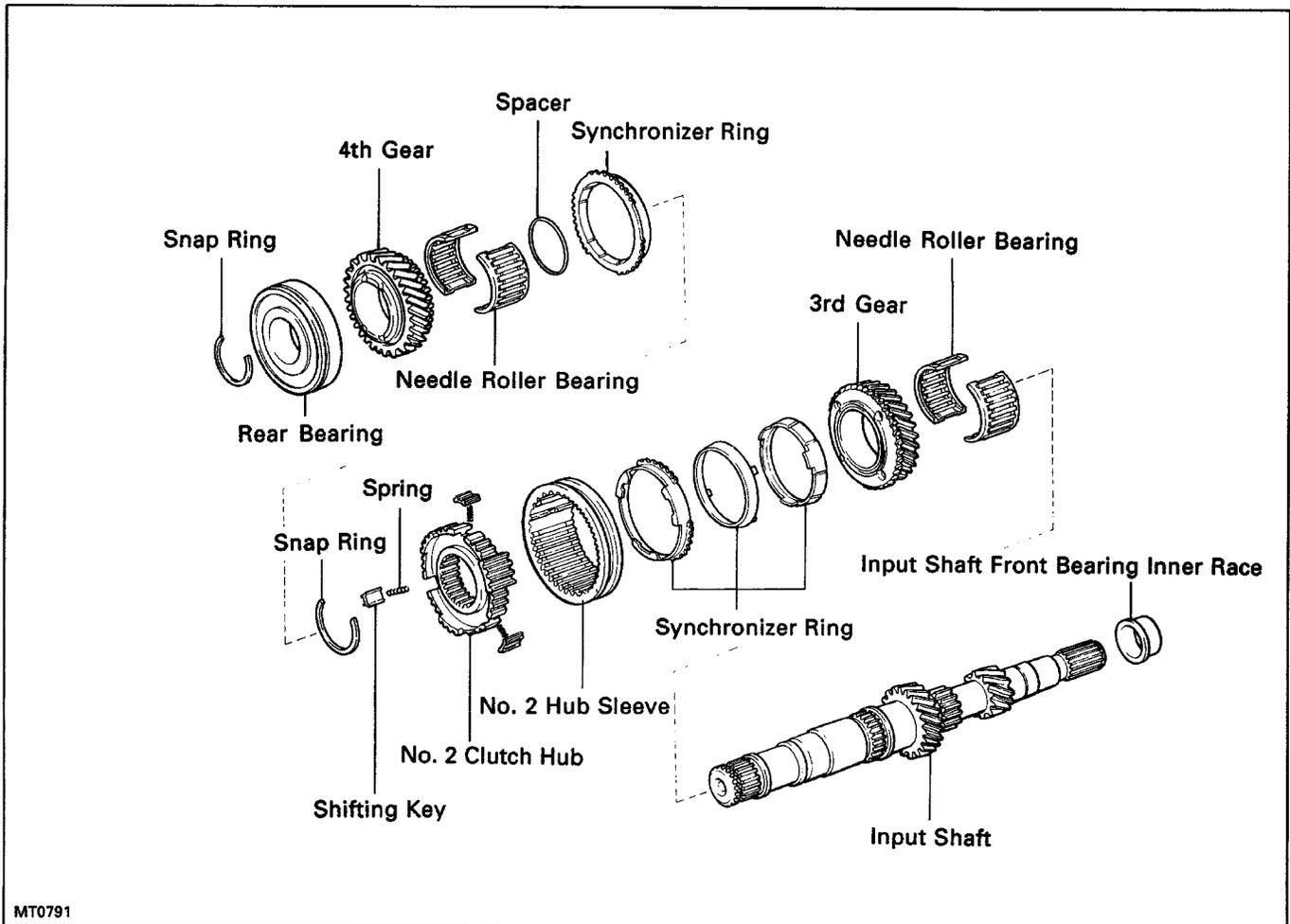
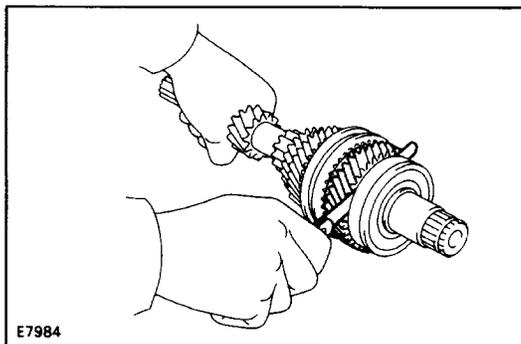


COMPONENT PARTS

Input Shaft Assembly



MT0791



E7984

DISASSEMBLY OF INPUT SHAFT ASSEMBLY

1. MEASURE THIRD AND FOURTH GEAR THRUST CLEARANCE

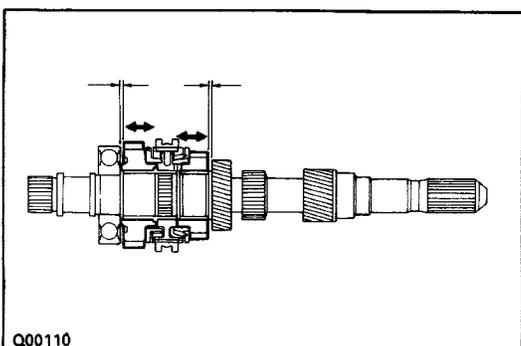
Using a feeler gauge, measure the thrust clearance.

Standard clearance:

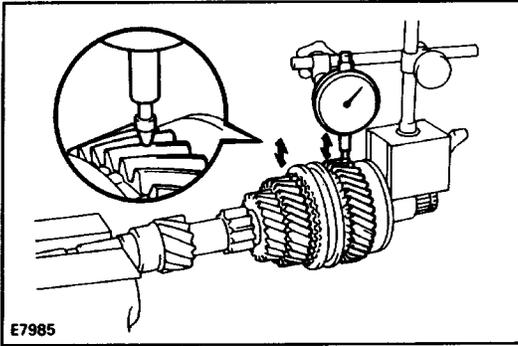
3rd gear	0.10–0.35mm (0.0039–0.0138 in.)
4th gear	0.10–0.55mm(0.0039–0.0217 in.)

Maximum clearance:

3rd gear	0.40 mm (0.0157 in.)
4th gear	0.60 mm (0.0236 in.)



Q00110



2. CHECK OIL CLEARANCE OF THIRD AND FOURTH GEAR

Using dial indicator, measure the oil clearance between the gear and shaft.

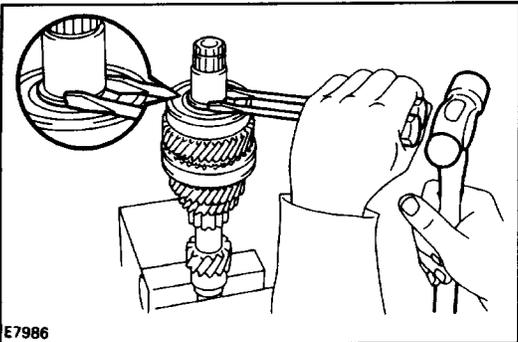
Standard clearance:

**3rd gear 0.009–0.053 mm
(0.4–0.0020 in.)**

**4th gear 0.009–0.051 mm
(0.0004–0.0020 in.)**

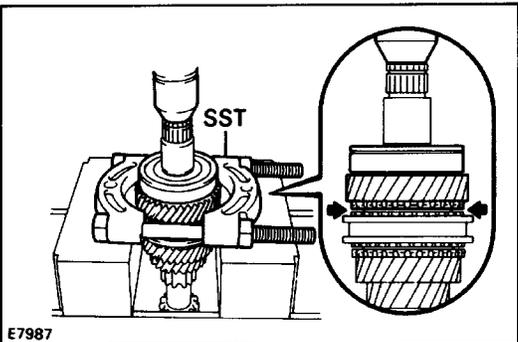
Maximum clearance: 0.080 mm (0.003 in.)

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



3. REMOVE SNAP RING

Using two screwdrivers and a hammer, tap out the snap ring.

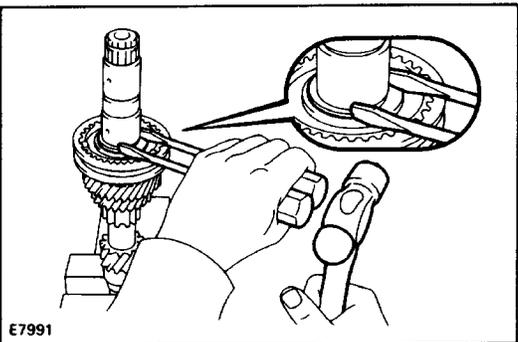


4. REMOVE INPUT SHAFT REAR BEARING AND FOURTH GEAR

Using SST and a press, remove the input shaft rear bearing.

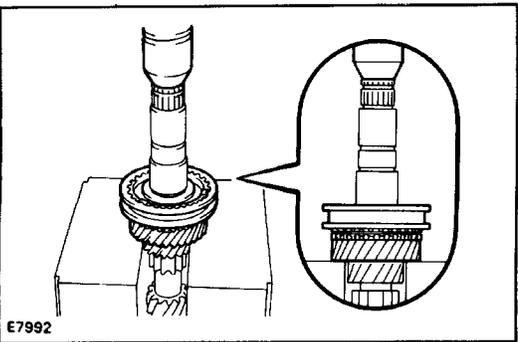
SST 09950-00020

5. REMOVE NEEDLE ROLLER BEARING, SPACER AND SYNCHRONIZER RING



6. REMOVE SNAP RING

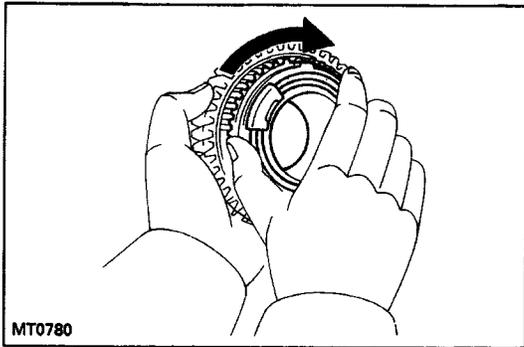
Using two screwdrivers and a hammer, tap out the snap ring.



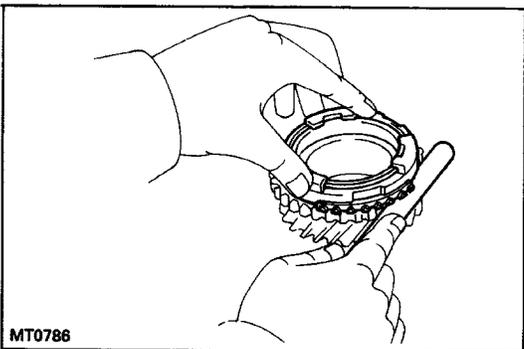
7. REMOVE NO.2 CLUTCH HUB ASSEMBLY, SYNCHRONIZER RING AND THIRD GEAR

Using a press, remove No.2 hub sleeve, 3rd gear, synchronizer ring and needle roller bearings.

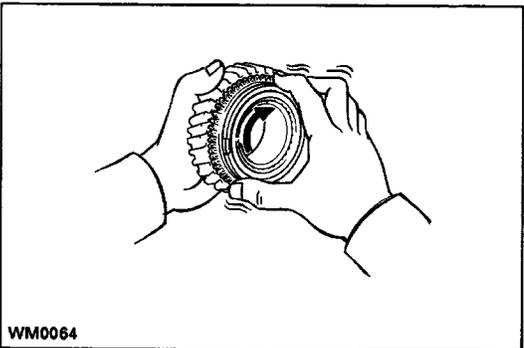
8. REMOVE NEEDLE ROLLER BEARING



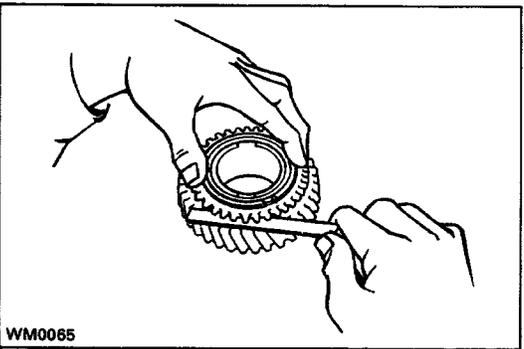
MT0780



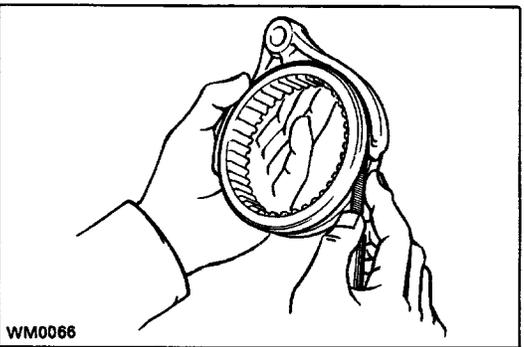
MT0786



WM0064



WM0085



WM0066

INSPECTION OF INPUT SHAFT COMPONENT PARTS

1. INSPECT SYNCHRONIZER RING FOR THIRD GEAR

- (a) Check for wear damage.

Check the braking effect of the synchronizer ring. Turn the synchronizer ring in one direction while pushing it to the gear cone and check that the ring is locked.

If the braking effect is insufficient, replace the synchronizer ring.

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

Minimum clearance: 0.7 mm (0.028 in.)

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

2. INSPECT SYNCHRONIZER RING FOR FOURTH GEAR

- (a) Check for wear or damage.

(b) Check the braking effect of the synchronizer ring. Turn the synchronizer ring in one direction while pushing it to the gear cone and check that the ring is locked.

If the braking effect is insufficient, lightly rub the synchronizer ring and gear cone by applying a small amount of fine lapping compound.

NOTICE: Wash off completely the fine lapping compound after rubbing.

Check again the braking effect of the synchronizer ring.

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

Minimum clearance: 0.6 mm (0.024 in.)

If the clearance is less than the limit, replace the synchronizer ring and gear cone by applying a small amount of fine lapping compound.

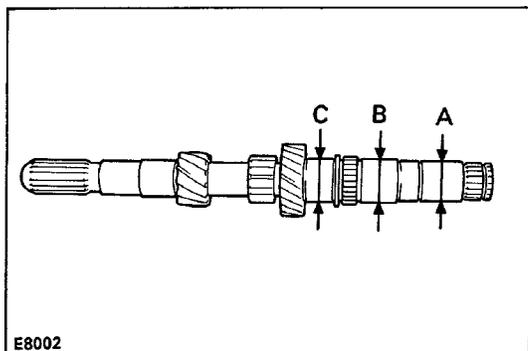
NOTICE: Wash off completely the fine lapping compound after rubbing.

3. MEASURE CLEARANCE OF NO. 2 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 limit, replace the shift fork or hub sleeve.

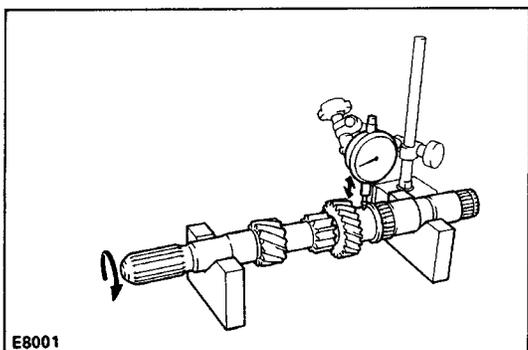


4. INSPECT INPUT SHAFT

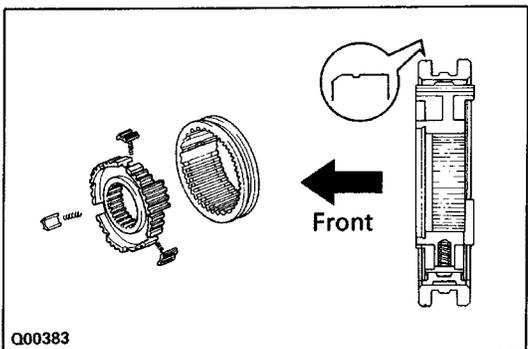
- (a) Check the input shaft for wear or damage.
- (b) Using a micrometer, measure the outer diameter of the input shaft journal surface.

Minimum outer diameter:

Part A	32.930 mm (1.2964 in.)
B and C	35.950 mm (1.4154 in.)



- (c) Using a dial indicator, check the shaft runout.
Maximum runout: 0.060 mm (0.0024 in.)



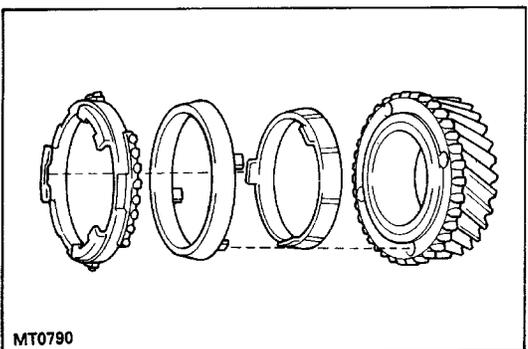
ASSEMBLY OF INPUT SHAFT ASSEMBLY

(See page [MT-151](#))

HINT: Coat all of the sliding and rotating surface with gear oil before assembly.

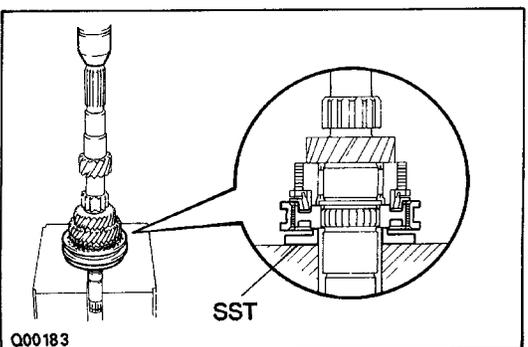
1. INSPECT NO. 2 CLUTCH HUB INTO HUB SLEEVE

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

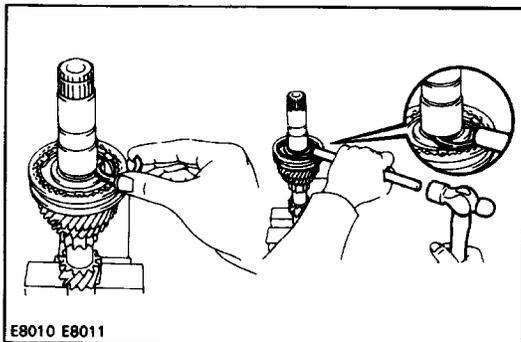


2. INSTALL NEEDLE ROLLER BEARING, THIRD GEAR, SYNCHRONIZER RINGS AND NO. 2 HUB SLEEVE ASSEMBLY TO INPUT SHAFT

- (a) Apply MP grease to the needle roller bearing.
- (b) Assemble the needle roller bearings into the 3rd gear.
- (c) Place the synchronizer rings on the gear and align the ring slots with the shifting keys.



- (d) Using SST and a press, install the 3rd gear and No. 2 hub sleeve.
SST 09506-35010

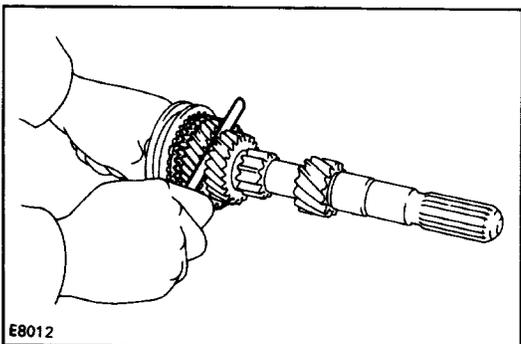


E8010 E8011

3. INSTALL SNAP RING

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

Mark	Thickness	mm (in.)
H	2.30–2.35	(0.0906–0.0925)
J	2.35–2.40	(0.0925–0.0945)
K	2.40–2.45	(0.0945–0.0965)
L	2.45–2.50	(0.0965–0.0984)
M	2.50–2.55	(0.0984–0.1004)
N	2.55–2.60	(0.1004–0.1024)
P	2.60–2.65	(0.1024–0.1043)

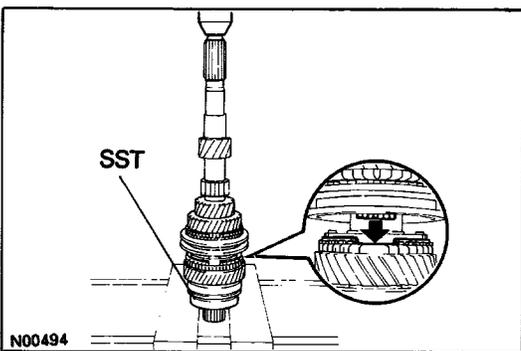


E8012

4. MEASURE THIRD GEAR THRUST CLEARANCE

Using a feeler gauge, measure the 3rd gear thrust clearance.

**Standard clearance: 0.10–0.35 mm
(0.0039–0.0138 in.)**

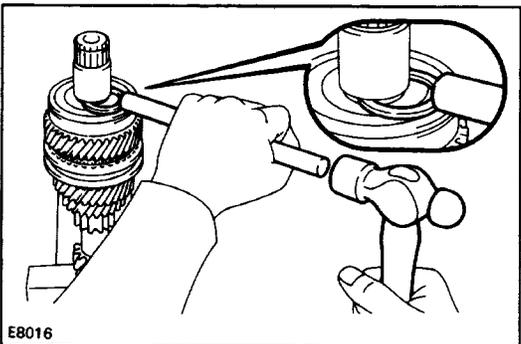


N00494

5. INSTALL SPACER, SYNCHRONIZER RING, NEEDLE ROLLER BEARINGS, FOURTH GEAR AND RADIAL BALL BEARING

- Install the spacer.
- Apply MP grease to the needle roller bearings.
- Place the synchronizer ring on the gear and align the ring slots with the shifting keys.
- Install the 4th gear.
- Using SST and a press, install the radial ball bearing.

SST 09506–35010

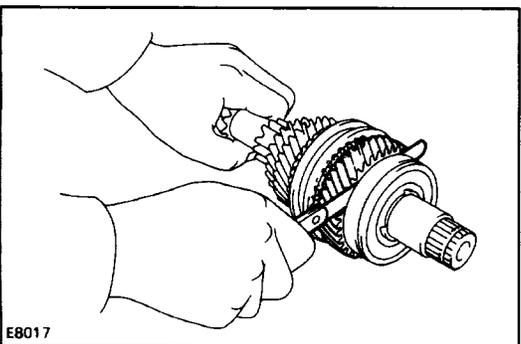


E8016

6. INSTALL SNAP RING

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

Mark	Thickness	mm (in.)
H	2.35–2.40	(0.0925–0.0945)
J	2.40–2.45	(0.0945–0.0965)
K	2.45–2.50	(0.0965–0.0984)
L	2.50–2.55	(0.0984–0.1004)
M	2.55–2.60	(0.1004–0.1024)
N	2.60–2.65	(0.1024–0.1043)
P	2.65–2.70	(0.1043–0.1063)
	2.70–2.75	(0.1063–0.1083)



E8017

7. MEASURE FOURTH GEAR THRUST CLEARANCE

Using a feeler gauge, measure the 4th gear thrust clearance.

**Standard clearance: 0.10–0.55 mm
(0.0039–0.0217 in.)**