

# ADJUSTMENT

## NOTICE:

If the wheel alignment has been adjusted, and if suspension or underbody components have been removed/installed or replaced, be sure to perform the following initialization procedure in order for the system to function normally:

- Perform zero point calibration of the yaw rate and acceleration sensor.

## 1. INSPECT TIRES

INFO

## 2. MEASURE VEHICLE HEIGHT

- Before inspecting the wheel alignment, adjust the vehicle height to the specified value.
- Be sure to perform measurement on a level surface.
- If it is necessary to go under the vehicle for measurement, confirm that the parking brake is applied and the vehicle is secured with chocks.
- Inspect while the vehicle is unloaded.

(a) Bounce the vehicle up and down at the corners to stabilize the suspension.

(b) Measure the vehicle height.

### Measurement points:

A: Ground clearance of front No. 1 lower suspension arm bushing set bolt center

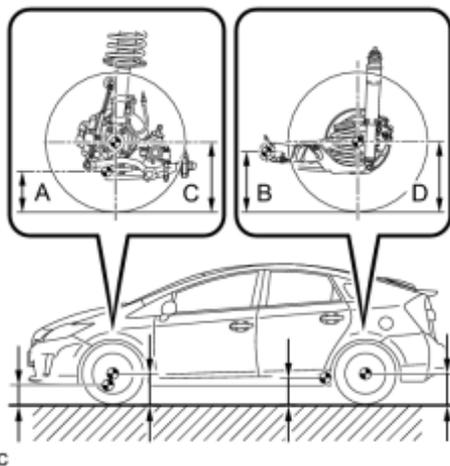
B: Ground clearance of rear axle beam bushing set bolt center

C: Ground clearance of front wheel center

D: Ground clearance of rear wheel center

Vehicle Height (Unloaded Vehicle):

Tire Size	Front C - A	Rear D - B
195/65R15	108 mm (4.25 in.)	26 mm (1.02 in.)
	90 mm (3.54 in.)*	9 mm (0.354 in.)*
215/45R17	103 mm (4.06 in.)	21 mm (0.827 in.)



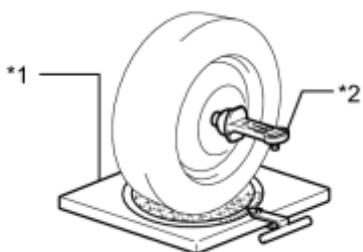
\* For vehicle height for Rough Road Package.

### 3. INSPECT CAMBER, CASTER AND STEERING AXIS INCLINATION

#### NOTICE:

Inspect while the vehicle is unloaded.

(a) Install a camber-caster-kingpin gauge and place the front wheels on the center of a wheel alignment tester.



#### Text in Illustration

*1	Wheel Alignment Tester
*2	Gauge

(b) Inspect the camber, caster and steering axis inclination.

Camber (Unloaded Vehicle):

Tire Size	Camber Inclination	Right-left Difference
195/65R15	-0°13' +/- 45' (-0.22° +/- 0.75°)	45' (0.75°) or less
	-0°07' +/- 45' (-0.12° +/- 0.75°)*	
215/45R17	-0°12' +/- 45' (-0.20° +/- 0.75°)	

\* For vehicle height for Rough Road Package.

Caster (Unloaded Vehicle):

Tire Size	Caster Inclination	Right-left Difference
195/65R15	5°53' +/- 45' (5.88° +/- 0.75°)	45' (0.75°) or less
	5°40' +/- 45' (5.67° +/- 0.75°)*	
215/45R17	5°50' +/- 45' (5.83° +/- 0.75°)	

\* For vehicle height for Rough Road Package.

Steering Axis Inclination (Unloaded Vehicle):

Tire Size	Steering Axis Inclination
195/65R15	12°16' (12.27°)
	11°52' (11.87°)*

Tire Size	Steering Axis Inclination
215/45R17	12°10' (12.17°)

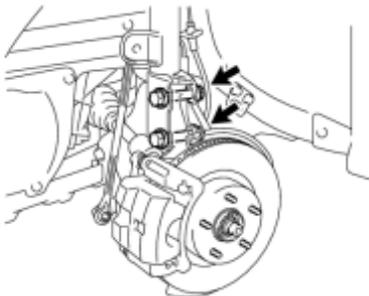
\* For vehicle height for Rough Road Package.

#### 4. ADJUST CAMBER

NOTICE:

Inspect toe-in after the camber has been adjusted.

(a) Remove the front wheel.



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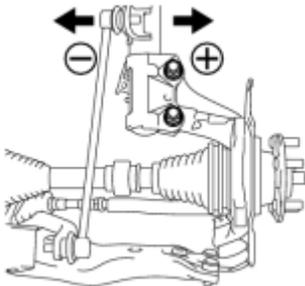
(b) Loosen the 2 nuts.

NOTICE:

Keep the bolts inserted.

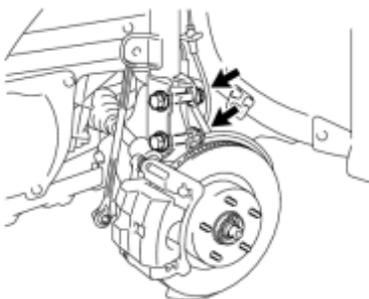
(c) Clean the installation surfaces of the front shock absorber and the steering knuckle.

(d) Temporarily install the 2 nuts. (Step A)



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(e) Fully push or pull the front axle hub in the direction of the required adjustment. (Step B)



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(f) Tighten the nuts.

Torque: **240 N·m (2447 kgf·cm, 177ft·lbf)**

NOTICE:

Keep the bolts from rotating when tightening the nuts.

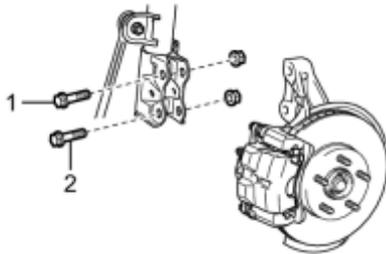
(g) Install the front wheel.

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

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Repair Manual

(h) Check the camber.



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If the measured value is not within the specification, calculate the required adjustment amount using the formula below.

Camber adjustment amount = center of the specified range - measured value

Check the combination of the installed bolts. Select appropriate bolts from the tables below to adjust the camber to the specified values.

HINT:

Try to adjust the camber to the center of the specified values.

<b>Move the axle hub toward (+) in step B</b>	<b>Move the axle hub toward (-) in step B</b>
Refer to table (1) (Move the axle hub toward the positive side)	Refer to table (2) (Move the axle hub toward the negative side)

Table (1) (Move the axle hub toward the positive side)

Installed Bolt	Adjusting Value	Installed Bolt						
		1	2	3	4	5	6	7
	1	 90105-17019	 90105-17019	 90105-17019	 90105-17019	 90105-17016	 90105-17017	 90105-17018
	2	 90105-17019	 90105-17016	 90105-17017	 90105-17018	 90105-17018	 90105-17018	 90105-17018
	-1°30' to -1°15' (-1.50° to -1.25°)							G
	-1°15' to -1°00' (-1.25° to -1°)						G	A
	-1°00' to -0°45' (-1° to -0.75°)					G	A	B
	-0°45' to -0°30' (-0.75° to -0.5°)				G	A	B	C
	-0°30' to -0°15' (-0.5° to -0.25°)			G	A	B	C	D
	-0°15' to 0° (-0.25° to 0°)		G	A	B	C	D	E
	0° to 0°15' (0° to 0.25°)	A	B	C	D	E	F	
	0°15' to 0°30' (0.25° to 0.5°)	B	C	D	E	F		
	0°30' to 0°45' (0.5° to 0.75°)	C	D	E	F			
	0°45' to 1°00' (0.75° to 1°)	D	E	F				
	1°00' to 1°15' (1° to 1.25°)	E	F					
	1°15' to 1°30' (1.25° to 1.5°)	F						

Selected Bolt Combination

	A	B	C	D	E	F	G
1	 90105-17019	 90105-17019	 90105-17019	 90105-17016	 90105-17017	 90105-17018	 90105-17019
2	 90105-17016	 90105-17017	 90105-17018	 90105-17018	 90105-17018	 90105-17018	 90105-17019

Table (2) (Move the axle hub toward the negative side)

Installed Bolt	1	 90105-17019	 90105-17019	 90105-17019	 90105-17019	 90105-17016	 90105-17017	 90105-17018
	2	 90105-17019	 90105-17016	 90105-17017	 90105-17018	 90105-17018	 90105-17018	 90105-17018
Adjusting Value	-1°30' to -1°15' (-1.50° to -1.25°)	F						
	-1°15' to -1°00' (-1.25° to -1°)	E	F					
	-1°00' to -0°45' (-1° to -0.75°)	D	E	F				
	-0°45' to -0°30' (-0.75° to -0.5°)	C	D	E	F			
	-0°30' to -0°15' (-0.5° to -0.25°)	B	C	D	E	F		
	-0°15' to 0° (-0.25° to 0°)	A	B	C	D	E	F	
	0° to 0°15' (0° to 0.25°)		G	A	B	C	D	E
	0°15' to 0°30' (0.25° to 0.5°)			G	A	B	C	D
	0°30' to 0°45' (0.5° to 0.75°)				G	A	B	C
	0°45' to 1°00' (0.75° to 1°)					G	A	B
	1°00' to 1°15' (1° to 1.25°)						G	A
1°15' to 1°30' (1.25° to 1.5°)							G	

Selected Bolt Combination

	A	B	C	D	E	F	G
1	 90105-17019	 90105-17019	 90105-17019	 90105-17016	 90105-17017	 90105-17018	 90105-17019
2	 90105-17016	 90105-17017	 90105-17018	 90105-17018	 90105-17018	 90105-17018	 90105-17019

NOTICE:

Replace the nut with a new one when replacing the bolt.

The body and suspension may be damaged if the camber is not correctly adjusted according to the tables above.

(i) Repeat the steps mentioned above. In Step A, replace 1 or 2 selected bolts.

HINT:

Replace one bolt at a time when replacing both bolts.

## 5. INSPECT TOE-IN

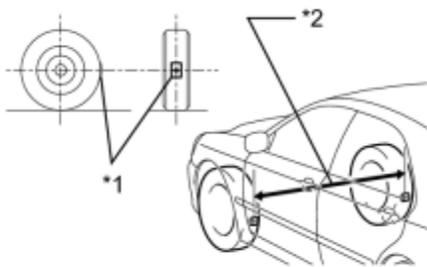
NOTICE:

Inspect while the vehicle is unloaded.

(a) Bounce the vehicle up and down at the corners to stabilize the suspension.

(b) Release the parking brake and move the shift lever to N.

(c) Push the vehicle straight ahead approximately 5 m (16.4 ft.). (Step C)



(d) Put tread center marks on the rearmost points of the front wheels and measure the distance between the marks (dimension B).

### Text in Illustration

*1	Tread Center Mark
*2	Dimension B

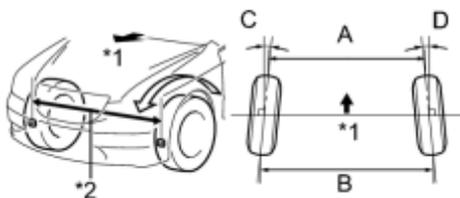
(e) Slowly push the vehicle straight ahead to cause the front wheels to rotate 180° using the front tire valve as a reference point.

HINT:

Do not allow the wheels to rotate more than 180°. If the wheels rotate more than 180°, perform the procedure from Step C again.

(f) Measure the distance between the tread center marks on the front side of the wheels (dimension A).

### Text in Illustration



*1	Front of the Vehicle
*2	Dimension A

### To-in (Unloaded Vehicle)

Specified Condition
C + D: 0°12' +/- 0°12' (0.20° +/- 0.20°)
C + D: 0°18' +/- 0°12' (0.30° +/- 0.20°)*
B - A: 2.0 +/- 2.0 mm (0.0787 +/- 0.0787 in.)
B - A: 3.0 +/- 2.0 mm (0.118 +/- 0.0787 in.)*

\* For vehicle height for Rough Road Package.

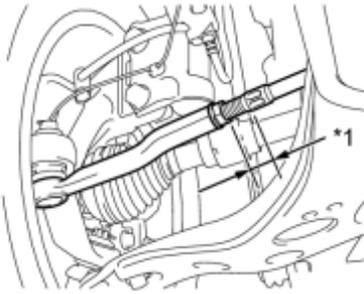
HINT:

Measure "B - A" only when "C + D" cannot be measured.

If the toe-in is not within the specified range, adjust it at the rack ends.

## 6. ADJUST TOE-IN

(a) Make sure that the thread length of the right and left rack ends are approximately the same.



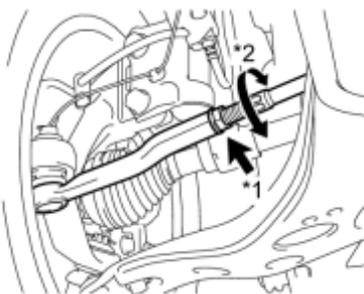
### Text in Illustration

*1	Thread Length
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Standard difference:

1.5 mm (0.0591 in.) or less

(b) Remove the boot clips.



(c) Loosen the tie rod end lock nuts.

### Text in Illustration

*1	Loosen
*2	Turn

(d) Adjust the rack ends if the difference in thread length between the right and left rack ends is not within the specified range.

(1) Extend the shorter rack end if the measured toe-in deviates toward the outer-side.

(2) Shorten the longer rack end if the measured toe-in deviates toward the inner-side.

(e) Turn the right and left rack ends by an equal amount to adjust the toe-in to the center value.

(f) Make sure that the thread lengths of the right and left rack ends are the same.

(g) Tighten the tie rod end lock nuts.

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

(h) Place the boots on the seats and install the clips.

HINT:

Make sure that the boots are not twisted.

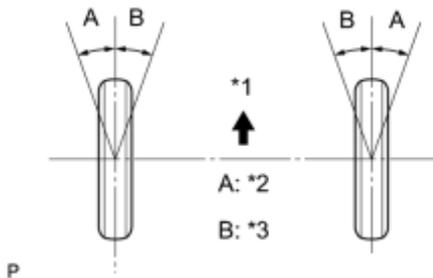
## 7. INSPECT WHEEL ANGLE

### Text in Illustration

*1	Front of the Vehicle
*2	Inside
*3	Outside

(a) Put tread center marks on the rearmost points of a turning radius gauge.

(b) Turn the steering wheel to the left and right full lock positions, and measure the turning angle.



NOTICE:

Inspect while the vehicle is unloaded.

Wheel Angle (Unloaded Vehicle):

Tire Size	Inside Wheel	Outside Wheel Reference
195/65R15	40°50' +/- 2° (40.83° +/- 2°)	33°50' (33.83°)
	37°42' +/- 2° (37.70° +/- 2°)*	32°13' (32.22°)*
215/45R17	37°27' +/- 2° (37.45° +/- 2°)	31°56' (31.93°)

\* For vehicle height for Rough Road Package.

If the angles are not as specified, check and adjust the right and left rack end lengths.

## 8. PLACE FRONT WHEELS FACING STRAIGHT AHEAD

## 9. PERFORM YAW RATE AND ACCELERATION SENSOR CALIBRATION

INFO .

## 10. PERFORM INITIALIZATION (w/ Height Control Sensor)

### NOTICE:

Some systems need to be initialized after the wheel alignment is adjusted INFO .

# INSPECTION

## NOTICE:

If the wheel alignment has been adjusted, and if suspension or underbody components have been removed/installed or replaced, be sure to perform the following initialization procedure in order for the system to function normally:

- Perform zero point calibration of the yaw rate and acceleration sensor and test mode inspection.

## 1. INSPECT TIRES

INFO

## 2. MEASURE VEHICLE HEIGHT\_ INFO

## 3. INSPECT CAMBER

### NOTICE:

Inspect while the vehicle is unloaded.

- Install a camber-caster-kingpin gauge.
- Inspect the camber.

Camber (Unloaded Vehicle):

Tire Size	Camber Inclination	Right-left Difference
195/65R15	-1°29' +/- 30' (-1.48° +/- 0.50°)	30' (0.50°) or less
215/45R17	-1°28' +/- 30' (-1.47° +/- 0.50°)	

### HINT:

Camber is not adjustable. If the measurement is not within the specified range, inspect the suspension parts for damage and/or wear, and replace them if necessary.

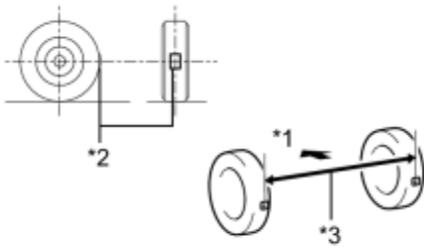
## 4. INSPECT TOE-IN

### NOTICE:

Inspect while the vehicle is unloaded.

- Bounce the vehicle up and down at the corners to stabilize the suspension.
- Release the parking brake and move the shift lever to N.
- Push the vehicle straight ahead approximately 5 m (16.4 ft.). (Step A)

(d) Put tread center marks on the rearmost points of the rear wheels and measure the distance between the marks (dimension B).



## Text in Illustration

*1	Front of the Vehicle
*2	Tread Center Mark
*3	Dimension B

(e) Slowly push the vehicle straight ahead to cause the rear wheels to rotate 180° using the rear tire valve as a reference point.

HINT:

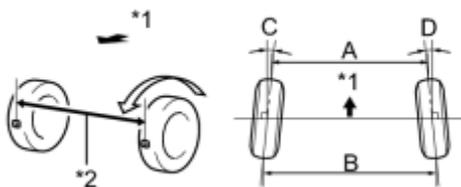
Do not allow the wheels to rotate more than 180°. If the wheels rotate more than 180°, perform the procedure from Step A again.

(f) Measure the distance between the tread center marks on the front side of the wheels (dimension A).

## Text in Illustration

*1	Front of the Vehicle
*2	Dimension A

Toe-in (Unloaded Vehicle):



Tire Size	Specified Condition	Right-left Difference
195/65R15	C + D: 0°17' +/- 18' ( 0.29° +/- 0.30°)	45' (0.75°) or less
	C + D: 0°10' +/- 18' ( 0.17° +/- 0.30°)*	
	B - A: 2.9 +/- 3 mm (0.114 +/- 0.118 in.)	-
B - A: 1.7 +/- 3 mm (0.0669 +/- 0.118 in.)*		
215/45R17	C + D: 0°15' +/- 18' ( 0.25° +/- 0.30°)	45' (0.75°) or less
	B - A: 2.5 +/- 3 mm (0.0984 +/- 0.118 in.)	-

\* For vehicle height for Rough Road Package.

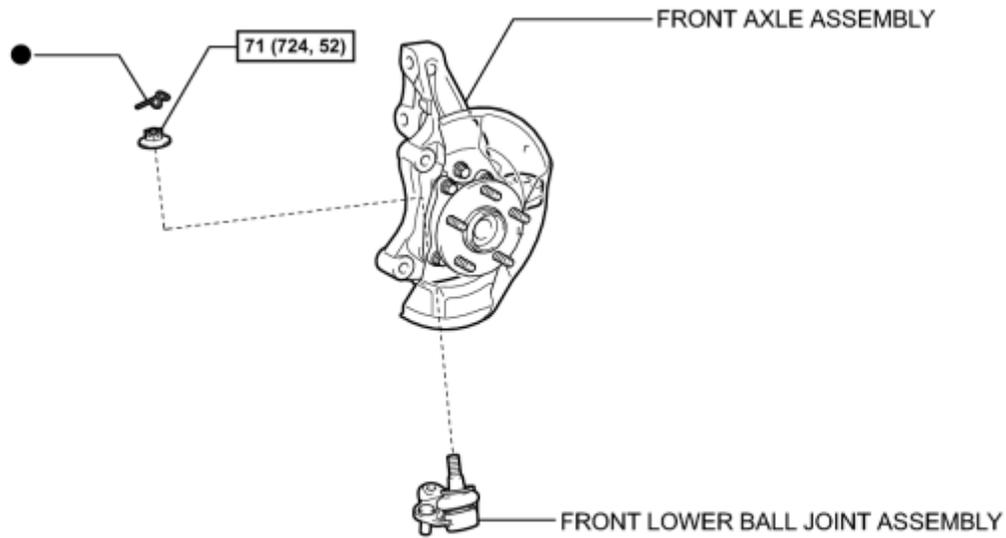
HINT:

Measure "B - A" only when "C + D" cannot be measured.

If the toe-in is not within the specified range, inspect the suspension parts and replace them if necessary.

# COMPONENTS

# ILLUSTRATION



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

● Non-reusable part

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# REMOVAL

## HINT:

- Use the same procedure for the LH side and RH side.
- The procedure listed below is for the LH side.

## 1. REMOVE FRONT AXLE ASSEMBLY

## HINT:

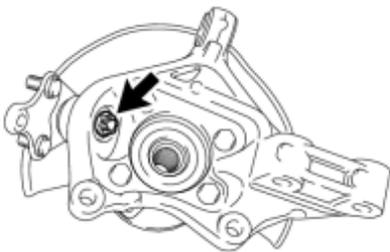
Refer to the procedure up to Remove Front Axle Assembly [INFO](#).

## 2. REMOVE FRONT LOWER BALL JOINT ASSEMBLY

(a) Secure the front axle assembly in a vise.

## NOTICE:

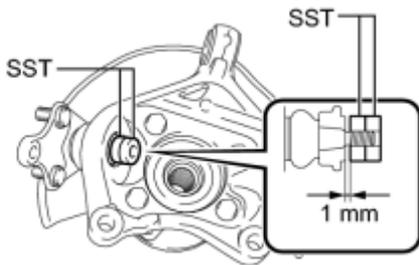
When using a vise, do not overtighten it.



(b) Remove the clip and nut.

c

(c) Install SST to the front lower ball joint as shown in the illustration.



SST: 09960-20010

09961-02050

09961-02050

NOTICE:

Check that the clearance measurement between SST and the front axle assembly is 1 mm (0.0394 in.).

(d) Using SST, remove the front lower ball joint assembly from the front axle assembly as shown in the illustration.

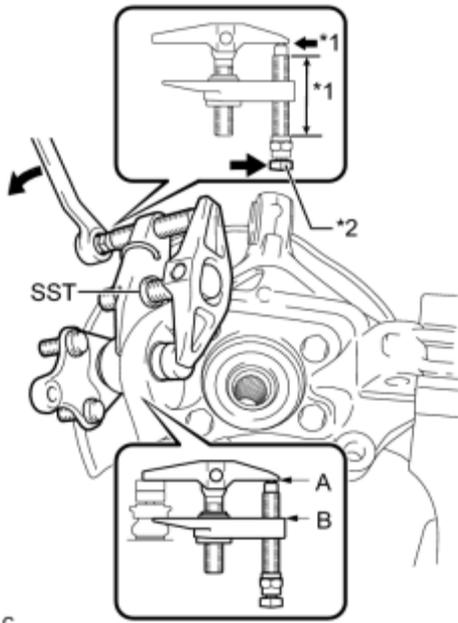
SST: 09960-20010

09961-02010

09961-02050

09961-02050

## Text in Illustration



*1	Apply grease
*2	Place the wrench here.

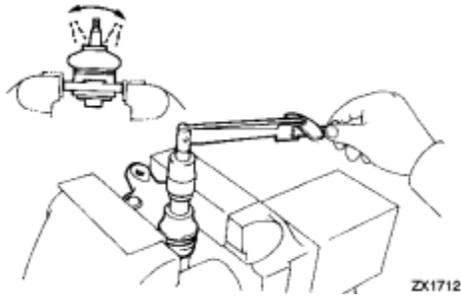
### CAUTION:

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

- Install SST so that A and B are parallel.
- Be sure to place the wrench on the part indicated in the illustration.
- Do not damage the front lower ball joint dust cover.

# INSPECTION

## 1. INSPECT FRONT LOWER BALL JOINT ASSEMBLY



(a) Inspect the turning torque of the ball joint.

(1) Secure the front lower ball joint assembly in a vise using aluminum plates.

(2) Install the nut to the front lower ball joint stud.

(3) Using a torque wrench, turn the nut continuously at a rate of 3 to 5 seconds per turn and take the torque reading on the 5th turn.

Torque: **0.98 to 4.90 N·m (10 to 50 kgf·cm, 8.7 to 43in·lbf)**

HINT:

If the turning torque is not within the specified range, replace the front lower ball joint assembly with a new one.

(b) Inspect the dust cover.

(1) Check that the dust cover is not cracked and that there is no grease on it.

# INSTALLATION

## HINT:

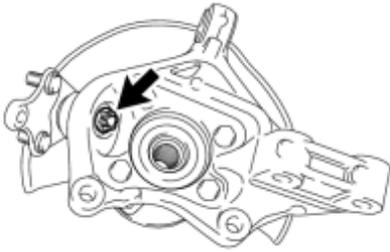
- Use the same procedure for the LH side and RH side.
- The procedure listed below is for the LH side.

## 1. INSTALL FRONT LOWER BALL JOINT ASSEMBLY

(a) Secure the front axle assembly in a vise.

## NOTICE:

When using a vise, do not overtighten it.



(b) Install the front lower ball joint assembly to the front axle assembly with the nut.

**Torque: 71 N·m (724 kgf·cm, 52ft·lbf)**

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(c) Install a new clip.

## NOTICE:

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

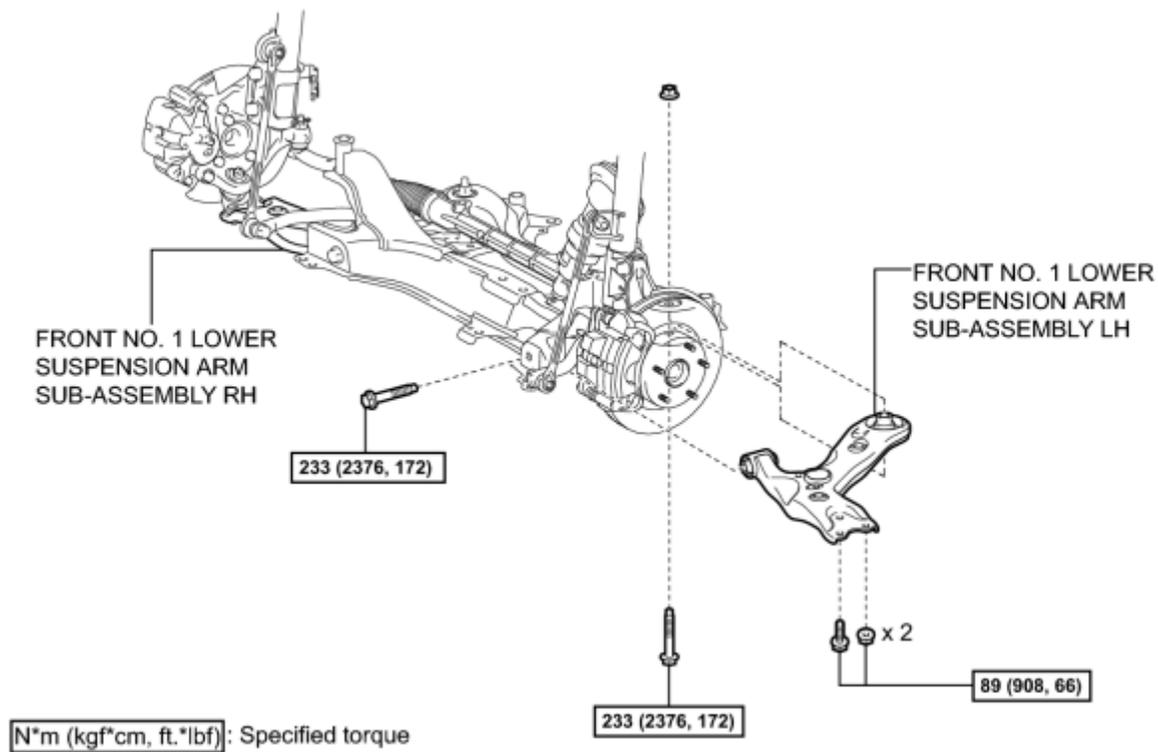
## 2. INSTALL FRONT AXLE ASSEMBLY

## HINT:

Refer to the procedure from Install Front Axle Assembly [INFO](#).

# COMPONENTS

## ILLUSTRATION



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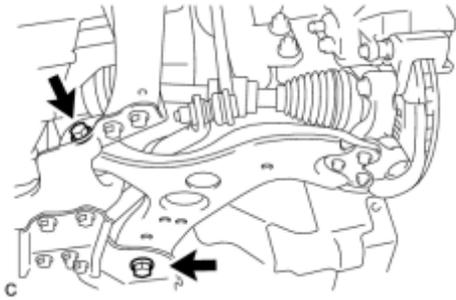
# REMOVAL

1. REMOVE FRONT WHEELS

2. REMOVE NO. 1 ENGINE UNDER COVER

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

4. REMOVE FRONT NO. 1 LOWER SUSPENSION ARM SUB-ASSEMBLY LH



(a) Remove the 2 bolts, nut, and front No. 1 lower suspension arm sub-assembly LH from the front suspension member.

NOTICE:

Because the nut has its own stopper, do not turn the nut. Loosen the bolt with the nut secured.

5. REMOVE FRONT NO. 1 LOWER SUSPENSION ARM SUB-ASSEMBLY RH

HINT:

Refer to the procedure up to Remove Front No. 1 Lower Suspension Arm Sub-assembly RH INFO.

# INSTALLATION

## 1. TEMPORARILY TIGHTEN FRONT NO. 1 LOWER SUSPENSION ARM SUB-ASSEMBLY RH

HINT:

Refer to the procedure from Temporarily Tighten Front No. 1 Lower Suspension Arm Sub-assembly RH INFO.

## 2. TEMPORARILY TIGHTEN FRONT NO. 1 LOWER SUSPENSION ARM SUB-ASSEMBLY LH



(a) Temporarily install the front No. 1 lower suspension arm LH to the front suspension crossmember with the 2 bolts and nut.

NOTICE:

Because the nut has its own stopper, do not turn the nut. Tighten the bolt with the nut secured.

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

## 4. INSTALL FRONT WHEELS

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

## 5. STABILIZE SUSPENSION

(a) Lower the vehicle.

(b) Press down on the vehicle several times to stabilize the suspension.

## 6. FULLY TIGHTEN FRONT NO. 1 LOWER SUSPENSION ARM SUB-ASSEMBLY LH



(a) Fully tighten the bolt A and B.

Torque: **233 N·m (2376 kgf·cm, 172ft·lbf)**

NOTICE:

Because the nut has its own stopper, do not turn the nut. Tighten the bolt with the nut secured.

## 7. INSTALL NO. 1 ENGINE UNDER COVER

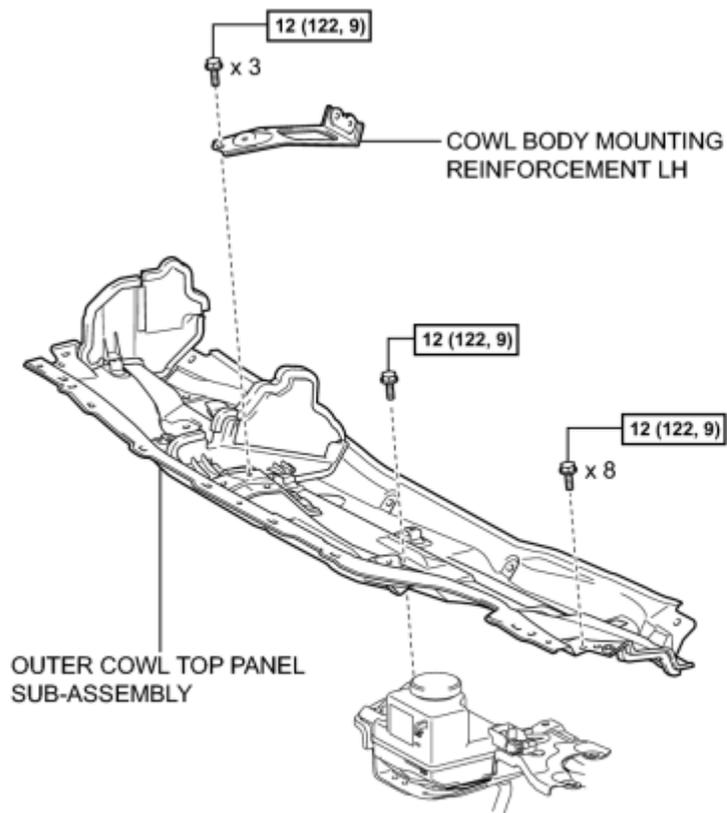
## 8. INSPECT AND ADJUST FRONT WHEEL ALIGNMENT

HINT:

Inspect and adjust the front wheel alignment  .

# COMPONENTS

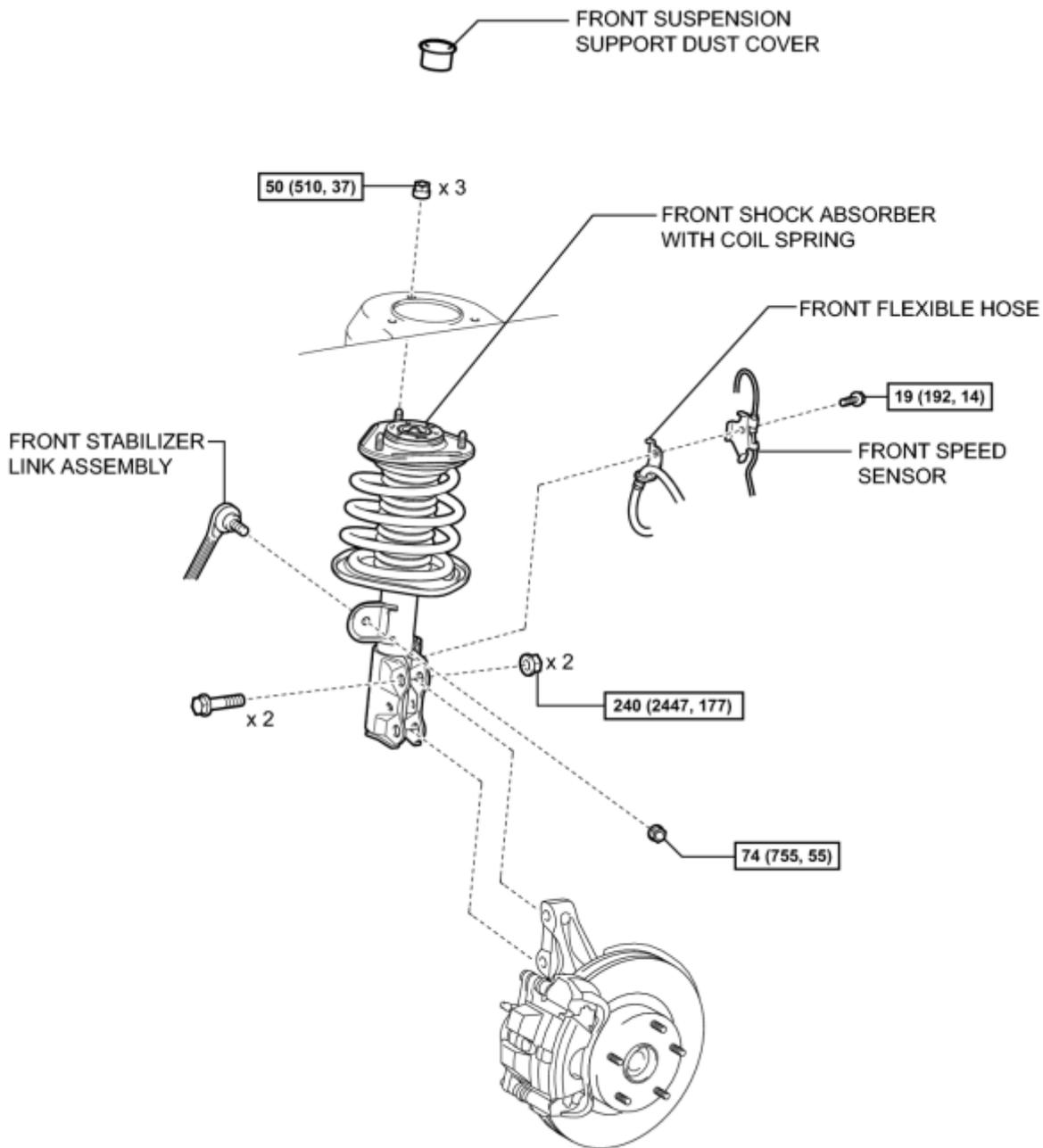
## ILLUSTRATION



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

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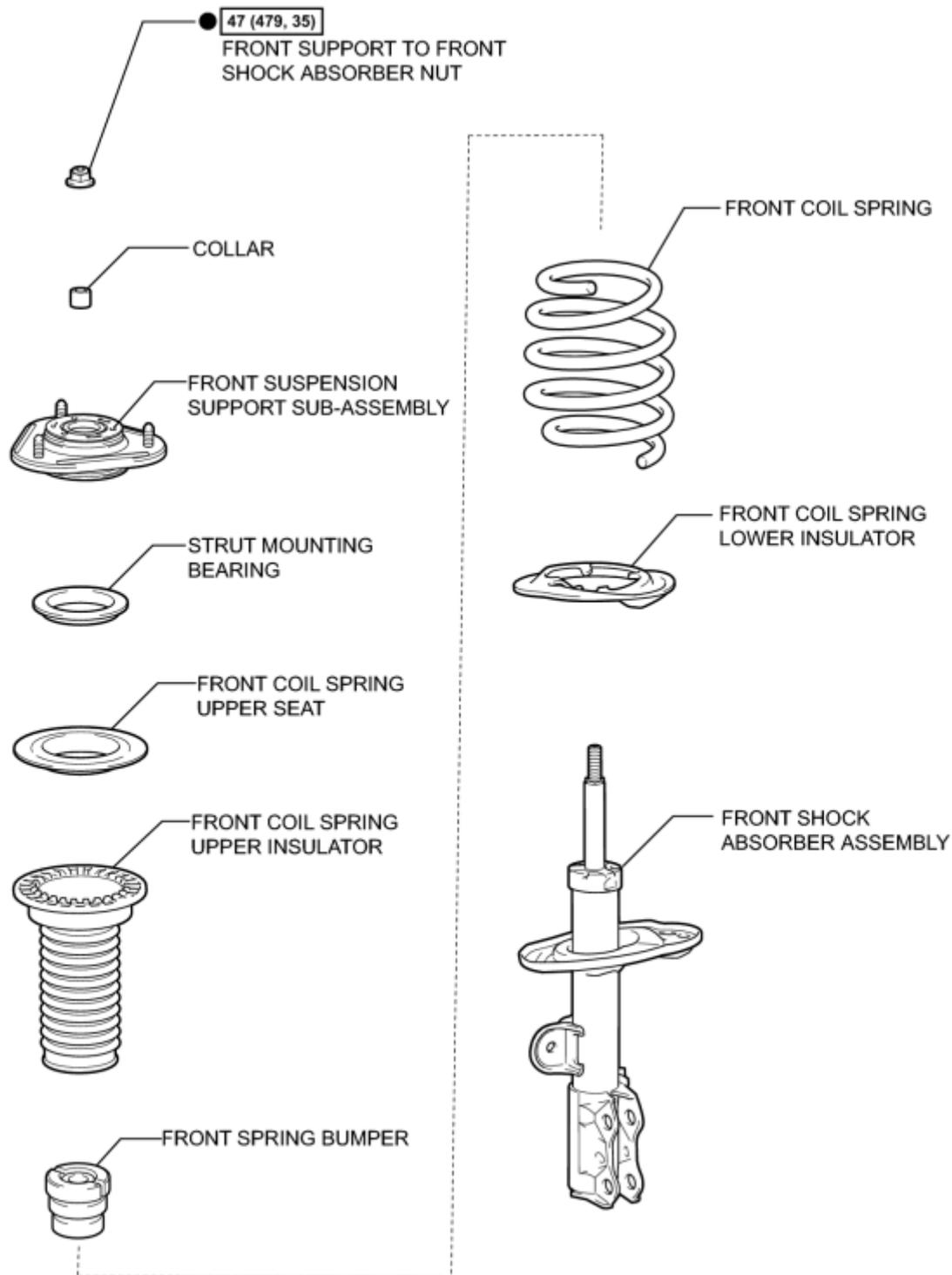
## ILLUSTRATION



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

c

## ILLUSTRATION



$\boxed{N \cdot m (kgf \cdot cm, ft. \cdot lbf)}$ : Specified torque

● Non-reusable part

c

# REMOVAL

## HINT:

- Use the same procedure for the LH side and RH side.
- The procedure listed below is for the LH side.

### 1. REMOVE FRONT WHEEL

### 2. REMOVE WINDSHIELD WIPER MOTOR AND LINK ASSEMBLY

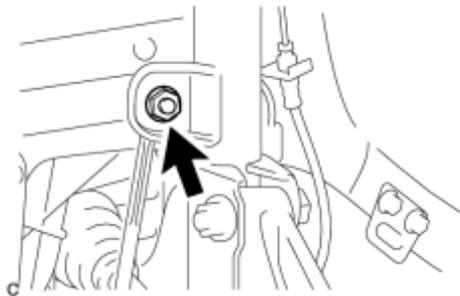
## HINT:

Refer to the procedure up to Remove Windshield Wiper Motor and Link Assembly [INFO](#).

### 3. REMOVE COWL BODY MOUNTING REINFORCEMENT LH\_ [INFO](#)

### 4. REMOVE OUTER COWL TOP PANEL SUB-ASSEMBLY\_ [INFO](#)

### 5. SEPARATE FRONT STABILIZER LINK ASSEMBLY

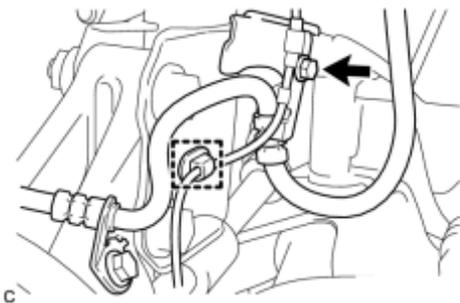


(a) Remove the nut and separate the stabilizer link assembly from the front shock absorber with coil spring.

## HINT:

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

### 6. SEPARATE FRONT SPEED SENSOR



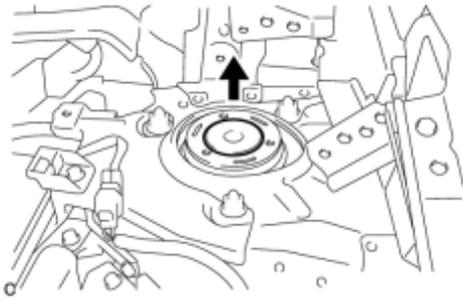
(a) Remove the bolt and clamp, and separate the front speed sensor and front flexible hose from the front shock absorber with coil spring.

## NOTICE:

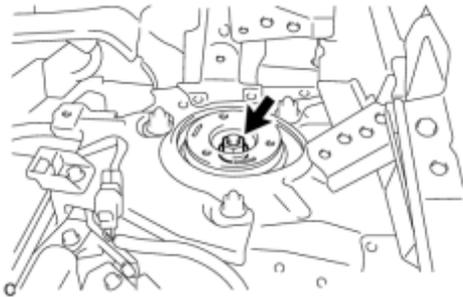
Be sure to separate the front speed sensor from the front shock absorber with coil spring completely.

### 7. REMOVE FRONT SUSPENSION SUPPORT DUST COVER

(a) Remove the front suspension support dust cover.

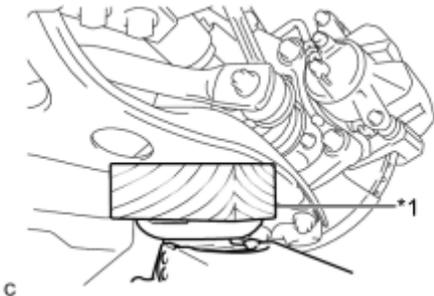


## 8. REMOVE FRONT SHOCK ABSORBER WITH COIL SPRING



(a) Loosen the front support to front shock absorber nut of the front shock absorber.

- Do not remove the front support to front shock absorber nut.
- Loosen the nut only when the front shock absorber with coil spring needs to be disassembled.



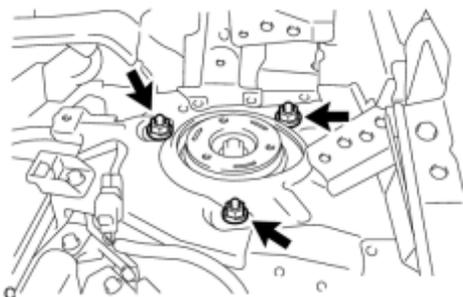
(b) Support the front axle using a jack and wooden block.

### Text in Illustration

*1	Wooden Block
----	--------------



(c) Remove the 2 bolts and 2 nuts, and separate the front shock absorber with coil spring (lower side) from the steering knuckle.

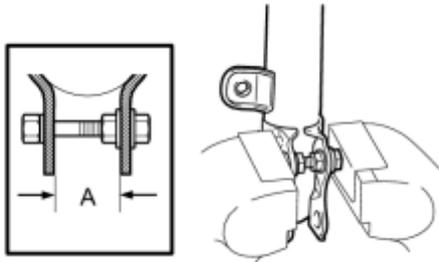


(d) Remove the 3 nuts and front shock absorber with coil spring.

NOTICE:

Make sure that the front speed sensor is completely separated from the front shock absorber with coil spring.

## 9. SECURE FRONT SHOCK ABSORBER WITH COIL SPRING



(a) Install a bolt and nut to the front shock absorber as shown in the illustration and secure the front shock absorber in a vise.

Standard length A:

40 mm (1.575 in.)

c

## 10. REMOVE FRONT SUPPORT TO FRONT SHOCK ABSORBER NUT

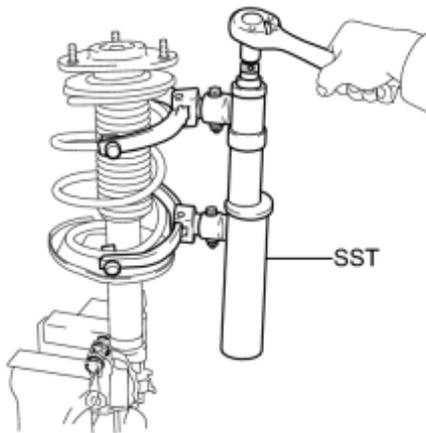
(a) Using SST, compress the front coil spring.

SST: 09727-30021

09727-00010

09727-00021

09727-00031



NOTICE:

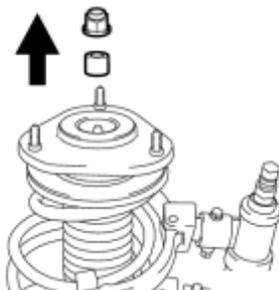
Do not use an impact wrench. It will damage SST.

HINT:

If the front coil spring is compressed at an angle, using 2 SST will make the work easier.

c

(b) Check that the front coil spring is sufficiently compressed.



(c) Remove the front support to front shock absorber nut and collar.

P

## 11. REMOVE FRONT SUSPENSION SUPPORT SUB-ASSEMBLY

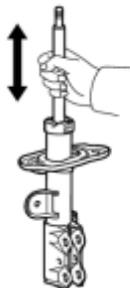
## 12. REMOVE STRUT MOUNTING BEARING

## 13. REMOVE FRONT COIL SPRING UPPER SEAT

14. REMOVE FRONT COIL SPRING UPPER INSULATOR
15. REMOVE FRONT COIL SPRING
16. REMOVE FRONT SPRING BUMPER
17. REMOVE FRONT COIL SPRING LOWER INSULATOR
18. REMOVE FRONT SHOCK ABSORBER ASSEMBLY

# INSPECTION

## 1. INSPECT FRONT SHOCK ABSORBER ASSEMBLY



P

(a) Compress and extend the shock absorber rod 4 times or more.

Standard:

There is no abnormal resistance or sound.

HINT:

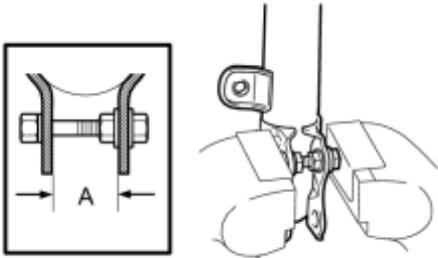
If there is any abnormality, replace the front shock absorber assembly with a new one.

# INSTALLATION

## HINT:

- Use the same procedure for the LH side and RH side.
- The procedure listed below is for the LH side.

### 1. SECURE FRONT SHOCK ABSORBER ASSEMBLY



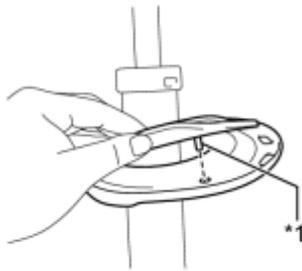
(a) Install the bolt and nut to the front shock absorber as shown in the illustration and secure the front shock absorber in a vise.

Standard length A:

40 mm (1.575 in.)

c

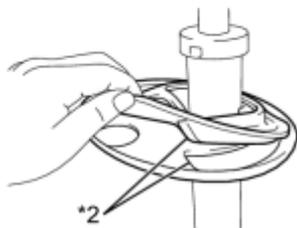
### 2. INSTALL FRONT COIL SPRING LOWER INSULATOR



(a) Install the front coil spring lower insulator to the front shock absorber assembly.

#### Text in Illustration

*1	Positioning Pin
*2	Depression



#### NOTICE:

When installing the insulator, fit the insulator to the depression of the spring seat and align the positioning pin into the hole.

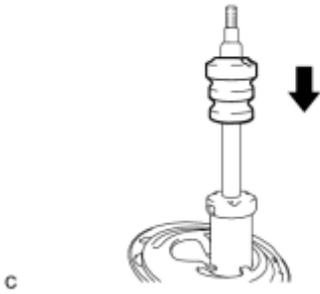
c

### 3. INSTALL FRONT SPRING BUMPER

(a) Install the front spring bumper to the front shock absorber assembly.

#### NOTICE:

Face the smaller diameter end of the front spring bumper downward.



#### 4. INSTALL FRONT COIL SPRING

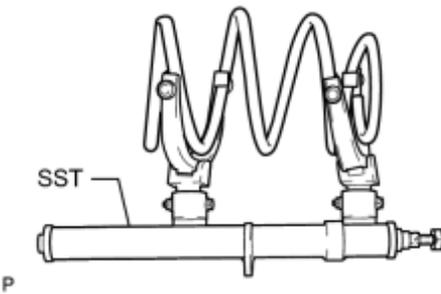
(a) Using SST, compress the front coil spring.

SST: 09727-30021

09727-00010

09727-00021

09727-00031



NOTICE:

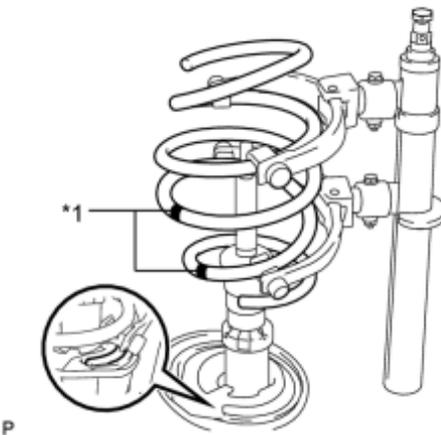
Do not use an impact wrench. It will damage the SST.

HINT:

If the front coil spring is compressed at an angle, using 2 SST will make the work easier.

(b) Install the front coil spring.

#### Text in Illustration



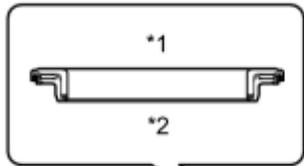
*1	Paint Mark
----	------------

- Make sure that the end of the front coil spring is positioned in the depression of the lower spring seat.
- Make sure to install the coil spring with the paint mark facing downward.

#### 5. INSTALL FRONT COIL SPRING UPPER INSULATOR

#### 6. INSTALL FRONT COIL SPRING UPPER SEAT

#### 7. INSTALL STRUT MOUNTING BEARING



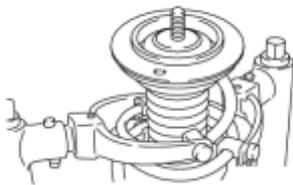
(a) Install the strut mounting bearing.

### Text in Illustration

*1	Upper Side
*2	Lower Side

NOTICE:

Do not install the bearing upside down.



c

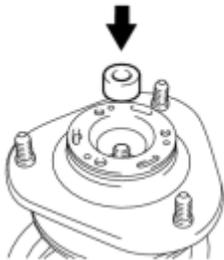
## 8. INSTALL FRONT SUSPENSION SUPPORT SUB-ASSEMBLY

(a) Install the front suspension support sub-assembly to the front shock absorber assembly.

NOTICE:

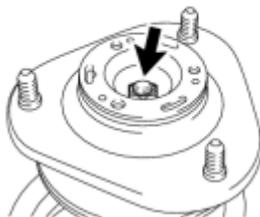
When installing, align the cutout on the front suspension support sub-assembly and the shock absorber piston rod end.

## 9. TEMPORARILY TIGHTEN FRONT SUPPORT TO FRONT SHOCK ABSORBER NUT



(a) Install the collar to the front shock absorber assembly.

c



(b) Temporarily tighten a new front support to front shock absorber nut.

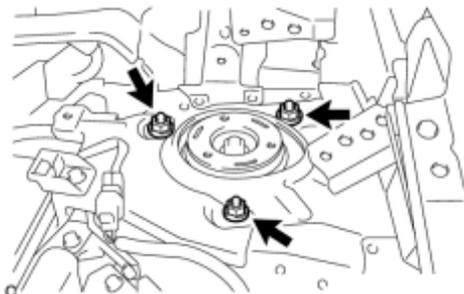
c

(c) Remove SST from the front coil spring.

NOTICE:

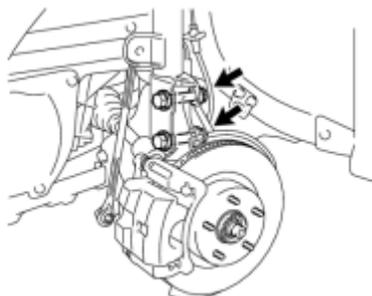
Do not use an impact wrench. It will damage SST.

## 10. INSTALL FRONT SHOCK ABSORBER WITH COIL SPRING



(a) Install the front shock absorber with coil spring (upper side) with the 3 nuts.

Torque: **50 N·m (510 kgf·cm, 37ft·lbf)**



(b) Install the front shock absorber with coil spring (lower side) to the steering knuckle with the 2 bolts and 2 nuts.

Torque: **240 N·m (2447 kgf·cm, 177ft·lbf)**

NOTICE:

While keeping the bolts from rotating, tighten the nuts.

c

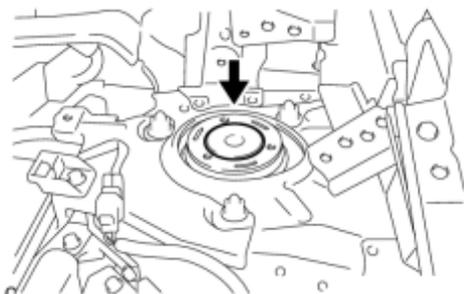
## 11. FULLY TIGHTEN FRONT SUPPORT TO FRONT SHOCK ABSORBER NUT



(a) Fully tighten the front support to front shock absorber nut.

Torque: **47 N·m (479 kgf·cm, 35ft·lbf)**

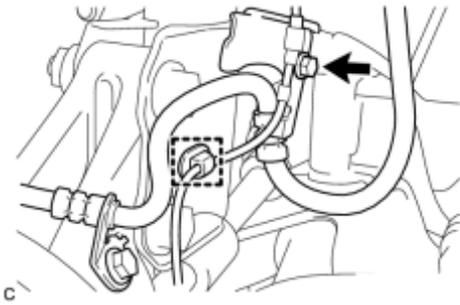
## 12. INSTALL FRONT SUSPENSION SUPPORT DUST COVER



(a) Install the front suspension support dust cover.

## 13. INSTALL FRONT SPEED SENSOR

(a) Install the front speed sensor and front flexible hose to the front shock



absorber with the bolt and clamp.

Torque: **19 N·m (192 kgf·cm, 14ft·lbf)**

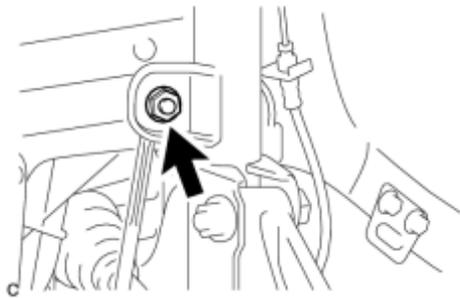
NOTICE:

Do not twist the front speed sensor when installing it.

HINT:

Install the front flexible hose first and then the speed sensor harness bracket.

#### 14. INSTALL FRONT STABILIZER LINK ASSEMBLY



(a) Install the front stabilizer link assembly to the front shock absorber with coil spring with the nut.

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

HINT:

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

#### 15. INSTALL OUTER COWL TOP PANEL SUB-ASSEMBLY\_ [INFO](#)

#### 16. INSTALL COWL BODY MOUNTING REINFORCEMENT LH\_ [INFO](#)

#### 17. INSTALL WINDSHIELD WIPER MOTOR AND LINK ASSEMBLY

HINT:

Refer to the procedure from Install Windshield Wiper Motor and Link Assembly [INFO](#).

#### 18. INSTALL FRONT WHEEL

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

#### 19. INSPECT AND ADJUST FRONT WHEEL ALIGNMENT

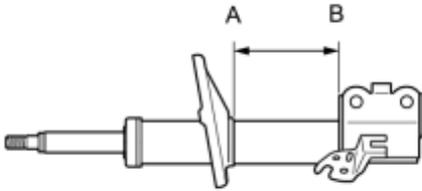
HINT:

Inspect and adjust the front wheel alignment [INFO](#).

# DISPOSAL

## 1. DISPOSE OF FRONT SHOCK ABSORBER ASSEMBLY

(a) Position the front shock absorber assembly level with the piston rod fully extended. Using a drill, make a hole in the cylinder between A and B shown in the illustration to discharge the gas inside.



NOTICE:

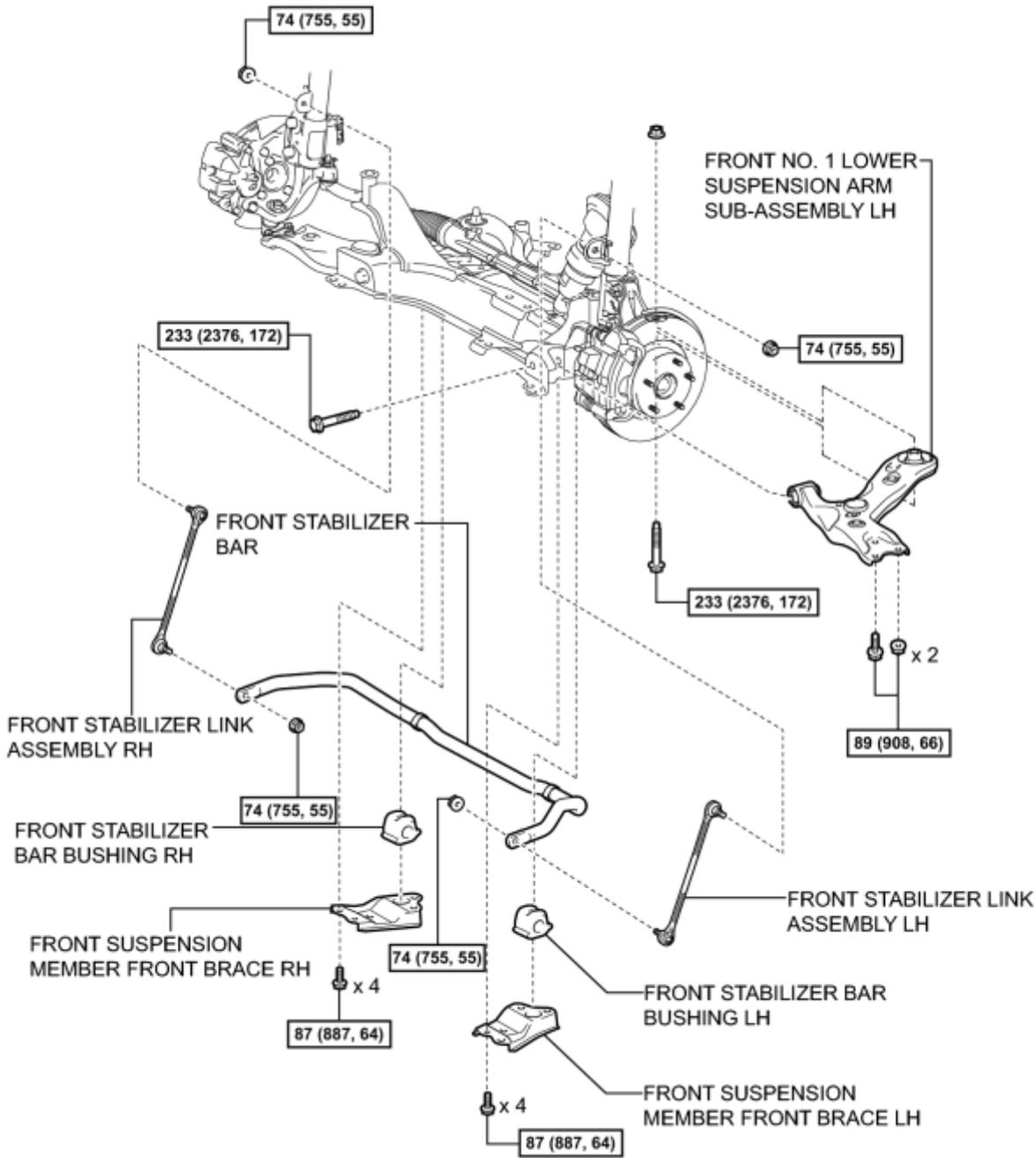
Always use proper safety equipment and be careful when drilling because shards of metal fly about.

HINT:

The gas is colorless, odorless and non-poisonous.

P

# COMPONENTS ILLUSTRATION

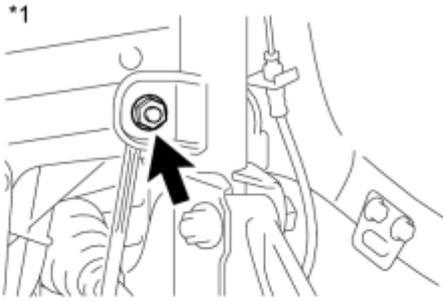


**N\*m (kgf\*cm, ft.\*lbf)**: Specified torque

c

# REMOVAL

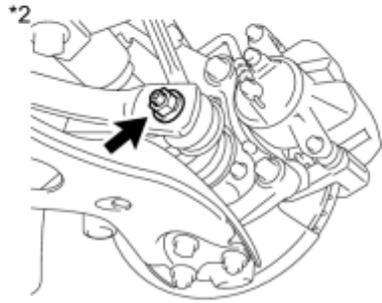
1. REMOVE FRONT WHEELS
2. REMOVE NO. 1 ENGINE UNDER COVER
3. REMOVE NO. 2 ENGINE UNDER COVER
4. REMOVE FRONT STABILIZER LINK ASSEMBLY LH



(a) Remove the 2 nuts and front stabilizer link assembly LH.

## Text in Illustration

*1	Upper Side
*2	Lower Side



HINT:

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

5. REMOVE FRONT STABILIZER LINK ASSEMBLY RH

HINT:

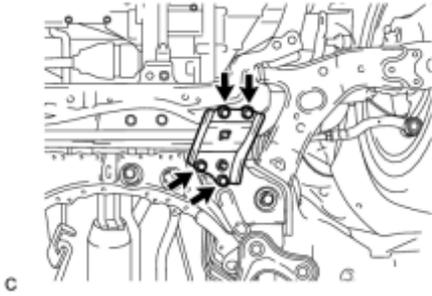
Perform the same procedure as for the LH side.

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

7. REMOVE FRONT NO. 1 LOWER SUSPENSION ARM SUB-ASSEMBLY LH\_ INFO

8. REMOVE FRONT SUSPENSION MEMBER FRONT BRACE LH

(a) Remove the 4 bolts and front suspension member front brace LH.

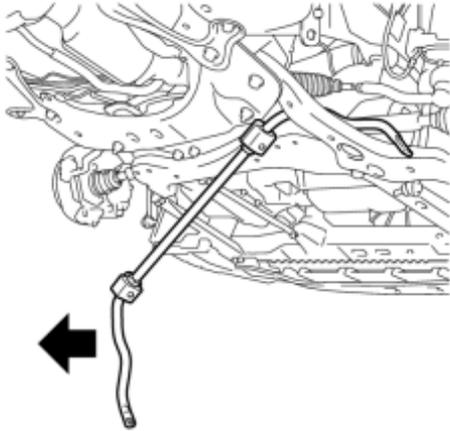


#### 9. REMOVE FRONT SUSPENSION MEMBER FRONT BRACE RH

HINT:

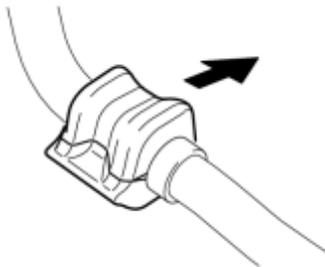
Perform the same procedure as for the LH side.

#### 10. REMOVE FRONT STABILIZER BAR



(a) Remove the front stabilizer bar with front stabilizer bar bushing from the front suspension crossmember sub-assembly.

#### 11. REMOVE FRONT STABILIZER BAR BUSHING LH



(a) Remove the front stabilizer bar bushing LH from the front stabilizer bar.

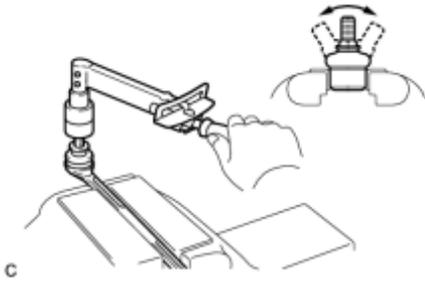
#### 12. REMOVE FRONT STABILIZER BAR BUSHING RH

HINT:

Perform the same procedure as for the LH side.

# INSPECTION

## 1. INSPECT FRONT STABILIZER LINK ASSEMBLY



(a) Inspect the turning torque of the ball joint.

(1) Secure the front stabilizer link assembly in a vise using aluminum plates.

(2) Install the nut to the front stabilizer link assembly stud.

(3) Using a torque wrench, turn the nut continuously at a rate of 3 to 5 seconds per turn and take the torque reading on the 5th turn.

Torque: **0.05 to 1.96 N·m (0.5 to 20 kgf·cm, 0.4 to 17in·lbf)**

HINT:

If the turning torque is not within the specified range, replace the front stabilizer link assembly with a new one.

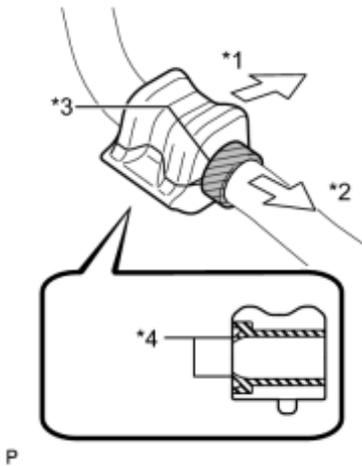
(b) Inspect the dust cover.

(1) Check that the dust cover is not cracked and that there is no grease on it.

# INSTALLATION

## 1. INSTALL FRONT STABILIZER BAR BUSHING LH

(a) Install the front stabilizer bar bushing to the front stabilizer bar as shown in the illustration.



### Text in Illustration

*1	Front of the Vehicle
*2	Inside of the Vehicle
*3	Stopper
*4	Dust Lip

- Install the front stabilizer bar bushing so that the dust lips face outward of the vehicle.
- Install the front stabilizer bar bushing so that the cutouts face rearward of the vehicle.

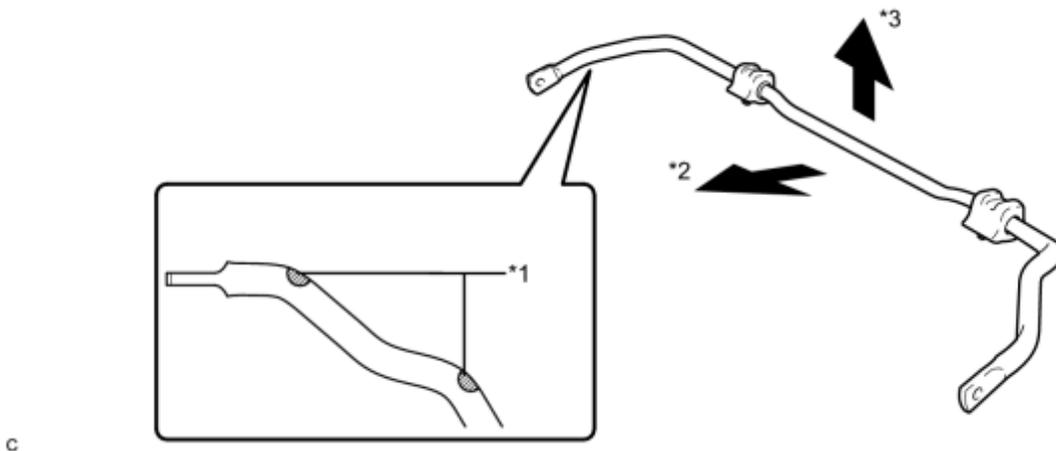
## 2. INSTALL FRONT STABILIZER BAR BUSHING RH

HINT:

Perform the same procedure as for the LH side.

## 3. INSTALL FRONT STABILIZER BAR

(a) Install the front stabilizer bar to the front suspension crossmember sub-assembly so that the identification mark is positioned on the right side of the vehicle.



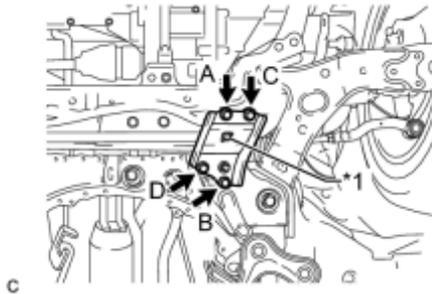
### Text in Illustration

*1	Identification Mark	*2	Front of the Vehicle
*3	Top of the Vehicle	-	-

#### 4. INSTALL FRONT SUSPENSION MEMBER FRONT BRACE LH

(a) Install the front suspension member front brace LH with the 4 bolts.

### Text in Illustration



*1	Protrusion
----	------------

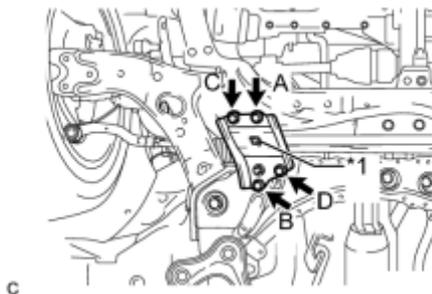
Torque: **87 N·m (887 kgf·cm, 64ft·lbf)**

- Temporarily tighten bolt A, and then fully tighten the 4 bolts in the order of B, C, D, and A.
- After installing the front suspension member front brace LH, make sure that the protrusion of the No. 1 front stabilizer bar bushing comes out.

#### 5. INSTALL FRONT SUSPENSION MEMBER FRONT BRACE RH

(a) Install the front suspension member front brace RH with the 4 bolts.

### Text in Illustration



*1	Protrusion
----	------------

Torque: **87 N·m (887 kgf·cm, 64ft·lbf)**

- Temporarily tighten bolt A, and then fully tighten the 4 bolts in the order of B, C, D, and A.
- After installing the front suspension member front brace RH, make sure that the protrusion of the No. 1 front stabilizer bar bushing comes out.

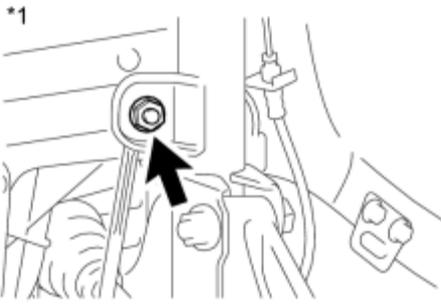
#### 6. TEMPORARILY INSTALL FRONT NO. 1 LOWER SUSPENSION ARM SUB-ASSEMBLY LH INFO

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

#### 8. INSTALL FRONT STABILIZER LINK ASSEMBLY LH

(a) Install the front stabilizer link assembly LH with the 2 nuts.

### Text in Illustration

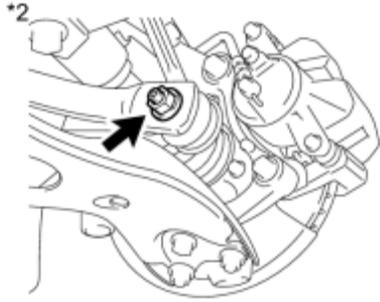


*1	Upper Side
*2	Lower Side

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

HINT:

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



## 9. INSTALL FRONT STABILIZER LINK ASSEMBLY RH

HINT:

Perform the same procedure for as the LH side.

## 10. INSTALL FRONT WHEELS

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

## 11. STABILIZE SUSPENSION INFO

## 12. FULLY TIGHTEN FRONT NO. 1 LOWER SUSPENSION ARM SUB-ASSEMBLY LH INFO

## 13. INSTALL NO. 2 ENGINE UNDER COVER

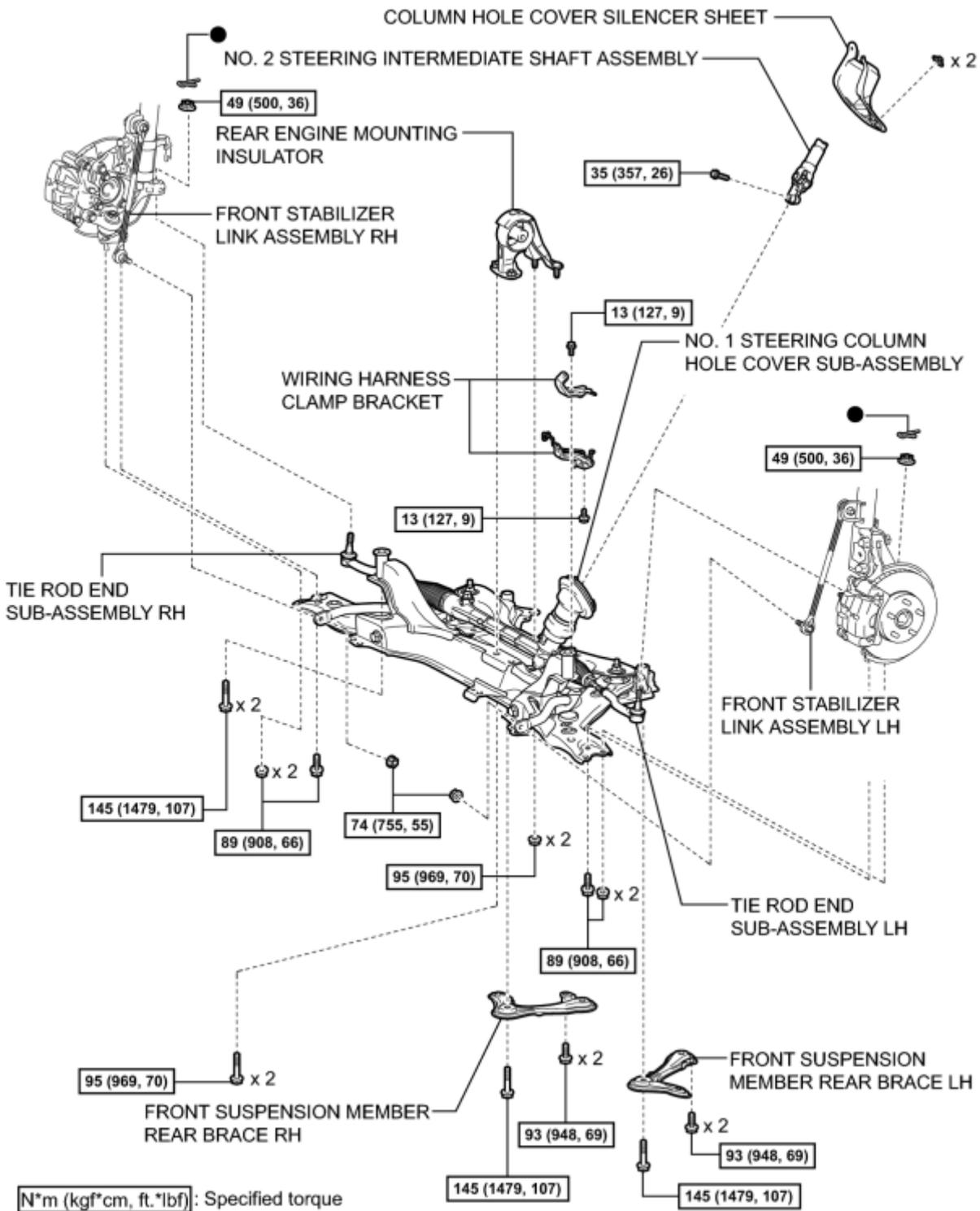
## 14. INSTALL NO. 1 ENGINE UNDER COVER

## 15. INSPECT AND ADJUST FRONT WHEEL ALIGNMENT

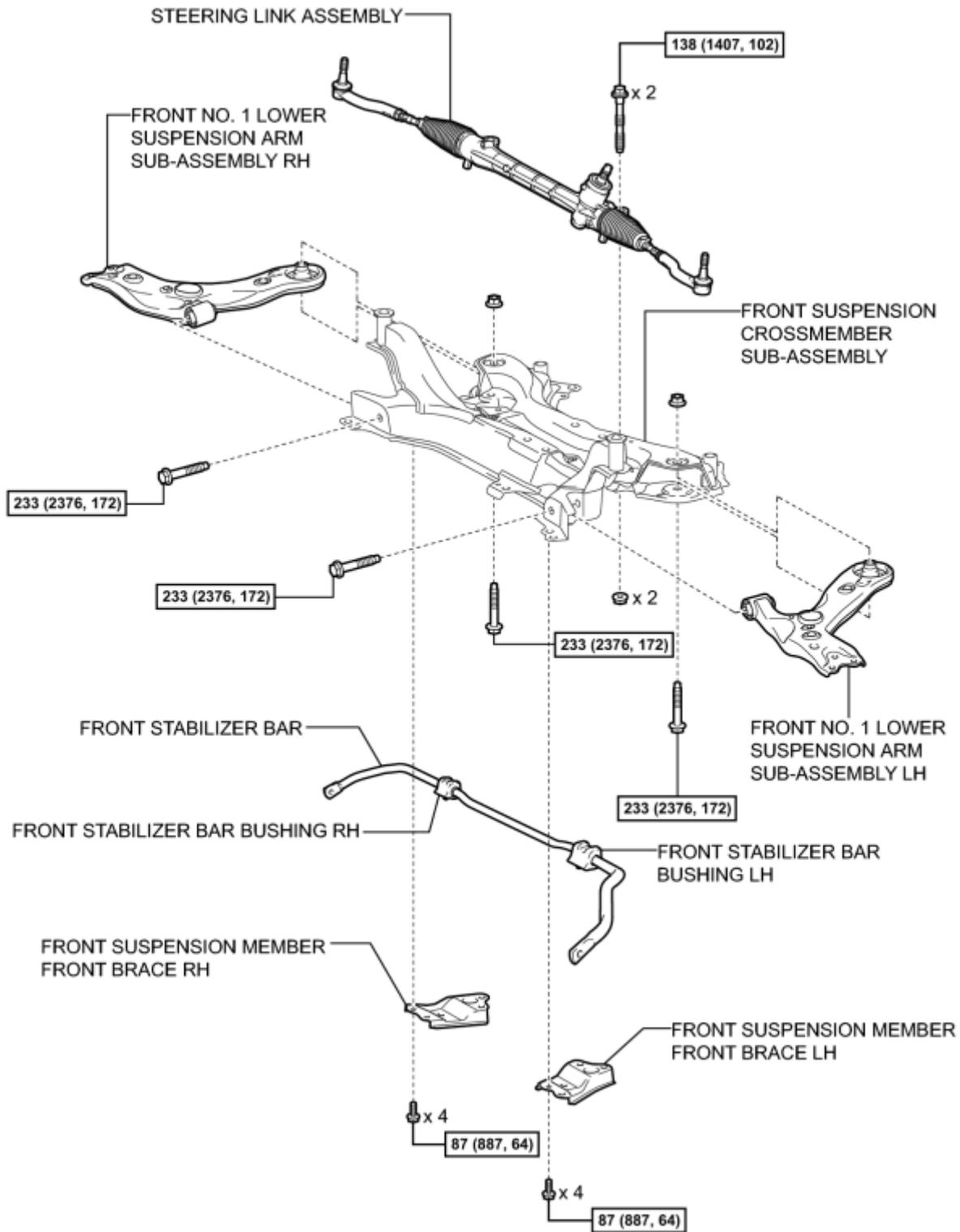
HINT:

Inspect and adjust the front wheel alignment INFO.





## ILLUSTRATION

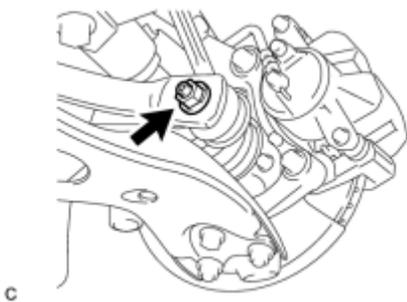


**N\*m (kgf\*cm, ft.\*lbf)**: Specified torque

P

# REMOVAL

1. PLACE FRONT WHEELS FACING STRAIGHT AHEAD
2. SECURE STEERING WHEEL INFO
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 INFO
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
12. REMOVE FRONT SPOILER COVER (w/ Front Spoiler)
13. REMOVE ENGINE UNDER COVER (w/ Cover)



## 14. SEPARATE FRONT STABILIZER LINK ASSEMBLY LH

(a) Remove the nut and separate the stabilizer link assembly LH from the front stabilizer bar.

HINT:

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

## 15. SEPARATE FRONT STABILIZER LINK ASSEMBLY RH

HINT:

Perform the same procedure as for the LH side.

## 16. SEPARATE TIE ROD END SUB-ASSEMBLY LH INFO

## 17. SEPARATE TIE ROD END SUB-ASSEMBLY RH

HINT:

2010 Toyota Prius

Repair Manual

Perform the same procedure as for the LH side.

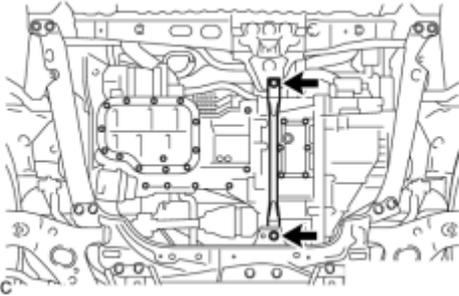
18. SEPARATE FRONT NO. 1 LOWER SUSPENSION ARM SUB-ASSEMBLY LH INFO

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

HINT:

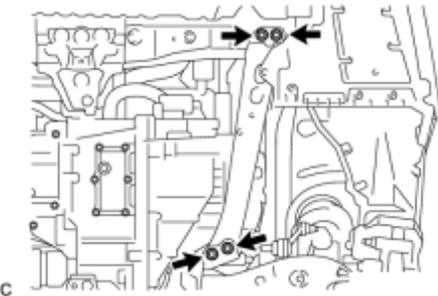
Perform the same procedure as for the LH side.

20. REMOVE FRONT ENGINE MOUNTING BRACKET LOWER REINFORCEMENT



(a) Remove the 2 bolts and front engine mounting bracket lower reinforcement.

21. REMOVE REAR SIDE RAIL REINFORCEMENT SUB-ASSEMBLY LH



(a) Remove the 4 bolts and rear side rail reinforcement sub-assembly LH.

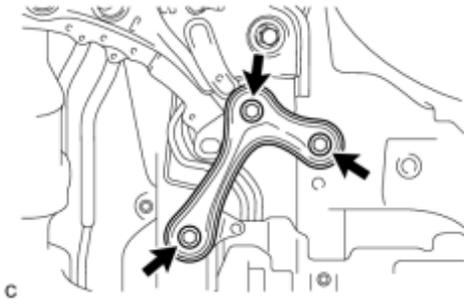
22. REMOVE REAR SIDE RAIL REINFORCEMENT SUB-ASSEMBLY RH

HINT:

Perform the same procedure as for the LH side.

23. REMOVE FRONT SUSPENSION MEMBER REAR BRACE LH

(a) Remove the 3 bolts and front suspension member rear brace LH.

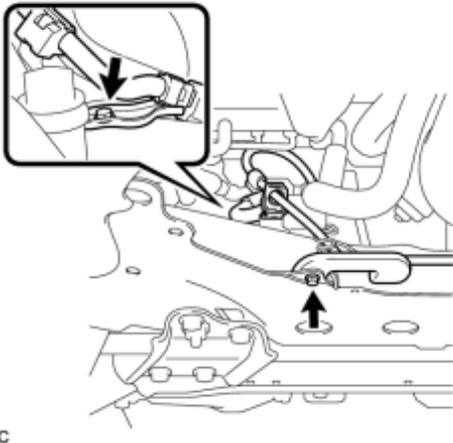


24. REMOVE FRONT SUSPENSION MEMBER REAR BRACE RH

HINT:

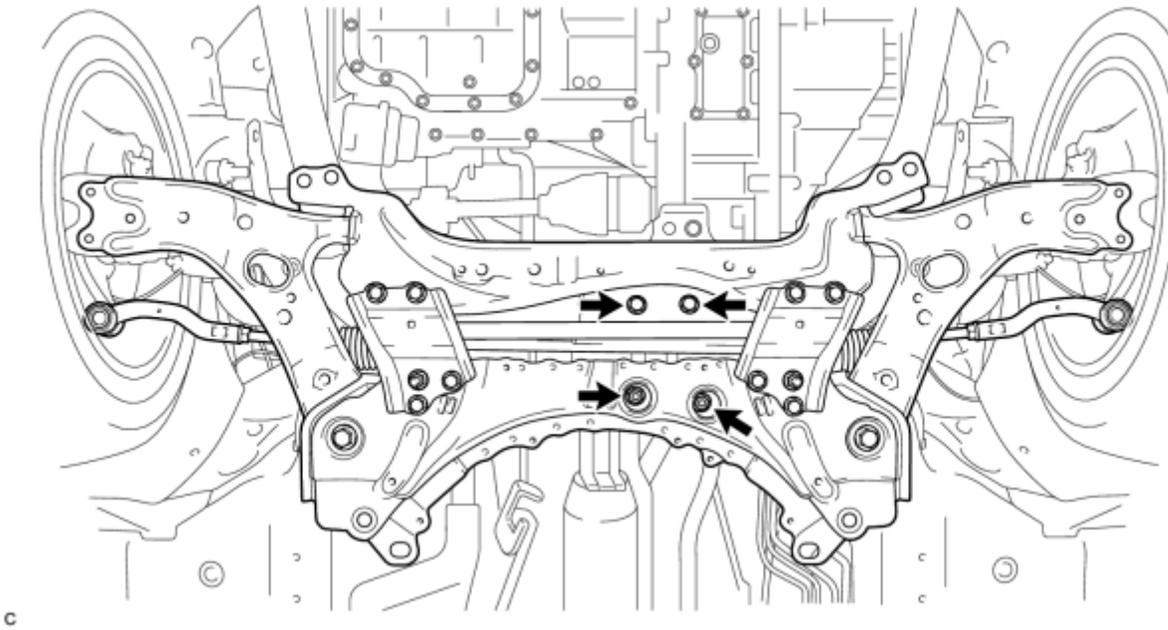
Perform the same procedure as for the LH side.

25. REMOVE FRONT SUSPENSION CROSSMEMBER SUB-ASSEMBLY



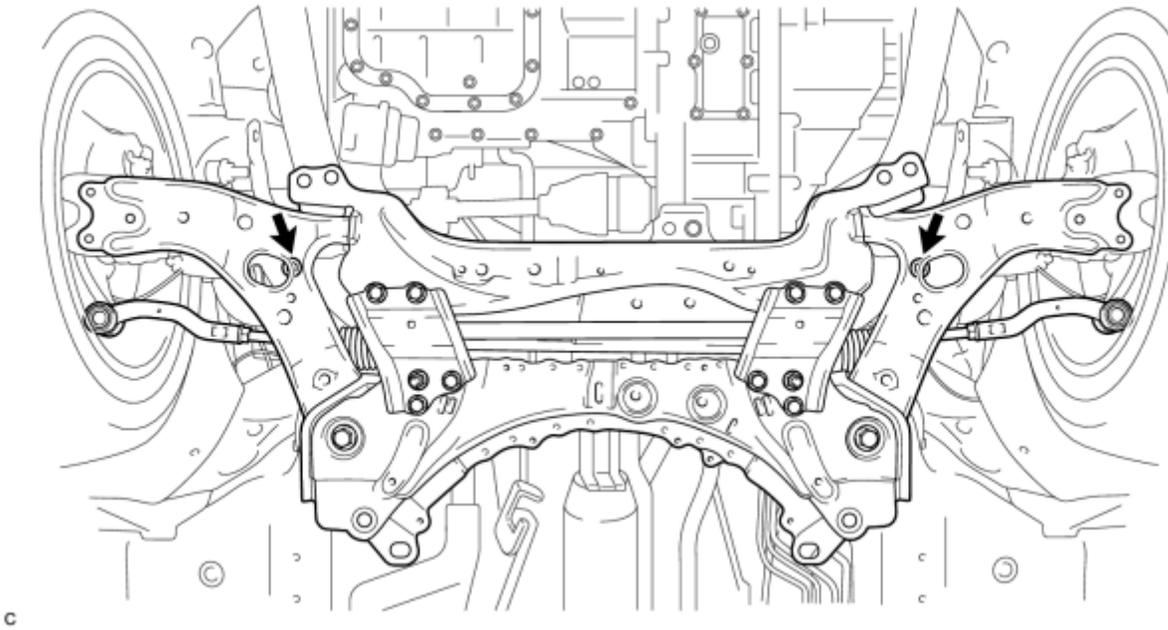
(a) Remove the 2 bolts and 2 wire harness clamp brackets from the front suspension crossmember sub-assembly.

(b) Remove the 2 bolts and 2 nuts, and separate the front suspension crossmember sub-assembly from the rear engine mounting insulator.



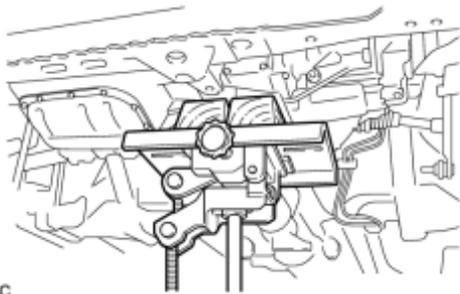
(c) Using a transmission jack, support the front suspension crossmember sub-assembly.

(d) Remove the 2 bolts and front suspension crossmember sub-assembly.



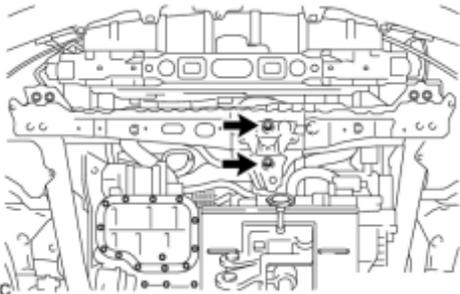
c

## 26. REMOVE FRONT CROSS MEMBER SUB-ASSEMBLY



c

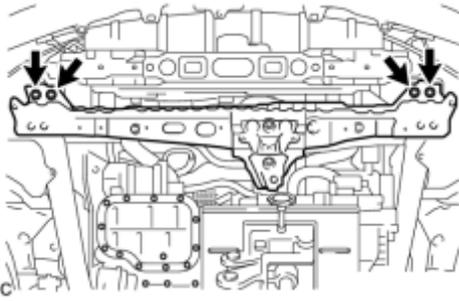
(a) Using a transmission jack, support the engine assembly with transaxle.



c

(b) Remove the 2 bolts and separate the front cross member sub-assembly from the engine mounting insulator.

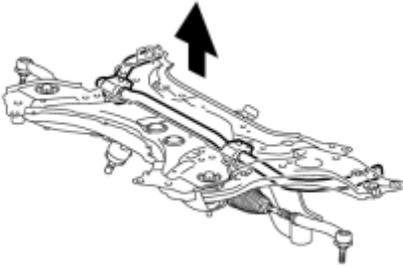
(c) Remove the 4 bolts and front cross member sub-assembly.



27. REMOVE FRONT SUSPENSION MEMBER FRONT BRACE LH\_ INFO

28. REMOVE FRONT SUSPENSION MEMBER FRONT BRACE RH\_ INFO

29. REMOVE FRONT STABILIZER BAR

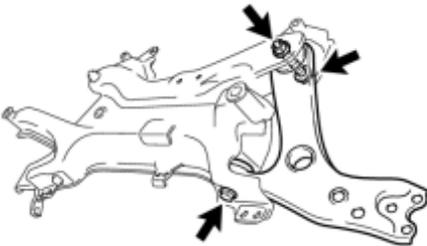


(a) Remove the front stabilizer bar with front stabilizer bar bushings from the front suspension crossmember sub-assembly.

P

30. REMOVE STEERING LINK ASSEMBLY\_ INFO

31. REMOVE FRONT NO. 1 LOWER SUSPENSION ARM SUB-ASSEMBLY LH



(a) Remove the 2 bolts, nut and front No. 1 lower suspension arm sub-assembly LH from the front suspension crossmember.

NOTICE:

Because the nut has its own stopper, do not turn the nut. Loosen the bolt with the nut secured.

C

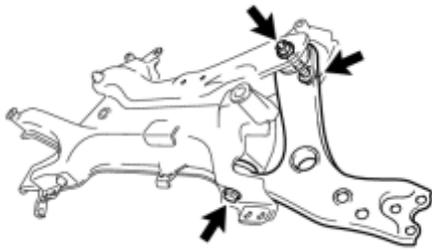
32. REMOVE FRONT NO. 1 LOWER SUSPENSION ARM SUB-ASSEMBLY RH

HINT:

Perform the same procedure as for the LH side.

# INSTALLATION

## 1. TEMPORARILY TIGHTEN FRONT NO. 1 LOWER SUSPENSION ARM SUB-ASSEMBLY LH



c

(a) Temporarily tighten the front No. 1 lower suspension arm sub-assembly LH to the front suspension crossmember with the 2 bolts and nut.

### NOTICE:

Because the nut has its own stopper, do not turn the nut. Tighten the bolt with the nut secured.

## 2. TEMPORARILY TIGHTEN FRONT NO. 1 LOWER SUSPENSION ARM SUB-ASSEMBLY RH

### HINT:

Perform the same procedure as for the LH side.

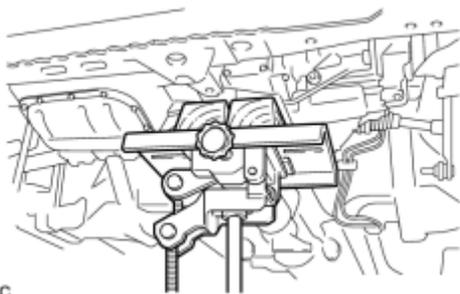
## 3. INSTALL STEERING LINK ASSEMBLY\_ [INFO](#)

## 4. INSTALL FRONT STABILIZER BAR\_ [INFO](#)

## 5. INSTALL FRONT SUSPENSION MEMBER FRONT BRACE LH\_ [INFO](#)

## 6. INSTALL FRONT SUSPENSION MEMBER FRONT BRACE RH\_ [INFO](#)

## 7. INSTALL FRONT CROSS MEMBER SUB-ASSEMBLY

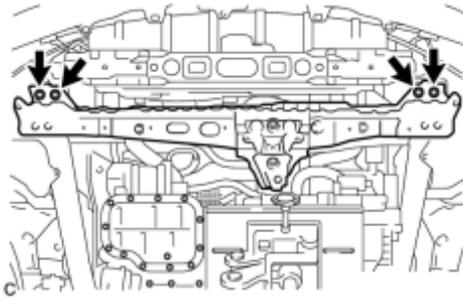


c

(a) Using a transmission jack, support the engine assembly with transaxle.

(b) Install the front cross member sub-assembly with the 4 bolts.

Torque: **96 N·m (979 kgf·cm, 71ft·lbf)**

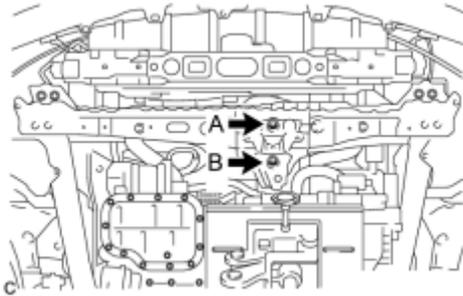


(c) Connect the engine mounting insulator with the 2 bolts.

Torque: **95 N·m (969 kgf·cm, 70ft·lbf)**

NOTICE:

Temporarily tighten bolt B and then fully tighten the 2 bolts in the order of A and B.

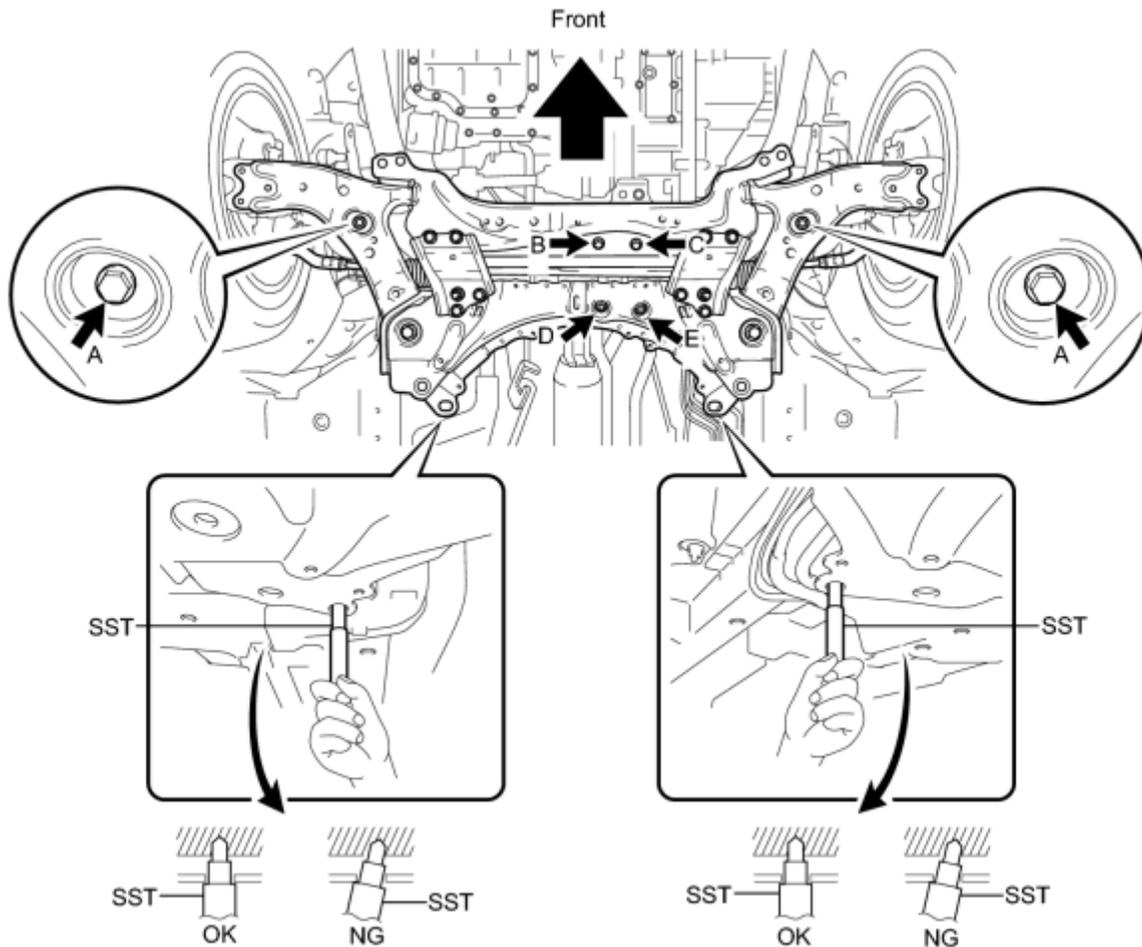


## 8. INSTALL FRONT SUSPENSION CROSSMEMBER SUB-ASSEMBLY



(a) Support the front suspension crossmember with a transmission jack.

(b) While inserting SST into the reference holes on the front suspension crossmember RH and LH alternately, tighten 2 bolts A, 2 bolts B, C and 2 nuts on the RH and LH sides to the respective specified torque in several steps.



c

SST: 09670-00020

Bolt A - Torque: **145 N·m (1479 kgf·cm, 107ft·lbf)**

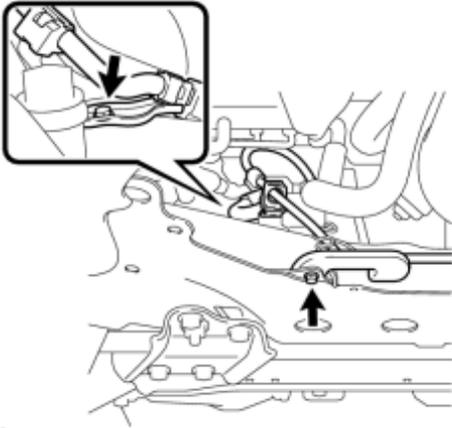
Bolt B, C, Nut D, E - Torque: **95 N·m (969 kgf·cm, 70ft·lbf)**

NOTICE:

Temporarily tighten bolt B, and then fully tighten the 2 bolts and 2 nuts in the order of C, E, D, and B.

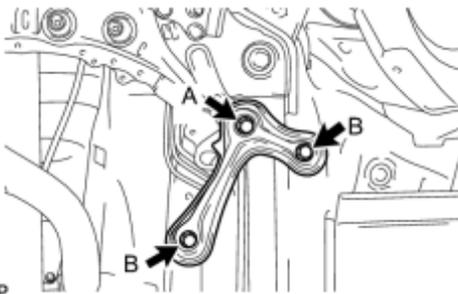
(c) Install the 2 wire harness clamp brackets with the 2 bolts.

Torque: **13 N·m (127 kgf·cm, 9ft·lbf)**



c

### 9. INSTALL FRONT SUSPENSION MEMBER REAR BRACE LH



P

(a) Install the front suspension member rear brace LH with the 3 bolts.

Bolt A - Torque: **145 N·m (1479 kgf·cm, 107ft·lbf)**

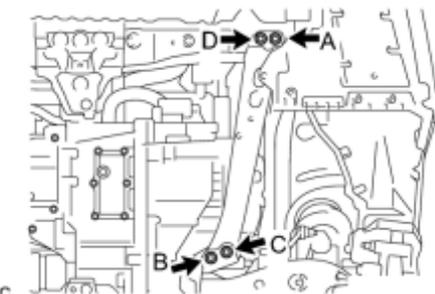
Bolt B - Torque: **93 N·m (948 kgf·cm, 69ft·lbf)**

### 10. INSTALL FRONT SUSPENSION MEMBER REAR BRACE RH

HINT:

Perform the same procedure as for the LH side.

### 11. INSTALL REAR SIDE RAIL REINFORCEMENT SUB-ASSEMBLY LH



c

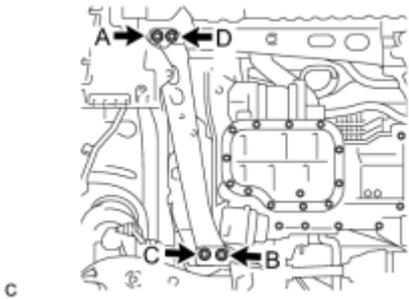
(a) Install the rear side rail reinforcement sub-assembly LH with the 4 bolts.

Torque: **96 N·m (979 kgf·cm, 71ft·lbf)**

NOTICE:

Temporarily tighten bolts A and B, and then fully tighten the 4 bolts in the order of C, B, D and A.

### 12. INSTALL REAR SIDE RAIL REINFORCEMENT SUB-ASSEMBLY RH



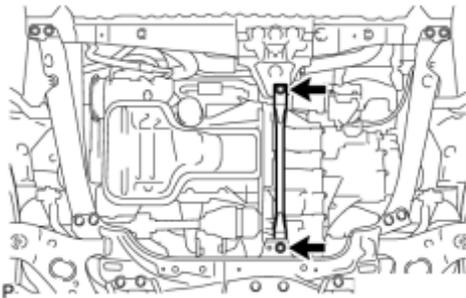
(a) Install the rear side rail reinforcement sub-assembly RH with the 4 bolts.

Torque: **96 N·m (979 kgf·cm, 71ft·lbf)**

NOTICE:

Temporarily tighten bolts A and B, and then fully tighten the 4 bolts in the order of C, B, D and A.

### 13. INSTALL FRONT ENGINE MOUNTING BRACKET LOWER REINFORCEMENT



(a) Install the front engine mounting bracket lower reinforcement with the 2 bolts.

Torque: **96 N·m (979 kgf·cm, 71ft·lbf)**

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

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

HINT:

Perform the same procedure as for the LH side.

### 16. CONNECT TIE ROD END SUB-ASSEMBLY LH INFO

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

HINT:

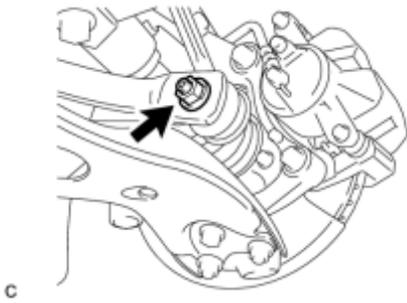
Perform the same procedure as for the LH side.

### 18. INSTALL FRONT STABILIZER LINK ASSEMBLY LH

(a) Install the front stabilizer link assembly LH to the front stabilizer bar with the nut.

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

HINT:



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

19. INSTALL FRONT STABILIZER LINK ASSEMBLY RH

HINT:

Perform the same procedure as for the LH side.

20. CONNECT NO. 1 STEERING COLUMN HOLE COVER SUB-ASSEMBLY INFO

21. CONNECT NO. 2 STEERING INTERMEDIATE SHAFT ASSEMBLY INFO

22. INSTALL COLUMN HOLE COVER SILENCER SHEET INFO

23. INSTALL FRONT WHEELS

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

24. STABILIZE SUSPENSION

(a) Lower the vehicle.

(b) Press down on the vehicle several times to stabilize the suspension.

25. FULLY TIGHTEN FRONT NO. 1 LOWER SUSPENSION ARM SUB-ASSEMBLY LH INFO

26. FULLY TIGHTEN FRONT NO. 1 LOWER SUSPENSION ARM SUB-ASSEMBLY RH

HINT:

Perform the same procedure as for the LH side.

27. INSTALL FRONT SPOILER COVER (w/ Front Spoiler)

28. INSTALL ENGINE UNDER COVER (w/ Cover)

29. INSTALL REAR ENGINE UNDER COVER LH

30. INSTALL REAR ENGINE UNDER COVER RH

31. INSTALL FRONT NO. 3 ENGINE UNDER COVER

32. INSTALL NO. 2 ENGINE UNDER COVER

33. INSTALL NO. 1 ENGINE UNDER COVER

34. INSPECT AND ADJUST FRONT WHEEL ALIGNMENT

HINT:

Inspect and adjust the front wheel alignment .

# PROBLEM SYMPTOMS TABLE

HINT:

Use the table below to help determine the cause of problem symptoms. If multiple suspected areas are listed, the potential causes of the symptoms are listed in order of probability in the "Suspected Area" column of the table. Check each symptom by checking the suspected areas in the order they are listed. Replace parts as necessary.

## Suspension System

Symptom	Suspected Area	See page
Vehicle pulls to one side while driving	Tire (worn or improperly inflated)	<a href="#">INFO</a>
	Front wheel alignment (incorrect)	<a href="#">INFO</a>
	Front hub bearing (worn)	<a href="#">INFO</a>
	Front shock absorber (worn)	<a href="#">INFO</a>
	Steering gear (out of adjustment or broken)	<a href="#">INFO</a>
	Suspension parts (worn)	-
Bottoming	Vehicle (overloaded)	-
	Front coil spring (weak)	<a href="#">INFO</a>
	Front shock absorber (worn)	<a href="#">INFO</a>
Sways/pitches	Tire (worn or improperly inflated)	<a href="#">INFO</a>
	Front stabilizer bar (bent or broken)	<a href="#">INFO</a>
	Front coil spring (weak)	<a href="#">INFO</a>
	Front shock absorber (worn)	<a href="#">INFO</a>
Wheel shimmy	Tire (worn or improperly inflated)	<a href="#">INFO</a>
	Wheel (out of balance)	<a href="#">INFO</a>
	Front wheel alignment (incorrect)	<a href="#">INFO</a>
	Front lower suspension arm (worn)	<a href="#">INFO</a>
	Front shock absorber (worn)	<a href="#">INFO</a>
	Front lower ball joint (worn)	<a href="#">INFO</a>
	Front hub bearing (worn)	<a href="#">INFO</a>
Abnormal tire wear	Tire (worn or improperly inflated)	<a href="#">INFO</a>
	Wheel (out of balance)	<a href="#">INFO</a>
	Front wheel alignment (incorrect)	<a href="#">INFO</a>
	Suspension parts (worn)	-

# PROBLEM SYMPTOMS TABLE

HINT:

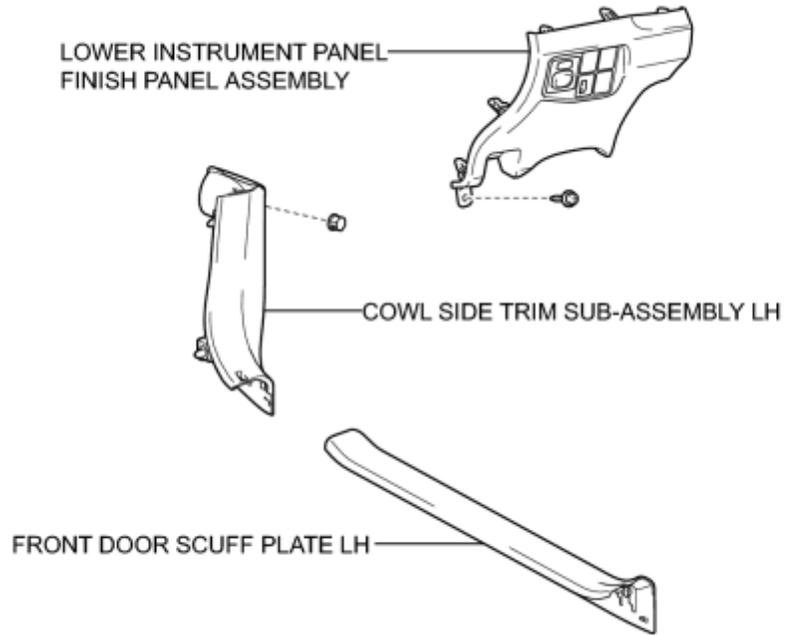
Use the table below to help determine the cause of problem symptoms. If multiple suspected areas are listed, the potential causes of the symptoms are listed in order of probability in the "Suspected Area" column of the table. Check each symptom by checking the suspected areas in the order they are listed. Replace parts as necessary.

## Rear Suspension System

Symptom	Suspected Area	See page
Vehicle pulls to one side while driving.	Tire (worn or improperly inflated)	<a href="#">INFO</a>
	Rear wheel alignment (incorrect)	<a href="#">INFO</a>
	Rear shock absorber (worn)	<a href="#">INFO</a>
	Rear axle hub (worn)	<a href="#">INFO</a>
	Suspension parts (worn)	-
Bottoming	Vehicle (overloaded)	-
	Rear coil spring (weak)	<a href="#">INFO</a>
	Rear shock absorber (worn)	<a href="#">INFO</a>
Sway/pitches	Tire (worn or improperly inflated)	<a href="#">INFO</a>
	Rear coil spring (weak)	<a href="#">INFO</a>
	Rear shock absorber (worn)	<a href="#">INFO</a>
Wheel shimmy	Tire (worn or improperly inflated)	<a href="#">INFO</a>
	Wheel (out of balance)	<a href="#">INFO</a>
	Rear wheel alignment (incorrect)	<a href="#">INFO</a>
	Rear shock absorber (worn)	<a href="#">INFO</a>
	Rear axle hub (worn)	<a href="#">INFO</a>
Abnormal tire wear	Tire (worn or improperly inflated)	<a href="#">INFO</a>
	Wheel (out of balance)	<a href="#">INFO</a>
	Rear wheel alignment (incorrect)	<a href="#">INFO</a>
	Suspension parts (worn)	-

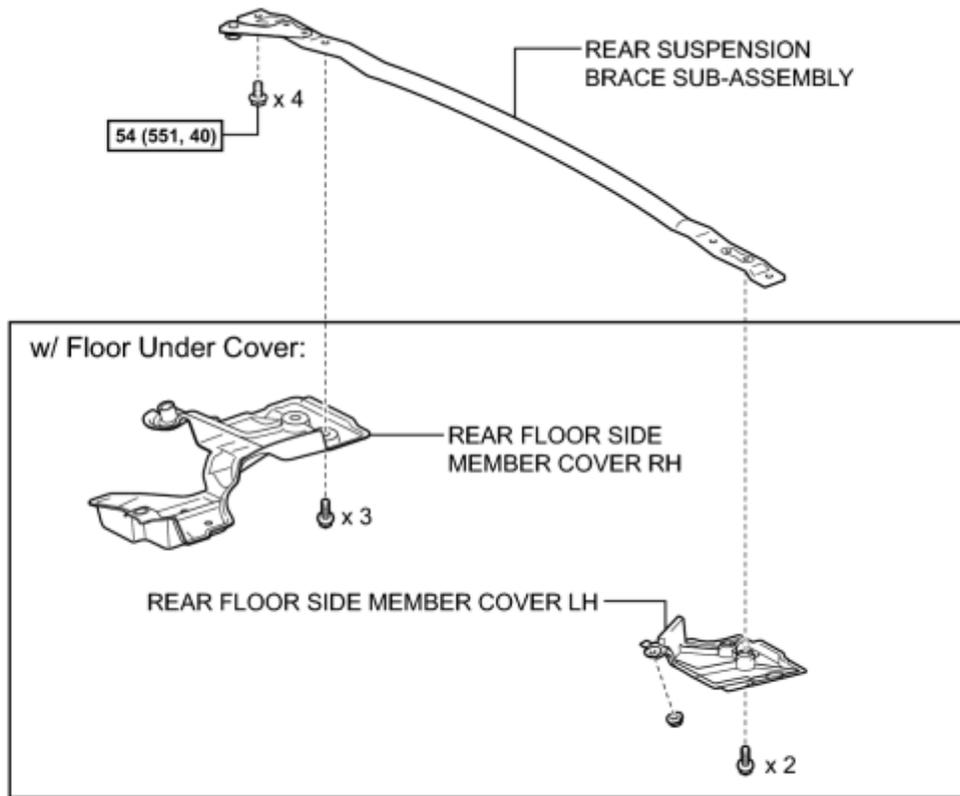
# COMPONENTS

## ILLUSTRATION



c

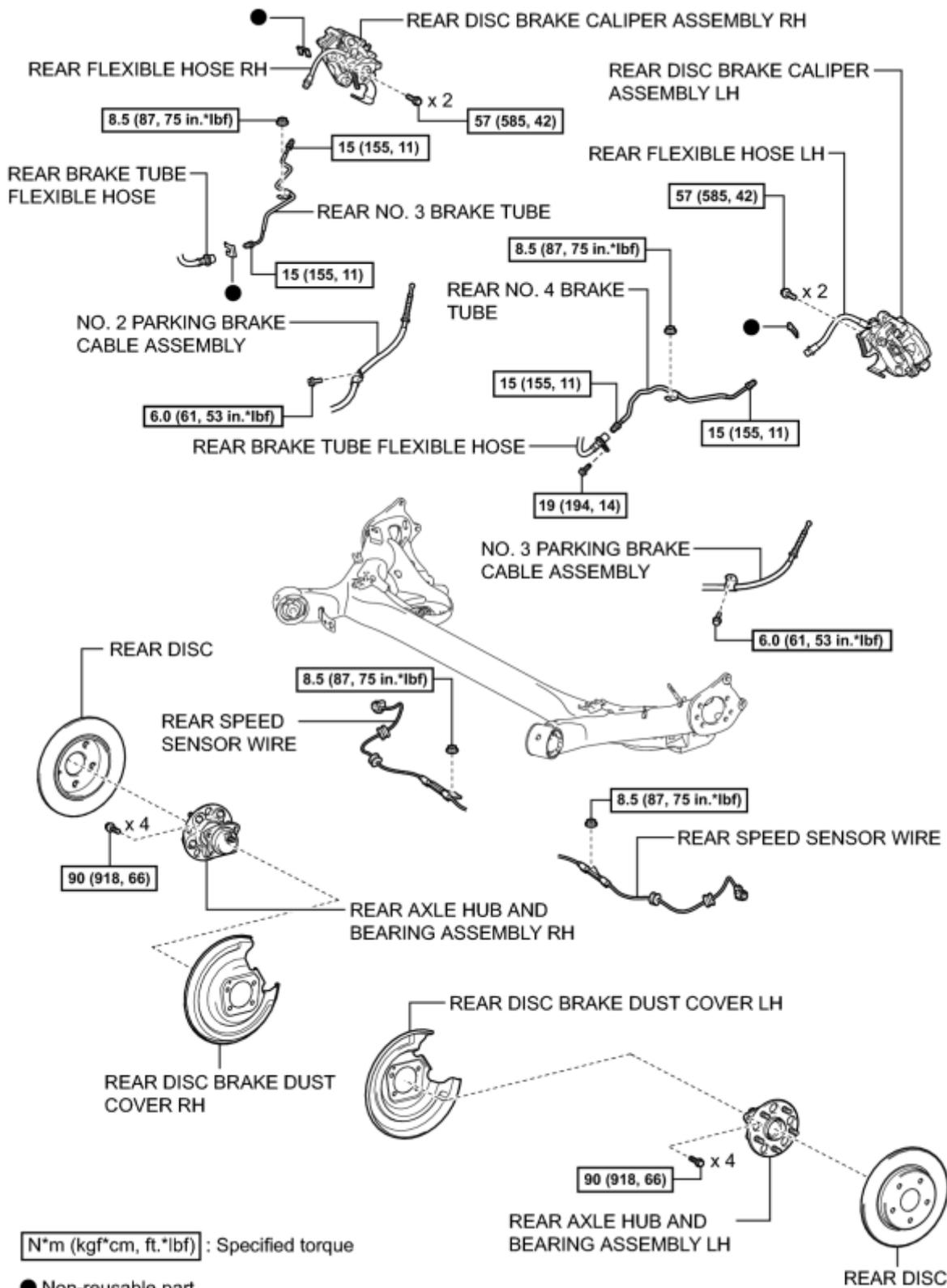
## ILLUSTRATION



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

c

## ILLUSTRATION

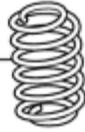


## ILLUSTRATION

REAR UPPER COIL SPRING INSULATOR RH



REAR COIL SPRING RH



REAR UPPER COIL SPRING INSULATOR LH



REAR LOWER COIL SPRING INSULATOR RH



REAR COIL SPRING LH



REAR LOWER COIL SPRING INSULATOR LH



w/ Wheel House Liner:



REAR WHEEL HOUSE LINER RH

w/ Height Control Sensor:

REAR HEIGHT CONTROL SENSOR SUB-ASSEMBLY RH

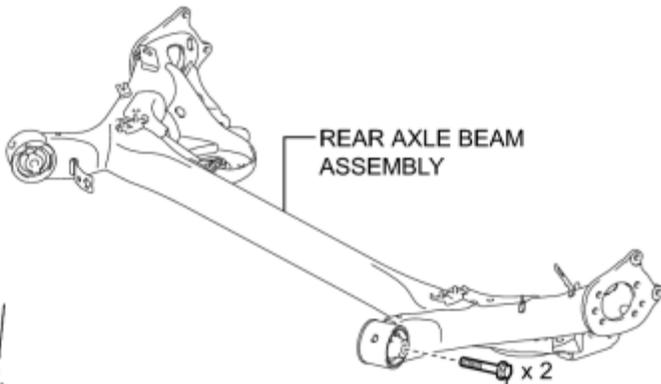


8.0 (82, 71 in.\*lbf)

w/ Wheel House Liner:



REAR WHEEL HOUSE LINER LH



REAR AXLE BEAM ASSEMBLY



REAR SHOCK ABSORBER ASSEMBLY RH

90 (918, 66)

135 (1377, 100) x 2

90 (918, 66)

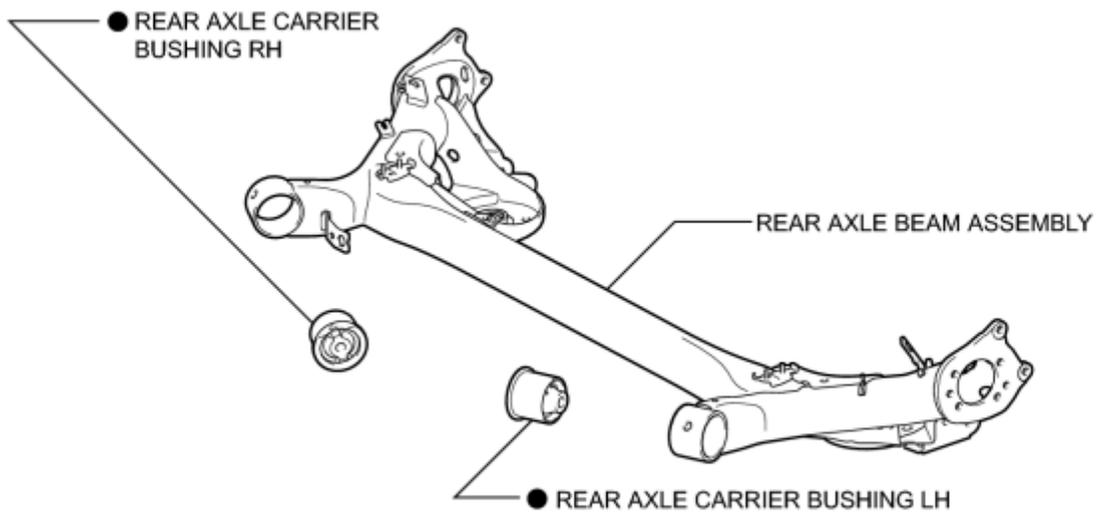


REAR SHOCK ABSORBER ASSEMBLY LH

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

c

# ILLUSTRATION



● Non-reusable part  
P

# REMOVAL

1. DISABLE BRAKE CONTROL\_ [INFO](#)

2. REMOVE REAR WHEELS

3. REMOVE FRONT DOOR SCUFF PLATE LH\_ [INFO](#)

4. REMOVE COWL SIDE TRIM SUB-ASSEMBLY LH\_ [INFO](#)

5. REMOVE LOWER INSTRUMENT PANEL FINISH PANEL ASSEMBLY\_ [INFO](#)

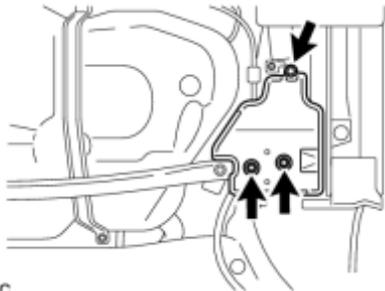
6. LOOSEN PARKING BRAKE CABLE\_ [INFO](#)

7. DRAIN BRAKE FLUID

NOTICE:

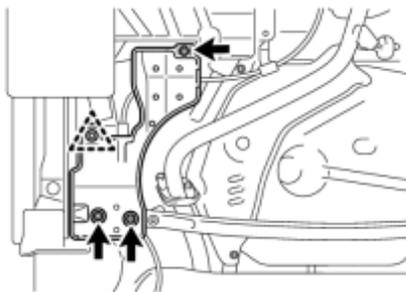
If brake fluid leaks onto any painted surface, immediately wash it off.

8. REMOVE REAR FLOOR SIDE MEMBER COVER LH (w/ Floor Under Cover)



(a) Remove the nut, 2 bolts and rear floor side member cover LH.

9. REMOVE REAR FLOOR SIDE MEMBER COVER RH (w/ Floor Under Cover)

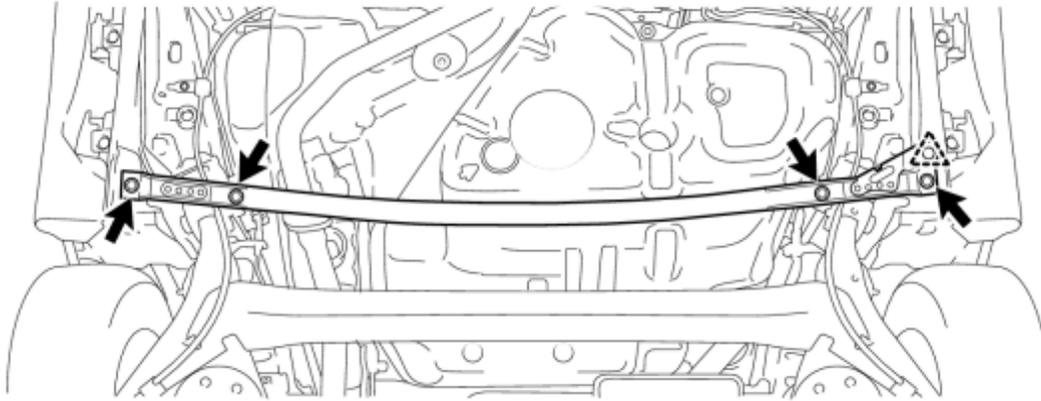


(a) Remove the 3 bolts.

(b) Disengage the clip and remove the rear floor side member cover RH.

10. REMOVE REAR SUSPENSION BRACE SUB-ASSEMBLY

(a) Remove the 4 bolts.



c

(b) Disengage the clip and remove the rear suspension brace sub-assembly.

11. DISCONNECT REAR SPEED SENSOR WIRE (for LH Side) INFO

12. DISCONNECT REAR SPEED SENSOR WIRE (for RH Side)

HINT:

Perform the same procedure as for the LH side.

13. SEPARATE REAR SPEED SENSOR WIRE (for LH Side) INFO

14. SEPARATE REAR SPEED SENSOR WIRE (for RH Side)

HINT:

Perform the same procedure as for the LH side.

15. DISCONNECT NO. 3 PARKING BRAKE CABLE ASSEMBLY INFO

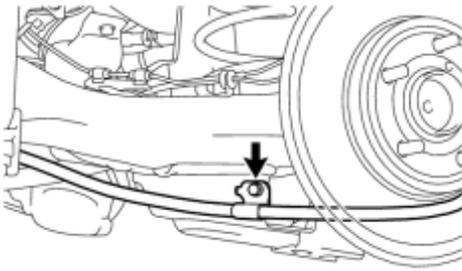
16. DISCONNECT NO. 2 PARKING BRAKE CABLE ASSEMBLY

HINT:

Perform the same procedure as for the No. 3 parking brake cable assembly.

17. SEPARATE NO. 3 PARKING BRAKE CABLE ASSEMBLY

(a) Remove the bolt and separate the No. 3 parking brake cable assembly.



P

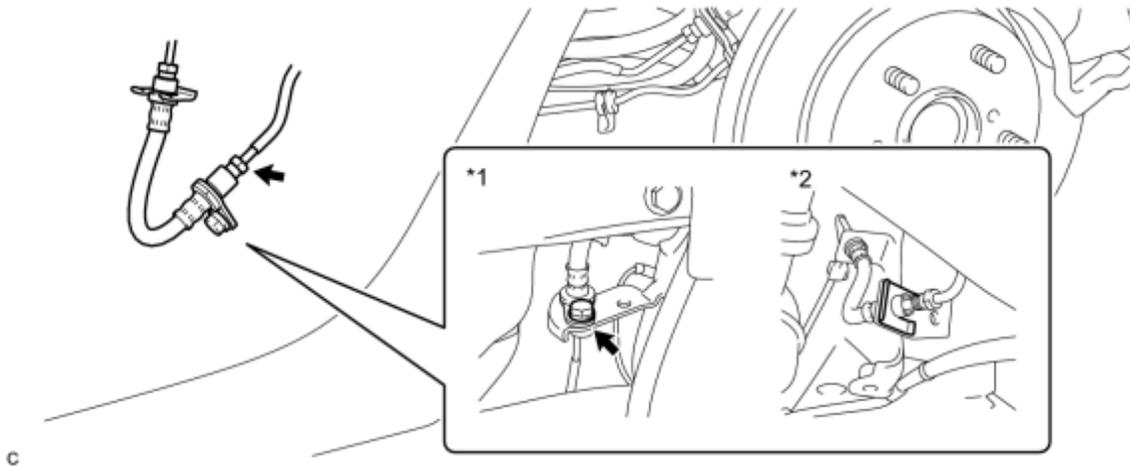
### 18. SEPARATE NO. 2 PARKING BRAKE CABLE ASSEMBLY

HINT:

Perform the same procedure as for the No. 3 parking brake cable assembly.

### 19. SEPARATE REAR BRAKE TUBE FLEXIBLE HOSE

(a) Using a union nut wrench, disconnect the 2 brake lines while holding the rear brake tube flexible hose with a wrench.



C

#### *Text in Illustration*

*1	LH Side	*2	RH Side
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NOTICE:

- Do not bend or damage the brake line.
- Do not allow any foreign matter such as dirt or dust to enter the brake line from the connecting points.

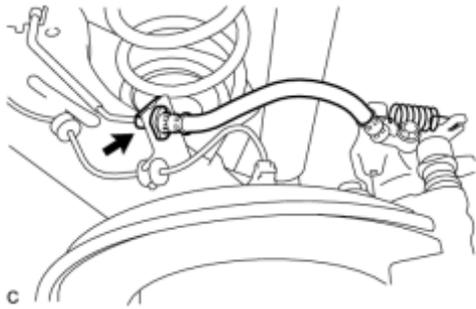
(b) for LH Side

(1) Remove the bolt and separate the rear brake tube flexible hose from the rear axle beam assembly.

(c) for RH Side

(1) Remove the clip and separate the rear brake tube flexible hose from the rear axle beam assembly.

## 20. REMOVE REAR DISC BRAKE CALIPER ASSEMBLY LH

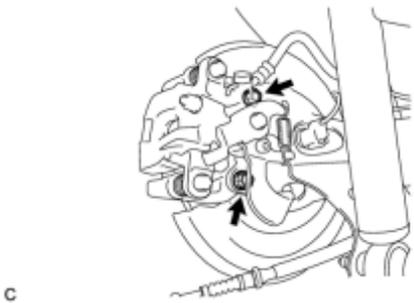


(a) Using a union nut wrench, disconnect the brake line while holding the rear flexible hose LH with a wrench.

- Do not bend or damage the brake line.
- Do not allow any foreign matter such as dirt or dust to enter the brake line from the connecting points.



(b) Remove the clip and separate the rear flexible hose LH.



(c) Remove the 2 bolts and rear disc brake caliper assembly LH with rear flexible hose LH.

## 21. REMOVE REAR DISC BRAKE CALIPER ASSEMBLY RH

HINT:

Perform the same procedure as for the LH side.

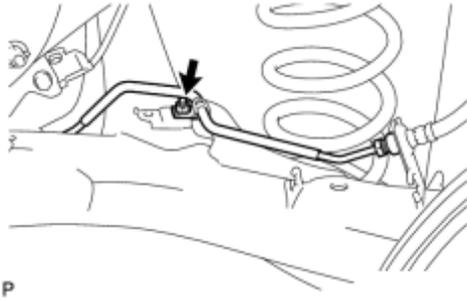
## 22. REMOVE REAR DISC (for LH Side) INFO

## 23. REMOVE REAR DISC (for RH Side)

HINT:

Perform the same procedure as for the LH side.

24. REMOVE REAR NO. 4 BRAKE TUBE



(a) Remove the nut and rear No. 4 brake tube from the rear axle beam assembly.

25. REMOVE REAR NO. 3 BRAKE TUBE

HINT:

Perform the same procedure as for the rear No. 4 brake tube.

26. REMOVE REAR AXLE HUB AND BEARING ASSEMBLY LH INFO

27. REMOVE REAR AXLE HUB AND BEARING ASSEMBLY RH

HINT:

Perform the same procedure as for the LH side.

28. SEPARATE REAR WHEEL HOUSE LINER LH (w/ Wheel House Liner) INFO

29. SEPARATE REAR WHEEL HOUSE LINER RH (w/ Wheel House Liner)

HINT:

Perform the same procedure as for the LH side.

30. SEPARATE REAR HEIGHT CONTROL SENSOR SUB-ASSEMBLY RH (w/ Height Control Sensor) INFO

31. REMOVE REAR COIL SPRING LH INFO

32. REMOVE REAR COIL SPRING RH

HINT:

Perform the same procedure as for the LH side.

33. REMOVE REAR UPPER COIL SPRING INSULATOR LH

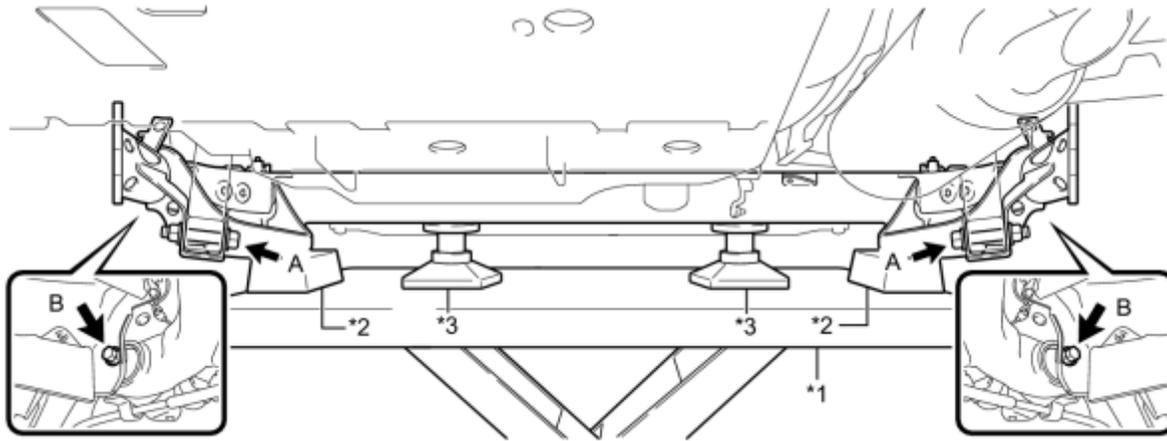
34. REMOVE REAR UPPER COIL SPRING INSULATOR RH

35. REMOVE REAR LOWER COIL SPRING INSULATOR LH

36. REMOVE REAR LOWER COIL SPRING INSULATOR RH

37. REMOVE REAR AXLE BEAM ASSEMBLY

(a) Support the rear axle beam assembly with a jack using 2 wooden blocks and 2 attachments or equivalent tools to replicate standard vehicle height conditions as shown in the illustration.



**Text in Illustration**

*1	Jack	*2	Wooden Block
*3	Attachment	-	-

**NOTICE:**

Make sure to secure the rear axle beam assembly to prevent it from dropping.

(b) Remove the 2 bolts (A) and 2 nuts while holding the 2 nuts and separate the rear axle beam assembly from the rear shock absorber assemblies LH and RH.

**NOTICE:**

Since the stopper nuts are used, turn the bolts.

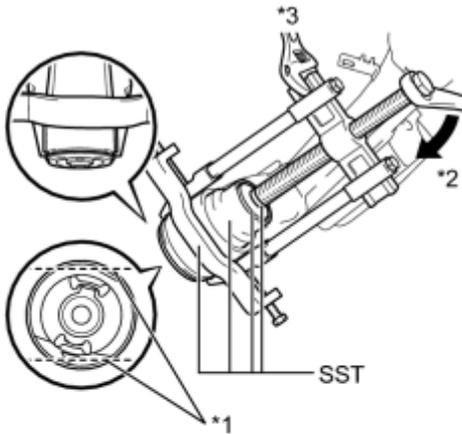
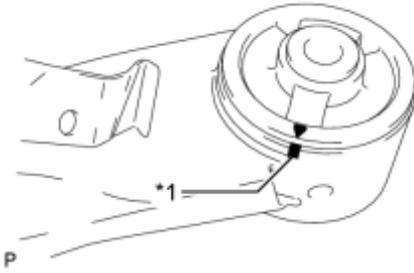
(c) Remove the 2 bolts (B) and rear axle beam assembly.

38. REMOVE REAR AXLE CARRIER BUSHING LH

(a) Put a matchmark on the rear axle beam assembly so that the mark aligns with the arrow mark on the rear axle carrier bushing LH. (If the rear axle beam assembly is reused.)

**Text in Illustration**

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



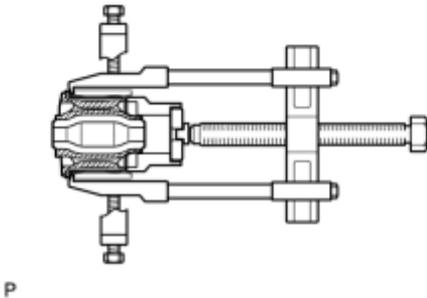
(b) Using a chisel and hammer, bend the 2 ribs on the rear axle carrier bushing LH.

### Text in Illustration

*1	Bend Portion
*2	Turn
*3	Hold

### NOTICE:

When removing the rear axle carrier bushing, do not erase the matchmark on the rear axle beam assembly.



(c) Using SST, remove the rear axle carrier bushing LH from the rear axle beam assembly.

SST: 09710-26011

09710-05061

SST: 09950-40011

09951-04020

09952-04010

09953-04030

09954-04020

09955-04051

09957-04010

09958-04011

SST: 09950-60010

09951-00530

NOTICE:

Apply grease to the threads and tip of the SST center bolt before use.

39. REMOVE REAR AXLE CARRIER BUSHING RH

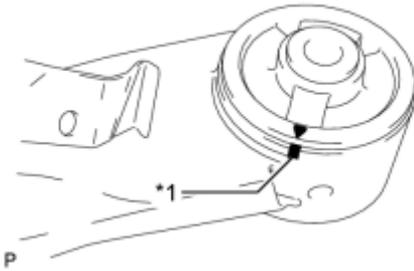
HINT:

Perform the same procedure as for the LH side.

# INSTALLATION

## 1. INSTALL REAR AXLE CARRIER BUSHING LH

(a) Align the arrow mark on a new rear axle carrier bushing LH with the matchmark on the rear axle beam assembly and temporarily install the rear axle carrier bushing LH to the rear axle beam assembly. (If the rear axle beam assembly is reused.)



### Text in Illustration

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

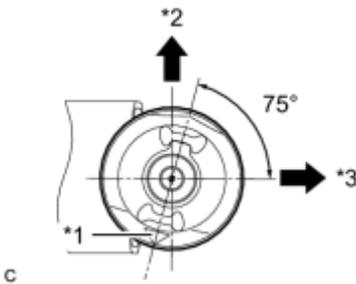
#### NOTICE:

Be sure to install the rear axle carrier bushing in the same direction as it was before removal.

The rear axle carrier bushing has to be installed in a specific direction.

(b) Temporarily install the new rear axle carrier bushing LH as shown in the illustration.

### Text in Illustration



*1	Mark
*2	Upper Side of the Vehicle
*3	Front of the Vehicle

#### NOTICE:

Be sure to install the rear axle carrier bushing in the same direction as it was before removal.

The rear axle carrier bushing has to be installed in a specific direction.

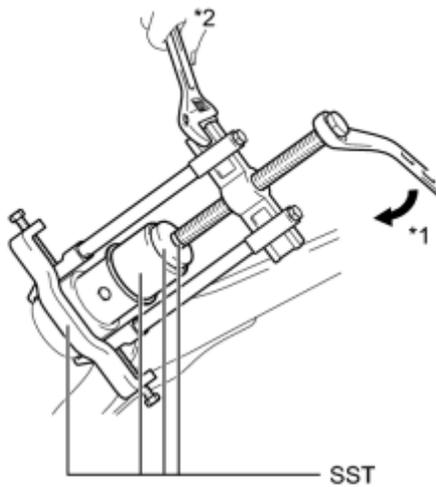
(c) Using SST, install the rear axle carrier bushing LH to the rear axle beam assembly.

### Text in Illustration

*1	Turn
*2	Hold

SST: 09710-04101

SST: 09950-40011



09951-04020

09952-04010

09953-04030

09954-04020

09955-04051

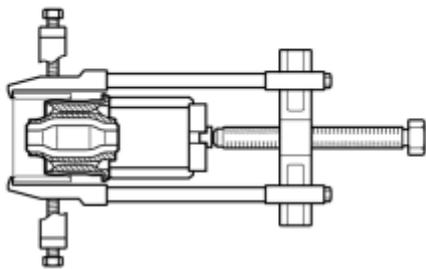
09957-04010

09958-04011

SST: 09950-60010

09951-00620

- Do not damage the rubber portion when installing the rear axle carrier bushing.
- Apply grease to the threads and tip of the SST center bolt before use.



P

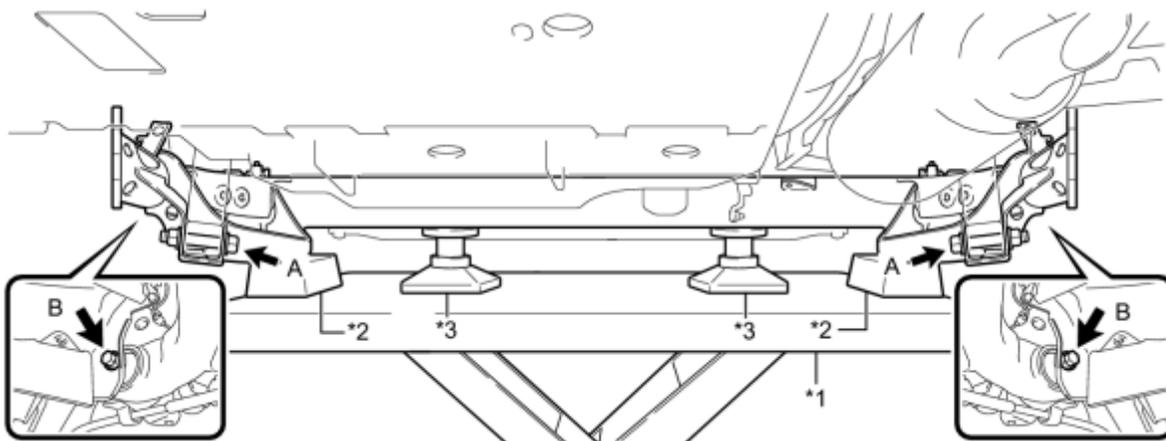
## 2. INSTALL REAR AXLE CARRIER BUSHING RH

### HINT:

Perform the same procedure as for the LH side.

## 3. TEMPORARILY TIGHTEN REAR AXLE BEAM ASSEMBLY

(a) Slowly jack up the rear axle beam assembly with a jack using 2 wooden blocks and 2 attachments or equivalent tools and temporarily install the rear axle beam assembly to the body with the 2 bolts (B).



C

*Text in Illustration*

*1	Jack	*3	Attachment
*2	Wooden Block	-	-

NOTICE:

Make sure to secure the rear axle beam assembly to prevent it from dropping.

(b) Temporarily tighten the rear axle beam assembly to the rear shock absorber assemblies LH and RH with the 2 bolts (A) and 2 nuts.

NOTICE:

Since the stopper nuts are used, turn the bolts.

HINT:

Insert the bolts with the threaded end facing the outside of the vehicle.

4. INSTALL REAR UPPER COIL SPRING INSULATOR LH\_ INFO

5. INSTALL REAR UPPER COIL SPRING INSULATOR RH

HINT:

Perform the same procedure as for the LH side.

6. INSTALL REAR LOWER COIL SPRING INSULATOR LH

7. INSTALL REAR LOWER COIL SPRING INSULATOR RH

8. INSTALL REAR COIL SPRING LH\_ INFO

9. INSTALL REAR COIL SPRING RH

HINT:

Perform the same procedure as for the LH side.

10. INSTALL REAR HEIGHT CONTROL SENSOR SUB-ASSEMBLY RH (w/ Height Control Sensor)\_ INFO

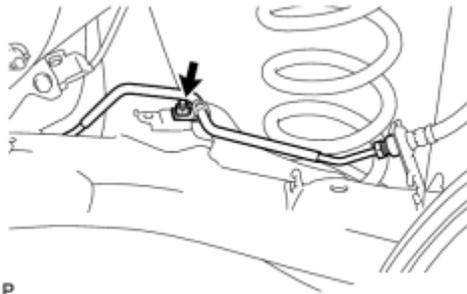
11. INSTALL REAR AXLE HUB AND BEARING ASSEMBLY LH\_ INFO

12. INSTALL REAR AXLE HUB AND BEARING ASSEMBLY RH

HINT:

Perform the same procedure as for the LH side.

13. INSTALL REAR NO. 4 BRAKE TUBE



(a) Install the rear No. 4 brake tube to the rear axle beam assembly with the nut.

Torque: **8.5 N·m (87 kgf·cm, 75in·lbf)**

P

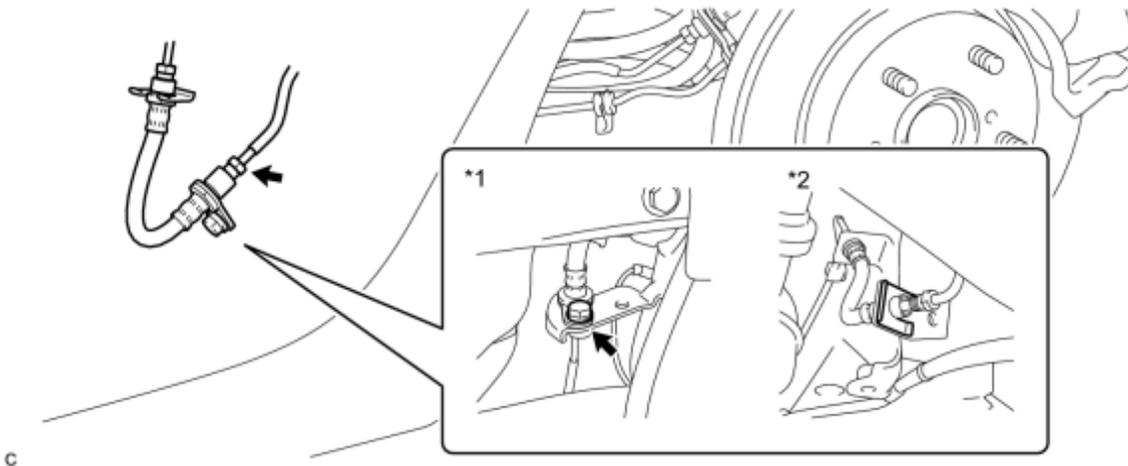
#### 14. INSTALL REAR NO. 3 BRAKE TUBE

HINT:

Perform the same procedure as for the rear No. 4 brake tube.

#### 15. CONNECT REAR BRAKE TUBE FLEXIBLE HOSE

(a) for LH Side



C

#### *Text in Illustration*

*1	LH Side	*2	RH Side
----	---------	----	---------

(1) Install the rear brake tube flexible hose with the bolt.

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

(b) for RH Side

(1) Install the rear brake tube flexible hose with a new clip.

NOTICE:

Install the clip as far as it will go.

(c) Using a union nut wrench, connect the 2 brake lines to the rear brake tube flexible hose.

Torque: **15 N·m (155 kgf·cm, 11ft·lbf)**

NOTICE:

- Do not bend or damage the brake line.
- Do not allow any foreign matter such as dirt and dust to enter the brake line from the connecting points.
- Use the formula to calculate special torque values for situations where the union nut wrench is combined with a torque wrench **INFO**.

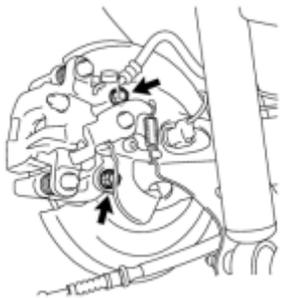
16. INSTALL REAR DISC (for LH Side) **INFO**

17. INSTALL REAR DISC (for RH Side)

HINT:

Perform the same procedure as for the LH side.

18. INSTALL REAR DISC BRAKE CALIPER ASSEMBLY LH



(a) Install the rear disc brake caliper assembly LH with rear flexible hose LH with the 2 bolts.

Torque: **57 N·m (585 kgf·cm, 42ft·lbf)**



(b) Connect the rear flexible hose LH to the rear axle beam assembly with a new clip.

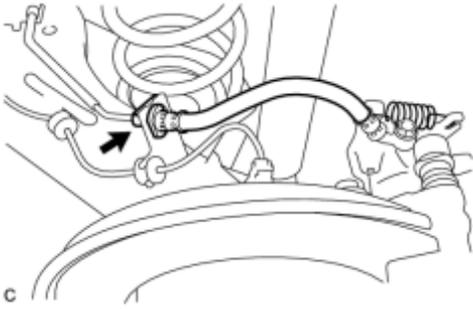
NOTICE:

Install the clip as far as it will go.

(c) Using a union nut wrench, connect the brake line to the rear flexible hose LH while holding the rear flexible hose LH with a wrench.

Torque: **15 N·m (155 kgf·cm, 11ft·lbf)**

- Do not bend or damage the brake line.
- Do not allow any foreign matter such as dirt and dust to enter the brake



line from the connecting points.

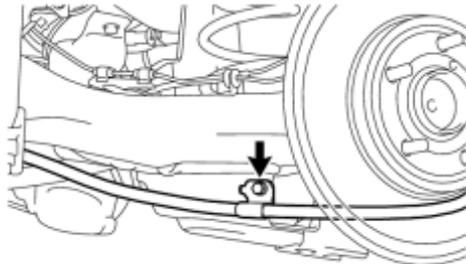
- Use the formula to calculate special torque values for situations where the union nut wrench is combined with a torque wrench **INFO**.

## 19. INSTALL REAR DISC BRAKE CALIPER ASSEMBLY RH

HINT:

Perform the same procedure as for the LH side.

## 20. INSTALL NO. 3 PARKING BRAKE CABLE ASSEMBLY



(a) Install the No. 3 parking brake cable assembly to the rear axle beam assembly with the bolt.

Torque: **6.0 N·m (61 kgf·cm, 53in·lbf)**

P

## 21. INSTALL NO. 2 PARKING BRAKE CABLE ASSEMBLY

HINT:

Perform the same procedure as for the No. 3 parking brake cable assembly.

## 22. CONNECT NO. 3 PARKING BRAKE CABLE ASSEMBLY **INFO**

## 23. CONNECT NO. 2 PARKING BRAKE CABLE ASSEMBLY

HINT:

Perform the same procedure as for the LH side.

## 24. INSTALL REAR SPEED SENSOR WIRE (for LH Side) **INFO**

## 25. INSTALL REAR SPEED SENSOR WIRE (for RH Side)

HINT:

Perform the same procedure as for the LH side.

26. CONNECT REAR SPEED SENSOR WIRE (for LH Side) INFO

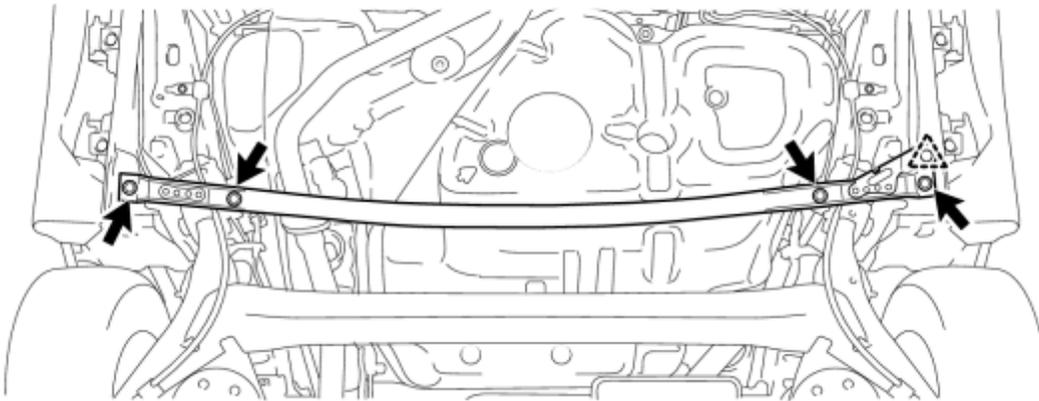
27. CONNECT REAR SPEED SENSOR WIRE (for RH Side)

HINT:

Perform the same procedure as for the LH side.

28. INSTALL REAR SUSPENSION BRACE SUB-ASSEMBLY

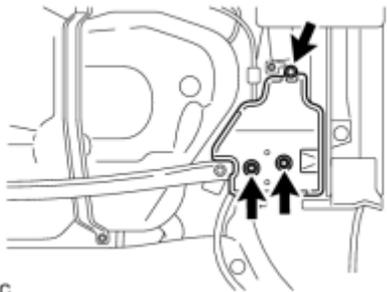
(a) Install the rear suspension brace sub-assembly with the 4 bolts and clip.



c

Torque: **54 N·m (551 kgf·cm, 40ft·lbf)**

29. INSTALL REAR FLOOR SIDE MEMBER COVER LH (w/ Floor Under Cover)



c

(a) Install the rear floor side member cover LH with the nut and 2 bolts.

30. INSTALL REAR FLOOR SIDE MEMBER COVER RH (w/ Floor Under Cover)

(a) Engage the clip to temporarily install the rear floor side member cover RH.



(b) Install the rear floor side member cover RH with the 3 bolts.

### 31. ADJUST PARKING BRAKE

INFO

### 32. INSTALL LOWER INSTRUMENT PANEL FINISH PANEL ASSEMBLY

INFO

### 33. INSTALL COWL SIDE TRIM SUB-ASSEMBLY LH

INFO

### 34. INSTALL FRONT DOOR SCUFF PLATE LH

INFO

### 35. BLEED BRAKE LINE

INFO

### 36. PERFORM INITIALIZATION AND CALIBRATION OF LINEAR SOLENOID VALVE

HINT:

If the brake control has been disabled, make sure to perform initialization and calibration of the linear solenoid valve

INFO

### 37. INSTALL REAR WHEELS

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

### 38. STABILIZE SUSPENSION

INFO

### 39. FULLY TIGHTEN REAR AXLE BEAM ASSEMBLY

INFO

### 40. INSTALL REAR WHEEL HOUSE LINER LH (w/ Wheel House Liner)

INFO

### 41. INSTALL REAR WHEEL HOUSE LINER RH (w/ Wheel House Liner)

HINT:

Perform the same procedure as for the LH side.

### 42. INSPECT REAR WHEEL ALIGNMENT

INFO

43. PLACE FRONT WHEELS FACING STRAIGHT AHEAD

44. PERFORM YAW RATE AND ACCELERATION SENSOR CALIBRATION

INFO .

45. CHECK FOR SPEED SENSOR SIGNAL

INFO .

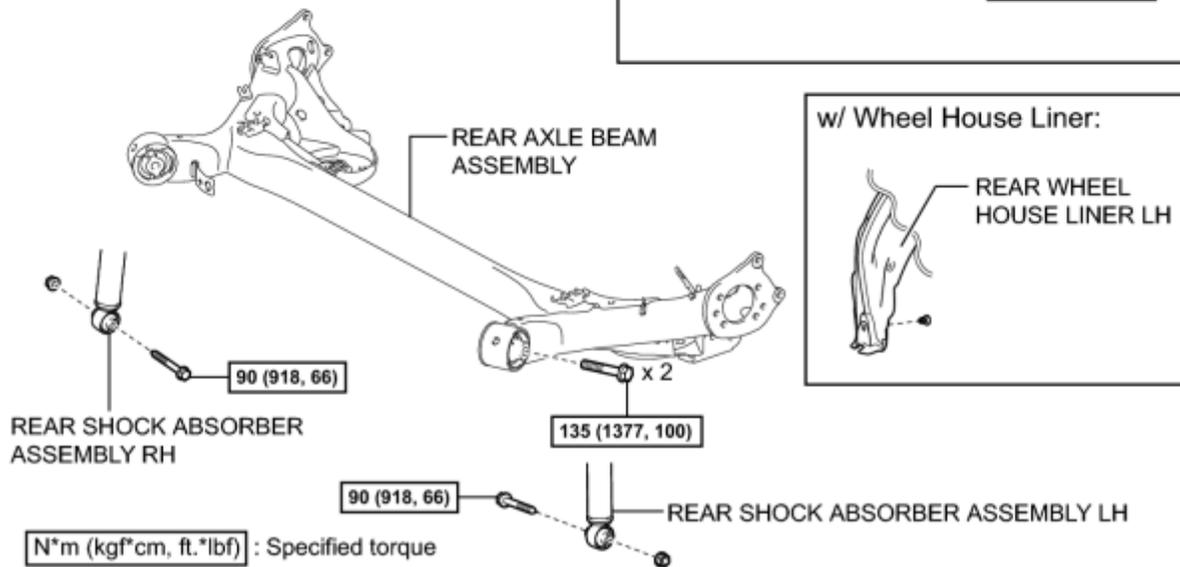
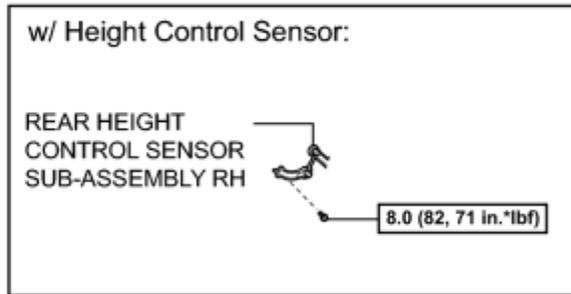
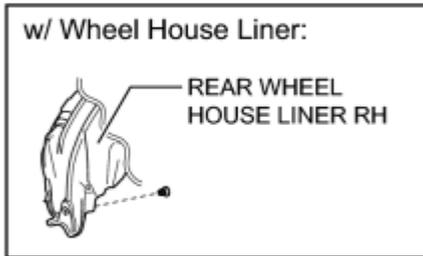
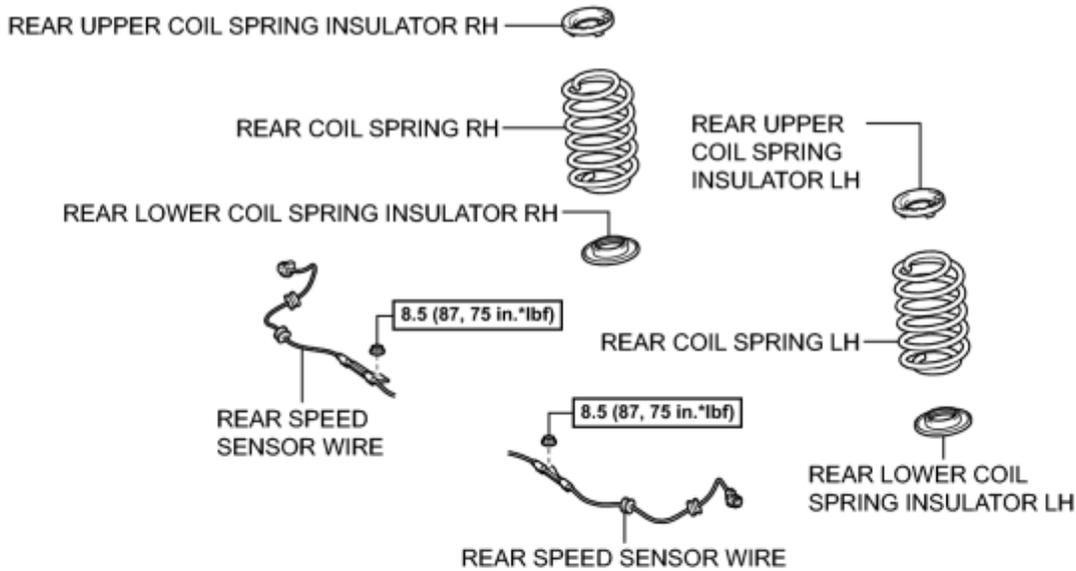
46. PERFORM INITIALIZATION (w/ Height Control Sensor)

NOTICE:

Some systems need to be initialized after the rear height control sensor sub-assembly RH is replaced **INFO** .

# COMPONENTS

## ILLUSTRATION



c

# REMOVAL

1. REMOVE REAR WHEELS

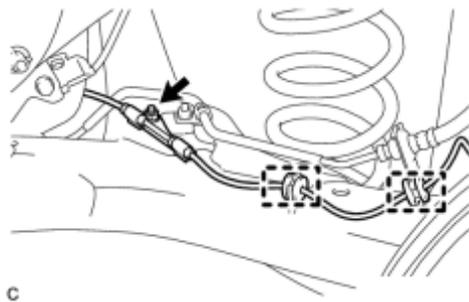
2. DISCONNECT REAR SPEED SENSOR WIRE (for LH Side) INFO

3. DISCONNECT REAR SPEED SENSOR WIRE (for RH Side)

HINT:

Perform the same procedure as the LH side.

4. SEPARATE REAR SPEED SENSOR WIRE (for LH Side)



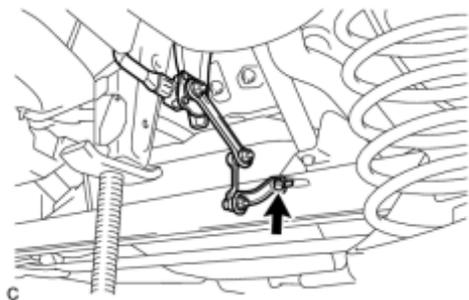
(a) Remove the nut and separate the 2 clamps and rear speed sensor wire.

5. SEPARATE REAR SPEED SENSOR WIRE (for RH Side)

HINT:

Perform the same procedure as the LH side.

6. SEPARATE REAR HEIGHT CONTROL SENSOR SUB-ASSEMBLY RH (w/ Height Control Sensor)



(a) Remove the bolt and separate the rear height control sensor sub-assembly RH from the rear axle beam assembly.

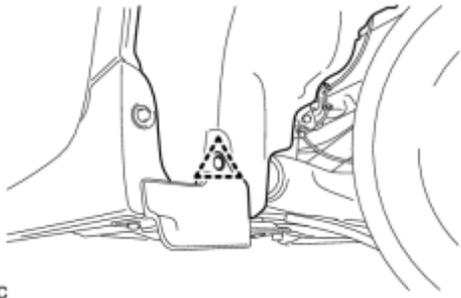
(b) Using a vinyl tape, secure the rear height control sensor sub-assembly RH as shown in the illustration.

## Text in Illustration



*1	Vinyl Tape
----	------------

7. SEPARATE REAR WHEEL HOUSE LINER LH (w/ Wheel House Liner)



(a) Remove the clip and turn back the rear wheel house liner LH to separate the rear wheel house liner LH.

8. SEPARATE REAR WHEEL HOUSE LINER RH (w/ Wheel House Liner)

HINT:

Perform the same procedure as the LH side.

9. REMOVE REAR COIL SPRING LH

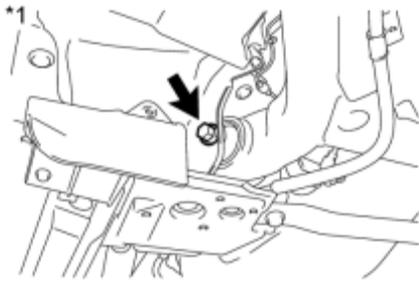
(a) Loosen the 2 bolts.

**Text in Illustration**

*1	LH Side
*2	RH Side

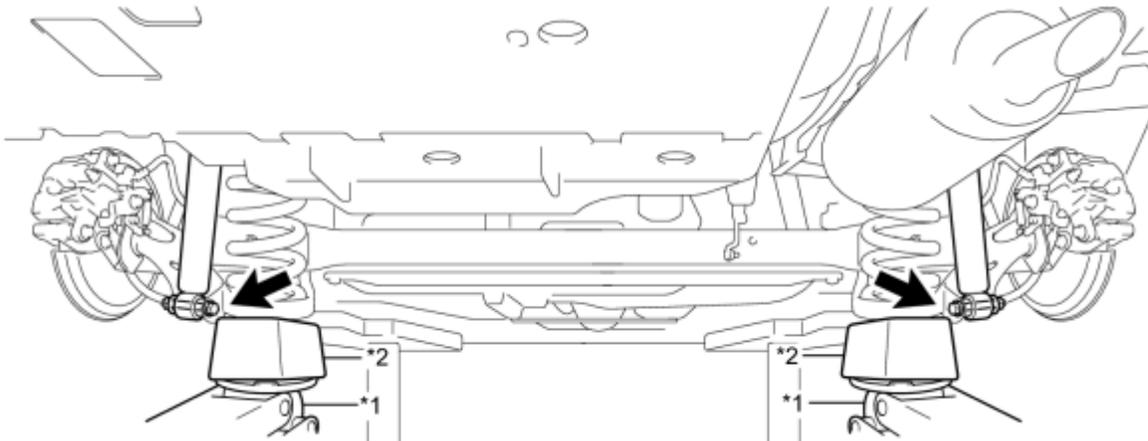
NOTICE:

Do not remove the bolts.



c

(b) Support the spring seat of the rear axle beam assembly using 2 jacks and 2 wooden blocks.



c

**Text in Illustration**

*1	Jack	*2	Wooden Block
----	------	----	--------------

**CAUTION:**

Do not jack up the rear axle beam assembly too high as the vehicle may fall.

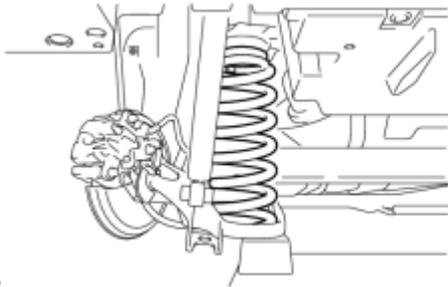
**HINT:**

Support the rear shock absorber at a position where it compresses by approximately 20 to 30 mm (0.787 to 1.18 in.).

(c) Remove the 2 bolts while holding the 2 nuts and separate the rear axle beam assembly from the rear shock absorber assemblies LH and RH.

NOTICE:

Since the stopper nuts are used, turn the bolts.

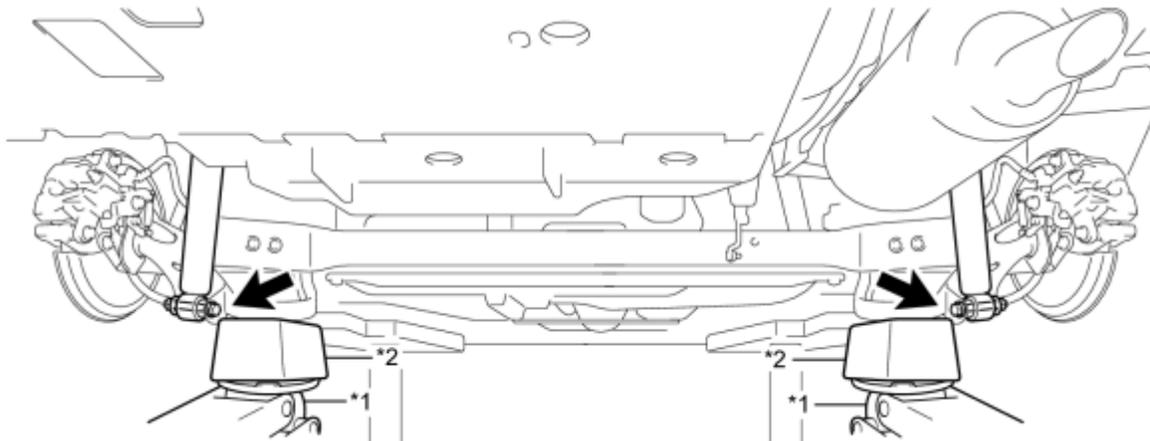


(d) Slowly lower the rear axle beam assembly using 2 jacks and 2 wooden blocks, and remove the rear coil spring LH.

NOTICE:

When moving the rear axle beam assembly beyond full rebound, make sure that the rear axle beam assembly is not out of position for more than 10 minutes.

(e) Slowly jack up the rear axle beam assembly using 2 jacks and 2 wooden blocks, and temporarily tighten the rear axle beam assembly to the rear shock absorber assemblies LH and RH with the 2 bolts and 2 nuts.



**Text in Illustration**

*1	Jack	*2	Wooden Block
----	------	----	--------------

NOTICE:

Since the stopper nuts are used, turn the bolts.

**10. REMOVE REAR COIL SPRING RH**

HINT:

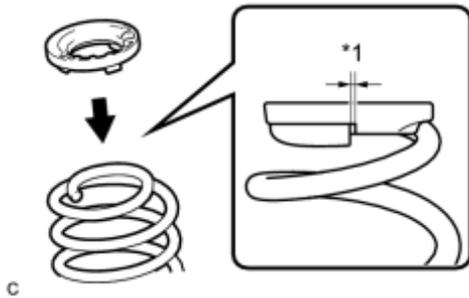
Perform the same procedure as the LH side.

11. REMOVE REAR UPPER COIL SPRING INSULATOR LH
12. REMOVE REAR UPPER COIL SPRING INSULATOR RH
13. REMOVE REAR LOWER COIL SPRING INSULATOR LH
14. REMOVE REAR LOWER COIL SPRING INSULATOR RH

# INSTALLATION

## 1. INSTALL REAR UPPER COIL SPRING INSULATOR LH

(a) Install the rear upper coil spring insulator LH to the rear coil spring LH.



### Text in Illustration

*1	10 mm or less
----	---------------

### NOTICE:

Install the rear upper coil spring insulator so that the dimension between the stopper and the upper end of the rear coil spring is 10 mm (0.394 in.) or less.

## 2. INSTALL REAR UPPER COIL SPRING INSULATOR RH

### HINT:

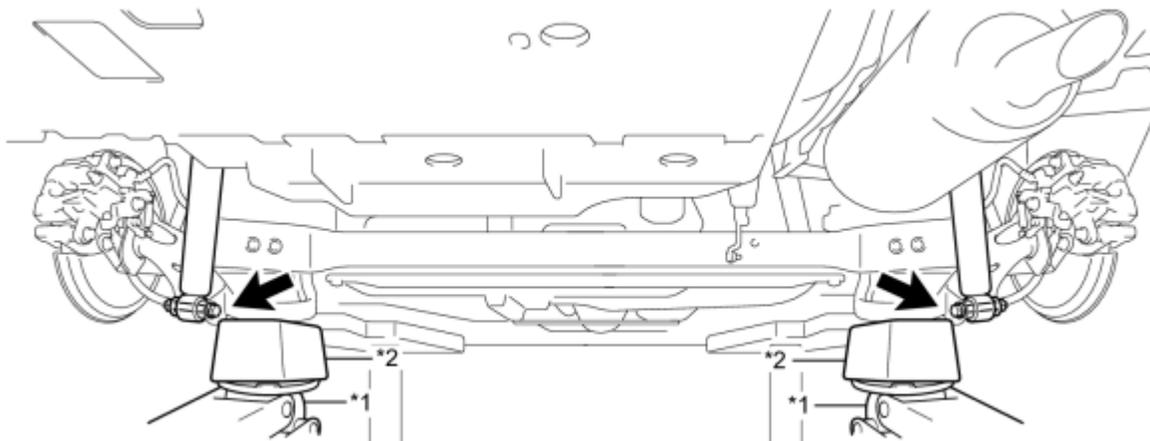
Perform the same procedure as the LH side.

## 3. INSTALL REAR LOWER COIL SPRING INSULATOR LH

## 4. INSTALL REAR LOWER COIL SPRING INSULATOR RH

## 5. INSTALL REAR COIL SPRING LH

(a) Support the spring seat of the rear axle beam assembly using 2 jacks and 2 wooden blocks.



### Text in Illustration

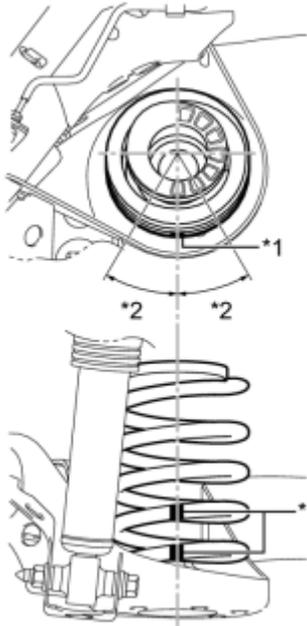
*1	Jack	*2	Wooden Block
----	------	----	--------------

(b) Remove the 2 bolts while holding the 2 nuts and separate the rear axle beam assembly from the rear shock absorber assemblies LH and RH.

NOTICE:

Since the stopper nuts are used, turn the bolts.

(c) Slowly lower the rear axle beam assembly using 2 jacks and 2 wooden blocks.



(d) Set the rear coil spring LH to the rear axle beam assembly.

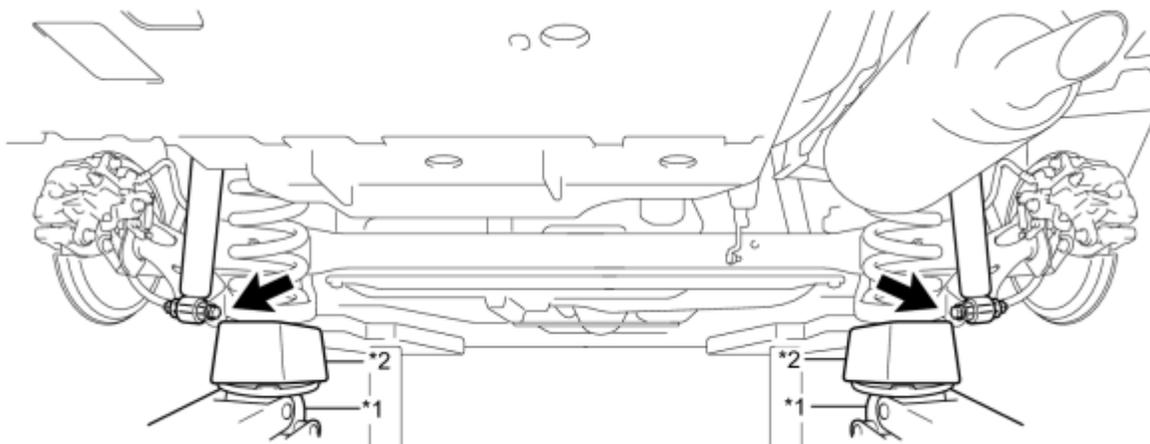
### Text in Illustration

*1	Identification Mark
*2	30° or less

NOTICE:

Set the rear coil spring so that the identification marks are positioned as shown in the illustration.

(e) Slowly jack up the rear axle beam assembly using 2 jacks and 2 wooden blocks and temporarily install the rear axle beam assembly and rear coil spring LH with the 2 bolts and 2 nuts.



### Text in Illustration

*1	Jack	*2	Wooden Block
----	------	----	--------------

NOTICE:

Since the stopper nuts are used, turn the bolts.

HINT:

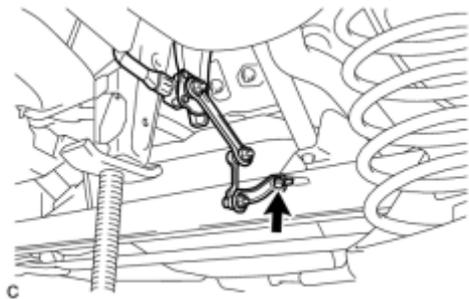
Insert the bolt with the threaded end facing the outside of the vehicle.

6. INSTALL REAR COIL SPRING RH

HINT:

Perform the same procedure as the LH side.

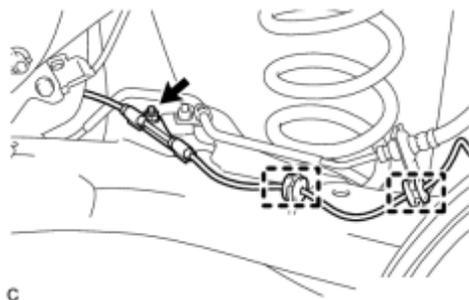
7. INSTALL REAR HEIGHT CONTROL SENSOR SUB-ASSEMBLY RH (w/ Height Control Sensor)



(a) Install the rear height control sensor sub-assembly RH to the rear axle beam assembly with the bolt.

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

8. INSTALL REAR SPEED SENSOR WIRE (for LH Side)



(a) Install the rear speed sensor wire to the rear axle beam assembly with the nut and 2 clamps.

Torque: **8.5 N·m (87 kgf·cm, 75in·lbf)**

NOTICE:

Do not twist the rear speed sensor wire when installing it.

9. INSTALL REAR SPEED SENSOR WIRE (for RH Side)

HINT:

Perform the same procedure as the LH side.

10. CONNECT REAR SPEED SENSOR WIRE (for LH Side) INFO

11. CONNECT REAR SPEED SENSOR WIRE (for RH Side)

HINT:

Perform the same procedure as the LH side.

## 12. INSTALL REAR WHEELS

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

## 13. STABILIZE SUSPENSION INFO

## 14. FULLY TIGHTEN REAR AXLE BEAM ASSEMBLY

\*1



(a) Fully tighten the 2 bolts.

### Text in Illustration

*1	LH Side
*2	RH Side

\*2



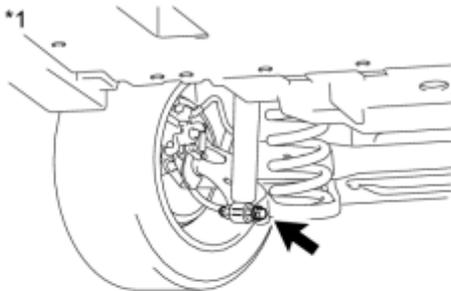
Torque: **135 N·m (1377 kgf·cm, 100ft·lbf)**

NOTICE:

The final torque must be applied under the standard vehicle height conditions.

c

\*1

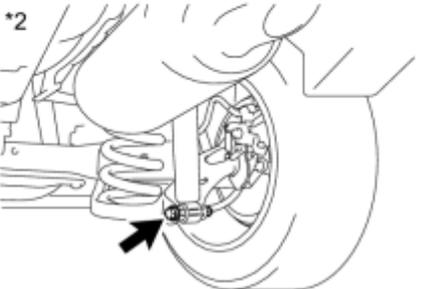


(b) Fully tighten the 2 bolts.

### Text in Illustration

*1	LH Side
*2	RH Side

\*2

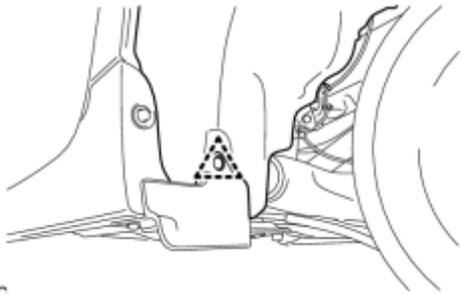


Torque: **90 N·m (918 kgf·cm, 66ft·lbf)**

- Since the stopper nut are used, turn the bolts.
- The final torque must be applied under the standard vehicle height conditions.

c

15. INSTALL REAR WHEEL HOUSE LINER LH (w/ Wheel House Liner)



(a) Install the rear wheel house liner LH with the clip.

16. INSTALL REAR WHEEL HOUSE LINER RH (w/ Wheel House Liner)

HINT:

Perform the same procedure as the LH side.

17. INSPECT REAR WHEEL ALIGNMENT

INFO

18. PLACE FRONT WHEELS FACING STRAIGHT AHEAD

19. PERFORM YAW RATE AND ACCELERATION SENSOR CALIBRATION

INFO

20. CHECK FOR SPEED SENSOR SIGNAL

INFO

21. PERFORM INITIALIZATION (w/ Height Control Sensor)

NOTICE:

Some systems need to be initialized after the rear height control sensor sub-assembly RH is replaced **INFO**.