300O7-01

OVERHAUL

HINT:

Refer to components: See page 30–4

Use the same procedures for the RH side and LH side.

The procedures listed below are for the LH side.

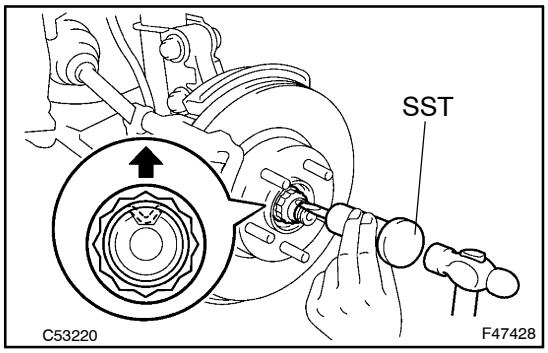
1. DRAIN TRANSAXLE OIL

(a) Using a #10 socket hexagon wrench, remove the drain plug and gasket and drain the fluid.

(b) Using a socket hexagon wrench, tighten the drain plug with a new gasket placed inside.

Torque: 39 N·m (400 kgf·cm, 29 ft·lbf)

2. REMOVE FRONT WHEEL



3. REMOVE FRONT AXLE HUB LH NUT

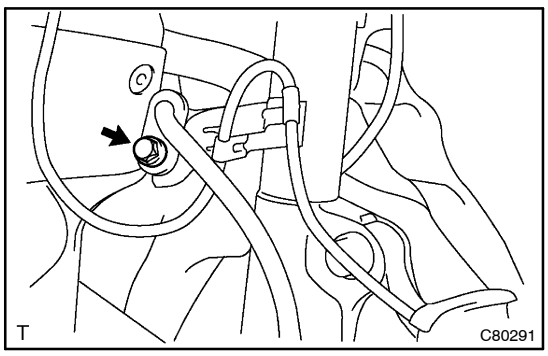
(a) Using SST and a hammer, unstake the axle hub LH nut.

SST 09930–00010

NOTICE:

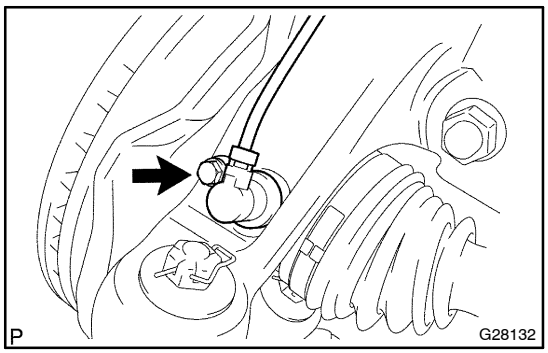
- **Set SST with the flat surface on.**
- **Do not grind the SST tip with a grinder or equivalent.**
- **Unstake completely when removing the front axle hub nut LH.**
- **Do not damage the front drive shaft assy LH threads.**

(b) Using a socket wrench (30 mm), remove the front axle hub nut LH.



4. SEPARATE SPEED SENSOR FRONT LH

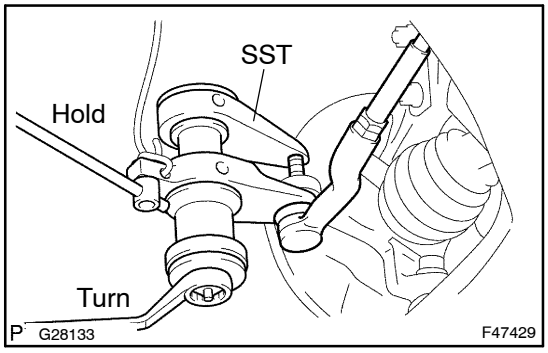
(a) Remove the bolt and disconnect the speed sensor wire and flexible hose from the shock absorber assy.



(b) Remove the bolt and separate the speed sensor FR LH from the steering knuckle.

NOTICE:

Keep both the tip and installation part of the speed sensor FR LH free of foreign matter.



5. SEPARATE TIE ROD END SUB–ASSY LH

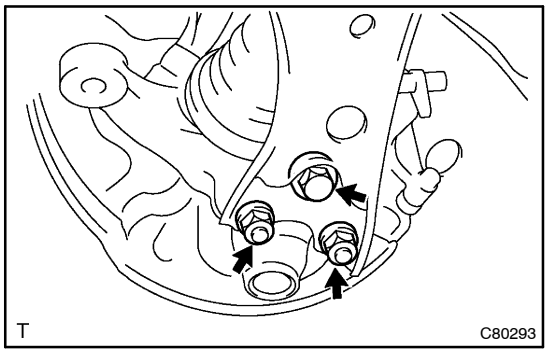
(a) Remove the clip and castle nut.

(b) Using SST, separate the tie rod end LH from the steering knuckle.

SST 09628–00011

NOTICE:

- **Do not damage the front disc brake dust cover.**
- **Be sure to hang the tie rod end with a string to prevent the SST from dropping.**
- **Do not damage the ball joint dust cover.**
- **Do not damage the steering knuckle.**
- **Securely hang the SST to the spacer of the steering knuckle.**
- **Replace the steering knuckle with a new one if the spacer comes off the steering knuckle.**



6. SEPARATE FRONT SUSPENSION ARM SUB–ASSY LOWER NO.1 LH

(a) Remove the bolt and 2 nuts.

(b) Push down the front suspension lower arm No.1 LH and separate the front lower ball joint LH.

7. SEPARATE FRONT AXLE ASSY LH

(a) Using a plastic hammer, tap the end of the front drive shaft assy LH and disengage the fitting between the front drive shaft assy LH and front axle assy LH.

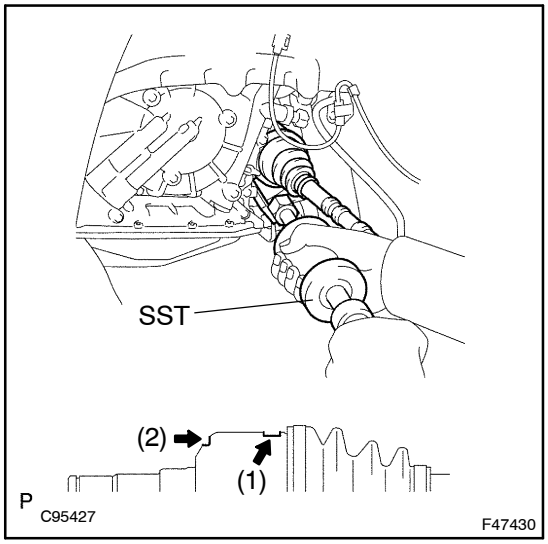
HINT:

If it is difficult to disengage, tap the end of the front drive shaft assy LH with a brass bar and a hammer.

(b) Push the front axle assy LH outward from the vehicle to remove the front drive shaft assy LH from the front axle assy LH.

NOTICE:

- **Be careful not to push the front axle assy LH outward from the vehicle more than is necessary to remove it.**
- **Be careful not to damage the front axle out board joint boot.**
- **Be careful not to damage the speed sensor rotor.**
- **Hang the front drive shaft assy LH down with a string or such.**



8. REMOVE FRONT DRIVE SHAFT ASSY LH

(a) Remove the front fender apron seal LH.

(b) Hook the SST claw at the position in illustration (1) to remove the front drive shaft assy LH.

SST 09520–01010, 09520–24010 (09520–32040)

NOTICE:

- **Be careful not to damage the oil seal.**
- **Be careful not to damage the front drive shaft assy LH boot.**
- **Be careful not to drop the front drive shaft assy LH.**

HINT:

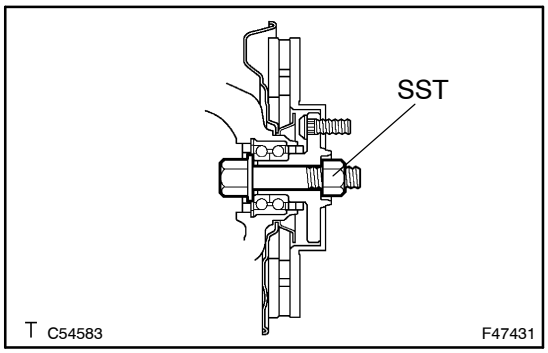
- If the front drive shaft assy LH cannot be removed at the position in the illustration (1), hook the SST claw at the position in the illustration (2) in order to remove it.

9. REMOVE FRONT DRIVE SHAFT ASSY RH

SST 09520–01010, 09520–24010 (09520–32040)

HINT:

Remove the front drive shaft assy RH following the same procedures as for the LH side.



10. FIX FRONT AXLE ASSY LH

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

HINT:

The hub bearing could be damaged if it is subjected to the vehicle's full weight, such as when moving the vehicle with the drive shaft removed. If it is absolutely necessary to place the vehicle's weight on the hub bearing, first support it with SST.

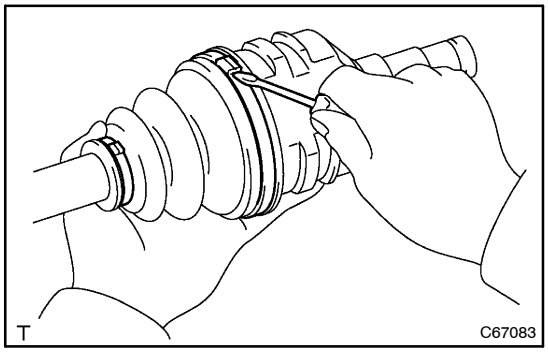
11. INSPECT FRONT DRIVE SHAFT ASSY LH

(a) Check for noticeable looseness when turning the joint up and down, left and right, and thrust direction.

(b) Check for cracks, damages or grease leaks on the joint boot.

NOTICE:

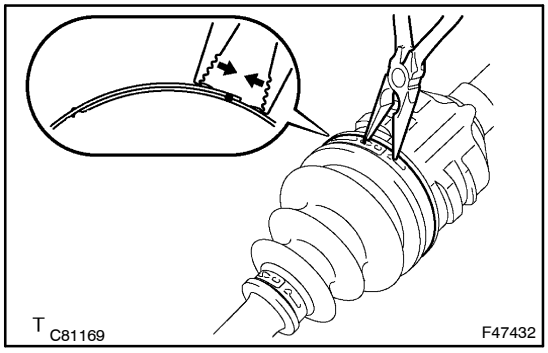
Carry the front drive shaft assy LH levelly.



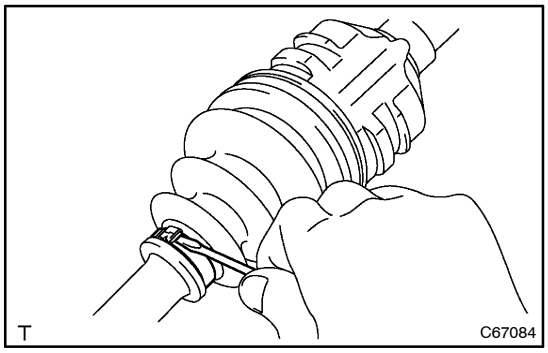
12. REMOVE FRONT AXLE INBOARD JOINT BOOT LH NO.2 CLAMP

(a) When using a one touch clamp

(1) Using a flat–head screwdriver, unstake the inboard joint boot clamp LH No.2 and separate the inboard joint boot clamp LH No.2.

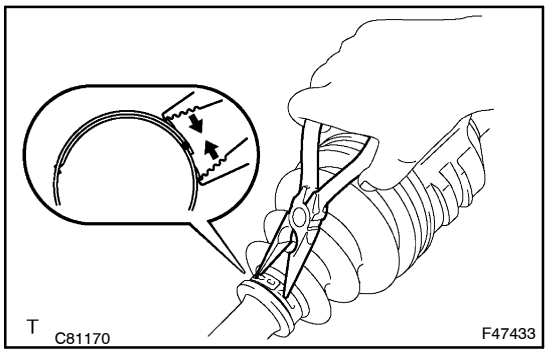


(b) When using a hook type one
(1) Using needle nose pliers, unhook and remove the inboard joint boot clamp LH No.2.



13. REMOVE FRONT AXLE INBOARD JOINT BOOT LH CLAMP

(a) When using a one touch clamp
(1) Using a flat–head screwdriver, separate the inboard joint boot clamp LH and separate the inboard joint boot clamp LH.



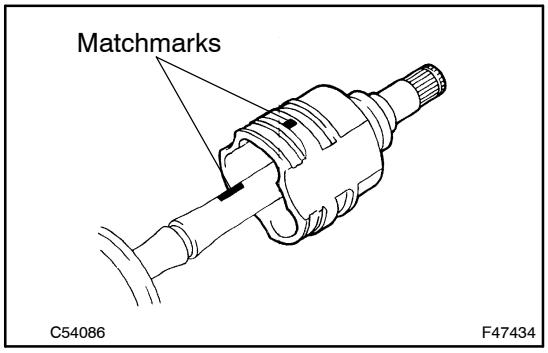
(b) When using a hook type one
(1) Using needle nose pliers, unhook and remove the inboard joint boot clamp LH.

14. SEPARATE FR AXLE INBOARD JOINT BOOT

(a) Separate the inboard joint boot from the inboard joint assy LH.

15. REMOVE FRONT DRIVE INBOARD JOINT ASSY LH

(a) Remove grease from the inboard joint.



(b) Put matchmarks on the inboard joint assy LH and outboard joint assy LH.

NOTICE:

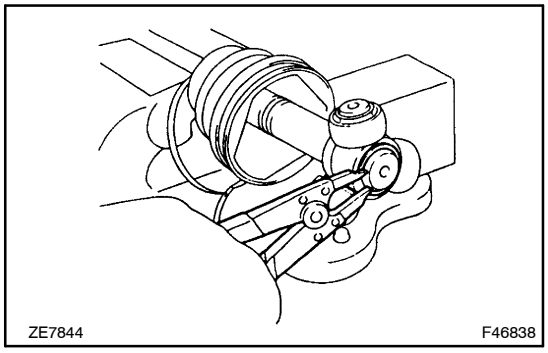
Do not make matchmarks with a punch and a hammer.

(c) Remove the inboard joint assy LH from the outboard joint assy LH.

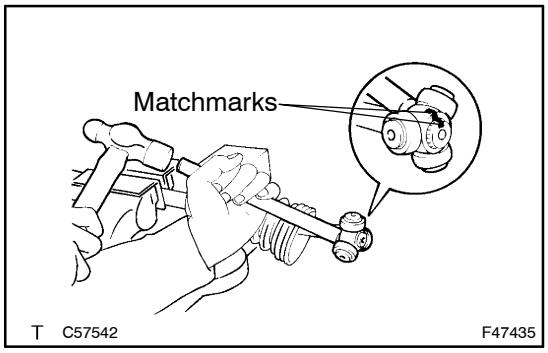
(d) Hold the outboard joint assy LH with vise aluminum plates in between.

NOTICE:

Do not overtighten the vise.


ZE7844 F46838

(e) Using a snap ring expander, remove the front drive inner shaft snap ring INN LH.



T C57542 F47435

(f) Put matchmarks on the tripod joint and outboard joint assy LH.

NOTICE:

Do not make matchmarks with a punch and a hammer.

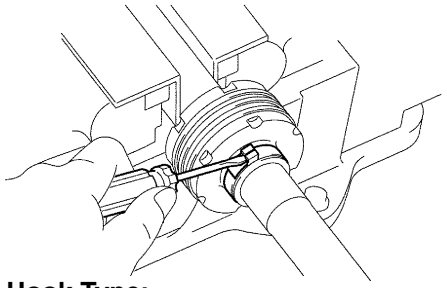
(g) Using a brass bar and a hammer, remove the tripod joint.

NOTICE:

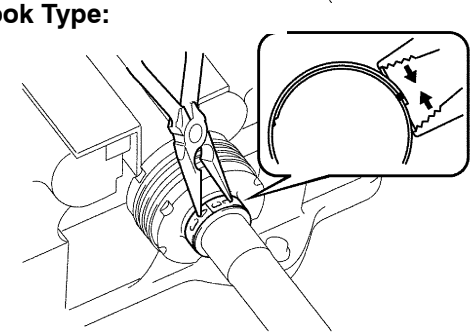
Do not hit the roller position.

(h) Remove the inboard joint boot clamp LH No.2, inboard joint boot and inboard joint boot clamp LH.

One Touch Clamp Type:



Hook Type:


P C99092 F47436

16. REMOVE DRIVE SHAFT DAMPER SETTING CLAMP

HINT:

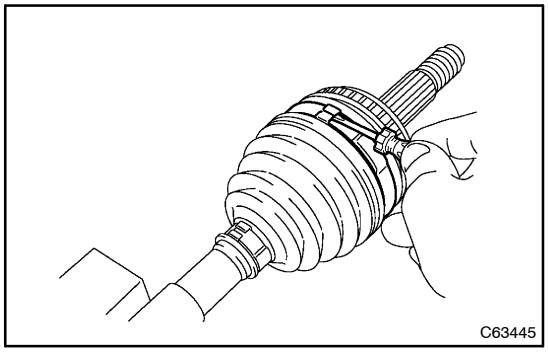
Perform this procedure only when overhauling the RH side.

(a) When using a one touch clamp
  (1) Using a flat–head screwdriver, remove the the drive shaft damper clamp.

(b) When using a hook type one
  (1) Using needle nose pliers, unhook and remove the drive shaft damper clamp.

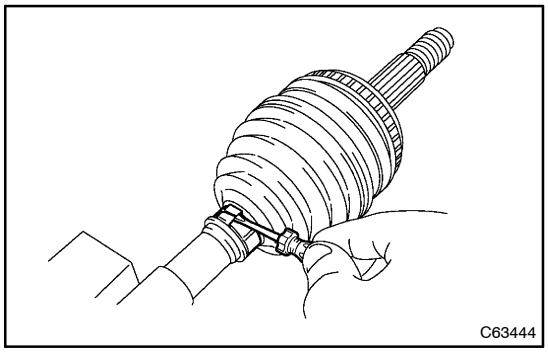
(c) Remove the drive shaft damper from the outboard joint assy LH.

17. REMOVE FRONT DRIVE SHAFT DAMPER RH



18. REMOVE FRONT AXLE OUTBOARD JOINT BOOT LH NO.2 CLAMP

(a) Using a flat–head screwdriver, remove the outboard joint boot clamp LH No.2.



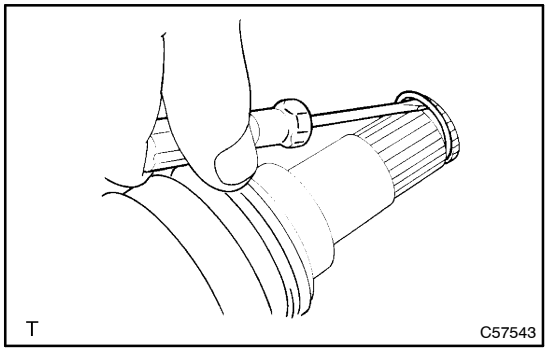
19. REMOVE FRONT AXLE OUTBOARD JOINT BOOT LH CLAMP

(a) Using a flat–head screwdriver, remove the outboard joint boot clamp LH.

20. REMOVE OUTBOARD JOINT BOOT

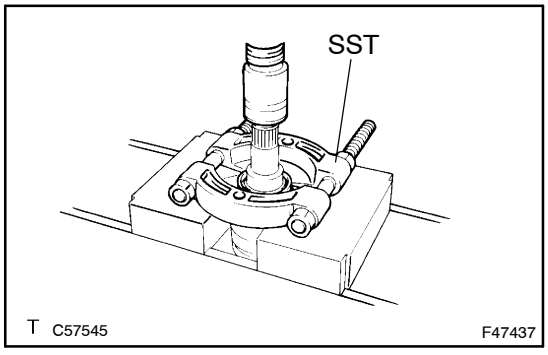
(a) Remove the outboard joint boot from the outboard joint assy LH.

(b) Remove grease from the outboard joint.



21. REMOVE FRONT DRIVE SHAFT LH HOLE SNAP RING

(a) Using a flat–head screwdriver, remove the front drive shaft hole snap ring LH.



22. 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:

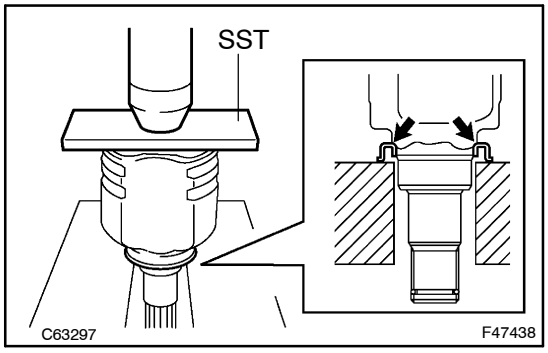
Be careful not to drop the inboard joint assy LH.

23. REMOVE FRONT DRIVE SHAFT DUST COVER RH

HINT:

Remove the front drive shaft dust cover RH following the same procedures as for the LH side.

SST 09950–00020



24. INSTALL FRONT DRIVE SHAFT DUST COVER LH

(a) Using SST and a press, install a new front drive shaft dust cover and press it in until it hits the end of the inboard joint assy.

SST 09527–10011

NOTICE:

- **Install the front drive shaft dust cover LH in the correct direction.**
- **Do not deform the front drive shaft dust cover LH.**

25. INSTALL FRONT DRIVE SHAFT DUST COVER RH

HINT:

Install the front drive shaft dust cover RH following the same procedures as for the LH side.

SST 09527–10011

26. INSTALL FRONT DRIVE SHAFT LH HOLE SNAP RING

(a) Install a new front drive shaft hole snap ring LH.

27. INSTALL OUTBOARD JOINT BOOT

(a) Wrap protective tape around the spline of the outboard joint assy LH.

(b) Install the following new parts on the outboard joint assy LH in order.

(1) Outboard joint boot clamp LH No.2

(2) Outboard joint boot

(3) Outboard joint boot clamp LH

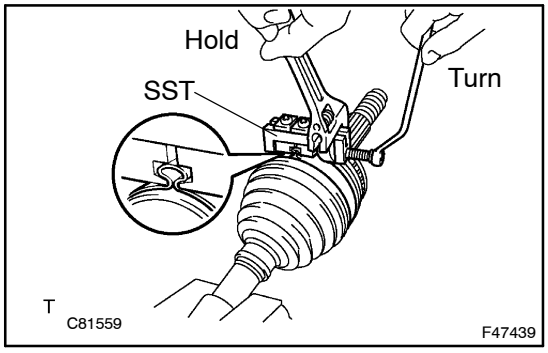
(c) Apply grease to the joint of the outboard joint assy LH and outboard joint boot.

Capacity: 125 to 135 g (4.9 to 5.3 oz.)

(d) Install the outboard joint boot into the outboard joint assy groove.

NOTICE:

Do not apply grease in the groove.



28. INSTALL FRONT AXLE OUTBOARD JOINT BOOT LH NO.2 CLAMP

(a) Hold the front drive shaft assy LH in a vice between two aluminum plates.

NOTICE:

Do not overtighten the vise.

(b) Set SST to the outboard joint boot clamp LH No.2 and slightly tighten the SST bolt while pushing the outboard joint on.

SST 09521–24010

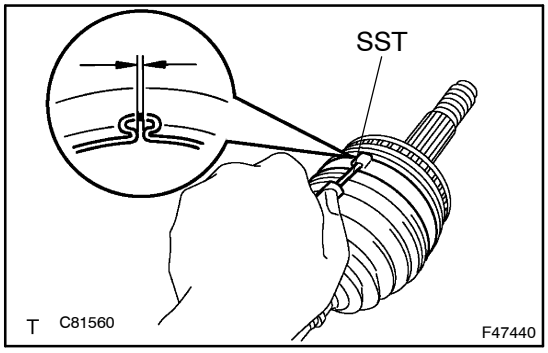
(c) Hold SST and tighten the SST bolt so that the clearance is within the specified value.

Clearance: 0.8 mm (0.031 in.) or less

NOTICE:

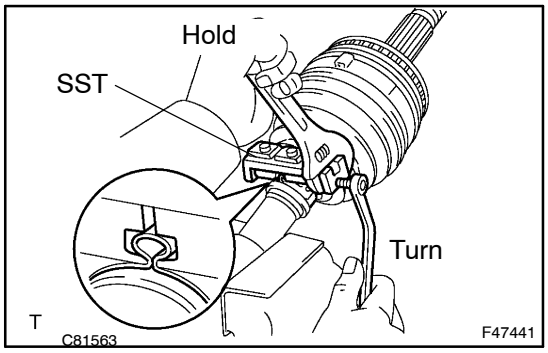
Do not damage the outboard joint.

(d) Remove the SST.



(e) Using SST, measure the clearance as to the illustration of the outboard joint boot clamp LH No.2.
SST 09240–00020
Clearance: 0.8 mm (0.031 in.) or less

NOTICE:
If the clearance exceeds the maximum, retighten it.



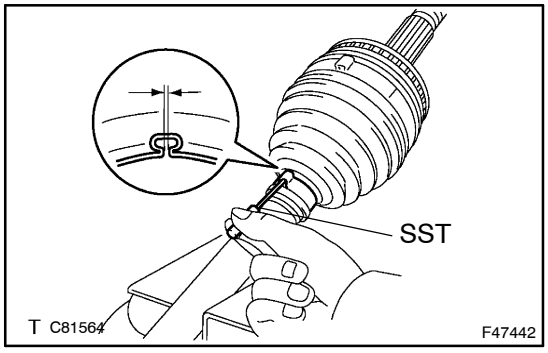
29. INSTALL FRONT AXLE OUTBOARD JOINT BOOT LH CLAMP

(a) Set SST to the outboard joint boot clamp LH and slightly tighten the SST bolt while pushing the outboard joint on.

(b) Hold SST and tighten the SST bolt so that the clearance is within the specified value.
SST 09521–24010
Clearance: 0.8 mm (0.031 in.) or less

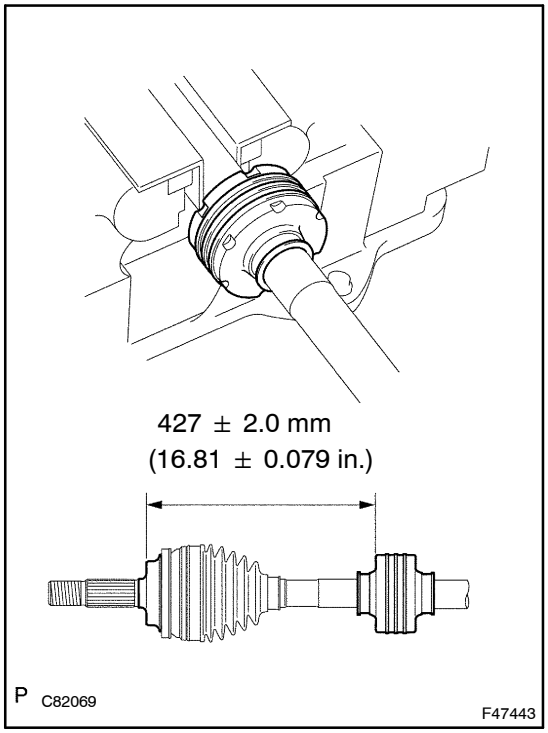
NOTICE:
Do not damage the outboard joint.

(c) Remove the SST.



(d) Using SST, measure the clearance as to the illustration of the outboard joint boot clamp LH.
SST 09240–00020
Clearance: 0.8 mm (0.031 in.) or less

NOTICE:
If the clearance exceeds the maximum, retighten it.



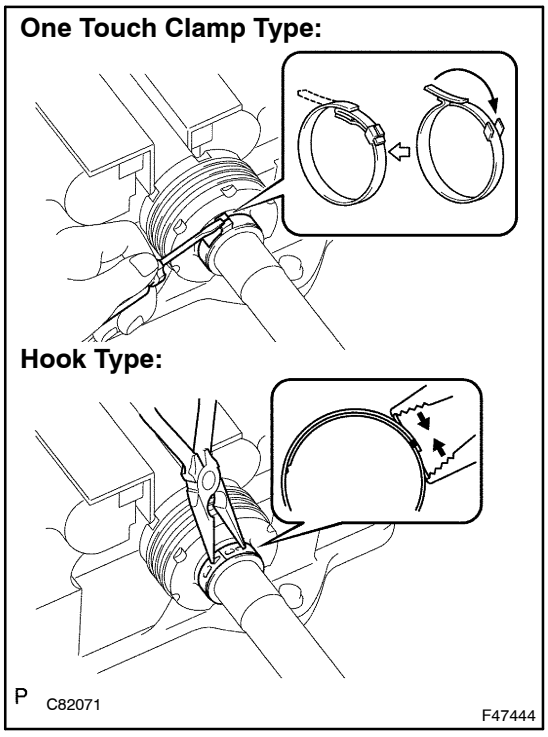
30. INSTALL FRONT DRIVE SHAFT DAMPER RH

(a) Install the drive shaft damper to the outboard joint assy LH.

Distance: 427 ± 2.0 mm (16.81 ± 0.079 in.)

NOTICE:

Install in the correct direction.



31. INSTALL DRIVE SHAFT DAMPER SETTING CLAMP

(a) When using a one touch clamp

(1) Install the drive shaft damper clamp to the drive shaft damper and stake the drive shaft damper clamp using a flat–head screwdriver.

(b) When using a hook type one

(1) Using needle nose pliers, align the concave part and protrusion of the drive shaft damper clamp.

32. INSTALL FRONT DRIVE INBOARD JOINT ASSY LH

(a) Install the following new parts on the outboard joint assy LH in order.

(1) Inboard joint boot clamp LH

(2) Inboard joint boot

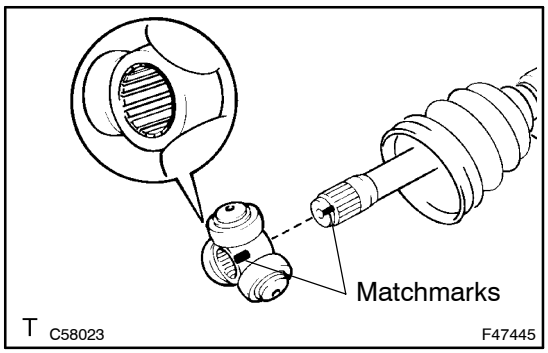
(3) Inboard joint boot clamp LH No.2

(b) Hold the front drive shaft assy LH in a vice between two aluminum plates.

NOTICE:

Do not overtighten the vise.

(c) Remove the protective tape.



(d) Align the matchmarks and install the tripod joint onto the outboard joint assy LH.

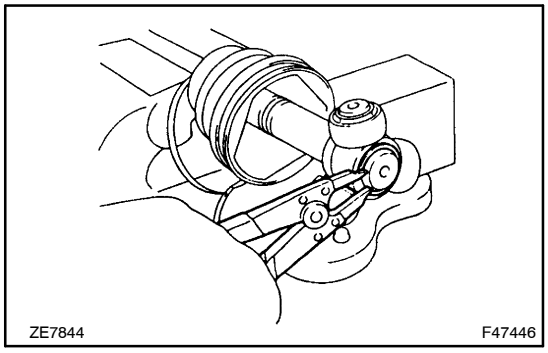
NOTICE:

Face the serration side of the tripod joint outward and install it to the outboard joint assy LH end.

(e) Using a brass bar and a hammer, drive the tripod joint in.

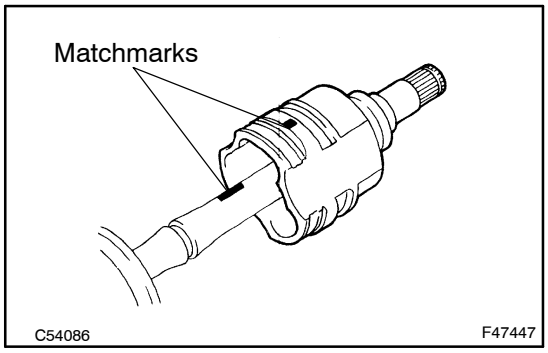
NOTICE:

- **Do not hit the roller portion.**
- **Do not attach any foreign matter on the tripod joint.**



(f) Using SST, install a new front drive inner shaft snap ring INN LH.

(g) Fill grease in the joint of the inboard joint assy LH and outboard joint boot.
Capacity: 125 to 135 g (4.9 to 5.3 oz.)

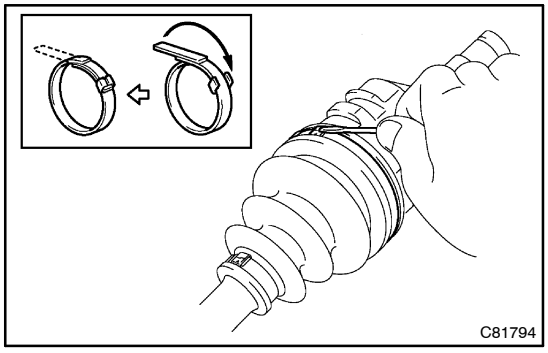


(h) Align the matchmarks and install the inboard joint assy onto the outboard joint assy LH.

33. INSTALL FR AXLE INBOARD JOINT BOOT

(a) Install the inboard joint boot into the inboard joint assy LH and outboard joint assy LH grooves.

NOTICE:
Do not apply grease in the groove.

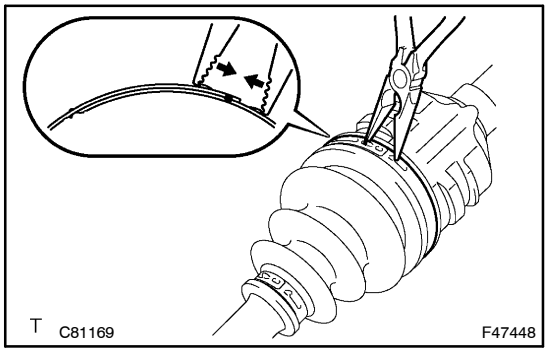


34. INSTALL FRONT AXLE INBOARD JOINT BOOT LH NO.2 CLAMP

(a) When using a one touch clamp

(1) Install the inboard joint boot clamp LH No.2 to the inboard joint boot and stake the inboard joint boot clamp LH No.2 using a flat–head screwdriver.

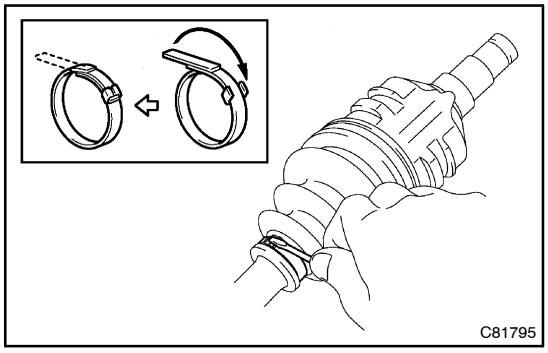
NOTICE:
Do not scratch the inboard joint boot.



(b) When using a hook type one

(1) Using needle nose pliers, align the concave part with the protrusion of the inboard joint boot clamp LH No.2 in order to fix.

NOTICE:
- **Do not scratch the inboard joint boot.**
- **Do not deform the claw of the hook.**



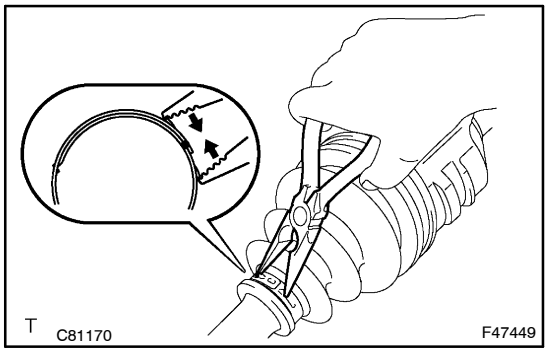
35. INSTALL FRONT AXLE INBOARD JOINT BOOT LH CLAMP

(a) When using a one touch clamp

(1) Install the inboard joint boot clamp LH to the inboard joint boot and stake the inboard joint boot clamp LH using a flat–head screwdriver.

NOTICE:

Do not scratch the inboard joint boot.

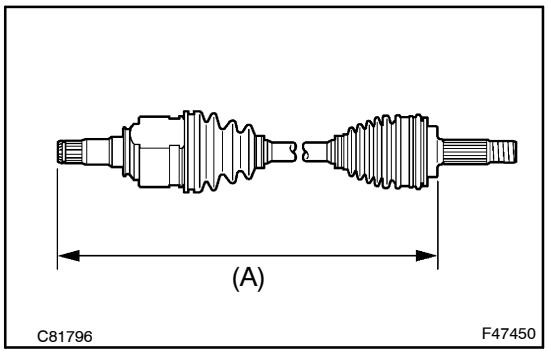


(b) When using a hook type one

(1) Using needle nose pliers, align the concave part with the protrusion of the inboard joint boot clamp LH No.2 in order to fix.

NOTICE:

- **Do not scratch the inboard joint boot.**
- **Do not deform the claw of the hook.**



36. INSPECT FRONT DRIVE SHAFT ASSY LH

(a) Check if the front drive shaft assy is within the following dimension.

HINT:

The following table shown the dimension (A) of the drive shaft.

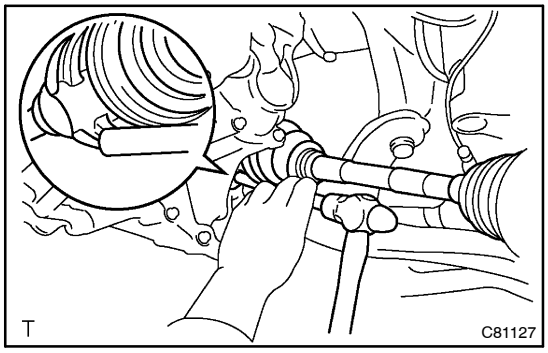
LH mm	RH mm
564.3	846.3

(b) Check for noticeable looseness when turning the joint up and down, left and right, and thrust direction.

(c) Check for cracks, damages or grease leaks on the joint boot.

NOTICE:

Carry the front drive shaft assy LH levelly.



37. INSTALL FRONT DRIVE SHAFT ASSY LH

(a) Apply ATF to the spline of the inboard joint assy LH.

(b) Align the spline of the front drive shaft and insert the front drive shaft assy LH using a brass bar and a hammer.

NOTICE:

- **Face the snap ring cut area downward.**
- **Be careful not to damage the oil seal.**
- **Be careful not to damage the front drive shaft assy LH boot.**

HINT:

Judge whether the front drive shaft assy LH is securely driven in or not according to the brass bar reaction force or sound change.

(c) Install the front fender apron seal LH.

38. INSTALL FRONT DRIVE SHAFT ASSY RH

HINT:

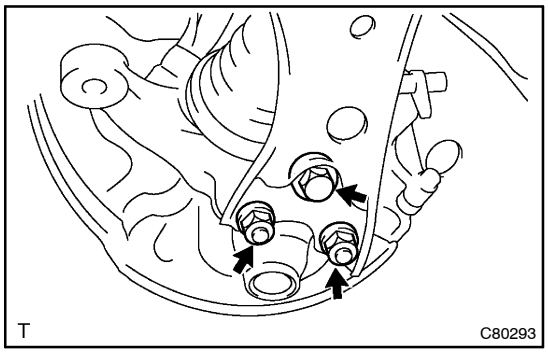
Install the front drive shaft dust cover RH following the same procedures as for the LH side.

39. INSTALL FRONT AXLE ASSY LH

(a) Push the front axle assy LH outward of the vehicle to align the spline of the front drive shaft assy LH with the front axle assy LH and insert.

NOTICE:

- **Be careful not to push the front axle assy LH outward from the vehicle more than is necessary to remove it.**
- **Be careful not to damage the oil seal.**
- **Be careful not to damage the front drive shaft assy LH boot.**
- **Be careful not to damage the speed sensor rotor.**
- **Check for any foreign matter on the speed sensor rotor and insertion part.**



40. INSTALL FRONT SUSPENSION ARM SUB–ASSY LOWER NO.1 LH

(a) Push the front suspension lower arm No.1 LH downward, install the front lower ball joint LH and tighten the bolt and 2 nuts.

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

41. INSTALL TIE ROD END SUB–ASSY LH

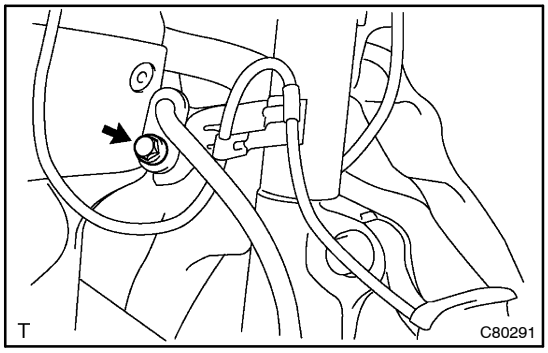
(a) Connect the tie rod end LH to the steering knuckle and install it with the castle nut.

NOTICE:

Clip hole alignment should be done after tightening the castle nut up to 60 degrees beyond torque.

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

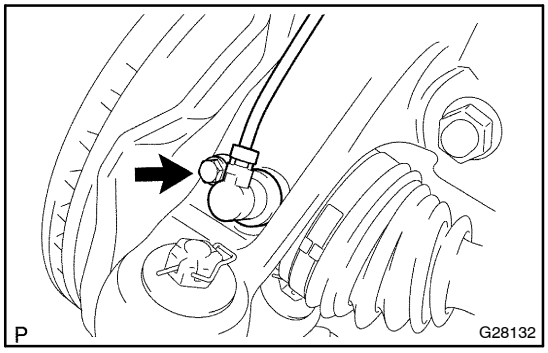
(b) Install a new clip.



42. INSTALL SPEED SENSOR FRONT LH

(a) Install the speed sensor FR LH and flexible hose clamp to the shock absorber assy with a bolt.

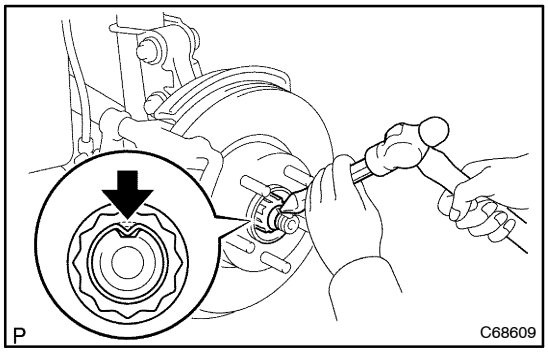
Torque: 29 N·m (296 kgf·cm, 21 ft·lbf)



(b) Install the speed sensor FR LH to the steering knuckle.
Torque: 8.0 N·m (82 kgf·cm, 71 in.·lbf)

NOTICE:

- **Do not damage the speed sensor tip when installing the speed sensor.**
- **Ensure no foreign object is caught when tightening the bolt.**
- **Do not twist the sensor wire when installing the speed sensor.**



43. INSTALL FRONT AXLE HUB LH NUT

(a) Using a 30 mm socket wrench, install a new front axle hub nut LH.
Torque: 216 N·m (2,200 kgf·cm, 159 ft·lbf)

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

44. INSTALL FRONT WHEEL
Torque: 103 N·m (1,050 kgf·cm, 76 ft·lbf)

45. ADD TRANSAXLE OIL

46. INSPECT TRANSAXLE OIL (SEE PAGE 22–1)

47. INSPECT AND ADJUST FRONT WHEEL ALIGNMENT (SEE PAGE 26–5)

48. CHECK ABS SPEED SENSOR SIGNAL (SEE PAGE 05–724)