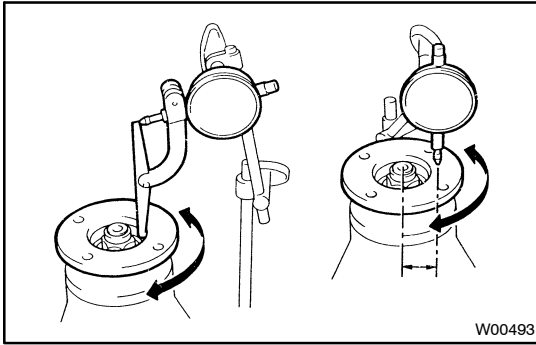


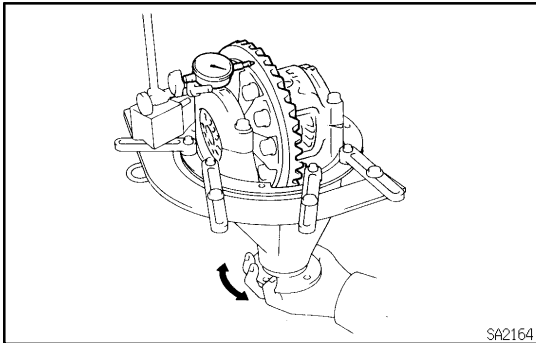


DISASSEMBLY

1. 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.)

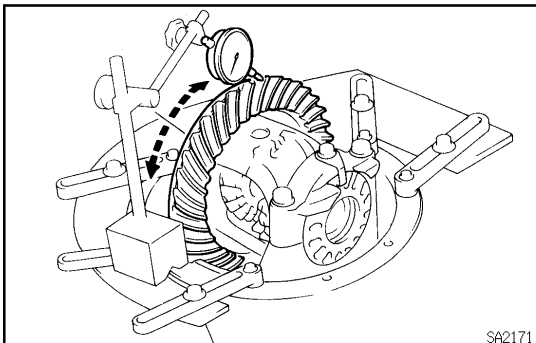


2. CHECK RING GEAR RUNOUT

Using a dial indicator, measure the ring gear runout.

Maximum runout: 0.10 mm (0.0039 in.)

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



3. CHECK RING GEAR BACKLASH

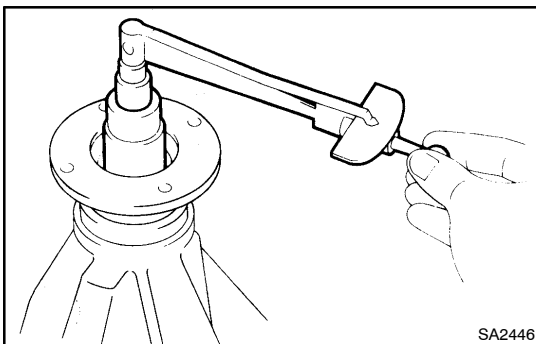
Using a dial indicator, measure the ring gear backlash.

Backlash: 0.15–0.20 mm (0.0059–0.0079 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.



4. MEASURE DRIVE PINION PRELOAD

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

Preload (at starting):

0.7–1.0 N·m (7–10 kgf·cm, 6.1–8.7 in.·lbf)

(b) Using a torque wrench, measure the preload.

Total preload (at starting):

Drive pinion preload plus

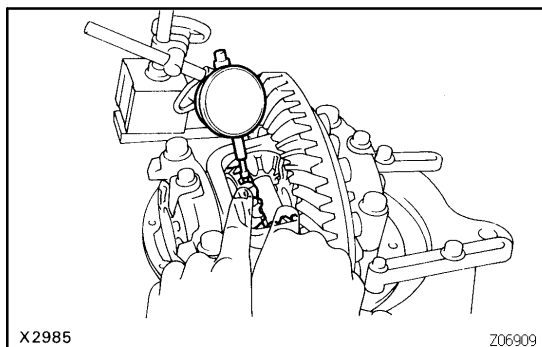
w/o Differential lock

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

w/ differential lock

0.3–0.7 N·m (3–7 kgf·cm, 2.6–6.1 in.·lbf)

If necessary, disassemble and inspect the differential.

**5. CHECK SIDE GEAR BACKLASH**

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

Backlash: 0.02–0.20 mm (0.0008–0.0079 in.)

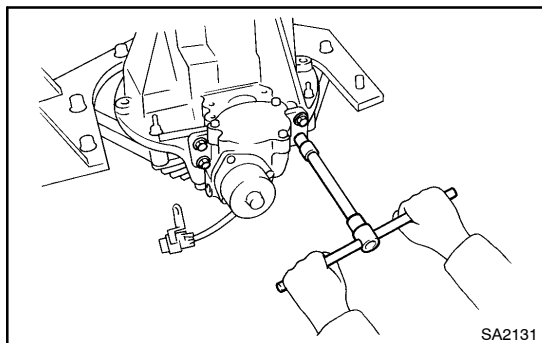
If the backlash is not within the specification, install the correct thrust washers (See page [SA-88](#)).

6. CHECK TOOTH CONTACT BETWEEN RING GEAR AND DRIVE PINION (See page [SA-36](#))**7. w/ DIFFERENTIAL LOCK:****REMOVE INDICATOR SWITCH**

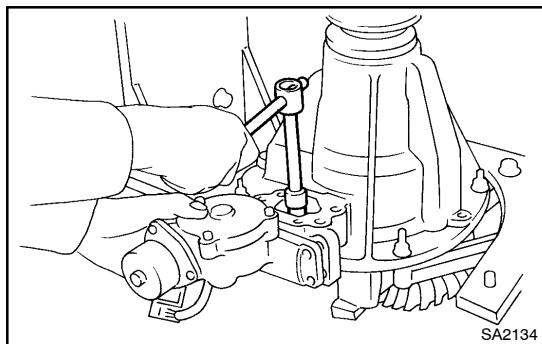
Remove the indicator switch and gasket.

8. w/ Differential lock:**REMOVE COVER**

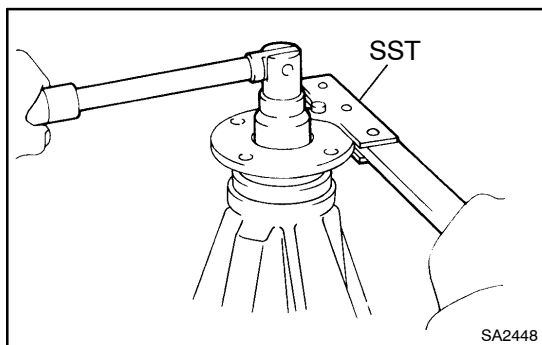
- (a) Remove the 3 bolts.
- (b) Using a brass bar and hammer, tap on the cover to remove it.

**9. w/ Differential lock:****REMOVE SLEEVE**

- (a) Remove the 4 bolts.
- (b) Using a plastic hammer, tap the actuator.
- (c) Remove the actuator and sleeve.

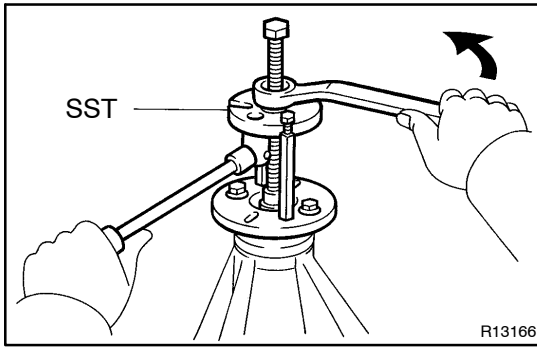
**10. w/ Differential lock:****REMOVE ACTUATOR AND SHIFT FORK AND SHAFT**

- (a) Remove the shift fork shaft bolt.
- (b) Pull out the actuator and remove the shift fork.

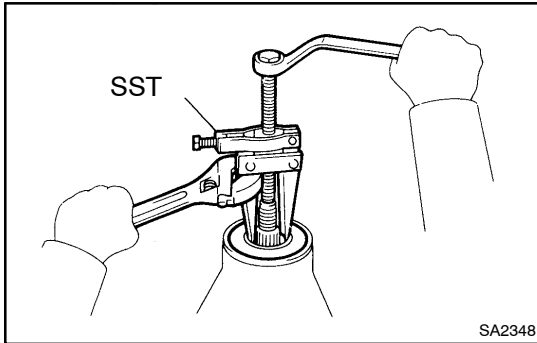
**11. REMOVE COMPANION FLANGE**

- (a) Using a chisel and hammer, unstick the nut.
- (b) Using SST to hold the flange, remove the nut and plate washer.

SST 09330-00021

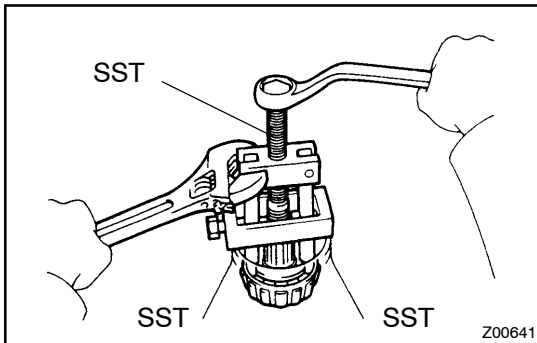


- (c) Using SST, remove the companion flange.
 SST 09950-30010 (09951-03010, 09953-03010, 09954-03010, 09955-03030, 09956-03020)



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.

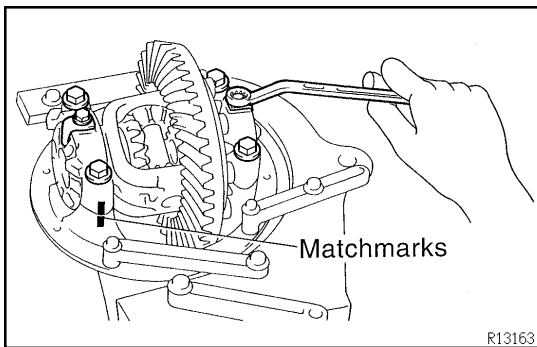


13. REMOVE FRONT BEARING

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. w/o Differential lock:

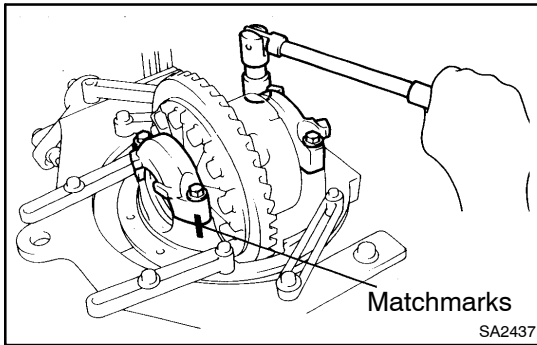
REMOVE DIFFERENTIAL CASE ASSEMBLY

- (a) Place matchmarks on the bearing cap and differential carrier.
 (b) Remove the 2 adjusting nut locks.

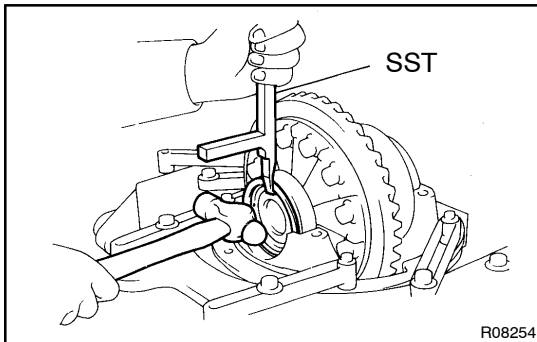
HINT:

Tag the disassembled parts to show the location for reassembly.

- (c) Remove the 2 bearing caps and adjusting nuts.
 (d) Remove the differential case with the bearing outer races from the carrier.

**15. w/ Differential lock:****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, remove the plate washers.
SST 09504-22011

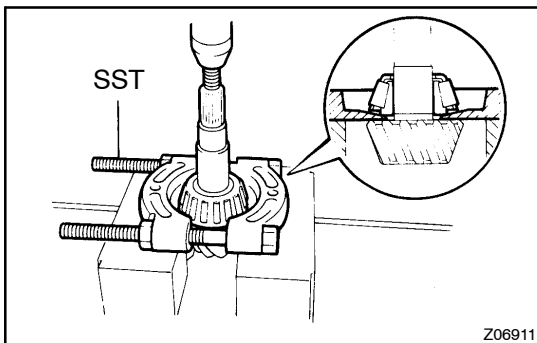
HINT:

Measure the plate washer thickness and note 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.

**16. REMOVE DRIVE PINION AND BEARING SPACER FROM DIFFERENTIAL CARRIER**

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

17. REMOVE DRIVE PINION REAR BEARING

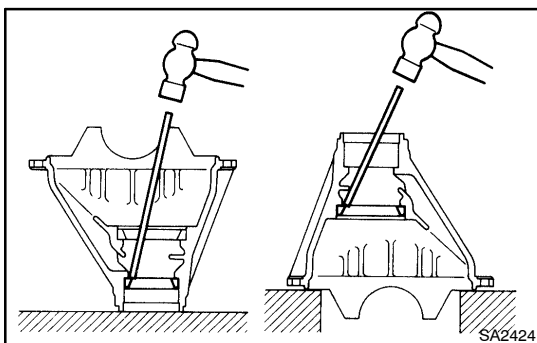
- (a) Using SST and a press, remove the rear bearing from the drive pinion.

SST 09950-00020

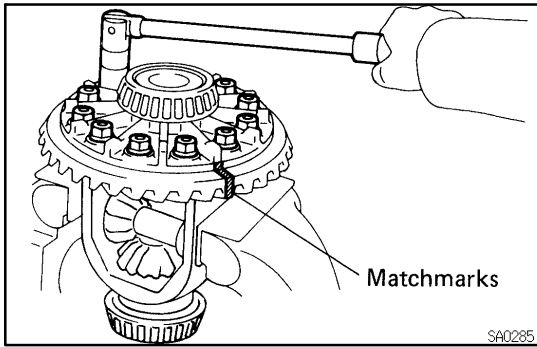
HINT:

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

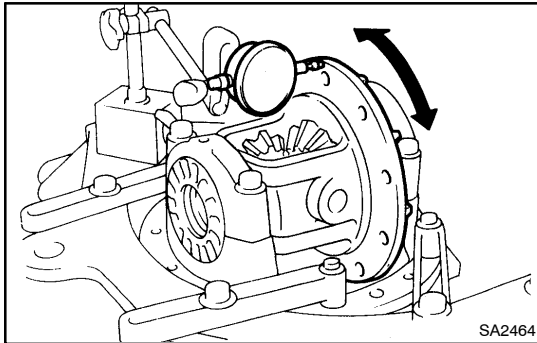
- (b) Remove the plate washer from the drive pinion.

**18. REMOVE FRONT AND REAR BEARING OUTER RACES**

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

**19. REMOVE RING GEAR**

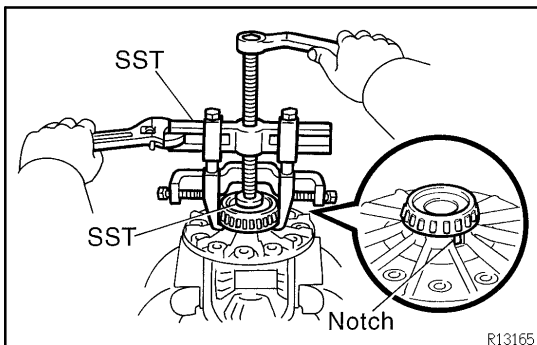
- Place matchmarks on the ring gear and differential case.
- Remove the 12 ring gear set nuts and bolts.
- Using a plastic hammer, tap on the ring gear to remove it from the differential case.

**20. CHECK DIFFERENTIAL CASE RUNOUT**

- Install the differential case in the differential carrier and tighten the adjusting nut just to where there is no play in the bearing.
- Using a dial indicator, measure the differential case run-out.

Maximum case runout: 0.07 mm (0.0028 in.)

- Remove the differential case.

**21. w/o DIFFERENTIAL LOCK:****REMOVE SIDE BEARINGS FROM DIFFERENTIAL CASE**

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

SST 09950-40010 (09951-04010, 09952-04010, 09953-04020, 09955-04060, 09957-04010, 09958-04010),

SST 09950-60010 (09951-00480)

22. w/ Differential lock:**REMOVE SIDE BEARINGS FROM DIFFERENTIAL CASE**

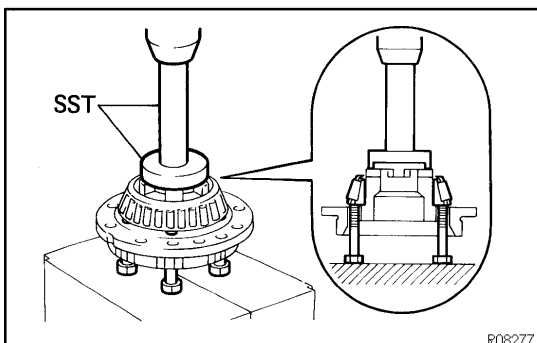
- Using SST, remove the side bearing (ring gear side).

SST 09950-40010 (09951-04010, 09952-04010, 09953-04020, 09955-04060, 09957-04010, 09958-04010),

SST 09950-60010 (09951-00480)

HINT:

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

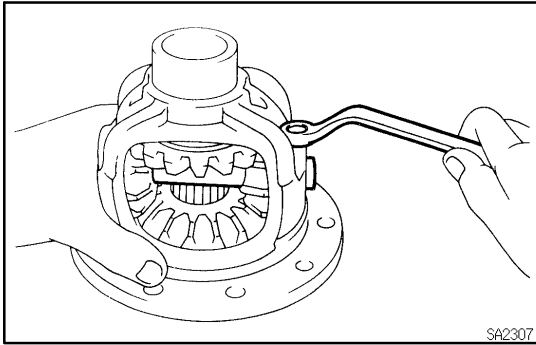


- Using SST, 4 bolts and a press, remove the side bearing (cover side).

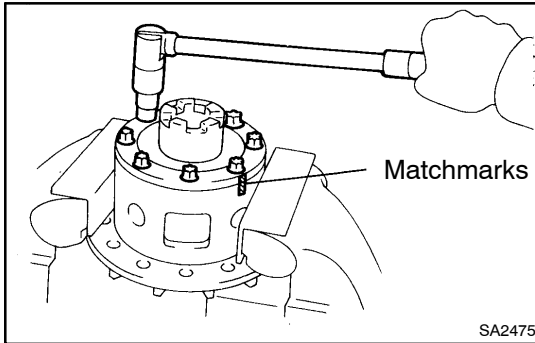
SST 09550-10012 (09557-10010),
09950-70010 (09951-07150)

HINT:

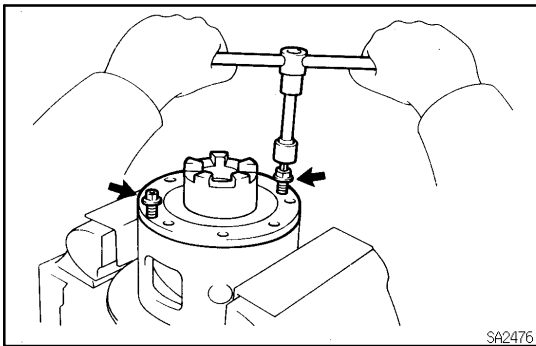
Fix the claws of SST to the notches in the differential case.

**23. w/o Differential lock:****DISASSEMBLE DIFFERENTIAL CASE**

- (a) Remove the pinion shaft pin and washer.
- (b) Remove these parts from the differential case:
 - Pinion shaft
 - 2 Pinion gears
 - 2 Pinion gear thrust washers
 - 2 Side gears
 - 2 Side gear thrust washers

**24. w/ Differential lock:****DISASSEMBLE DIFFERENTIAL CASE**

- (a) Place matchmarks on the case and cover.
- (b) Using a torx socket wrench, remove the 5 set bolts and 3 pinion shaft pins.



- (c) Using the 2 cover installation bolts, separate the cover and case.
- (d) Remove these parts from the differential case:
 - 2 Side gears
 - 2 Side gear thrust washers
 - 4 Pinion gears
 - 4 Pinion thrust washers
 - 3 Pinion shafts
 - Pinion shaft holder