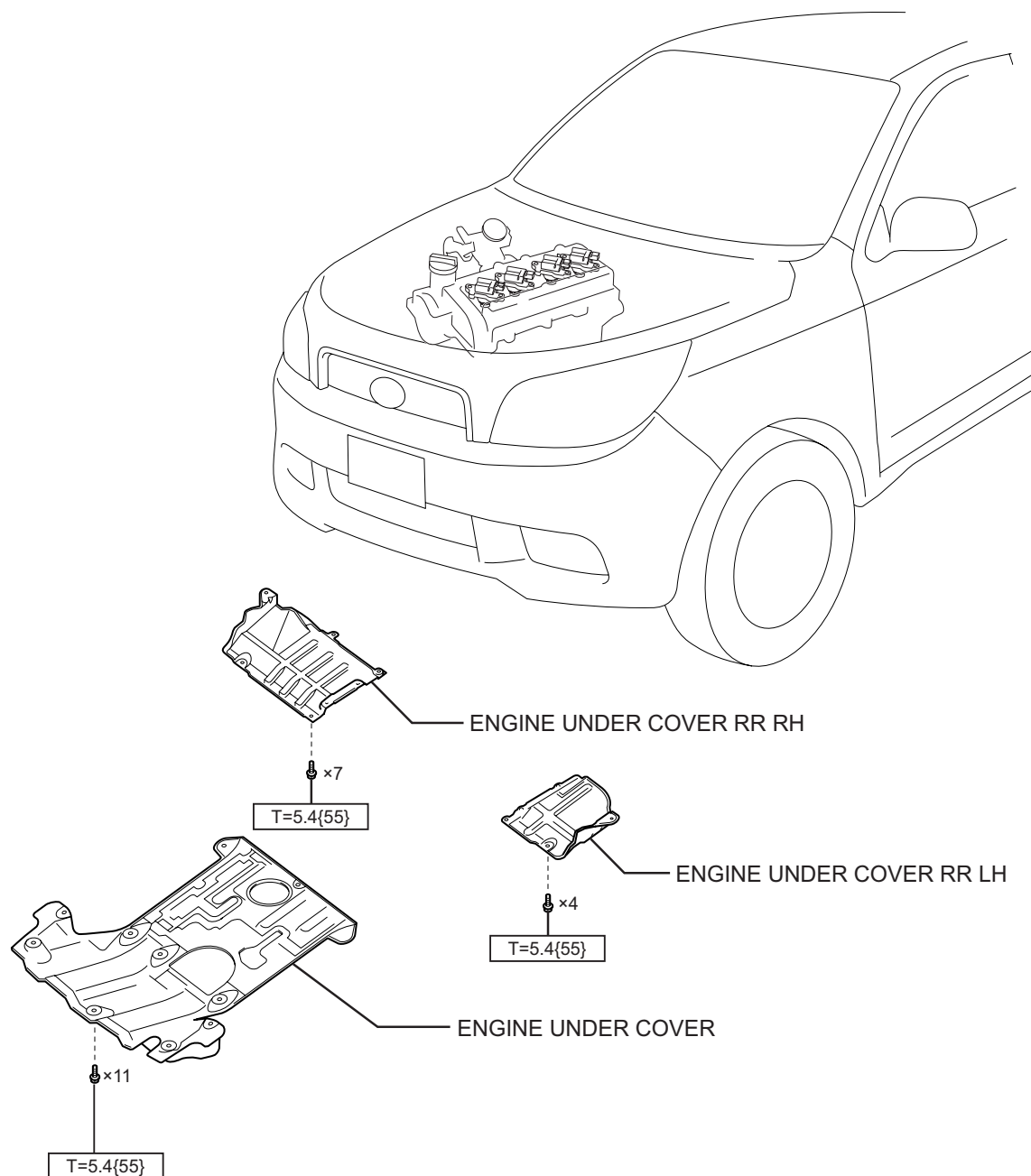
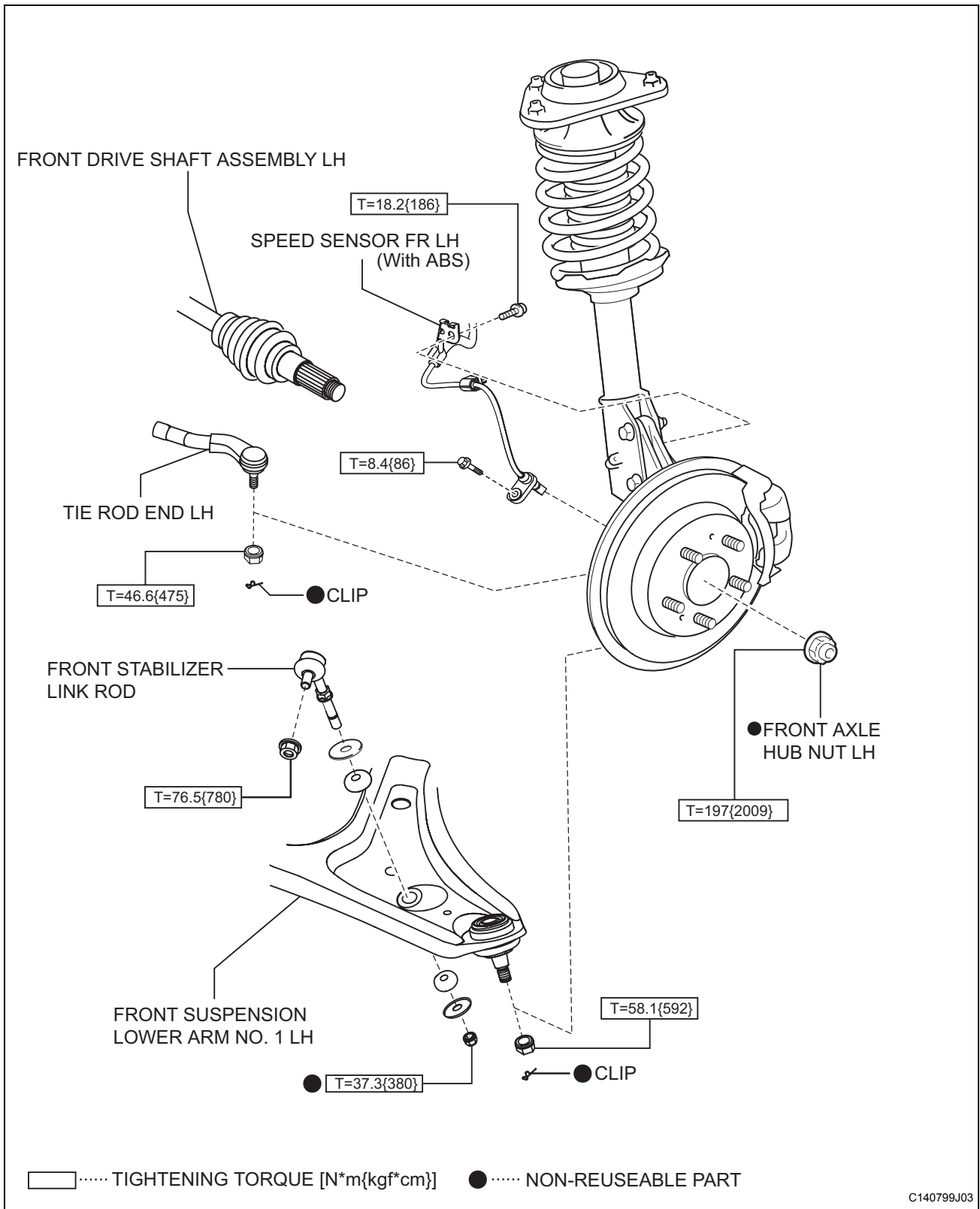
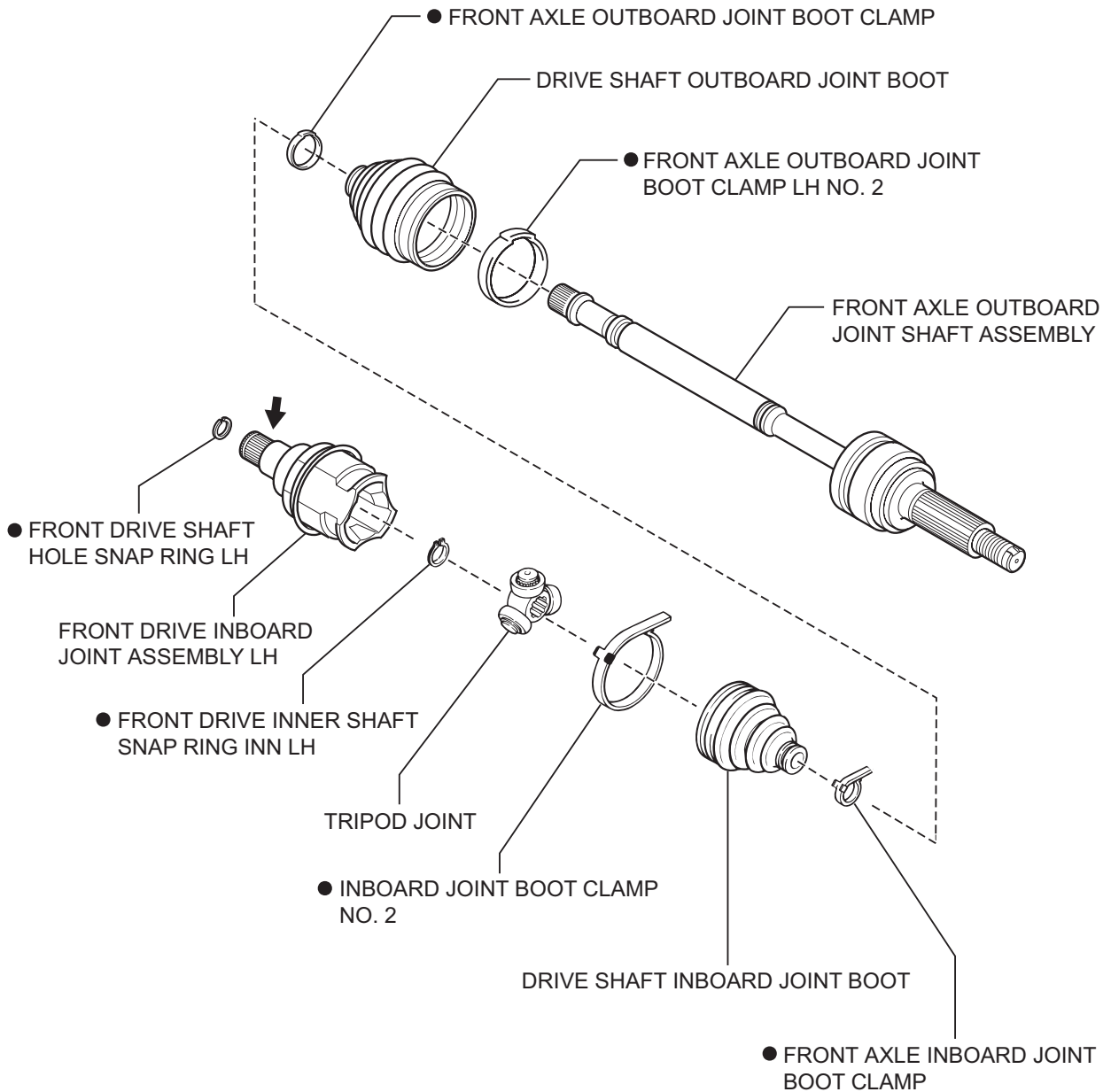


FRONT DRIVE SHAFT (4WD)

COMPONENTS

**DS**





←..... APPLY MP GREASE

●..... NON-REUSEABLE PART

DS

REMOVAL

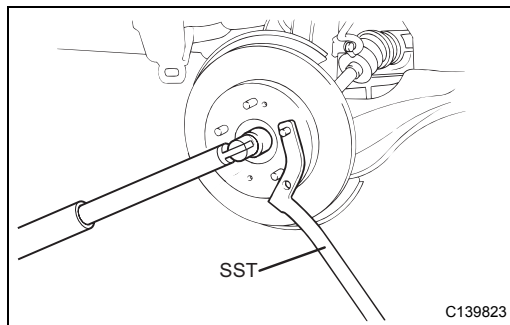
1. REMOVE FRONT TIRE
2. REMOVE ENGINE UNDER COVER
3. DRAIN DIFFERENTIAL OIL
4. DISCONNECT SPEED SENSOR FR LH (WITH ABS)
5. REMOVE FRONT AXLE HUB NUT LH

SST 09511-87202

- (a) Using a chisel and a hammer, release the staked part of the front axle hub nut LH.
- (b) Hold the front axle hub using SST, and remove the front axle hub nut LH.

NOTICE:

- When removing the front axle hub nut LH, completely loosen the staked part.
- Do not damage the threads of the drive shaft assembly.



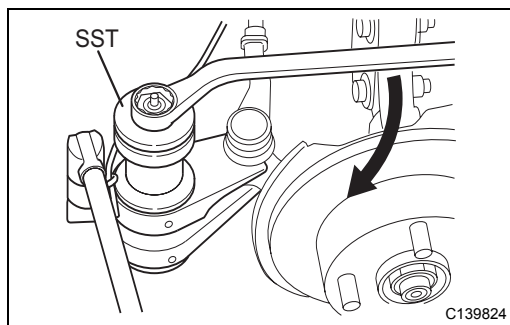
6. DISCONNECT TIE ROD END LH

SST 09628-00011

- (a) Remove the clip and nut.
- (b) Using SST, disconnect the tie rod end LH from the steering knuckle.

NOTICE:

- When setting SST, install a dummy nut to the threads of the tie rod end to prevent damage to the threads.
- Do not damage the front disc brake dust cover.
- To prevent SST from dropping, be sure to hang it with a piece of string or other tools.
- Do not damage the ball joint dust cover.
- Do not damage the steering knuckle.



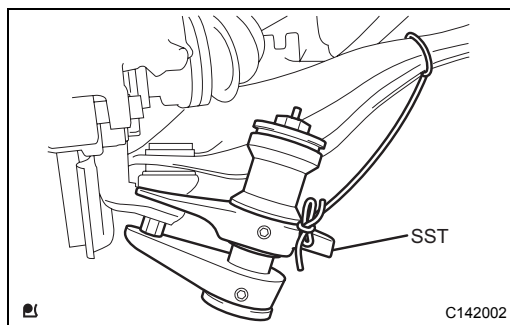
7. REMOVE FRONT STABILIZER LINK ROD(See page SP-14)
8. DISCONNECT FRONT SUSPENSION LOWER ARM NO. 1 LH

SST 09628-00011

- (a) Remove the clip and nut.
- (b) Using SST, disconnect the front sustention lower arm No. 1 LH from the steering knuckle.

NOTICE:

- When setting SST, install a dummy nut to the threads of the tie rod end to prevent damage to the threads.
- To prevent SST from dropping, be sure to hang it with a piece of string or other tools.
- Do not damage the ball joint dust cover.
- Do not damage the steering knuckle.



9. DISCONNECT FRONT AXLE HUB LH

- (a) Using a plastic hammer, lightly tap the end of the drive shaft assembly, and disengage the shaft and front axle assembly.

HINT:

If the engagement of the spline is firm, use a brass bar and hammer to lightly tap the end of the drive shaft assembly LH.

- (b) Push the axle assembly outward from the vehicle, and remove the drive shaft assembly LH from the axle assembly.

NOTICE:

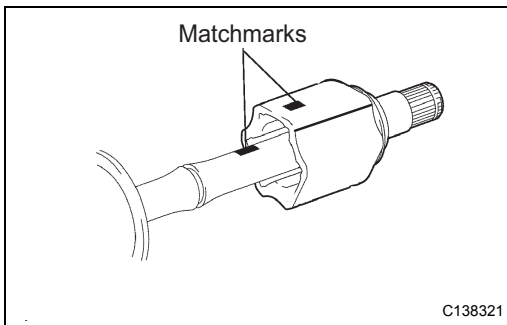
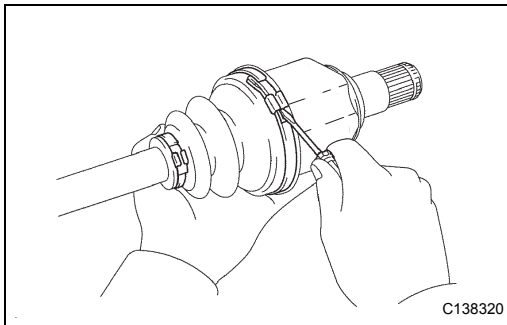
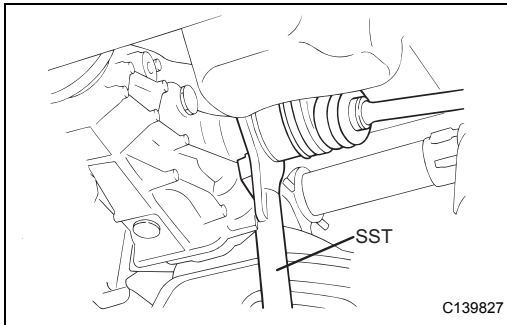
- Do not push the axle assembly outward from the vehicle more than necessary.
- Do not damage the boot.
- Be sure to hang the drive shaft assembly LH with a piece of string or other tools.
- Do not apply excessive force to the flexible hose.

10. REMOVE FRONT DRIVE SHAFT ASSEMBLY LH**SST 09648-87201**

- (a) Using SST, remove the front drive shaft assembly LH.

11. INSPECT FRONT DRIVE SHAFT ASSEMBLY LH

- (a) Move the joint up and down, left and right, and in the axial direction to check that it moves smoothly and that there is no significant looseness. Check the boot for cracks, damage, and grease leakage.

**DISASSEMBLY****1. DISCONNECT INBOARD JOINT BOOT CLAMP NO. 2**

- (a) Using a screwdriver, unstuck the inboard joint boot clamp No. 2.
- (b) Disconnect the inboard joint boot clamp No. 2 from the drive shaft inboard joint boot.

2. DISCONNECT FRONT AXLE INBOARD JOINT BOOT CLAMP

- (a) In the same way as the inboard joint boot clamp No. 2, disconnect the front axle inboard joint boot clamp.

3. DISCONNECT DRIVE SHAFT INBOARD JOINT BOOT

- (a) Disconnect the drive shaft inboard joint boot from the inboard joint assembly.

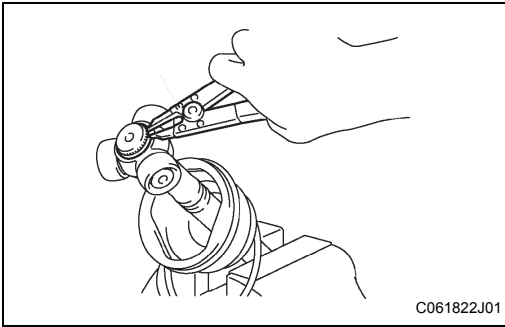
4. REMOVE FRONT DRIVE INBOARD JOINT ASSEMBLY LH

- (a) Remove grease from the inboard joint.
- (b) Put matchmarks on the front drive inboard joint assembly LH and front axle outboard joint shaft assembly.

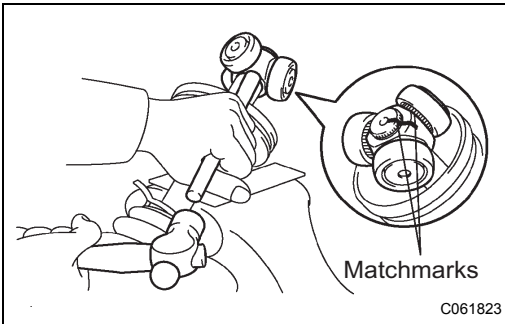
NOTICE:**Do not use a punch to put matchmarks.**

- (c) Remove the front drive inboard joint assembly LH from the front axle outboard joint shaft assembly.
- (d) Secure the front axle outboard joint shaft assembly in the vise between aluminum plates.

NOTICE:**Do not tighten the vise too firmly.**



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



- (f) Put matchmarks on the tripod joint and front axle outboard joint shaft assembly.

NOTICE:

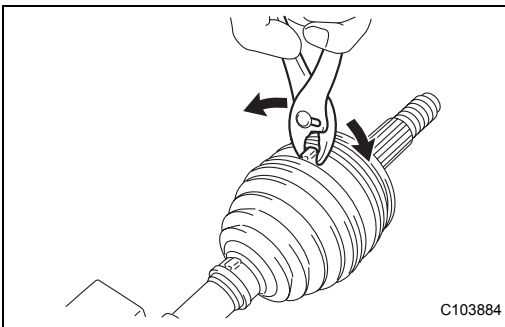
Do not use a punch to put matchmarks.

- (g) Using a brass bar and a hammer, remove the tripod joint from the front axle outboard joint shaft assembly.

NOTICE:

- **Do not hit the roller.**
- **Do not drop the tripod joint.**

- (h) Remove the inboard joint boot clamp No. 2, drive shaft inboard joint boot, and front axle inboard joint boot clamp.



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

- (a) Hold the staked part of the clamp using pliers, and pry the front axle outboard joint boot clamp LH No. 2 as shown in the illustration.

6. REMOVE FRONT AXLE OUTBOARD JOINT BOOT CLAMP LH

- (a) In the same way as the front axle outboard joint boot clamp LH No. 2, hold the staked part of the clamp using pliers, and pry the front axle outboard joint boot clamp LH.

7. REMOVE DRIVE SHAFT OUTBOARD JOINT BOOT

- (a) Remove the drive shaft outboard joint boot and the 2 clamps from the front axle outboard joint shaft assembly.

REASSEMBLY

1. INSTALL DRIVE SHAFT OUTBOARD JOINT BOOT

- (a) Wrap protective tape around the inboard side spline of the front axle outboard joint shaft assembly.
- (b) Install a new front axle outboard joint boot clamp LH No. 2, the drive shaft outboard joint boot, and a new front axle outboard joint boot clamp to the front axle outboard joint shaft assembly in order.
- (c) Fill the joint part of the front axle outboard joint shaft assembly with grease.

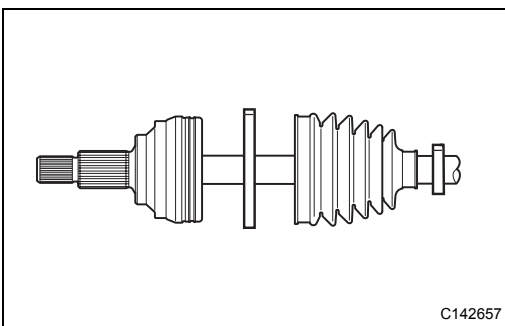
HINT:

Grease application volume: 100 ± 10 g

- (d) Install the drive shaft outboard joint boot into the groove of the front axle outboard joint shaft assembly.

NOTICE:

Keep the groove free of grease.



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

SST 09648-97202

- (a) Secure the drive shaft assembly in the vise between aluminum plates.

NOTICE:

Do not tighten the vise too firmly.

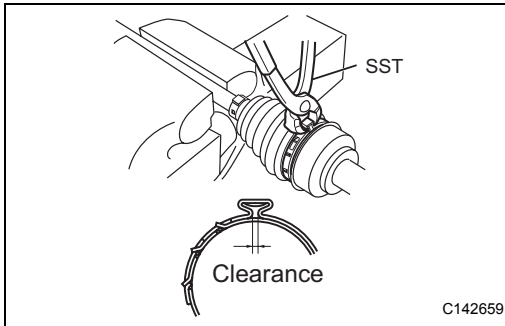
- (b) Using SST, squeeze the front axle outboard joint boot clamp LH No. 2 so that its clearance is within the standard value range.

Standard:

1.0 to 4.0 mm

NOTICE:

- Do not damage the boot.
- Do not squeeze the boot clamp excessively, or its clearance will be below the specified range.
- If the measurement value is not within the specified range, use a new front axle outboard joint boot clamp LH No. 2 and perform the installation procedure again.



3. INSTALL FRONT AXLE OUTBOARD JOINT BOOT CLAMP

SST 09648-97202

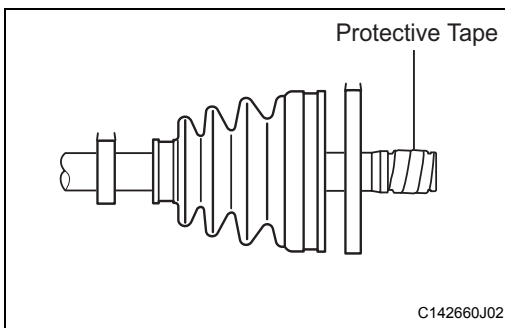
- (a) Using SST, squeeze the front axle outboard joint boot clamp so that its clearance is within the standard value range using the same procedure as the front axle outboard joint boot clamp LH No. 2.

Standard:

1.0 to 4.0 mm

NOTICE:

- Do not damage the boot.
- Do not squeeze the boot clamp excessively, or its clearance will be below the specified range.
- If the measurement value is not within the specified range, use a new front axle outboard joint boot clamp and perform the installation procedure again.



4. INSTALL FRONT DRIVE INBOARD JOINT ASSEMBLY LH

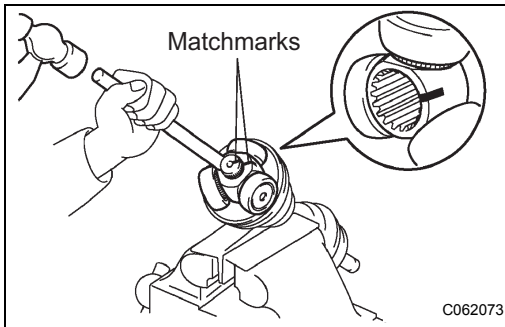
- (a) Install a new front axle inboard joint boot clamp, the drive shaft inboard joint boot, and a new inboard joint boot clamp No. 2 to the front axle outboard joint shaft assembly in order.

- (b) Secure the drive shaft assembly in the vise between aluminum plates.

NOTICE:

Do not tighten the vise too firmly.

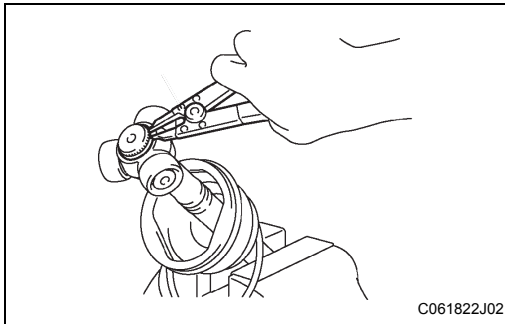
- (c) Align the matchmarks and install the tripod joint onto the front axle outboard joint shaft assembly.



- (d) Using a brass bar and a hammer, tap in a tripod joint.

CAUTION:

- Do not hit the roller.
- Keep the tripod joint free of foreign objects.

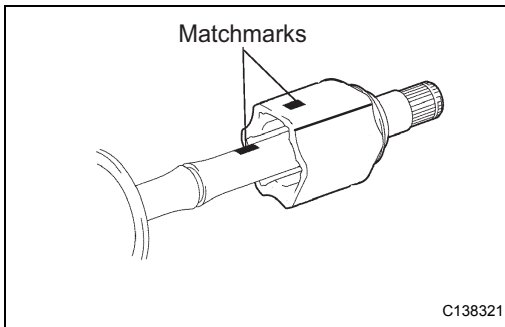


- (e) Using a snap ring expander, install a new front drive inner shaft snap ring INN LH.

- (f) Fill the inboard joint assembly with grease.

HINT:

Grease application volume: 95 ± 10 g



- (g) Align the matchmarks and install the front drive inboard joint assembly LH onto the front axle outboard joint shaft assembly.

5. INSTALL DRIVE SHAFT INBOARD JOINT BOOT

- (a) Install the drive shaft inboard joint boot in the grooves of the front axle outboard joint shaft assembly and front drive inboard joint assembly LH.

NOTICE:

Keep the grooves free of grease.

6. INSTALL FRONT AXLE INBOARD JOINT BOOT CLAMP

- (a) Install the front axle inboard joint boot clamp to the drive shaft inboard joint boot.
- (b) Using pliers and a hammer or similar tools, stake the inboard joint clamp.

7. INSTALL INBOARD JOINT BOOT CLAMP NO. 2

- (a) Install the inboard joint boot clamp No. 2 to the drive shaft inboard joint boot.
- (b) Using pliers and a hammer or similar tools, stake the inboard joint boot clamp No. 2.

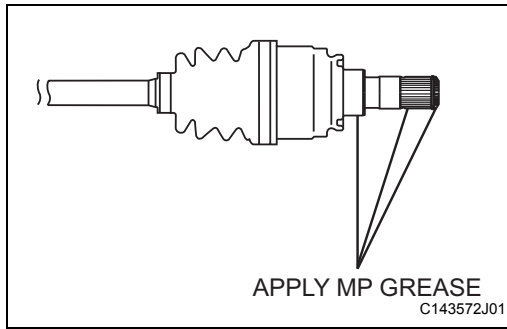
8. INSPECT FRONT DRIVE SHAFT ASSEMBLY

- (a) Move the joint up and down, left and right, and in the axial direction to check that it operates smoothly and there is no significant looseness.
- (b) Check the joint boot for cracks, damage, and grease leakage.

NOTICE:

Keep the drive shaft assembly in a horizontal position when carrying.

INSTALLATION



1. INSTALL FRONT DRIVE SHAFT ASSEMBLY LH

- Apply MP grease to the front drive shaft assembly LH as shown in the illustration.
- Align the spline of the front drive inboard joint assembly LH, and uniformly tap in the front drive shaft assembly LH using a brass bar and a hammer.

NOTICE:

- Do not damage the boot.
- Do not damage the oil seal.
- Use the injection wall of the inboard joint assembly for tapping.
- Do not tap the edge of the outboard joint assembly with the hammer.

HINT:

Check that the drive shaft assembly LH is completely tapped in according to the brass bar reaction force or sound change.

2. INSTALL FRONT AXLE HUB LH

- Push the front axle hub LH outward from the vehicle to align the spline of the front drive shaft assembly LH with the front axle hub LH and insert.

NOTICE:

- Do not damage the outboard joint boot.
- Do not damage the oil seal.

3. CONNECT FRONT SUSPENSION LOWER ARM NO. 1 LH

- Install the front suspension lower arm No. 1 LH to the steering knuckle, and tighten with the nut.

Torque: 58.1 N*m (592 kgf*cm)

- Install a new clip.

4. INSTALL FRONT STABILIZER LINK ROD

- Install the front stabilizer link rod to the front suspension lower arm No. 1 and tighten with the nut.

Torque: 37.3 N*m (380 kgf*cm)

5. INSTALL TIE ROD END LH

- Install the tie rod end to the steering knuckle, and tighten with the nut.

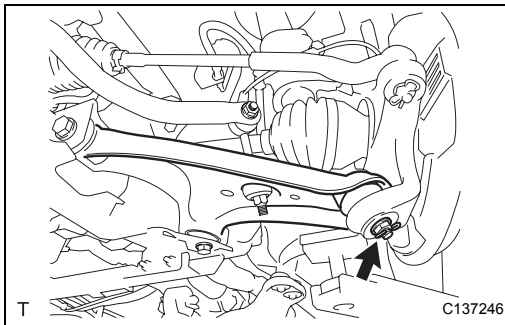
Torque: 46.6 N*m (475 kgf*cm)

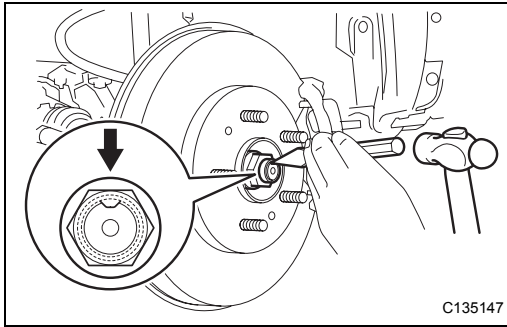
- Install a new clip.

6. INSTALL FRONT AXLE HUB NUT LH

- Install a new front axle hub nut LH.

Torque: 197 N*m (2009 kgf*cm)





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

7. **CONNECT SPEED SENSOR FR LH (WITH ABS)**(See page BC-147)
8. **INSTALL ENGINE UNDER COVER**
9. **INSTALL FRONT TIRE**
Torque: 103 N*m (1050 kgf*cm)
10. **ADJUST FRONT WHEEL ALIGNMENT**
(See page SP-4)
11. **TEST MODE INSPECTION (ABS SENSOR CHECK)**
WITHOUT VSC (See page BC-9)
WITH VSC (See page BC-65.)