REMOVAL

- 1. DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL
- 2. REMOVE REAR WHEEL
- 3. DRAIN BRAKE FLUID
- 4. REMOVE REAR BRAKE DRUM SUB-ASSEMBLY (See page BR-68)
- 5. REMOVE FRONT BRAKE SHOE (See page BR-68)
- 6. REMOVE REAR BRAKE SHOE (See page BR-69)
- 7. REMOVE PROPELLER SHAFT ASSEMBLY (for 2WD Driver Type, Regular Cab) (See page PR-3)
- 8. REMOVE PROPELLER WITH CENTER BEARING SHAFT ASSEMBLY (for 2WD Drive Type, Except Regular Cab) (See page PR-8)
- 9. REMOVE PROPELLER SHAFT ASSEMBLY (for 4WD Drive Type, Regular Cab) (See page PR-22)
- 10. REMOVE PROPELLER WITH CENTER BEARING SHAFT ASSEMBLY (for 4WD Drive Type, Except Regular Cab) (See page PR-27)
- 11. DRAIN DIFFERENTIAL OIL (See page DF-8)
- 12. SEPARATE REAR SPEED SENSOR LH (See page BC-304)
- 13. SEPARATE REAR SPEED SENSOR RH
 HINT:
 Use the same procedure as for the LH side.
- 14. SEPARATE NO.3 PARKING BRAKE CABLE ASSEMBLY (See page PB-21)
- 15. SEPARATE NO.2 PARKING BRAKE CABLE ASSEMBLY

HINT:

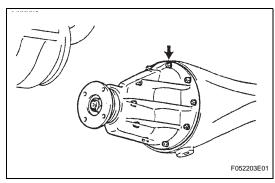
Use the same procedure as for the LH side.

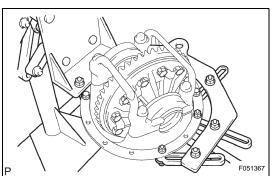
- 16. REMOVE REAR AXLE SHAFT WITH BACKING PLATE (See page AH-29)
- 17. REMOVE REAR AXLE SHAFT WITH BACKING PLATE

HINT:

Use the same procedure as for the LH side.







18. REMOVE REAR DIFFERENTIAL CARRIER ASSEMBLY

(a) Remove the 10 nuts and differential carrier assembly.

NOTICE:

Be careful not to damage the removal surface.

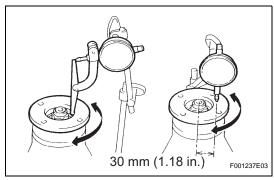
(b) Remove the rear differential carrier gasket from the differential carrier assembly.

DISASSEMBLY

1. FIX REAR DIFFERENTIAL CARRIER ASSEMBLY

(a) Fix the rear differential carrier to the overattachment.





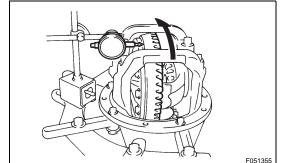
2. INSPECT RUNOUT OF REAR DRIVE PINION COMPANION FLANGE SUB-ASSEMBLY REAR

(a) Using a dial indicator, measure the vertical and horizontal runout of the companion flange.

Maximum runout:

Vertical runout: 0.10 mm (0.0039 in.) Lateral runout: 0.10 mm (0.0039 in.)

If the runouts are not within the specifications, replace the companion flange.



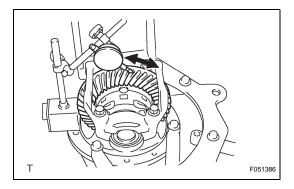
3. INSPECT RUNOUT OF DIFFERENTIAL RING GEAR

(a) Using a dial indicator, check the runout of the ring gear.

Maximum runout:

0.05 mm (0.0020 in.)

If the runout is greater than the maximum, replace the ring gear with a new one.



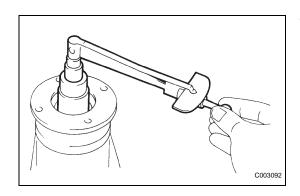
4. INSPECT DIFFERENTIAL RING GEAR BACKLASH

(a) Using a dial indicator, check the backlash of the ring gear.

Backlash:

0.13 to 0.18 mm (0.0051 to 0.0071 in.)

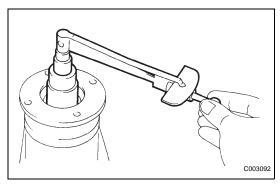
If the backlash is not within the specification, adjust or repair the side bearing preload as necessary.



5. INSPECT DIFFERENTIAL DRIVE PINION PRELOAD

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

0.78 to 1.05 N*m (8.0 to 11 kgf*cm, 6.9 to 9.3 in.*lbf)

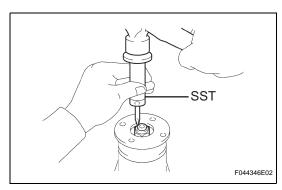


6. INSPECT TOTAL PRELOAD

- (a) Using a torque wrench, measure the preload with the teeth of the drive pinion and ring gear in contact.
- (b) Using a torque wrench, measure the total preload. **Total preload (at starting):**

Drive pinion preload plus 0.39 to 0.59 N*m (4.0 to 6.0 kgf*cm, 3.5 to 5.2 in.*lbf)

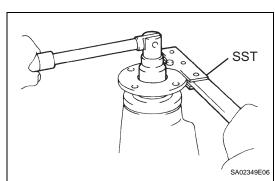
If necessary, disassemble and inspect the differential.



7. REMOVE REAR DRIVE PINION NUT

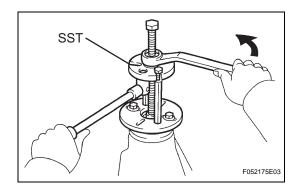
(a) Using SST and a hammer, loosen the staked part of the nut.

SST 09930-00010



(b) Using SST to hold the drive pinion companion flange, remove the nut.

SST 09330-00021

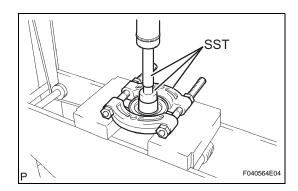


3. REMOVE REAR DRIVE PINION COMPANION FLANGE SUB-ASSEMBLY REAR

(a) Using SST, remove the drive pinion companion flange.

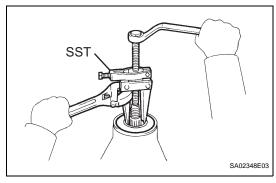
SST 09950-30012 (09951-03010, 09953-03010, 09954-03010, 09955-03030, 09956-03030)





9. REMOVE REAR DIFFERENTIAL DUST DEFLECTOR

(a) Using SST and a press, remove the dust deflector. SST 09950-60010 (09951-00380), 09950-70010 (09951-07150), 09950-00020

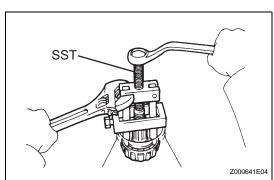


10. REMOVE REAR DIFFERENTIAL CARRIER OIL SEAL

(a) Using SST, remove the oil seal from the differential carrier.

SST 09308-10010

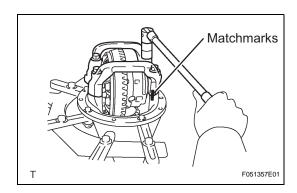




11. REMOVE REAR DRIVE PINION FRONT TAPERED ROLLER BEARING

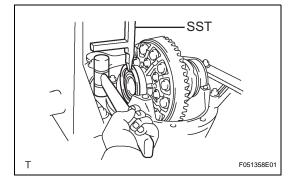
(a) Using SST, remove the drive pinion tapered roller bearing from the drive pinion.

SST 09556-22010



12. REMOVE DIFFERENTIAL CASE ASSEMBLY

- (a) Place matchmarks on the bearing cap and differential carrier.
- (b) Remove the 4 bolts and bearing cap.



(c) Using SST and a plastic hammer, remove the 2 side bearing plate washers.

HINT:

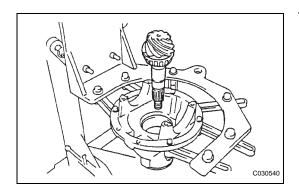
Measure the plate washer thickness and note it down.

SST 09504-22011

(d) Remove the differential case with the bearing outer races from the carrier.

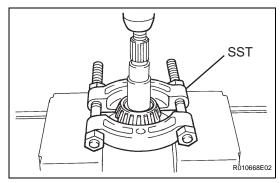
HINT:

Tag the disassembled parts to show the locations for reassembly.



13. REMOVE DIFFERENTIAL DRIVE PINION

(a) Remove the differential drive pinion and bearing spacer from the differential carrier.



14. REMOVE REAR DRIVE PINION REAR TAPERED ROLLER BEARING

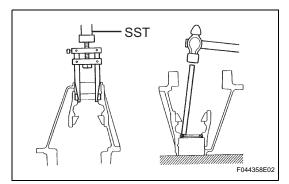
(a) Using SST and a press, remove the drive pinion tapered roller bearing from the drive pinion.

SST 09950-00020

HINT:

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



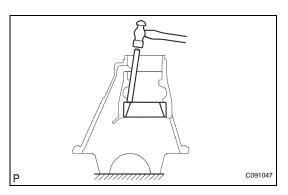


16. REMOVE REAR DRIVE PINION FRONT TAPERED ROLLER BEARING

(a) Using SST, remove the front tapered roller bearing from the carrier.

SST 09308-00010

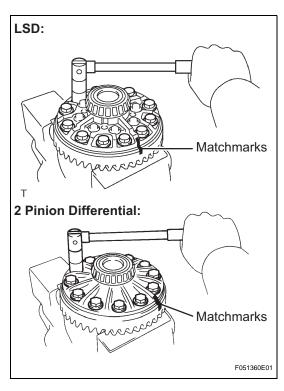
(b) Using a brass bar and a hammer, remove the oil storage ring from the carrier.



17. REMOVE REAR DRIVE PINION REAR TAPERED ROLLER BEARING

(a) Using a brass bar and a hammer, remove the rear tapered roller bearing from the carrier.

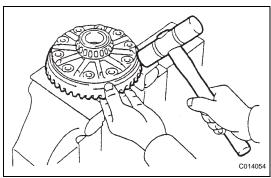




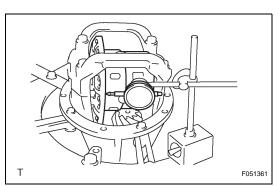
18. REMOVE DIFFERENTIAL RING GEAR

- (a) Place matchmarks on the ring gear and differential case.
- (b) Remove the 12 ring gear set bolts.





(c) Using a plastic hammer, tap on the ring gear to separate it from the differential case.



19. INSPECT DIFFERENTIAL CASE ASSEMBLY RUNOUT

- (a) Install the rear differential case bearing onto the differential case.
- (b) Install the differential case onto the differential carrier.
- (c) Using a dial indicator, measure the differential case runout.

Maximum case runout: 0.05 mm (0.0020 in.)

(d) Remove the differential case.

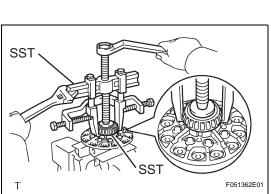


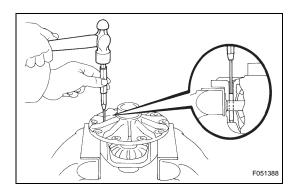
(a) Using SST, remove the 2 rear differential case bearings from the differential case.

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

HINT:

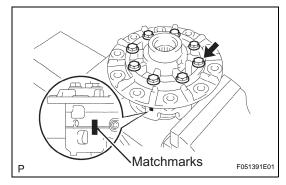
Fix the claws of SST into the notch in the differential case.





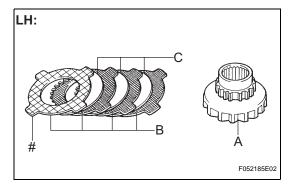
21. DISASSEMBLE DIFFERENTIAL CASE (2 PINION DIFFERENTIAL)

- (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.



22. DISASSEMBLE DIFFERENTIAL CASE (W/ LSD DIFFERENTIAL)

- (a) Place matchmarks on the LH and RH cases.
- (b) Remove the 8 bolts uniformly, a little at a time.
- (c) Using a plastic hammer, separate the LH and RH cases.

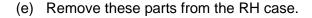


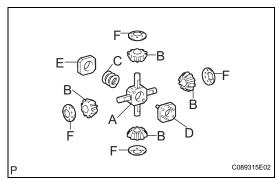
(d) Remove these parts from the LH case.

| A | side gear |
|---|-------------------------|
| В | side gear thrust washer |
| С | clutch plates |

HINT:

- Keep the disassembled parts in order.
- Face the rough side of the thrust washer marked by # to the differential case.

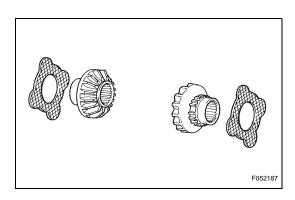


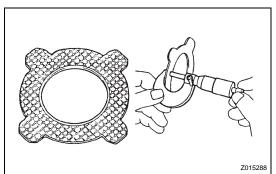


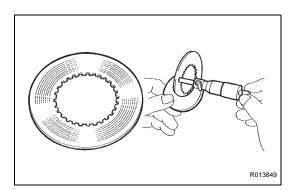
| RH: | |
|-----|--|
| 200 | Н————————————————————————————————————— |
| | |
| G | # |
| Т | F052186E02 |

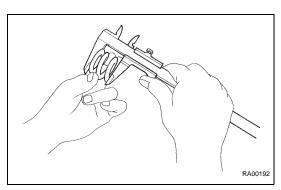
| А | Spider |
|---|---------------------------|
| В | Differential pinion gear |
| С | Compression spring |
| D | Spring LH retainer |
| E | Spring RH retainer |
| F | Pinion gear thrust washer |
| G | Side gear |
| Н | side gear thrust washer |
| I | clutch plate |











HINT:

Face the rough side of the thrust washer marked by # to the differential case.

INSPECTION

1. DIFFERENTIAL SIDE GEAR (w/ LSD Differential)

(a) Check that there is no damage or wear to the side gear.

If the side gear is damaged or worn, replace the side gear.

If replacing the side gear, also replace the thrust washer that contacts with it.

2. INSPECT REAR DIFFERENTIAL SIDE GEAR THRUST NO.1 WASHER (w/ LSD Differential)

(a) Using a micrometer, confirm that the contact surface of the thrust washer is even and check that no bare metal is showing.

Standard thickness:

1.77 to 1.86 mm (0.0697 to 0.0732 in.)

If necessary, replace the thrust washers. HINT:

When replacing the thrust washer, also replace the clutch plate that comes into contact with it.

3. INSPECT CLUTCH PLATE (w/ LSD Differential)

(a) Using a micrometer, measure the contact surface of the clutch plate and check that there is no abnormal wear.

Standard thickness:

1.57 to 1.63 mm (0.0618 to 0.0642 in.)

If necessary, replace the clutch plate.

4. INSPECT REAR DIFFERENTIAL LOCK RETAINER COMPRESSION SPRING (w/ LSD Differential)

(a) Using a vernier calipers, measure the free length of the spring.

Free length:

26.35 mm (1.037 in.)

5. INSPECT DIFFERENTIAL PINION AND SIDE GEAR

 (a) Check that there is no damage to the differential pinion or differential side gear.
 If the differential pinion and/or differential side gear is damaged, replace the differential.

6. INSPECT DIFFERENTIAL CASE

(a) Check that the differential case is not damaged. If the differential case is damaged, replace it.