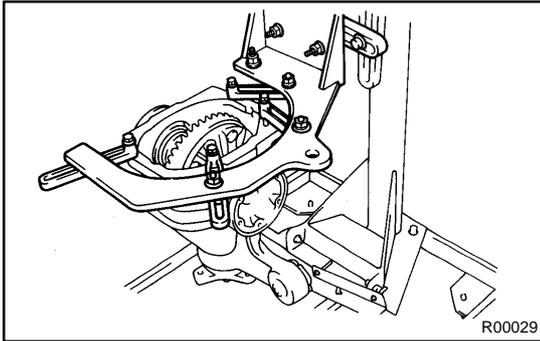


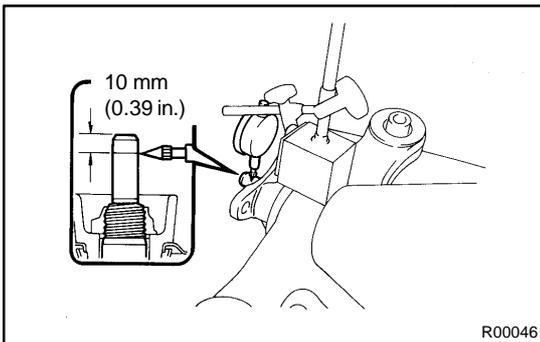
## DISASSEMBLY

### 1. REMOVE DIFFERENTIAL CARRIER COVER

- (a) Remove the 8 bolts from the carrier cover.
- (b) Using a brass bar and hammer, separate the cover from carrier.
- (c) Remove the breather plug from the differential carrier cover.



### 2. SET DIFFERENTIAL CARRIER TO OVERHAUL STAND ETC., AS SHOWN

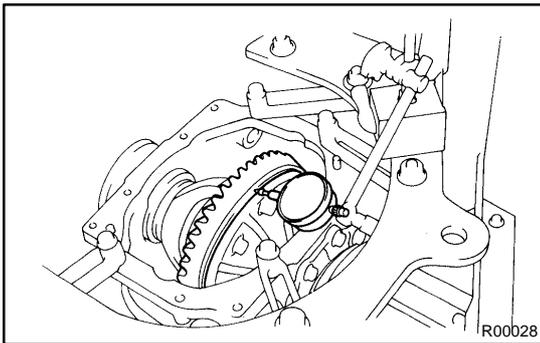


### 3. CHECK RUNOUT OF DRIVE PINION SHAFT

Using a dial indicator, measure the runout of the drive pinion shaft at a position 10 mm (0.39 in.) away from the end of the shaft.

**Maximum runout: 0.08 mm (0.0031 in.)**

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

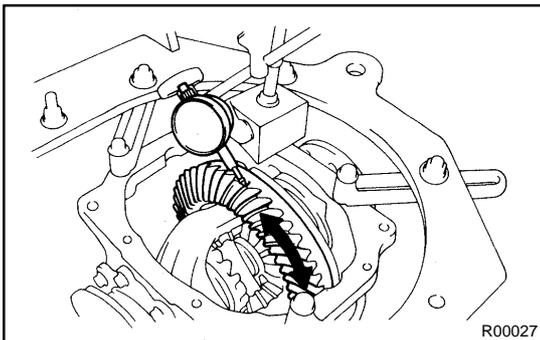


### 4. CHECK RING GEAR RUNOUT

Using a dial indicator, measure the ring gear runout.

**Maximum runout: 0.05 mm (0.0020 in.)**

If the runout is greater than the maximum, replace the drive pinion, ring gear and differential case.



### 5. CHECK RING GEAR BACKLASH

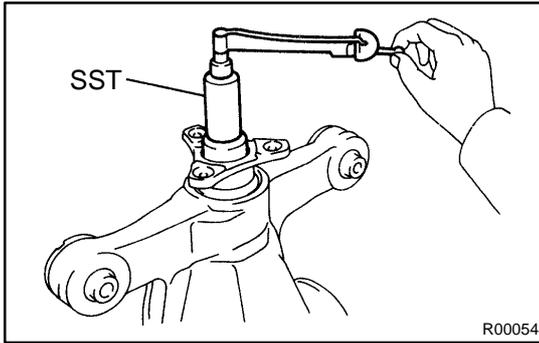
Using a dial indicator, measure the backlash of the ring gear at 3 points at least and check that the average value is within the specification.

**Backlash: 0.08 – 0.13 mm (0.0031 – 0.0051 in.)**

#### NOTICE:

**The difference between the maximum and minimum measured values must be less than 0.05 mm (0.0020 in.).**

If the backlash is not within the specification, adjust the backlash (See page [SA-83](#)).



### 6. MEASURE DRIVE PINION PRELOAD

Using SST and a torque wrench, measure the 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)**

#### HINT:

For vehicles which have run less than 8,000 km (5,000 miles), the preload may be large.

SST 09229-55010

#### Maximum preload (at starting):

**1.8 N·m (18 kgf·cm, 15.6 in.-lbf)**

### 7. CHECK TOTAL PRELOAD

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

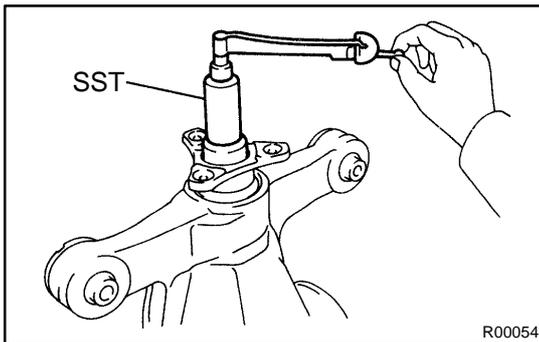
SST 09229-55010

#### Total preload (at starting):

#### Drive pinion preload plus

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

If necessary, disassemble and inspect the differential.



### 8. CHECK PINION GEAR BACKLASH

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

**Maximum: 0.15 mm (0.0059 in.)**

#### NOTICE:

**Differential gears should be able to rotate.**

If the backlash is not within the specification, install the correct thrust washer (See page SA-83).

### 9. CHECK TOOTH CONTACT PATTERN

(See page SA-83)

### 10. REMOVE SIDE GEAR SHAFTS

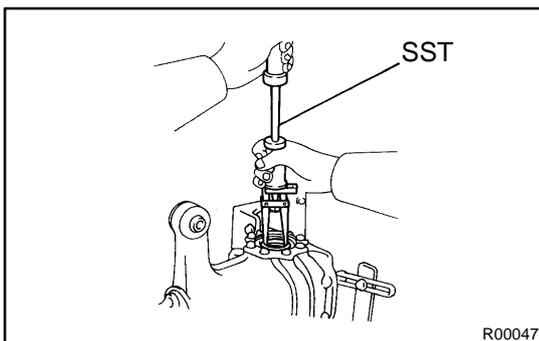
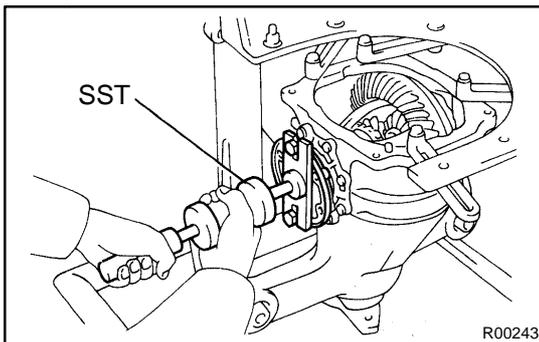
(a) Using SST, remove the 2 side gear shafts.

SST 09520-24010

#### NOTICE:

**Be careful not to damage the oil seal.**

(b) Using screwdriver, remove the 2 snap rings from the side gear shafts.



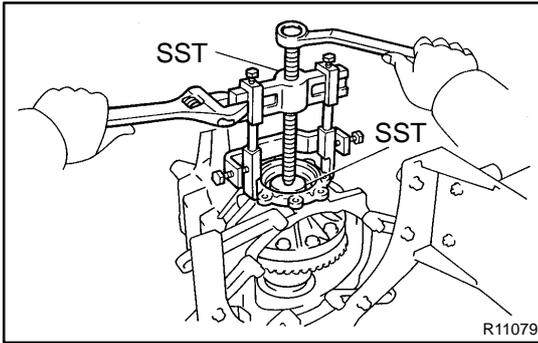
### 11. REMOVE SIDE GEAR SHAFT OIL SEALS

Using SST, remove the 2 oil seals.

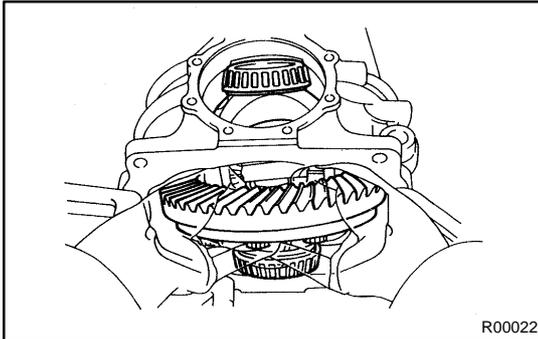
SST 09308-00010

### 12. REMOVE DIFFERENTIAL CARRIER RETAINERS

(a) Remove the 16 bolts.



- (b) Using SST, remove the 2 carrier retainers and washers.  
 SST 09950-40011, (09951-04020, 09952-04010, 09953-04030, 09954-04010, 09955-04061, 09957-04010, 09958-04011), 09950-60010 (09951-00450)

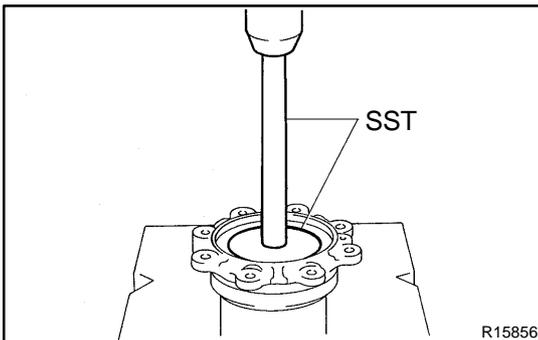


### 13. REMOVE DIFFERENTIAL CASE

Take the differential case out of the carrier with lifting the ring gear side, as shown in the illustration.

### 14. REMOVE O-RINGS FROM DIFFERENTIAL CARRIER RETAINERS

Using a screwdriver, remove the 2 O-rings.



### 15. REMOVE SIDE BEARING OUTER RACES AND ADJUSTING PLATE WASHERS

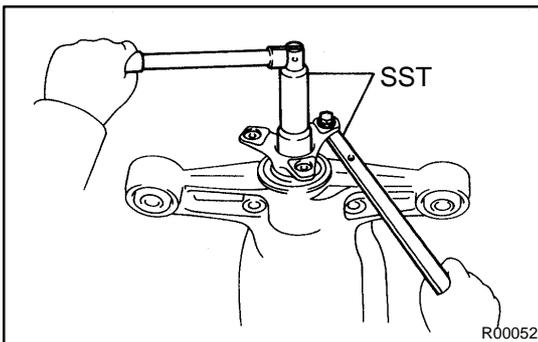
Using SST and a press, remove the 2 outer races and adjusting plate washers.

SST 09950-60020 (09951-00710), 09950-70010 (09951-07150)

### 16. REMOVE DRIVE PINION, SPACER AND COMPANION FLANGE

- (a) Using a chisel and hammer, loosen the staked part of the nut.

- (b) Using SST, remove the nut.  
 SST 09229-55010, 09330-00021

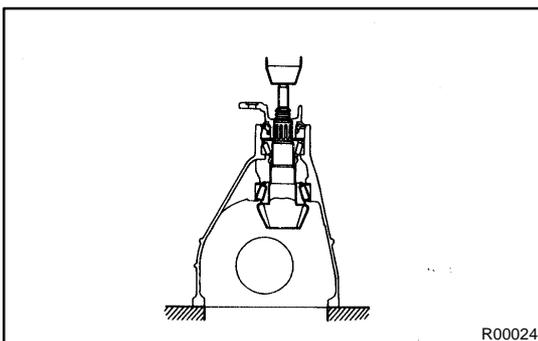


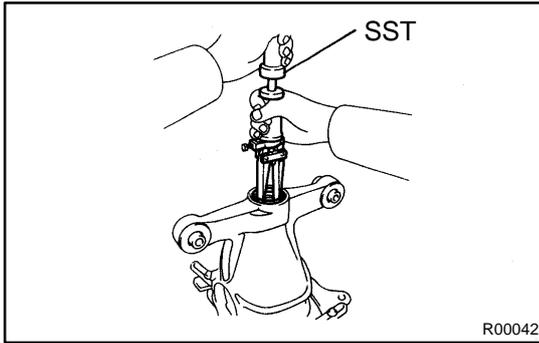
- (c) Using a press, remove the drive pinion with the rear bearing and remove the companion flange.

#### NOTICE:

**Be careful not to drop the drive pinion.**

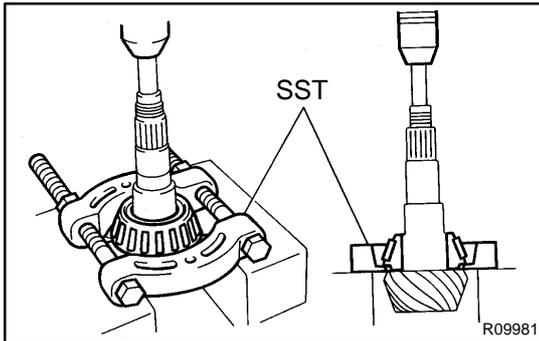
- (d) Remove the spacer from the drive pinion.



**17. REMOVE OIL SEAL**

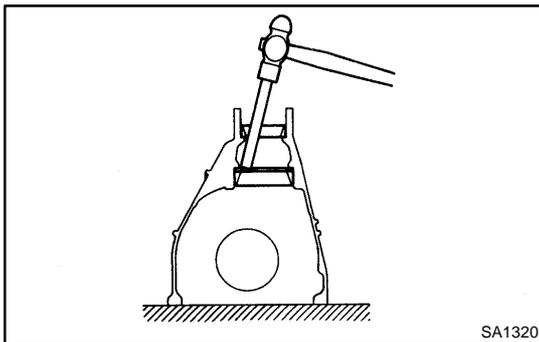
Using SST, remove the oil seal.

SST 09308-00010

**18. REMOVE OIL SLINGER AND FRONT BEARING****19. REMOVE REAR BEARING FRONT DRIVE PINION**

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

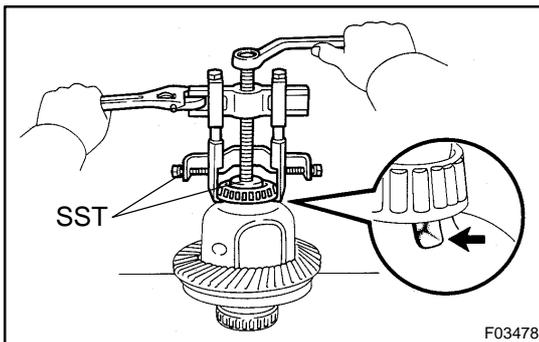
SST 09950-00020

**20. REMOVE FRONT AND REAR BEARING OUTER RACES AND ADJUSTING PLATE WASHER****NOTICE:**

Do not remove the outer race except when replacing the bearings.

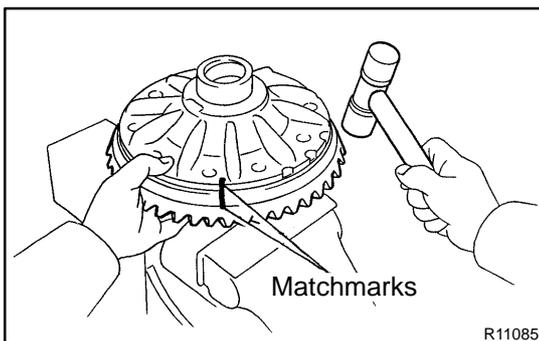
**HINT:**

Measure the washer and note the thickness for reassembly.

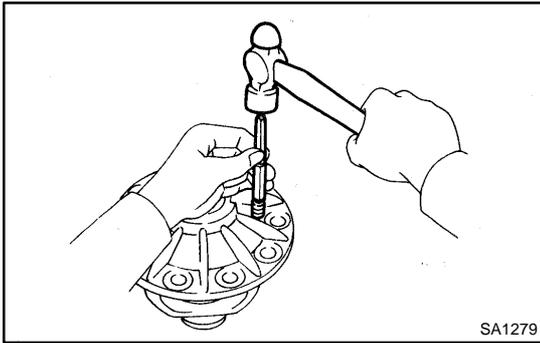
**21. REMOVE SIDE BEARINGS**

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

SST 09950-40011, (09951-04020, 09952-04010, 09953-04030, 09954-04010, 09955-04061, 09957-04010, 09958-04011), 09950-60010 (09951-00450)

**22. REMOVE RING GEAR**

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

**23. DISASSEMBLE DIFFERENTIAL CASE**

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