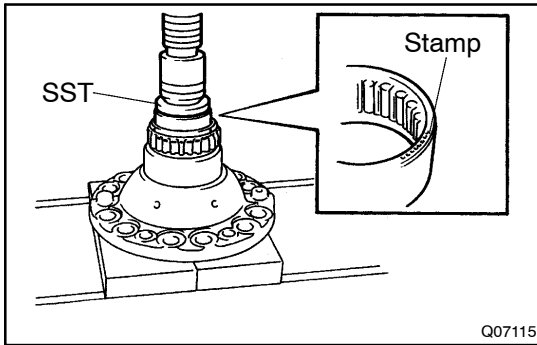




## REASSEMBLY

### HINT:

Coat all of the sliding and rotating surfaces with gear oil before reassembly.

### 1. INSTALL NEEDLE ROLLER BEARING

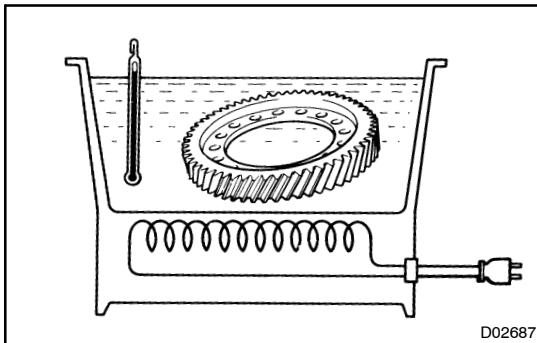
- (a) Using SST and a press, install the needle roller bearing to the differential rear case.

SST 09612-24014 (09612-10050)

### HINT:

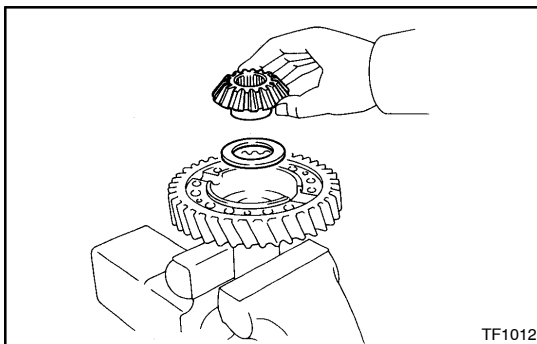
Install the bearing to the differential rear case, taking care that its stamped side comes in contact with SST.

- (b) Install the snap ring.



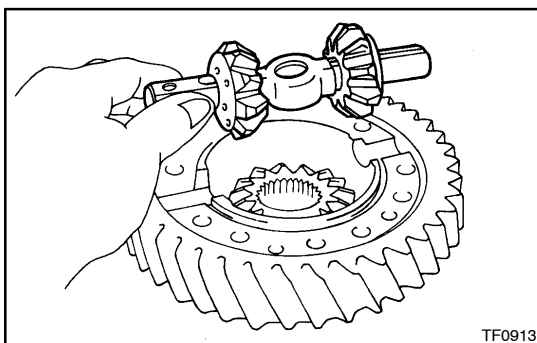
### 2. INSTALL LOW GEAR

- (a) Clean the contact surface of the differential case.
- (b) Heat the low gear in boiling water.
- (c) Carefully remove the low gear from the water.
- (d) After the moisture on the low gear has completely evaporated, quickly install the low gear to the differential case.

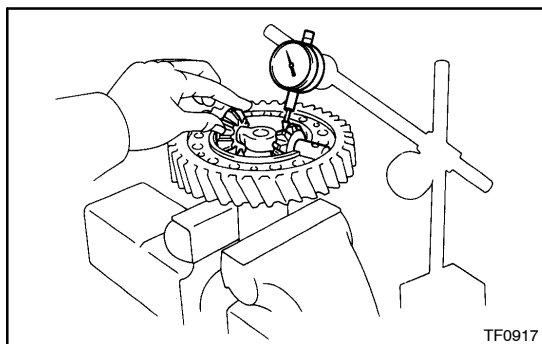


### 3. INSTALL PINION SHAFT, PINION GEAR AND THRUST WASHER

- (a) Install the front side gear and thrust washer to the differential front case.



- (b) Install the pinion shaft, 2 pinion gears and thrust washers to the differential front case.



(c) Using a dial indicator, measure the front case backlash.  
HINT:

Push the pinion shaft.

**Minimum backlash: 0.05 mm (0.0020 in.)**

If the backlash is not within the specification, replace the thrust washer with one of the correct size and reinstall the thrust washer.

| Thickness mm (in.) | Thickness mm (in.) |
|--------------------|--------------------|
| 1.70 (0.0669)      | 2.45 (0.0965)      |
| 1.85 (0.0728)      | 2.60 (0.1024)      |
| 2.00 (0.0787)      | 2.75 (0.1083)      |
| 2.15 (0.0846)      | 2.90 (0.1142)      |
| 2.30 (0.0906)      | 3.05 (0.1201)      |

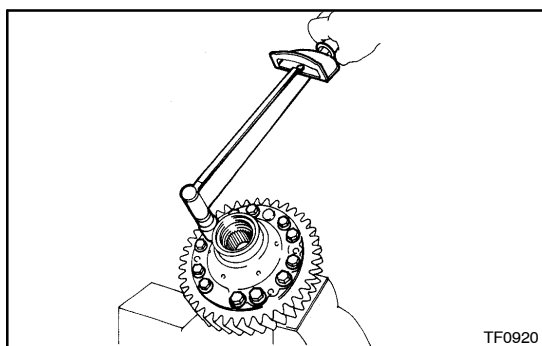
(d) In the same way, measure the rear case backlash.

#### 4. INSTALL STRAIGHT PIN TO PINION SHAFT

#### 5. INSTALL REAR SIDE GEAR AND THRUST WASHER

#### 6. INSTALL DIFFERENTIAL REAR CASE

Install the differential rear case and 12 set bolts.



#### 7. TORQUE REAR CASE SET BOLT

(a) Torque the 12 rear case set bolts.

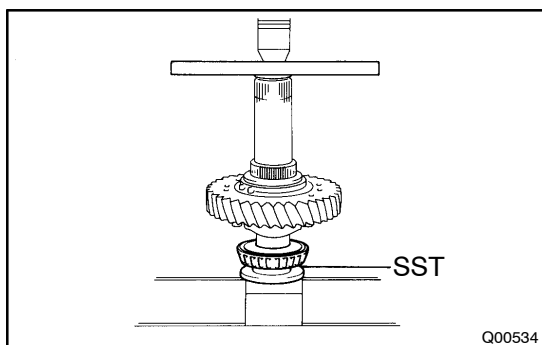
**Torque: 88 N·m (900 kgf·cm, 65 ft·lbf)**

(b) Turn the pinion gear.

(c) Loosen the 12 rear case set bolts.

(d) Torque the 12 rear case set bolts.

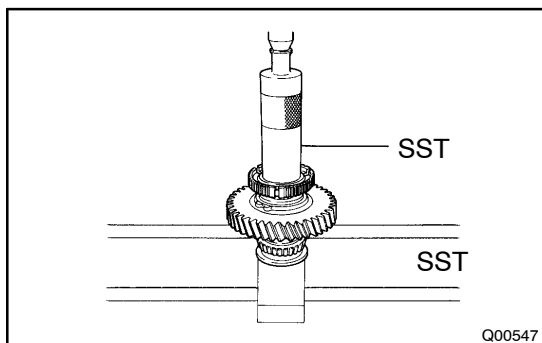
**Torque: 98 N·m (1,000 kgf·cm, 72 ft·lbf)**



#### 8. INSTALL REAR TAPER ROLLER BEARING

Using SST and a press, install the rear taper roller bearing.

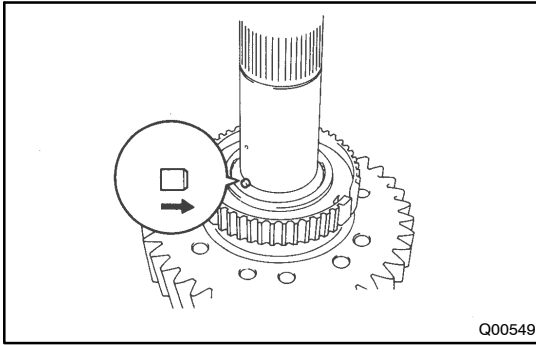
SST 09316-12010



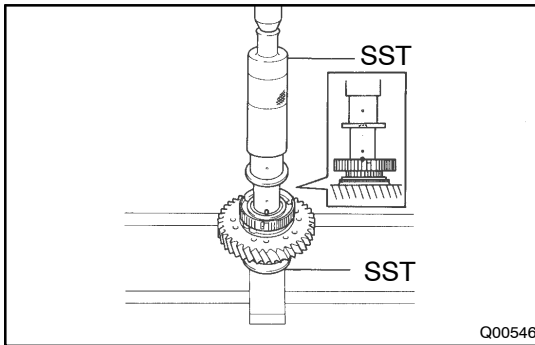
#### 9. INSTALL CLUTCH HUB

Using SST and a press, install the clutch hub.

SST 09316-12010, 09316-60011 (09316-00011)

**10. INSTALL HIGH SPEED OUTPUT GEAR BUSHING**

- (a) Apply MP grease to the straight pin.
- (b) Install the straight pin, as shown.

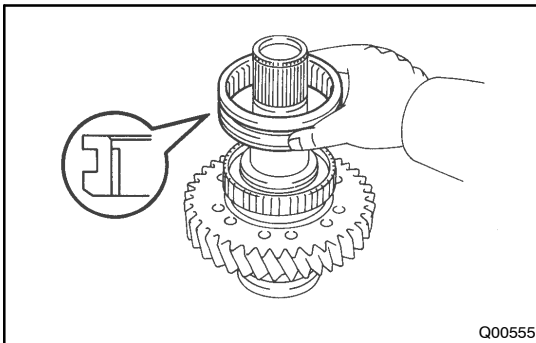


- (c) Using SST and a press, install the high speed output gear bushing.

SST 09316-12010, 09316-60011 (09316-00011)

**NOTICE:**

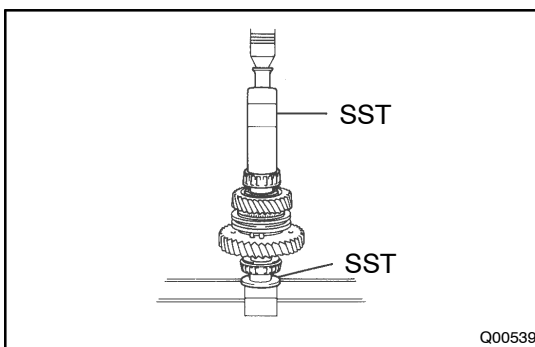
**Before pressing, align the holes on the bushing and shaft so that the pin on the shaft is aligned with the cut-out of the bushing.**

**11. INSTALL HIGH AND LOW CLUTCH SLEEVE****HINT:**

Make sure to install the high and low clutch sleeve in the correct direction.

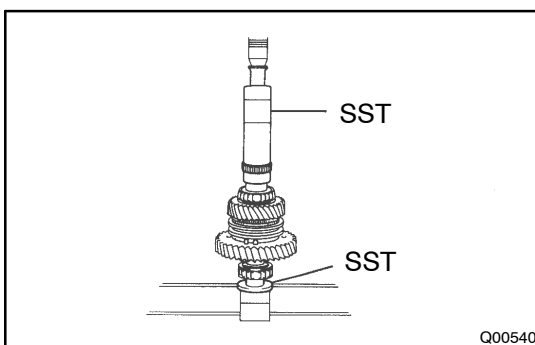
**12. INSTALL HIGH SPEED OUTPUT GEAR AND NEEDLE ROLLER BEARING**

- (a) Apply gear oil to the needle roller bearing.
- (b) Install the high speed output gear and needle roller bearing.

**13. INSTALL FRONT TAPER ROLLER BEARING**

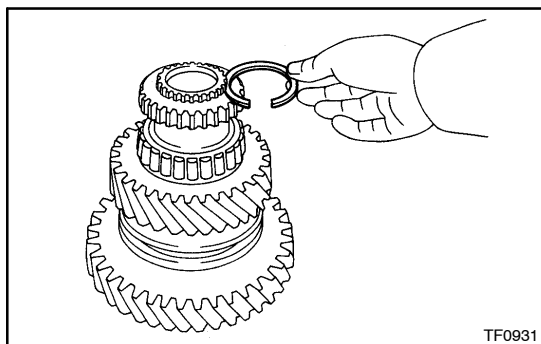
Using SST and a press, install the front taper roller bearing.

SST 09316-12010, 09316-60011 (09316-00011)

**14. INSTALL FRONT DRIVE GEAR PIECE**

Using SST and a press, install the front drive gear piece.

SST 09316-12010, 09316-60011 (09316-00011)

**15. INSTALL SNAP RING**

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

| Mark | Thickness mm (in.) | Mark | Thickness mm (in.) |
|------|--------------------|------|--------------------|
| A    | 2.00 (0.0787)      | G    | 2.60 (0.1024)      |
| B    | 2.10 (0.0827)      | H    | 2.70 (0.1063)      |
| C    | 2.20 (0.0866)      | J    | 2.80 (0.1102)      |
| D    | 2.30 (0.0906)      | K    | 1.80 (0.0709)      |
| E    | 2.40 (0.0945)      | L    | 1.90 (0.0748)      |
| F    | 2.50 (0.0984)      | -    | -                  |

(b) Using a snap ring expander, install a new snap ring.

**16. INSPECT HIGH SPEED OUTPUT GEAR RADIAL AND THRUST CLEARANCE (See page [TR-27](#))**