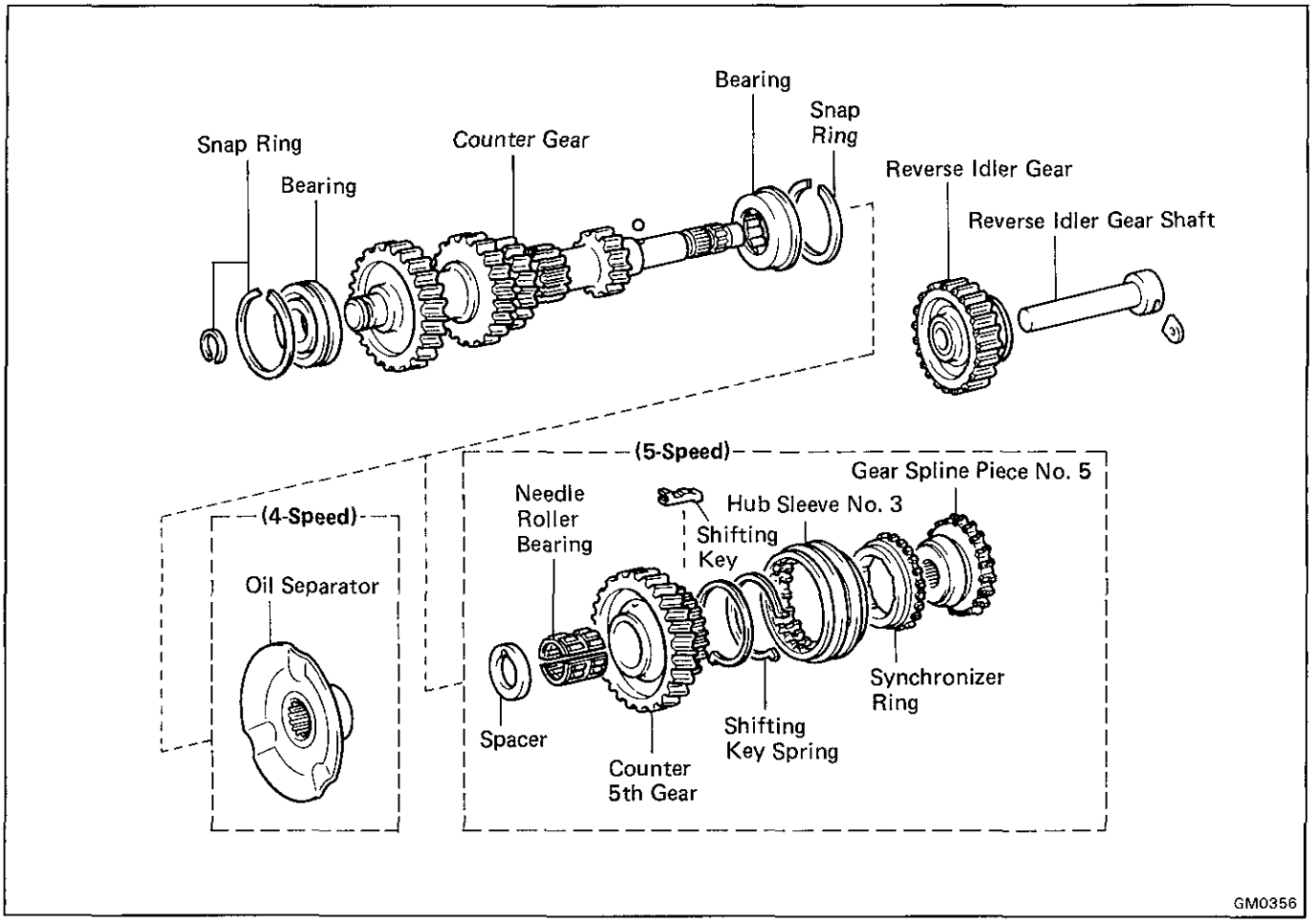
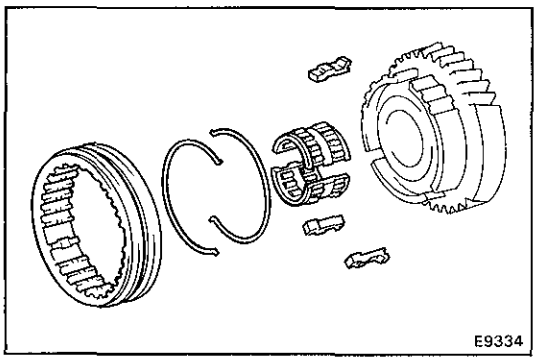
# Counter Gear Assembly and Reverse Idler Gear

## COMPONENTS

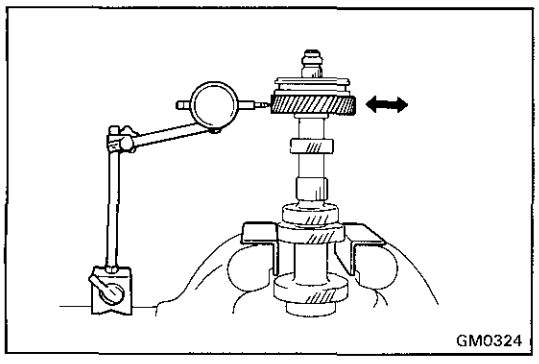



## DISASSEMBLY OF COUNTER GEAR ASSEMBLY

### REMOVE HUB SLEEVE NO.3, SHIFTING KEYS AND SPRINGS

Using a screwdriver, remove hub sleeve No.3, three shifting keys and two springs.




## INSPECTION OF COUNTER GEAR ASSEMBLY

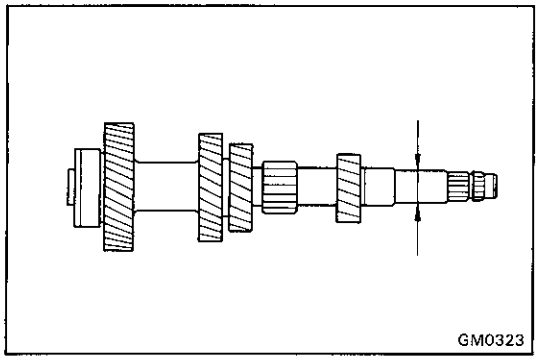
### 1. MEASURE COUNTER FIFTH GEAR OIL CLEARANCE

(a) Install spacer, needle roller bearing and counter 5th gear to counter gear.

(b) Using a dial indicator, measure counter 5th gear oil clearance.

**Standard clearance:** **0.009 — 0.032 mm (0.0004 — 0.0013 in.)**

**Maximum clearance:** **0.032 mm (0.0013 in.)**

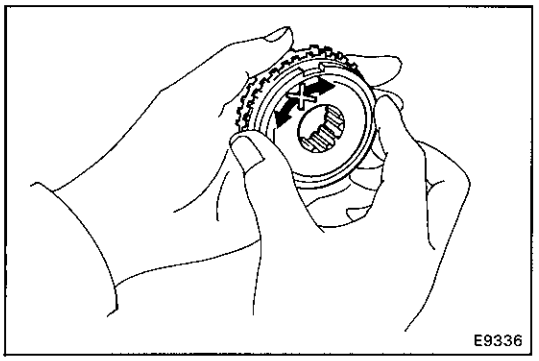

GM0323

2. (5-Speed)
**INSPECT COUNTER GEAR**

Using a micrometer, measure the outer diameter of needle roller bearing race.

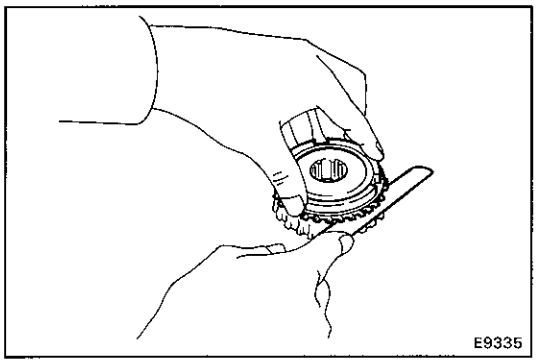
**Standard clearance: 25.98 — 26.00 mm (1.0228 — 1.0236 in.)**

**Minimum clearance: 25.86 mm (1.0181 in.)**


E9336

3. **INSPECT SYNCHRONIZER RING**

(a) Turn the ring and push it into check the braking action.

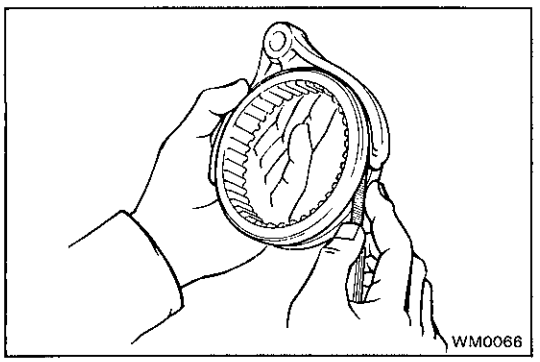

E9335

(b) Measure the clearance between the synchronizer ring back and the gear spline end.

**Standard clearance: 1.0 — 2.0 mm (0.039 — 0.079 in.)**

**Minimum clearance: 0.8 mm (0.031 in.)**

If the clearance is less than the limit, replace the synchronizer ring.

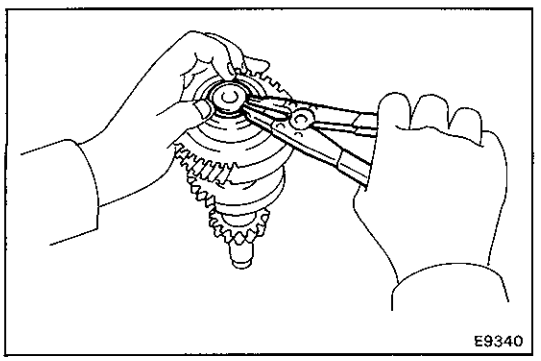

WM0066

4. **MEASURE CLEARANCE OF SHIFT FORK AND HUB SLEEVE**

Using a feeler gauge, measure the clearance between the hub sleeve and shift fork.

**Maximum clearance: 1.0 mm (0.039 in.)**

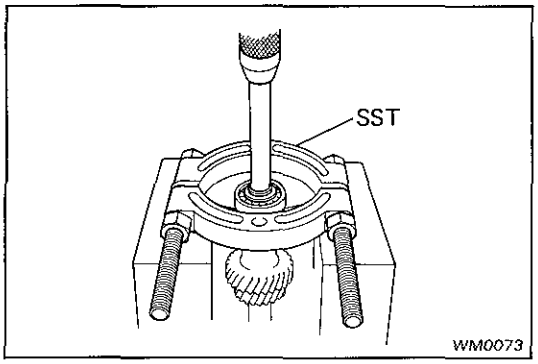
If the clearance more than the limit, replace the shift fork or hub sleeve.


E9340

## REPLACEMENT OF BEARING

**IF NECESSARY, REPLACE COUNTER GEAR FRONT BEARING**

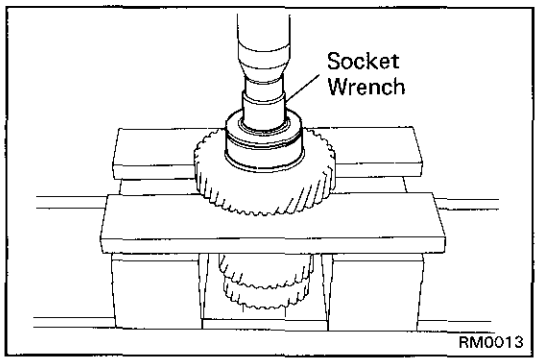
(a) Using snap ring pliers, remove the snap ring.



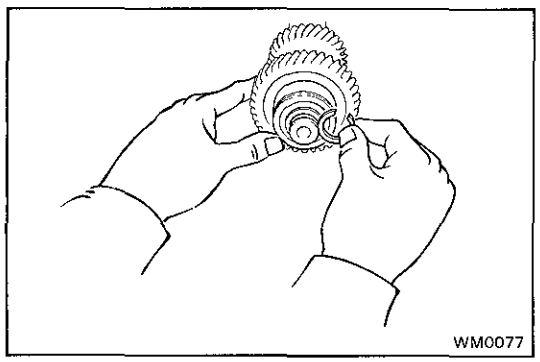

(b) Using SST, press out the bearing.

SST 09950-00020

(c) Replace the side race.

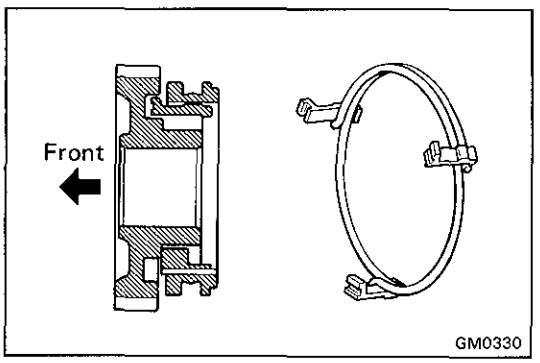



(d) Using a socket wrench, press in the bearing, side race and inner race.




(e) Select a snap ring that will allow minimum axial play and install it on the shaft.

| Mark | Thickness mm (in.) |
|---|---|
| 1 | 2.05 – 2.10 (0.0807 – 0.0827) |
| 2 | 2.10 – 2.15 (0.0827 – 0.0846) |
| 3 | 2.15 – 2.20 (0.0846 – 0.0866) |
| 4 | 2.20 – 2.25 (0.0866 – 0.0886) |
| 5 | 2.25 – 2.30 (0.0886 – 0.0906) |
| 6 | 2.30 – 2.35 (0.0906 – 0.0925) |



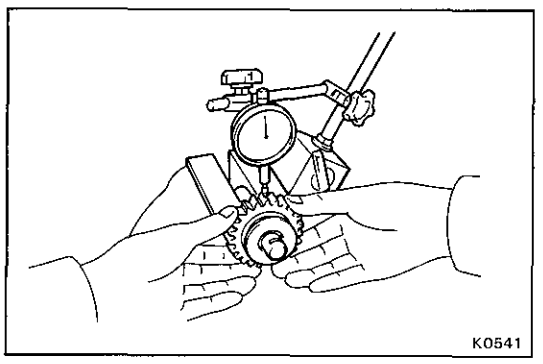

## ASSEMBLY OF COUNTER GEAR ASSEMBLY

### INSTALL HUB SLEEVE NO.3, SHIFTING KEYS AND SPRINGS

(a) Install the clutch hub and shifting keys to the hub sleeve.

(b) Install the shifting key springs under the sifting keys.

**NOTICE: Install the key springs positioned so that their end gaps are not in line.**



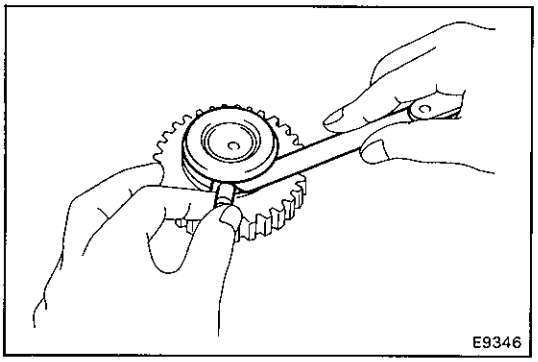

## INSPECTION OF REVERSE IDLER GEAR

### 1. MEASURE REVERSE IDLER GEAR OIL CLEARANCE

Using a dial indicator measure reverse idler gear oil clearance.

**Standard clearance:** **0.04 – 0.08 mm (0.0016 – 0.0031 in.)**

**Maximum clearance:** **0.13 mm (0.0051 in.)**




**2. MEASURE CLEARANCE OF REVERSE IDLER GEAR AND SHIFT ARM SHOE**

Using a feeler gauge, measure the clearance between the reverse idler gear and shift arm shoe.

**Standard clearance:** **0.05 — 0.27 mm (0.0020 — 0.106 in.)**

**Maximum clearance:** **0.5 mm (0.197 in.)**