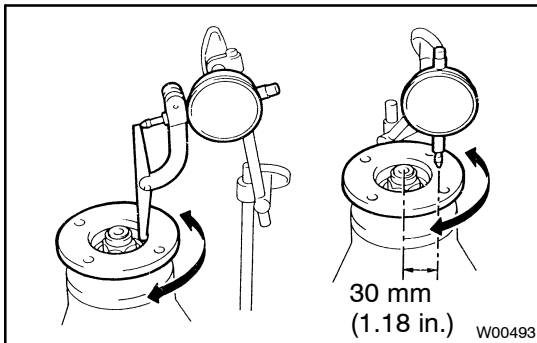


DISASSEMBLY

1. REMOVE DIFFERENTIAL CARRIER COVER

- Remove the 9 bolts from the carrier cover.
- Using a brass bar and hammer, separate the cover from carrier.
- Remove the breather plug from the differential carrier cover.
- Remove the 2 bolts and oil deflector from the differential carrier cover.

2. SET DIFFERENTIAL CARRIER TO OVERHAUL STAND ETC.

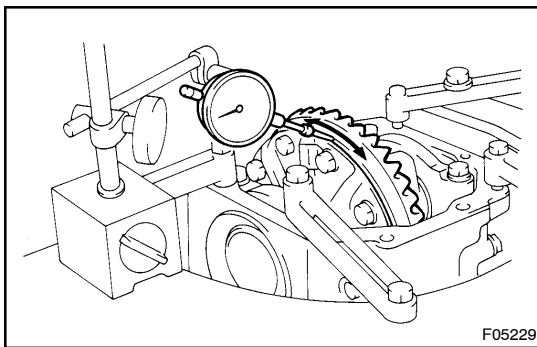


3. CHECK RUNOUT OF COMPANION FLANGE

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

Maximum: 0.09 mm (0.0035 in.)

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

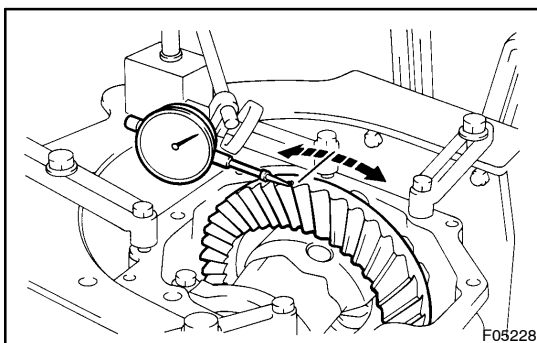


4. CHECK RING GEAR RUNOUT

Using a dial indicator, measure the ring gear runout.

Maximum runout: 0.07 mm (0.0028 in.)

If the runout is greater than the maximum, replace the ring gear and drive pinion as a set.



5. CHECK RING GEAR BACKLASH

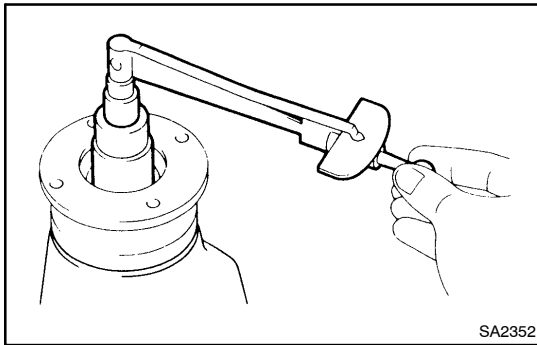
Using a dial indicator, while holding the drive pinion flange measure the ring gear backlash.

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

HINT:

Measure at 3 or more places on the circumference of the ring gear.

If the backlash is not within the specification, adjust the backlash.

**6. MEASURE DRIVE PINION PRELOAD**

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

Preload (at starting):

0.5 – 0.8 N·m (5 – 8 kgf·cm, 4.3 – 6.9 in.·lbf)

7. CHECK TOTAL PRELOAD

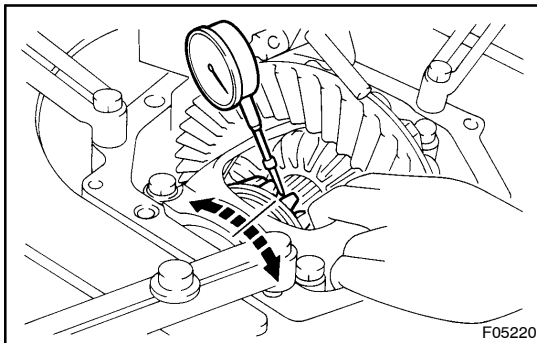
Using a torque wrench, measure the total preload.

Total preload (at starting):

Drive pinion preload plus

0.4 – 0.6 N·m (4 – 6 kgf·cm, 3.5 – 5.2 in.·lbf)

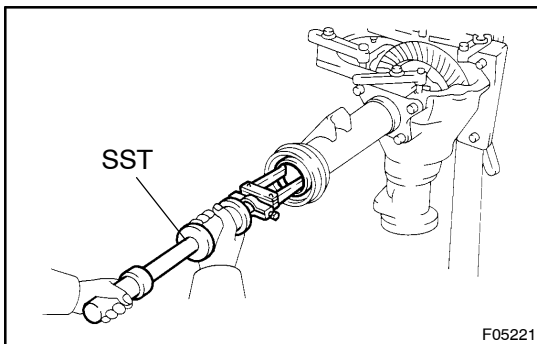
If necessary, disassemble and inspect the differential.

8. INSPECT TOOTH CONTACT BETWEEN RING GEAR AND DRIVE PINION (See page SA-44)**9. CHECK SIDE GEAR BACKLASH**

Using a dial indicator, measure the side gear backlash while holding one pinion gear toward the differential case.

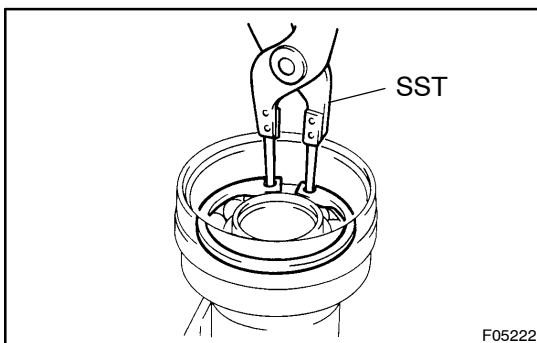
Maximum backlash: 0.15 mm (0.0059 in.)

If the backlash is out of the specification, install the correct thrust washers (See page SA-44).

**10. REMOVE SIDE GEAR SHAFT OIL SEALS**

Using SST, remove the 2 side gear shaft oil seals.

SST 09308-00010

**11. REMOVE DIFFERENTIAL TUBE ASSEMBLY**

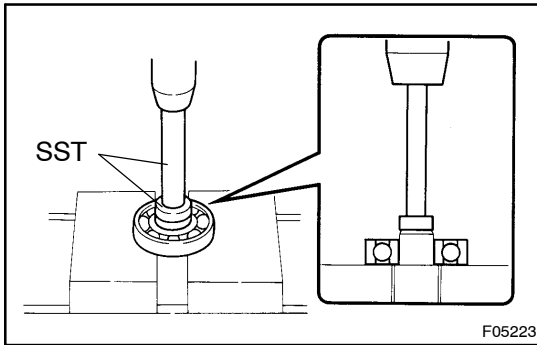
(a) Using SST, remove the snap ring.

SST 09350-30020 (09350-07060)

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

(c) Remove the 4 bolts and differential tube with side gear shaft from the differential carrier.

(d) Remove the side gear shaft from the differential tube.

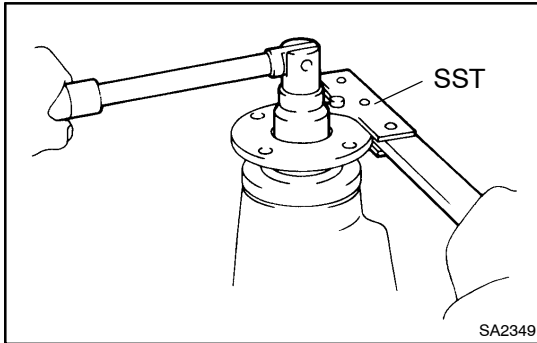
**12. REMOVE SIDE GEAR BEARING**

Using SST and a press, remove the bearing from side gear shaft.

SST 09950-60010 (09951-00410),
09950-70010 (09951-07100)

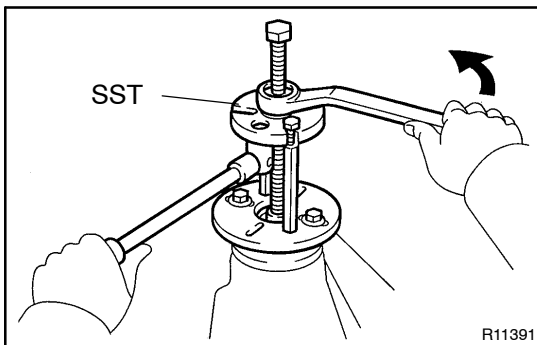
13. REMOVE COMPANION FLANGE

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



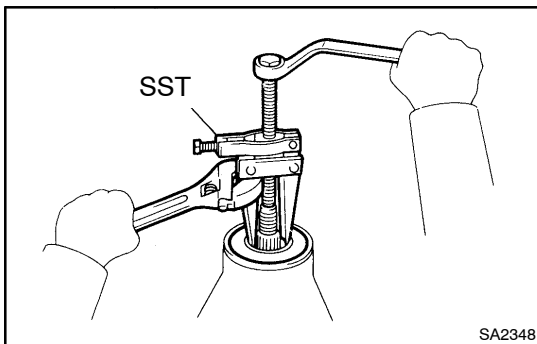
(b) Using SST to hold the flange, remove the nut.

SST 09330-00021



(c) Using SST, remove the companion flange.

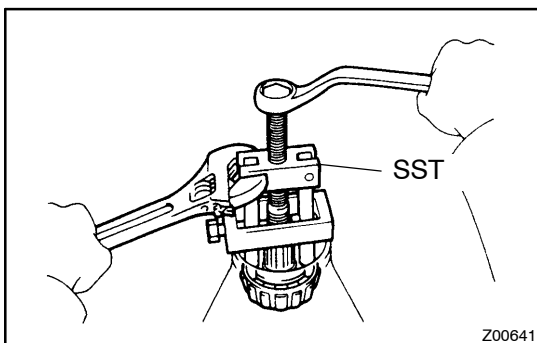
SST 09950-30011 (09951-03010, 09953-03010,
09954-03010, 09955-03030, 09956-03020)

**14. REMOVE OIL SEAL AND OIL SLINGER**

(a) Using SST, remove the oil seal from the differential carrier.

SST 09308-10010

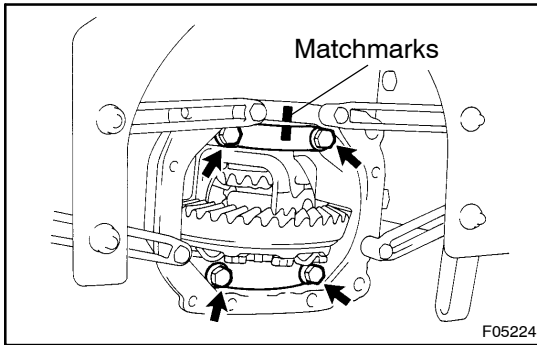
(b) Remove the oil slinger.

**15. REMOVE REAR BEARING**

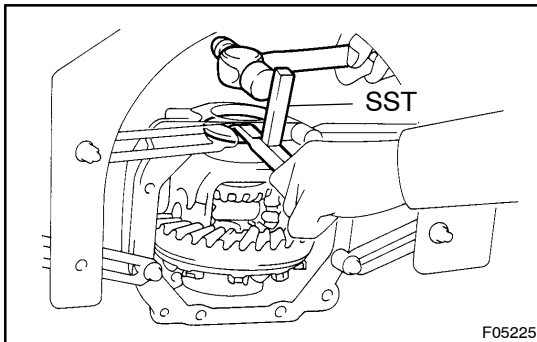
Using SST, remove the rear bearing from the drive pinion.

SST 09556-22010

If the rear bearing is damaged or worn, replace the rear bearing.

**16. 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 2 side bearing plate washers.

SST 09504-22011

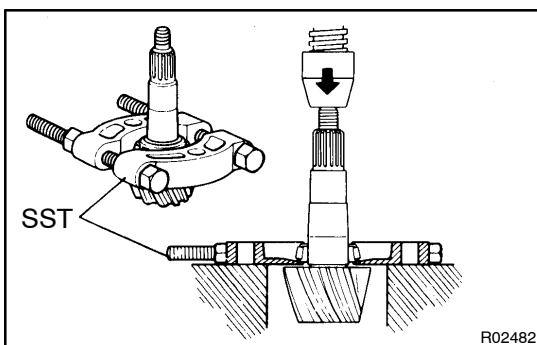
HINT:

Measure the plate washer and note down the thickness.

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

HINT:

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

17. REMOVE DRIVE PINION AND BEARING SPACER FROM DIFFERENTIAL CARRIER**18. REMOVE DRIVE PINION FRONT BEARING**

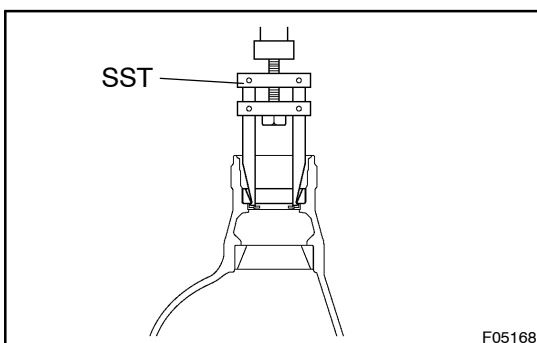
- (a) Using SST and a press, remove the front bearing from the drive pinion.

SST 09950-00020

HINT:

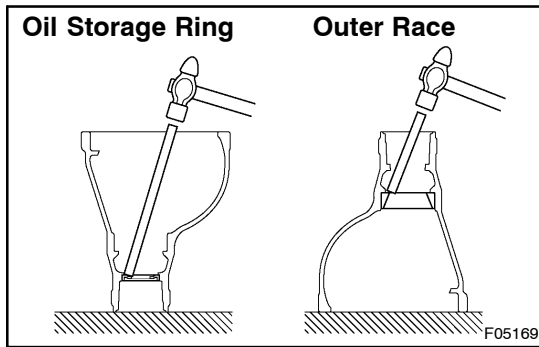
If the drive pinion or ring gear is damaged, replace them as a set.

- (b) Remove the washer.

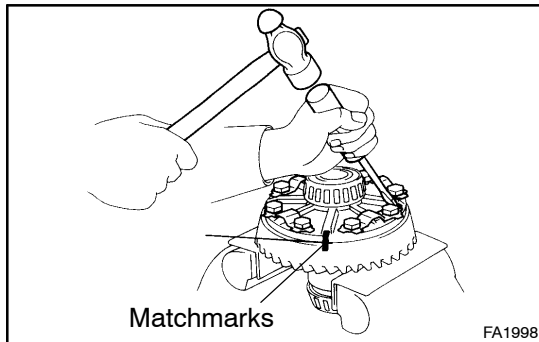
**19. REMOVE DRIVE PINION FRONT AND REAR BEARING OUTER RACES AND OIL STORAGE RING**

- (a) Using SST, remove the rear bearing outer race.

SST 09308-00010



- (b) Using a brass bar and hammer, remove the oil storage ring and front bearing outer race.



20. REMOVE RING GEAR

- Place matchmarks on the ring gear and differential case.
- Using a screwdriver and hammer, unstack the 5 lock plates.
- Remove the 10 bolts and 5 lock plates.
- Using a plastic hammer, tap on the ring gear to separate it from the differential case.

21. CHECK DIFFERENTIAL CASE RUNOUT

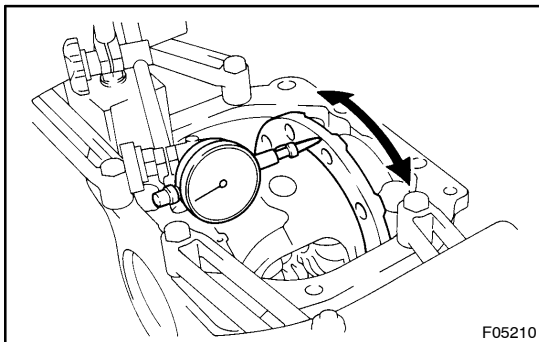
- Place the bearing outer races on their respective bearings. Check that the left and right outer races are not interchanged.
- Install the assembled plate washers onto the side bearing.
- Install the differential case in the differential carrier.

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.

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

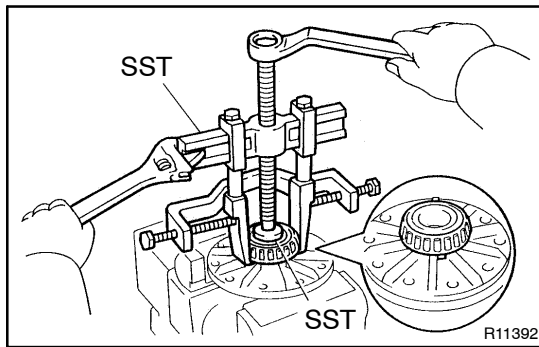


- Using a dial indicator, measure the differential case runout.

Maximum case runout: 0.07 mm (0.0028 in.)

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

- Remove the differential case.

**22. REMOVE SIDE BEARINGS**

Using SST, remove the 2 side bearings from the differential case.

SST 09950-40011 (09951-04020, 09952-04010, 09953-04030, 09954-04010, 09955-04060, 09957-04010, 09958-04010), 09950-60010 (09951-00480)

HINT:

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

23. DISASSEMBLE DIFFERENTIAL CASE ASSEMBLY

- (a) Using a pin punch and hammer, remove the straight pin.
- (b) Remove the pinion shaft, 2 pinion gears, pinion gear thrust washers, side gears and side gear thrust washers from the differential case.