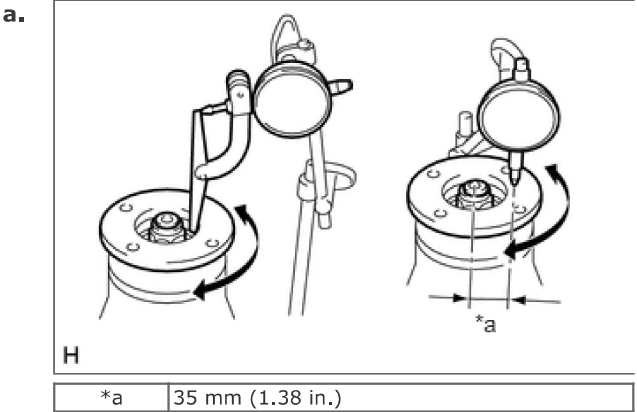


PROCEDURE

1.INSPECT RUNOUT OF REAR DRIVE PINION COMPANION FLANGE



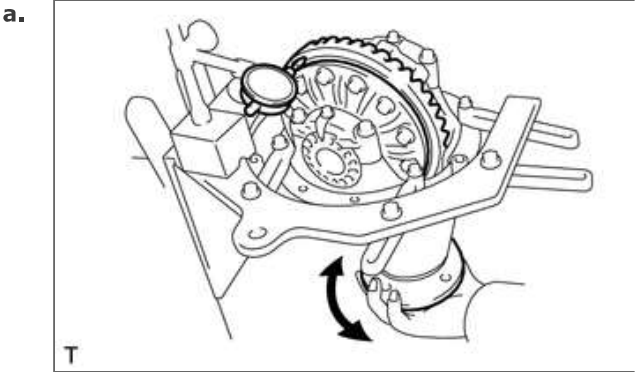
Using a dial indicator, measure the runout of the companion flange vertically and laterally.

Maximum Runout:

Runout	Specified Condition
Vertical runout	0.10 mm (0.00394 in.)
Lateral runout	0.10 mm (0.00394 in.)

If the runout is more than the maximum, replace the companion flange.

2.INSPECT RUNOUT OF DIFFERENTIAL RING GEAR



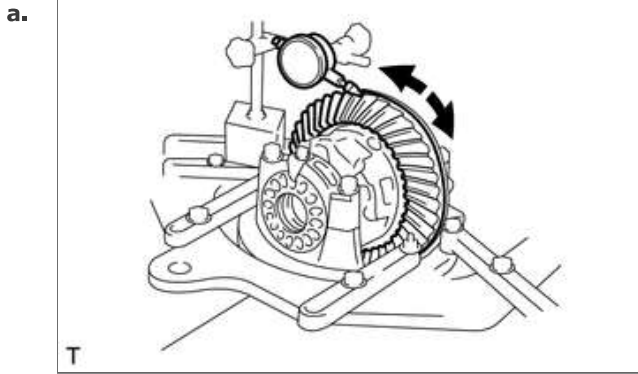
Using a dial indicator, measure the ring gear runout.

Maximum runout:

0.05 mm (0.00197 in.)

If the runout is more than the maximum, replace the ring gear.

3.INSPECT DIFFERENTIAL RING GEAR BACKLASH



Using a dial indicator, measure the ring gear backlash.

**Standard backlash:**

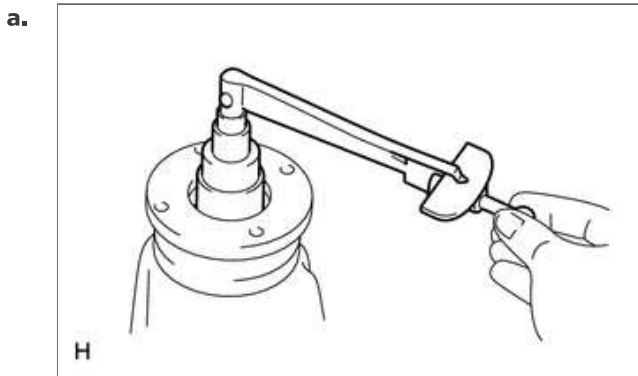
**0.10 to 0.20 mm (0.00394 to 0.00787 in.)**

**HINT:**

Measure at 3 or more positions around the circumference of the ring gear.

If the backlash is not as specified, adjust the side bearing preload or repair as necessary.

■ **4.INSPECT DIFFERENTIAL DRIVE PINION PRELOAD**



Using a torque wrench, measure the preload of the backlash between the drive pinion and ring gear.

**Standard drive pinion preload (at starting):**

**0.85 to 1.37 N\*m (9 to 13 kgf\*cm, 8 to 12 in.\*lbf)**

If necessary, disassemble and inspect the differential.

■ **5.REMOVE REAR DRIVE PINION COMPANION FLANGE NUT**

**41204G**

Click here[Drivetrain>AXLE AND DIFFERENTIAL>REAR DIFFERENTIAL CARRIER OIL SEAL>REPLACEMENT](#)

■ **6.REMOVE REAR DRIVE PINION COMPANION FLANGE SUB-ASSEMBLY WITH DUST DEFLECTOR**

**41204**

Click here[Drivetrain>AXLE AND DIFFERENTIAL>REAR DIFFERENTIAL CARRIER OIL SEAL>REPLACEMENT](#)

■ **7.REMOVE REAR DIFFERENTIAL CARRIER OIL SEAL**

**41201C**

Click here[Drivetrain>AXLE AND DIFFERENTIAL>REAR DIFFERENTIAL CARRIER OIL SEAL>REPLACEMENT](#)

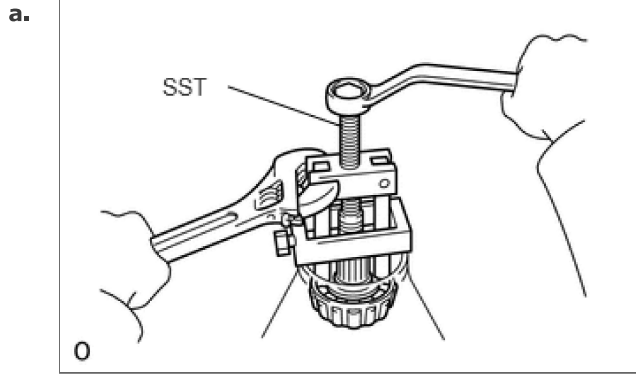
■ **8.REMOVE REAR DIFFERENTIAL DRIVE PINION OIL SLINGER**

**41214**

Click here[Drivetrain>AXLE AND DIFFERENTIAL>REAR DIFFERENTIAL CARRIER OIL SEAL>REPLACEMENT](#)

■ **9.REMOVE REAR DRIVE PINION FRONT TAPERED ROLLER BEARING**

**41201B**



Using SST, remove the rear drive pinion front tapered roller bearing (inner race) from the differential drive pinion.

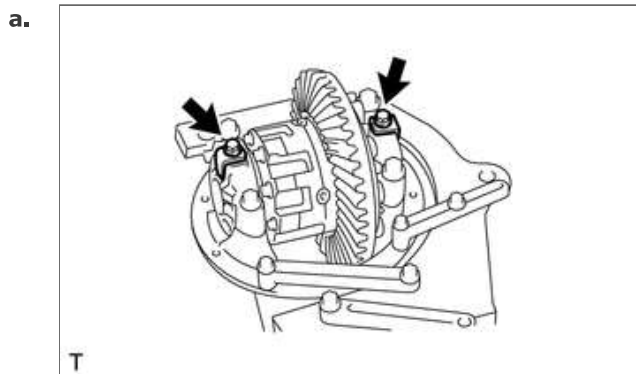
**SST**

**09556-22010**

If the rear drive pinion front tapered roller bearing is damaged or worn, replace the rear drive pinion front tapered roller bearing.

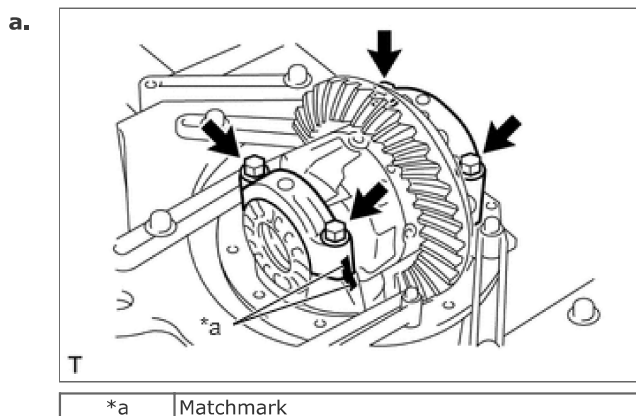
## 10.REMOVE REAR DIFFERENTIAL BEARING ADJUSTING NUT LOCK

41316



Remove the 2 bolts and 2 rear differential bearing adjusting nut locks.

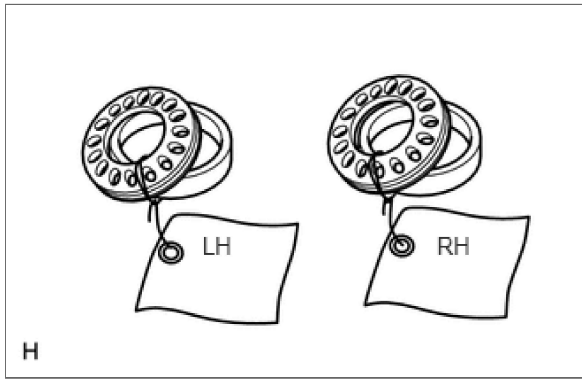
## 11.REMOVE DIFFERENTIAL CASE ASSEMBLY



Place matchmarks on the bearing caps and differential carrier.

**b.** Remove the 4 bolts, 2 bearing caps and 2 rear differential bearing adjusting nuts.

c.



Remove the differential case and 2 rear differential case bearings (outer race) from the differential carrier.

**HINT:**

Tag the 2 rear differential case bearings (outer race) to show the location for reassembly.



**12.REMOVE DIFFERENTIAL DRIVE PINION**

- a. Remove the differential drive pinion from the differential carrier.



**13.REMOVE REAR DIFFERENTIAL DRIVE PINION BEARING SPACER**

**41231**

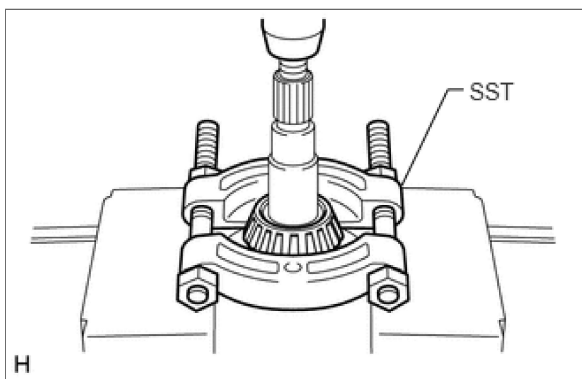
- a. Remove the rear differential drive pinion bearing spacer from the differential carrier.



**14.REMOVE REAR DRIVE PINION REAR TAPERED ROLLER BEARING**

**41201A**

a.



Using SST and a press, press out the rear drive pinion rear tapered roller bearing (inner race).

**SST**

**09950-00020**

If either the differential drive pinion or differential ring gear is damaged, replace them as a set.



**15.REMOVE REAR DIFFERENTIAL DRIVE PINION PLATE WASHER**

**41201D**

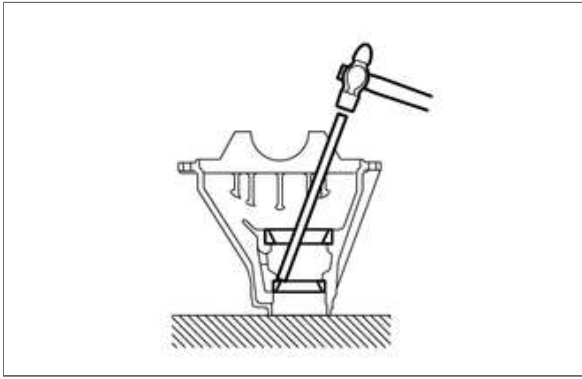
- a. Remove the rear differential drive pinion plate washer from the differential drive pinion.



**16.REMOVE REAR DRIVE PINION FRONT TAPERED ROLLER BEARING**

**41201B**

a.



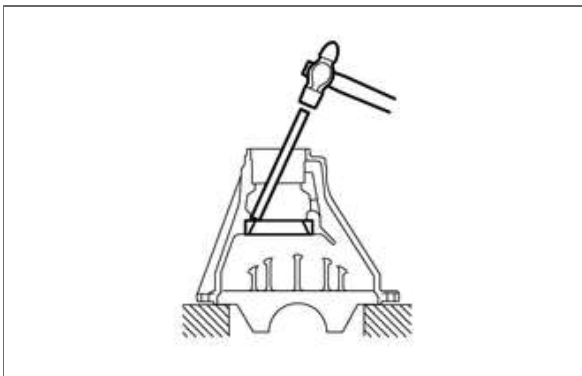
Using a brass bar and hammer, tap out the rear drive pinion front tapered roller bearing (outer race).



#### 17.REMOVE REAR DRIVE PINION REAR TAPERED ROLLER BEARING

41201A

a.

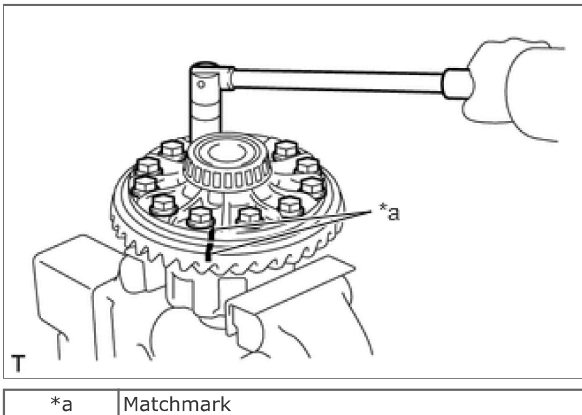


Using a brass bar and hammer, tap out the rear drive pinion rear tapered roller bearing (outer race).



#### 18.REMOVE DIFFERENTIAL RING GEAR

a.



Place matchmarks on the differential ring gear and differential case.

b. Remove the 12 differential ring gear set bolts.

c. Using a plastic-faced hammer, tap on the differential ring gear to separate it from the differential case.



#### 19.INSPECT RUNOUT OF DIFFERENTIAL CASE

#### HINT:

If the differential ring gear runout is at the maximum or less, this inspection is not necessary.

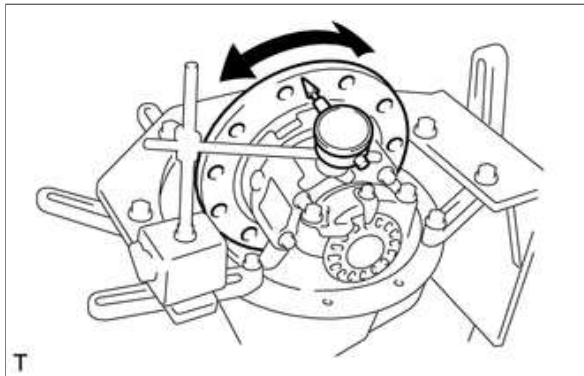
a. Install the 2 rear differential case bearings (outer race) to the differential case.

- b. Install the differential case to the differential carrier.
- c. Install the 2 rear differential bearing adjusting nuts.
- d. Install the 2 bearing caps to the differential carrier with the 4 bolts.

**Torque:**

**90 N\*m (918 kgf\*cm, 66 ft.\*lbf)**

e.



Inspect the differential case runout.

**Maximum runout:**

**0.04 mm (0.00157 in.)**

If the runout is more than the maximum, replace the differential case and side bearing as a set.

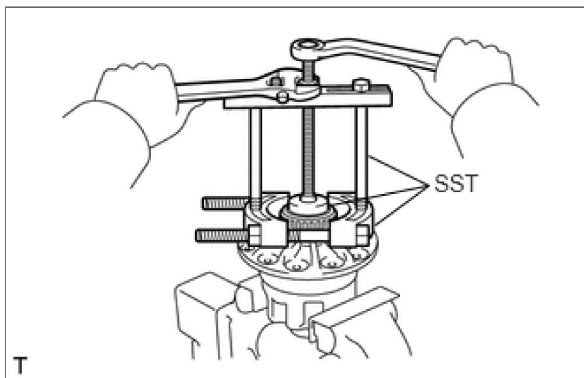
- f. Remove the 4 bolts and 2 bearing caps.
- g. Remove the 2 rear differential bearing adjusting nuts.
- h. Remove the differential case.
- i. Remove the 2 rear differential case bearings (outer race).



## 20.REMOVE REAR DIFFERENTIAL CASE BEARING

41301A

a.



Using SST, remove the 2 rear differential case bearings (inner race) from the differential case.

**SST**

**09950-00020**

**09950-00030**

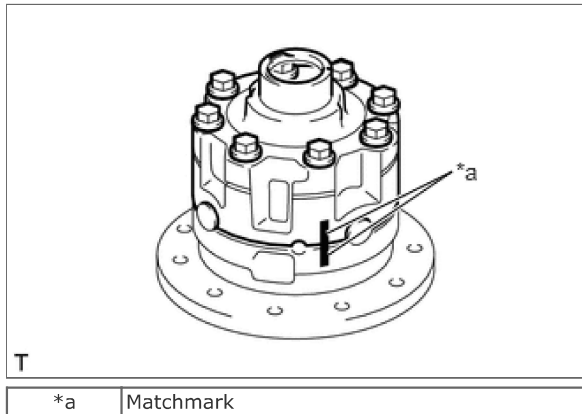
**09950-40011 (09957-04010)**

**09950-60010 (09951-00480)**



## 21.DISASSEMBLE DIFFERENTIAL CASE

a.



Place matchmarks on the differential case LH and RH.

- b. Remove the 8 bolts uniformly, a little at a time.
- c. Using a plastic-faced hammer, separate the differential case LH and RH.
- d. Remove the 2 rear differential side gears, 6 rear No. 2 differential side gear thrust washers, 4 clutch plates, 2 spring retainers, compression spring, 4 rear differential pinions, 4 rear differential pinion thrust washers, 2 rear differential side gear thrust shims and rear differential spider from the differential case.

**HINT:**

- Keep the disassembled parts in order.
- If the side gear backlash has been adjusted by a TOYOTA dealer, rear differential side gear thrust shims are installed between the rear No. 2 differential side gear thrust washers and the differential case.

If replacing the rear differential side gear, also replace the rear No. 2 differential side gear thrust washer that contacts it.



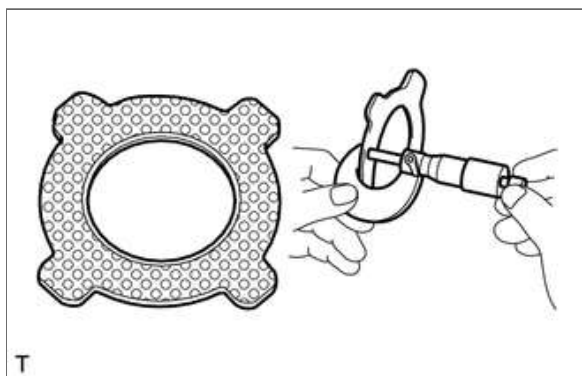
## 22.INSPECT REAR NO. 2 DIFFERENTIAL SIDE GEAR THRUST WASHER

41362

**HINT:**

If replacing the rear No. 2 differential side gear thrust washer, also replace the clutch plate that contacts it.

a.



Using a micrometer, check that the thickness of the rear No. 2 differential side gear thrust washer is even.

**Thickness (Reference):**

**1.97 to 2.06 mm (0.0776 to 0.0811 in.)**

If necessary, replace the rear No. 2 differential side gear thrust washer.

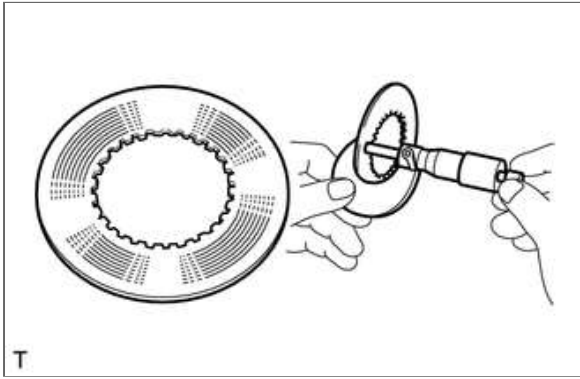
- b. Visually check the rear No. 2 differential side gear thrust washer.  
If bare metal is showing, replace the rear No. 2 differential side gear thrust washer.



## 23.INSPECT CLUTCH PLATE

41385

a.



Using a micrometer, check that the thickness of the clutch plate is even.

**Thickness (Reference):**

**1.97 to 2.03 mm (0.0776 to 0.0799 in.)**

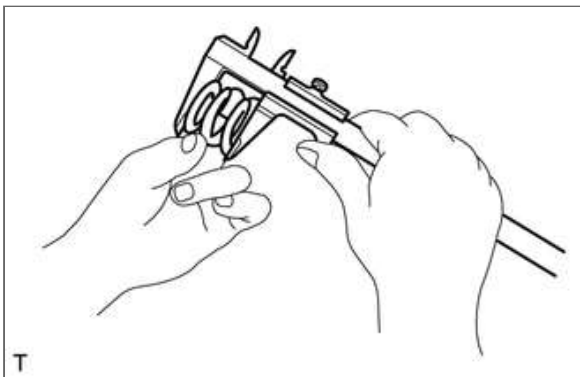
If necessary, replace the clutch plate.



## 24.INSPECT COMPRESSION SPRING

41331A

a.



Using a vernier caliper, measure the free length of the compression spring.

**Length (Reference):**

**32.8 mm (1.29134 in.)**

If necessary, replace the compression spring.