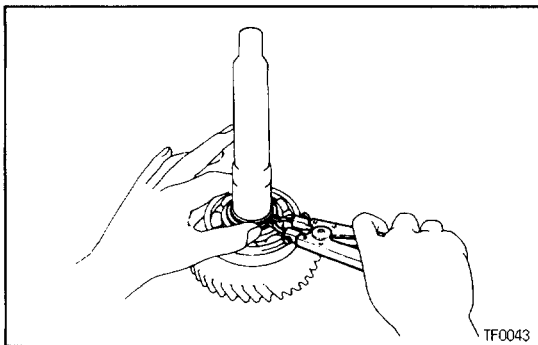
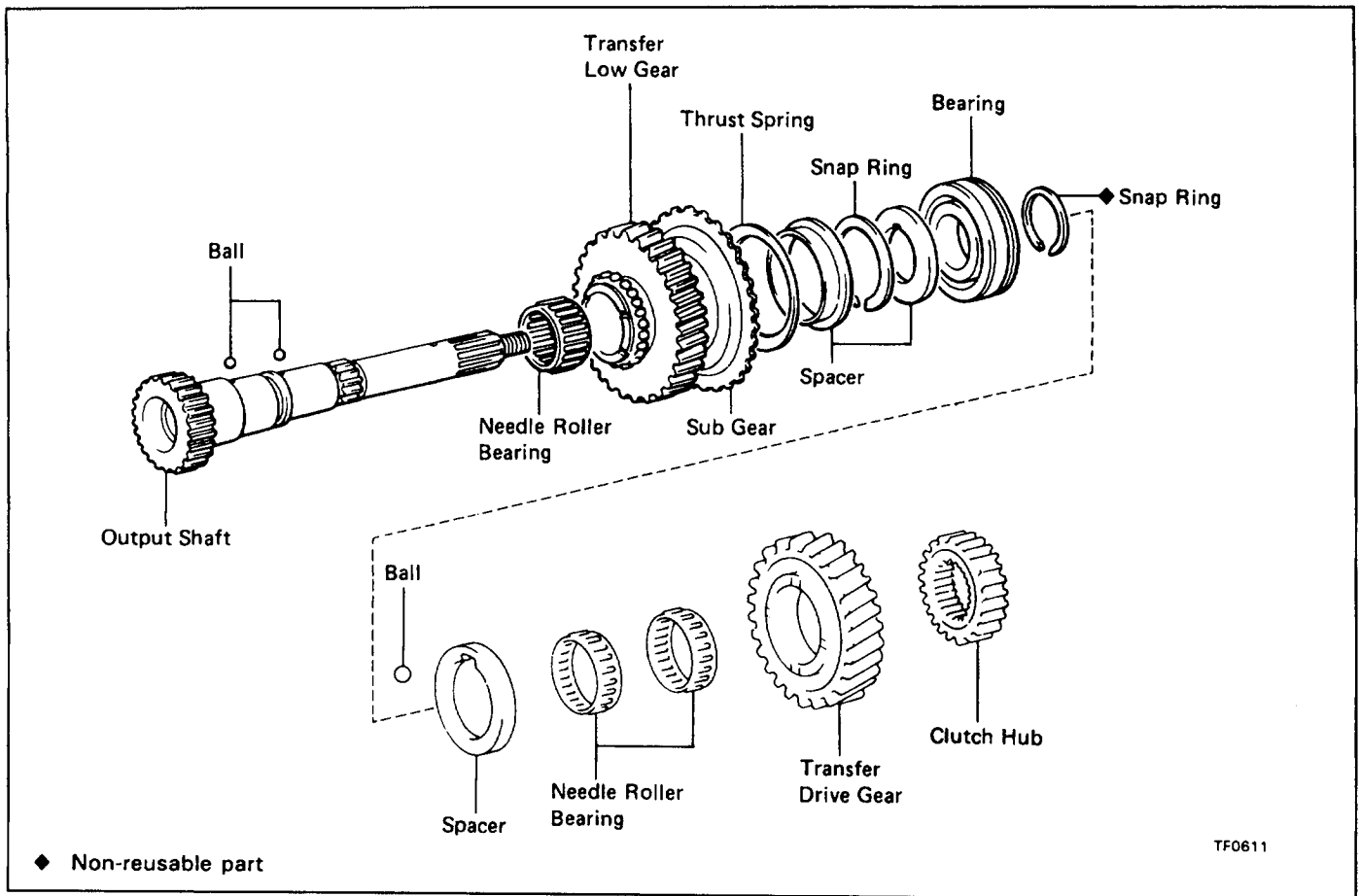


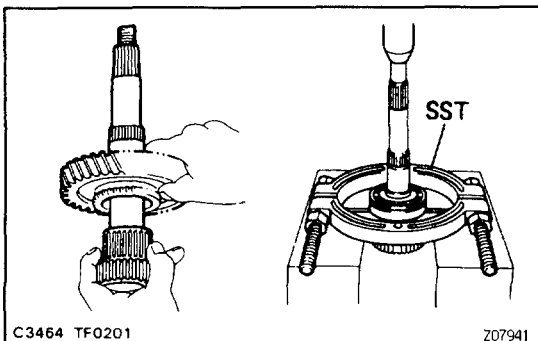
# OUTPUT SHAFT COMPONENTS



## OUTPUT SHAFT DISASSEMBLY

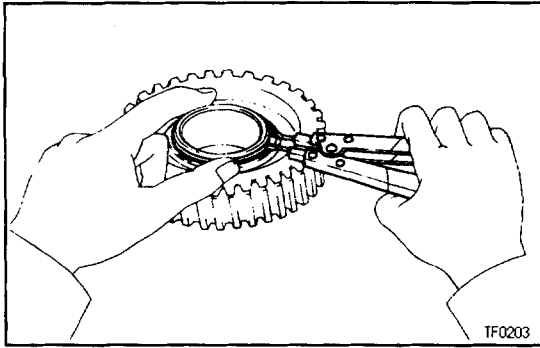
### REMOVE OUTPUT SHAFT FRONT BEARING, LOW GEAR AND SUB GEAR

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

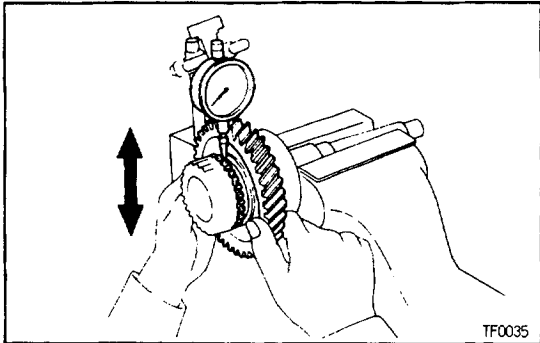


(b) Using SST and a press, remove the bearing, No.1 spacer and low gear.  
SST 09950-00020

(c) Remove the steel ball and needle roller bearing.



- (d) Using a snap ring expander, remove the snap ring from the low gear.
- (e) Remove the spacer, thrust spring and sub gear.



## OUTPUT SHAFT INSPECTION

### 1. CHECK RADIAL CLEARANCE AND THRUST CLEARANCE OF TRANSFER LOW GEAR

- (a) Using a dial indicator, measure the radial clearance between the gear and shaft with the needle roller bearing installed.

**Standard clearance:**

**0.010–0.055 mm (0.0004–0.0022 in.)**

**Maximum clearance:**

**0.075 mm (0.0030 in.)**

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

- (b) Using a dial indicator, measure the thrust clearance with the spacer and bearing installed.

**HINT:** Do not touch the shaft end of the dial indicator to the sub gear.

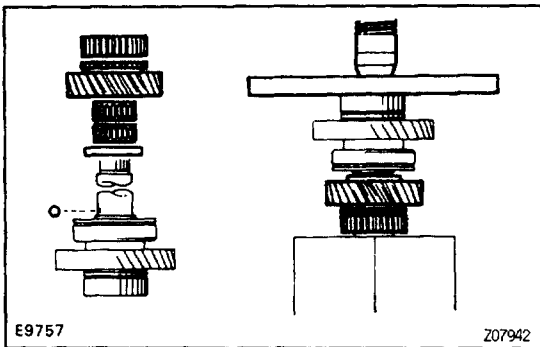
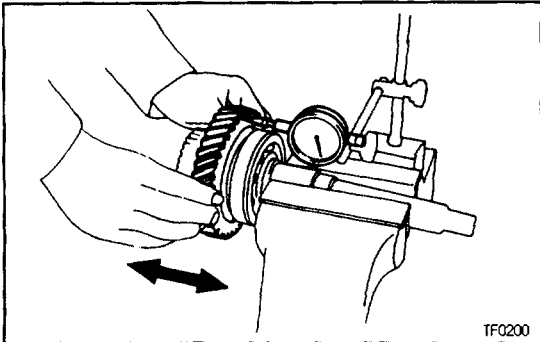
**Standard clearance:**

**0.10–0.25 mm (0.0039–0.0098 in.)**

**Maximum clearance:**

**0.30 mm (0.0118 in.)**

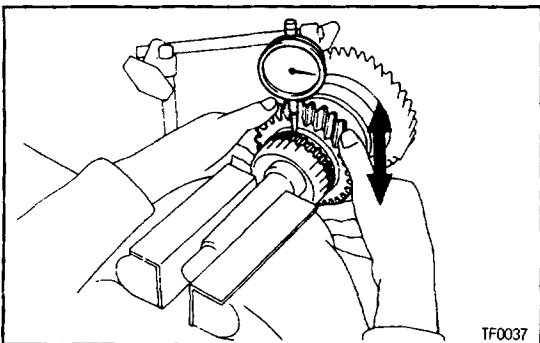
If the clearance exceeds the limit, replace the spacer.



### 2. CHECK RADIAL CLEARANCE AND THRUST CLEARANCE OF TRANSFER DRIVE GEAR

- (a) Using a press, install the ball, spacer, 2 needle roller bearings and transfer drive gear.

**HINT:** Do not loosen the ball.



- (b) Using a dial indicator, measure the radial clearance between the gear and shaft with the needle roller bearing installed.

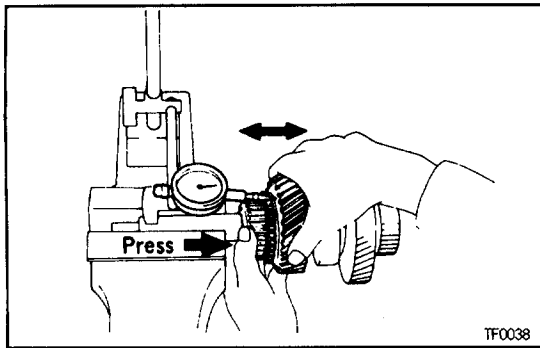
**Standard clearance:**

**0.009–0.051 mm (0.0004–0.0020 in.)**

**Maximum clearance:**

**0.71 mm (0.028 in.)**

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



- (c) Using a dial indicator, measure the thrust clearance with the clutch hub and spacer installed.

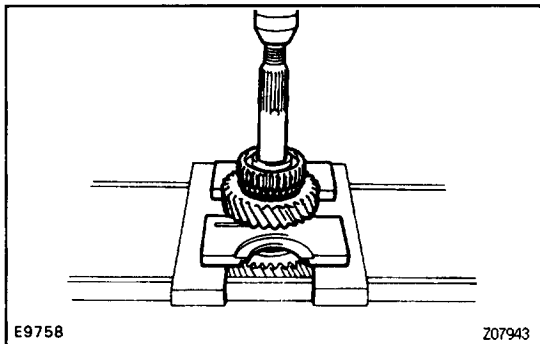
**Standard clearance:**

**0.09–0.27 mm (0.0035–0.0106 in.)**

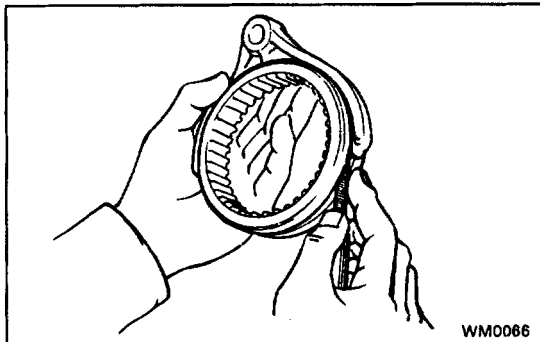
**Maximum clearance:**

**0.32 mm (0.0126 in.)**

If the clearance exceeds the limit, replace the spacer.



- (d) Using a press, remove the ball, spacer, 2 needle roller bearings and transfer drive gear.



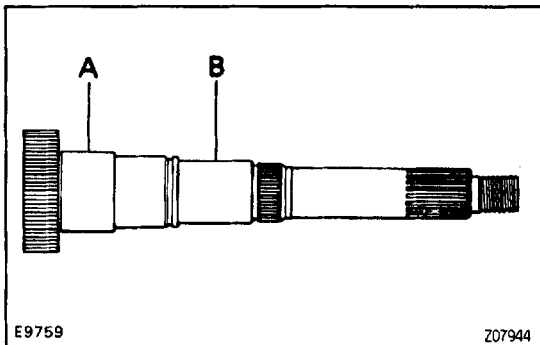
### 3. MEASURE CLEARANCE OF SHIFT FORKS AND HUB SLEEVES

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 exceeds the limit, replace the shift fork or hub sleeve.



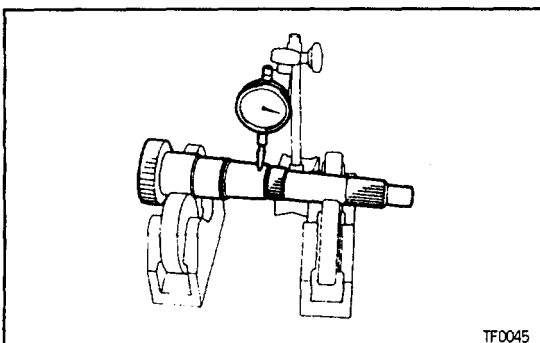
### 4. INSPECT OUTPUT SHAFT

- (a) Using a micrometer, measure the outer diameter of the output shaft.

**Minimum outer diameter:**

**Part A 44.984 mm (1.7710 in.)**

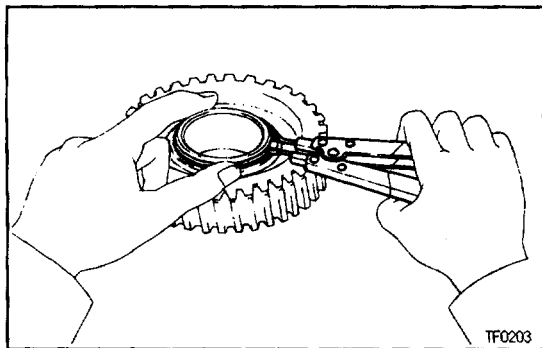
**Part B 34.984 mm (1.3773 in.)**



- (b) Using a dial indicator, measure the shaft runout.

**Maximum runout:**

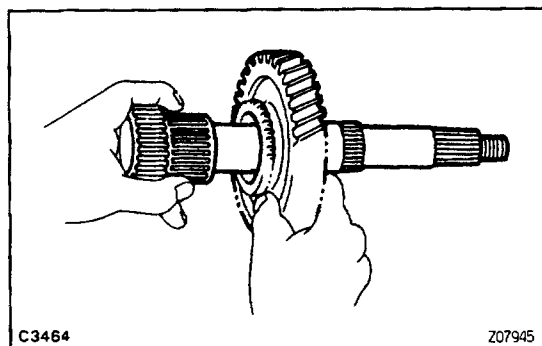
**0.03 mm (0.0012 in.)**



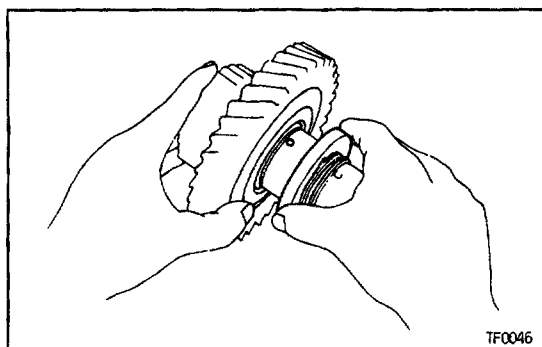
## OUTPUT SHAFT ASSEMBLY

### INSTALL OUTPUT SHAFT FRONT BEARING LOW GEAR AND SUB GEAR

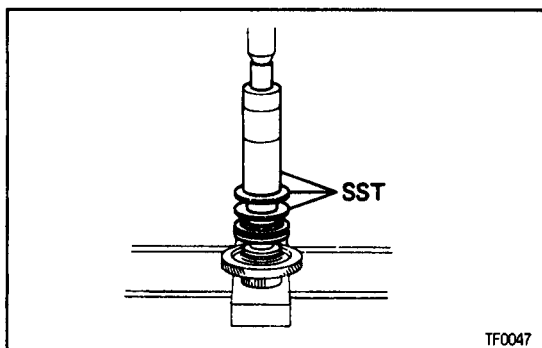
- (a) Install the sub gear, thrust spring and spacer.
- (b) Using a snap ring expander, install the snap ring.



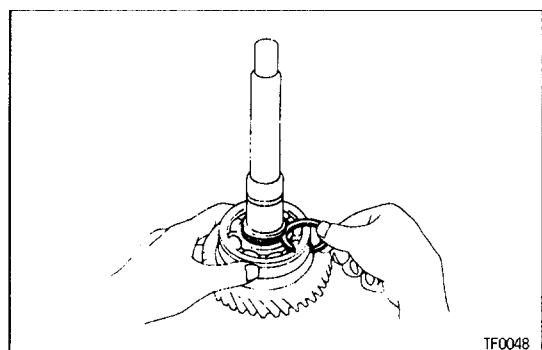
- (c) Apply MP grease to the needle roller bearing.
- (d) Install the low gear with needle roller bearing to the output shaft.



- (e) Install the steel ball on the output shaft.
- (f) Install the No.1 spacer.



- (g) Using SST and a press, install a new bearing.  
SST 09316-60010 (09316-00010, 09316-00040, 09316-00050),



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

#### Maximum play:

0.10 mm (0.0039 in.)

| Mark | Thickness mm (in.)        |
|------|---------------------------|
| 0    | 2.40-2.45 (0.0945-0.0965) |
| 1    | 2.45-2.50 (0.0965-0.0984) |
| 2    | 2.50-2.55 (0.0984-0.1004) |
| 3    | 2.55-2.60 (0.1004-0.1024) |
| 4    | 2.60-2.65 (0.1024-0.1043) |
| 5    | 2.65-2.70 (0.1043-0.1063) |