

DISASSEMBLY

1. FIX DIFFERENTIAL CARRIER SUB-ASSEMBLY

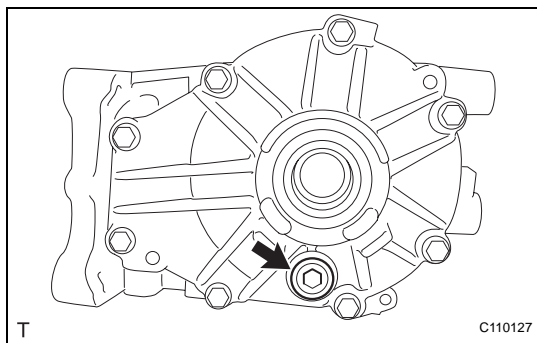
- (a) Fix the rear differential carrier in place with the overhaul attachment.

2. REMOVE STUD BOLT

- (a) Remove the 4 stud bolts from the transmission coupling.

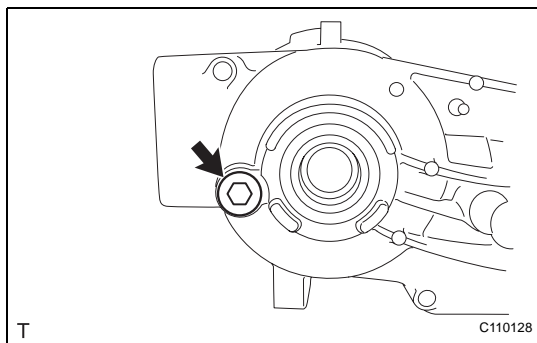
3. REMOVE DIFFERENTIAL DRAIN PLUG

- (a) Using a 10 mm socket hexagon wrench, remove the rear differential drain plug and gasket.



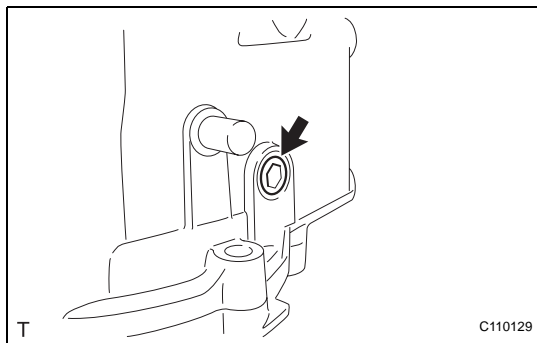
4. REMOVE DIFFERENTIAL FILLER PLUG

- (a) Using a 10 mm socket hexagon wrench, remove the rear differential filler plug and gasket.



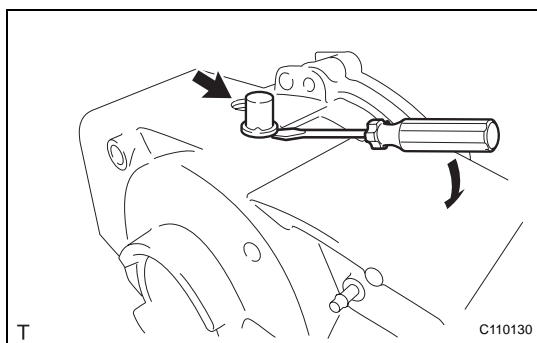
5. REMOVE DIFFERENTIAL CARRIER COVER PLUG

- (a) Using an 8 mm socket hexagon wrench, remove rear differential carrier cover plug.

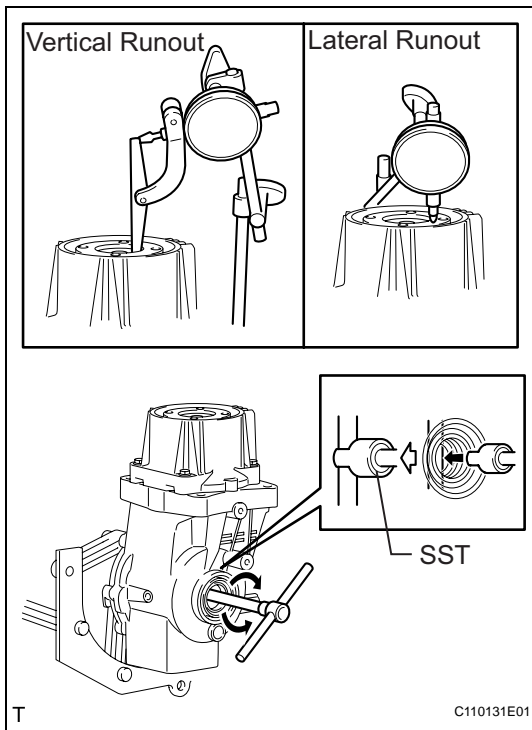


6. REMOVE DIFFERENTIAL CARRIER COVER BREATHER PLUG

- (a) Using a chisel and hammer, slightly lift up the rear differential carrier cover breather plug.



- (b) Using a screwdriver, lightly pry up and remove the rear differential carrier cover breather plug.



7. INSPECT RUNOUT OF TRANSMISSION COUPLING ASSEMBLY

- Install a dial gauge so that it is perpendicular to the inner side of the transmission coupling.
- Using SST, rotate the transmission coupling assembly forward and backward and measure the vertical runout.

SST 09564-32011

Maximum vertical runout :

0.06 mm (0.0024 in.)

- Install a dial gauge perpendicularly onto the transmission coupling assembly, as shown in the illustration.
- Using SST, rotate the transmission coupling assembly forward and backward and measure the lateral runout.

SST 09564-32011

Maximum lateral runout:

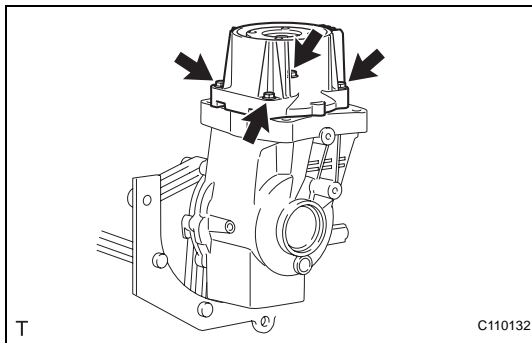
0.07 mm (0.0028)

8. REMOVE ELECTROMAGNETIC COUPLING

- Remove the 4 bolts and, using a plastic-faced hammer, lightly tap the rear differential carrier cover to remove it from the rear differential carrier.

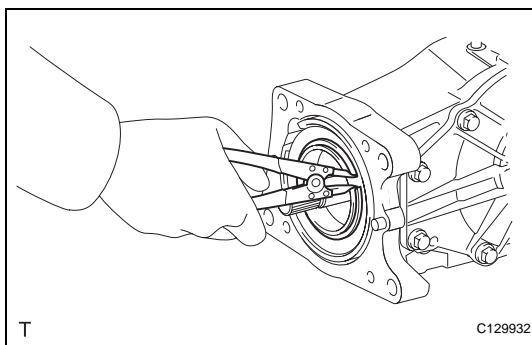
NOTICE:

Set the brass bar on the ribbed part of the rear differential carrier cover.

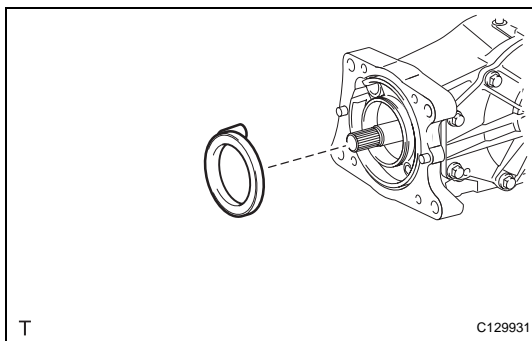


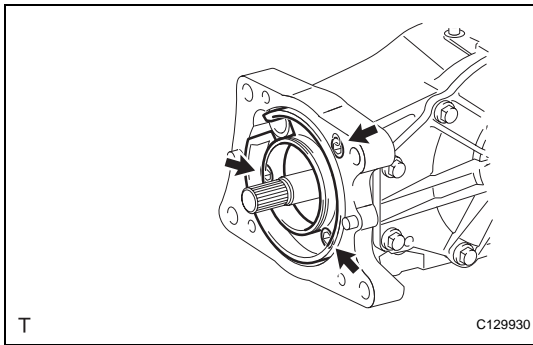
9. REMOVE 4WD LINEAR SOLENOID

- Using a snap ring expander, remove the snap ring.

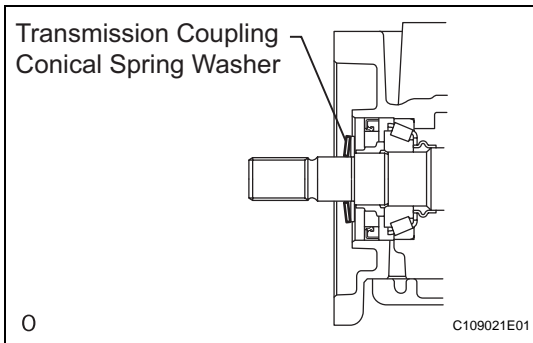


- Remove the solenoid from the yoke.
- Remove the O-ring from the solenoid.

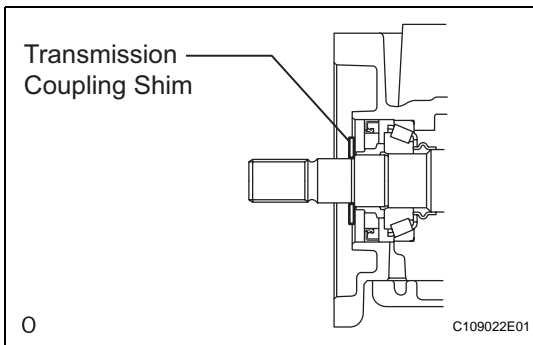


**10. REMOVE YOKE**

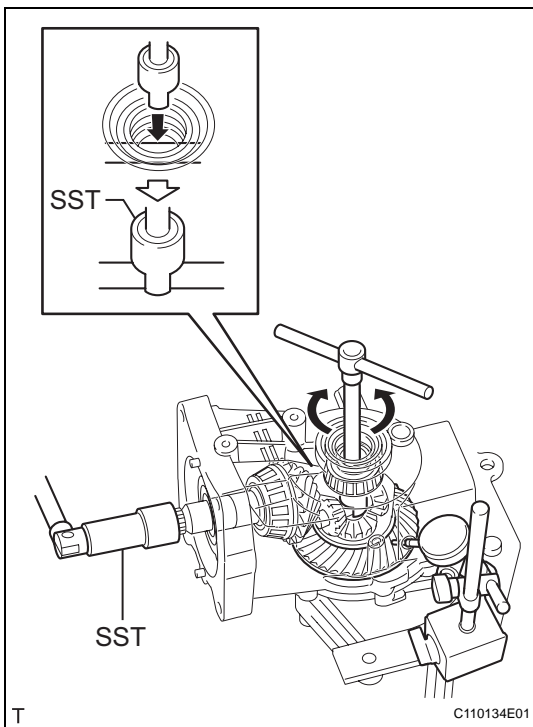
- (a) Using a 5 mm socket hexagon wrench, remove the 3 bolts and yoke from the differential carrier.

**11. REMOVE TRANSMISSION COUPLING CONICAL SPRING WASHER**

- (a) Remove the spring washer from the differential carrier.

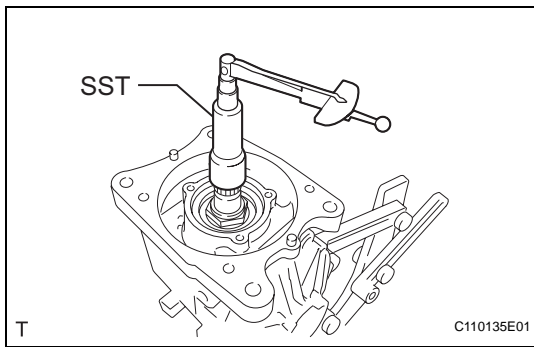
**12. REMOVE TRANSMISSION COUPLING SHIM**

- (a) Remove the shim from the differential carrier.

**13. INSPECT DIFFERENTIAL RING GEAR BACKLASH**

- (a) Insert a dial gauge through the rear differential carrier cover plug hole, and set it perpendicular to the ring gear tooth surface's tip.
- (b) Using SST, fix the drive pinion in place.
SST 09556-16011
- (c) Using SST, rotate the rear differential case forward and backward, and measure the backlash.

SST 09564-32011**Standard backlash:****0.09 to 0.16 mm (0.0034 to 0.0063 in.)****NOTICE:****Measure at 3 or more areas around the circumference of the ring gear.**



14. INSPECT DIFFERENTIAL DRIVE PINION PRELOAD

- (a) Using SST and a torque wrench, inspect the preload (starting torque) within the differential drive pinion and differential ring gear backlash area.

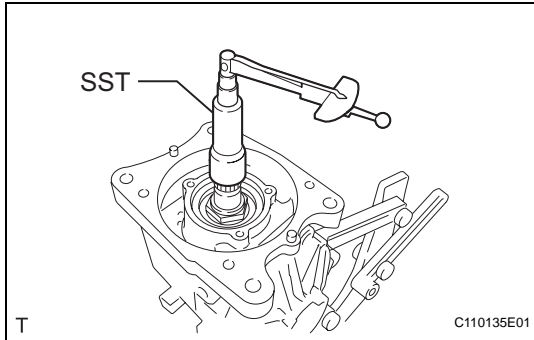
SST 09556-16011

Standard drive pinion preload:

0.24 to 0.37 N*m (2 to 4 kgf*cm, 2 to 3 in.*lbf)

NOTICE:

For a more accurate measurement, rotate the case bearing forward and backward before measuring.



15. INSPECT TOTAL PRELOAD

- (a) Using SST and a torque wrench, inspect the preload (starting torque) with the teeth of the differential drive pinion and differential ring gear in contact.

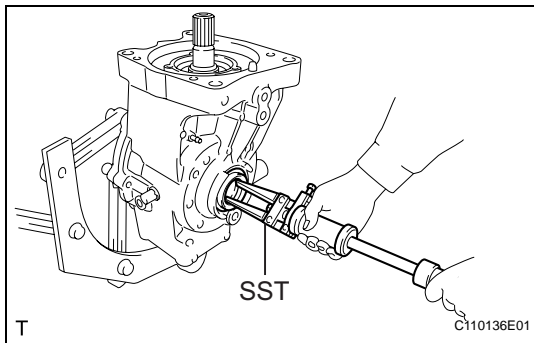
SST 09556-16011

Standard total preload:

Standard drive pinion preload plus 0.99 to 1.63 N*m (10 to 17 kgf*cm, 9 to 14 in.*lbf)

NOTICE:

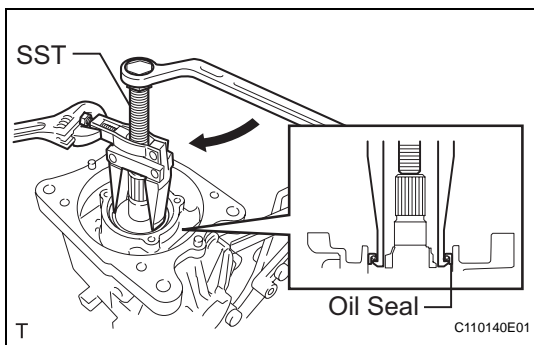
For a more accurate measurement, rotate the case bearing forward and backward before measuring.



16. REMOVE DIFFERENTIAL SIDE GEAR SHAFT OIL SEAL

- (a) Using SST, tap out the 2 rear differential side shaft gear oil seals from the rear differential carrier.

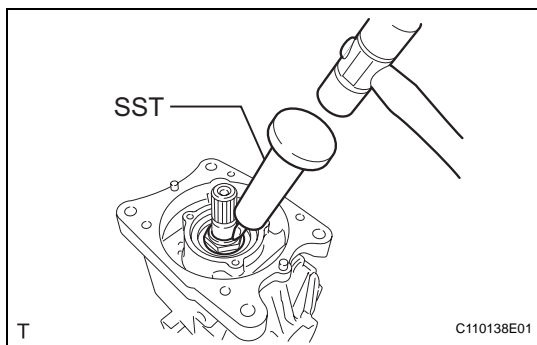
SST 09308-00010



17. REMOVE DIAPHRAGM OIL SEAL

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

SST 09308-10010

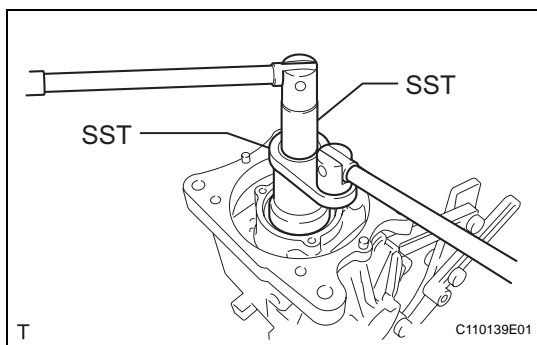
**18. REMOVE DRIVE PINION NUT**

- (a) Using SST and a hammer, unstake the rear drive pinion nut.

SST 09930-00010

NOTICE:

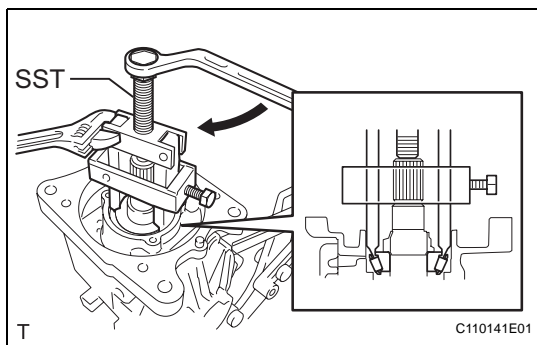
- Use SST with the tapered part against the shaft side.
- Do not modify the SST tip with a grinder or equivalent.
- Fully unstake the rear drive pinion nut



- (b) Using SST, fix the differential drive pinion in place and remove the rear drive pinion nut from the differential drive pinion.

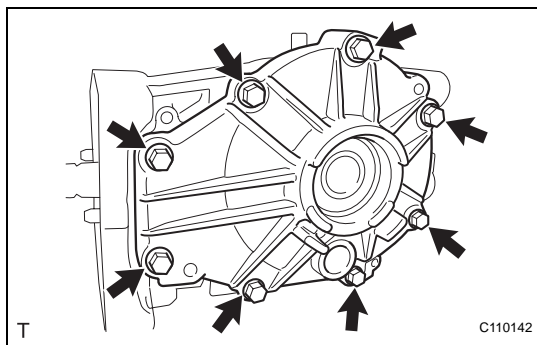
SST 09556-16011, 09564-16020

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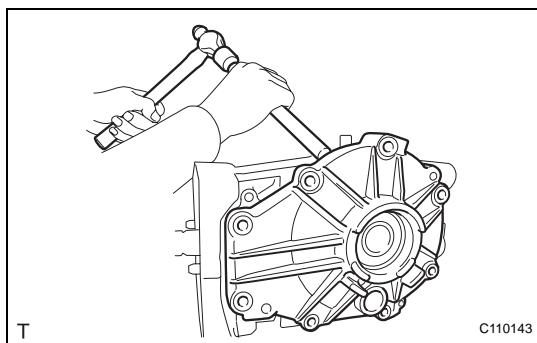
**19. REMOVE REAR DRIVE PINION FRONT TAPERED ROLLER BEARING**

- (a) Using SST, remove the rear drive pinion tapered roller bearing front (inner race) from the rear differential carrier.

SST 09556-30010

**20. REMOVE DIFFERENTIAL SIDE BEARING RETAINER**

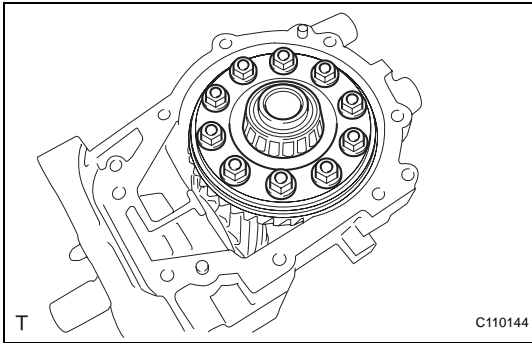
- (a) Remove the 8 bolts.



- (b) Using a brass bar and hammer, lightly tap out the differential side bearing retainer.

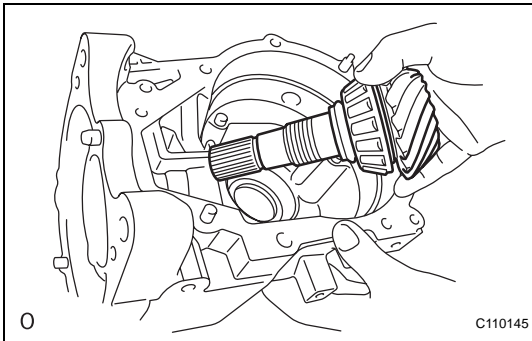
NOTICE:

Set the brass bar on the ribbed part of the differential side bearing retainer.



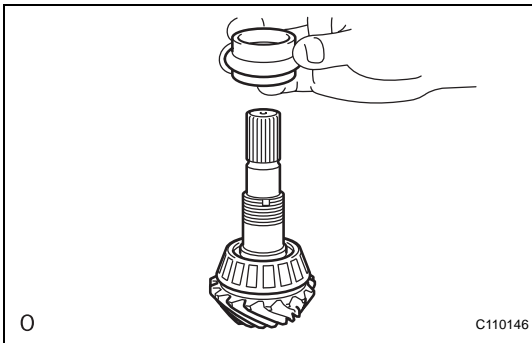
21. REMOVE DIFFERENTIAL CASE SUB-ASSEMBLY

- (a) Remove the rear differential case from the rear differential carrier.



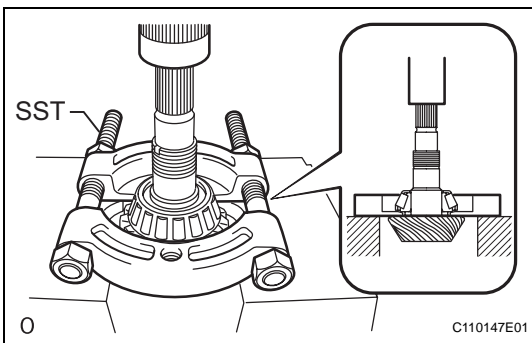
22. REMOVE DIFFERENTIAL DRIVE PINION

- (a) Remove the differential drive pinion from the rear differential carrier.



23. REMOVE DIFFERENTIAL DRIVE PINION BEARING SPACER

- (a) Remove the rear differential drive pinion bearing spacer from the differential drive pinion.



24. REMOVE REAR DRIVE PINION REAR TAPERED ROLLER BEARING

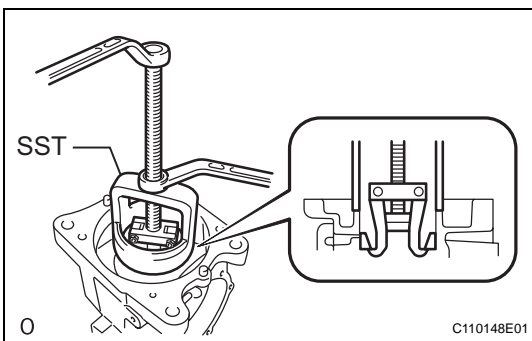
- (a) Using SST and a press, press out the rear drive pinion tapered roller bearing rear (inner race) from the differential drive pinion.

SST 09950-00020

NOTICE:

If the rear differential drive pinion or differential ring gear is damaged, replace them both.

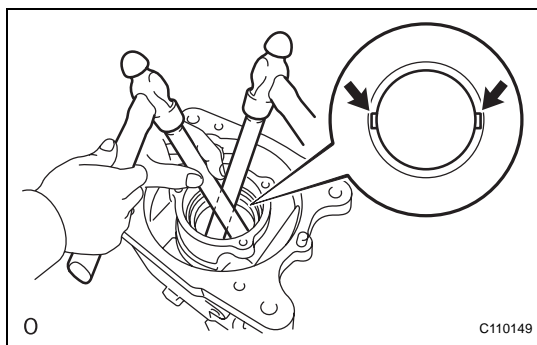
- (b) Remove the rear differential drive pinion washer.



25. REMOVE REAR DRIVE PINION FRONT TAPERED ROLLER BEARING

- (a) Using SST, remove the rear drive pinion tapered roller bearing front (outer race) from the rear differential carrier.

SST 09612-65014 (09612-01020, 09612-01050)

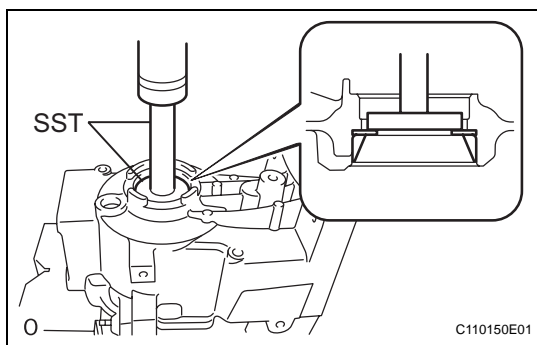


26. REMOVE REAR DRIVE PINION REAR TAPERED ROLLER BEARING

- (a) Using a brass bar and hammer, lightly and uniformly tap out the rear drive pinion tapered roller bearing rear (outer race).

NOTICE:

Set the brass bar on the notch.

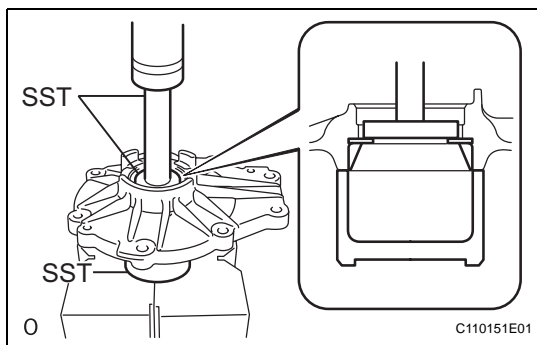


27. REMOVE DIFFERENTIAL CASE BEARING

SST 09950-60010 (09951-00460), 09950-70010 (09951-07100), 09649-17010 (09951-00510)

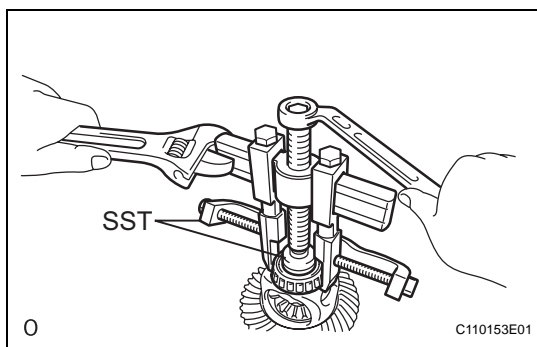
- (a) Using SST and a press, press out the rear differential case bearing RH (outer race) and rear differential side gear shaft plate washer from the rear differential carrier.

SST 09950-60010, 09950-70010 (09951-07100)



- (b) Using SST and a press, press out the rear differential case bearing LH (outer race) and rear differential side gear shaft plate washer from the differential side bearing retainer.

SST 09950-60010 (09951-00460), 09950-70010 (09951-07100), 09649-17010



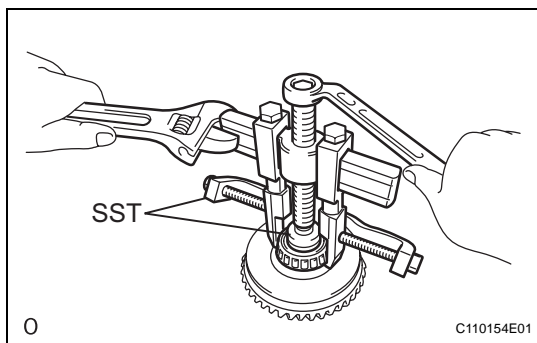
28. REMOVE DIFFERENTIAL CASE BEARING

- (a) Using SST, remove the rear differential case bearing RH (inner race) from the rear differential case.

SST 09950-40011 (09951-04010, 09952-04010, 09953-04020, 09954-04010, 09955-04061, 09957-04010, 09958-04011), 09950-60010 (09951-00320, 09955-04071)

NOTICE:

Before using SST center bolt (09953-04020), apply hypoid gear oil to its threads and tip.



- (b) Using SST, remove the rear differential case bearing LH (inner race) from the rear differential case.

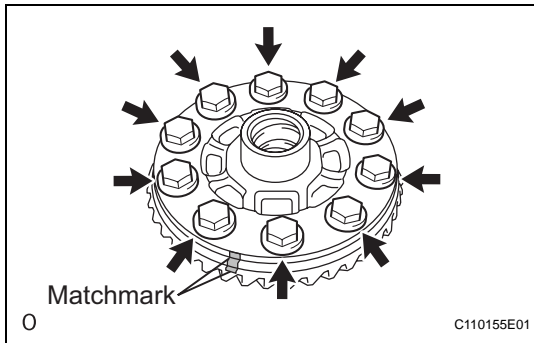
SST 09950-40011 (09951-04010, 09952-04010, 09953-04020, 09954-04010, 09955-04071, 09957-04010, 09958-04011), 09950-60010 (09951-00320)

NOTICE:

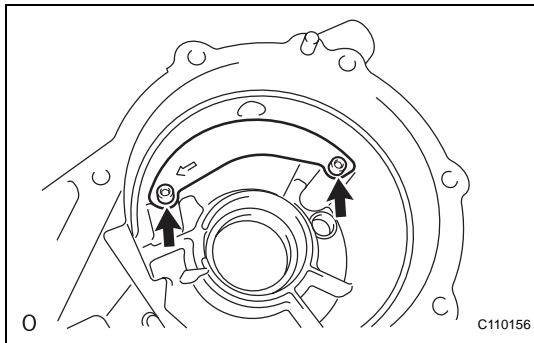
Before using SST center bolt (09953-04020), apply hypoid gear oil to its threads and tip.

HINT:

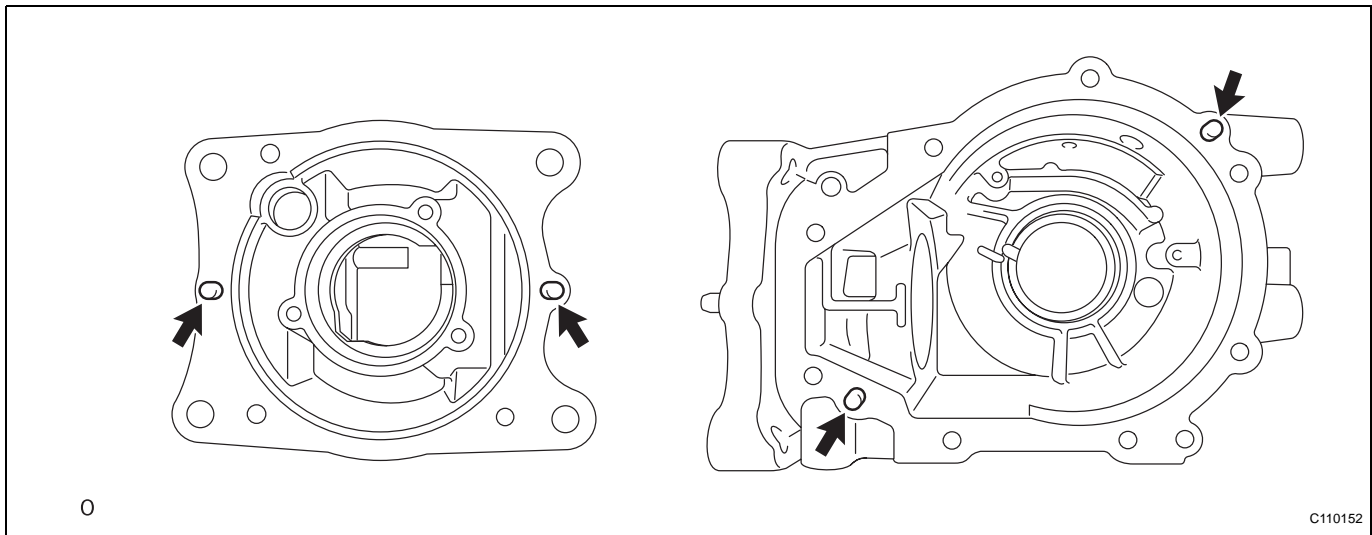
If the race remains on the rear differential case, repeat the step above to remove the race.

**29. REMOVE DIFFERENTIAL RING GEAR**

- (a) Place matchmarks on the rear differential case and differential ring gear.
- (b) Remove the 10 bolts.
- (c) Using a plastic-faced hammer, lightly tap the outer circumference of the differential ring gear to remove it from the rear differential case.

DF**30. REMOVE DIFFERENTIAL BREATHER PLUG OIL DEFLECTOR**

- (a) Using a 5 mm socket hexagon wrench, remove the 2 bolts and rear differential breather plug oil deflector.

31. REMOVE STRAIGHT PIN

- (a) Using pliers, remove the 4 straight pins from the rear differential carrier.

32. REMOVE ELBOW TUBE**33. REMOVE WIRING HARNESS CLAMP BRACKET**

- (a) Remove the bolt and bracket.