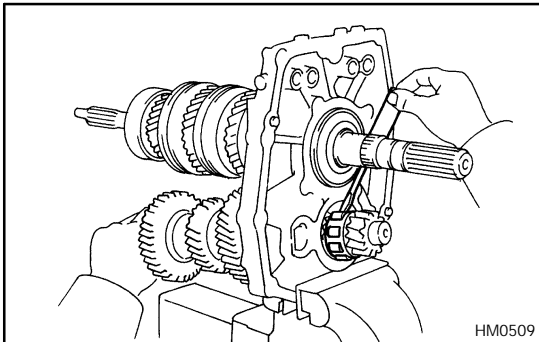
**31. REMOVE COUNTER GEAR**

- (a) Using SST, remove the rear bearing outer race.  
SST 09950-40011



**HINT:**

At the time of reassembly, please refer to the following item.  
Install the counter gear rear bearing outer race with a brass bar and hammer.



- (b) Using a screwdriver, remove the rear bearing and counter gear.

**32. REMOVE INPUT SHAFT ASSEMBLY AND SYNCHRONIZER RING****HINT:**

At the time of reassembly, please refer to the following items.

- Apply MP grease to the 12-needle roller bearing and install them into the input shaft.
- Install the input shaft to the output shaft with the synchronizer ring slots aligned with the shifting keys.

**33. REMOVE OUTPUT SHAFT ASSEMBLY**

Remove the output shaft from the intermediate plate by pulling on the output shaft and tapping on the intermediate plate with a plastic hammer.

