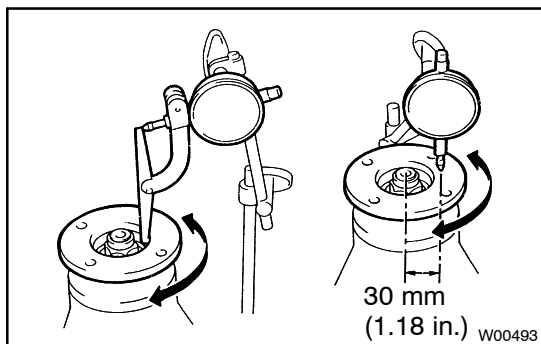


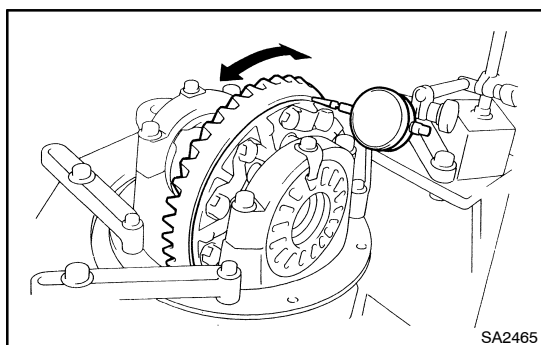


DISASSEMBLY

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.)

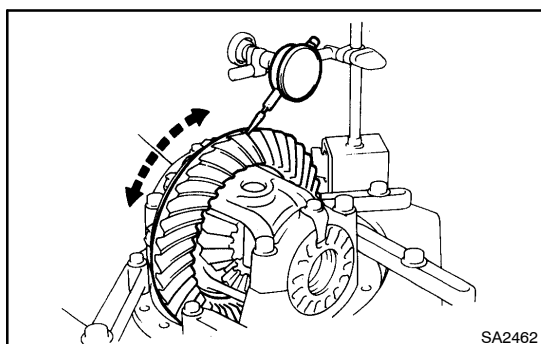


2. CHECK RING GEAR RUNOUT

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 and driven pinion as a set.

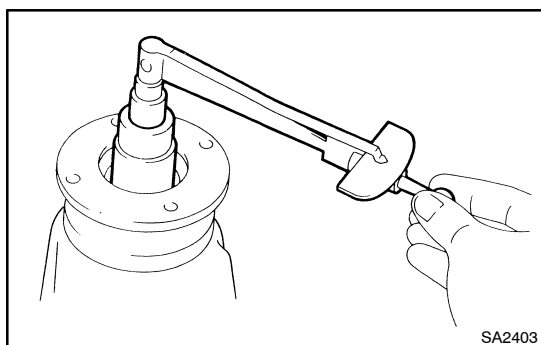


3. CHECK RING GEAR BACKLASH

Using a dial indicator, measure the ring gear backlash.

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

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



4. MEASURE DRIVE PINION PRELOAD

Using a torque wrench, measure the preload of backlash between 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)

5. CHECK TOTAL PRELOAD

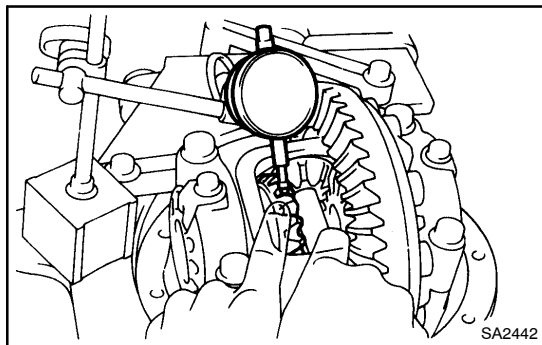
Using a torque wrench, measure the preload.

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.



**6. w/o DIFFERENTIAL LOCK:
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 specification, install the correct thrust washers (See page [SA-35](#)).

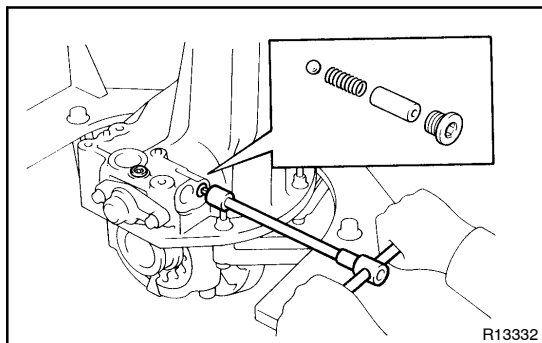
7. CHECK TOOTH CONTACT BETWEEN RING GEAR AND DRIVE PINION (See page [SA-35](#))

**8. w/ DIFFERENTIAL LOCK:
REMOVE ACTUATOR**

- (a) Remove the bolt and actuator from the differential carrier.
- (b) Remove the O-ring.

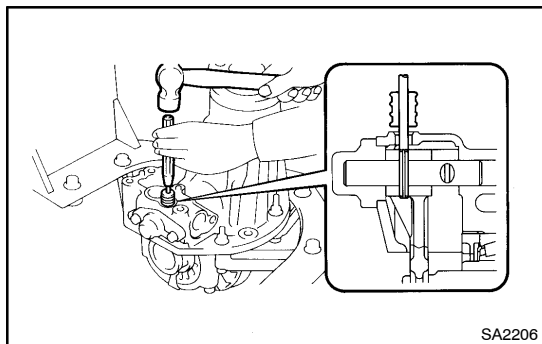
**9. w/ DIFFERENTIAL LOCK:
REMOVE INDICATOR SWITCH**

Remove the indicator switch and gasket.

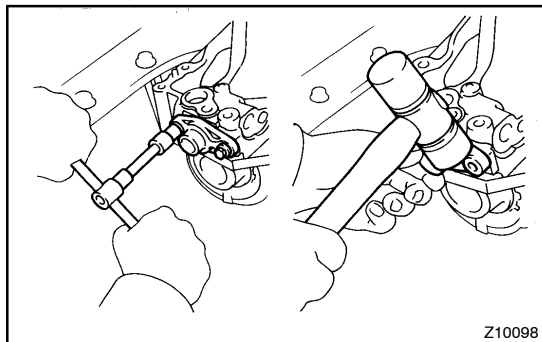


**10. w/ DIFFERENTIAL LOCK:
REMOVE SHIFT FORK SHAFT**

- (a) Using a hexagon wrench, remove the 2 straight screw plugs.
- (b) Remove the spring seat, compression spring and ball.



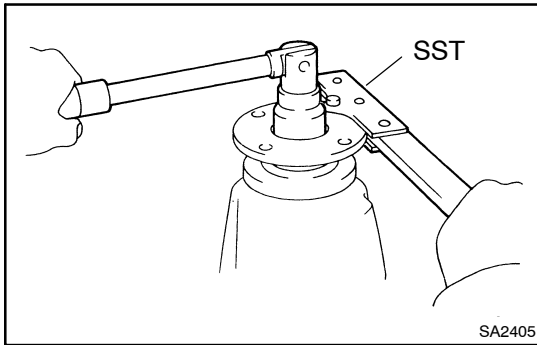
- (c) Using a pin punch and hammer, remove the slotted spring pin.



- (d) Remove the 2 bolts from the shaft retainer.
- (e) Using a plastic hammer, tap out the shaft retainer.
- (f) Remove the shift fork shaft.

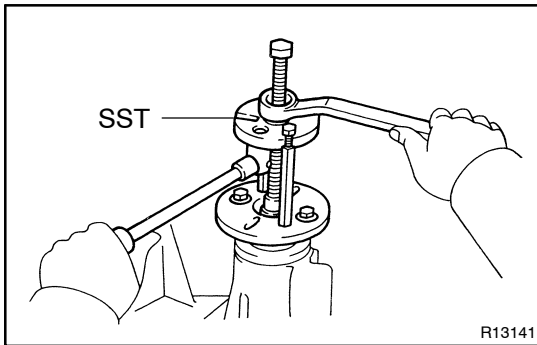
HINT:

Pull out the shift fork shaft with a screwdriver turned round.

**11. REMOVE COMPANION FLANGE**

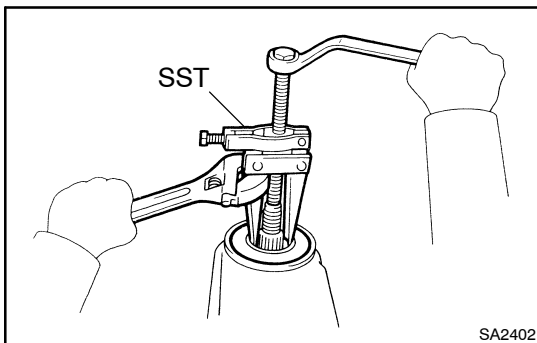
- (a) Using a chisel and hammer, unstick the nut.
- (b) Using SST to hold the flange, remove the nut and plate washer.

SST 09330-00021



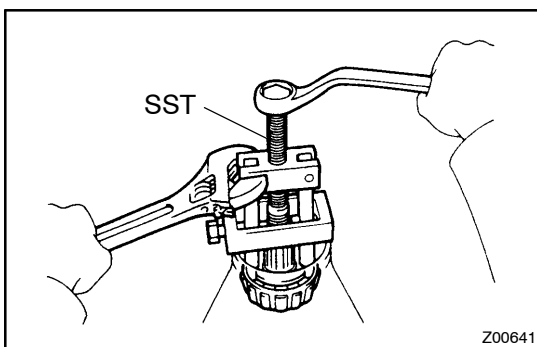
- (c) Using SST, remove the companion flange.

SST 09950-30010 (09951-03010, 09953-03010, 09954-03010, 09955-03030, 09956-03020)

**12. REMOVE OIL SEAL AND OIL SLINGER**

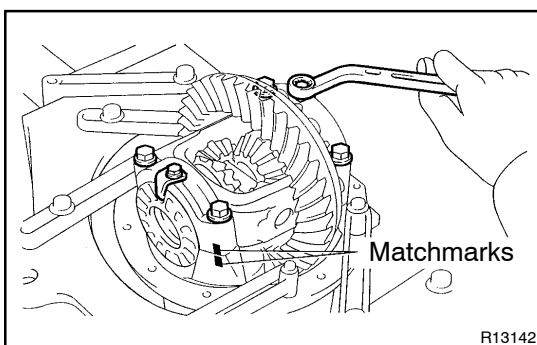
- (a) Using SST, remove the oil seal from the differential carrier.
- (b) Remove the oil slinger.

SST 09308-10010

**13. REMOVE REAR BEARING**

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

SST 09556-22010

**14. 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) w/o Differential lock:
Remove the 2 adjusting nuts.
- (e) w/o Differential lock:
Remove the differential case with the side bearing outer races from the carrier.

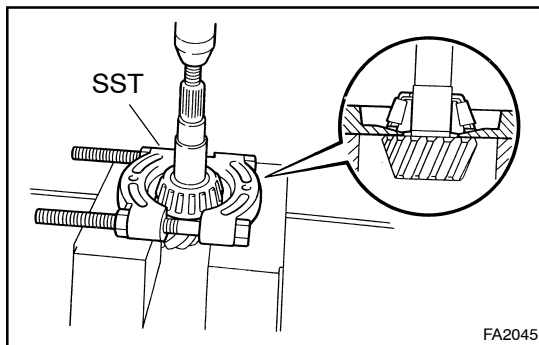
HINT:

Tag the disassembled parts to show the location for reassembly.

- (f) w/ Differential lock:
Remove the differential case with the side bearing outer race, adjusting nuts and sleeve from the differential carrier.
- (g) w/ Differential lock:
Remove the shift fork.

15. REMOVE DRIVE PINION AND BEARING SPACER

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

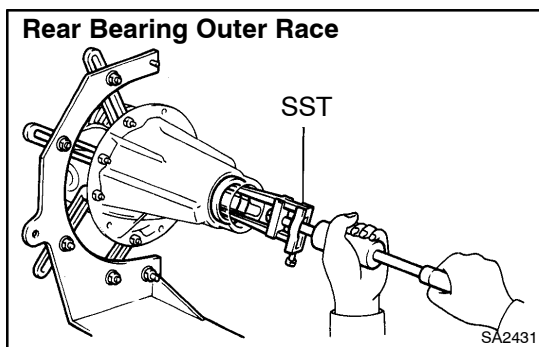
**16. REMOVE DRIVE PINION FRONT BEARING**

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

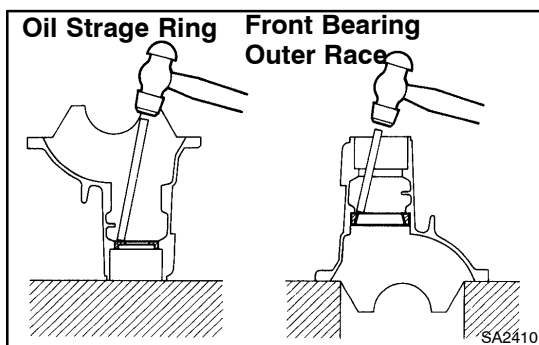
HINT:

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

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

**17. REMOVE FRONT AND REAR BEARING OUTER RACES AND OIL STORAGE RING**

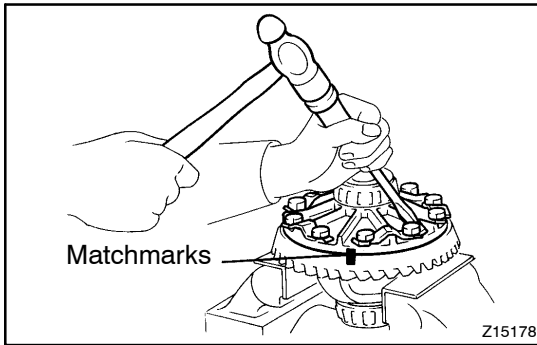
- (a) Using SST, remove the rear bearing outer race.
SST 09308-00010



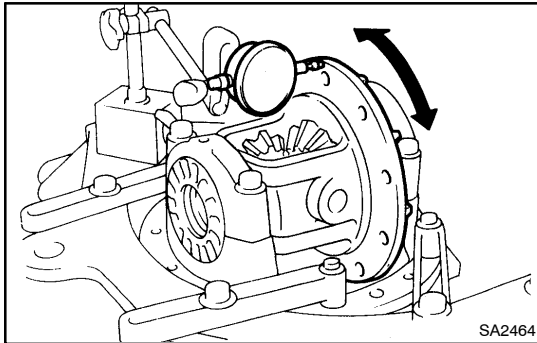
- (b) Using a brass bar and hammer, remove the oil storage ring and front bearing outer race.

HINT:

Do not remove the oil storage ring unless replacing it with a new one.

**18. REMOVE RING GEAR**

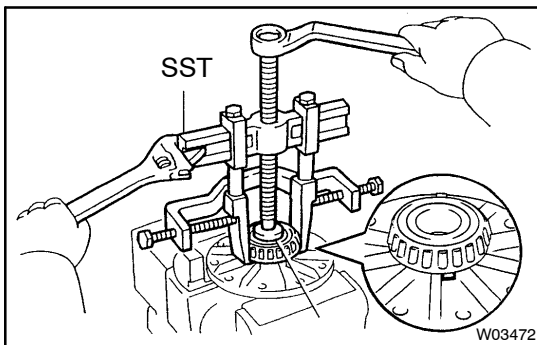
- Using a screwdriver and hammer, unstake the lock plate.
- Place matchmarks on the ring gear and differential case.
- Remove the ring gear 10 set bolts and 5 lock plates.
- Using a plastic hammer, tap on the ring gear to separate it from the differential case.

**19. 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.

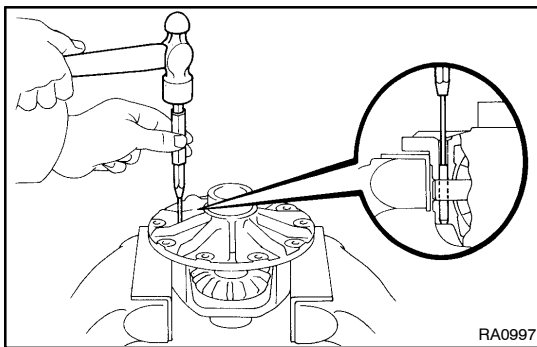
**20. REMOVE SIDE BEARING FROM DIFFERENTIAL CASE**

Using SST, pull the side bearing from the differential case.

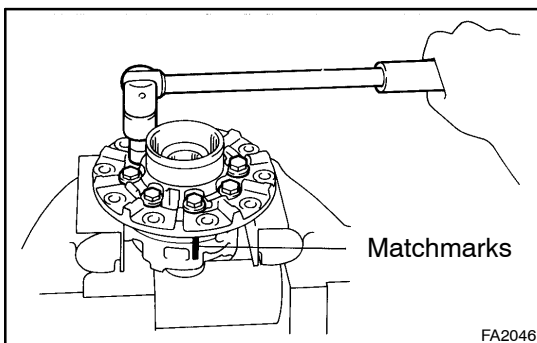
SST 09950-40010 (09951-04010, 09952-04020, 09953-04020, 09954-04010, 09955-04010, 09957-04010, 09958-04010), 09950-60010 (09951-00480)

HINT:

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

**21. w/o DIFFERENTIAL LOCK:****DISASSEMBLE DIFFERENTIAL CASE**

- Using a pin punch and hammer, remove the straight pin.
- 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

**22. w/ DIFFERENTIAL LOCK:****DISASSEMBLE DIFFERENTIAL CASE**

- Place matchmarks on the LH and RH cases.
- Remove the 8 bolts uniformly, a little at a time.
- Using a plastic hammer, separate the LH and RH cases.
- Remove these parts from the RH differential case:
 - 2 Side gears
 - 2 Side gear thrust washers
 - Spider

- 4 Pinion gears
- 4 Pinion gear thrust washers