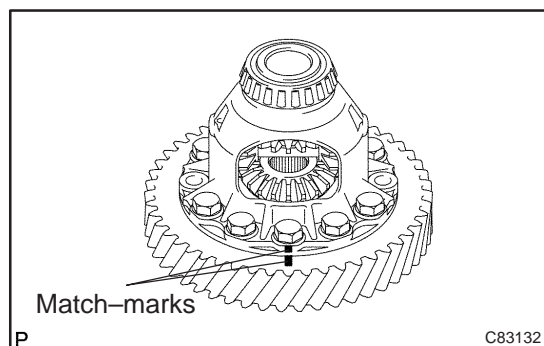


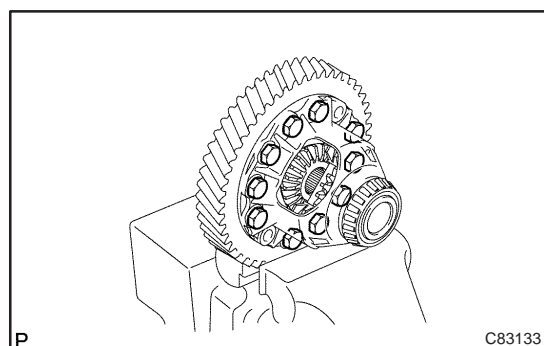
FRONT DIFFERENTIAL ASSY (U241E)

OVERHAUL

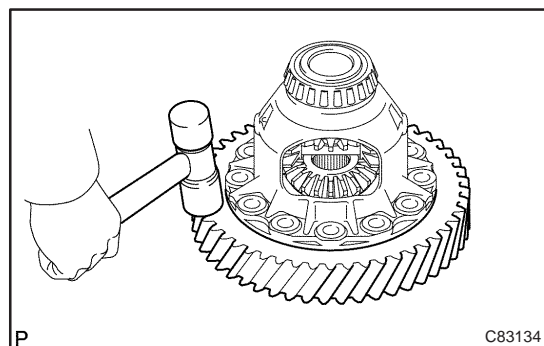


1. REMOVE FRONT DIFFERENTIAL RING GEAR

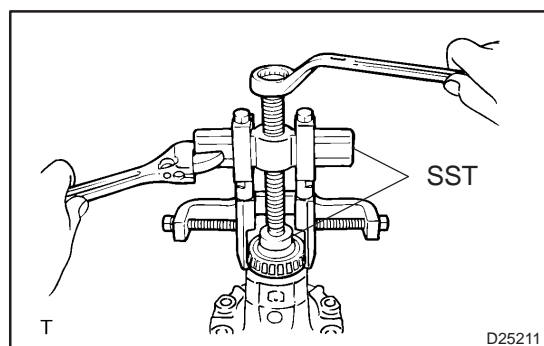
- (a) Place the match-marks on the ring gear and differential case.



- (b) Remove the 10 bolts.



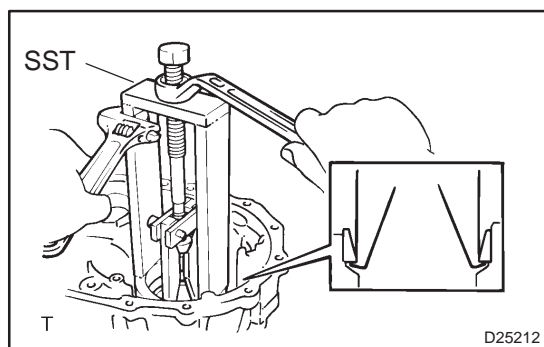
- (c) Using a plastic hammer, tap on the ring gear to remove it from the case.



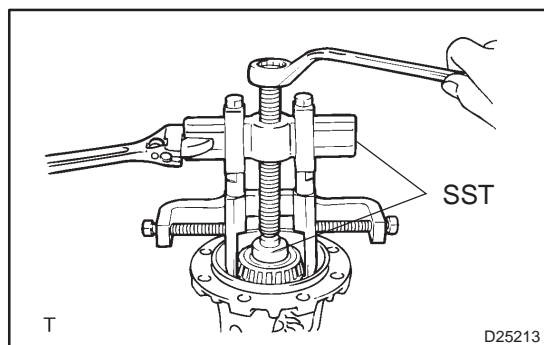
2. REMOVE FR DIFFERENTIAL CASE FRONT TAPERED ROLLER BEARING

- (a) Using SST, remove the front differential case tapered roller bearing front inner race from the differential case.

SST 09950-40011 (09951-04020, 09952-04010, 09953-04020, 09954-04010, 09955-04061, 09957-04010, 09958-04011), 09950-60010 (09951-00340)

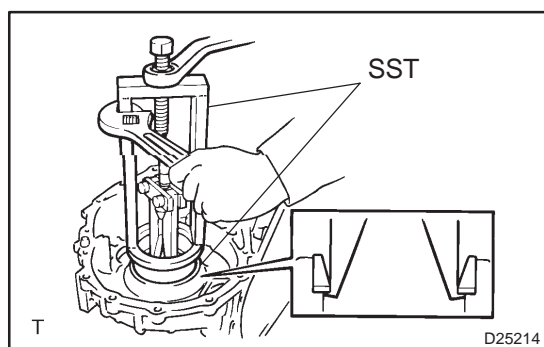


- (b) Using SST, remove the front differential case tapered roller bearing front outer race and differential case washer.
SST 09387-00040 (09387-01030, 09387-01040, 09387-02010, 09387-02020)

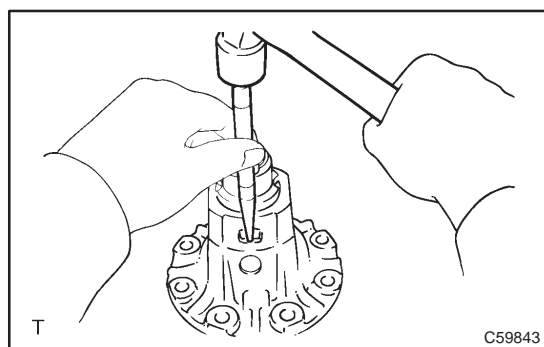


3. REMOVE FR DIFFERENTIAL CASE REAR TAPERED ROLLER BEARING

- (a) Using SST, remove the front differential case tapered roller bearing rear inner race from the differential case.
SST 09950-40011 (09951-04020, 09952-04010, 09953-04020, 09954-04010, 09955-04061, 09957-04010, 09958-04011), 09950-60010 (09951-00340)

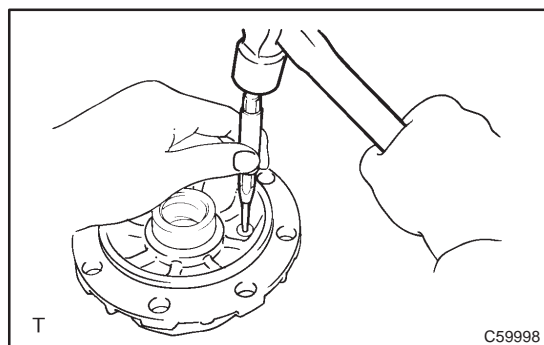


- (b) Using SST, front differential case tapered roller bearing rear outer race and differential case washer.
SST 09387-00040 (09387-01030, 09387-01040, 09387-02010, 09387-02020)

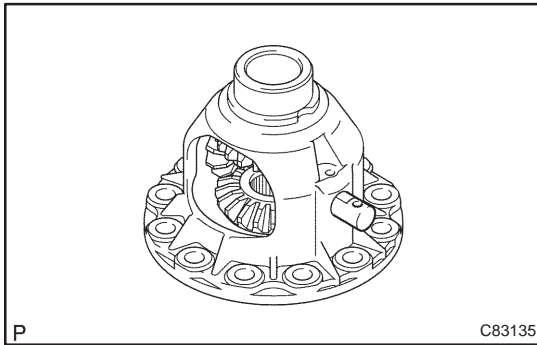


4. REMOVE FRONT DIFFERENTIAL PINION SHAFT STRAIGHT PIN

- (a) Using a punch and a hammer, loosen the staked part of the differential case.

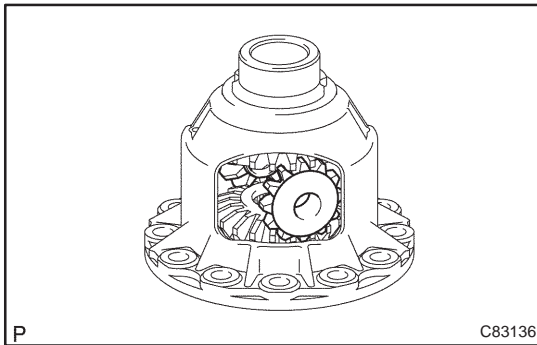


- (b) Using a pin punch (5 mm), drive out the pin from ring gear side.



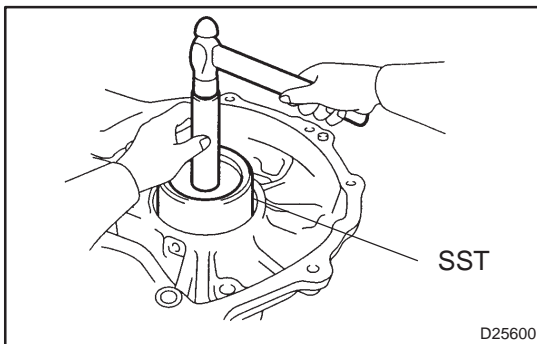
5. REMOVE FRONT DIFFERENTIAL PINION SHAFT NO.1

- (a) Remove the front differential pinion shaft No. 1 from the differential case.



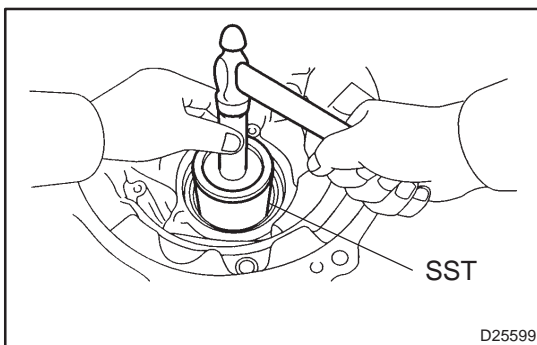
6. REMOVE FRONT DIFFERENTIAL SIDE GEAR

- (a) Remove the 2 front differential pinions, 2 pinion thrust washers, 2 front differential side gears and 2 side gear thrust washers from the differential case.



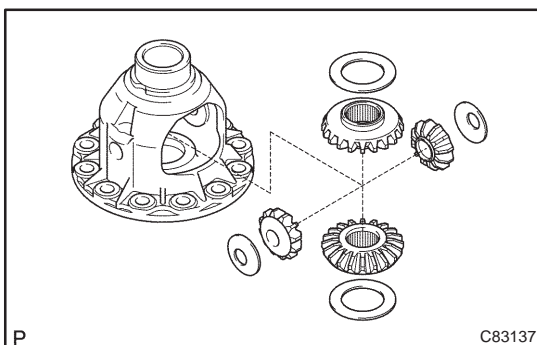
7. REMOVE DIFFERENTIAL SIDE BEARING RETAINER OIL SEAL

- (a) Place the transaxle case in vise.
- (b) Using SST, remove the oil seal.
SST 09308-00010



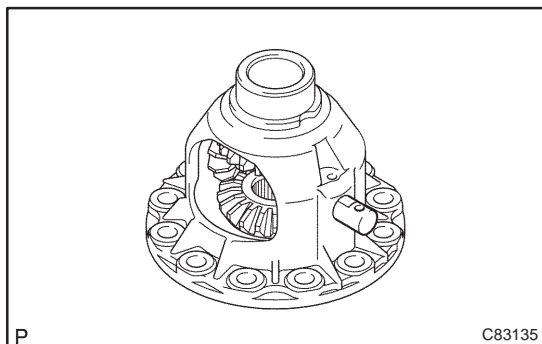
8. REMOVE TRANSAXLE HOUSING OIL SEAL

- (a) Place the transaxle housing in vise.
- (b) Using SST, remove the oil seal.
SST 09308-00010



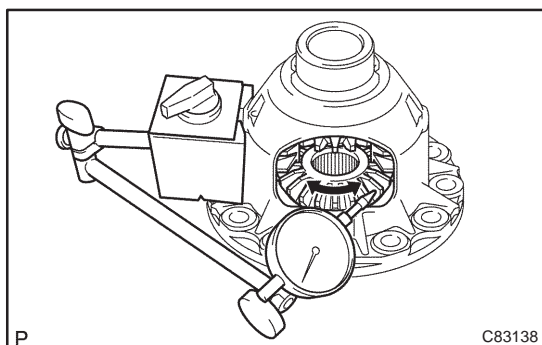
9. INSTALL FRONT DIFFERENTIAL SIDE GEAR

- (a) Coat the 2 front differential side gears, 2 side gear thrust washers, 2 front differential pinions and 2 pinion thrust washers with ATF and install them to the differential case.



10. INSTALL FRONT DIFFERENTIAL PINION SHAFT NO.1

- (a) Coat the front differential pinion shaft No. 1 with ATF and install it to the differential case.



11. INSPECT FRONT DIFFERENTIAL SIDE GEAR BACKLASH

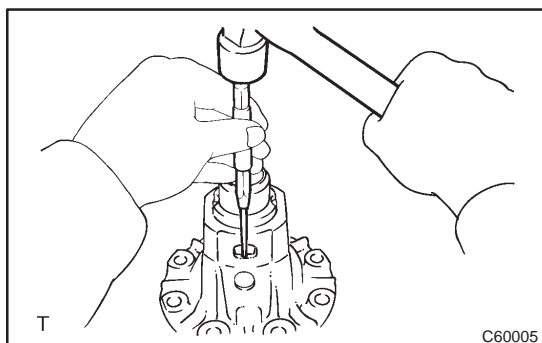
- (a) Using a dial indicator, inspect the backlash of the side gear.

Standard backlash:

0.05 – 0.20 mm (0.0020 – 0.0079 in.)

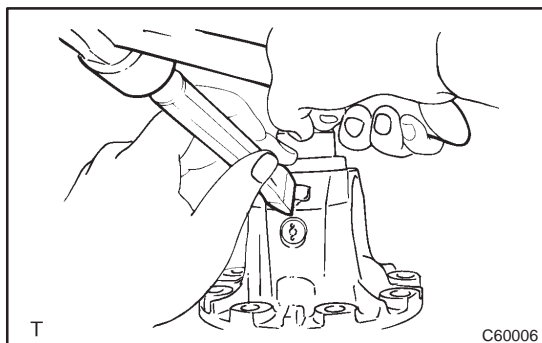
Thrust washer thickness:

Mark	Thickness
–	1.0 mm (0.0394 in.)
–	1.1 mm (0.0433 in.)
–	1.2 mm (0.0472 in.)
–	1.3 mm (0.0512 in.)

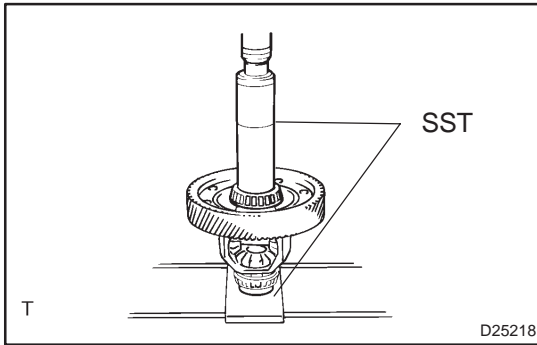


12. INSTALL FRONT DIFFERENTIAL PINION SHAFT STRAIGHT PIN

- (a) Using a pin punch and hammer, install the pinion shaft straight pin.



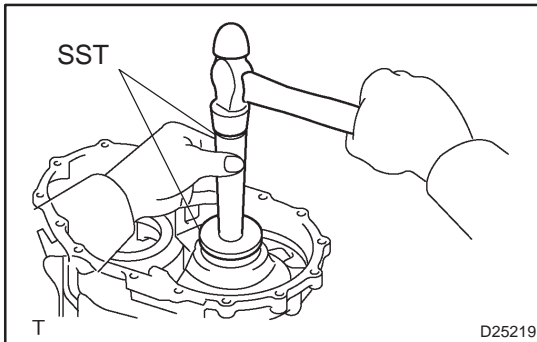
- (b) Using a chisel and hammer, stake the differential case.



13. INSTALL FR DIFFERENTIAL CASE REAR TAPERED ROLLER BEARING

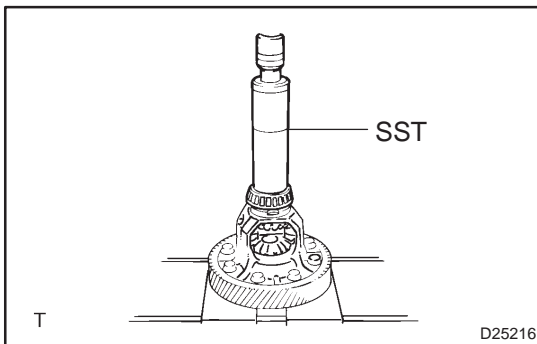
- (a) Using SST and a press, install the front differential case tapered roller bearing rear inner race to the differential case.

SST 09608-06041



- (b) Using SST and a hammer, install the case washer and front differential case tapered roller bearing rear outer race to the transaxle case.

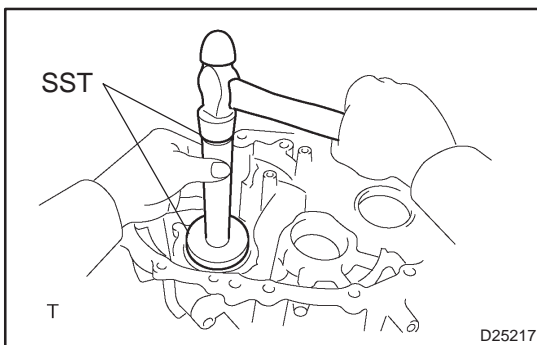
SST 09950-60020 (09951-00710), 09950-70010 (09951-07100)



14. INSTALL FR DIFFERENTIAL CASE FRONT TAPERED ROLLER BEARING

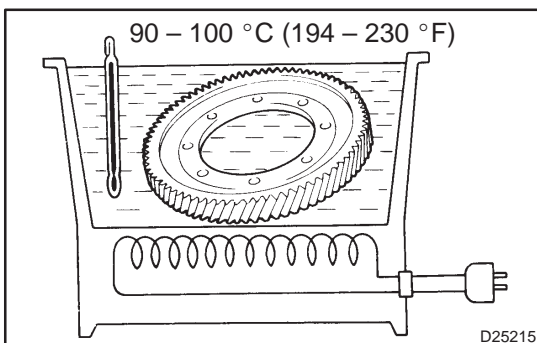
- (a) Using SST and a press, install the front differential case tapered roller bearing front inner race to the differential case.

SST 09608-06041



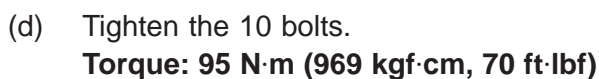
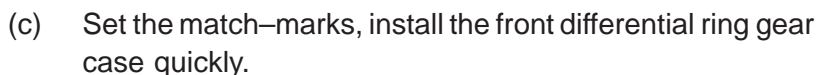
- (b) Using SST and a hammer, install the front differential case tapered roller bearing front outer race to the transaxle housing.

SST 09950-60020 (09951-00680), 09950-70010 (09951-07100), 09950-60010 (09951-00340)

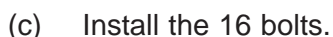


15. INSTALL FRONT DIFFERENTIAL RING GEAR

- (a) Using ATF and hear, heat the front differential ring gear to 90 – 110 °C (194.0 – 230.0 °F).
- (b) Clean the contact surface of the front differential case.



- (a) Install the differential assy to the transaxle case.
- (b) Install the transaxle housing to the transaxle case.

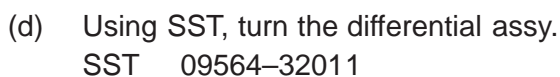


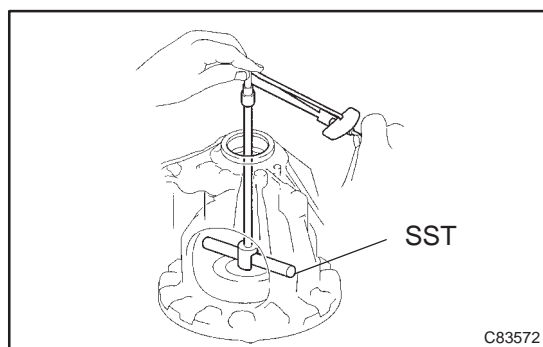
Torque:

Bolt A, B: 29.4 N·m (300 kgf·cm, 21.7 ft·lbf)

Bolt C: 22.1 N·m (225 kgf·cm, 16.3 ft·lbf)

Bolt	Bolt length (mm)
A, B	42
C	50





- (e) Using SST and torque wrench, measure the preload of the differential assy.

SST 09564-32011

Preload

New bearing:

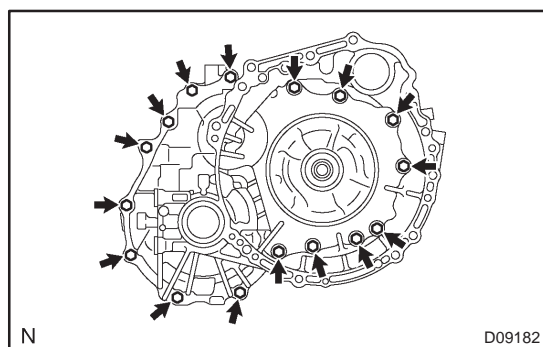
0.20 – 0.69 N·m (2.0 – 7.0 kgf·cm, 1.8 – 6.1 in.·lbf)

Used bearing:

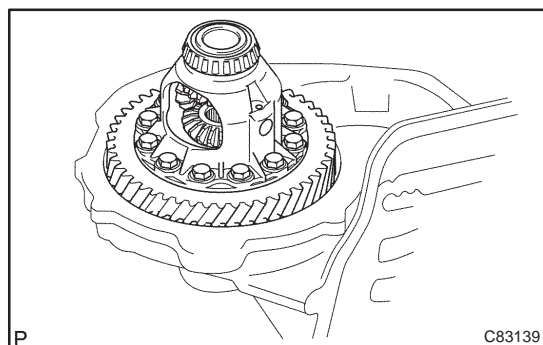
0.10 – 0.35 N·m (1.0 – 3.6 kgf·cm, 0.9 – 3.1 in.·lbf)

Adjusting shim thickness: mm (in.)

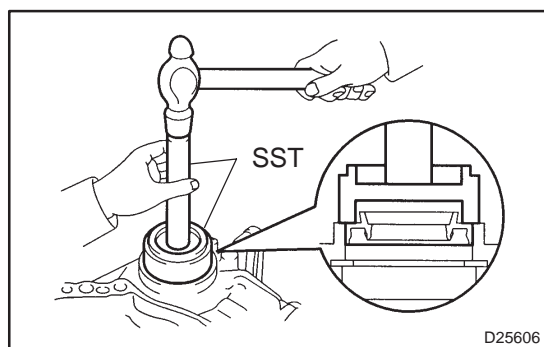
Mark	Thickness
0	1.90 (0.074)
1	1.95 (0.077)
2	2.00 (0.079)
3	2.05 (0.081)
4	2.10 (0.083)
5	2.15 (0.085)
6	2.20 (0.087)
7	2.25 (0.089)
8	2.30 (0.091)
9	2.35 (0.093)
A	2.40 (0.094)
B	2.45 (0.096)
C	2.50 (0.098)
D	2.55 (0.100)
E	2.60 (0.102)
F	2.65 (0.104)
G	2.70 (0.106)
H	2.75 (0.108)
J	2.80 (0.110)



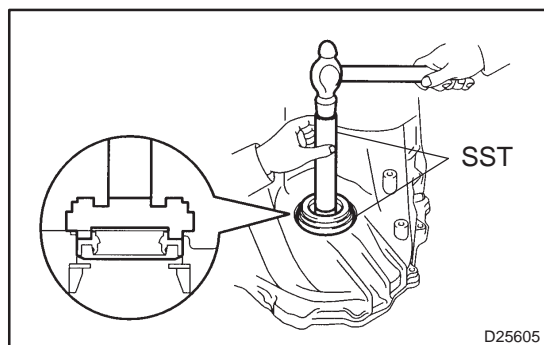
- (f) Remove the 16 bolts.
(g) Using a practice hammer, remove the transaxle housing.



- (h) Remove the differential assy.

**17. INSTALL TRANSAXLE HOUSING OIL SEAL**

- (a) Using SST, drive into a new oil seal.
SST 09350-32014 (09351-32150), 09950-70010 (09951-07150)
- (b) Coat the rip of oil seal with a little MP grease.

**18. INSTALL DIFFERENTIAL SIDE BEARING RETAINER OIL SEAL**

- (a) Using SST, drive into a new oil seal.
SST 09350-32014 (09351-32150), 09950-70010 (09951-07150)
- (b) Coat the rip of the oil seal with a little MP grease.