

### DISASSEMBLY

### **INSPECT EACH GEAR THRUST CLEARANCE**

Measure the thrust clearance of each gear.

Standard clearance:

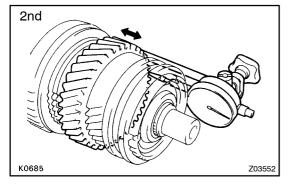
1st gear: 0.20-0.45 mm (0.0078-0.0177 in.)

2nd and 3rd gears: 0.10-0.25 mm (0.0039-0.0098 in.)

Maximum clearance:

1st gear: 0.50 mm (0.0197 in.)

2nd and 3rd gears: 0.30 mm (0.0118 in.)



#### INSPECT EACH GEAR RADIAL CLEARANCE

Using a dial indicator, measure the radial clearance of each gear.

Standard clearance:

1st gear: 0.020-0.073 mm (0.0008-0.0029 in.)

2nd and 3rd gears:

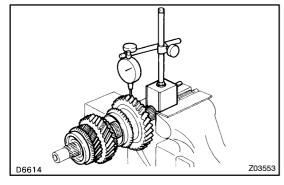
0.015-0.068 mm (0.0006-0.0027 in.)

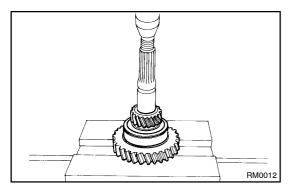
**Maximum clearance:** 

1st gear: 0.160 mm (0.0063 in.)

2nd and 3rd gears: 0.160 mm (0.0063 in.)

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



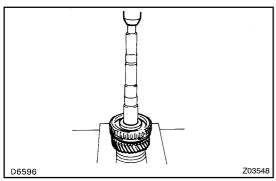


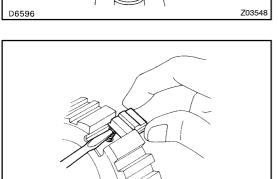
#### 3. REMOVE 5TH GEAR, OUTPUT SHAFT CENTER **BEARING AND 1ST GEAR ASSEMBLY**

- Using a press, remove the 5th gear, center bearing, thrust (a) washer and 1st gear.
- (b) Remove the synchronizer inner ring, middle ring and outer ring from the 1st gear.
- Remove the straight pin and needle roller bearing. (c)
- Remove the spacer. (d)

LAND CRUISER (W/G) (RM616E)

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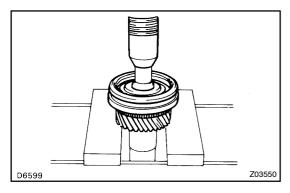


## 4. REMOVE REVERSE GEAR ASSEMBLY AND 2ND GEAR ASSEMBLY

- (a) Using 2 screwdrivers and a hammer, tap out the snap ring.
- (b) Using a press, remove the reverse gear assembly and 2nd gear assembly.
- (c) Remove the needle roller bearing.
- (d) Remove the synchronizer inner ring, middle ring and outer ring from the 2nd gear.

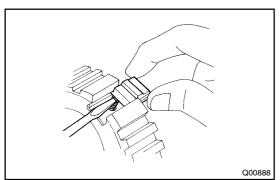
# 5. REMOVE REVERSE GEAR, SHIFTING KEY AND SPRING FROM CLUTCH HUB NO.1

- (a) Remove the reverse gear from the clutch hub No.1.
- (b) Push the shifting key spring with a screwdriver, remove the 3 shifting keys and key springs from clutch hub No.1.



### 6. REMOVE HUB SLEEVE NO.2 ASSEMBLY AND 3RD GEAR ASSEMBLY

- (a) Using a snap ring expander, remove the snap ring.
- (b) Using a press, remove the hub sleeve No.2 assembly and 3rd gear assembly.
- (c) Remove the needle roller bearing.
- (d) Remove the synchronizer inner ring, middle ring and outer ring from the 3rd gear.



## 7. REMOVE HUB SLEEVE NO.2, SHIFTING KEY AND SPRING FROM CLUTCH HUB NO.2

- (a) Remove the hub sleeve No.2 from the clutch hub No.2.
- (b) Push the shifting key spring with a screwdriver, remove the 3 shifting keys and key springs from clutch hub No.2.