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Model Year Start: 2016	Model: LX570	Prod Date Range: [09/2015 -]
Title: AXLE AND DIFFERENTIAL: REAR DIFFERENTIAL CARRIER ASSEMBLY: DISASSEMBLY; 2016 - 2018 MY LX570 [09/2015 -]		

DISASSEMBLY

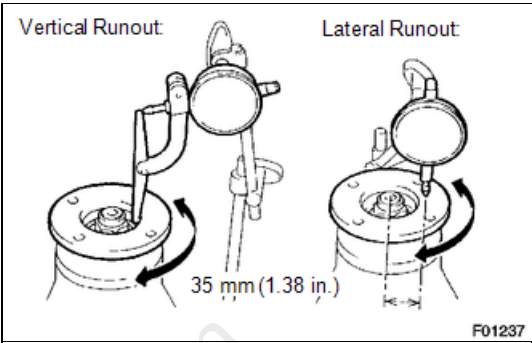
PROCEDURE

1. INSPECT RUNOUT OF REAR DRIVE PINION COMPANION FLANGE

- (a) Using a dial indicator, measure the runout of the companion flange vertically and laterally.
- Maximum Runout:

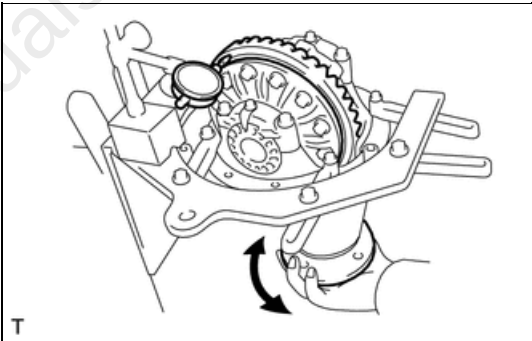
RUNOUT	SPECIFIED CONDITION
Vertical runout	0.10 mm (0.00394 in.)
Lateral runout	0.10 mm (0.00394 in.)

If the runout is more than the maximum, replace the companion flange.



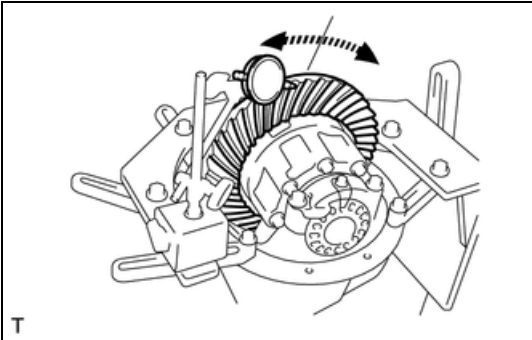
2. INSPECT RUNOUT OF DIFFERENTIAL RING GEAR

- (a) Using a dial indicator, measure the ring gear runout.
- Maximum runout:
0.05 mm (0.00197 in.)
- If the runout is more than the maximum, replace the ring gear.



3. INSPECT DIFFERENTIAL RING GEAR BACKLASH

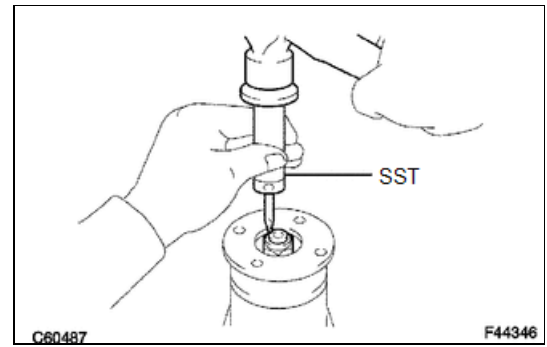
- (a) Using a dial indicator, measure the ring gear backlash.
- Standard backlash:
0.10 to 0.20 mm (0.00394 to 0.00787 in.)
- HINT:**
Measure at 3 or more positions around the circumference of the ring gear.
- If the backlash is not as specified, adjust the side bearing preload or repair as necessary.



4. REMOVE DRIVE PINION COMPANION FLANGE REAR NUT

(a) Using SST and a hammer, unstake the nut.

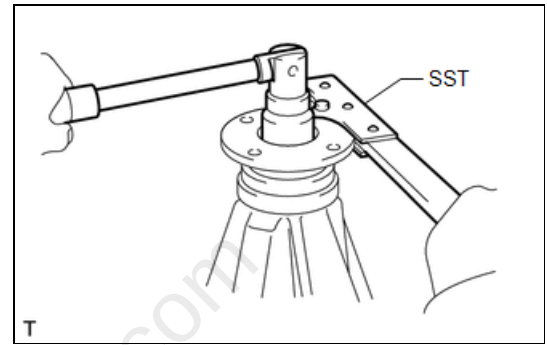
SST: 09930-00010



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

SST: 09330-00021

09330-00030



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

(a) Using SST, remove the companion flange.

SST: 09950-30012

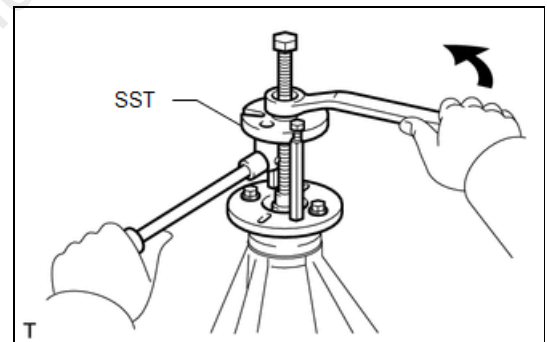
09951-03010

09953-03010

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09955-03030

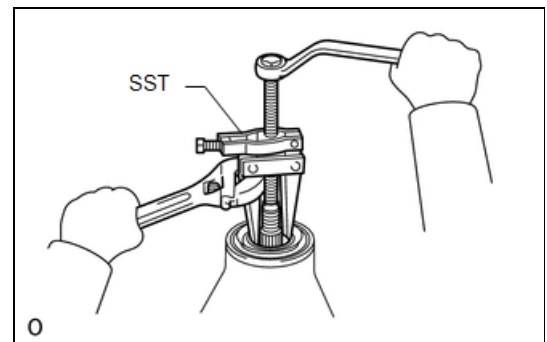
09956-03040



6. REMOVE REAR DIFFERENTIAL CARRIER OIL SEAL

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

SST: 09308-10010



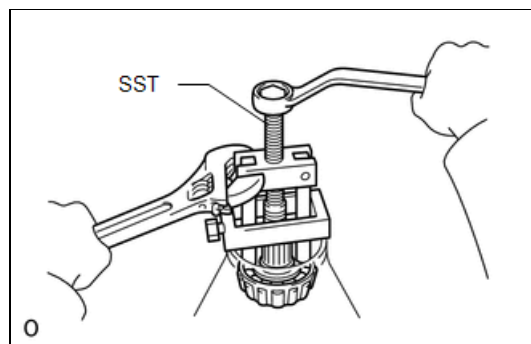
7. REMOVE REAR DIFFERENTIAL DRIVE PINION OIL SLINGER

8. REMOVE REAR DRIVE PINION FRONT TAPERED ROLLER BEARING

(a) Using SST, remove the front bearing (inner race) from the drive pinion.

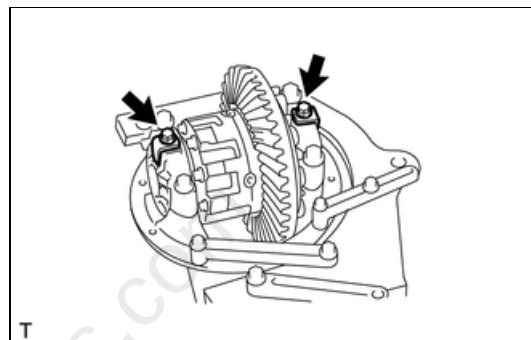
SST: 09556-22010

If the front bearing is damaged or worn, replace the bearing.



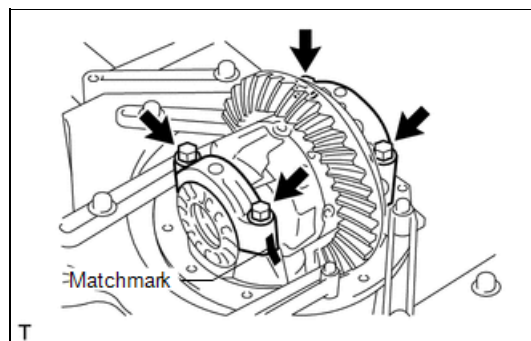
9. REMOVE REAR DIFFERENTIAL BEARING ADJUSTING NUT LOCK

(a) Remove the 2 bolts and 2 adjusting nut locks.



10. REMOVE DIFFERENTIAL CASE ASSEMBLY

(a) Place matchmarks on the bearing caps and differential carrier.

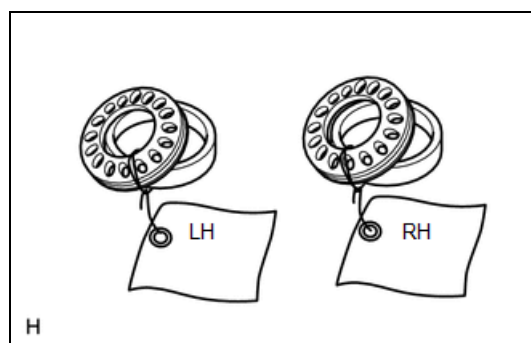


(b) Remove the 4 bolts, 2 bearing caps and 2 adjusting nuts.

(c) Remove the differential case from the differential carrier.

HINT:

Tag the 2 case bearing outer races to show the location for reassembly.



11. REMOVE DIFFERENTIAL DRIVE PINION

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

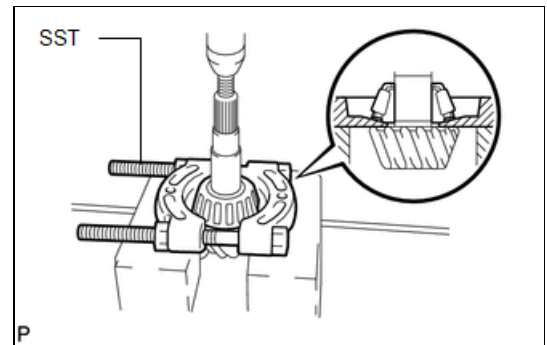
12. REMOVE REAR DIFFERENTIAL DRIVE PINION BEARING SPACER

13. REMOVE REAR DRIVE PINION REAR TAPERED ROLLER BEARING

(a) Using SST and a press, press out the bearing (inner race).

SST: 09950-00020

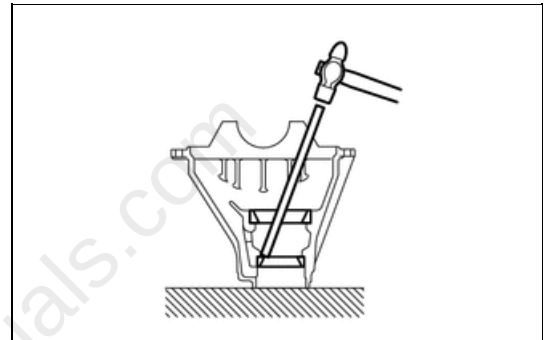
If either the drive pinion or ring gear is damaged, replace them as a set.



14. REMOVE REAR DIFFERENTIAL DRIVE PINION PLATE WASHER

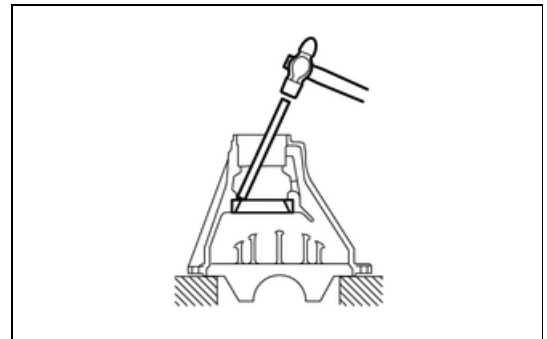
15. REMOVE REAR DRIVE PINION FRONT TAPERED ROLLER BEARING

(a) Using a brass bar and hammer, tap out the bearing (outer race).



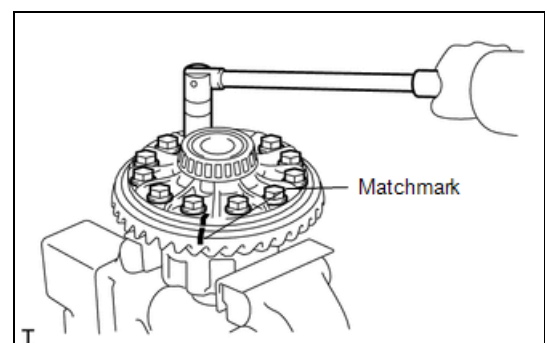
16. REMOVE REAR DRIVE PINION REAR TAPERED ROLLER BEARING

(a) Using a brass bar and hammer, tap out the bearing (outer race).



17. REMOVE DIFFERENTIAL RING GEAR

(a) Place matchmarks on the ring gear and differential case.



(b) Remove the 12 ring gear set bolts.

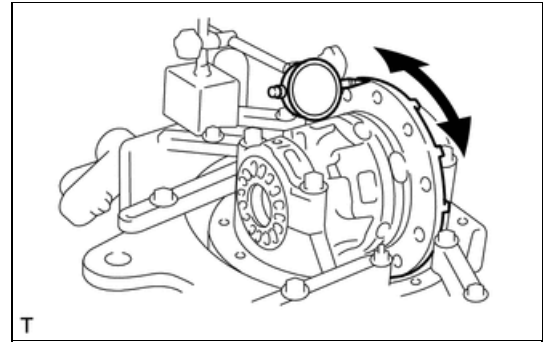
(c) Using a plastic-faced hammer, tap on the ring gear to disconnect it from the differential case.

18. INSPECT RUNOUT OF DIFFERENTIAL CASE

HINT:

If the ring gear runout is at the maximum or less (see "Inspect Runout of Differential Ring Gear" procedure), this inspection is not necessary.

- (a) Using a dial indicator, measure the differential case to the differential carrier.



- (b) Using a dial indicator, measure the differential case runout.

Maximum runout:

0.04 mm (0.00157 in.)

If the runout is more than the maximum, replace the differential case and side bearing as a set.

- (c) Remove the differential case from the differential carrier.

19. REMOVE REAR DIFFERENTIAL CASE BEARING

- (a) Using SST, remove the 2 side bearings (inner race) from the differential case.

SST: 09950-00020

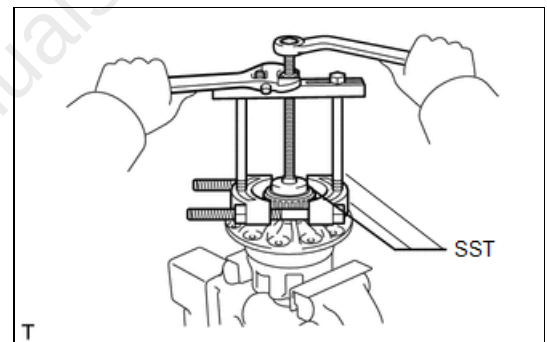
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09957-04010

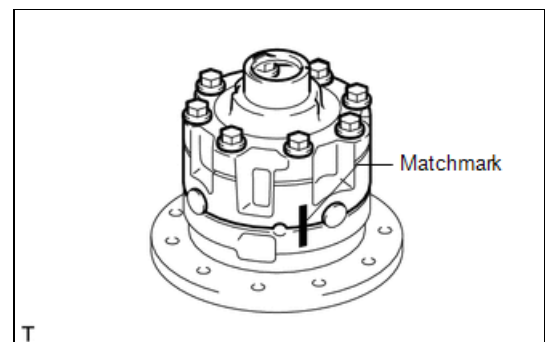
SST: 09950-60010

09951-00480



20. DISASSEMBLE DIFFERENTIAL CASE

- (a) Place matchmarks on the differential case LH and RH.



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