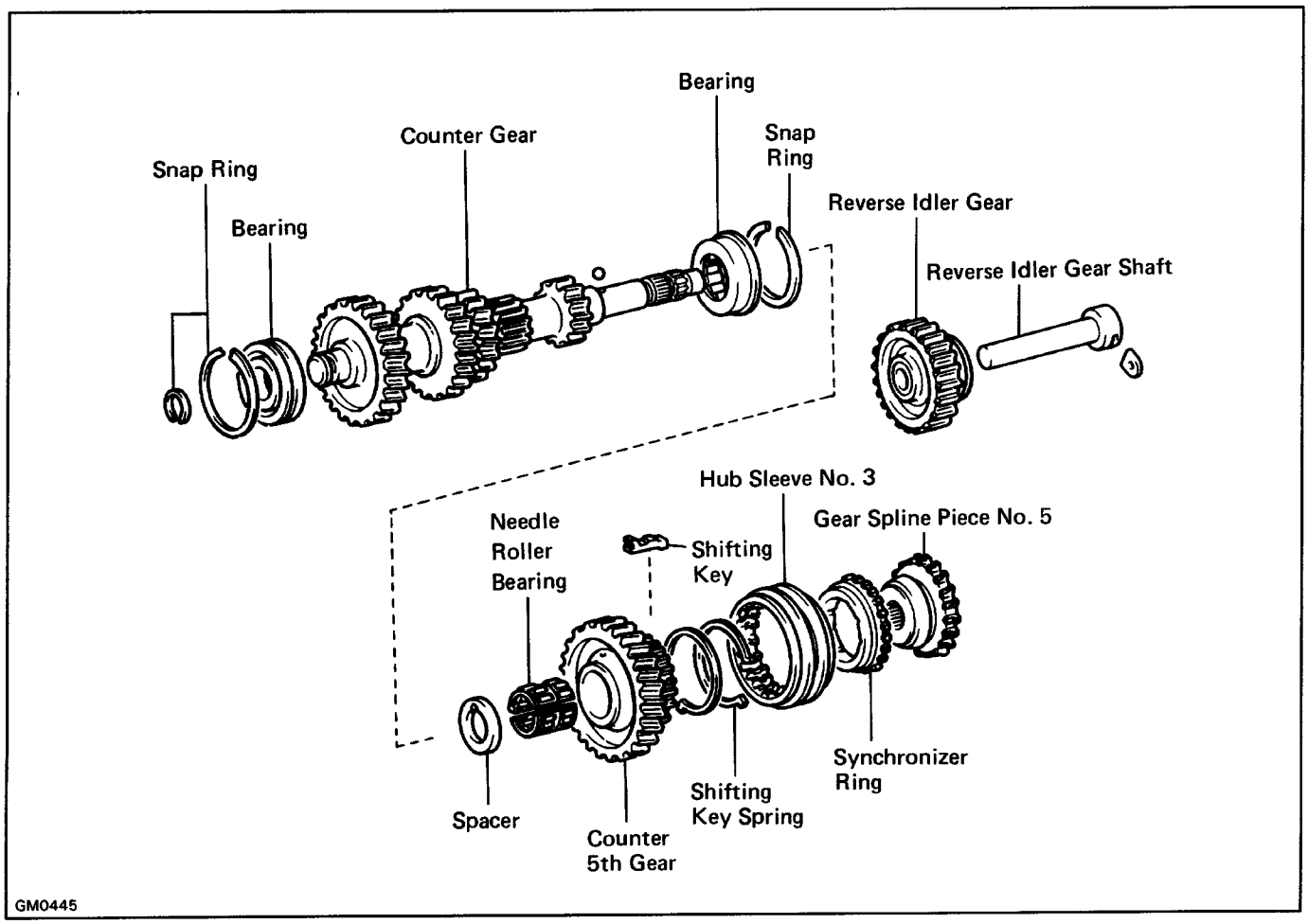
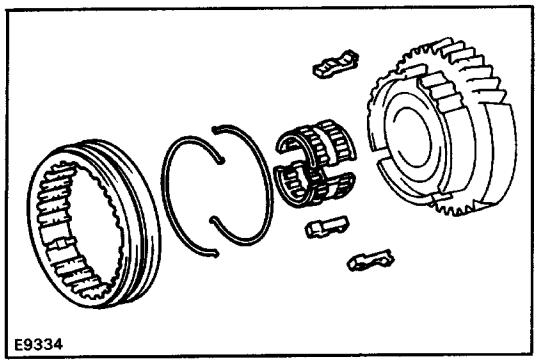
Counter Gear Assembly and Reverse Idler Gear

COMPONENT

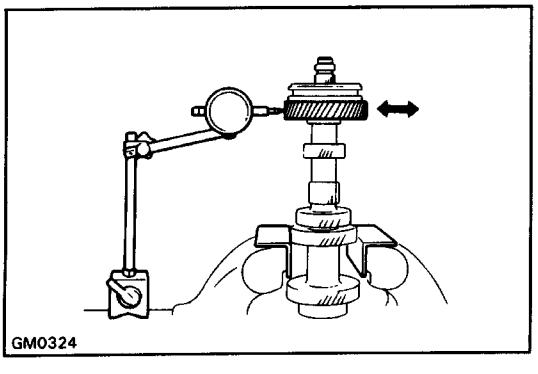




DISASSEMBLY OF COUNTER GEAR ASSEMBLY

REMOVE HUB SLEEVE NO.3 SHIFTING KEYS AND SPRINGS

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



INSPECTION OF COUNTER GEAR ASSEMBLY

1. INSPECT COUNTER FIFTH GEAR OIL CLEARANCE

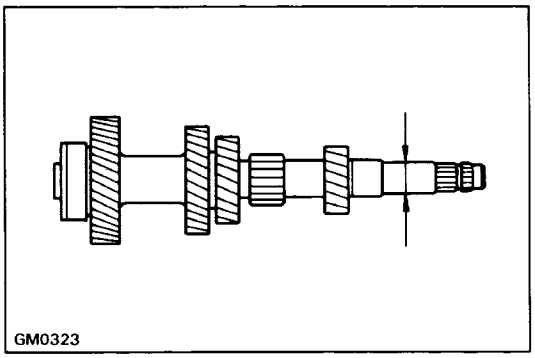
!ay Install the spacer, needle roller bearing and counter 5th gear to counter gear.

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

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

Maximum clearance: 0.032 mm 10.0013 in.)

If the clearance exceeds the maximum, gear, needle roller bearing or counter gear assembly.



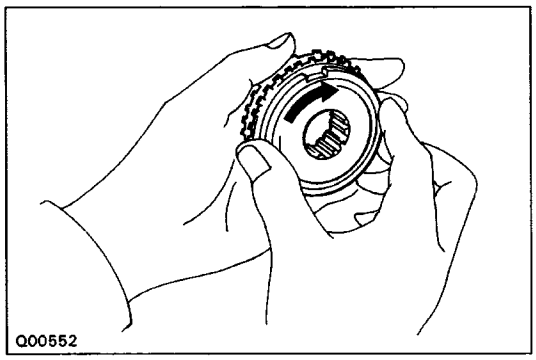
2. INSPECT COUNTER GEAR

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

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

Maximum clearance: 25.86 mm (1.0181 in.)

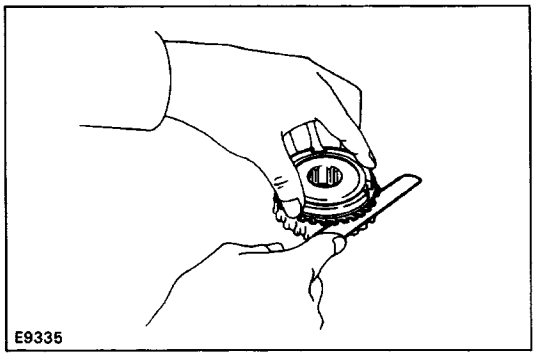
If the outer diameter exceeds the maximum, replace the counter gear.



3. INSPECT SYNCHRONIZER RING

(a) Check for wear or damage.

(b) Turn the ring and push it in to the check the braking action.

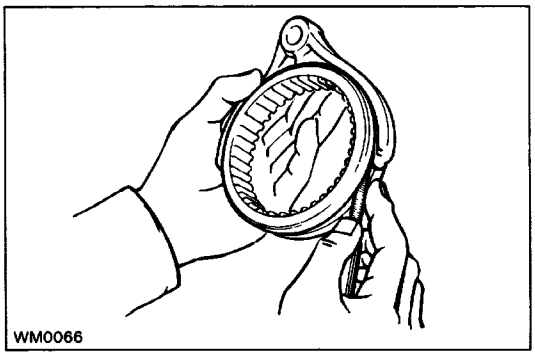


(c) Measure the clearance between the synchronizer ring back and the spline end.

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 minimum, replace the synchronizer ring.

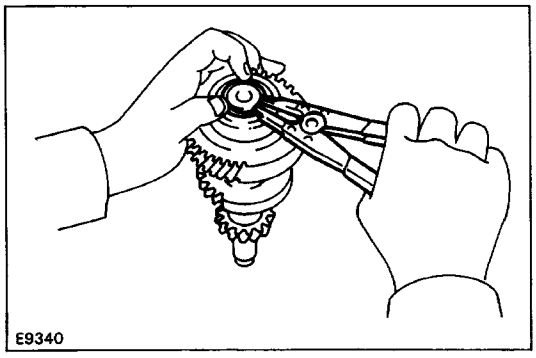


4. MEASURE CLEARANCE OF SHIFT FORK AND HUB SLEEVE

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

Maximum clearance: 1.0 mm (0.039 in.)

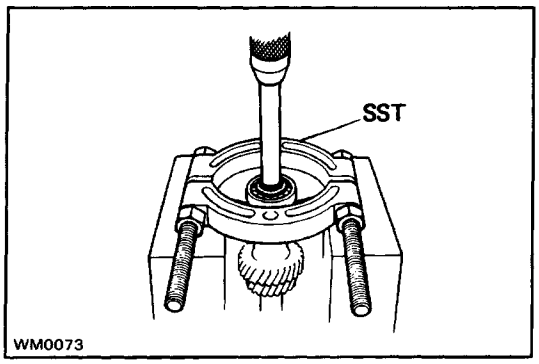
If the clearance exceeds the maximum, replace the shift fork or hub sleeve.



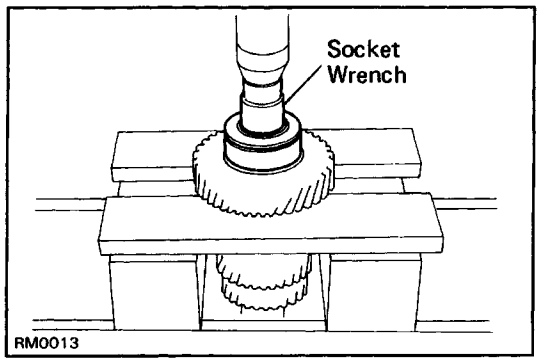
REPLACEMENT OF BEARING

IF NECESSARY, REPLACE COUNTER GEAR FRONT BEARING

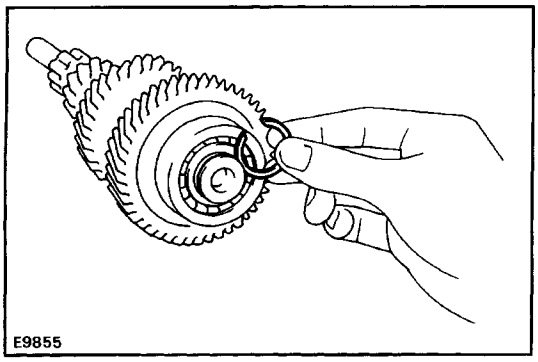
(a) Using a snap ring expander, remove the snap ring.



(b) Using SST and a press, remove the bearing.
SST 09950–00020
(c) Replace the side race.

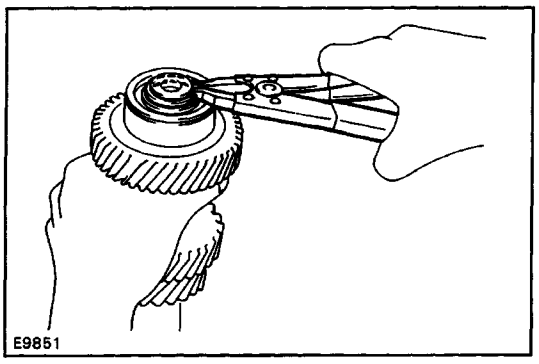


(d) Using a socket wrench and press, install the bear–ing, side race and innerrece.

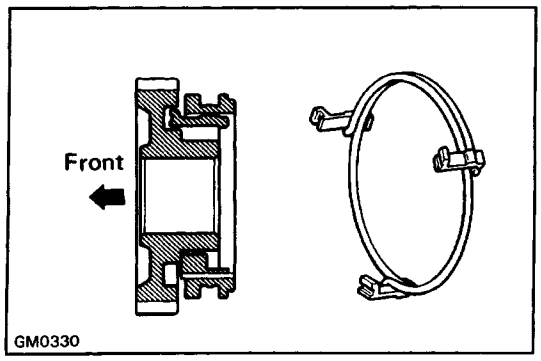


(e) Select a snap ring that will allow minimum axial play.

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)



(f) Using a snap ring expander, install the snap ring.

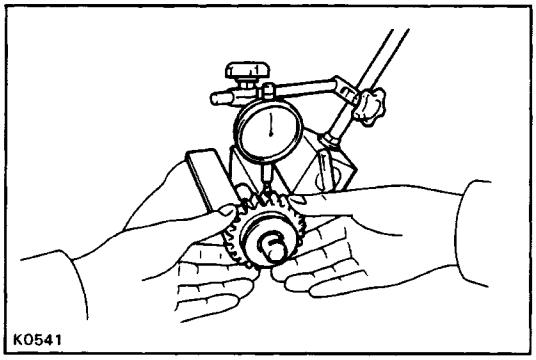


ASSEMBLY OF COUNTER GEAR ASSEMBLY

INSTALL HUB SLEEVE N0.3, SHIFTING KEYS AND SPRINGS

(a) Install the clutch hub and shifting keys to the hub sleeve.
(b) Install the shifting key springs under the shifting keys.

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



INSPECTION OF REVERSE IDLER GEAR

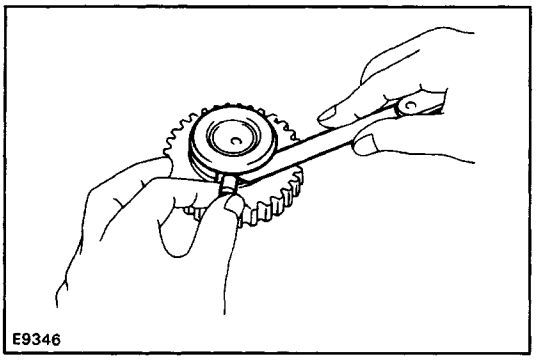
1. INSPECT REVERSE IDLER GEAR OIL CLEARANCE

Using a dial indicator measure reverse idler gear oil clear–ance .

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

Maximum clearance: 0.13 mm (0.0051 in.)

If the clearance exceeds the maximum, replace the gear or shaft.



2. INSPECT 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.)

If the clearance exceeds the maximum, replace the gear or shift arm shoe.