

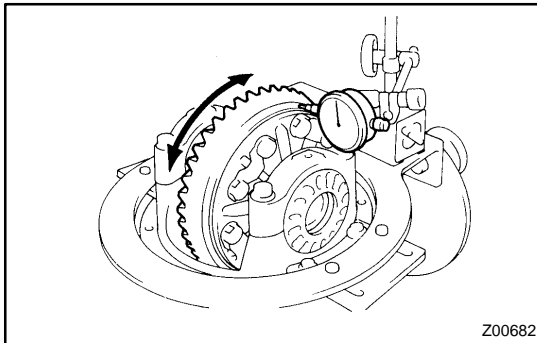
DISASSEMBLY

1. CHECK COMPANION FLANGE RUNOUT

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 exceeds the maximum, replace the companion flange.

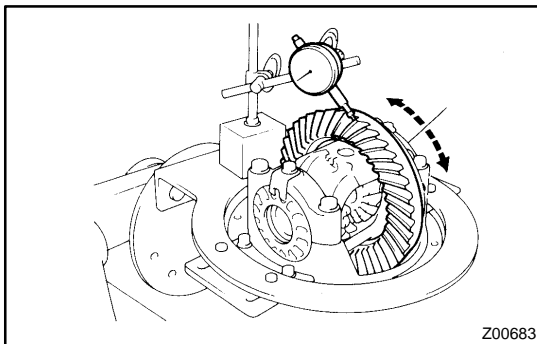


2. CHECK RING GEAR RUNOUT

Using a dial indicator, measure the ring gear runout.

Maximum runout: 0.07 mm (0.0028 in.)

If the runout exceeds the maximum, replace the ring gear.



3. CHECK RING GEAR BACKLASH

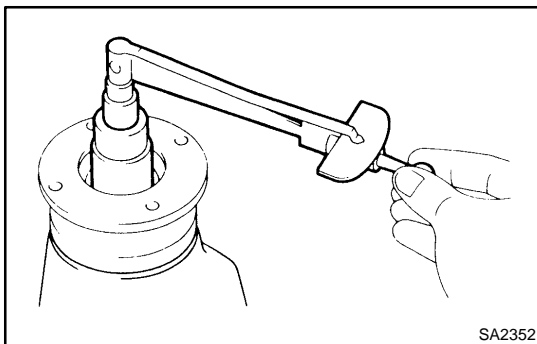
Using a dial indicator, while holding the companion flange, measure the ring gear backlash.

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

HINT:

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

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



4. 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):

0.6 – 1.0 N·m (6 – 10 kgf·cm, 5.2 – 8.7 in.-lbf)

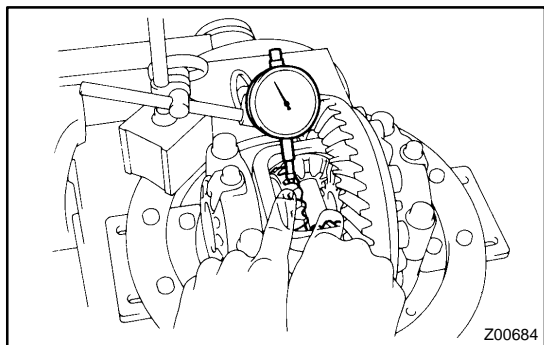
5. CHECK TOTAL PRELOAD

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

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.



6. CHECK SIDE GEAR BACKLASH

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

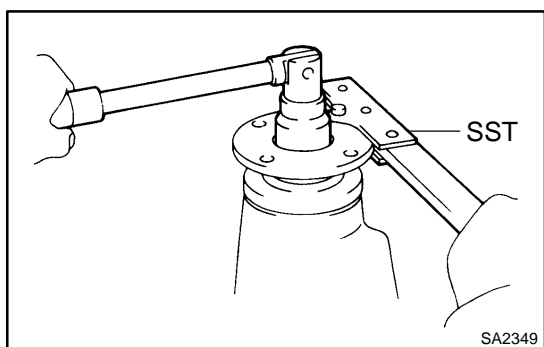
Backlash: 0.05 – 0.20 mm (0.0020 – 0.0079 in.)

If the backlash is not within the specified value, replace the side gear thrust washer of the different thickness (See page SA-149).

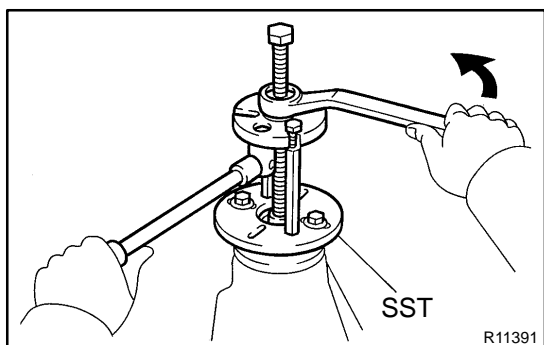
7. CHECK TOOTH CONTACT BETWEEN RING GEAR AND DRIVE PINION (See page SA-149)

8. REMOVE COMPANION FLANGE

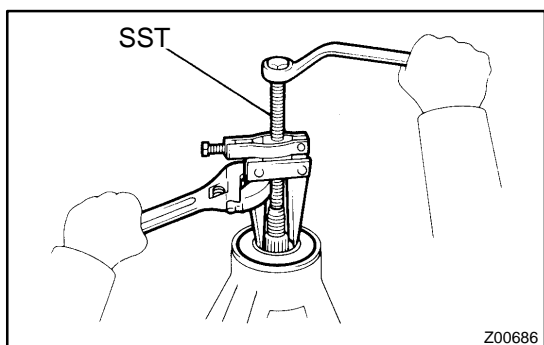
(a) Using a chisel and a hammer, unstake the nut.



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



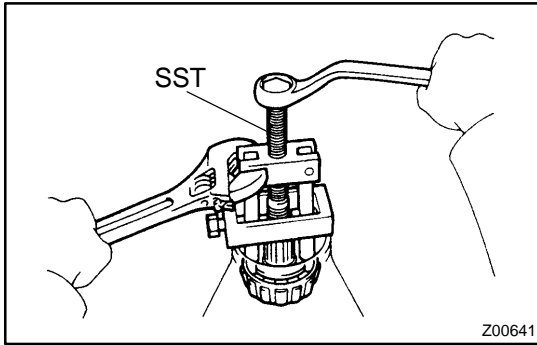
(c) Using SST, remove the companion flange.
SST 09950-30012 (09951-03010, 09953-03010, 09954-03010, 09955-03030, 09956-03020)



9. REMOVE FRONT OIL SEAL AND OIL SLINGER

(a) Using SST, remove the oil seal from the differential carrier.
SST 09350-32014 (09308-10010)

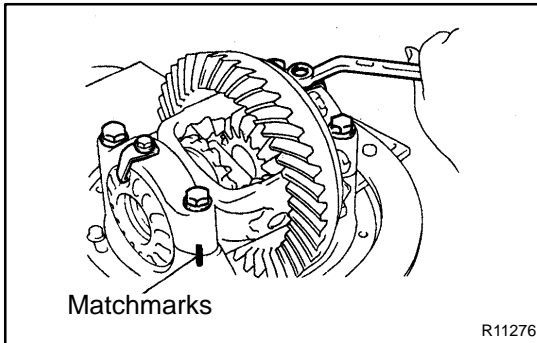
(b) Remove the oil slinger.

**10. REMOVE FRONT BEARING AND BEARING SPACER**

- (a) Using SST, remove the bearing from the drive pinion.
SST 09556-22010

If the front bearing is damage or worn, replace the front bearing.

- (b) Remove the bearing spacer.

**11. REMOVE DIFFERENTIAL CASE**

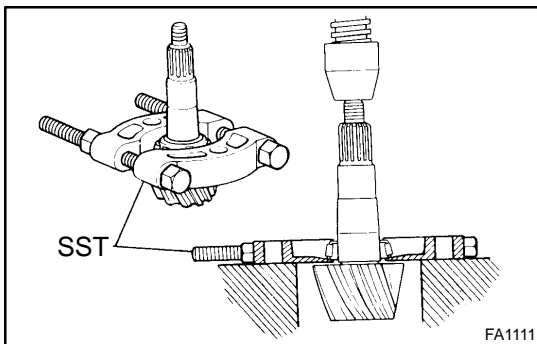
- (a) Place matchmarks on the bearing cap and differential carrier.
(b) Remove the 2 adjusting nut locks.
(c) Remove the 4 bolts and 2 bearing caps.
(d) Remove the 2 adjusting nuts.
(e) Remove the differential case with the side bearing outer races from the differential carrier.

HINT:

Tag the disassembled parts to show the location for reassembling.

12. REMOVE DRIVE PINION FROM DIFFERENTIAL CARRIER

Remove the drive pinion with the rear bearing.

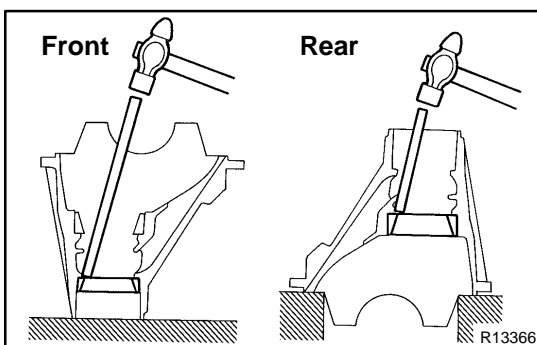
**13. REMOVE DRIVE PINION REAR BEARING**

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

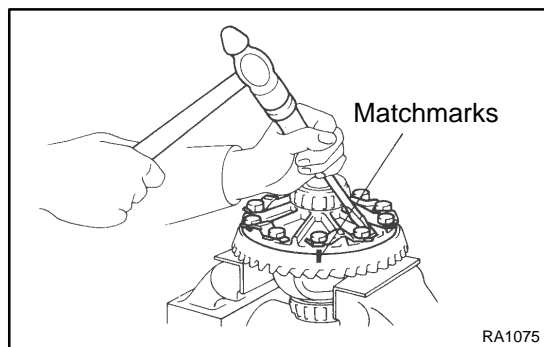
HINT:

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

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

**14. REMOVE FRONT AND REAR BEARING OUTER RACE**

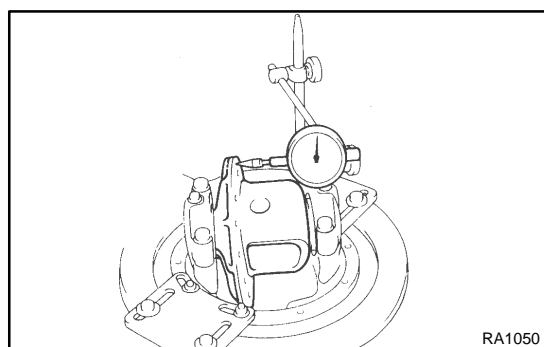
Using a brass bar and hammer, remove the outer races from the carrier.

**15. REMOVE RING GEAR**

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

16. CHECK DIFFERENTIAL CASE RUNOUT

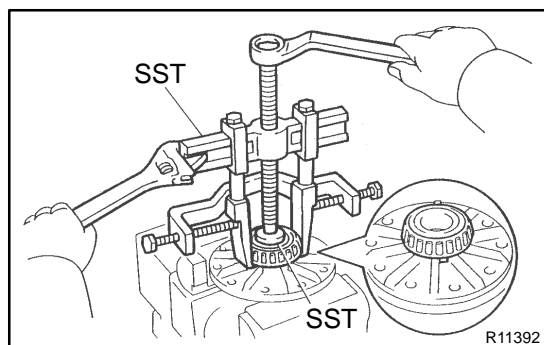
- (a) Place the bearing outer races on their respective bearings. Check that the right and left outer races are not interchanged.
- (b) Install the differential case in the differential carrier.
- (c) When there is not play left in the side bearings, install the plate washers.
- (d) Align the matchmarks on the bearing cap and differential carrier.
- (e) Install and uniformly tighten the 4 bearing cap bolts in several passes.



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

Maximum runout: 0.07 mm (0.0028 in.)

- (g) Remove the differential case.

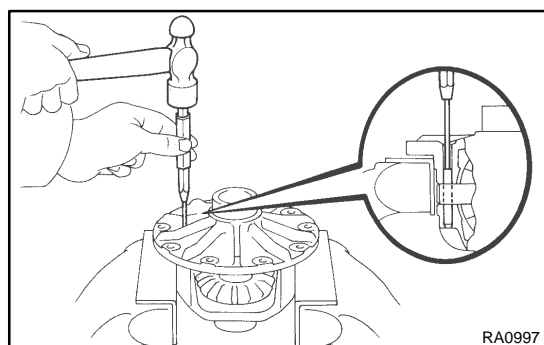
**17. REMOVE SIDE BEARINGS**

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

SST 09950-40011 (09951-04010, 09952-04010, 09953-04020, 09954-04010, 09955-04061, 09957-04010, 09958-04011), 09950-60010 (09951-00450)

HINT:

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

**18. 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.