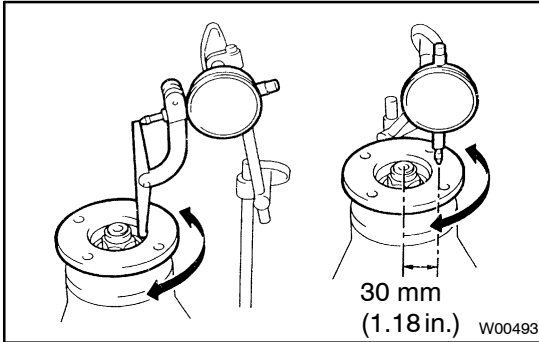


## DISASSEMBLY

### 1. SET DIFFERENTIAL CARRIER TO OVERHAUL STAND ETC.

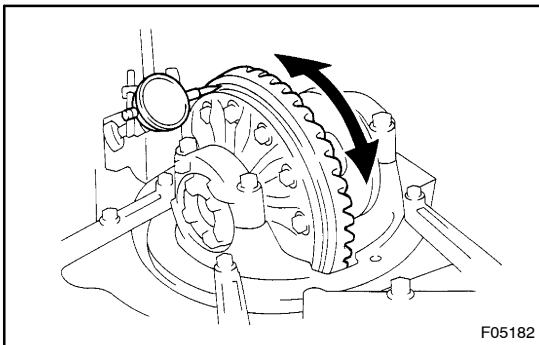


### 2. CHECK RUNOUT OF COMPANION FLANGE

Using a dial indicator, measure the vertical and lateral runout of the companion flange.

**Maximum runout: 0.10 mm (0.0039 in.)**

If the runout is not within the specification, replace the companion flange.

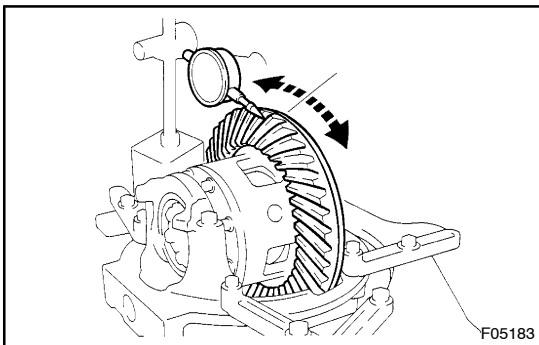


### 3. CHECK RING GEAR RUNOUT

Using a dial indicator, measure the ring gear runout.

**Maximum runout: 0.05 mm (0.0020 in.)**

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



### 4. CHECK RING GEAR BACKLASH

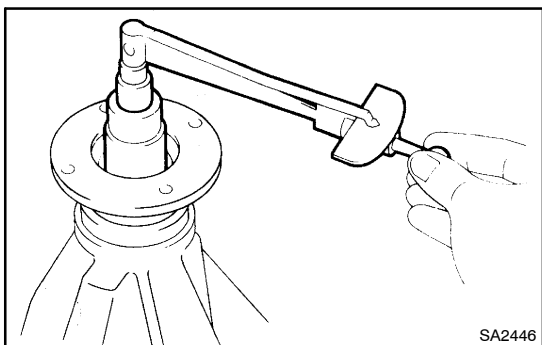
Using a dial indicator, measure the ring gear backlash.

**Backlash: 0.13 – 0.18 mm (0.0051 – 0.0071 in.)**

**HINT:**

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

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

**5. MEASURE DRIVE PINION PRELOAD**

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

**Preload (at starting):**

**0.64 – 0.92 N·m (6.5 – 9.4 kgf·cm, 5.6 – 8.2 in.·lbf)**

**6. CHECK TOTAL PRELOAD**

Using a torque wrench, measure the preload with the teeth of the drive pinion and ring gear in contact.

**Total preload (at starting):**

**Drive pinion preload plus**

**0.3 – 0.5 N·m (3 – 5 kgf·cm, 2.6 – 4.3 in.·lbf)**

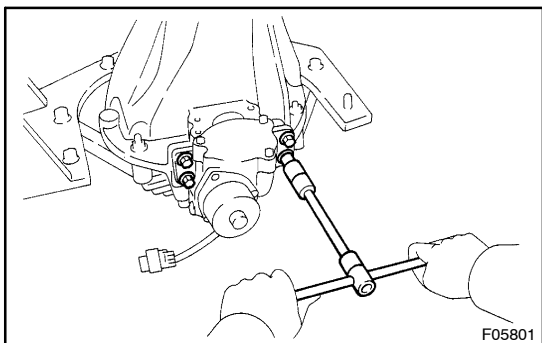
If necessary, disassemble and inspect the differential.

**7. CHECK TOOTH CONTACT BETWEEN RING GEAR AND DRIVE PINION (See page SA-216)****8. REMOVE REAR DIFF. LOCK POSITION SWITCH**

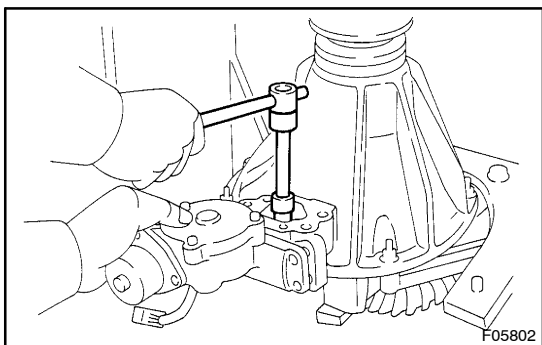
Remove the rear diff. lock position switch and gasket.

**9. REMOVE COVER**

- (a) Remove the 3 bolts.
- (b) Using a brass bar and hammer, tap on the cover to remove it.

**10. REMOVE ACTUATOR, SHIFT FORK AND SLEEVE**

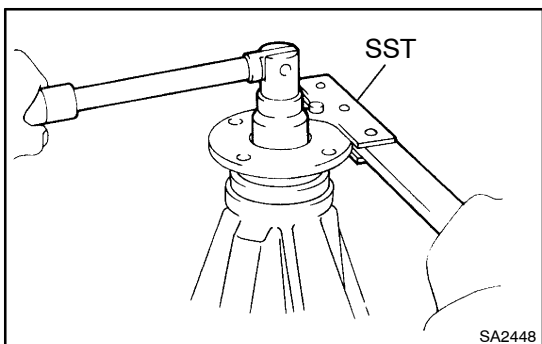
- (a) Remove the 4 bolts.



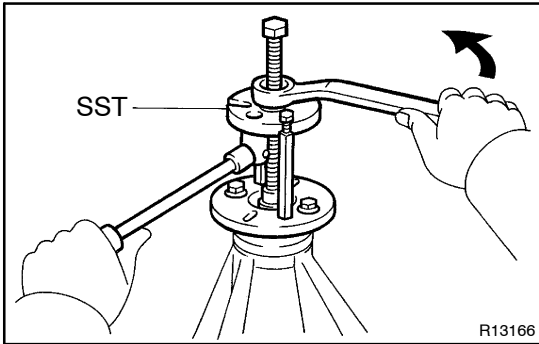
- (b) Remove the shift fork shaft bolt.
- (c) Using a screwdriver, pull out the actuator and remove the sleeve and shift fork.

**11. REMOVE COMPANION FLANGE**

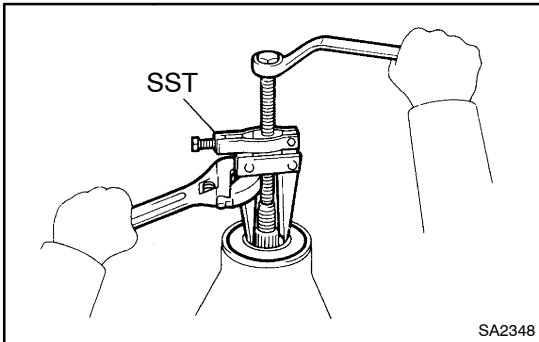
- (a) Using a chisel and hammer, unstake the nut.



- (b) Using SST to hold the flange, remove the nut.  
SST 09330 -00021

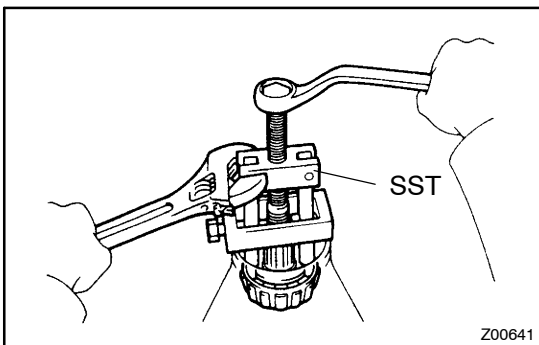


- (c) Using SST, remove the companion flange.  
SST 09950 -30010 (09951 -03010, 09953 -03010,  
09954 -03010, 09955 -03030, 09956 -03040)



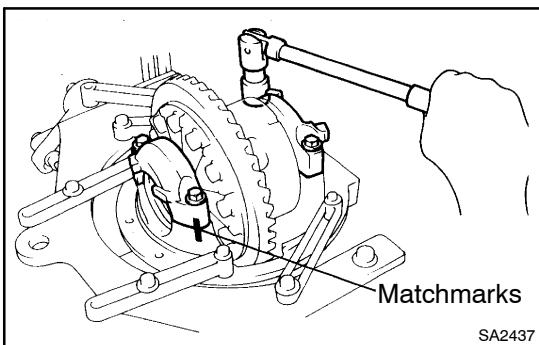
## 12. REMOVE OIL SEAL AND OIL SLINGER

- (a) Using SST, remove the oil seal from the differential carrier.  
SST 09308 -10010  
(b) Remove the oil slinger.



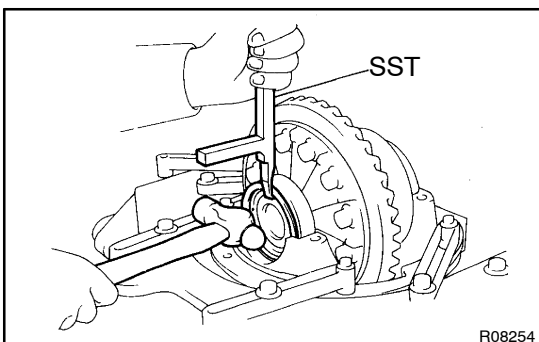
## 13. REMOVE FRONT BEARING

- Using SST, remove the front bearing from the drive pinion.  
SST 09556 -22010  
If the front bearing is damaged or worn, replace the bearing.



## 14. REMOVE DIFFERENTIAL CASE ASSEMBLY

- (a) Place matchmarks on the bearing cap and differential carrier.  
(b) Remove the 4 bolts and 2 bearing caps.



- (c) Using SST and a hammer, remove the plate washers.  
SST 09504 -22011

### HINT:

Measure the plate washer thickness and note down it.

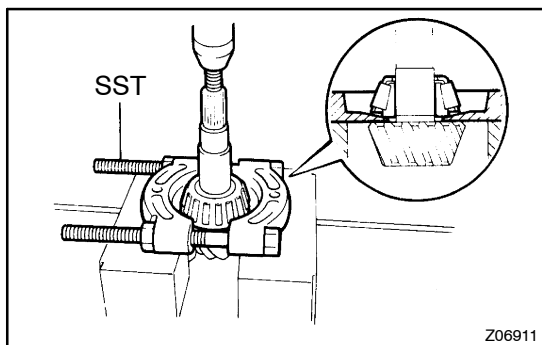
- (d) Remove the differential case with the side bearing outer races from the differential carrier.

### HINT:

Tag the bearing outer races to show the location for reassembly.

### 15. REMOVE DRIVE PINION AND BEARING SPACER FROM DIFFERENTIAL CARRIER

- (a) Remove the drive pinion with the rear bearing.
- (b) Remove the bearing spacer.



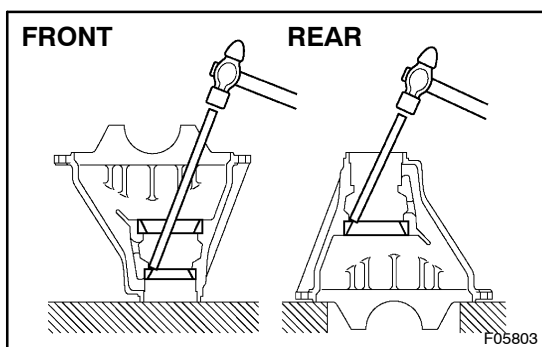
### 16. REMOVE DRIVE PINION REAR BEARING

- (a) Using SST and a press, remove the rear bearing from the drive pinion.  
SST 09950 -00020

#### HINT:

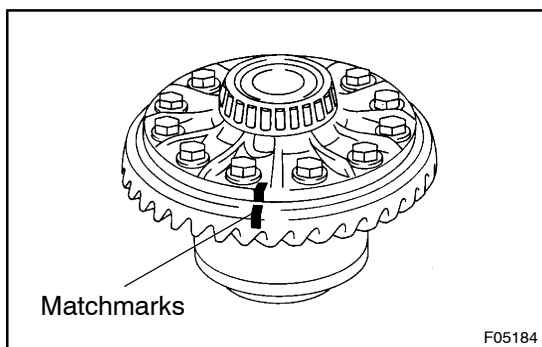
If the drive pinion or ring gear is damaged, replace them as a set.

- (b) Remove the plate washer from the drive pinion.



### 17. REMOVE FRONT AND REAR BEARING OUTER RACES

Using a brass bar and hammer, remove the outer races.



### 18. REMOVE RING GEAR

- (a) Place matchmarks on the ring gear and differential case.
- (b) Remove the 12 ring gear set bolts.
- (c) Using a plastic hammer, tap on the ring gear to remove it from the differential case.

### 19. CHECK DIFFERENTIAL CASE RUNOUT

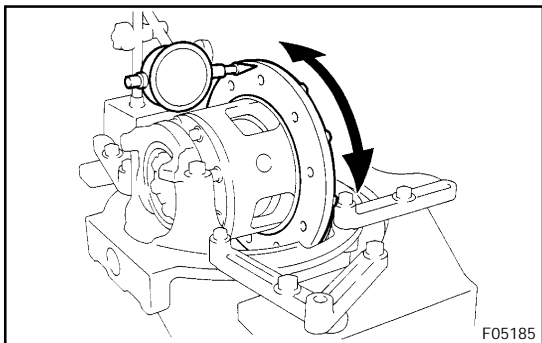
- (a) Place the bearing outer races on their respective bearings. Check that the left and right outer races are not interchanged.
- (b) Install the assembled plate washers onto the side bearing.
- (c) Install the differential case in the differential carrier.

#### HINT:

If it is difficult to install the differential case into the carrier, replace the plate washer with a thinner one.

However, select a plate washer that allows no clearance between it and the carrier.

- (d) Align matchmarks on the bearing cap and differential carrier.
- (e) Install and uniformly tighten the 4 bolts a little at a time.

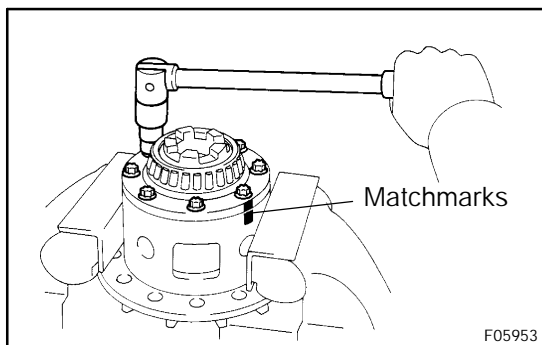


- (f) Using a dial indicator, measure the differential case runout.

**Maximum case runout: 0.04 mm (0.0016 in.)**

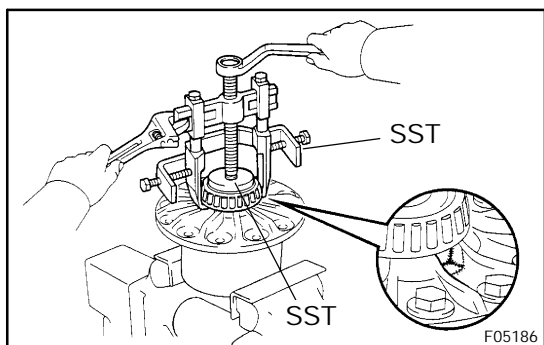
If the runout is greater than the maximum, replace the differential case and side bearings as a set.

- (g) Remove the differential case.



## 20. DISASSEMBLE DIFFERENTIAL CASE

- Place matchmarks on the differential case and differential cover.
- Using a torx socket (E10), remove the 5 set bolts and 3 pinion shaft pins.
- Separate the cover and case.
- Remove the 2 side gears, side gear thrust washers, 4 pinion gears, 4 pinion gear thrust washers, 3 pinion shafts and holder from the differential case.



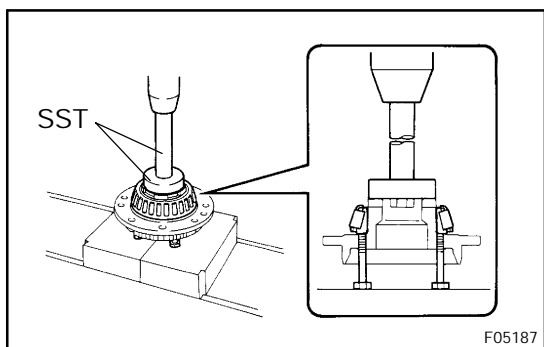
## 21. REMOVE SIDE BEARING FROM DIFFERENTIAL CASE

Using SST, remove the side bearing.

SST 09950-40011 (09951-04010, 09952-04010, 09953-04020, 09955-04060, 09957-04010, 09958-04010), 09950-60010 (09951-00580)

**HINT:**

Fix the claws of SST to the notches in the differential case.



## 22. REMOVE SIDE BEARING FROM DIFFERENTIAL COVER

Using SST, 4 bolts and a press, remove the side bearing.

SST 09950-60010 (09951-00580), 09950-70010 (09951-07100)