

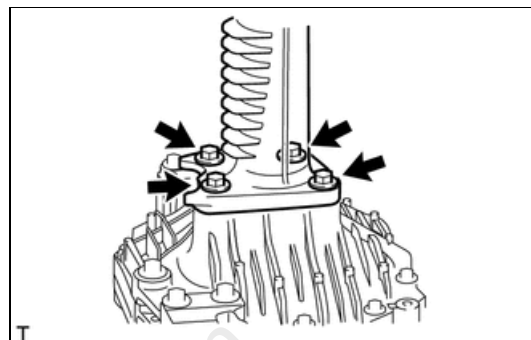
Last Modified: 12-21-2017	6.8:8.0.48	Doc ID: RM100000000T32G
Model Year Start: 2016	Model: LX570	Prod Date Range: [09/2015 -]
Title: AXLE AND DIFFERENTIAL: FRONT DIFFERENTIAL CARRIER ASSEMBLY: DISASSEMBLY; 2016 - 2018 MY LX570 [09/2015 -]		

DISASSEMBLY

PROCEDURE

1. REMOVE DIFFERENTIAL EXTENSION FLANGE TUBE

- (a) Remove the 4 bolts.

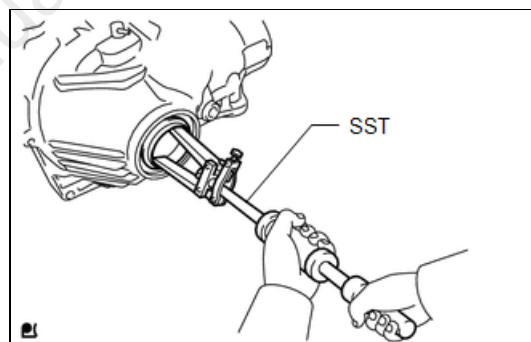


- (b) Using a plastic-faced hammer, remove the differential tube.

2. REMOVE DIFFERENTIAL SIDE GEAR SHAFT OIL SEAL

- (a) Using SST, tap out the oil seal.

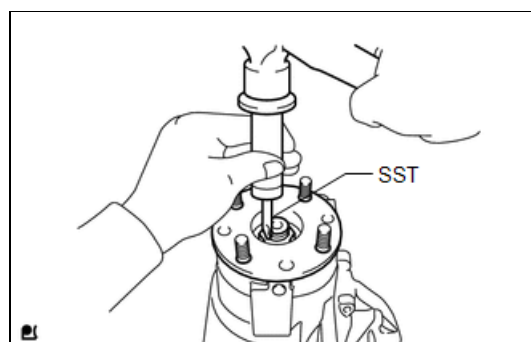
SST: 09308-00010



3. REMOVE FRONT DRIVE PINION COMPANION FLANGE FRONT NUT

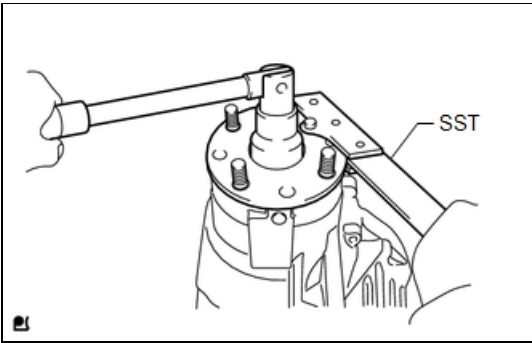
- (a) Using SST and a hammer, unstake the nut.

SST: 09930-00010



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

SST: 09330-00021
09330-00030

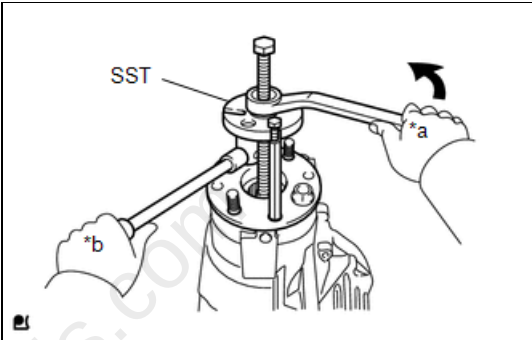


4. REMOVE FRONT DRIVE PINION COMPANION FLANGE SUB-ASSEMBLY

(a) Using SST, remove the companion flange from the differential carrier.

SST: 09950-30012
09951-03010
09953-03010
09954-03010
09955-03030
09956-03020

Text in Illustration

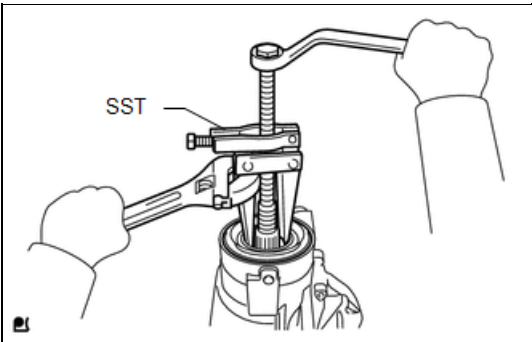


*a	Turn
*b	Hold

5. REMOVE FRONT DIFFERENTIAL CARRIER OIL SEAL

(a) Using SST, remove the oil seal.

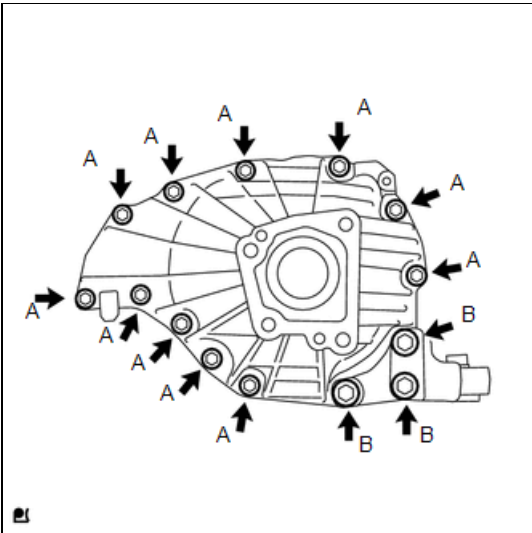
SST: 09308-10010



6. REMOVE FRONT DIFFERENTIAL DRIVE PINION OIL SLINGER

7. REMOVE FRONT DIFFERENTIAL CROSS SHAFT BEARING RETAINER

(a) Remove the bolts labeled B and front differential front support assembly LH.



- (b) Remove the bolts labeled A.
- (c) Using a plastic-faced hammer, tap out the bearing retainer.

8. REMOVE FRONT NO. 1 DIFFERENTIAL CASE SUB-ASSEMBLY

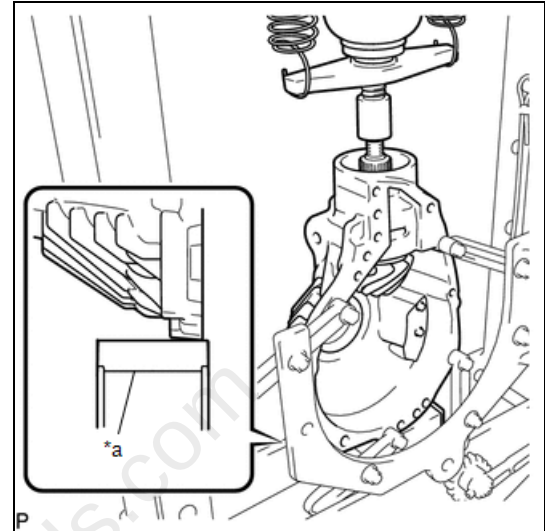
- (a) Remove the differential case from the differential carrier.

9. REMOVE DIFFERENTIAL DRIVE PINION

- (a) Set the differential carrier to an overhaul stand as shown in the illustration.

Text in Illustration

*a	Block
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- (b) Using a press, press out the drive pinion.

NOTICE:

Do not drop the drive pinion.

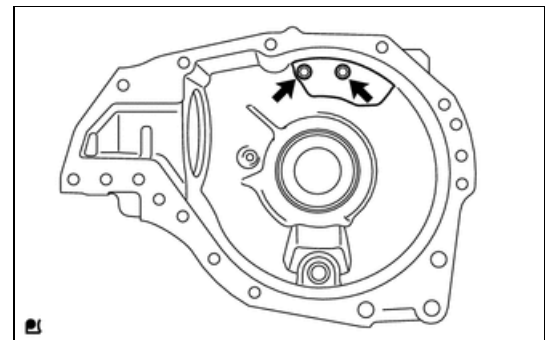
10. REMOVE FRONT DRIVE PINION FRONT RADIAL BALL BEARING

- (a) Remove the bearing (inner race) from the differential carrier.

11. REMOVE FRONT DIFFERENTIAL DRIVE PINION BEARING SPACER

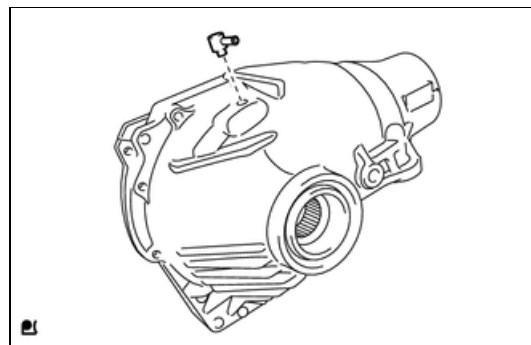
12. REMOVE FRONT DIFFERENTIAL BREATHER PLUG OIL DEFLECTOR

- (a) Remove the 2 bolts and oil deflector.



13. REMOVE FRONT DIFFERENTIAL UNION

(a) Remove the front differential union from the differential carrier.

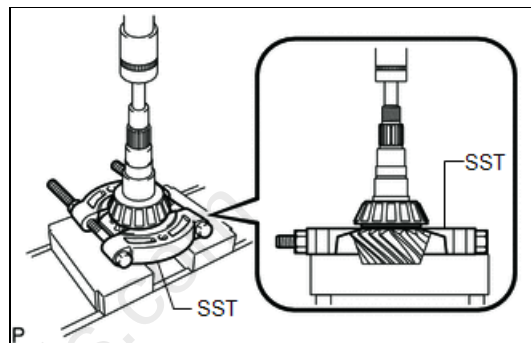


14. REMOVE FRONT DRIVE PINION REAR TAPERED ROLLER BEARING

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

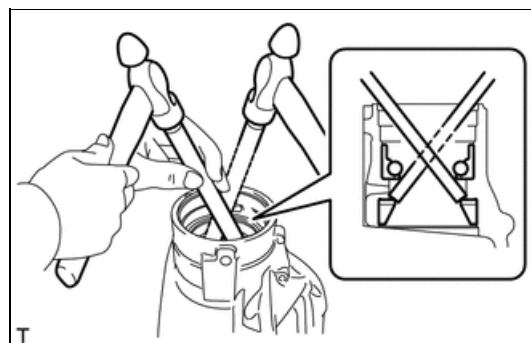
SST: 09950-00020

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



15. REMOVE FRONT DRIVE PINION REAR TAPERED ROLLER BEARING

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



16. REMOVE FRONT DRIVE PINION FRONT RADIAL BALL BEARING

(a) Using SST and a hammer, tap out the bearing (outer race) from the differential carrier.

SST: 09950-70010

09951-07100

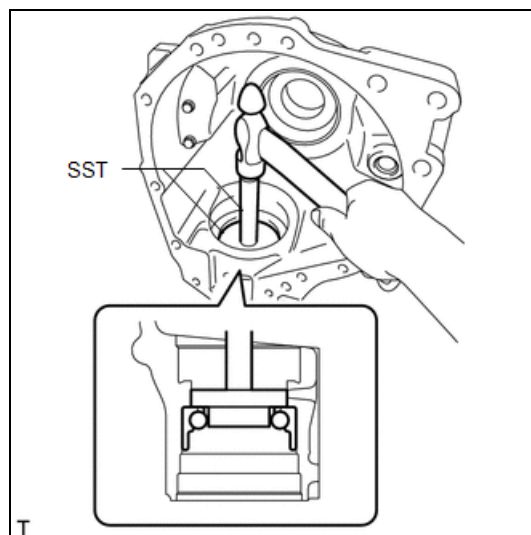
SST: 09950-60010

09951-00450

SST: 09950-60020

09951-00710

09952-06010



17. REMOVE FRONT DIFFERENTIAL CASE BEARING

HINT:

- Measure the plate washer and note its thickness.
- Tag the bearing outer races to show the location for reassembly.

(a) Using SST and a press, press out the bearing (outer race) and plate washer from the bearing retainer.

SST: 09950-60020

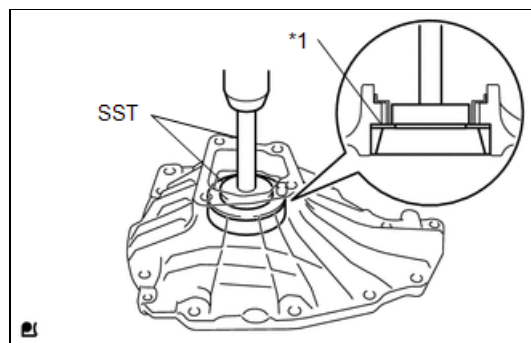
09951-00680

SST: 09950-70010

09951-07150

Text in Illustration

*1	Plate Washer
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(b) Using SST and a press, press out the bearing (outer race) and plate washer from the differential carrier.

SST: 09950-60020

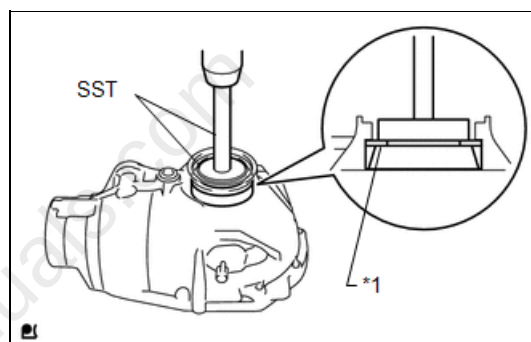
09951-00680

SST: 09950-70010

09951-07150

Text in Illustration

*1	Plate Washer
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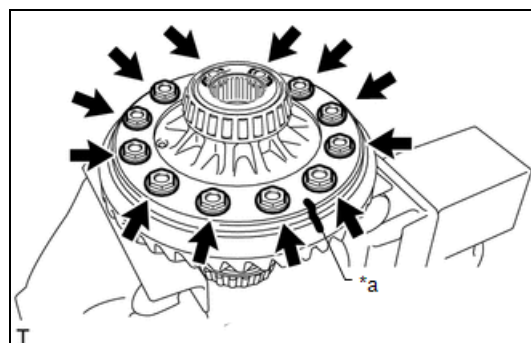


18. REMOVE DIFFERENTIAL RING GEAR

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

Text in Illustration

*a	Matchmark
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(b) Remove the 12 bolts.

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

19. REMOVE FRONT DIFFERENTIAL CASE BEARING

(a) Using SST, remove the 2 bearings (inner race).

SST: 09950-60010

09951-00390

SST: 09950-40011

09951-04020

09952-04010

09953-04030

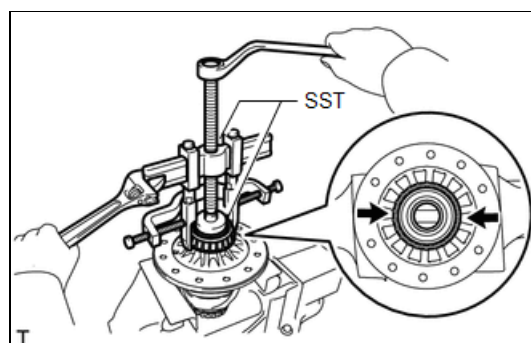
09954-04010

09955-04061

09957-04010

09958-04011

HINT:



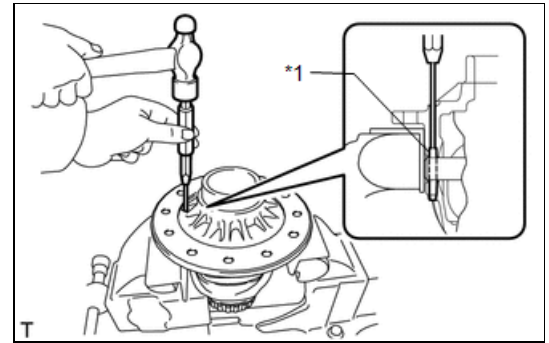
Fix the claws of SST into the notch in the differential case assembly.

20. DISASSEMBLE DIFFERENTIAL CASE

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

Text in Illustration

*1	Straight Pin
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- (b) Remove these parts from the differential case assembly.

- (1) 2 differential side gears
- (2) 2 differential side gear thrust washers
- (3) Differential pinion shaft
- (4) 2 differential pinion gears
- (5) 2 differential pinion gear thrust washers

21. INSPECT DIFFERENTIAL GEAR KIT

- (a) Check that there is no damage to the pinion gears and side gears.

If a pinion gear and/or side gear is damaged, replace the differential gear kit.

22. INSPECT FRONT NO. 1 DIFFERENTIAL CASE SUB-ASSEMBLY

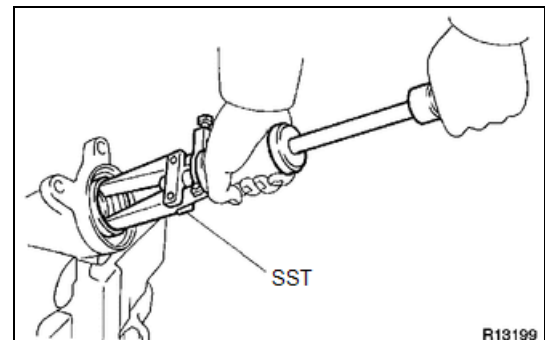
- (a) Check that the differential case is not damaged.

If the differential case is damaged, replace it.

23. REMOVE DIFFERENTIAL SIDE GEAR SHAFT OIL SEAL

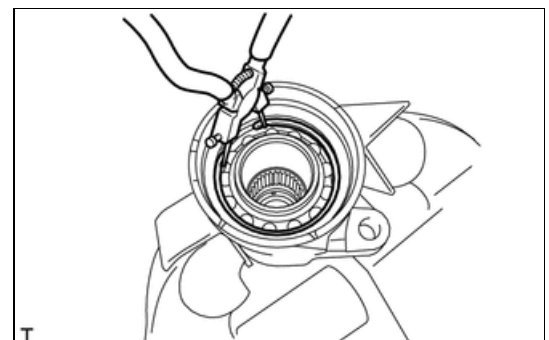
- (a) Using SST, tap out the oil seal from the flange tube.

SST: 09308-00010

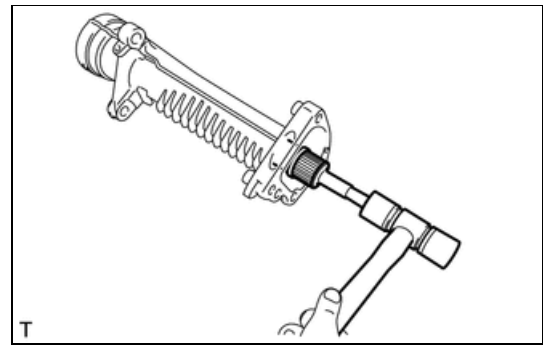


24. REMOVE DIFFERENTIAL SIDE GEAR SHAFT SUB-ASSEMBLY RH

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

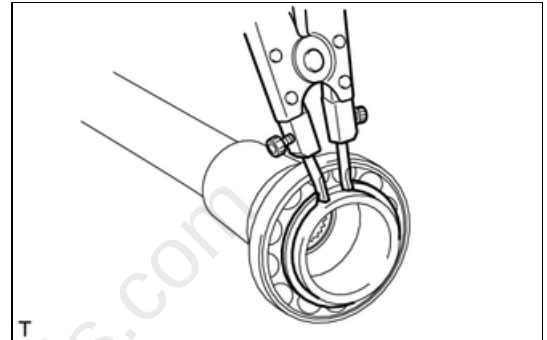


(b) Using a plastic-faced hammer, tap out the side gear shaft.



25. REMOVE FRONT DIFFERENTIAL SIDE GEAR SHAFT RH BEARING

(a) Using a snap ring expander, remove the snap ring.



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

SST: 09950-00020

SST: 09950-70010

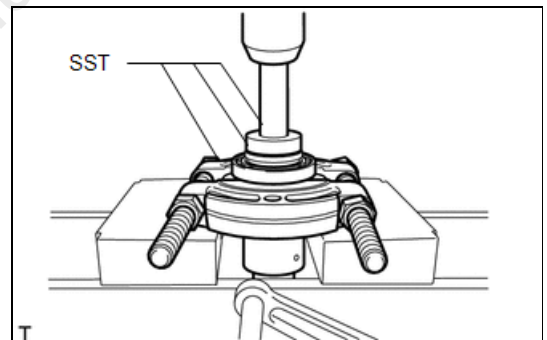
09951-07100

SST: 09950-60010

09951-00450

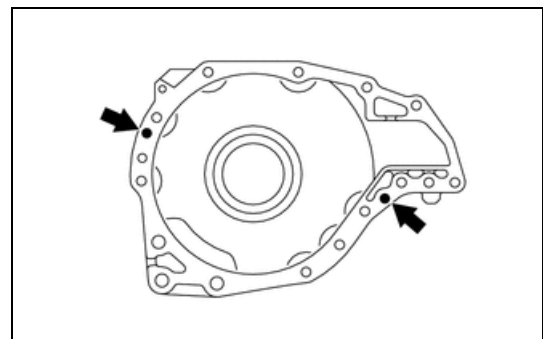
NOTICE:

Do not damage the bearing.



26. REMOVE FRONT DIFFERENTIAL CARRIER STRAIGHT PIN

(a) Remove the straight pins from the bearing retainer.



27. REMOVE FRONT DIFFERENTIAL TUBE STRAIGHT PIN

(a) Remove the straight pins from the bearing retainer.

