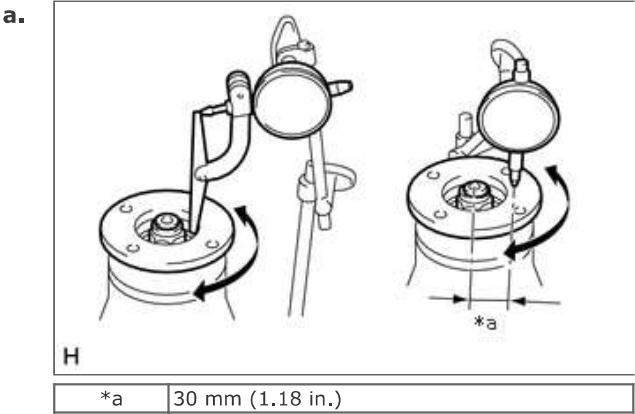


PROCEDURE

1.INSPECT RUNOUT OF FRONT DRIVE PINION COMPANION FLANGE SUB-ASSEMBLY

41204D



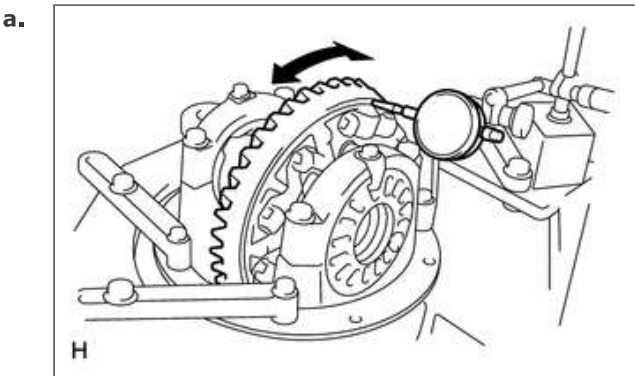
Using a dial indicator, measure the runout of the front drive pinion companion flange sub-assembly vertically and laterally.

Maximum Runout:

Item	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 front drive pinion companion flange sub-assembly.

2.INSPECT RUNOUT OF DIFFERENTIAL RING GEAR



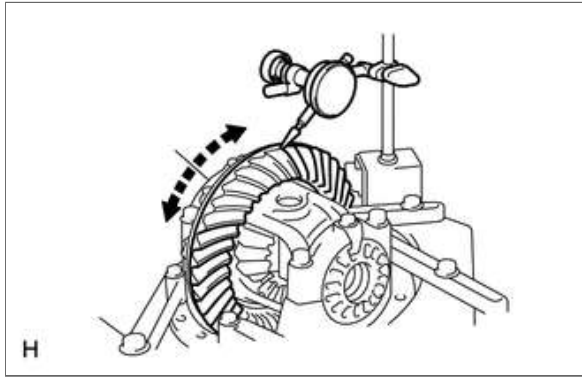
Using a dial indicator, measure the runout of the ring gear.

Maximum runout:
0.10 mm (0.00394 in.)

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

3.INSPECT DIFFERENTIAL RING GEAR BACKLASH

a.



Using a dial indicator, measure the backlash of the ring gear.

Standard backlash:

0.13 to 0.18 mm (0.00512 to 0.00708 in.)

HINT:

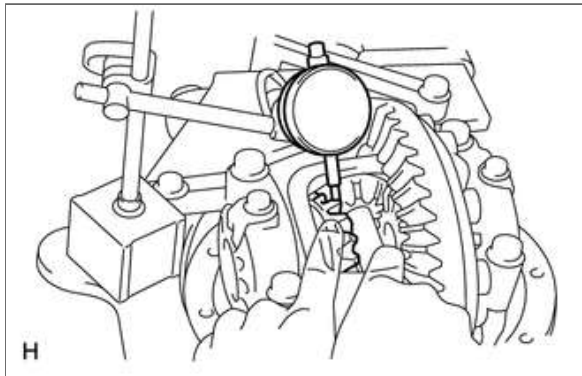
Measure at 3 or more positions around the circumference of the ring gear.

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



4.INSPECT DIFFERENTIAL SIDE GEAR BACKLASH (for 2 Pinion Gear Type)

a.



Using a dial indicator, measure the side gear backlash while holding one pinion gear toward the case.

Standard backlash:

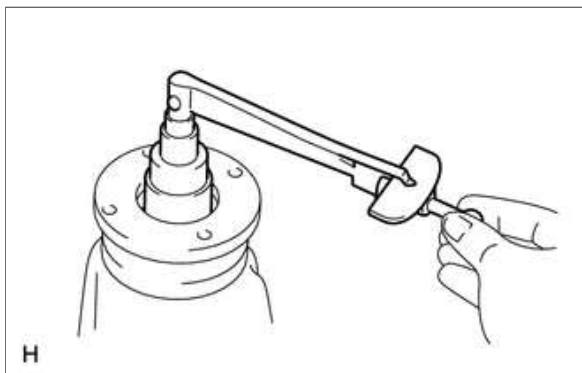
0.05 to 0.20 mm (0.00197 to 0.00787 in.)

If the backlash is not within the specification, replace the side gear thrust washer with one of a different thickness.



5.INSPECT DRIVE PINION PRELOAD

a.



Using a torque wrench, measure the preload of the backlash between the drive pinion and ring gear.

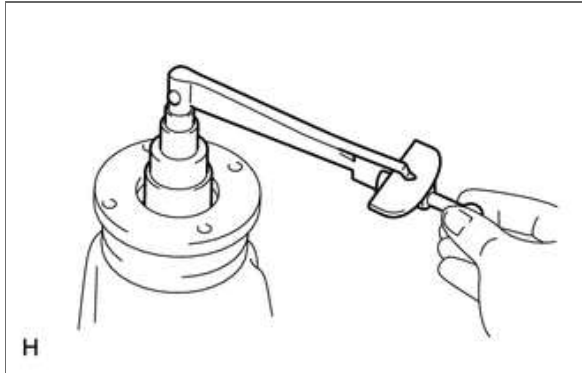
Standard drive pinion preload (at starting):

0.56 to 0.85 N*m (6 to 8 kgf*cm, 5 to 7 in.*lbf)

If necessary, disassemble and inspect the differential.

6.INSPECT TOTAL PRELOAD

a.



Using a torque wrench, measure the total preload with the teeth of the drive pinion and ring gear in contact.

Standard drive pinion preload (at starting):

0.39 to 0.59 N*m (4 to 6 kgf*cm, 4 to 5 in.*lbf) + Standard drive pinion preload

If necessary, disassemble and inspect the differential.

7.REMOVE FRONT DRIVE PINION COMPANION FLANGE NUT

41204E

Click here [Drivetrain>AXLE AND DIFFERENTIAL>FRONT DIFFERENTIAL CARRIER OIL SEAL>REPLACEMENT](#)

8.REMOVE FRONT DRIVE PINION COMPANION FLANGE SUB-ASSEMBLY WITH DUST DEFLECTOR

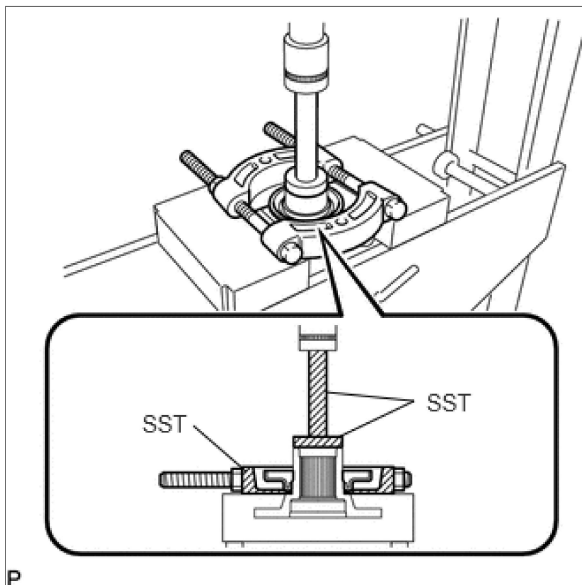
41204D

Click here [Drivetrain>AXLE AND DIFFERENTIAL>FRONT DIFFERENTIAL CARRIER OIL SEAL>REPLACEMENT](#)

9.REMOVE FRONT DIFFERENTIAL DUST DEFLECTOR

41252A

a.



Using SST and press, press out the front differential dust deflector.

SST

09950-00020

09950-60010 (09951-00440)

09950-70010 (09951-07100)

NOTICE:

Do not drop the front drive pinion companion flange sub-assembly.

10.REMOVE FRONT DIFFERENTIAL CARRIER OIL SEAL

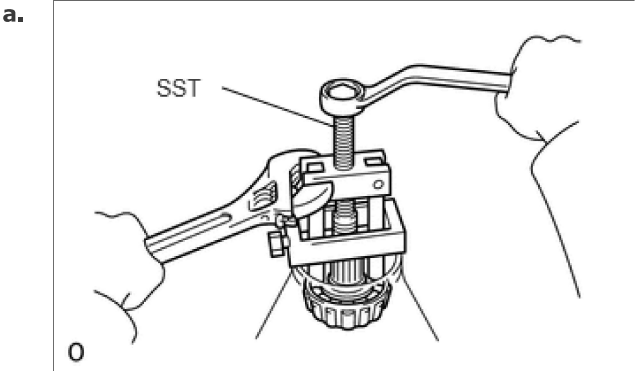
41101D

11.REMOVE FRONT DIFFERENTIAL DRIVE PINION OIL SLINGER

41214C

12.REMOVE FRONT DRIVE PINION REAR TAPERED ROLLER BEARING

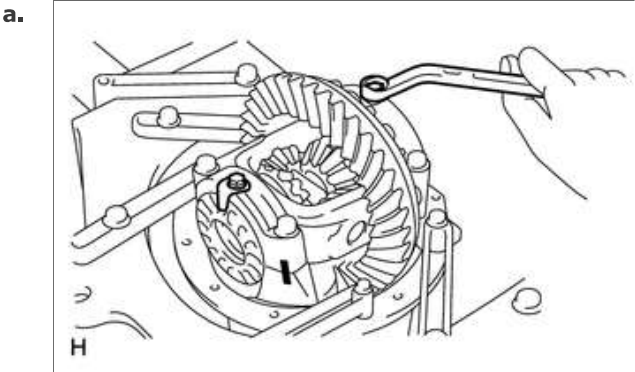
41211B



Using SST, remove the front drive pinion rear tapered roller bearing (inner race).
SST
09556-22010

13.REMOVE FRONT DIFFERENTIAL BEARING ADJUSTING NUT LOCK

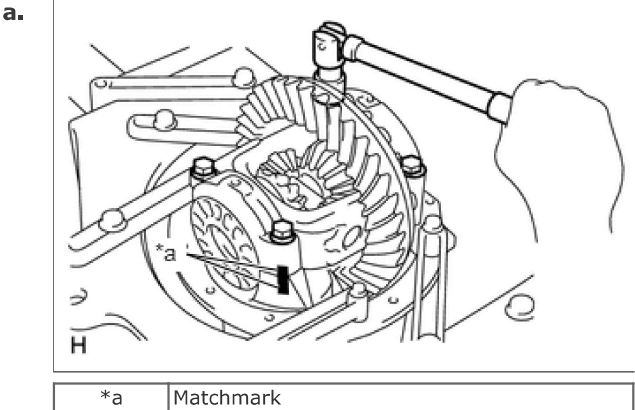
41316A



Remove the 2 bolts and 2 front differential bearing adjusting nut locks.

14.REMOVE FRONT DIFFERENTIAL CASE

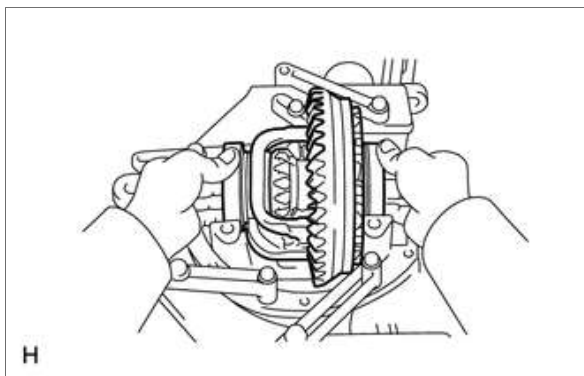
41311



Place matchmarks on the bearing caps and differential carrier.

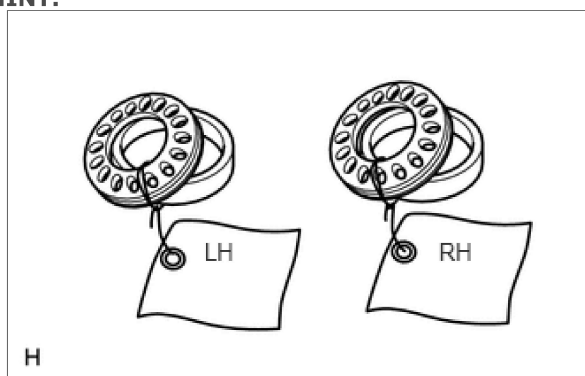
b. Remove the 4 bolts, 2 bearing caps and 2 front differential bearing adjusting nuts.

C.



Remove the front differential case and 2 front differential case bearings (outer race) from the differential carrier.

HINT:

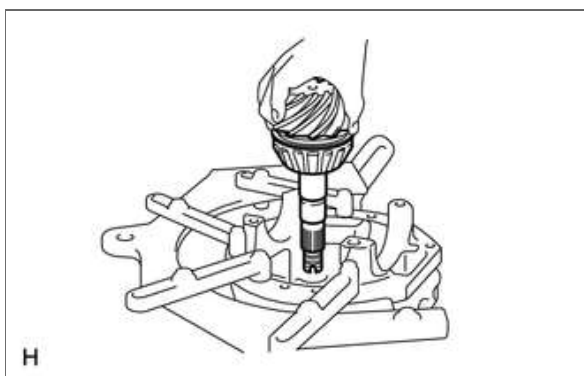


Tag the 2 front differential case bearing outer races to show the locations for reassembly.



15.REMOVE DIFFERENTIAL DRIVE PINION

a.



Remove the differential drive pinion from the differential carrier.



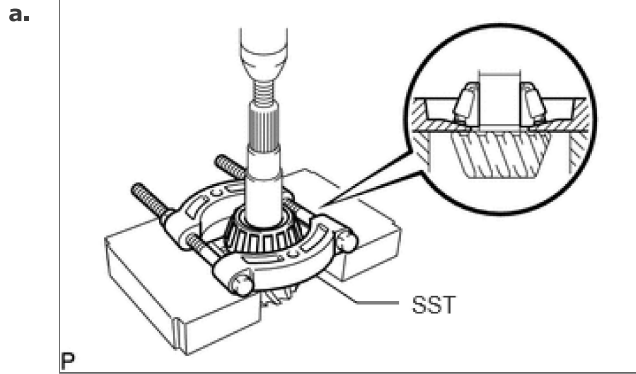
16.REMOVE FRONT DIFFERENTIAL DRIVE PINION BEARING SPACER

41231F



17.REMOVE FRONT DRIVE PINION FRONT TAPERED ROLLER BEARING

41211A



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

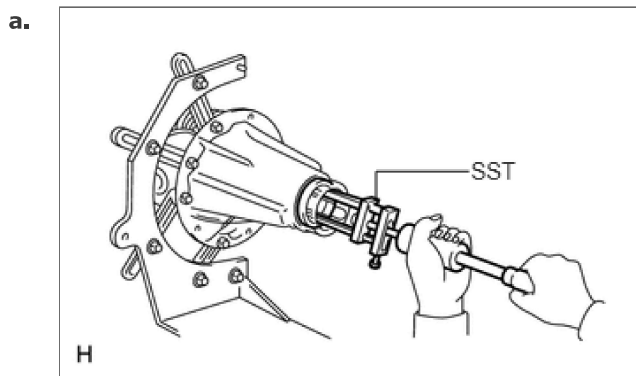
SST
09950-00020

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

18.REMOVE FRONT DIFFERENTIAL DRIVE PINION PLATE WASHER

19.REMOVE FRONT DRIVE PINION REAR TAPERED ROLLER BEARING

41211B



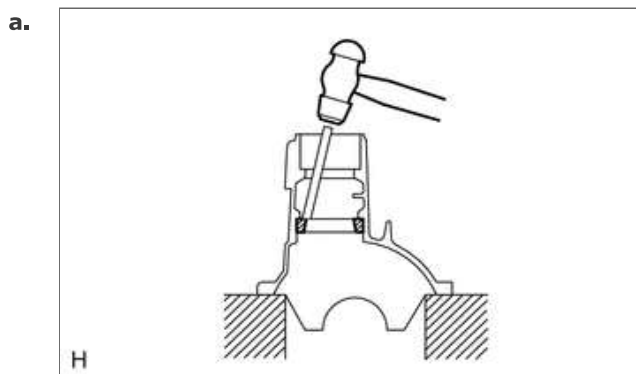
Using SST, tap out the front drive pinion rear tapered roller bearing (outer race).

SST
09308-00010

If the front drive pinion rear tapered roller bearing is damaged during removal, replace it.

20.REMOVE FRONT DRIVE PINION FRONT TAPERED ROLLER BEARING

41211A

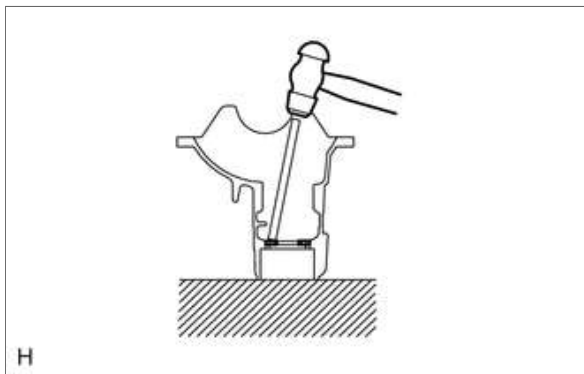


Using a brass bar and hammer, tap out the front drive pinion front tapered roller bearing (outer race).
If the front drive pinion front tapered roller bearing is damaged during removal, replace it.

21.REMOVE FRONT DIFFERENTIAL OIL STORAGE RING

41115F

a.

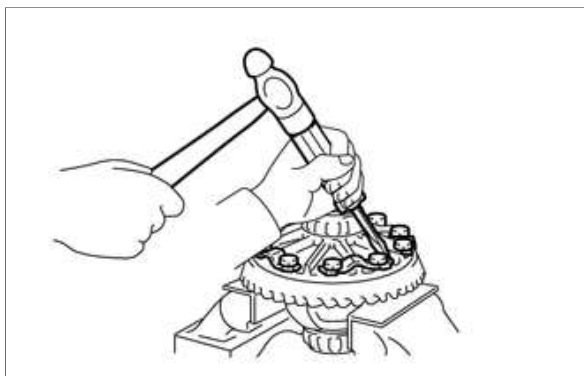


Using a hammer and brass bar, tap out the front differential oil storage ring.



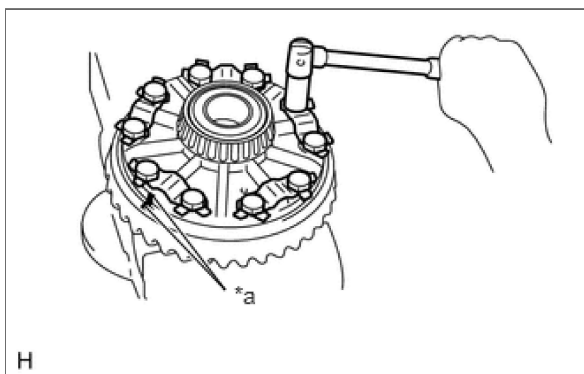
22.REMOVE DIFFERENTIAL RING GEAR

a.



Using a screwdriver, unstake the lock plates.

b.



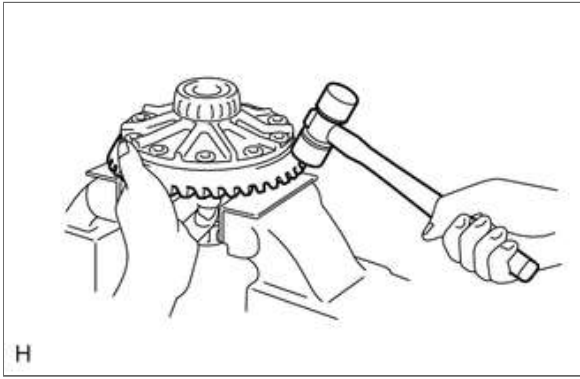
*a

Matchmark

Place matchmarks on the differential ring gear and front differential case.

c. Remove the 10 bolts and 5 lock plates.

d.



Using a plastic-faced hammer, tap on the differential ring gear to separate it from the front differential case.



23.INSPECT RUNOUT OF FRONT DIFFERENTIAL CASE

41311

HINT:

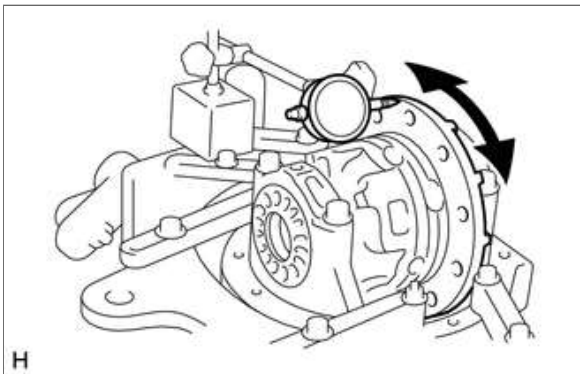
If the differential ring gear runout is at the maximum or less, this inspection is not necessary.

- a. Install the 2 front differential case bearings (outer race) to the front differential case.
- b. Install the front differential case to the differential carrier.
- c. Install the 2 front differential bearing adjusting nuts.
- d. Install the 2 bearing caps to the differential carrier with the 4 bolts.

Torque:

85.3 N*m (870 kgf*cm, 63 ft.*lbf)

e.



Inspect the differential case runout.

Maximum runout:

0.04 mm (0.00157 in.)

- f. Remove the 4 bolts and 2 bearing caps.
- g. Remove the 2 front differential bearing adjusting nuts.
- h. Remove the front differential case.
- i. Remove the 2 front differential case bearings (outer race).

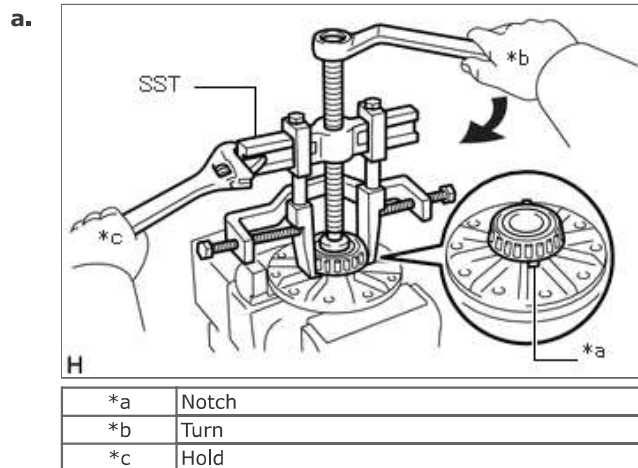


24.REMOVE FRONT DIFFERENTIAL CASE BEARING

41311A

HINT:

The differential case and case bearings should only be removed when replacement is necessary.



Using SST, remove the 2 front differential case bearings (inner race) from the front differential case.

SST

09950-60010 (09951-00480)

09950-40011 (09951-04020, 09952-04010, 09953-04030, 09954-04010, 09955-04061, 09958-04011)

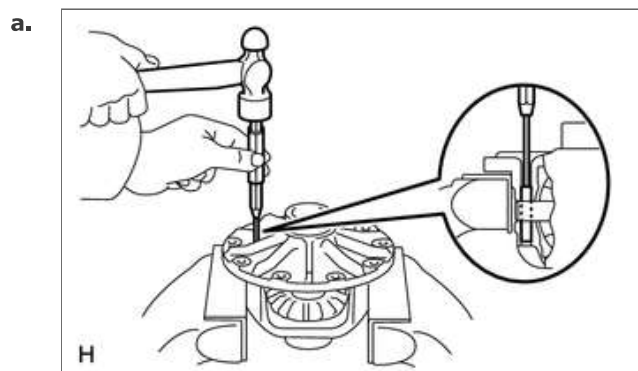
HINT:

Attach the claws of SST to the notch in the front differential case to secure SST.

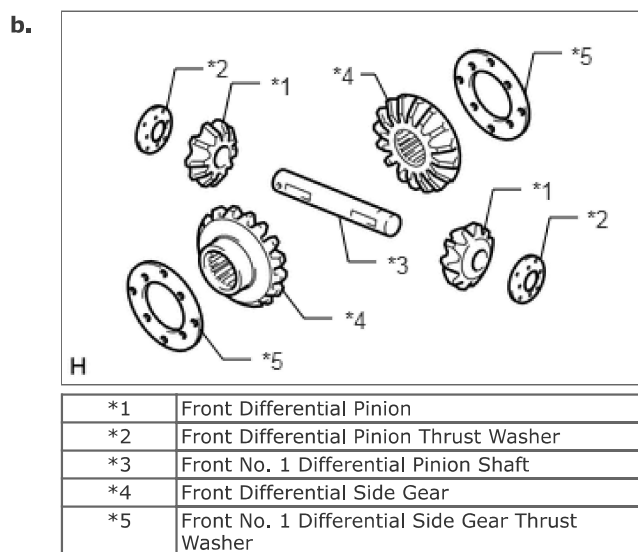


25.DISASSEMBLE FRONT DIFFERENTIAL CASE (for 2 Pinion Gear Type)

41311



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



Remove the 2 front differential pinions, 2 front differential pinion thrust washers, 2 front differential side gears, 2 front No. 1 differential side gear thrust washers and front No. 1 differential pinion shaft from the front differential

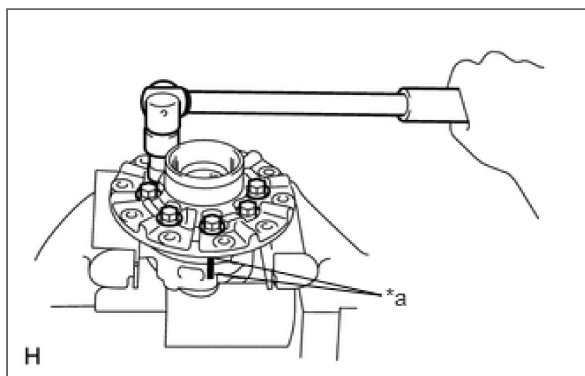
case.



26.DISASSEMBLE FRONT DIFFERENTIAL CASE (for 4 Pinion Gear Type)

41311

a.



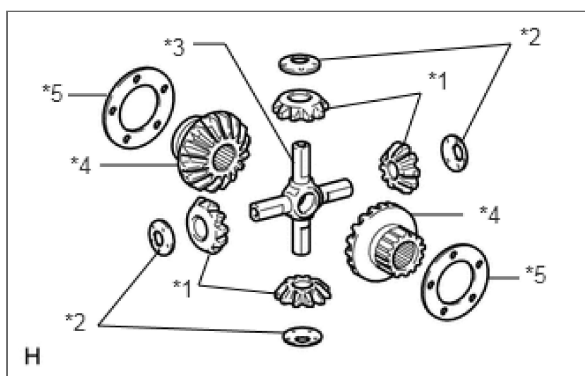
*a	Matchmark
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Place matchmarks on the front differential case LH and RH.

b. Remove the 8 bolts uniformly, a little at a time.

c. Using a plastic-faced hammer, separate the front differential case LH and RH.

d.



*1	Front Differential Pinion
*2	Front Differential Pinion Thrust Washer
*3	Front Differential Spider
*4	Front Differential Side Gear
*5	Front No. 1 Differential Side Gear Thrust Washer

Remove the 4 front differential pinions, 4 front differential pinion thrust washers, 2 front differential side gears, 2 front No. 1 differential side gear thrust washers and front differential spider from the front differential case.