300B4-01

## **OVERHAUL**

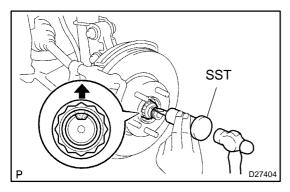
1. DRAIN MANUAL TRANSAXLE OIL (M/T TRANSAXLE)

Torque: 39.2 N·m (400 kgf·cm, 29 ft·lbf)

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

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

- 3. REMOVE FRONT WHEEL
- 4. REMOVE ENGINE UNDER COVER LH



### 5. REMOVE FRONT AXLE HUB LH NUT

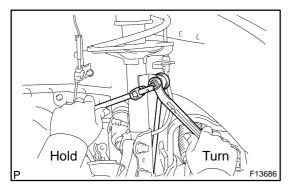
(a) Using SST and a hammer, unstake the staked part of the hub LH nut.

SST 09930-00010

(b) While applying the brakes, remove the hub LH nut.

## NOTICE:

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

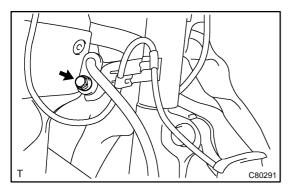


## 6. SEPARATE FRONT STABILIZER LINK ASSY LH

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

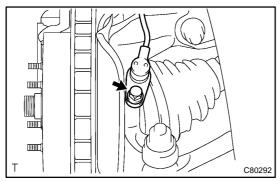
#### HINT:

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



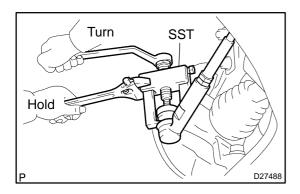
## 7. SEPARATE SPEED SENSOR FRONT LH

(a) Remove the bolt, separate the speed sensor front LH and flexible hose from the shock absorber assy front LH.



(b) Remove the bolt, separate the speed sensor front LH from the steering knuckle.

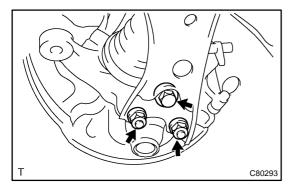
2003 COROLLA MATRIX (RM940U)



### 8. SEPARATE TIE ROD END SUB-ASSY LH

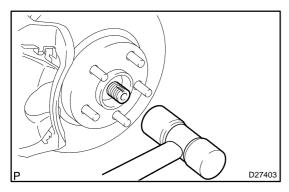
- (a) Remove the cotter pin and nut.
- (b) Using SST, separate the tie rod end sub–assy LH from the steering knuckle.

SST 09628-62011



## 9. SEPARATE FRONT SUSPENSION ARM SUB-ASSY LOWER NO.1 LH

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

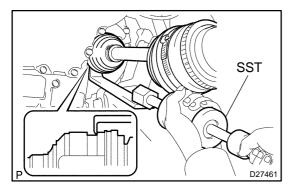


## 10. SEPARATE FRONT AXLE ASSY LH

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

## **NOTICE:**

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

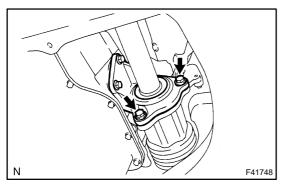


## 11. REMOVE FRONT DRIVE SHAFT ASSY LH

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

## NOTICE:

Be careful not to damage the dust cover, boot and oil seal.



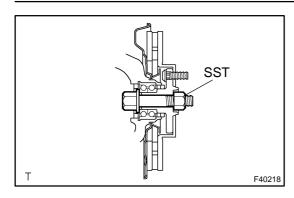
12. REMOVE FRONT DRIVE SHAFT ASSY RH

(a) Remove the 2 bearing lock bolts, pull out the front drive shaft assy RH.

## **NOTICE:**

Be careful not to damage the dust cover, boot and oil seal.

2003 COROLLA MATRIX (RM940U)



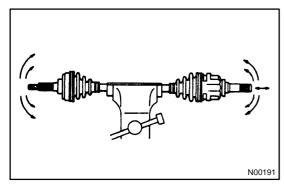
## 13. FIX FRONT AXLE ASSY LH

#### NOTICE:

The hub bearing could be damaged if it is subjected to the vehicle weight, such as when moving the vehicle with the drive shaft removed.

Therefore, make sure to support the hub bearing with SST when the vehicle weight is applied.

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



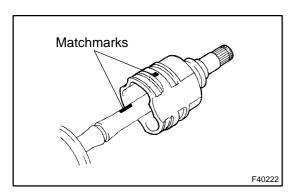
#### 14. INSPECT FRONT DRIVE SHAFT ASSY LH

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

#### NOTICE:

Keep the drive shaft assy level during inspection.

- 15. REMOVE FRONT AXLE INBOARD JOINT BOOT LH NO.2 CLAMP
- (a) Using a side cutter, cut the inboard joint boot LH No.2 clamp, then remove it.
- 16. REMOVE FRONT AXLE INBOARD JOINT BOOT LH CLAMP
- (a) Using a side cutter, cut the inboard joint boot LH clamp, then remove it.
- 17. SEPARATE INBOARD JOINT BOOT
- (a) Separate the inboard joint boot from the inboard joint sub-assy LH.



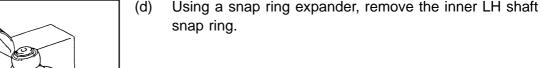
## 18. REMOVE FRONT DRIVE INBOARD JOINT ASSY LH

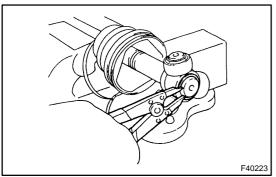
- (a) Remove the old grease from the inboard joint sub–assy LH.
- (b) Place matchmarks on the inboard joint sub–assy LH and outboard joint shaft assy.

## **NOTICE:**

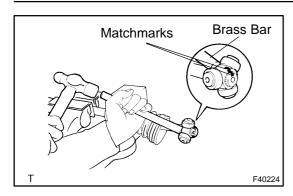
## Do not punch the marks.

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





2003 COROLLA MATRIX (RM940U)



(e) Place matchmarks on the outboard joint shaft assy and tripod joint assy.

#### NOTICE:

## Do not punch the marks.

(f) Using a brass bar and a hammer, remove the tripod joint assy from the outboard joint shaft assy.

## NOTICE:

## Do not tap the roller.

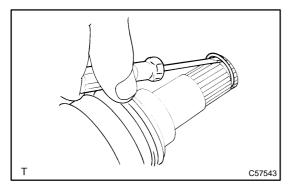
(g) Remove the inboard joint boot LH No.2 clamp, inboard joint boot and inboard joint boot LH clamp.

## 19. REMOVE DRIVE SHAFT DAMPER (M/T TRANSAXLE)

#### HINT:

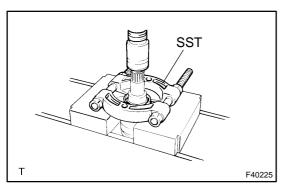
Perform the procedure below only when disassembling the RH side.

- (a) Using a side cutter, cut the drive shaft damper setting clamp, then remove it.
- (b) Remove the drive shaft damper.
- 20. REMOVE FRONT AXLE OUTBOARD JOINT BOOT LH NO.2 CLAMP
- (a) Using a side cutter, cut the outboard joint boot LH No.2 clamp, then remove it.
- 21. REMOVE FRONT AXLE OUTBOARD JOINT BOOT LH CLAMP
- (a) Using a side cutter, cut the outboard joint boot LH clamp, then remove it.
- 22. REMOVE OUTBOARD JOINT BOOT
- (a) Remove the outboard joint boot from the outboard joint shaft.
- (b) Remove the old grease from the outboard joint.



## 23. REMOVE FRONT DRIVE SHAFT LH HOLE SNAP RING

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



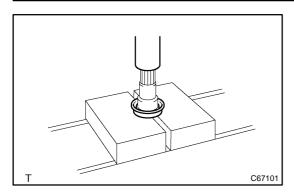
## 24. REMOVE FRONT DRIVE SHAFT DUST COVER LH

(a) Using SST and a press, remove the dust cover LH. SST 09950–00020

#### NOTICE:

Be careful not to drop the inboard joint.

2003 COROLLA MATRIX (RM940U)

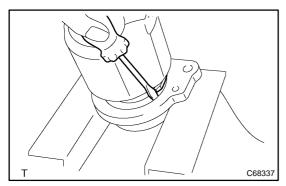


## 25. REMOVE FRONT DRIVE SHAFT DUST COVER RH

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

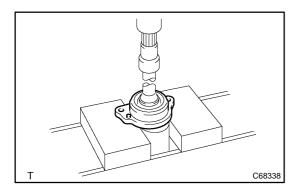
#### NOTICE:

Be careful not to drop the inboard joint.



# 26. REMOVE CASE SUB ASSY, DRIVE SHAFT BEARING SNAP RING (RH DRIVE SHAFT)

(a) Using a screwdriver, remove the drive shaft bearing snap ring.

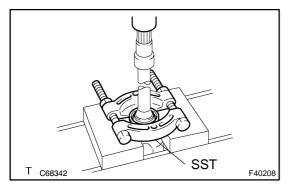


# 27. REMOVE DRIVE SHAFT BEARING CASE SUB ASSY (RH DRIVE SHAFT)

(a) Using a press, remove the bearing case sub-assy.

## **NOTICE:**

Be careful not to drop the inboard joint.

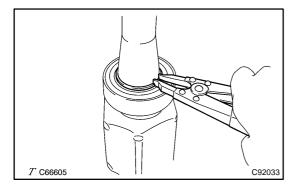


# 28. REMOVE FRONT DRIVE SHAFT DUST COVER (RH DRIVE SHAFT)

(a) Using SST and a press, remove the dust cover. SST 09950–00020

## NOTICE:

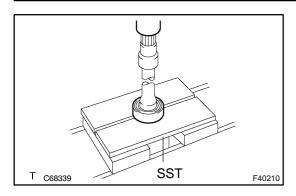
Be careful not to drop the inboard joint.



# 29. REMOVE FRONT DRIVE SHAFT BEARING (RH DRIVE SHAFT)

(a) Using a snap ring expander, remove the inner RH shaft snap ring.

2003 COROLLA MATRIX (RM940U)

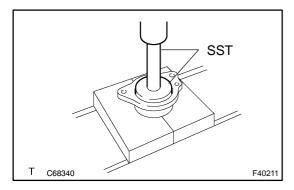


(b) Using SST and a press, remove the drive shaft bearing. SST 09527–21011

### NOTICE:

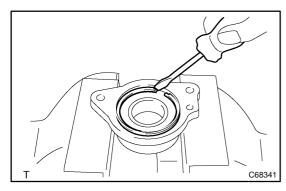
## Be careful not to drop the inboard joint.

(c) Remove the drive shaft bearing snap ring.



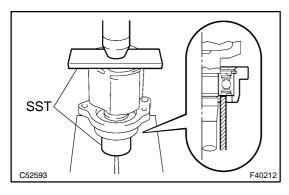
## 30. INSTALL FRONT DRIVE SHAFT BEARING (RH DRIVE SHAFT)

(a) Using SST and a press, install a new drive shaft bearing. SST 09950–60010 (09951–00650), 09950–70010 (09951–07100)



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

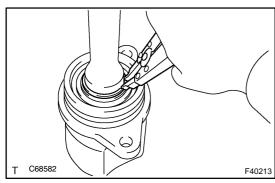
(a) Using a screwdriver, install a new drive shaft bearing snap ring.



# 32. INSTALL DRIVE SHAFT BEARING CASE SUB ASSY (RH DRIVE SHAFT)

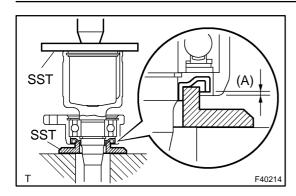
(a) Using SST and a press, install the bearing case sub–assy to the inboard joint.

SST 09527-10011, 09710-04081



(b) Using a snap ring expander, install a new inner RH shaft snap ring.

2003 COROLLA MATRIX (RM940U)

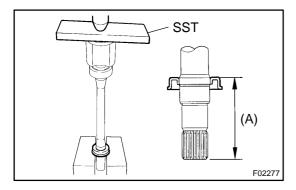


# 33. INSTALL FRONT DRIVE SHAFT DUST COVER (RH DRIVE SHAFT)

(a) Using SST and a press, install a new dust cover until the distance (A) from the tip of the bearing case sub–assy to the dust cover reaches the specification, as shown in the illustration.

SST 09726-40010, 09527-10011

Distance (A) 1.0 mm (0.039 in.)
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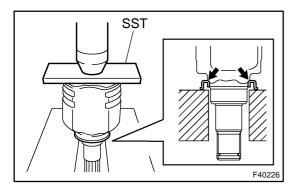


## 34. INSTALL FRONT DRIVE SHAFT DUST COVER RH

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

SST 09527-10011

Distance (A)	86.5 $\pm$ 0.5 mm (3.406 $\pm$ 0.020 in.)
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## 35. INSTALL FRONT DRIVE SHAFT DUST COVER LH

(a) Using SST and a press, install a new dust cover LH as shown in the illustration.

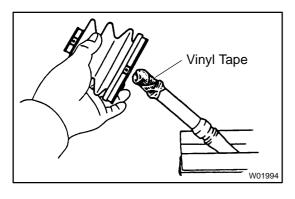
SST 09527-10011

#### NOTICE:

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

## 36. INSTALL FRONT DRIVE SHAFT LH HOLE SNAP RING

(a) Install a new LH hole snap ring.



## 37. INSTALL OUTBOARD JOINT BOOT

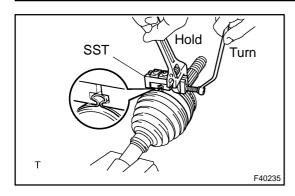
## HINT:

Before installing the boot, wrap the spline of the drive shaft with vinyl tape prevent the boot 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 - 162 g (5.4 - 5.7 oz.)

2003 COROLLA MATRIX (RM940U)

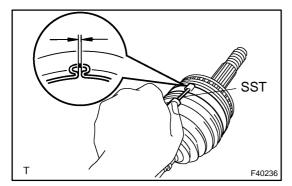


# 38. INSTALL FRONT AXLE OUTBOARD JOINT BOOT LH NO.2 CLAMP

- (a) Mount drive shaft in a soft vise.
- (b) Secure the clamp onto the boot.
- (c) Place SST onto the clamp. SST 09521-24010
- (d) Tighten the SST so that the clamp is pinched.

### NOTICE:

Do not overtighten the SST.

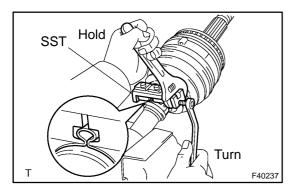


(e) Using SST, measure the clearance of the clamp. SST 09240–00020 (09242–00080)

Clearance: 0.8 mm (0.032 in.) or less

### NOTICE:

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

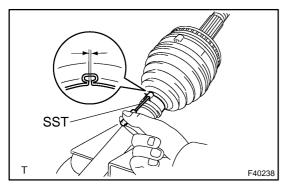


## 39. INSTALL FRONT AXLE OUTBOARD JOINT BOOT LH

- (a) Mount drive shaft in a soft vise.
- (b) Secure the clamp onto the boot.
- (c) Place SST onto the clamp. SST 09521–24010
- (d) Tighten the SST so that the clamp is pinched.

## **NOTICE:**

Do not overtighten the SST.

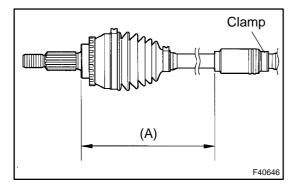


(e) Using SST, measure the clearance of the clamp. SST 09240-00020 (09242-00080)

Clearance: 0.8 mm (0.032 in.) or less

## NOTICE:

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



## **40. INSTALL DRIVE SHAFT DAMPER (M/T TRANSAXLE)** HINT:

Perform the procedure below only when reassembling the RH side.

(a) Set the distance (A), as described below.

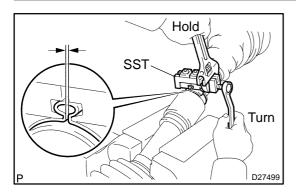
Distance (A)	200 mm ± 2 mm (7.87 ± 0.08 in.)

(b) Through the damper setting clamp to the shaft.

## NOTICE:

Be sure to install the clamp in the correct position.

2003 COROLLA MATRIX (RM940U)



- (c) Mount drive shaft in a soft vise.
- (d) Secure the damper setting clamp onto the damper.
- (e) Place SST onto the damper setting clamp. SST 09521–24010
- (f) Tighten the SST so that the clamp is pinched.

## **NOTICE:**

## Do not overtighten the SST.

(g) Using SST, measure the clearance of the damper setting clamp.

SST 09240-00020 (09242-00080)

Clearance: 0.8 mm (0.032 in.) or less

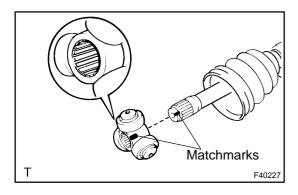
## NOTICE:

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

## **41. INSTALL FRONT DRIVE INBOARD JOINT ASSY LH** HINT:

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

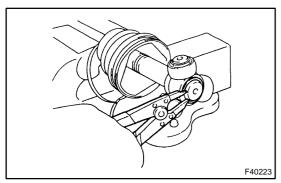
- (a) Install new parts to the outboard joint shaft assy in the following order.
  - (1) Inboard joint boot LH clamp
  - (2) Inboard joint boot
  - (3) Inboard joint boot LH No.2 clamp



- (b) Align the matchmarks, install tripod joint assy to the outboard joint assy.
- (c) Using a brass bar and a hammer, install the tripod joint assy.

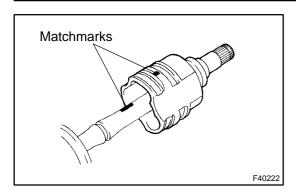
#### NOTICE:

Do not tap the roller.



- (d) Using a snap ring expander, install a new inner LH shaft snap ring.
- (e) Pack the inboard joint sub-assy LH with grease.

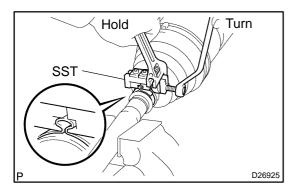
Grease capacity: 160 - 180 g (5.6 - 6.3 oz.)



(f) Align the matchmarks, install the inboard joint sub–assy LH to the outboard joint shaft assy.

### 42. INSTALL INBOARD JOINT BOOT

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

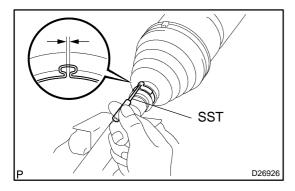


# 43. INSTALL FRONT AXLE INBOARD JOINT BOOT LH CLAMP

- (a) Mount drive shaft in a soft vise.
- (b) Secure the clamp onto the boot.
- (c) Place SST onto the clamp. SST 09521–24010
- (d) Tighten the SST so that the clamp is pinched.

## **NOTICE:**

Do not overtighten the SST.

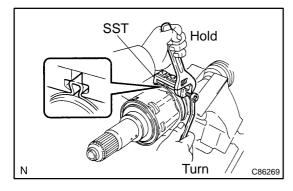


(e) Using SST, measure the clearance of the clamp. SST 09240–00020 (09242–00080)

Clearance: 0.8 mm (0.032 in.) or less

### NOTICE:

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



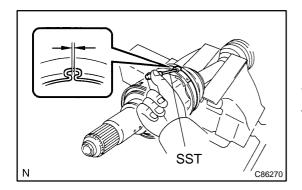
## 44. INSTALL FRONT AXLE INBOARD JOINT BOOT LH NO.2 CLAMP

- (a) Mount drive shaft in a soft vise.
- (b) Secure the clamp onto the boot.
- (c) Place SST onto the clamp. SST 09521–24010
- (d) Tighten the SST so that the clamp is pinched.

### NOTICE:

Do not overtighten the SST.

2003 COROLLA MATRIX (RM940U)

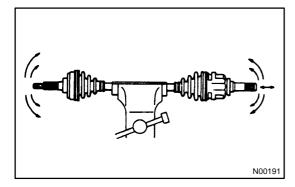


(e) Using SST, measure the clearance of the clamp. SST 09240–00020 (09242–00080)

Clearance: 0.8 mm (0.032 in.) or less

#### NOTICE:

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



### 45. INSPECT FRONT DRIVE SHAFT ASSY LH

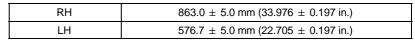
- (a) Check that there is no remarkable play in the outboard joint.
- (b) Check that the inboard joint slides smoothly in the thrust direction.
- (c) Check that there is no remarkable play in the radial direction of the inboard joint.
- (d) Check the boots for damage.

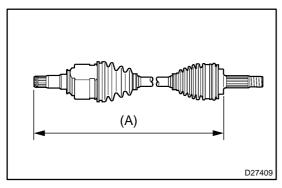
#### NOTICE:

Keep the drive shaft assy level during inspection.

## HINT:

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





# **46. INSTALL FRONT DRIVE SHAFT ASSY LH** (a) A/T:

Coat the spline of the inboard joint shaft assy with ATF.

(b) M/T

Coat the spline of the inboard joint shaft assy with gear oil.

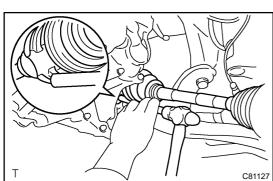
(c) Align the shaft splines, install the drive shaft assy RH with brass bar and a hammer.

### NOTICE:

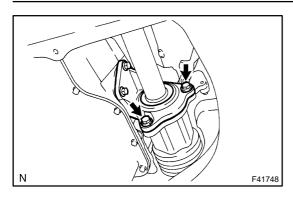
- Set the hole snap ring with opening side facing downwards.
- Be careful not to damage the oil seal, boot and dust cover.

### HINT:

Whether the inboard joint shaft is in contact with the pinion shaft or not can be known from the sound or feeling when driving it in.



2003 COROLLA MATRIX (RM940U)



## 47. INSTALL FRONT DRIVE SHAFT ASSY RH

(a) A/T:

Coat the spline of the inboard joint shaft assy with ATF.

(b) M/T:

Coat the spline of the inboard joint shaft assy with gear oil.

(c) Aline the shaft splines, install the drive shaft assy RH with the 2 bearing lock bolts.

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

#### NOTICE:

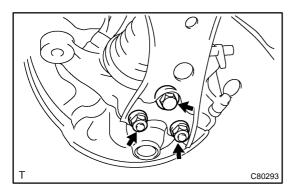
Be careful not to damage the oil seal, boot and dust cover.

### 48. INSTALL FRONT AXLE ASSY LH

(a) Install the drive shaft assy LH to the front axle assy LH.

#### NOTICE:

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



## 49. INSTALL FRONT SUSPENSION ARM SUB-ASSY LOWER NO.1 LH

(a) Install the lower ball joint to the front suspension arm subassy lower No.1 LH with the bolt and 2 nuts.

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

## 50. INSTALL TIE ROD END SUB-ASSY LH

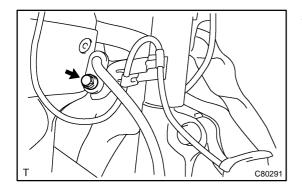
(a) Install the tie rod end sub-assy LH to the steering knuckle with the nut.

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

(b) Install a new cotter pin.

#### NOTICE:

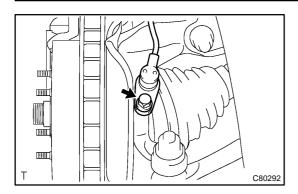
If the holes for the cotter pin are not aligned, tighten the nut further to 60°.



## 51. INSTALL SPEED SENSOR FRONT LH

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

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

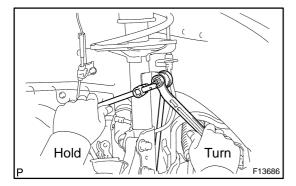


(b) Install the speed sensor front LH to the steering knuckle with the bolt.

Torque: 8.0 N·m (82 kgf·cm, 71 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.



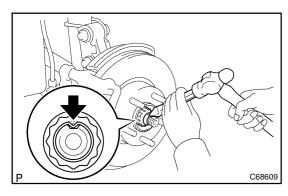
### 52. INSTALL FRONT STABILIZER LINK ASSY LH

(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.



### 53. INSTALL FRONT AXLE HUB LH NUT

(a) Install a new hub LH nut.

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

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

54. INSTALL FRONT WHEEL

Torque: 103 N·m (1,050 kgf·cm, 76 ft·lbf)

- 55. ADD MANUAL TRANSAXLE OIL (M/T TRANSAXLE)
- 56. INSPECT AND ADJUST MANUAL TRANSAXLE OIL (M/T TRANSAXLE) (See page 41–2)
- 57. ADD AUTOMATIC TRANSAXLE FLUID (A/T TRANSAXLE)
- 58. INSPECT AUTOMATIC TRANSAXLE FLUID (A/T TRANSAXLE) (See page 40-2)
- 59. INSPECT AND ADJUST FRONT WHEEL ALIGNMENT (See page 26-6)
- 60. CHECK ABS SPEED SENSOR SIGNAL (See page 05-316)