

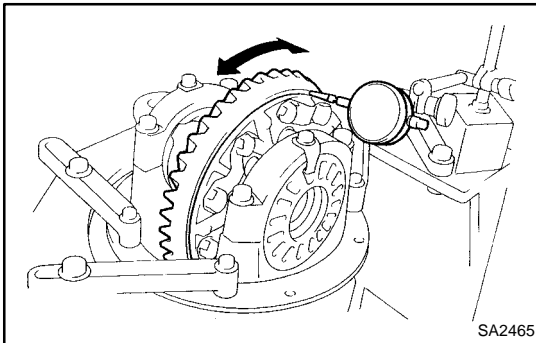
DISASSEMBLY

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.

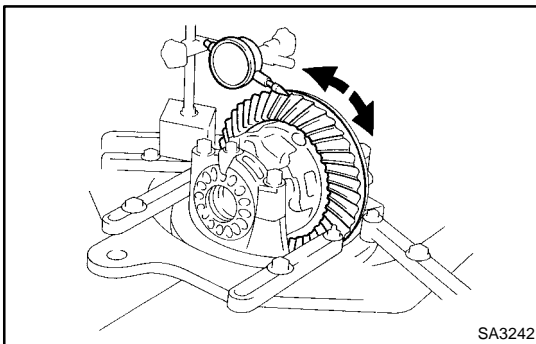


2. CHECK RING GEAR RUNOUT

Using a dial indicator, measure the ring gear runout.

Maximum runout: 0.10 mm (0.0039 in.)

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



3. CHECK RING GEAR BACKLASH

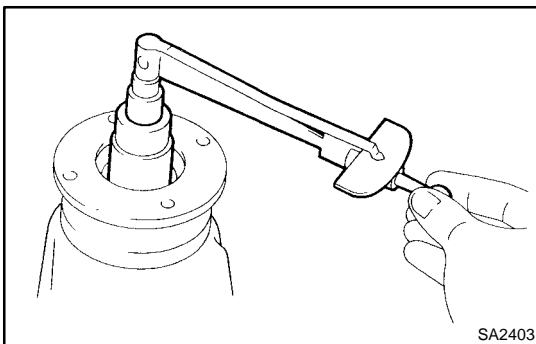
Using a dial indicator, while holding the companion flange, measure the ring gear backlash.

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):

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

5. CHECK TOTAL PRELOAD

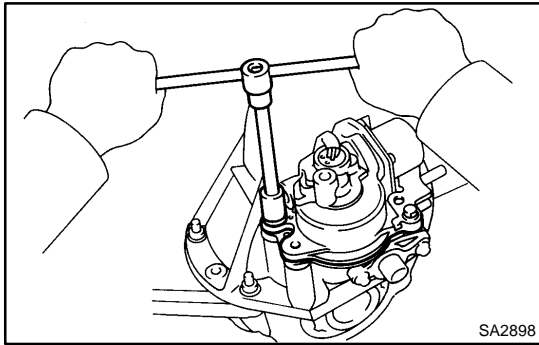
Using a torque wrench, measure the total preload with the teeth of the drive pinion and ring gear in contact.

Total preload (at starting):

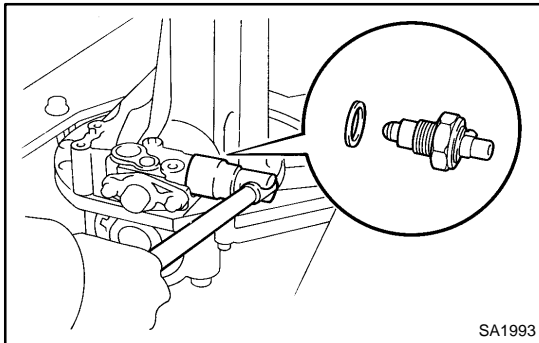
Drive pinion preload plus 0.4 – 0.6 N·m (4 – 6 kgf·cm, 3.5 – 5.2 in.-lbf)

If necessary, disassemble and inspect the differential.

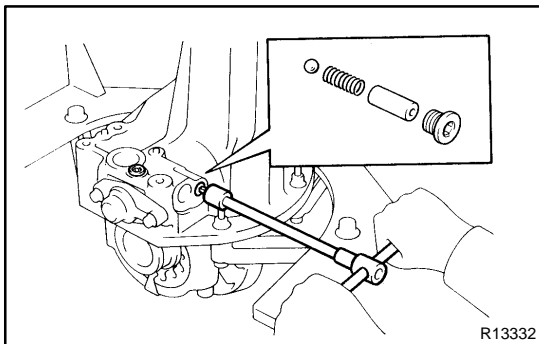
6. CHECK TOOTH CONTACT BETWEEN RING GEAR AND DRIVE PINION (See page SA-185)

**7. REMOVE ACTUATOR**

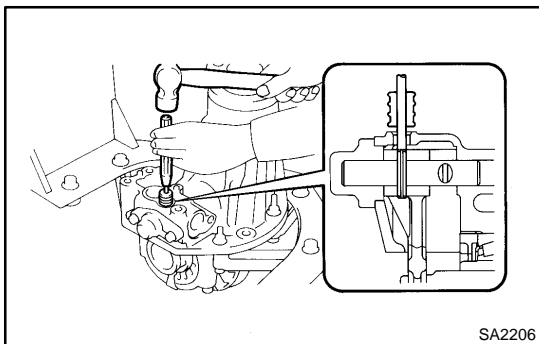
- (a) Remove the bolt and actuator from the differential carrier.
- (b) Remove the O-ring.

**8. REMOVE DIFF. LOCK INDICATOR SWITCH**

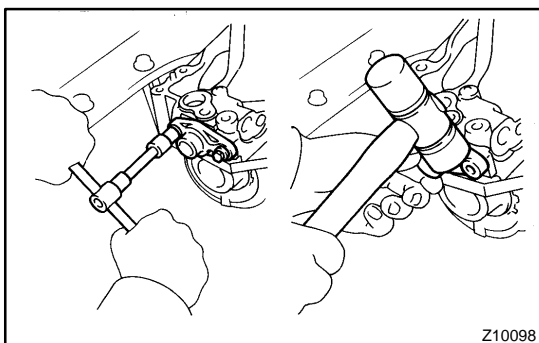
Remove the indicator switch and gasket.

**9. REMOVE SHIFT FORK SHAFT**

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



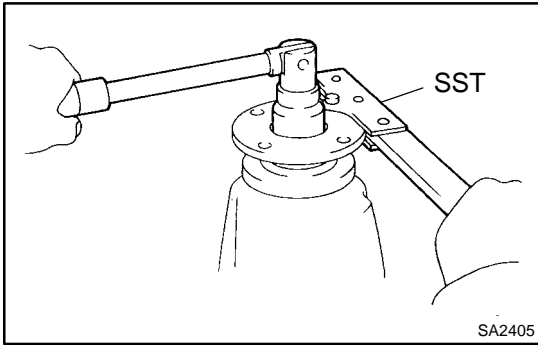
- (c) Using a pin punch and hammer, remove the slotted spring pin.



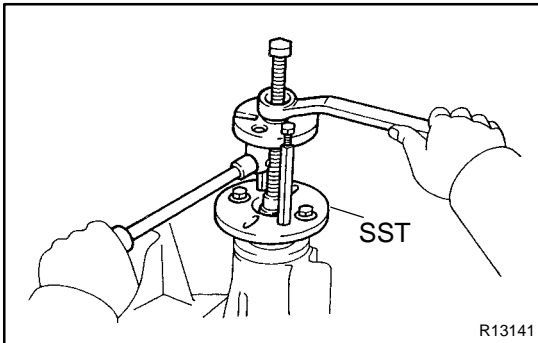
- (d) Remove the 2 bolts from the shaft retainer.
- (e) Using a plastic hammer, remove the shaft retainer.
- (f) Remove the shift fork shaft.

10. REMOVE COMPANION FLANGE

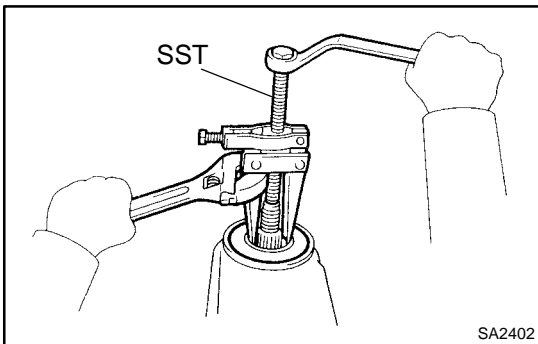
- (a) Using a chisel and hammer, unstake the nut.



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

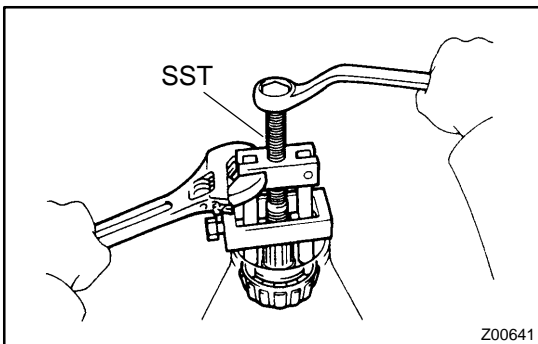


- (c) Using SST, remove the companion flange.
SST 09950-30012 (09951-03010, 09953-03010,
09954-03010, 09955-03030, 09956-03020)



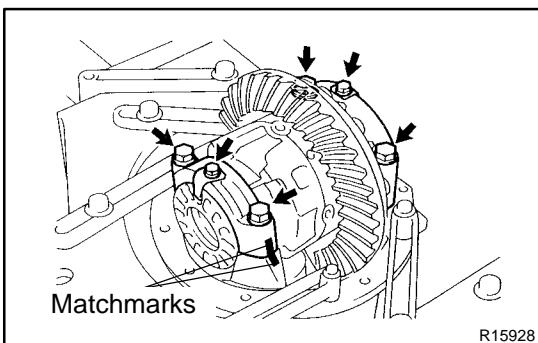
11. REMOVE OIL SEAL AND OIL SLINGER

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



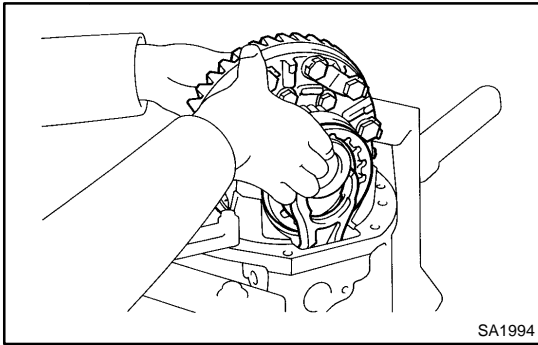
12. REMOVE FRONT BEARING

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



13. REMOVE DIFFERENTIAL CASE

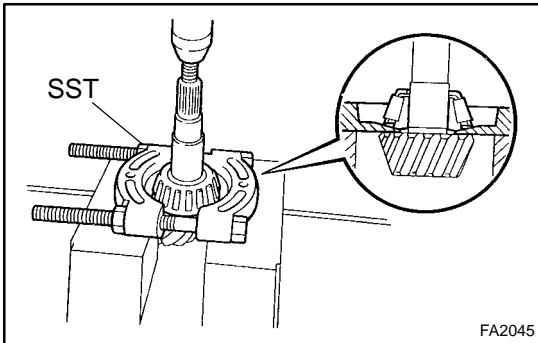
- (a) Place matchmarks on the bearing cap and differential carrier.
(b) Remove the 2 adjusting nut locks.
(c) Remove the 4 bolts and 2 bearing caps.



- (d) Remove the differential case with side bearing outer race, adjusting nuts and sleeve from the differential carrier.
- (e) Remove the shift fork.

14. REMOVE DRIVE PINION AND BEARING SPACER

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



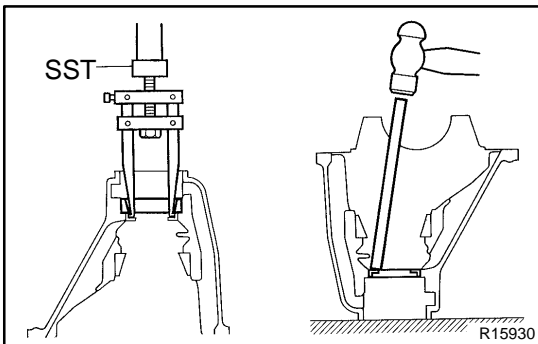
15. REMOVE DRIVE PINION REAR BEARING

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

HINT:

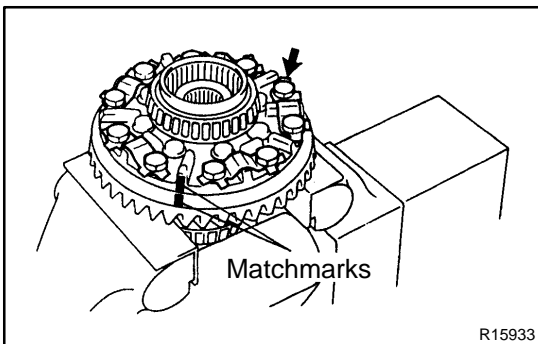
If the drive pinion or ring gear is damaged, replace them as a set.

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



16. REMOVE FRONT AND REAR BEARING OUTER RACES AND OIL STORAGE RING

- (a) Using SST, remove the front bearing outer race.
SST 09308-00010
- (b) Using a brass bar and hammer, remove the oil storage ring.
- (c) Using a brass bar and hammer, remove the rear bearing outer race.

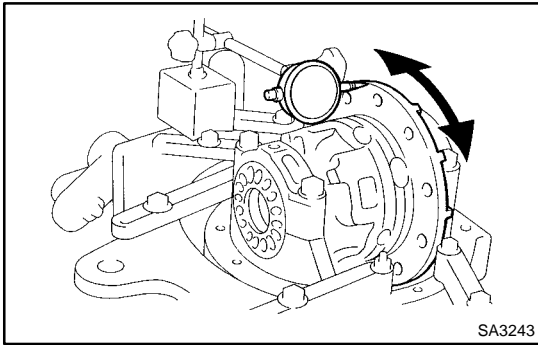


17. REMOVE RING GEAR

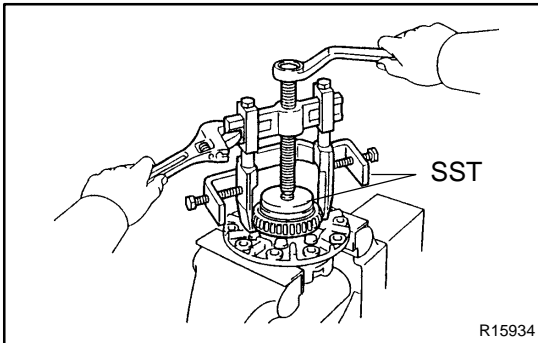
- (a) Place matchmarks on the ring gear and differential case.
- (b) Using a screwdriver and hammer, unstick the 5 lock plate.
- (c) Remove the 10 ring gear set bolts and 5 lock plates.
- (d) Using a plastic hammer, tap on the ring gear to separate it from the differential case.

18. CHECK DIFFERENTIAL CASE RUNOUT

- (a) Install the differential case in the differential carrier and tighten the adjusting nut just to where there is no play in the bearing.



- (b) Using a dial indicator, measure the differential case run-out.
Maximum case runout: 0.07 mm (0.0028 in.)
- (c) Remove the differential case.



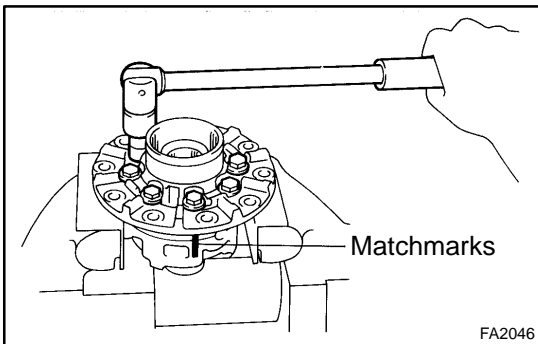
19. REMOVE SIDE BEARING FROM DIFFERENTIAL CASE

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

SST 09950-40011 (09951-04010, 09952-04010, 09953-04020, 09954-04010, 09955-04061, 09957-04010, 09958-04011), 09950-60010 (09951-00480), 09950-60020 (09951-00730)

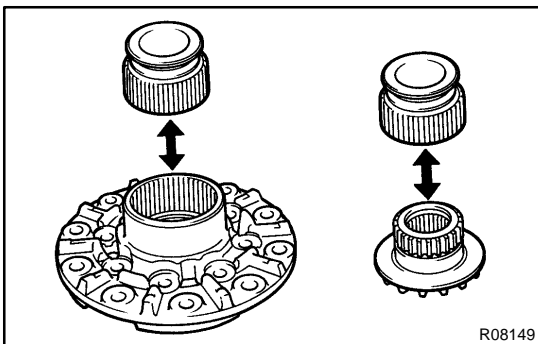
HINT:

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



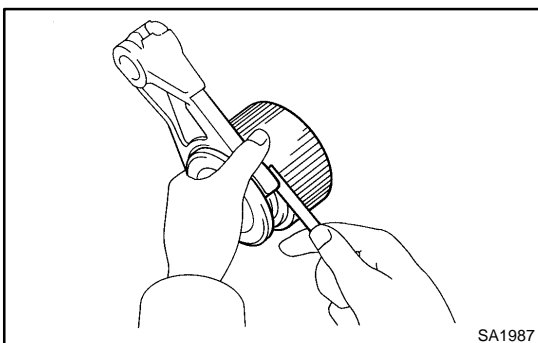
20. DISASSEMBLE DIFFERENTIAL CASE

- (a) Place matchmarks on the RH and LH cases.
- (b) Remove the 8 bolts uniformly, a little at a time.
- (c) Using a plastic hammer, separate the RH and LH cases.
- (d) Remove the 2 side gears, side gear thrust washers, 4 pinion gears, 4 pinion gear thrust washers and spider from the differential case.



21. INSPECT SLEEVE

- (a) Install the sleeve to the differential case (LH) and check it moves smoothly.
- (b) Install the sleeve to the side gear and check it moves smoothly.



22. MEASURE CLEARANCE OF SHIFT FORK AND SLEEVE

Using a feeler gauge, measure the clearance between the shift fork and sleeve.

Clearance (Reference):

0.15 – 0.35 mm (0.006 – 0.014 in.)