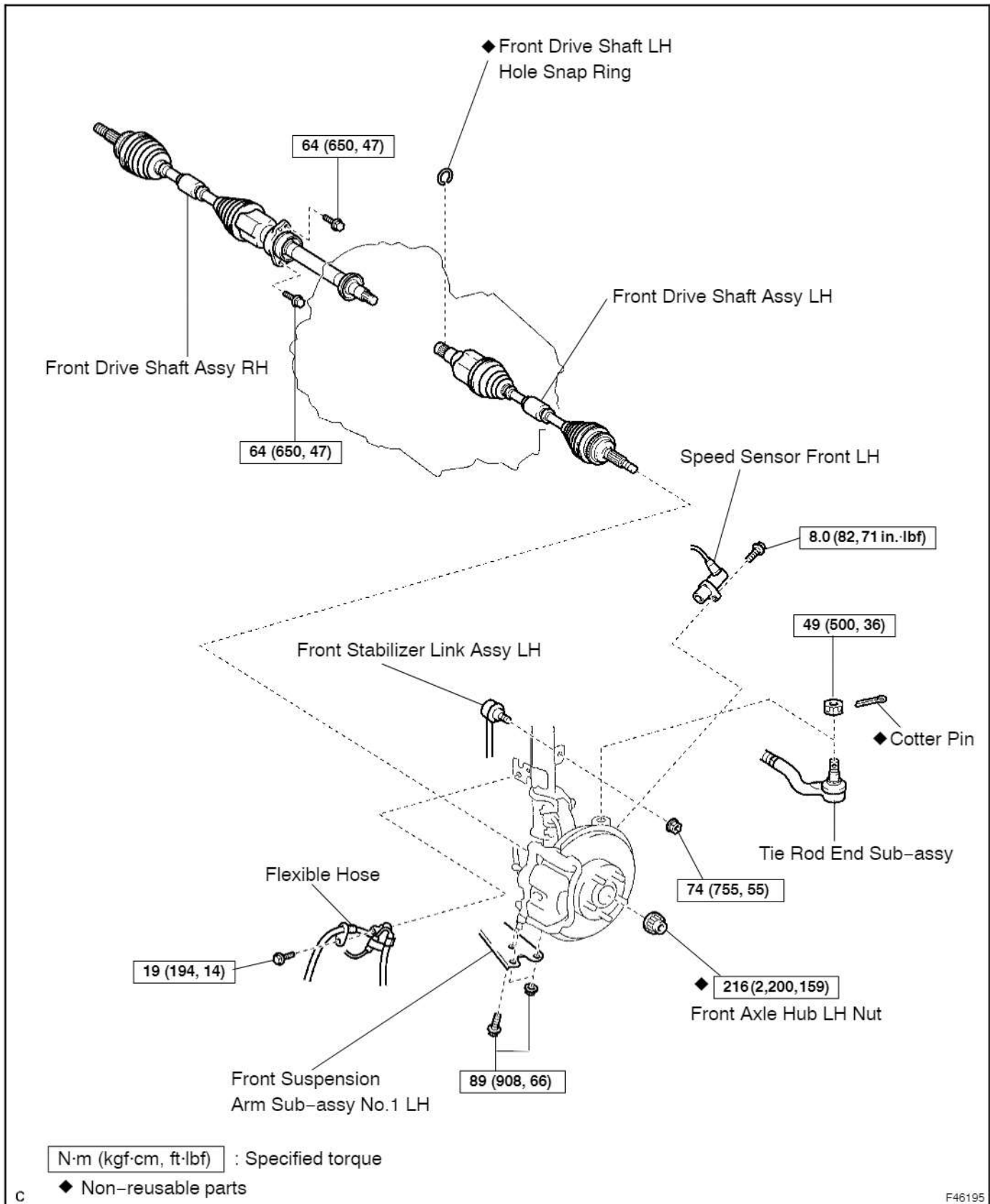


FRONT DRIVE SHAFT (2AZ-FSE)

COMPONENTS

300NS-01

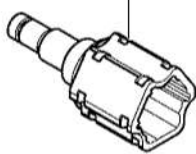


LH:

◆ Front Drive Shaft Dust Cover LH



Front Drive Inboard Joint Assy LH

◆ Front Drive Inner Shaft
Inner LH Shaft Snap Ring

Tripod Joint Assy



◆ Front Axle Inboard Joint Boot LH No.2 Clamp

◆ Front Axle Inboard Joint Boot LH Clamp

◆ Front Drive Shaft Inboard
Joint Boot

◆ Drive Shaft Damper Clamp

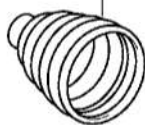


Drive Shaft Damper

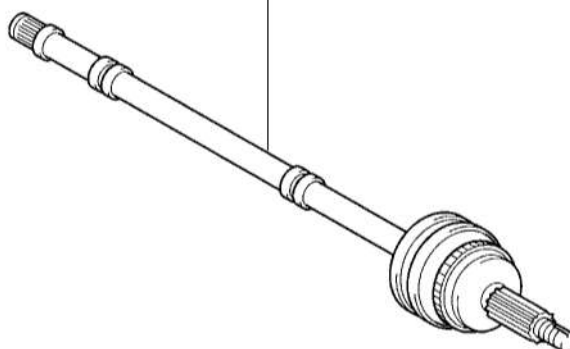
◆ Front Drive Shaft Outboard Joint Boot



◆ Front Axle Outboard Joint Boot LH No.2 Clamp

◆ Front Axle Outboard
Joint Boot LH Clamp

Front Drive Outboard Joint Shaft Assy LH

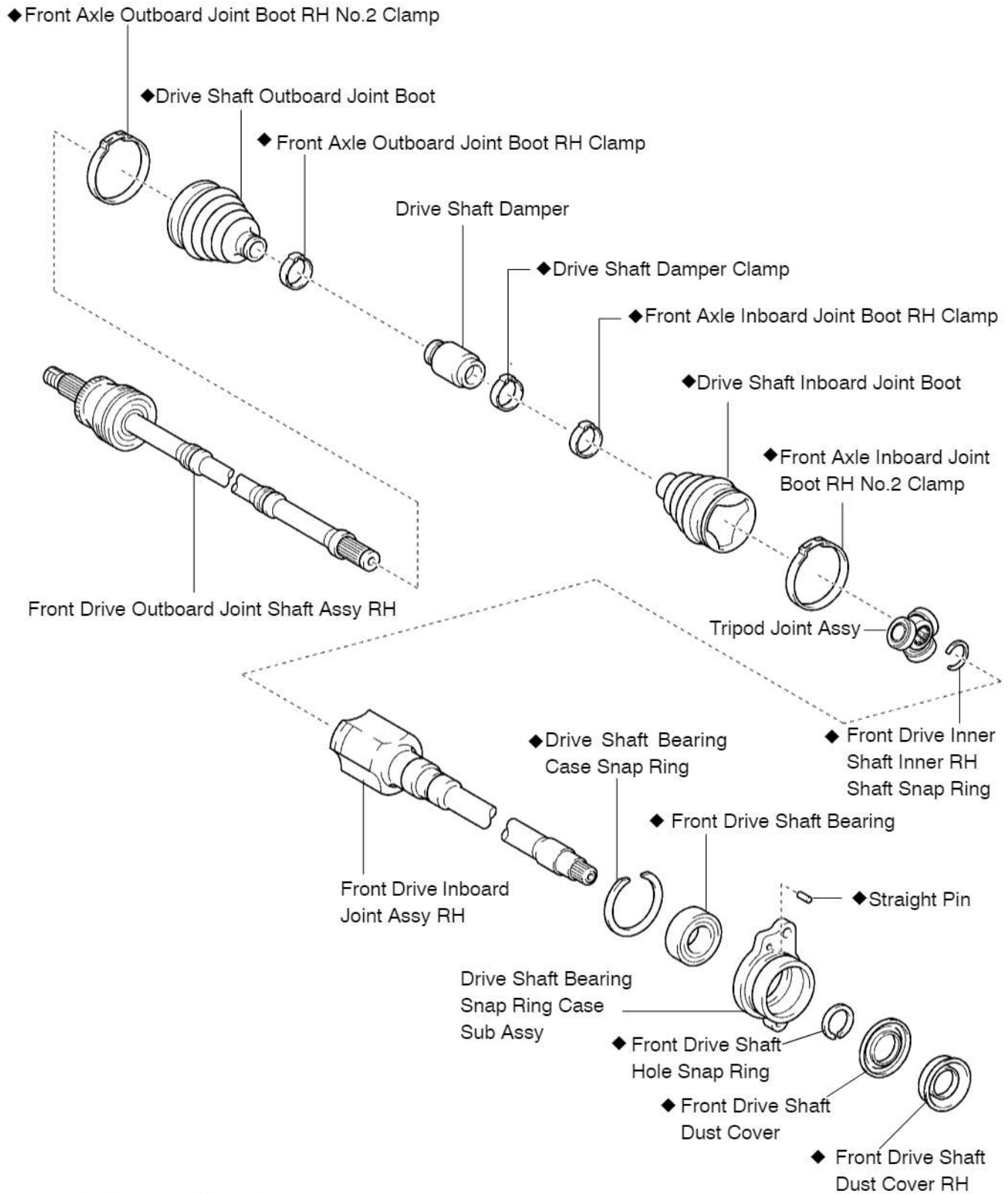


c

◆ Non-reusable parts

F47254

RH:



c

F47255

OVERHAUL

HINT:

Overhaul the RH side following the same procedure as for the LH side.

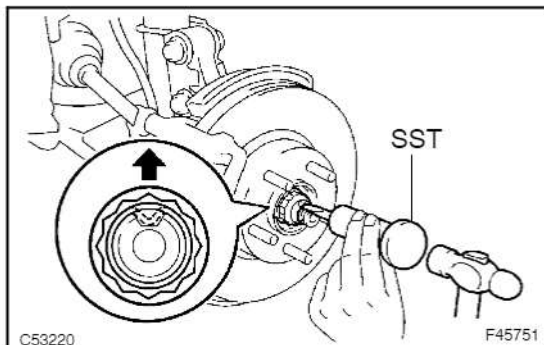
1. DRAIN AUTOMATIC TRANSAXLE FLUID (A/T TRANSAXLE)

- (a) Remove the drain plug and gasket, and then drain the ATF.
- (b) Install a new gasket and drain plug.

Torque: 49 N·m (500 kgf·cm, 36 ft·lbf)

2. REMOVE FRONT WHEEL

3. REMOVE ENGINE UNDER COVER LH



4. SEPARATE FRONT AXLE HUB LH NUT

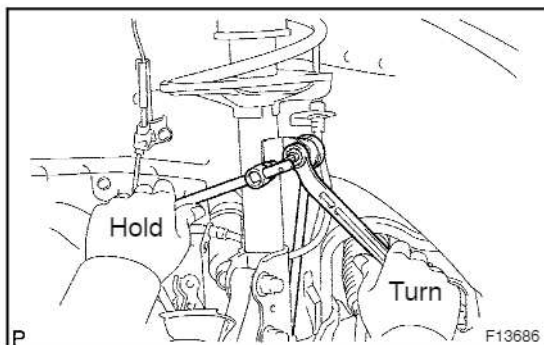
- (a) Using SST and a hammer, unstake the staked part of the nut.

SST 09930-00010

- (b) While applying the brake, remove the axle hub LH nut.

NOTICE:

Loosen the staked part of the lock nut completely, otherwise the screw of the drive shaft may become damaged.

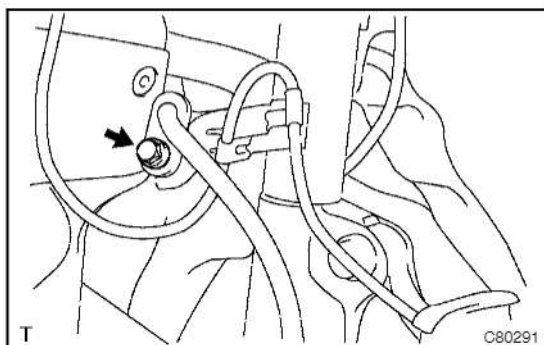


5. SEPARATE FRONT STABILIZER LINK ASSY LH

- (a) Remove the nut and separate the front stabilizer link assy LH from the shock absorber assy LH.

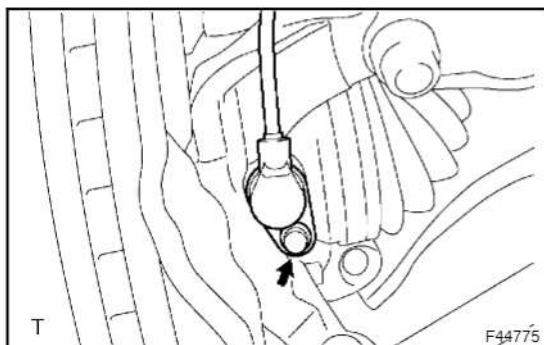
HINT:

If the ball joint turns together with the nut, use a hexagon wrench (6 mm) to hold the stud.



6. DISCONNECT SPEED SENSOR FRONT LH

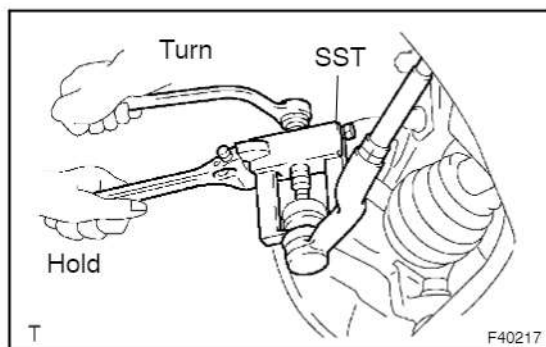
- (a) Remove the bolt, and disconnect the speed sensor wire and flexible hose from the shock absorber.



- (b) Remove the bolt, and disconnect the speed sensor from the steering knuckle.

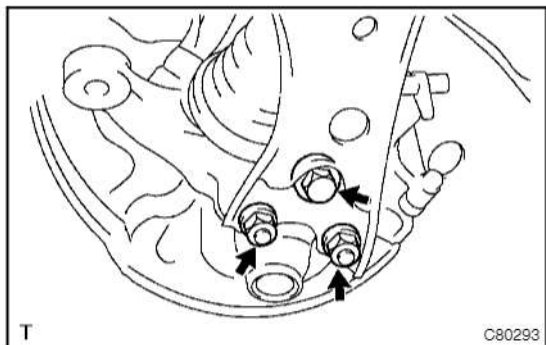
NOTICE:

- **Be careful not to damage the speed sensor.**
- **Prevent foreign matter from adhering to the speed sensor.**

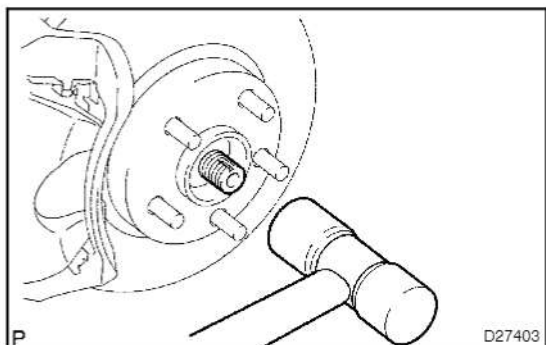
**7. SEPARATE TIE ROD END SUB-ASSY LH**

- (a) Remove the cotter pin and nut.
- (b) Using SST, separate the tie rod end sub-assy LH from the steering knuckle.

SST 09628-62011

**8. SEPARATE FRONT SUSPENSION ARM SUB-ASSY LOWER NO.1 LH**

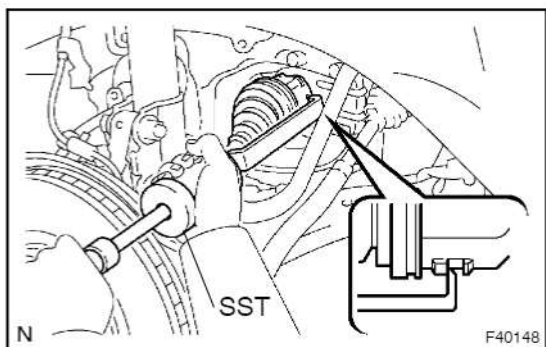
- (a) Remove the bolt and 2 nuts, and separate the front suspension arm sub-assy lower No.1 LH from the lower ball joint.

**9. SEPARATE FRONT AXLE ASSY LH**

- (a) Using a plastic hammer, separate the front drive shaft assy LH from the axle hub.

NOTICE:

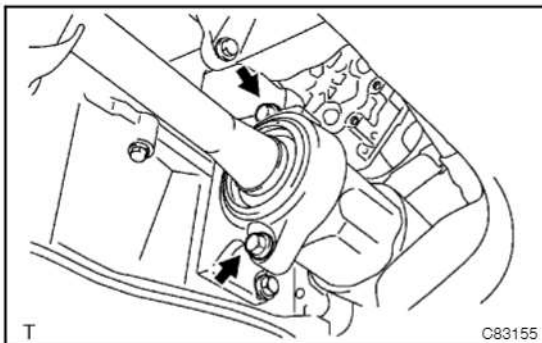
Be careful not to damage the boot and speed sensor rotor.

**10. REMOVE FRONT DRIVE SHAFT ASSY LH**

- (a) Using SST, remove the front drive shaft assy LH.
SST 09520-01010, 09520-24010 (09520-32040)

NOTICE:

- **Be careful not to damage the oil seal, boot and dust cover.**
- **Be careful not to drop the drive shaft assy.**

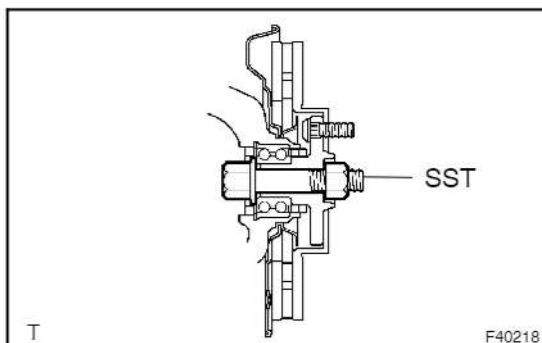


11. REMOVE FRONT DRIVE SHAFT ASSY RH (RH DRIVE SHAFT)

- Remove the 2 bolts and pull out the drive shaft together with the center bearing bracket.
- Remove the drive shaft from the transaxle.

NOTICE:

- Be careful not to damage the oil seal, boot and dust cover.
- Be careful not to drop the drive shaft assy.



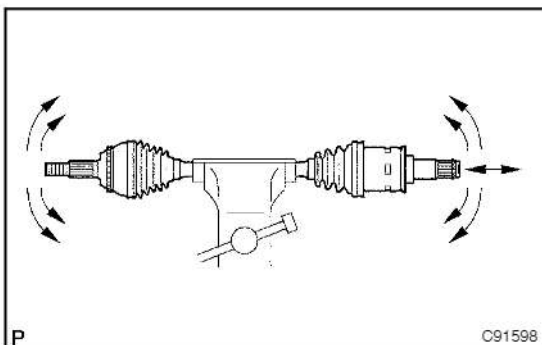
12. FIX FRONT AXLE HUB LH BEARING

NOTICE:

The hub bearing may become damaged if subjected to the vehicle weight. For example, moving the vehicle with the drive shaft removed.

Therefore, if it is absolutely necessary to place the vehicle weight on the hub bearing, first support it with SST.

SST 09608-16042 (09608-02021, 09608-02041)



13. INSPECT FRONT DRIVE SHAFT ASSY LH

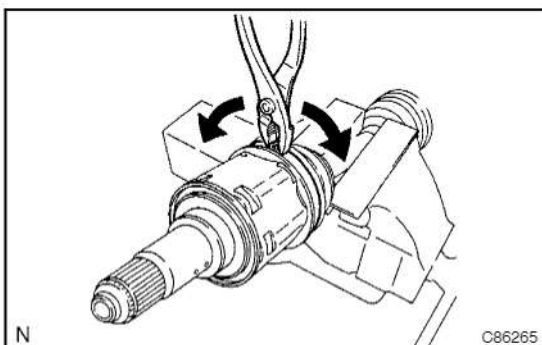
- Check that there is no excessive play in the radial direction of the outboard joint.
- Check that the inboard joint slides smoothly in the thrust direction.
- Check that there is no excessive play in the radial direction of the inboard joint.
- Check the boots for damage.

NOTICE:

Keep the drive shaft assy level during inspection.

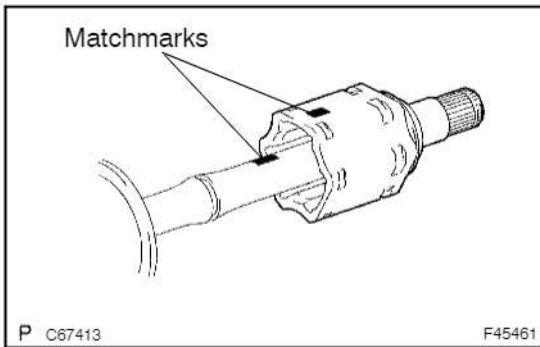
14. REMOVE FRONT AXLE INBOARD JOINT BOOT CLAMP

- Using pliers, remove the inboard joint boot LH No.2 clamp as shown in the illustration.
- Remove the inboard joint boot LH clamp ifollwng the same procedure as for the inboard joint boot LH No.2 clamp.



15. REMOVE FR AXLE INBOARD JOINT BOOT

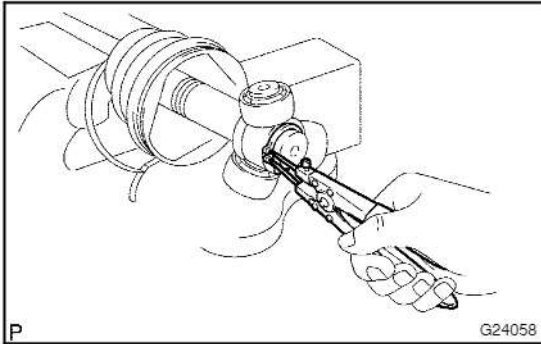
- Remove the inboard joint boot from the inboard joint assy LH.



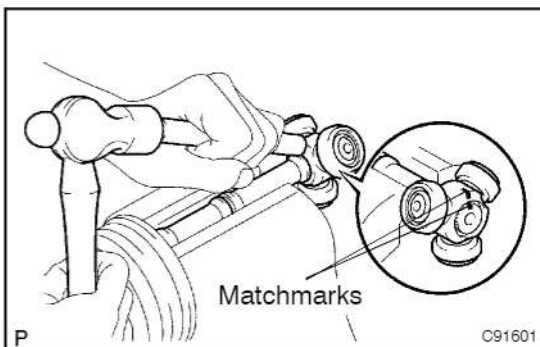
- 16. REMOVE FRONT DRIVE INBOARD JOINT ASSY LH**
- Remove the old grease from the inboard joint.
 - Place matchmarks on the inboard joint assy LH and outboard joint shaft assy LH.

NOTICE:**Do not use a punch for the marks.**

- Remove the inboard joint assy LH from the outboard joint shaft assy LH.



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



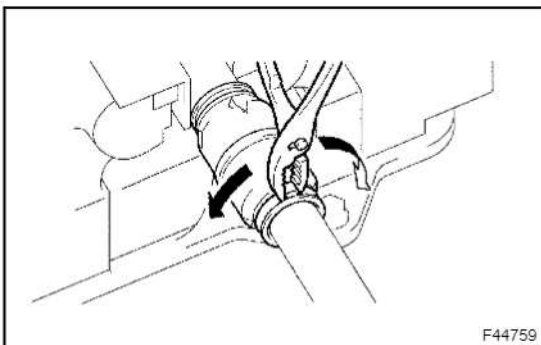
- Place matchmarks on the outboard joint shaft assy LH and tripod joint assy.

NOTICE:**Do not punch the marks.**

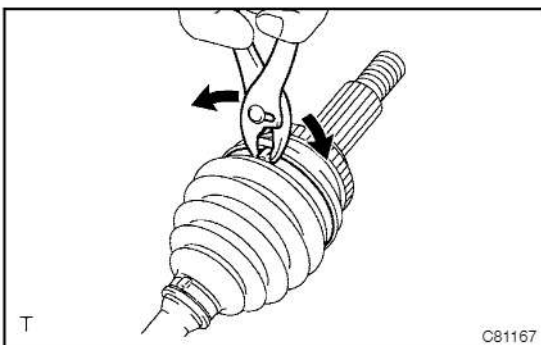
- Using a brass bar and hammer, remove the tripod joint assy from the outboard joint shaft assy LH.

NOTICE:**Do not tap the roller.**

- Remove the inboard joint boot and 2 clamps.

**17. REMOVE FRONT DRIVE SHAFT DAMPER LH**

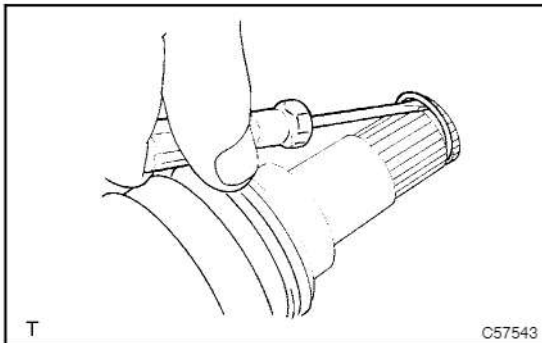
- Using pliers, remove the damper clamp as shown in the illustration.
- Remove the drive shaft damper.

**18. REMOVE FRONT AXLE OUTBOARD JOINT BOOT CLAMP**

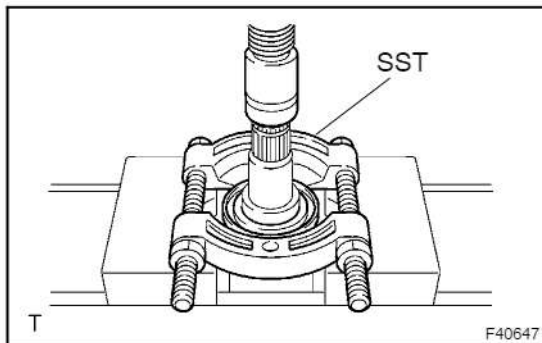
- Using pliers, remove the outboard joint boot LH No.2 clamp as shown in the illustration.
- Remove the outboard joint boot LH clamp following the same procedure as for the outboard joint boot LH No.2 clamp.

19. REMOVE OUTBOARD JOINT BOOT

- (a) Remove the outboard joint boot from the outboard joint shaft assy LH.
- (b) Remove the old grease from the outboard joint.

**20. REMOVE FRONT DRIVE SHAFT LH HOLE SNAP RING**

- (a) Using a screwdriver, remove the hole snap ring.

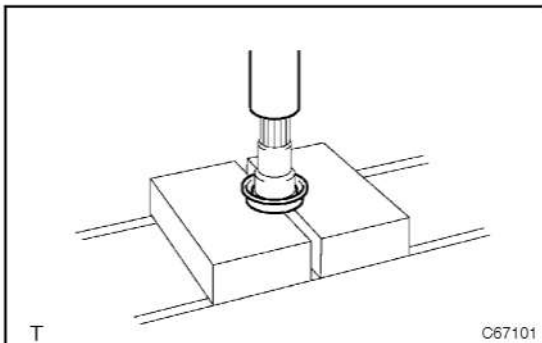
**21. REMOVE FRONT DRIVE SHAFT DUST COVER LH**

- (a) Using SST and a press, remove the front drive shaft dust cover LH.

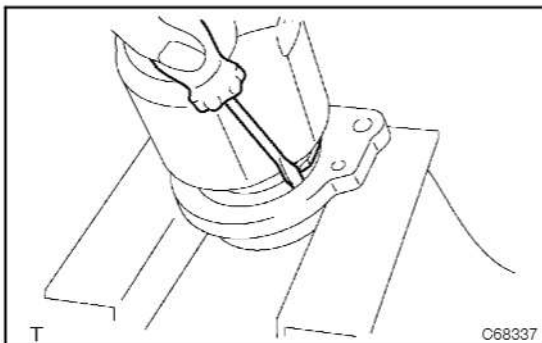
SST 09950-00020

NOTICE:

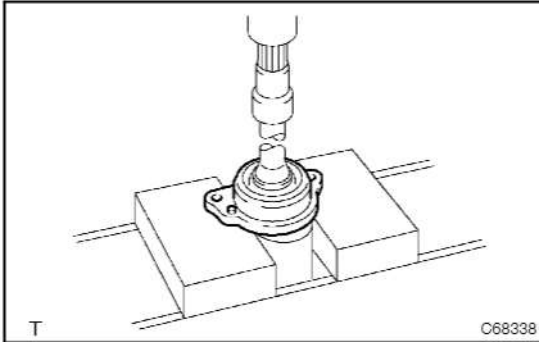
Be careful not to drop the inboard joint assy.

**22. REMOVE FRONT DRIVE SHAFT DUST COVER RH (RH DRIVE SHAFT)**

- (a) Using a press, remove the drive shaft dust cover RH.

**23. REMOVE CASE SUB ASSY, DRIVE SHAFT BEARING SNAP RING (RH DRIVE SHAFT)**

- (a) Using a screwdriver, remove the bearing case snap ring.

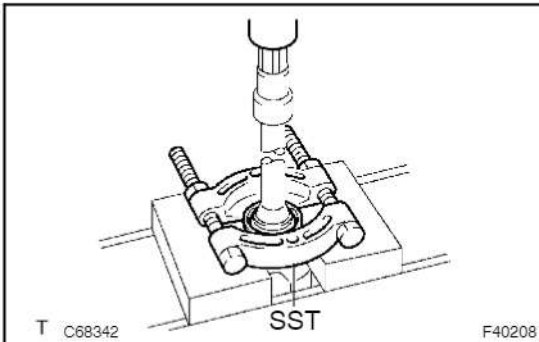


24. REMOVE DRIVE SHAFT BEARING CASE SUB ASSY (RH DRIVE SHAFT)

- (a) Using a press, remove the drive shaft bearing case.

NOTICE:

Be careful not to drop the inboard joint assy.

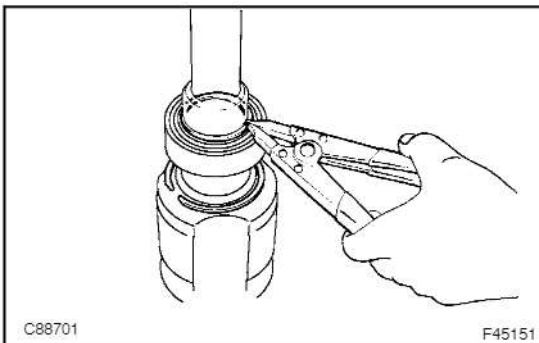


25. REMOVE FRONT DRIVE SHAFT DUST COVER (RH DRIVE SHAFT)

- (a) Using SST and a press, remove the drive shaft dust cover.
SST 09950-00020

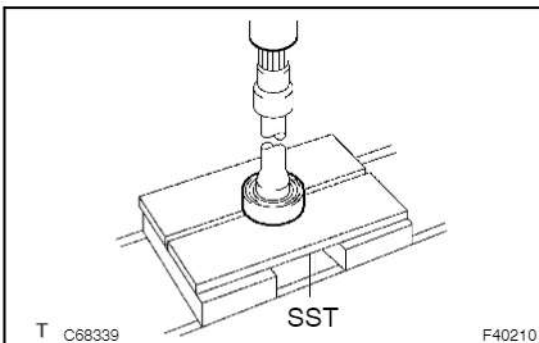
NOTICE:

Be careful not to drop the inboard joint assy.



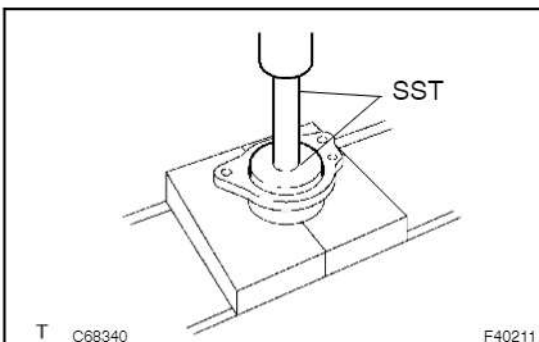
26. REMOVE FRONT DRIVE SHAFT BEARING (RH DRIVE SHAFT)

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



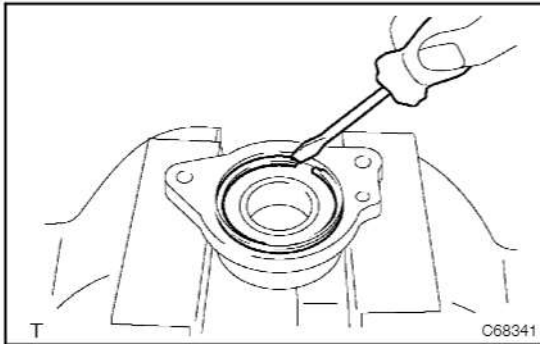
- (b) Using SST and a press, remove the drive shaft bearing.
SST 09527-10011

- (c) Remove the snap ring.



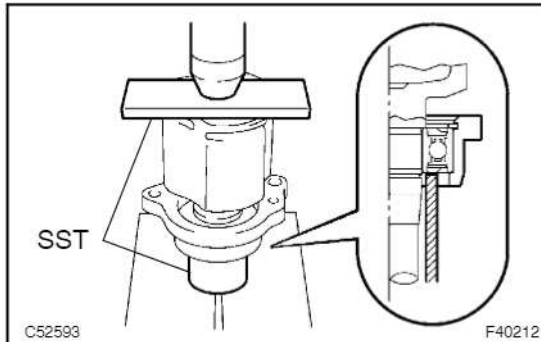
27. INSTALL FRONT DRIVE SHAFT BEARING (RH DRIVE SHAFT)

- (a) Using SST and a press, install a new drive shaft bearing.
SST 09950-60020 (09951-00710), 09950-70010 (09951-07100)



28. INSTALL CASE SUB ASSY, DRIVE SHAFT BEARING SNAP RING (RH DRIVE SHAFT)

- (a) Using a screwdriver, install a new bearing case snap ring.



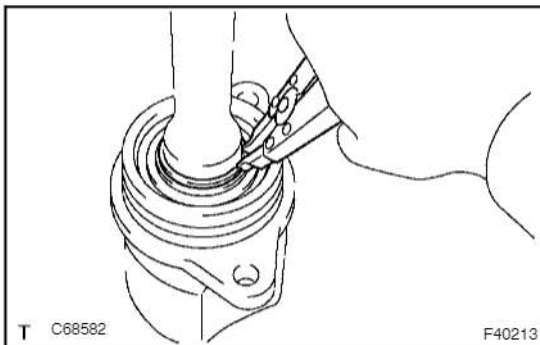
29. INSTALL DRIVE SHAFT BEARING CASE SUB ASSY (RH DRIVE SHAFT)

- (a) Using SST and a press, install the drive shaft bearing case to the inboard joint assy RH.

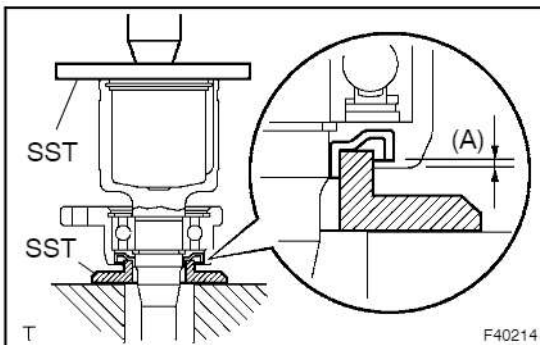
SST 09527-10011, 09710-04081

NOTICE:

Bearing should be installed completely.



- (b) Using a snap ring expander, install a new drive shaft hole snap ring.



30. INSTALL FRONT DRIVE SHAFT DUST COVER (RH DRIVE SHAFT)

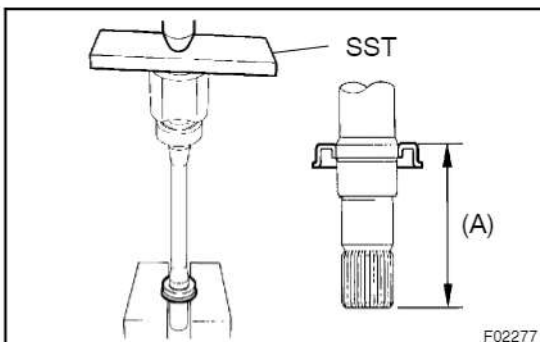
- (a) Using SST and a press, install a new drive shaft dust cover.

SST 09726-40010, 09527-10011

Distance (A): 0.5 ± 0.5 mm (0.020 ± 0.020 in.)

NOTICE:

Be careful not to damage the dust cover.

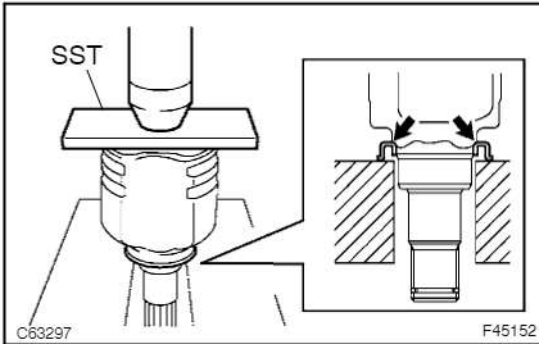


31. INSTALL FRONT DRIVE SHAFT DUST COVER RH (RH DRIVE SHAFT)

- (a) Using SST and a press, install a new drive shaft dust cover RH until the distance from the tip of the center drive shaft to the drive shaft dust cover RH reaches the specification, as shown in the illustration.

SST 09527-10011

Distance (A): 110.5 ± 0.5 mm (4.350 ± 0.020 in.)



- (b) Using SST and a press, install a new drive shaft dust cover RH.

SST 09527-10011

NOTICE:

- Dust cover should be installed completely.
- Be careful not to damage the dust cover.

32. INSTALL FRONT DRIVE SHAFT DUST COVER LH

- (a) Using SST and a press, install a new drive shaft dust cover LH.

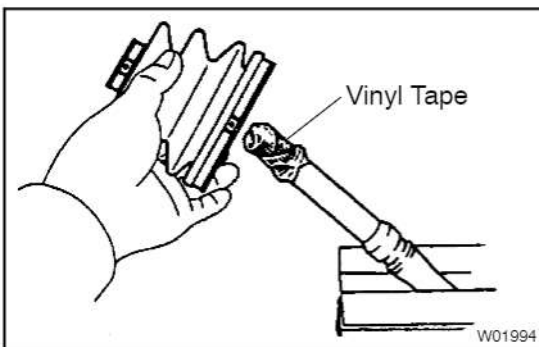
SST 09527-10011

NOTICE:

- Dust cover should be installed completely.
- Be careful not to damage the dust cover.

33. INSTALL FRONT DRIVE SHAFT LH HOLE SNAP RING

- (a) Install a new hole snap ring.



34. INSTALL OUTBOARD JOINT BOOT

HINT:

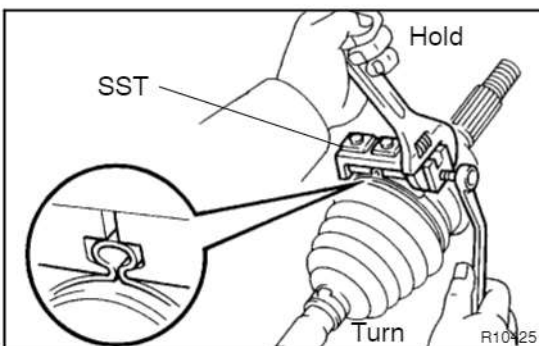
Before installing the boots, wrap the drive shaft spline with vinyl tape to prevent the boots from being damaged.

- (a) Install new parts to the outboard joint shaft assy in the following order.

- (1) Outboard joint boot LH No.2 clamp
- (2) Outboard joint boot
- (3) Outboard joint boot LH clamp

- (b) Pack the outboard joint shaft and boot with grease in the boot kit.

Grease capacity: 152 to 162 g (5.4 to 5.7 oz.)



35. INSTALL FRONT AXLE OUTBOARD JOINT BOOT CLAMP

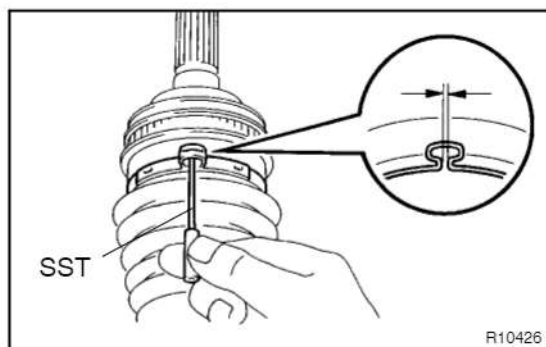
- Hold the front drive shaft in a soft vise.
- Secure the 2 outboard joint boot clamps onto the boot.
- Place SST onto the outboard joint large boot clamp.

SST 09521-24010

- Tighten the SST so that the large clamp is pinched.

NOTICE:

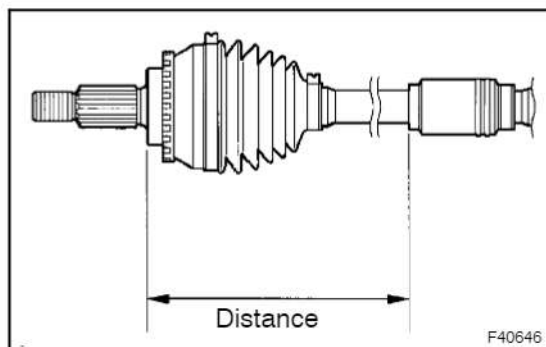
Do not overtighten the SST.



- (e) Using SST, adjust the clearance of the large clamp.
SST 09240-00020
Clearance: 0.8 mm (0.031 in.) or less
- (f) Install the outboard joint boot LH clamp following the same procedure as for the outboard joint boot LH No.2 clamp.

NOTICE:

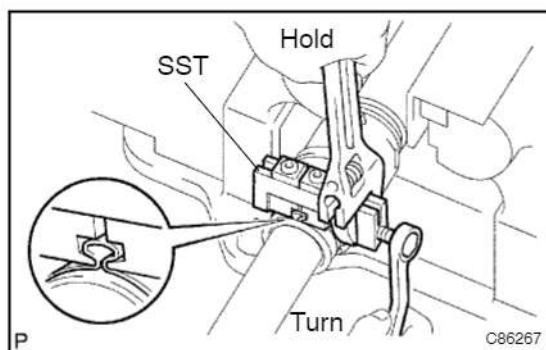
When the measured value exceeds the specified value, re-tighten the clamp.

**36. INSTALL FRONT DRIVE SHAFT DAMPER LH****HINT:**

Perform the above procedure only when reassembling the RH side.

- (a) Temporarily install a new damper clamp.
(b) Set the distance as described below.

Drive shaft type	Distance mm (in.)
RH	212.0 ± 2.0 (8.35 ± 0.08)
LH	168.0 ± 2.0 (6.61 ± 0.08)



- (c) Install the damper clamp.

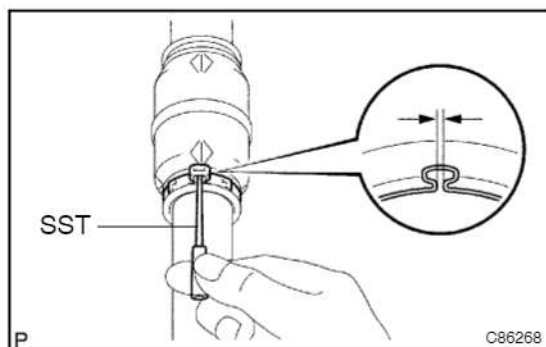
HINT:

Install the damper clamp to inboard joint side.

- (1) Hold the front drive shaft in a soft vise.
- (2) Secure the damper clamp onto the damper.
- (3) Place SST onto the damper clamp.
SST 09521-24010
- (4) Tighten the SST so that the damper clamp is pinched.

NOTICE:

Do not overtighten the SST.



- (5) Using SST, adjust the clearance of the damper clamp.

SST 09240-00020

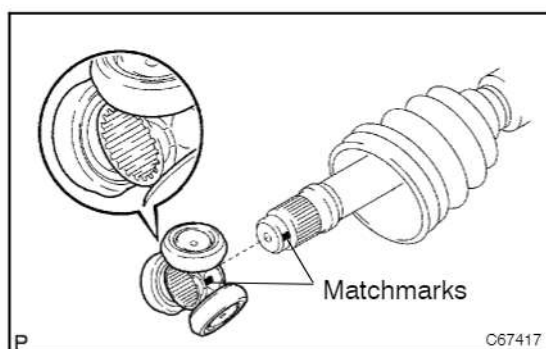
Clearance: 0.8 mm (0.031 in.) or less

NOTICE:

When the measured value exceeds the specified value, retighten the clamp.

HINT:

- Install the damper clamp to inboard joint side.
- Perform the above procedure only when reassembling the RH side.



37. INSTALL FRONT DRIVE INBOARD JOINT ASSY LH

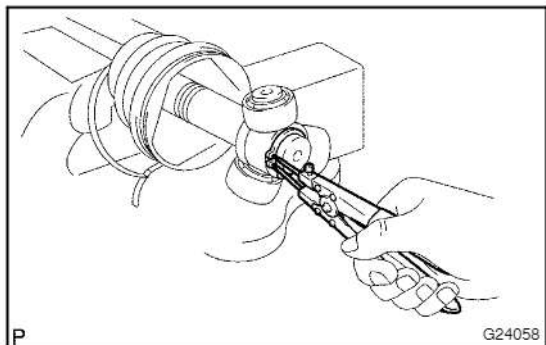
- Wrap the outboard joint shaft assy LH spline with vinyl tape to prevent it from being damaged.
- Install new parts to the outboard joint shaft assy LH in the following order.
 - Inboard joint boot LH clamp
 - Inboard joint boot
 - Inboard joint boot LH No.2 clamp
- Place the beveled side of the tripod axial spline toward the outboard joint.
- Align the match marks.
- Using a brass bar and hammer, tap in the tripod joint assy to the drive shaft assy LH.

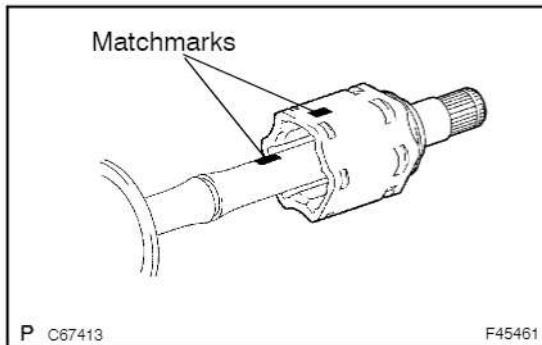
NOTICE:

- **Do not tap the roller.**
 - **Be sure to install the tripod joint assy in the correct direction.**
- Pack the inboard joint shaft and boot with grease in the boot kit.

Grease capacity: 170 to 190 g (6.0 to 6.7 oz.)

- Using a snap ring expander, install a new shaft snap ring.

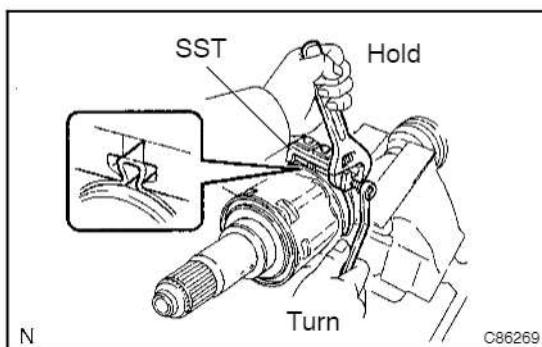




- (h) Aligning the matchmarks, install the inboard joint assy LH to the outboard joint shaft assy LH.

38. INSTALL FR AXLE INBOARD JOINT BOOT

- (a) Install the inboard joint boot to the inboard joint assy LH and outboard joint shaft assy LH.

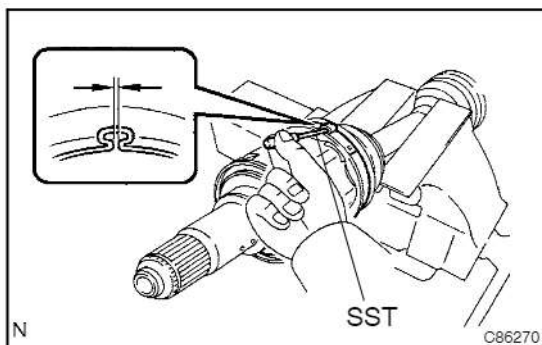


39. INSTALL FRONT AXLE INBOARD JOINT BOOT CLAMP

- (a) Install the inboard joint boot clamp.
- (1) Hold the drive shaft in a soft vise.
 - (2) Secure the 2 inboard joint boot clamps onto the boot.
 - (3) Place SST onto the inboard joint large boot clamp.
SST 09521-24010
 - (4) Tighten the SST so that the large clamp is pinched.

NOTICE:

Do not overtighten the SST.



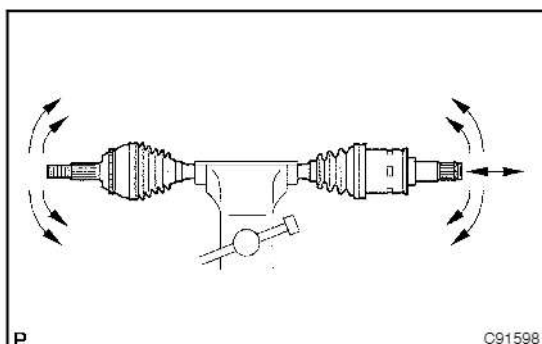
- (5) Using SST, adjust the clearance of the large clamp.
SST 09240-00020

Clearance: 0.8 mm (0.031 in.) or less

NOTICE:

When the measured value exceeds the specified value, re-tighten the clamp.

- (b) Install the inboard joint boot LH clamp following the same procedure as for the inboard joint boot LH No.2 clamp.

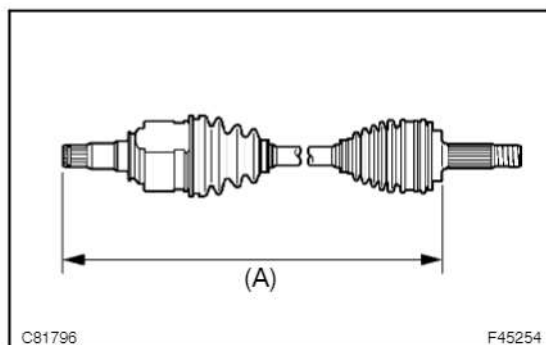


40. INSPECT FRONT DRIVE SHAFT

- (a) Check that there is no excessive play in the radial direction of the outboard joint.
- (b) Check that the inboard joint slides smoothly in the thrust direction.
- (c) Check that there is no excessive play in the radial direction of the inboard joint.
- (d) Check the boots for damage.

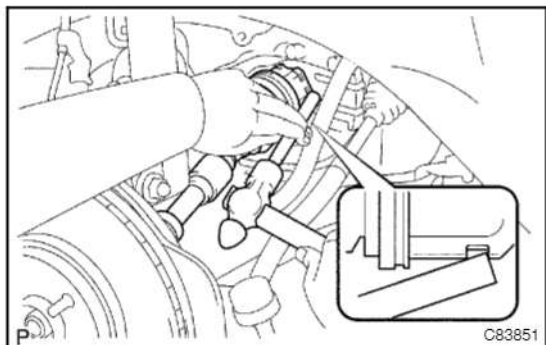
NOTICE:

Keep the drive shaft assy level during inspection.

**HINT:**

For dimension (A), refer to the following table.

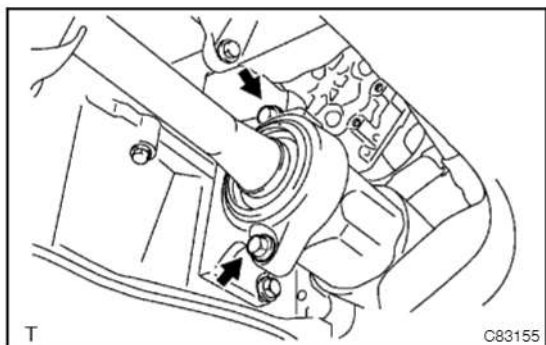
Drive shaft type	Dimension (A) mm (in.)
LH	546.1 (21.50) $\pm$ 5.0 (0.20)
RH	884.0 (34.80) $\pm$ 5.0 (0.20)

**41. INSTALL FRONT DRIVE SHAFT ASSY LH**

- Coat the inboard joint shaft assy LH spline with gear oil.
- Align the shaft splines and install the drive shaft assy LH with a brass bar and hammer.

NOTICE:

- Set the snap ring with the opening side facing downwards.
- Be careful not to damage the oil seal, boot and dust cover.

**42. INSTALL FRONT DRIVE SHAFT ASSY RH (RH DRIVE SHAFT)**

- Coat the inboard joint shaft assy RH spline with gear oil.
- Align the shaft splines and install the drive shaft assy RH with the 2 bolts.

Torque: 64 N·m (650 kgf·cm, 47 ft·lbf)

NOTICE:

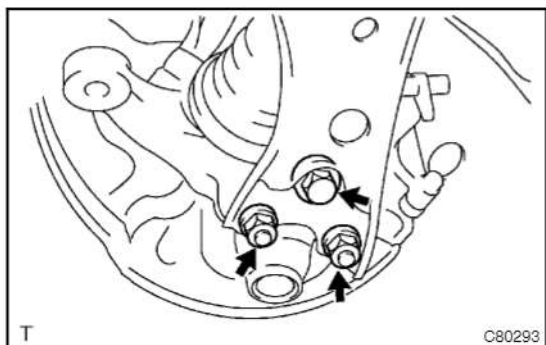
Do not damage the oil seal, boot and dust cover.

43. INSTALL FRONT AXLE ASSY LH

- Install the drive shaft assy LH to the front axle assy LH.

NOTICE:

- Be careful not to damage the outboard joint boot.
- Be careful not to damage the speed sensor rotor.

**44. INSTALL FRONT SUSPENSION ARM SUB-ASSY LOWER NO.1 LH**

- Install the lower ball joint to the front suspension arm sub-assy lower No.1 LH with the bolt and 2 nuts.

Torque: 89 N·m (908 kgf·cm, 66 ft·lbf)

45. INSTALL TIE ROD END SUB-ASSY LH

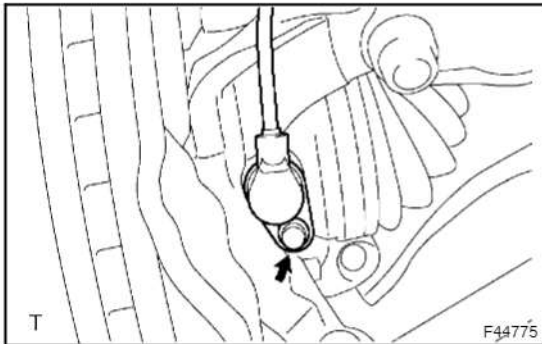
- (a) Install the tie rod end sub-assy LH to the steering knuckle with the nut.

Torque: 49 N·m (500 kgf·cm, 36 ft·lbf)

- (b) Install a new cotter pin.

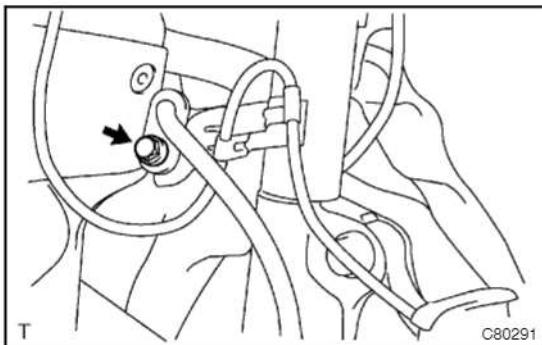
NOTICE:

If the holes for the cotter pin are not aligned, tighten the nut up to 60° further.

**46. CONNECT SPEED SENSOR FRONT LH**

- (a) Install the speed sensor front LH to the steering knuckle with the bolt.

Torque: 8.0 N·m (82 kgf·cm, 71 in·lbf)

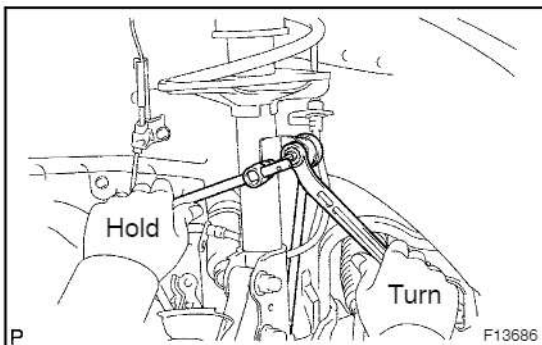


- (b) Connect the speed sensor wire and flexible hose to the shock absorber with the bolt.

Torque: 19 N·m (194 kgf·cm, 14 ft·lbf)

NOTICE:

- Be careful not to damage the speed sensor.
- Keep the speed sensor clean.
- Do not twist the sensor wire when installing the sensor.

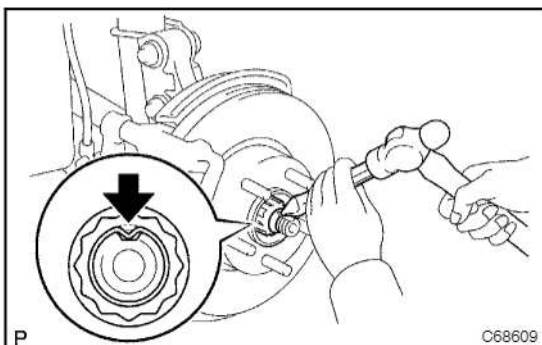
**47. INSTALL FRONT STABILIZER LINK ASSY LH**

- (a) Install the front stabilizer link assy LH with the nut.

Torque: 74 N·m (755 kgf·cm, 55 ft·lbf)

HINT:

If the ball joint turns together with the nut, use a hexagon wrench (6 mm) to hold the stud.

**48. INSTALL FRONT AXLE HUB LH NUT**

- (a) Install a new axle hub LH nut.

Torque: 216 N·m (2,200 kgf·cm, 159 ft·lbf)

- (b) Using a chisel and hammer, stake the axle hub LH nut.

- 49. **INSTALL ENGINE UNDER COVER LH**
- 50. **INSTALL FRONT WHEEL**
Torque: 103 N·m (1,050 kgf·cm, 76 ft·lbf)
- 51. **ADD AUTOMATIC TRANSAXLE FLUID (A/T TRANSAXLE)**
(SEE PUB. NO. RM1018E ON PAGE 40-2)
- 52. **INSPECT AND ADJUST AUTOMATIC TRANSAXLE FLUID (A/T TRANSAXLE)**
(SEE PUB. NO. RM1018E ON PAGE 40-2)
- 53. **INSPECT AND ADJUST FRONT WHEEL ALIGNMENT (SEE PUB. NO. RM1018E ON PAGE 26-6)**
- 54. **CHECK ABS SPEED SENSOR SIGNAL**
 - (a) **ABD WITH EBD & BA & TRAC & VSC SYSTEM (SEE PUB. NO. RM1018E ON PAGE 5-756)**