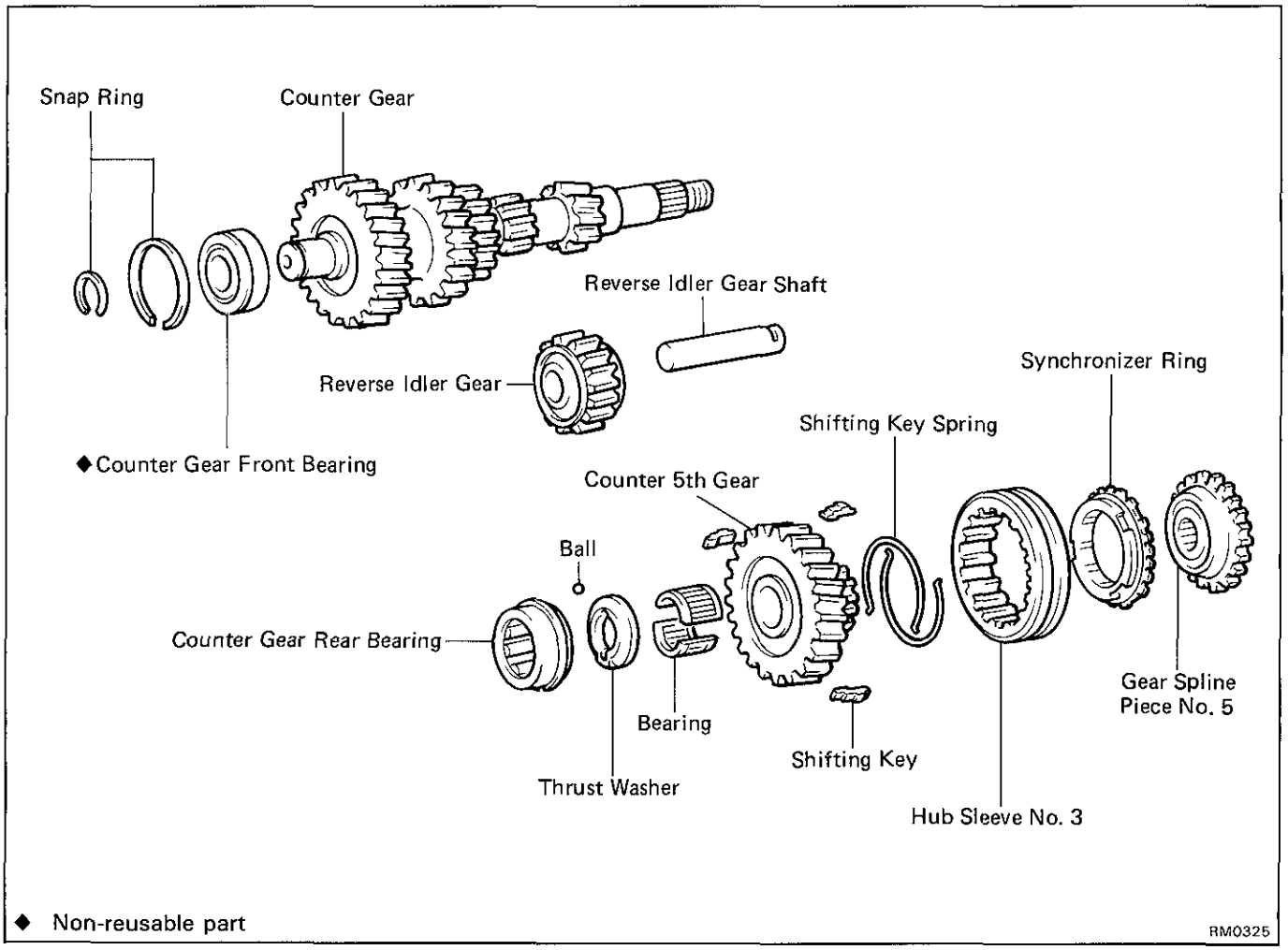
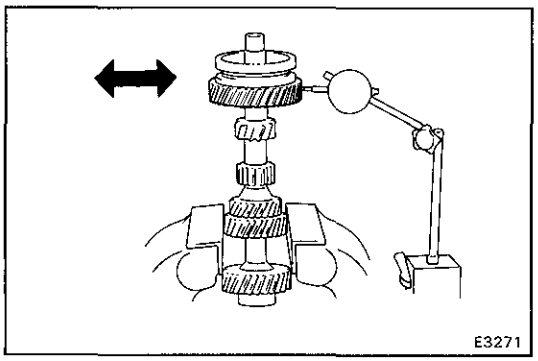
Counter Gear and Reverse Idler Gear

COMPONENTS

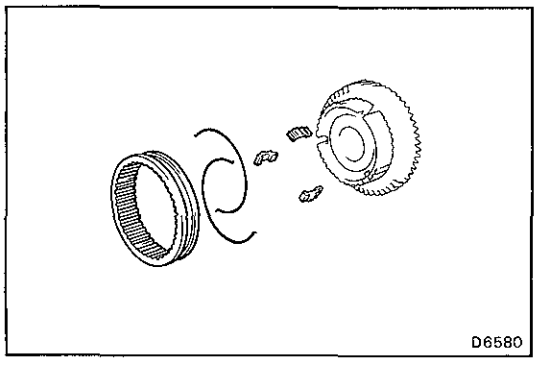


◆ Non-reusable part

RM0325



E3271



D6580

INSPECTION OF COUNTER GEAR

1. CHECK OIL CLEARANCE OF 5TH GEAR

(a) *Install the spacer, counter 5th gear and needle roller* bearings.

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

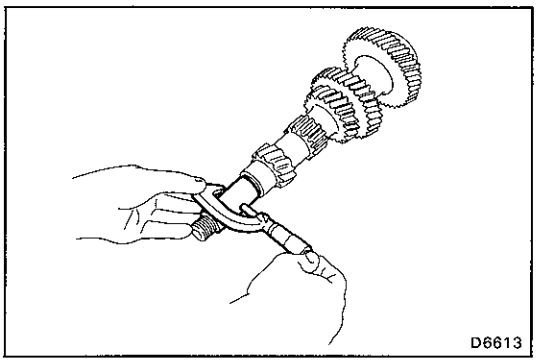
Standard clearance: **0.015 – 0.068 mm (0.006 – 0.0027 in.)**

Maximum clearance: **0.16 mm (0.0063 in.)**

If the clearance exceeds the limit, replace the gear, bearing or shaft.

2. REMOVE HUB SLEEVE NO.3, SHIFTING KEYS AND SPRINGS FROM COUNTER 5TH GEAR

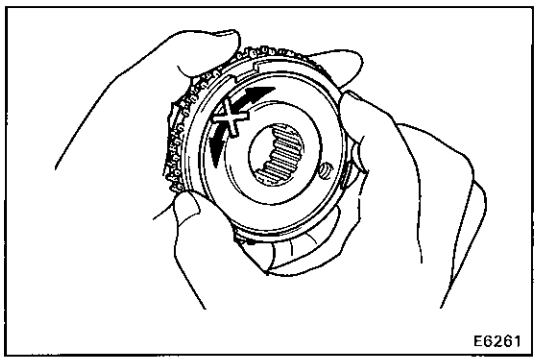
Using a screwdriver, remove the three shifting keys and the two springs from the counter 5th gear.



3. INSPECT COUNTER GEAR

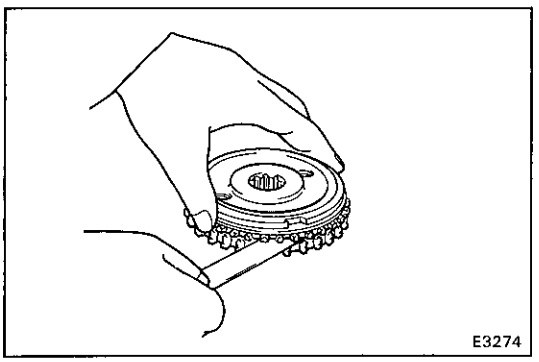
Using a micrometer, measure the outer diameter of the counter gear journal.

Minimum diameter: 27.860 mm (1.0968 in.)



4. INSPECT SYNCHRONIZER RINGS

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

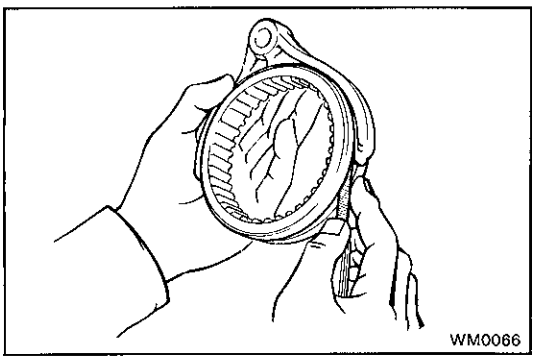


(b) Measure the clearance between the synchronizer ring back and the gear spline end.

Standard clearance: 0.8 — 1.6 mm (0.031 — 0.063 in.)

Minimum clearance: 0.6 mm (0.024 in.)

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

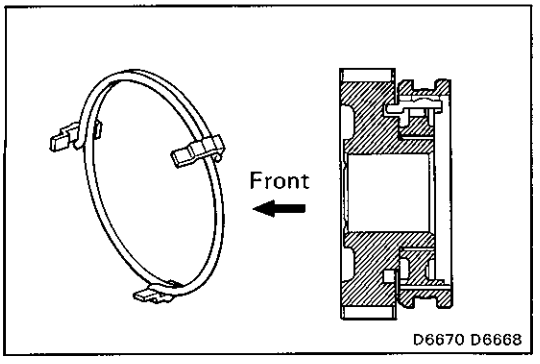


5. MEASURE CLEARANCE OF SHIFT FORKS AND HUB SLEEVES

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.

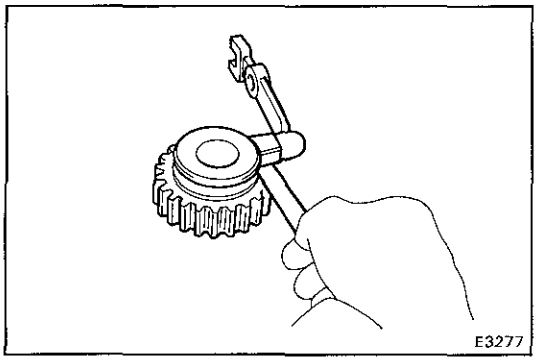


6. INSTALL HUB SLEEVE NO.3 SHIFTING KEYS AND SPRINGS TO COUNTER 5TH GEAR

(a) Install the counter 5th gear and shifting keys to the hub sleeve.

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

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



INSPECTION OF REVERSE IDLER GEAR

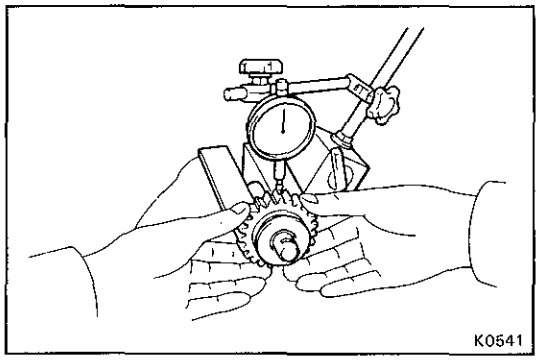
1. **MEASURE CLEARANCE OF REVERSE IDLER GEAR AND SHIFT ARM SHOE**

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

Standard clearance: **0.05 — 0.25 mm (0.0020 — 0.0098 in.)**

Maximum clearance: **0.5 mm (0.020 in.)**

If the *clearance more than the limit, replace the shift arm* shoe or reverse idler gear.



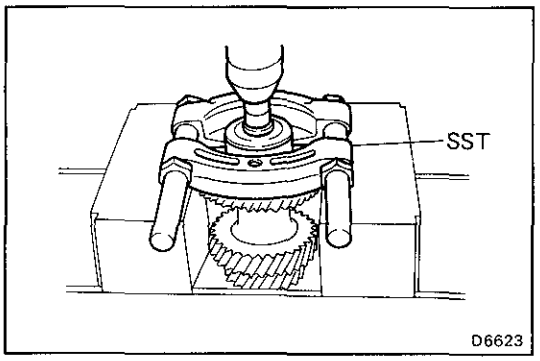
2. **CHECK OIL CLEARANCE OF REVERSE IDLER GEAR**

Using a dial indicator, measure reverse idler gear oil *clearance.*

Standard clearance: **0.040 — 0.082 mm (0.0016 — 0.0032 in.)**

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

If the *clearance more than the limit, replace the reverse* idler gear or reverse idler gear shaft.



REPLACEMENT OF BEARING

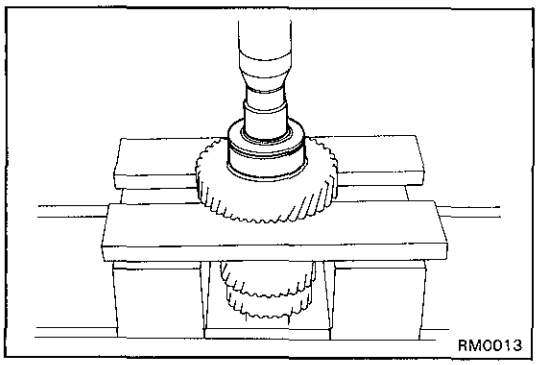
IF NECESSARY, REPLACE COUNTER GEAR FRONT BEARING

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

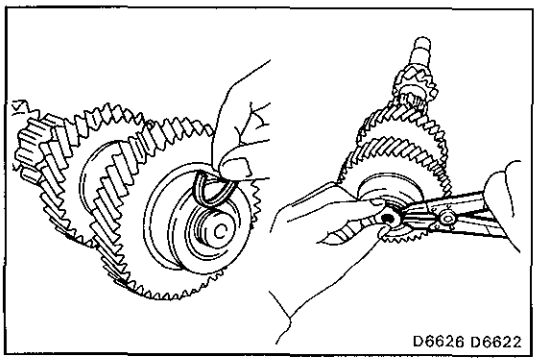
(b) Using SST, press out the bearing.

SST 09950-00020

(c) Replace the side race.



(d) Using a 24 mm socket wrench, press in the bearing and inner race.



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

Mark	Thickness mm (in.)
A	2.00 — 2.05 (0.0787 — 0.0807)
B	2.05 — 2.10 (0.0807 — 0.0827)
C	2.10 — 2.15 (0.0827 — 0.0846)
D	2.15 — 2.20 (0.0846 — 0.0866)
E	2.20 — 2.25 (0.0866 — 0.0886)