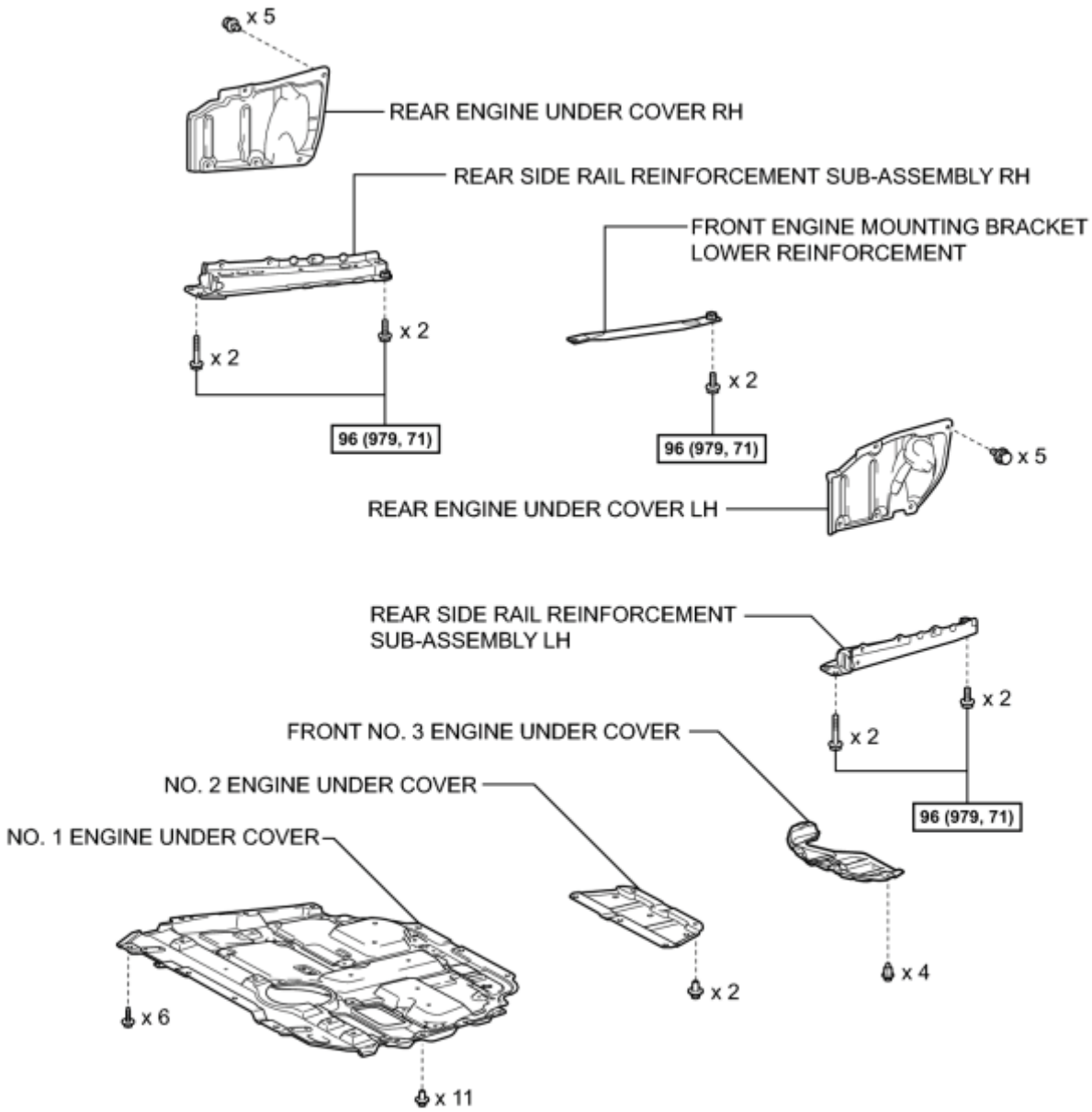


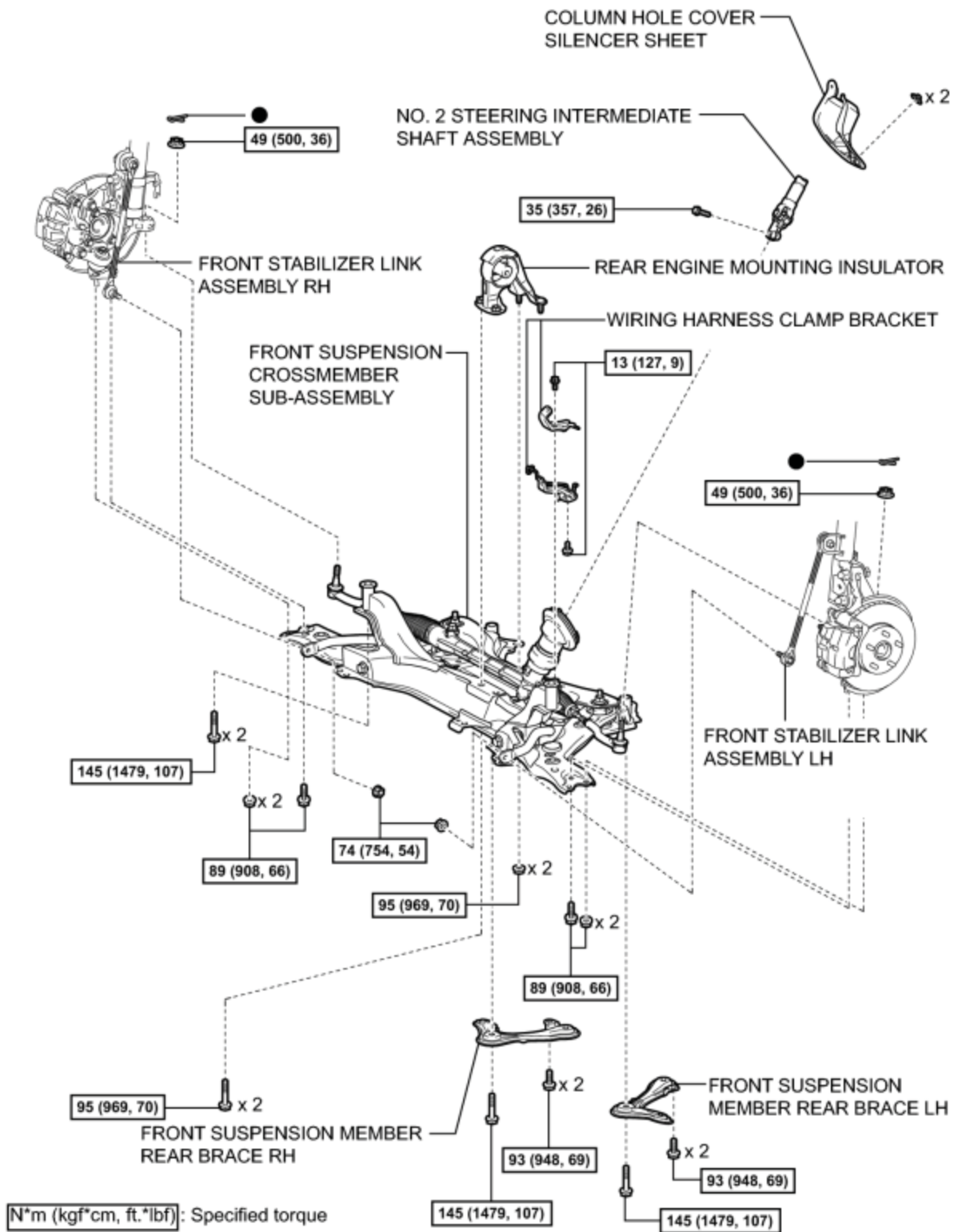
# COMPONENTS

# ILLUSTRATION

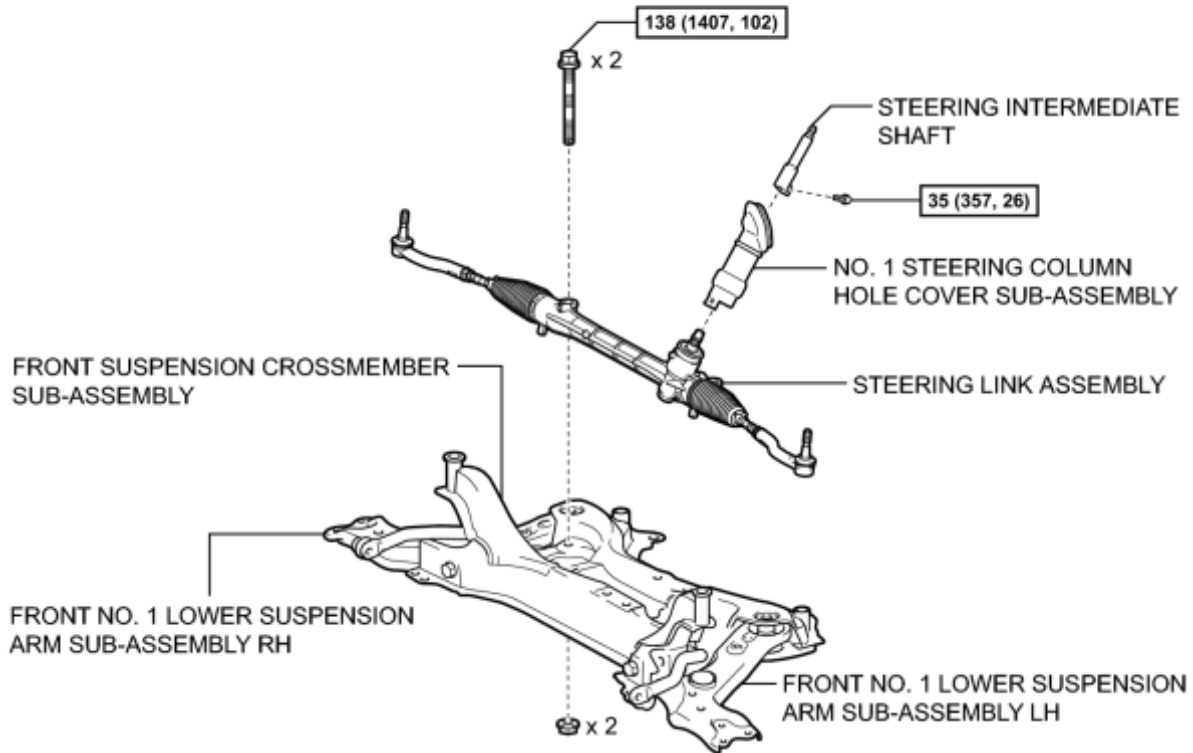


**N\*m (kgf\*cm, ft.\*lbf)** : Specified torque

# ILLUSTRATION

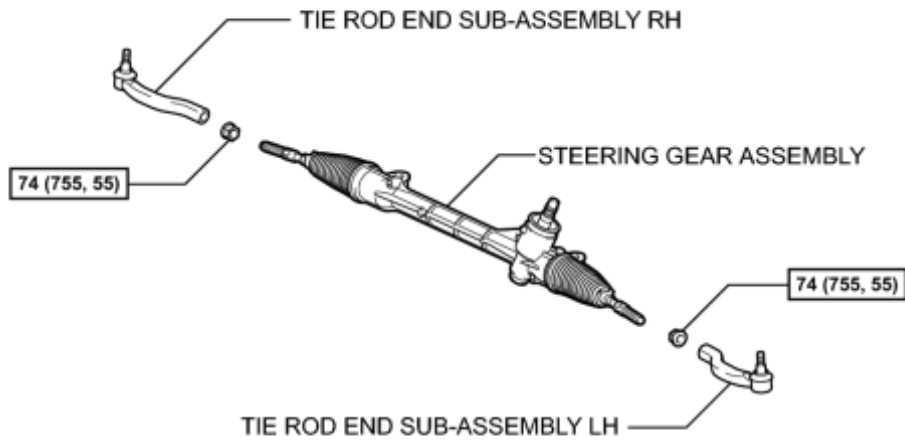


## ILLUSTRATION



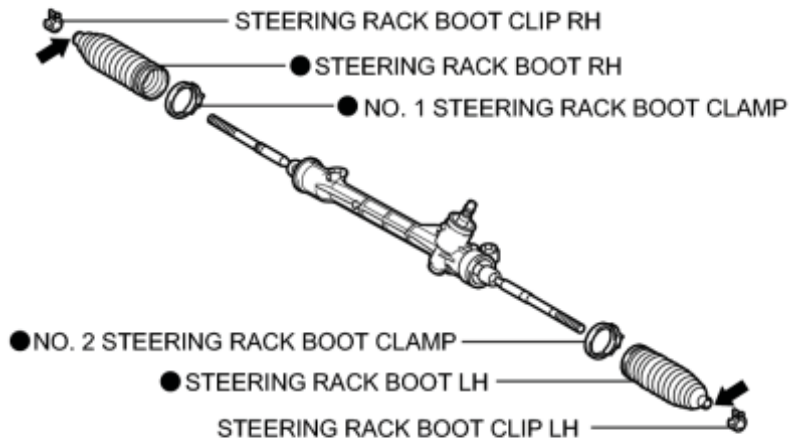
**N\*m (kgf\*cm, ft.\*lbf)** : Specified torque

## ILLUSTRATION



**N\*m (kgf\*cm, ft.\*lbf)** : Specified torque

## ILLUSTRATION



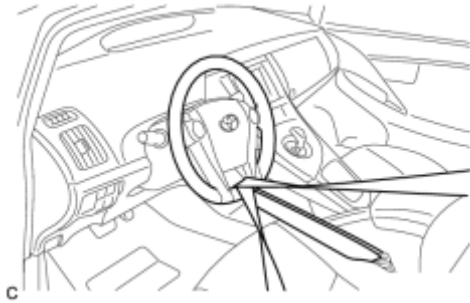
● Non-reusable part

← Lithium soap base glycol grease

c

# REMOVAL

1. PLACE FRONT WHEELS FACING STRAIGHT AHEAD
2. SECURE STEERING WHEEL

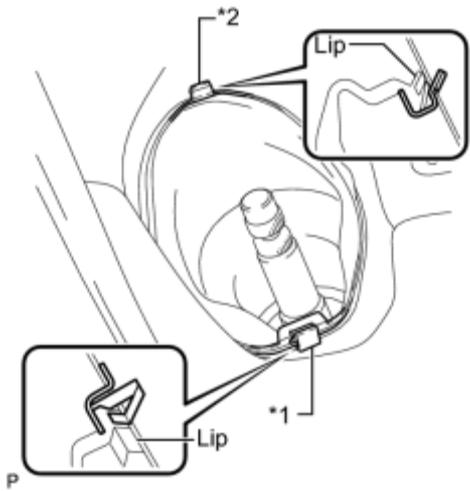


(a) Secure the steering wheel with the seat belt in order to prevent rotation.

HINT:

This operation is useful to prevent damage to the spiral cable.

3. REMOVE COLUMN HOLE COVER SILENCER SHEET INFO
4. SEPARATE NO. 2 STEERING INTERMEDIATE SHAFT ASSEMBLY INFO
5. SEPARATE NO. 1 STEERING COLUMN HOLE COVER SUB-ASSEMBLY



(a) Remove clip A, detach clip B from the body and disconnect the No. 1 steering column hole cover sub-assembly.

## Text in Illustration

*1	Clip A
*2	Clip B

NOTICE:

Do not damage clips A and B.

6. REMOVE FRONT WHEELS
7. REMOVE NO. 1 ENGINE UNDER COVER
8. REMOVE NO. 2 ENGINE UNDER COVER
9. REMOVE FRONT NO. 3 ENGINE UNDER COVER
10. REMOVE REAR ENGINE UNDER COVER LH

## 11. REMOVE REAR ENGINE UNDER COVER RH

HINT:

Perform the same procedure as for the LH side.

## 12. SEPARATE FRONT STABILIZER LINK ASSEMBLY LH NFC

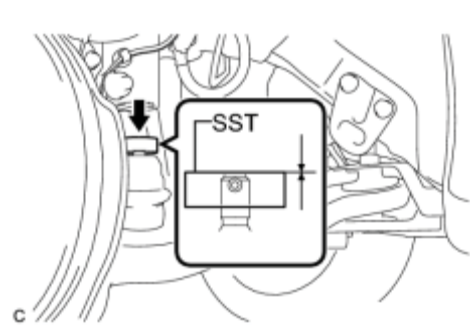
## 13. SEPARATE FRONT STABILIZER LINK ASSEMBLY RH

HINT:

Perform the same procedure as for the LH side.

## 14. SEPARATE TIE ROD END SUB-ASSEMBLY LH

(a) Remove the clip and nut.



(b) Install SST to the tie rod end.

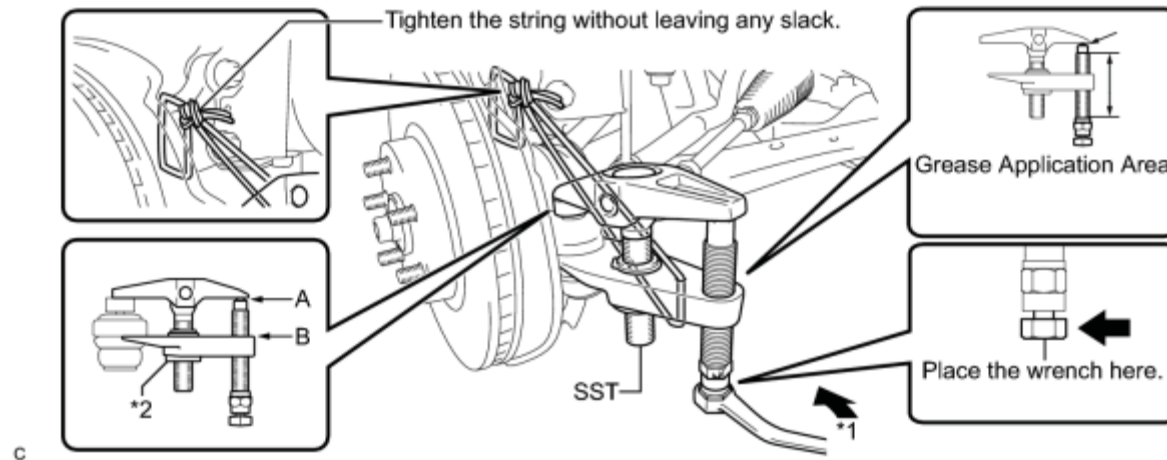
SST: 09960-20010

09961-02060

NOTICE:

Make sure that the upper ends of the tie rod end and SST are aligned.

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



### *Text in Illustration*

*1	Turn	*2	Nut
----	------	----	-----

SST: 09960-20010

09961-02010

CAUTION:

Apply grease to the bolt threads and the tip of SST.

NOTICE:

- Be sure to tighten the string firmly to secure SST to the steering knuckle to prevent SST from falling off.
- Install SST with the center nut so that A and B shown in the illustration are parallel. Otherwise, the dust cover may be damaged.
- Be sure to place the wrench on the part indicated in the illustration.
- Do not damage the front disc brake dust cover.
- Do not damage the ball joint dust cover.
- Do not damage the steering knuckle.

15. SEPARATE TIE ROD END SUB-ASSEMBLY RH

HINT:

Perform the same procedure as for the LH side.

16. SEPARATE FRONT NO. 1 LOWER SUSPENSION ARM SUB-ASSEMBLY LH\_ INFO

17. SEPARATE FRONT NO. 1 LOWER SUSPENSION ARM SUB-ASSEMBLY RH

HINT:

Perform the same procedure as for the LH side.

18. REMOVE FRONT ENGINE MOUNTING BRACKET LOWER REINFORCEMENT\_ INFO

19. REMOVE REAR SIDE RAIL REINFORCEMENT SUB-ASSEMBLY LH\_ INFO

20. REMOVE REAR SIDE RAIL REINFORCEMENT SUB-ASSEMBLY RH

HINT:

Perform the same procedure as for the LH side.

21. REMOVE FRONT SUSPENSION MEMBER REAR BRACE LH\_ INFO

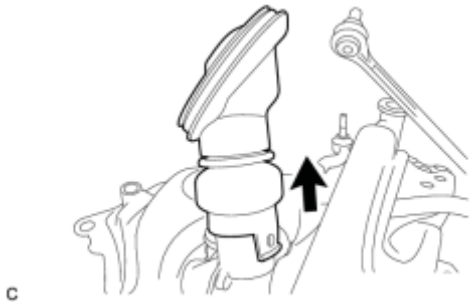
22. REMOVE FRONT SUSPENSION MEMBER REAR BRACE RH

HINT:

Perform the same procedure as for the LH side.

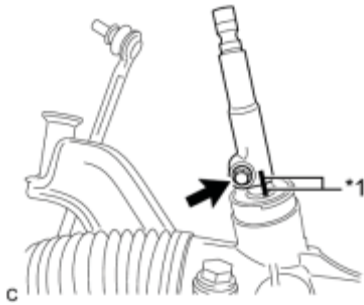
23. REMOVE FRONT SUSPENSION CROSSMEMBER SUB-ASSEMBLY INFO

24. REMOVE NO. 1 STEERING COLUMN HOLE COVER SUB-ASSEMBLY



(a) Remove the No. 1 steering column hole cover sub-assembly from the steering link assembly.

25. REMOVE STEERING INTERMEDIATE SHAFT



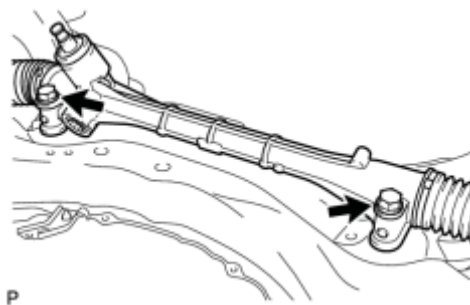
(a) Put matchmarks on the steering intermediate shaft and steering link assembly.

### Text in Illustration

*1	Matchmark
----	-----------

(b) Remove the bolt and steering intermediate shaft from the steering link assembly.

26. REMOVE STEERING LINK ASSEMBLY



(a) Remove the 2 bolts, 2 nuts and steering link assembly from the front suspension crossmember sub-assembly.

**NOTICE:**

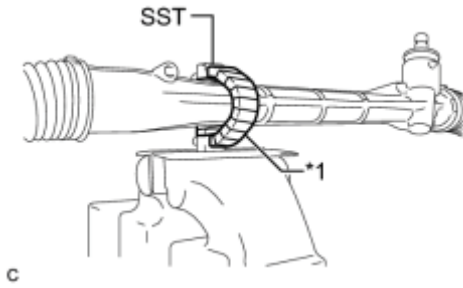
Keep the nut from rotating while turning the bolt because the nut has its own stopper.

27. SECURE STEERING LINK ASSEMBLY

(a) Using SST, secure the steering link assembly in a vise.

### Text in Illustration





*1	Protective Tape
----	-----------------

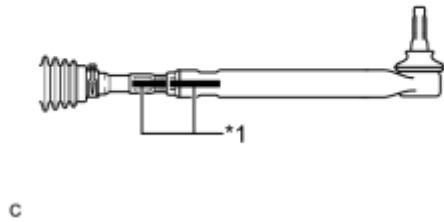
SST: 09612-00012

HINT:

Tape SST before use.

## 28. REMOVE TIE ROD END SUB-ASSEMBLY LH

### Text in Illustration



*1	Matchmark
----	-----------

(a) Put matchmarks on the tie rod end sub-assembly LH and steering gear assembly.

(b) Remove the tie rod end sub-assembly LH and lock nut.

## 29. REMOVE TIE ROD END SUB-ASSEMBLY RH

HINT:

Perform the same procedure as for the LH side.

# DISASSEMBLY

## 1. REMOVE STEERING RACK BOOT CLIP LH

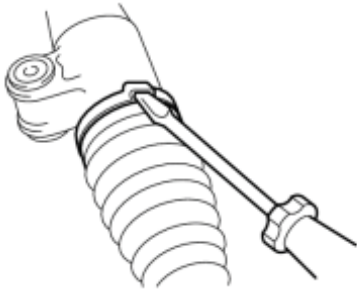
(a) Using pliers, remove the steering rack boot clip LH.

## 2. REMOVE STEERING RACK BOOT CLIP RH

HINT:

Perform the same procedure as for the LH side.

## 3. REMOVE NO. 2 STEERING RACK BOOT CLAMP



(a) Using a screwdriver, remove the No. 2 steering rack boot clamp.

NOTICE:

Be careful not to damage the steering rack boot.

## 4. REMOVE NO. 1 STEERING RACK BOOT CLAMP

HINT:

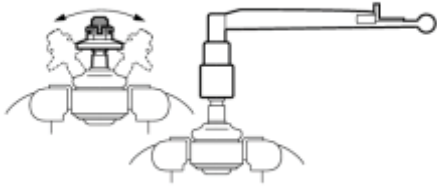
Perform the same procedure as for the No. 2 steering rack boot clamp.

## 5. REMOVE STEERING RACK BOOT LH

## 6. REMOVE STEERING RACK BOOT RH

# INSPECTION

## 1. INSPECT TIE ROD END SUB-ASSEMBLY LH



(a) Secure the tie rod end sub-assembly LH in a vise.

NOTICE:

Do not overtighten the vise.

c

(b) Install the nut to the stud bolt.

(c) Flip the ball joint back and forth 5 times.

(d) Set a torque wrench to the nut, turn the ball joint continuously at a rate of 2 to 4 seconds per turn, and check the turning torque on the 5th turn.

Standard turning torque:

0.3 to 1.9 N\*m (3 to 19 kgf\*cm, 3 to 17 in.\*lbf)

HINT:

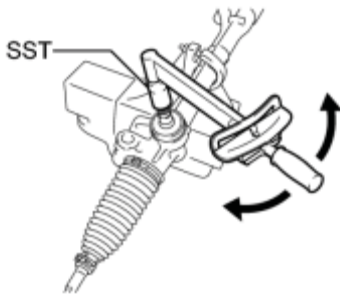
If the turning torque is not within the specified range, replace the tie rod end sub-assembly LH with a new one.

## 2. INSPECT TIE ROD END SUB-ASSEMBLY RH

HINT:

Perform the same procedure as for the LH side.

## 3. INSPECT TOTAL PRELOAD



c

(a) Using SST and a torque wrench, inspect the total preload.

SST: 09616-00011

Standard preload:

0.7 to 1.1 N\*m (7 to 11 kgf\*cm, 6 to 9 in.\*lbf)

NOTICE:

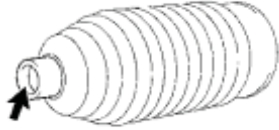
Inspect the total preload around the steering rack center position.

HINT:

If the total preload is not within the specified range, replace the steering gear assembly with a new one.

# REASSEMBLY

## 1. INSTALL STEERING RACK BOOT LH



(a) Apply lithium soap base glycol grease to the inside of the small opening of a new steering rack boot LH.

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C57765

(b) Install the steering rack boot LH to the groove on the rack housing.

### NOTICE:

- Be careful not to damage or twist the boot.
- Make sure that the boot is free of rust and foreign matter.

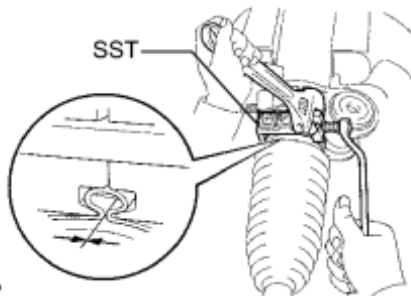
## 2. INSTALL STEERING RACK BOOT RH

### HINT:

Perform the same procedure as for the LH side.

## 3. INSTALL NO. 2 STEERING RACK BOOT CLAMP

(a) Using SST, tighten a new No. 2 steering rack boot clamp, as shown in the illustration.



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SST: 09521-24010

Clearance:

3.0 mm (0.118 in.) or less

NOTICE:

Be careful not to damage the steering rack boot.

## 4. INSTALL NO. 1 STEERING RACK BOOT CLAMP

### HINT:

Perform the same procedure as for the No. 2 steering rack boot clamp.

SST: 09521-24010

## 5. INSTALL STEERING RACK BOOT CLIP LH

(a) Using pliers, install the steering rack boot clip LH.

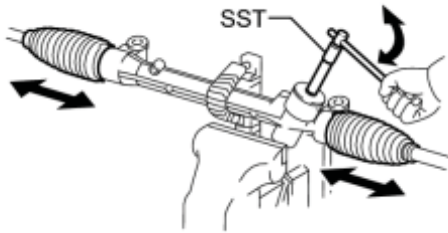
## 6. INSTALL STEERING RACK BOOT CLIP RH

HINT:

Perform the same procedure as for the LH side.

## 7. INSPECT STEERING GEAR ASSEMBLY

(a) Using SST, rotate the pinion shaft to see if both the left and the right steering rack boots expand and contract smoothly.



SST: 09616-00011

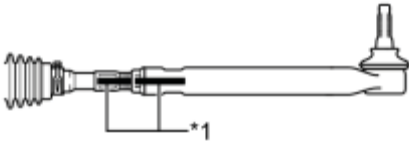
HINT:

If the operation cannot be done as specified, use a new steering rack boot clamp and reinstall the steering rack boots.

# INSTALLATION

## 1. INSTALL TIE ROD END SUB-ASSEMBLY LH

(a) Install the lock nut and tie rod end sub-assembly LH to the steering gear assembly until the matchmarks are aligned.



### Text in Illustration

*1	Matchmark
----	-----------

HINT:

After adjusting the toe-in, tighten the lock nut.

c

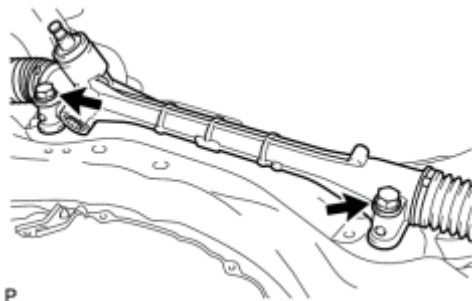
## 2. INSTALL TIE ROD END SUB-ASSEMBLY RH

HINT:

Perform the same procedure as for the LH side.

## 3. INSTALL STEERING LINK ASSEMBLY

(a) Install the steering link assembly to the front suspension crossmember sub-assembly with the 2 bolts and 2 nuts.



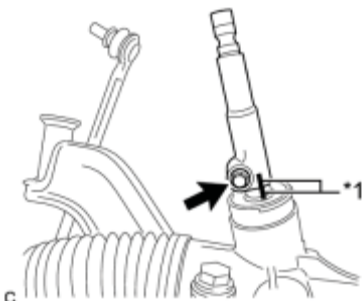
- Keep the nut from rotating while turning the bolt because the nut has its own stopper.
- Make sure to tighten the bolts starting from the left side of the vehicle.

Torque: **138 N·m (1407 kgf·cm, 102ft·lbf)**

P

## 4. INSTALL STEERING INTERMEDIATE SHAFT

(a) Align the matchmarks and install the steering intermediate shaft to the steering link assembly.



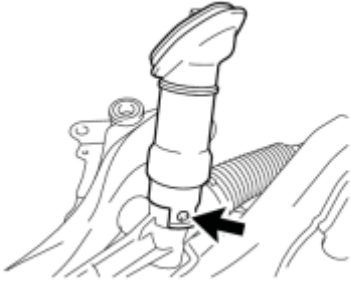
### Text in Illustration

*1	Matchmark
----	-----------

(b) Install the bolt.

Torque: **35 N·m (357 kgf·cm, 26ft·lbf)**

5. INSTALL NO. 1 STEERING COLUMN HOLE COVER SUB-ASSEMBLY



(a) Align the round hole in the No. 1 steering column hole cover sub-assembly with the protrusion of the steering link assembly to install the cover.

6. INSTALL FRONT SUSPENSION CROSSMEMBER SUB-ASSEMBLY INFO

7. INSTALL FRONT SUSPENSION MEMBER REAR BRACE LH INFO

8. INSTALL FRONT SUSPENSION MEMBER REAR BRACE RH

HINT:

Perform the same procedure as for the LH side.

9. INSTALL REAR SIDE RAIL REINFORCEMENT SUB-ASSEMBLY LH INFO

10. INSTALL REAR SIDE RAIL REINFORCEMENT SUB-ASSEMBLY RH

HINT:

Perform the same procedure as for the LH side.

11. INSTALL FRONT ENGINE MOUNTING BRACKET LOWER REINFORCEMENT INFO

12. CONNECT FRONT NO. 1 LOWER SUSPENSION ARM SUB-ASSEMBLY LH INFO

13. CONNECT FRONT NO. 1 LOWER SUSPENSION ARM SUB-ASSEMBLY RH

HINT:

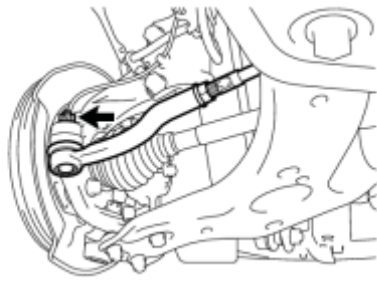
Perform the same procedure as for the LH side.

14. CONNECT TIE ROD END SUB-ASSEMBLY LH

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

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





NOTICE:

Further tighten the nut up to 60° if the holes for the clip are not aligned.

c

(b) Install a new clip.

## 15. CONNECT TIE ROD END SUB-ASSEMBLY RH

HINT:

Perform the same procedure as for the LH side.

## 16. CONNECT FRONT STABILIZER LINK ASSEMBLY LH INFO

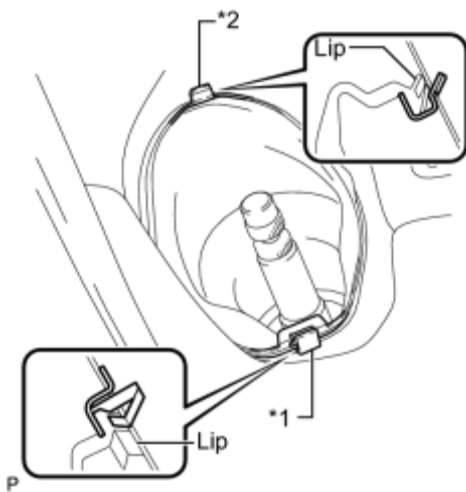
## 17. CONNECT FRONT STABILIZER LINK ASSEMBLY RH

HINT:

Perform the same procedure as for the LH side.

## 18. CONNECT NO. 1 STEERING COLUMN HOLE COVER SUB-ASSEMBLY

(a) Place clip A as shown in the illustration and engage clip B to the body to connect the No. 1 steering column hole cover sub-assembly.



### Text in Illustration

*1	Clip A
*2	Clip B

NOTICE:

Make sure that the lips of the No. 1 steering column hole cover sub-assembly are not damaged.

## 19. CONNECT NO. 2 STEERING INTERMEDIATE SHAFT ASSEMBLY INFO

## 20. PLACE FRONT WHEELS FACING STRAIGHT AHEAD

## 21. INSTALL COLUMN HOLE COVER SILENCER SHEET INFO

## 22. INSTALL REAR ENGINE UNDER COVER LH

23. INSTALL REAR ENGINE UNDER COVER RH

HINT:

Perform the same procedure as for the LH side.

24. INSTALL FRONT NO. 3 ENGINE UNDER COVER

25. INSTALL NO. 2 ENGINE UNDER COVER

26. INSTALL NO. 1 ENGINE UNDER COVER

27. INSTALL FRONT WHEELS

Torque: **103 N·m (1050 kgf·cm, 76ft·lbf)**

28. STABILIZE SUSPENSION\_ NFC

29. INSPECT AND ADJUST FRONT WHEEL ALIGNMENT

(a) Inspect and adjust the front wheel alignment NFC.