

FRONT SUSPENSION SYSTEM

2809H-03

PROBLEM SYMPTOMS TABLE

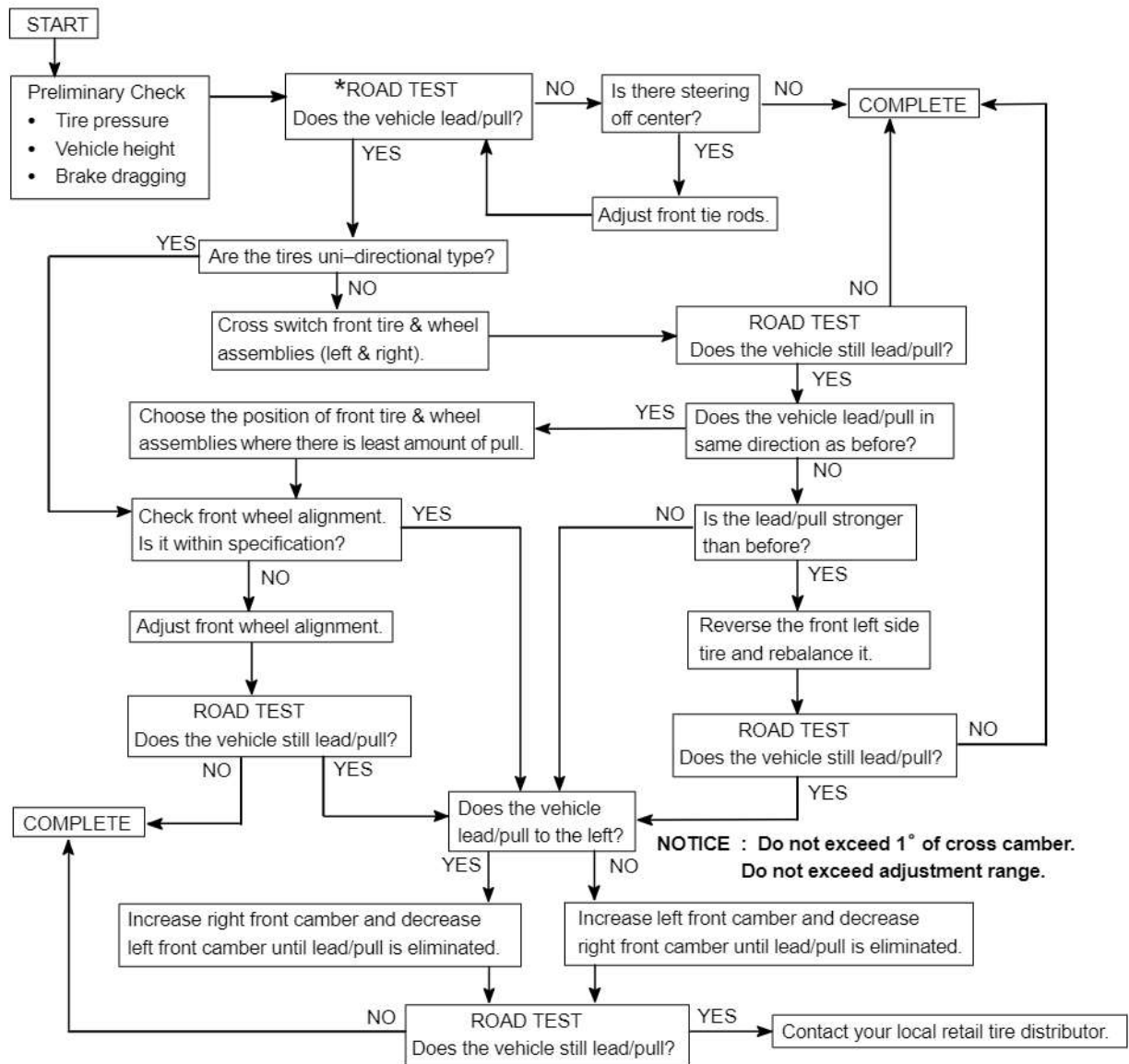
Use the table below to help you find the cause of the problem. The numbers indicate the priority of the likely cause of the problem. Check each part in order. If necessary, replace these parts.

Symptom	Suspect Area	See page
Bottoming	1. Vehicle (Overloaded)	–
	2. Spring (Weak)	26-12
	3. Shock absorber (Worn)	26-12
Sways/pitches	1. Tire (Worn or improperly inflated)	28-1
	2. Stabilizer bar (Bent or broken)	26-27
	3. Shock absorber (Worn)	26-12
Front wheel shimmy	1. Tire (Worn or improperly inflated)	28-1
	2. Wheel (Out of balance)	28-1
	3. Shock absorber (Worn)	26-12
	4. Wheel alignment (Incorrect)	26-7
	5. Ball joint (Worn)	26-22
	6. Hub bearing (Worn)	30-2
	7. Steering linkage (Loose or worn)	–
Abnormal tire wear	1. Tire (Worn or improperly inflated)	28-1
	2. Wheel alignment (Incorrect)	26-7
	3. Shock absorber (Worn)	26-12
	4. Suspension parts (Worn)	–

REPAIR

HINT:

This is the repair procedure for vehicle pull.



*Select a flat road where the vehicle can be driven in a straight line for 100 meters at a constant speed of 35mph. Please confirm safety and set the steering wheel to its straight position. Drive the vehicle in a straight line for 100 meters at a constant speed of 35 mph without holding the steering wheel.

(1) The vehicle can keep straight but the steering wheel has some angle.

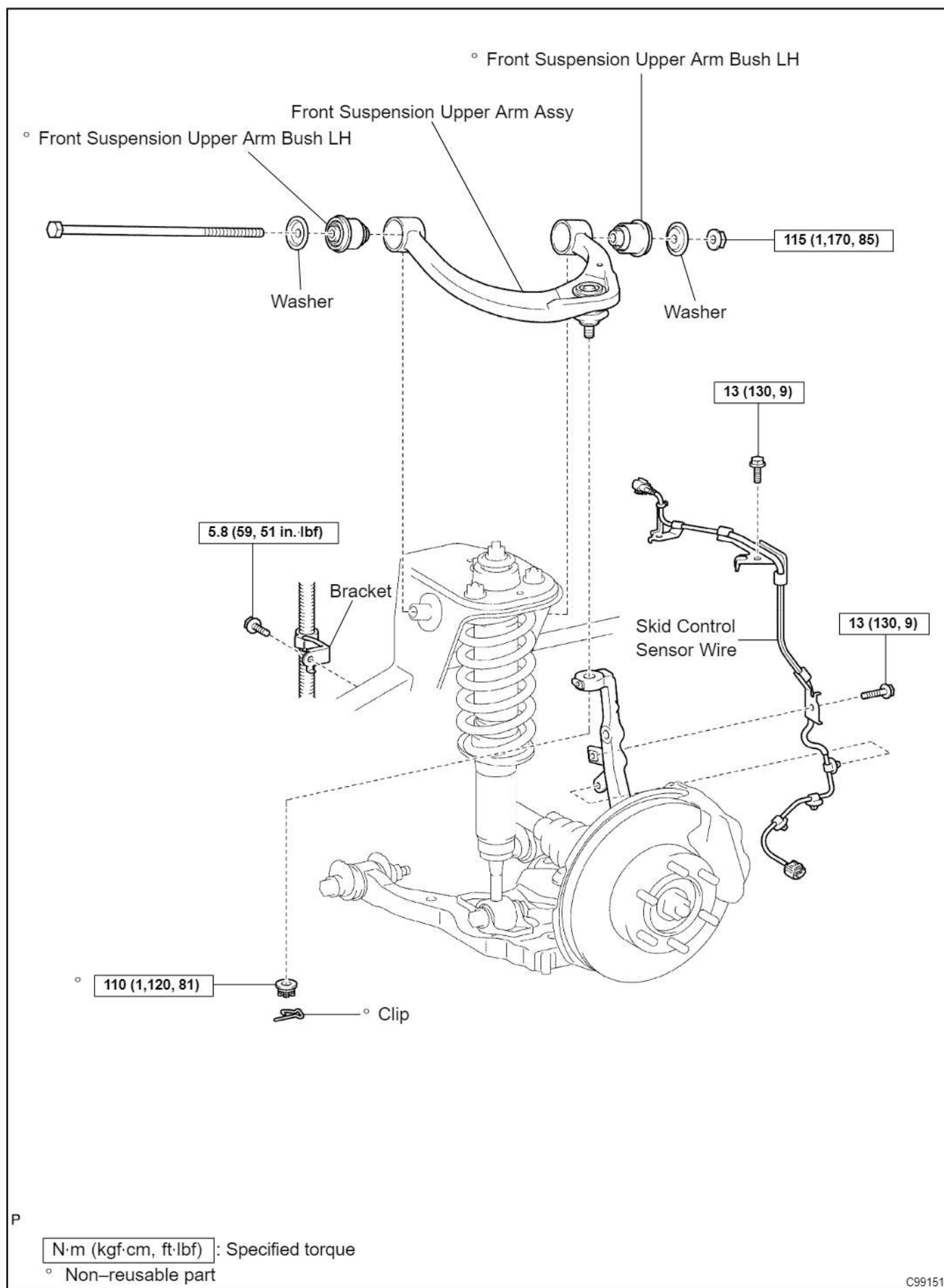
→ STEERING OFF CENTER (See page 50-4)

(2) The vehicle cannot keep straight.

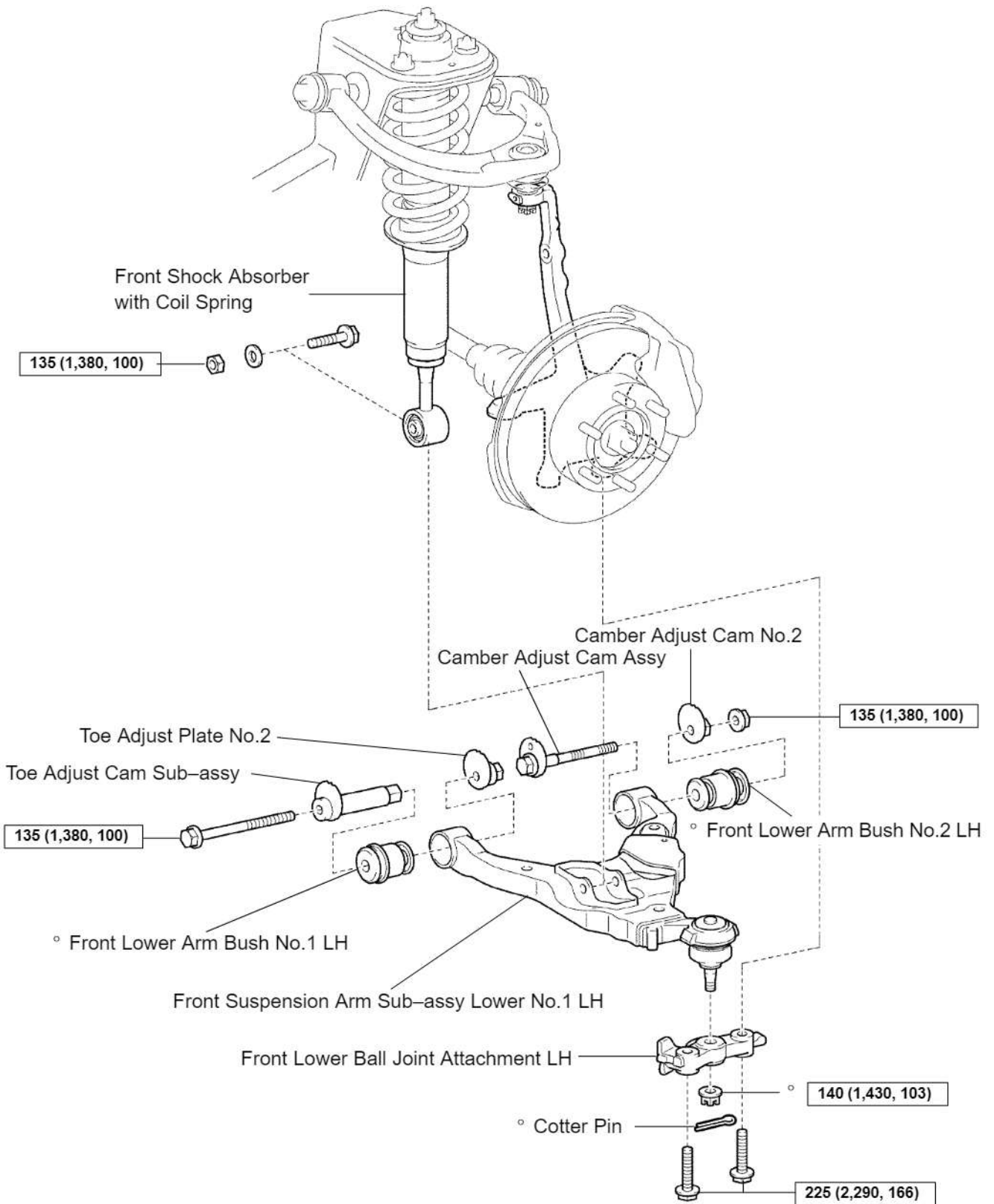
→ STEERING PULL

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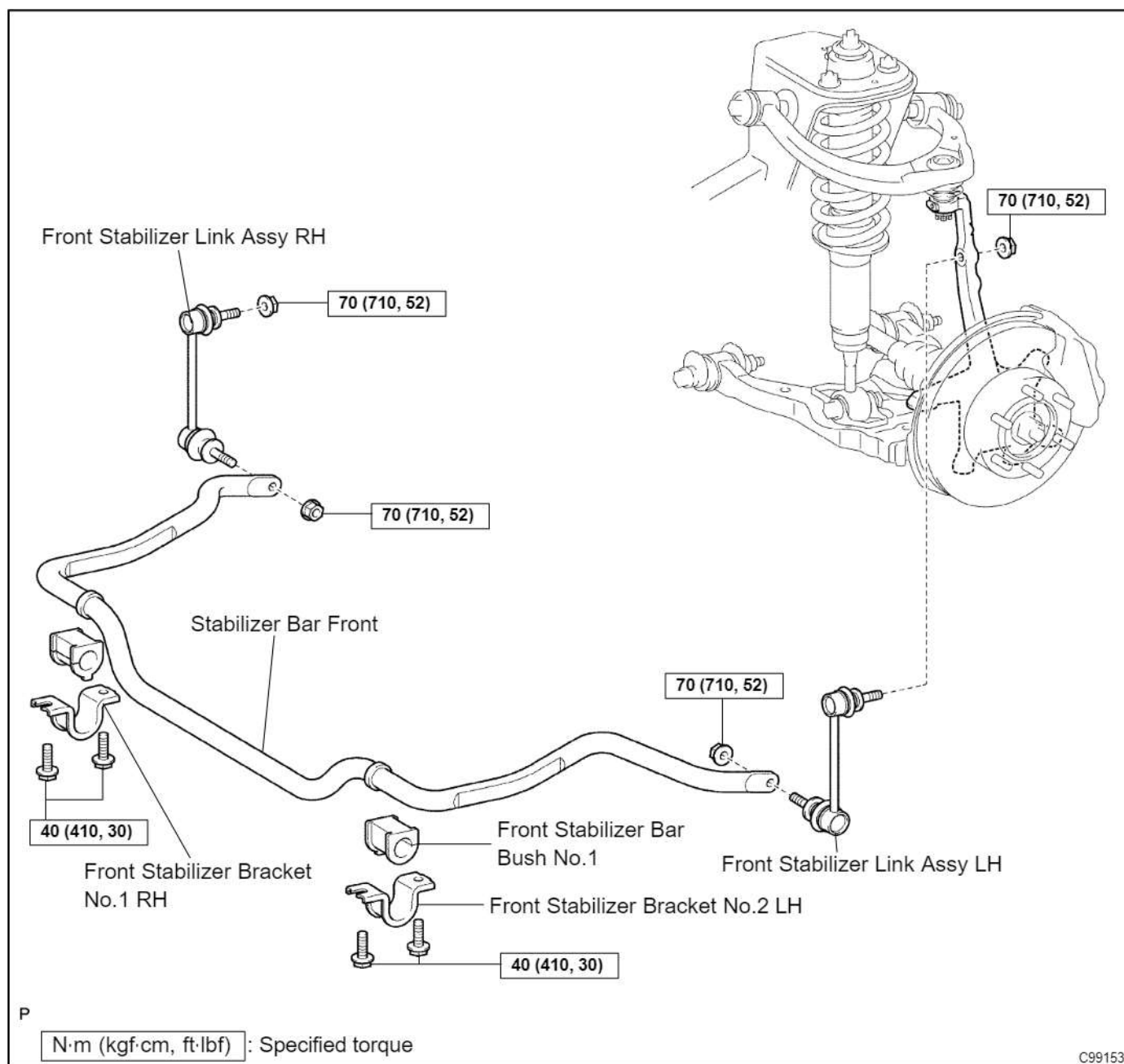


P

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

° Non-reusable part

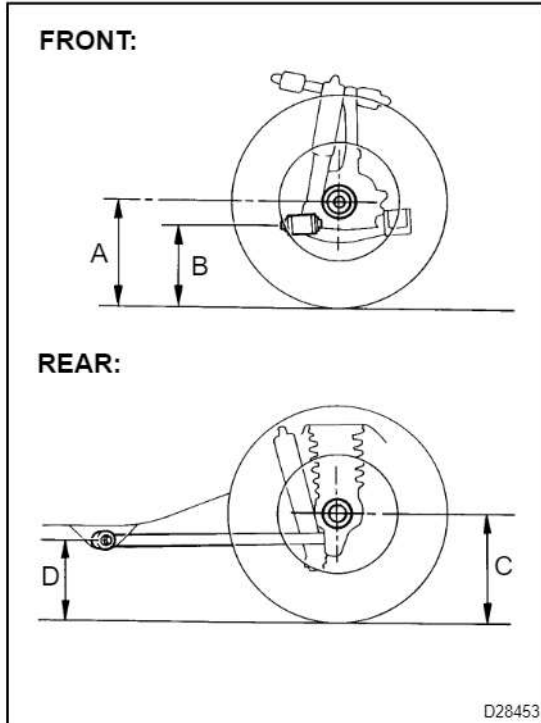
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FRONT WHEEL ALIGNMENT ADJUSTMENT

2809J-04

1. INSPECT TIRE (See page 28-1)



2. MEASURE VEHICLE HEIGHT

Vehicle height:

2WD Except air suspension:

	Front A – B	Rear C – D
UZN210L–GKAGKA	113.6 mm (4.47 in.)	71.7 mm (2.82 in.)
UZN210L–GKAZKA	113.5 mm (4.47 in.)	72.3 mm (2.85 in.)

2WD Air suspension:

	Front A – B	Rear C – D
UZN210L–GKAZKA	112.7 mm (4.44 in.)	81.4 mm (3.20 in.)

4WD Except air suspension:

	Front A – B	Rear C – D
UZN215L–GKAGKA	99.9 mm (3.93 in.)	71.6 mm (2.82 in.)
UZN215L–GKAZKA	99.8 mm (3.93 in.)	72.1 mm (2.84 in.)

4WD Air suspension:

	Front A – B	Rear C – D
UZN215L–GKAZKA	99.2 mm (3.91 in.)	78.9 mm (3.11 in.)

Measuring points:

A: Ground clearance of front wheel center

B: Ground clearance of lower suspension arm No.2 set bolt center

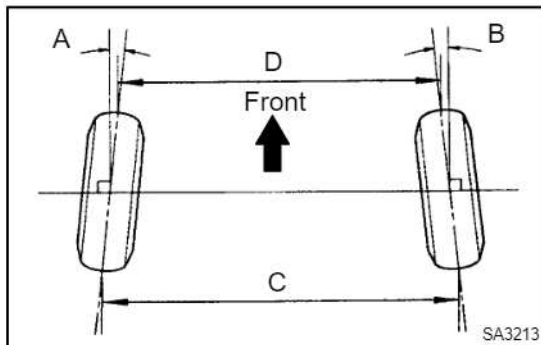
C: Ground clearance of rear wheel center

D: Ground clearance of strut rod set bolt center

NOTICE:

Before inspecting the wheel alignment, adjust the vehicle height to the specified value.

If the vehicle height is not the specified value, try to adjust it by pushing down on or lifting the body.



3. INSPECT TOE-IN

Toe-in:

Toe-in (total)	A + B: $0^{\circ}05' \pm 0^{\circ}10'$ ($0.08^{\circ} \pm 0.16^{\circ}$) C – D: 1 ± 2 mm (0.04 ± 0.08 in.)
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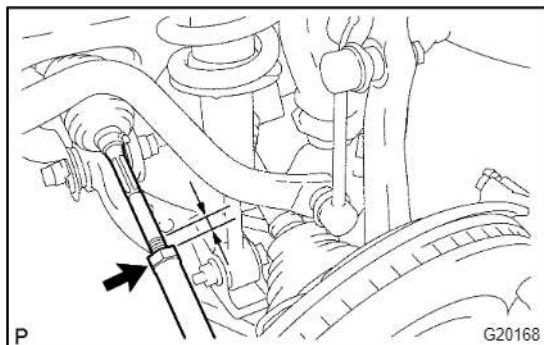
If the toe-in is not within the specified value, adjust it at the rack ends.

4. ADJUST TOE-IN

- Remove the rack boot set clips.
- Loosen the tie rod end lock nuts.
- Turn the right and left rack ends by an equal amount to adjust the toe-in.

HINT:

Try to adjust the toe-in to the center of the specified value.



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

(e) Torque the tie rod end lock nuts.

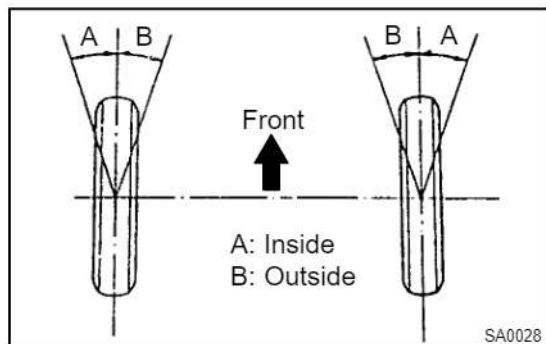
Torque: 88 N·m (897 kgf·cm, 65 ft·lbf)

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

HINT:

Make sure that the boots are not twisted.

(g) Perform VSC system calibration (See page 05-803)



5. INSPECT WHEEL ANGLE

(a) Turn the steering wheel fully, and measure the turning angle.

Wheel angle:

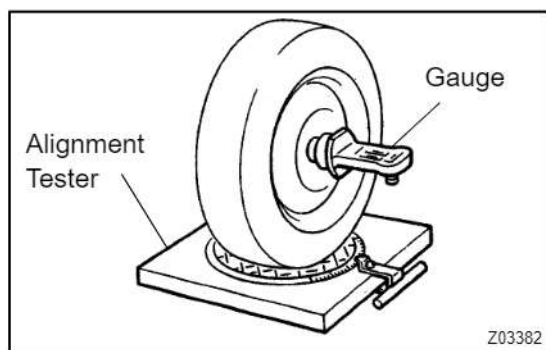
2WD

Inside wheel	37°00' (35°00' – 38°00') 37.00° (35.00° – 38.00°)
Outside wheel (Reference)	32°30' 32.50°

4WD:

Inside wheel	36°40' (34°40' – 37°40') 36.67° (34.67° – 37.67°)
Outside wheel (Reference)	32°53' 32.88°

If the wheel angles differ from the standard of the specification, inspect the toe-in.



6. INSPECT CAMBER, CASTER AND STEERING AXIS INCLINATION

(a) Install the camber-caster-kingpin gauge or position vehicle on wheel alignment tester.

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

Camber, caster and steering axis inclination:

2WD Except air suspension:

Camber	Right-left error	-0°28' ± 45' (-0.47° ± 0.75°) 45' (0.75°) or less
Caster	Right-left error	3°23' ± 45' (3.38° ± 0.75°) 45' (0.75°) or less
Steering axis inclination	Right-left error	12°58' ± 45' (12.97° ± 0.75°) 45' (0.75°) or less

2WD Air suspension:

Camber	Right-left error	-0°30' ± 45' (-0.50° ± 0.75°) 45' (0.75°) or less
Caster	Right-left error	3°33' ± 45' (3.55° ± 0.75°) 45' (0.75°) or less
Steering axis inclination	Right-left error	13°00' ± 45' (13.00° ± 0.75°) 45' (0.75°) or less

4WD Except air suspension:

Camber	Right-left error	$-0^{\circ}09' \pm 45'$ ($-0.15^{\circ} \pm 0.75^{\circ}$) 45' (0.75°) or less
Caster	Right-left error	$3^{\circ}13' \pm 45'$ ($3.22^{\circ} \pm 0.75^{\circ}$) 45' (0.75°) or less
Steering axis inclination	Right-left error	$12^{\circ}39' \pm 45'$ ($12.65^{\circ} \pm 0.75^{\circ}$) 45' (0.75°) or less

4WD Air suspension:

Camber	Right-left error	$-0^{\circ}10' \pm 45'$ ($-0.17^{\circ} \pm 0.75^{\circ}$) 45' (0.75°) or less
Caster	Right-left error	$3^{\circ}22' \pm 45'$ ($3.37^{\circ} \pm 0.75^{\circ}$) 45' (0.75°) or less
Steering axis inclination	Right-left error	$12^{\circ}40' \pm 45'$ ($12.67^{\circ} \pm 0.75^{\circ}$) 45' (0.75°) or less

If the steering axis inclination is not as specified after camber and caster have been correctly adjusted, recheck the steering knuckle and front wheel for distortion or looseness.

7. ADJUST CAMBER AND CASTER

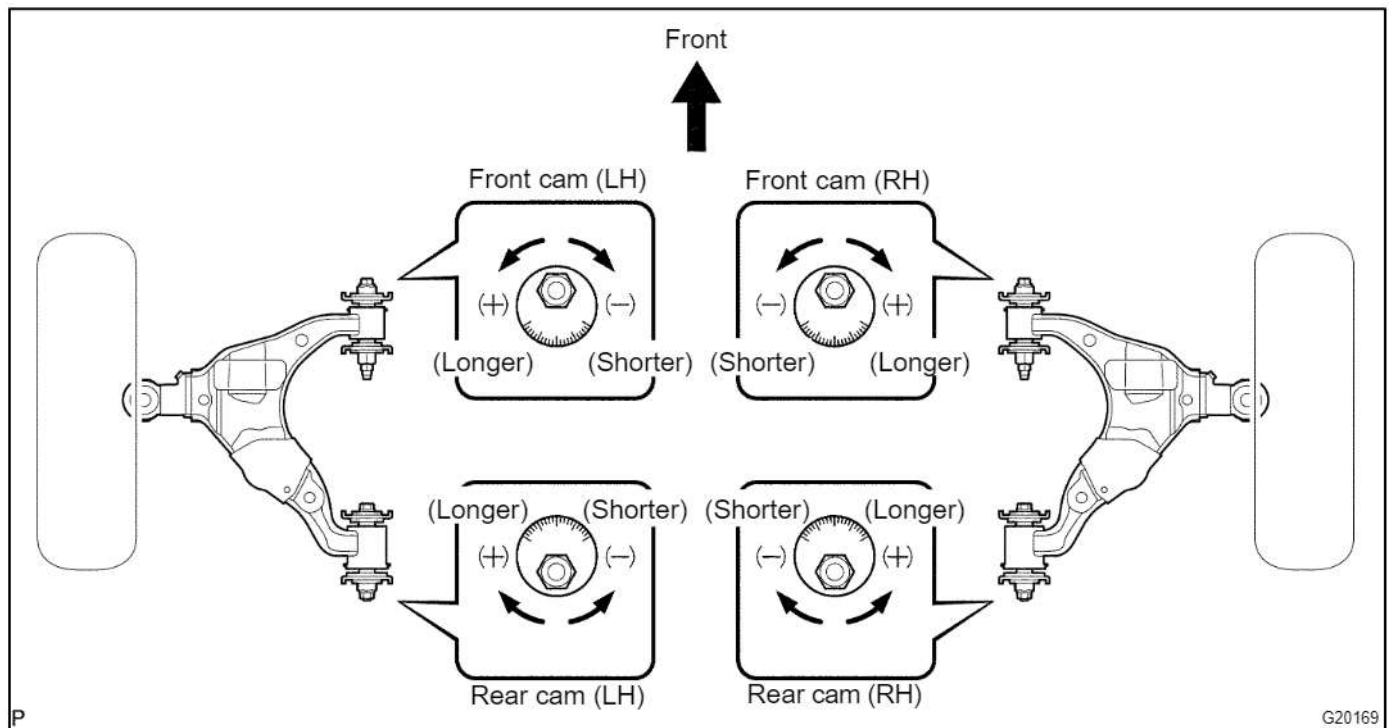
NOTICE:

After the camber has been adjusted, inspect the toe-in.

- Loosen the nut and bolt.
- Turn the camber adjust cam No.2 and toe adjust plate No.2 in the circumference direction, and adjust the camber and the caster.

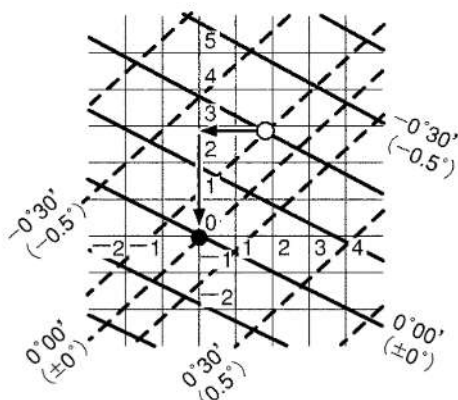
HINT:

Try to adjust the camber and caster to the center value.



(Example)

- Caster
- Camber
- = Calculated value
- = 0 point



- How to read adjustment chart (using examples).

(1) Measure the present alignment.

Camber: 0°15' (0.25°)

Caster: 2°45' (2.75°)

(2) Make the difference between the standard value (A) and the measured value (B) on the adjustment chart.

Standard value:

Camber: 0°35' (0.58°)

Caster: 2°55' (2.92°)

Formula: B – A = C

Camber: 0°15' – (0°35') = – 0°20'

Caster: 2°45' – (2°55') = – 0°10'

(3) As shown in the chart, read the distance from the marked point to 0 point, and adjust the front and/or rear adjusting cams accordingly.

Toe adjust cam: – (Shorter) 2.8

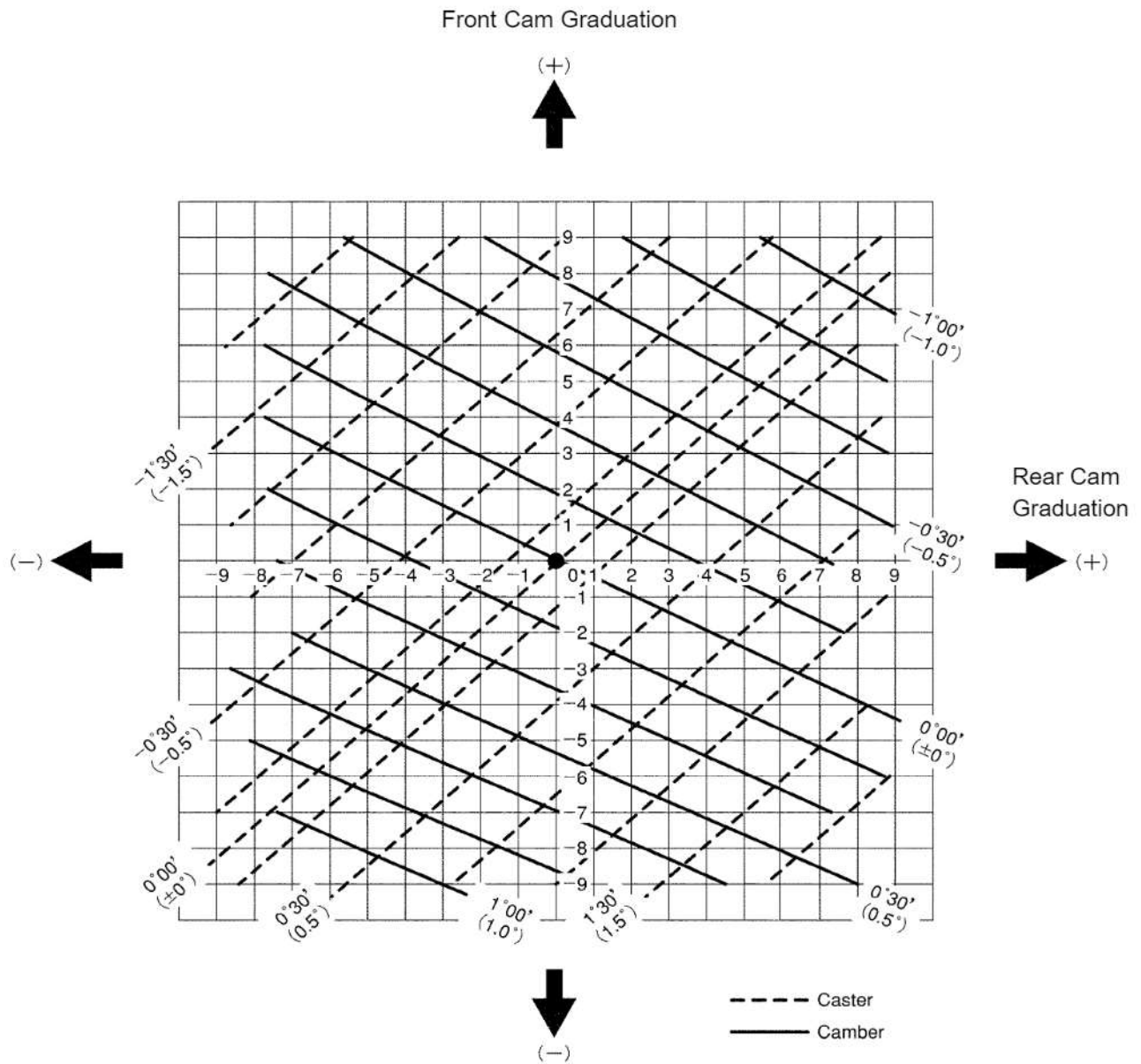
Camber adjust cam: – (Shorter) 1.8

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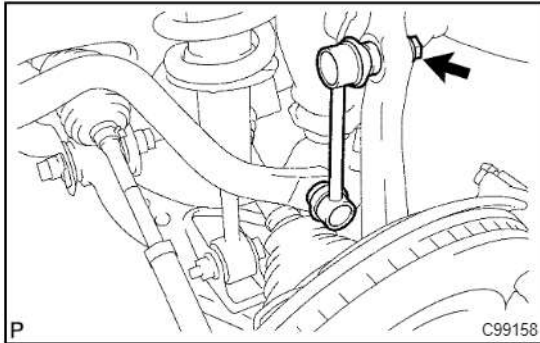
FRONT SHOCK ABSORBER WITH COIL SPRING OVERHAUL

2809L-02

HINT:

COMPONENTS: See page 26-3

1. REMOVE FRONT DISC WHEEL



2. SEPARATE FRONT STABILIZER LINK ASSY LH

- (a) Remove the nut and disconnect the stabilizer link from the steering knuckle.

HINT:

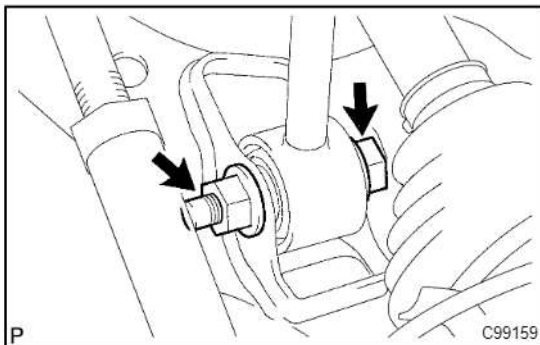
If the ball joint turns together with the nut, use a hexagon (6 mm) wrench to hold the stud.

3. SEPARATE FRONT STABILIZER LINK ASSY RH

HINT:

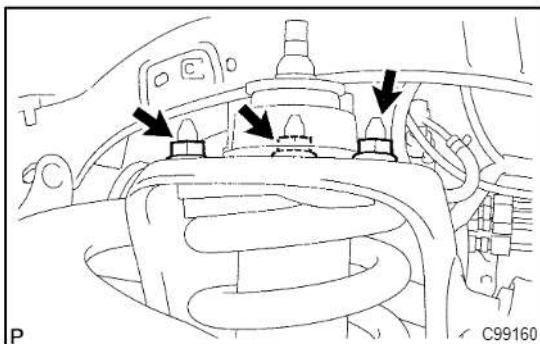
Remove the RH side by following the same procedures with the LH side.

4. REMOVE FRONT STABILIZER BRACKET NO.2 LH (See page 26-27)
5. REMOVE FRONT STABILIZER BRACKET NO.1 RH (See page 26-27)
6. REMOVE STABILIZER BAR FRONT

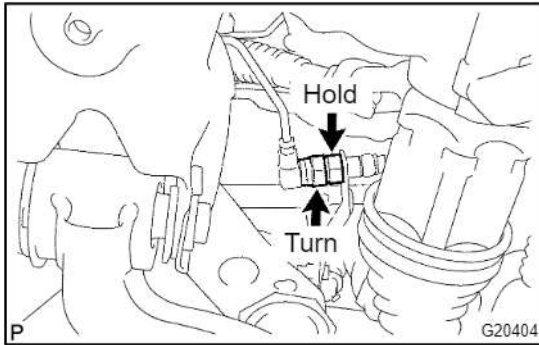


7. REMOVE FRONT SHOCK ABSORBER WITH COIL SPRING (W/O REAS)

- (a) Remove the bolt, the nut and the washer.



- (b) Remove the 3 nuts on the upper side of the front shock absorber with coil spring.
(c) Remove the front shock absorber with coil spring.



8. REMOVE FRONT SHOCK ABSORBER WITH COIL SPRING (W/ REAS)

NOTICE:

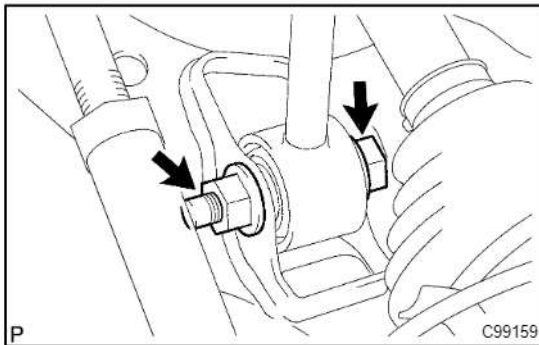
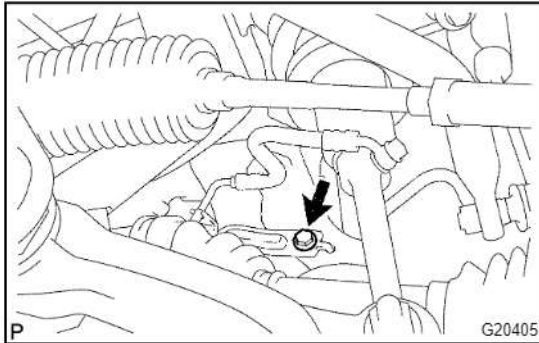
Conduct the operations as stretching all the shock absorbers out by jacking up the vehicle.

- (a) As shown in the illustration, loosen the nut and disconnect the tube.

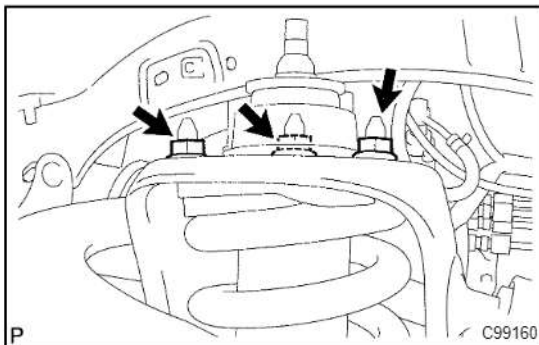
NOTICE:

Never loosen the absorber hoses and the flare nuts at the joint parts.

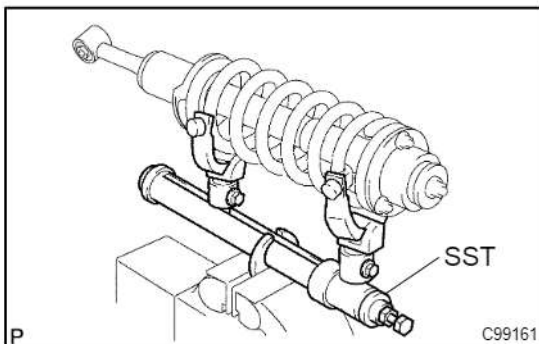
- (b) Remove a bolt and the bracket.



- (c) Remove a bolt, the nut and the washer.



- (d) Remove the 3 nuts on the upper side of the front shock absorber with the coil spring.
(e) Remove the front shock absorber with coil spring.



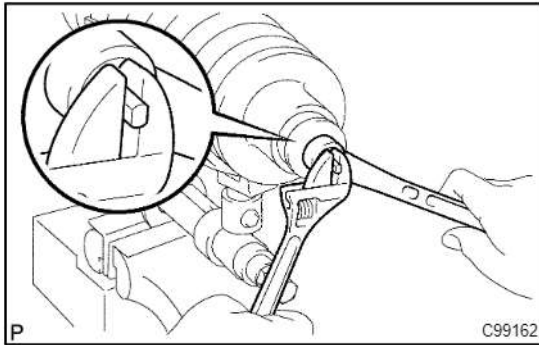
9. REMOVE FRONT SUPPORT TO FRONT SHOCK ABSORBER NUT

- (a) Using SST, compress coil spring.

SST 09727-30021 (09727-00010, 09727-00031), 09727-00060

NOTICE:

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

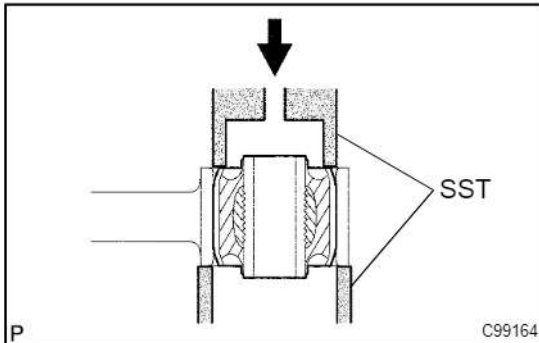


(b) Hold the shock absorber rod, remove the nut.

NOTICE:

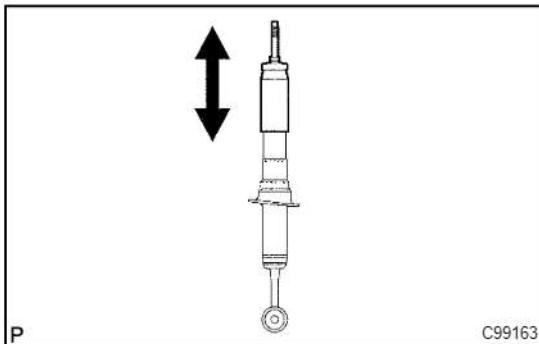
Do not use an impact wrench. It will damage the shock absorber rod.

10. REMOVE FRONT SHOCK ABSORBER CUSHION RETAINER
11. REMOVE FRONT SHOCK ABSORBER CUSHION NO.1
12. REMOVE FRONT SUSPENSION SUPPORT SUB-ASSY LH
13. REMOVE FRONT SHOCK ABSORBER CUSHION RETAINER
14. REMOVE FRONT COIL SPRING LH



15. REMOVE FRONT SHOCK ABSORBER BUSH

- (a) Using SST and a press, remove the absorber bush.
SST 09710-22021 (09710-01071, 09710-01081)



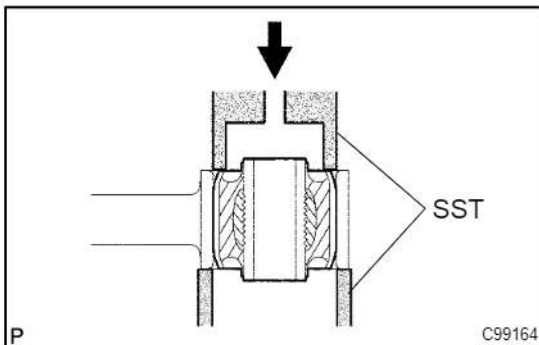
16. INSPECT SHOCK ABSORBER ASSY FRONT LH

- (a) Compress and extend the shock absorber rod and check that there is no abnormal resistance or unusual sound during operation.

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

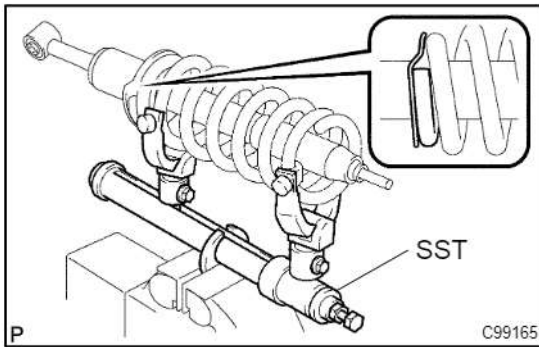
NOTICE:

When disposing of the shock absorber assy front LH, see **DISPOSAL** on page 26-18.



17. INSTALL FRONT SHOCK ABSORBER BUSH

- (a) Using SST and a press, install a new absorber bush.
SST 09710-22021 (09710-01071, 09710-01081)

**18. INSTALL FRONT COIL SPRING LH**

- (a) Using SST, compress the front coil spring LH.
SST 09727-30021 (09727-00010, 09727-00031),
09727-00060

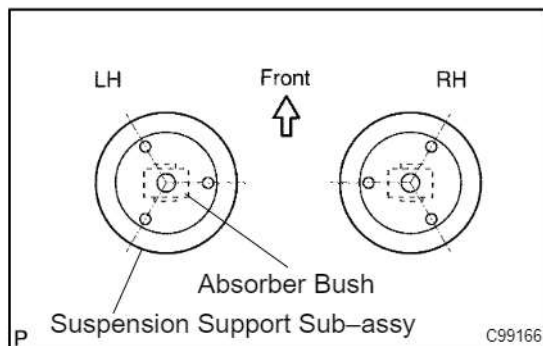
NOTICE:

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

- (b) Install the front coil spring LH to the shock absorber assy front LH.

HINT:

Fit the lower end of the front coil spring LH into the gap of the spring lower seat.

19. INSTALL FRONT SHOCK ABSORBER CUSHION RETAINER**20. INSTALL FRONT SUSPENSION SUPPORT SUB-ASSY LH****21. INSTALL FRONT SHOCK ABSORBER CUSHION NO.1****22. INSTALL FRONT SHOCK ABSORBER CUSHION RETAINER****23. INSTALL FRONT SUPPORT TO FRONT SHOCK ABSORBER NUT**

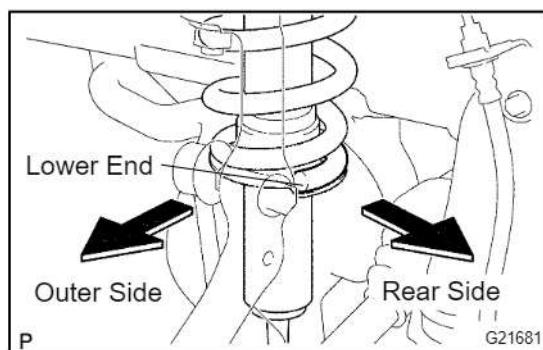
- (a) Align the suspension support sub-assy and the absorber bush as shown in the illustration.
(b) Tighten the new lock nut.

Torque: 25 N·m (260 kgf·cm, 18 ft·lbf)

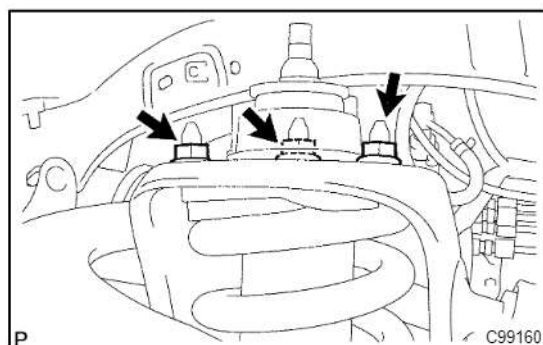
NOTICE:

Do not use an impact wrench. It will damage the shock absorber rod.

- (c) Release the coil spring while checking the position of the suspension support.

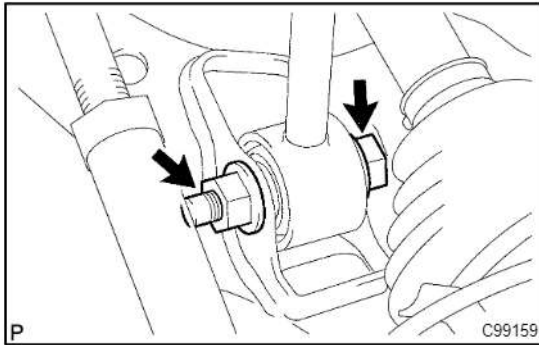
**24. TEMPORARILY TIGHTEN FRONT SHOCK ABSORBER WITH COIL SPRING (W/O REAS)**

- (a) Install the coil spring on the body as the lower end of the coil spring faces rear side of the vehicle.

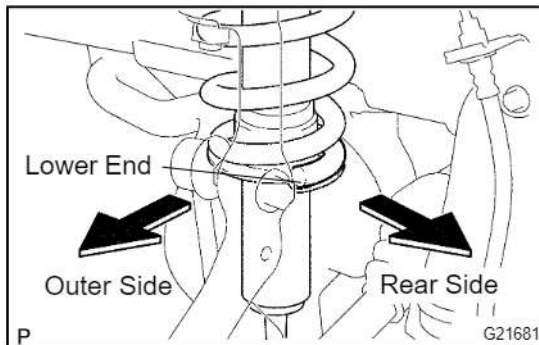


- (b) Install the 3 nuts on the upper side of the front shock absorber with coil spring.

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

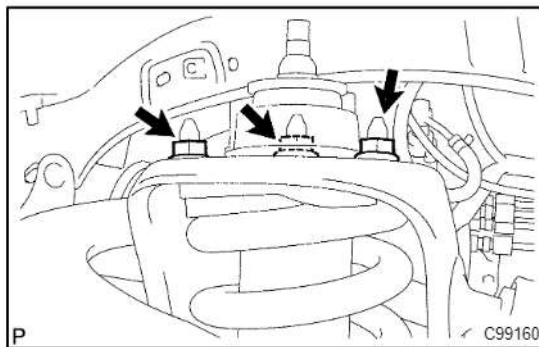


- (c) Temporarily tighten the bolt, the nut and the washer as shown in the illustration.



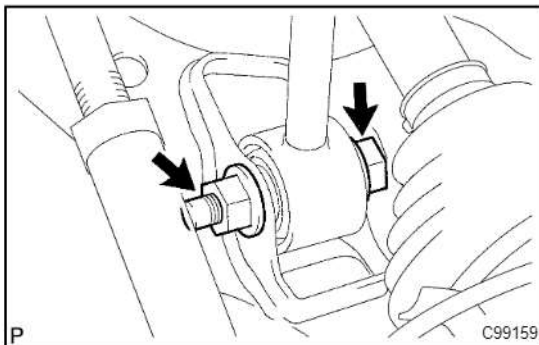
25. TEMPORARILY TIGHTEN FRONT SHOCK ABSORBER WITH COIL SPRING (W/ REAS)

- (a) Install the coil spring on the body as the lower end of the coil spring faces rear side of the vehicle.

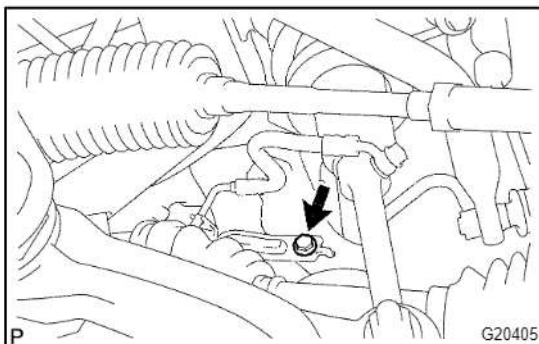


- (b) Install the 3 nuts on the upper side of the front shock absorber with coil spring.

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



- (c) Temporarily tighten the bolt, the nut and the washer as shown in the illustration.

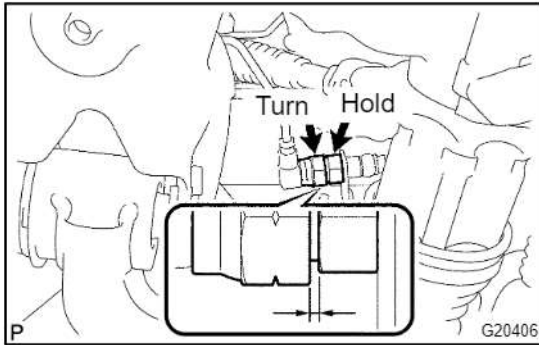


- (d) Install the bolt.

Torque: 29 N·m (300 kgf·cm, 21 ft·lbf)

NOTICE:

Be sure to fit the detents attached to the bracket into a hole on the frame side.



- (e) As shown in the illustration, tighten the nut of clearance to standard value.

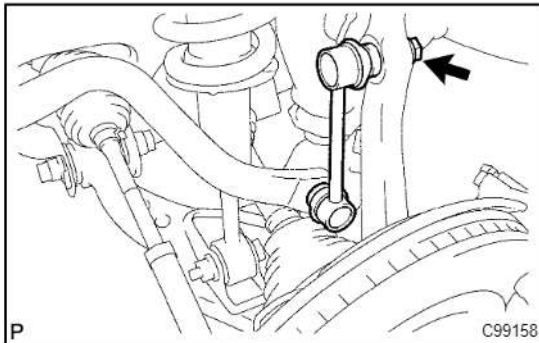
Clearance: 1 mm (0.04 in.)

Reference torque: 25 N·m (255 kgf·cm, 18 ft·lbf)

26. INSTALL STABILIZER BAR FRONT

27. INSTALL FRONT STABILIZER BRACKET NO.2 LH (See page 26-27)

28. INSTALL FRONT STABILIZER BRACKET NO.1 RH (See page 26-27)



29. INSTALL FRONT STABILIZER LINK ASSY LH

- (a) Connect the stabilizer link with the nut to the steering knuckle.

Torque: 70 N·m (710 kgf·cm, 52 ft·lbf)

HINT:

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

30. INSTALL FRONT STABILIZER LINK ASSY RH

HINT:

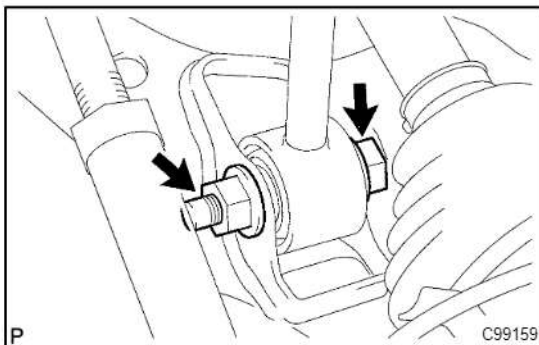
Install the RH side by the same procedures with the LH side.

31. INSTALL FRONT DISC WHEEL

Torque: 112 N·m (1,140 kgf·cm, 83 ft·lbf)

32. STABILIZE SUSPENSION

- (a) Jack down the vehicle.
(b) Bounce the vehicle up and down several times to stabilize the suspension.



33. FULLY TIGHTEN FRONT SHOCK ABSORBER WITH COIL SPRING

- (a) Fully tighten the nut.

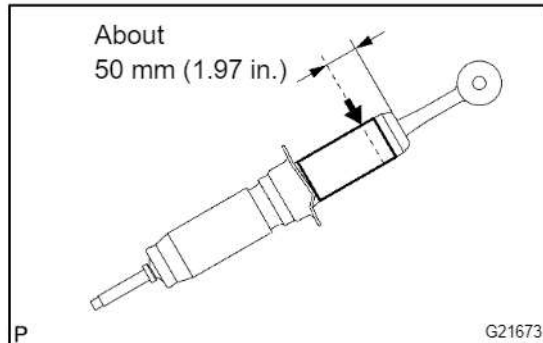
Torque: 135 N·m (1,380 kgf·cm, 100 ft·lbf)

34. INSPECT AND ADJUST FRONT WHEEL ALIGNMENT (See page 26-7)

DISPOSAL

HINT:

Dispose the RH side by the same procedures with the LH side.

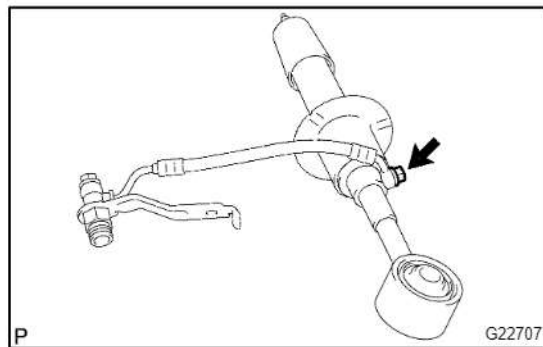


1. DISPOSE OF SHOCK ABSORBER ASSY FRONT LH (W/O REAS)

- (a) Fully extend the shock absorber piston rod, and fix it at a tilt in a vise or similar tool.
- (b) Using a drill or similar tool, slowly make a hole at approx. 5 cm from the top end of the shock absorber, and discharge the gas inside of it.

CAUTION:

- The gas is colorless, odorless and harmless.
- Since the discharged gas may cause chips to fly off, cover the drill with a shop rag when making a hole.



2. DISPOSE OF SHOCK ABSORBER ASSY FRONT LH (W/ REAS)

- (a) Before the disposal, loosen the nut slowly to bleed out the oil and to lower the pressure inside the absorber.

NOTICE:

Never loosen the nut of the eye union except the time of disposal.

FRONT SUSPENSION UPPER ARM ASSY LH

OVERHAUL

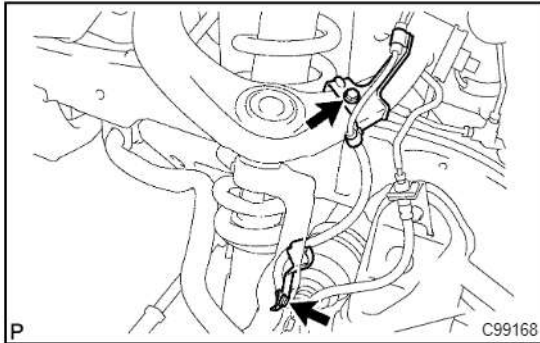
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HINT:

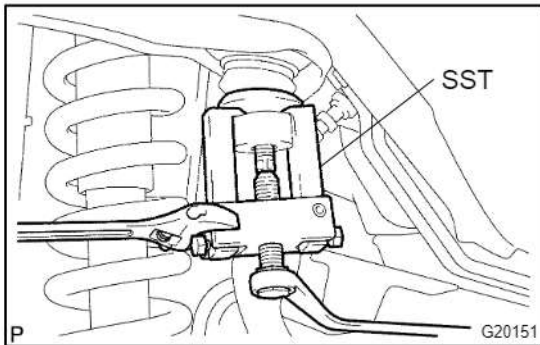
COMPONENTS: See page 26-3

1. REMOVE FRONT DISC WHEEL**2. INSPECT FRONT SUSPENSION UPPER ARM ASSY LH**

- (a) Check that there is no looseness on the ball joint by shaking the upper arm up and down by hand.

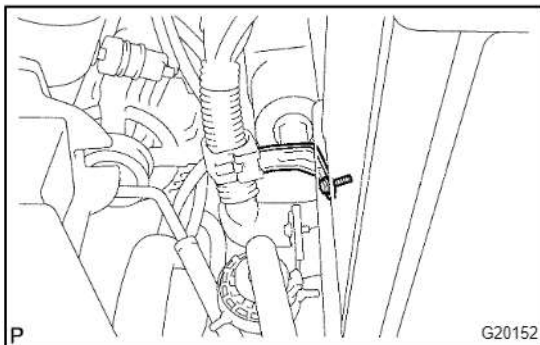
**3. DISCONNECT SKID CONTROL SENSOR WIRE**

- (a) Remove the 2 bolts, and disconnect the skid control sensor wire.

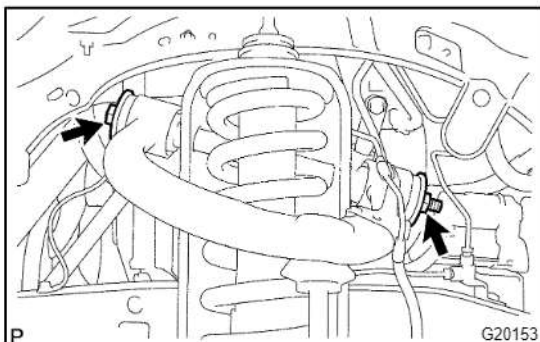
**4. REMOVE FRONT SUSPENSION UPPER ARM ASSY LH**

- (a) Support the front suspension lower arm LH with a jack.
 (b) Remove the clip and the nut.
 (c) Using SST, disconnect the upper ball joint from the steering knuckle.

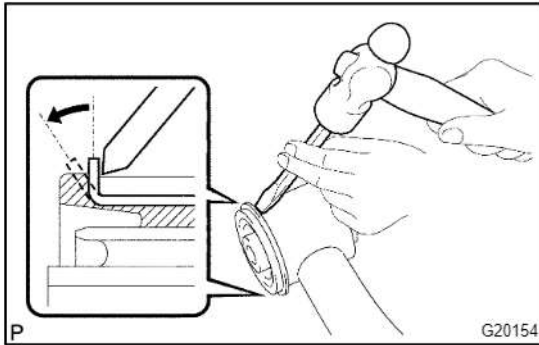
SST 09628-62011



- (d) Remove the bolt and the bracket.

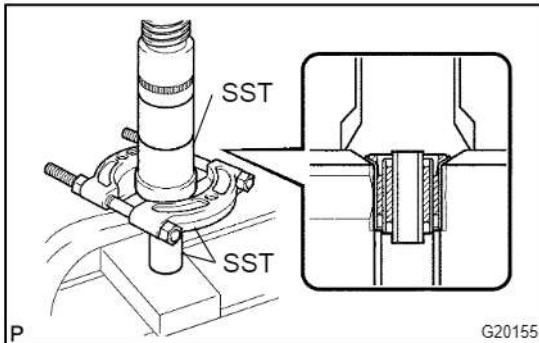


- (e) Remove the bolt, the 2 washers and the nut.
 (f) Remove the front suspension upper arm assy.



5. REMOVE FRONT SUSPENSION UPPER ARM BUSH LH

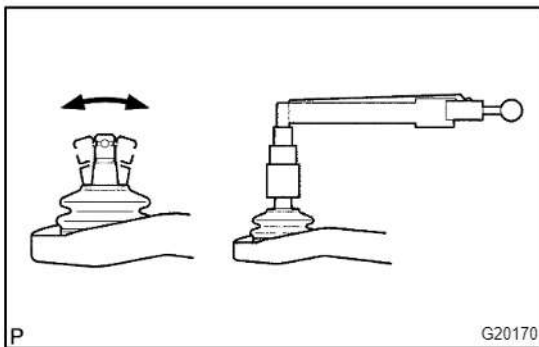
- (a) Using a hammer and chisel, raise the flange of the bushing diagonally as shown in the illustration.



- (b) Using SST and a press remove the front suspension upper arm bush LH (front side).

SST 09613-26010, 09710-22021 (09710-01031), 09950-00020

- (c) Replace the rear side by the same procedures with the front side.



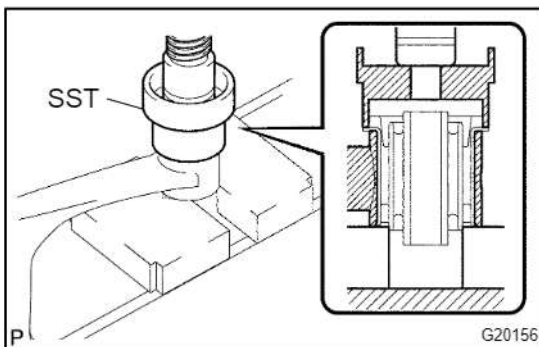
6. INSPECT FRONT SUSPENSION UPPER ARM ASSY LH

- (a) As shown in the illustration, flip the ball joint stud back and forth 5 times, before installing the nut.

- (b) Using a torque wrench, turn the nut continuously at a rate of 3 – 5 seconds per 1 turn and take the torque reading on the 5th turn.

Turning torque: 4.5 N·m (46 kgf·cm, 40 in·lbf) or less

- (c) Check for any cracks and grease leaks on the ball joint dust cover.

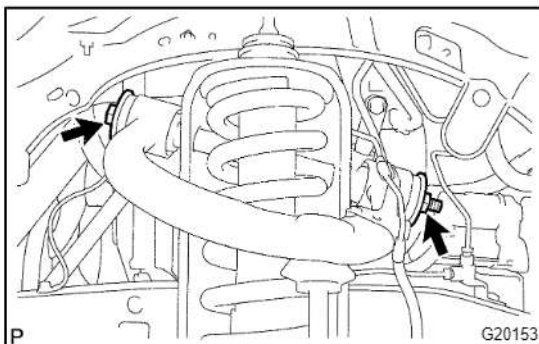


7. INSTALL FRONT SUSPENSION UPPER ARM BUSH LH

- (a) Using SST and a press, install a new front suspension upper arm bush LH (front side).

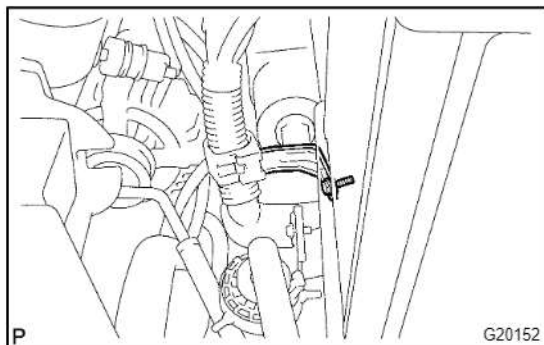
SST 09710-26010 (09710-05061)

- (b) Install the rear side by the same procedures with the front side.

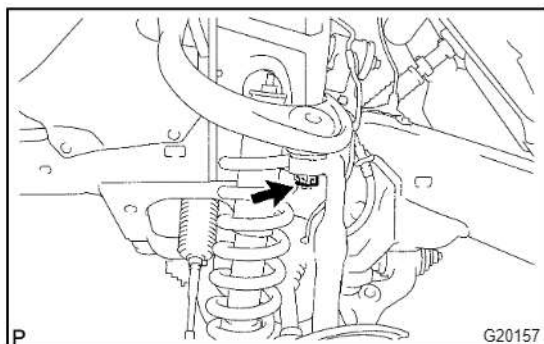


8. TEMPORARILY TIGHTEN FRONT SUSPENSION UPPER ARM ASSY LH

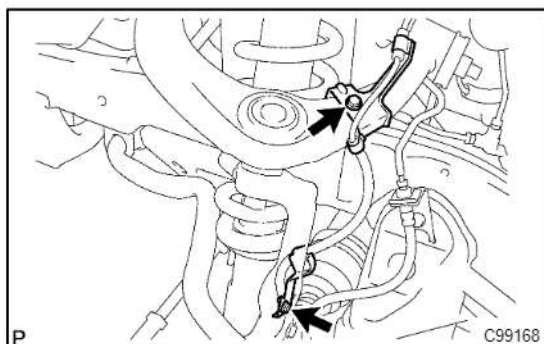
- (a) Install the front suspension upper arm assy, and temporarily tighten bolt, the 2 washers and the nut.



- (b) Install the bracket with the bolt.
Torque: 5.8 N·m (59 kgf·cm, 51 in·lbf)



- (c) Install a new nut and a new clip.
Torque: 110 N·m (1,120 kgf·cm, 81 ft·lbf)



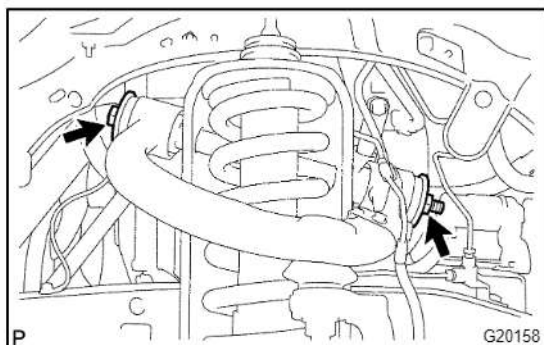
9. CONNECT SKID CONTROL SENSOR WIRE

- (a) Install the connect skid control sensor wire with the 2 bolts.
Torque: 13 N·m (127 kgf·cm, 9 ft·lbf)

10. INSTALL FRONT DISC WHEEL

Torque: 112 N·m (1,140 kgf·cm, 83 ft·lbf)

11. STABILIZE SUSPENSION (See page 26-12)



12. FULLY TIGHTEN FRONT SUSPENSION UPPER ARM ASSY LH

- (a) Fully tighten the nut.
Torque: 115 N·m (1,170 kgf·cm, 85 ft·lbf)

13. INSPECT AND ADJUST FRONT WHEEL ALIGNMENT (See page 26-7)

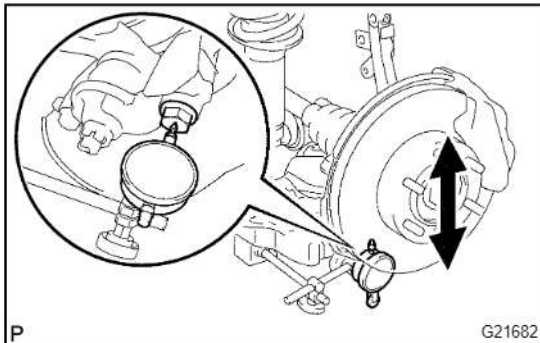
FRONT SUSPENSION ARM SUB-ASSY LOWER NO.1 LH OVERHAUL

28090-03

HINT:

COMPONENTS: See page 26-3

1. REMOVE FRONT DISC WHEEL

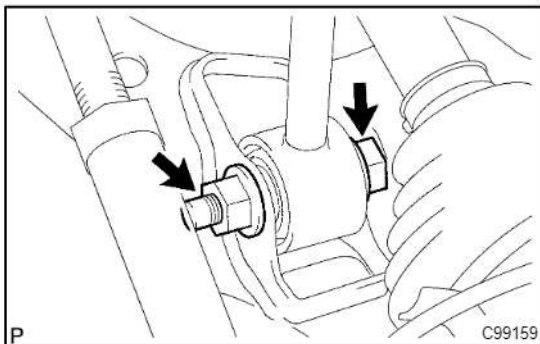


2. INSPECT FRONT SUSPENSION ARM SUB-ASSY LOWER NO.1 LH

- Install the hub nuts to the disc.
- Using a dial indicator, check the lower ball joint for excessive play when you push the hub nuts up and down with a force of 294 N (30 kgf, 66 lbf).
Maximum: 0.5 mm (0.020 in.)

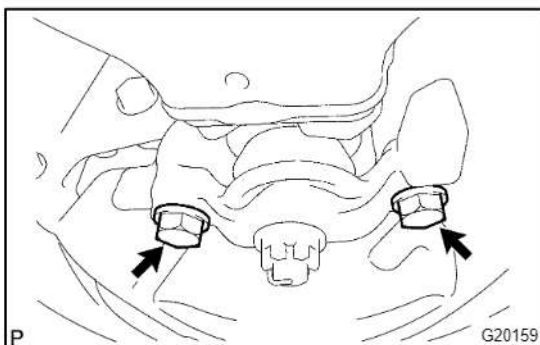
HINT:

If it is not within the specification, replace the lower arm.



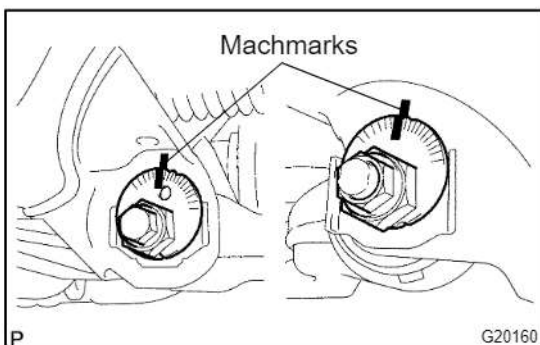
3. SEPARATE FRONT SHOCK ABSORBER WITH COIL SPRING

- Remove the bolt, nut and washer.
- Separate the front shock absorber with coil spring from the suspension lower arm.

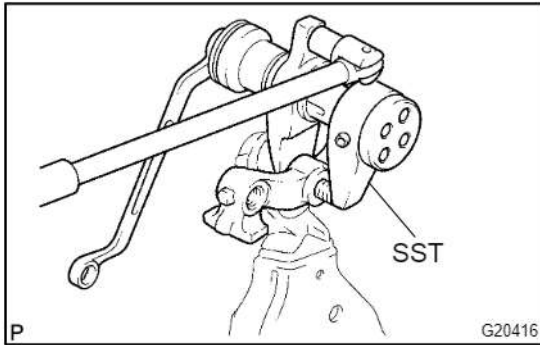


4. REMOVE FRONT SUSPENSION ARM SUB-ASSY LOWER NO.1 LH

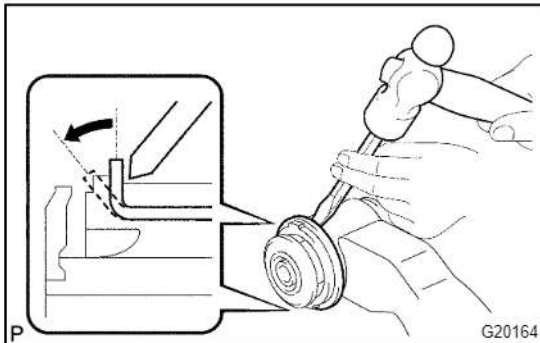
- Remove the 2 bolts, and separate the front lower ball joint attachment LH from the front axle.



- Place matchmarks on the camber adjust cam No.2 and toe adjust cam sub-assy.
- Remove the nut, camber adjust cam No.2, camber adjust cam assy, bolt, toe adjust cam sub-assy, toe adjust plate No.2 and front suspension arm sub-assy lower No.1 LH.

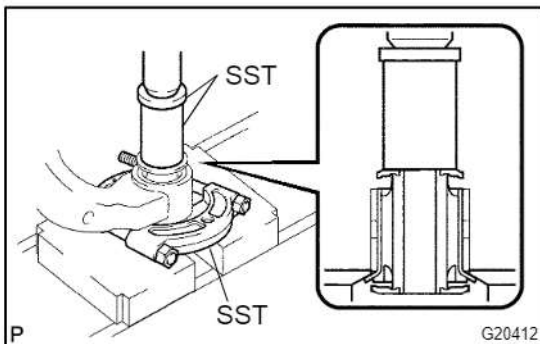


- (d) Remove the cotter pin and the nut.
- (e) Using SST, remove the front lower ball joint attachment LH.
SST 09628-00011

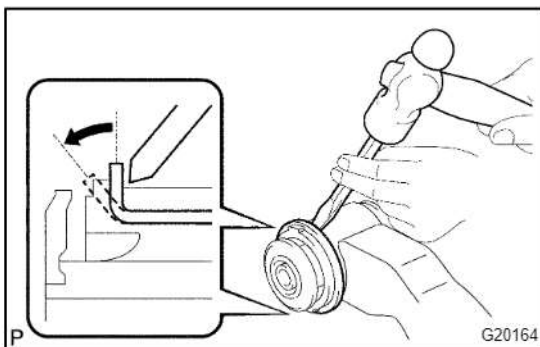


5. REMOVE FRONT LOWER ARM BUSH NO.1 LH

- (a) Using a hammer and a chisel, raise the flange of the bushing diagonally as shown in the illustration.

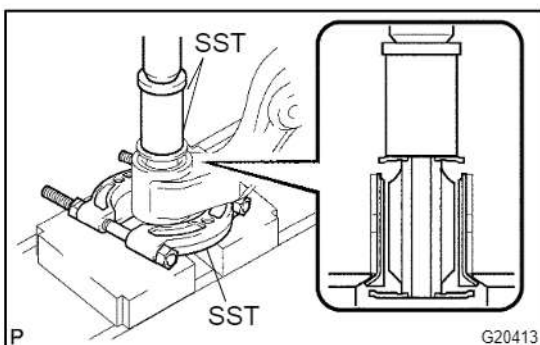


- (b) Using SST and a press, remove the lower arm bush No.1 LH.
SST 09632-36010, 09950-00020, 09950-60010
(09951-00400)

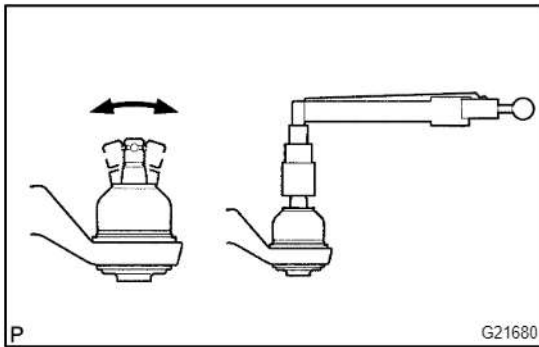


6. REMOVE FRONT LOWER ARM BUSH NO.2 LH

- (a) Using a hammer and a chisel, raise the flange of the bushing diagonally as shown in the illustration.



- (b) Using SST and a press, remove the lower arm bush No.2 LH.
SST 09632-36010, 09950-00020, 09950-60010
(09951-00400)



7. INSPECT FRONT SUSPENSION ARM SUB-ASSY LOWER NO.1 LH

- As shown in the illustration, flip the ball joint stud back and forth 5 times, before installing the nut.
- Using a torque wrench, turn the nut continuously at a rate of 2 – 4 seconds per 1 turn and take the torque reading on the 5th turn.

Turning torque: 3.0 N·m (31 kgf·cm, 27 in·lbf) or less

- Check for any cracks and grease leaks on the ball joint dust cover.

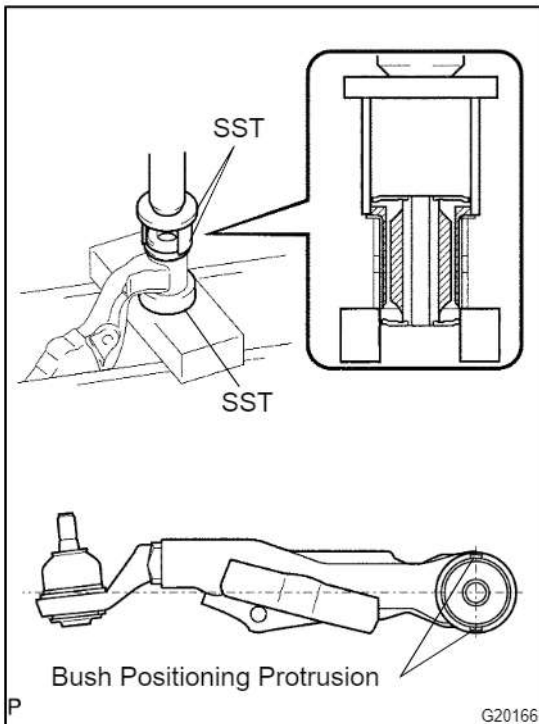
8. INSTALL FRONT LOWER ARM BUSH NO.2 LH

- Using SST and a press, install a new lower arm bush No.2 LH.

SST 09710-26010 (09710-05081), 09950-60020 (09951-00890)

NOTICE:

Press the lower arm bush No.2 in the lower arm at the bush positioning protrusions become perpendicular to the lower arm as shown in the illustration.



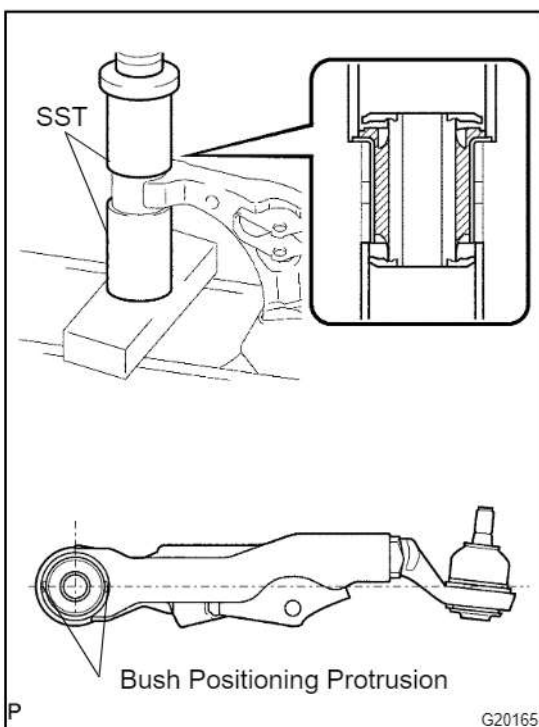
9. INSTALL FRONT LOWER ARM BUSH NO.1 LH

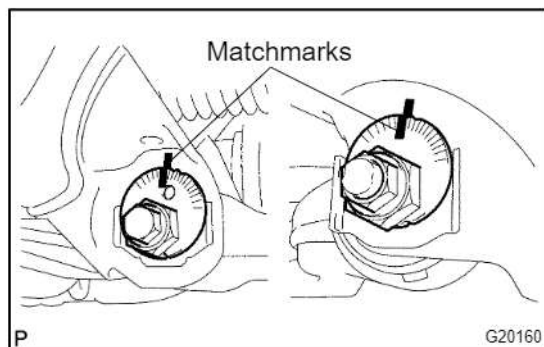
- Using SST and a press, install a new lower arm bush No.1 LH.

SST 09223-00010, 09612-30012

NOTICE:

Press the lower arm bush No.1 in the lower arm at the bush positioning protrusions become parallel with the lower arm as shown in the illustration.

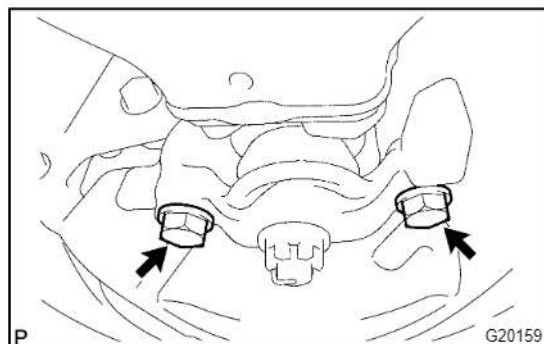




10. TEMPORARILY TIGHTEN FRONT SUSPENSION ARM SUB-ASSY LOWER NO.1 LH

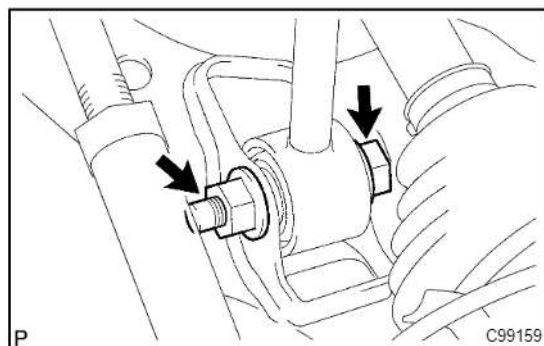
- (a) Align the matchmarks on the camber adjust cam No.2 and toe adjust cam sub-assy, temporarily tighten the bolt and the nut.
- (b) Install the front lower ball joint attachment LH, a new nut and a new cotter pin.

Torque: 140 N·m (1430 kgf·cm, 103 ft·lbf)



- (c) Install the front lower ball joint attachment LH with the 2 bolts.

Torque: 225 N·m (2,290 kgf·cm, 166 ft·lbf)



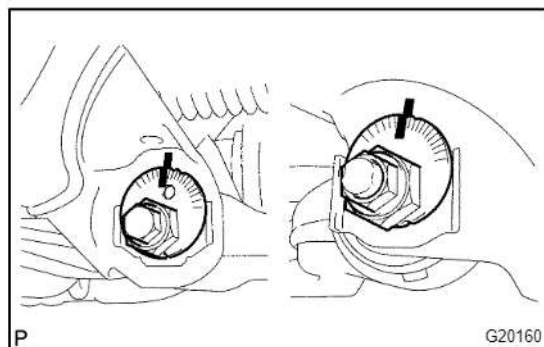
11. TEMPORARILY TIGHTEN FRONT SHOCK ABSORBER WITH COIL SPRING

- (a) Install the front shock absorber with coil spring, the bolt and the washer, and temporarily tighten the nut.

12. INSTALL FRONT DISC WHEEL

Torque: 112 N·m (1,140 kgf·cm, 83 ft·lbf)

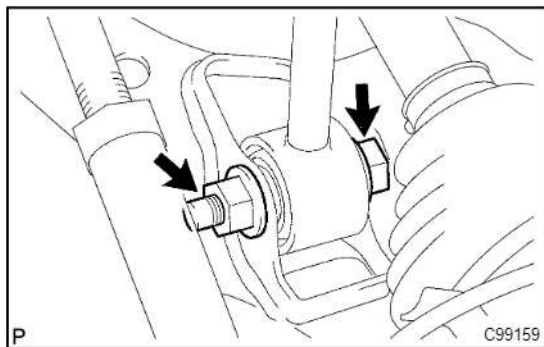
13. STABILIZE SUSPENSION (See page 26-12)



14. FULLY TIGHTEN FRONT SUSPENSION ARM SUB-ASSY LOWER NO.1 LH

- (a) Fully tighten the bolt and the nut.

Torque: 135 N·m (1,380 kgf·cm, 100 ft·lbf)

**15. FULLY TIGHTEN FRONT SHOCK ABSORBER WITH COIL SPRING**

- (a) Fully tighten the nut.

Torque: 135 N·m (1,380 kgf·cm, 100 ft·lbf)

16. INSPECT AND ADJUST FRONT WHEEL ALIGNMENT (See page 26-7)

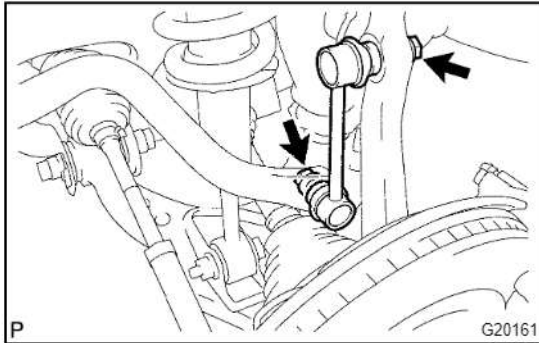
STABILIZER BAR FRONT OVERHAUL

2809Q-03

HINT:

COMPONENTS: See page 26-3

1. REMOVE FRONT WHEELS



2. REMOVE FRONT STABILIZER LINK ASSY LH

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

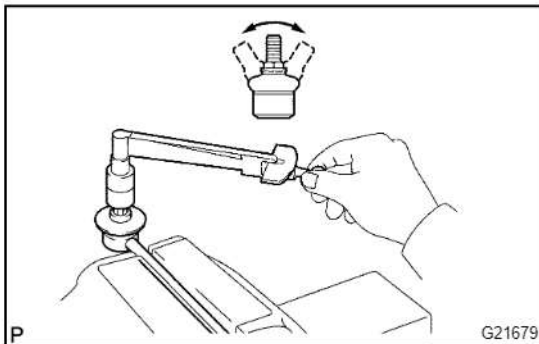
HINT:

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

3. REMOVE FRONT STABILIZER LINK ASSY RH

HINT:

Remove the RH side by following the same procedures with the LH side.



4. INSPECT FRONT STABILIZER LINK ASSY LH

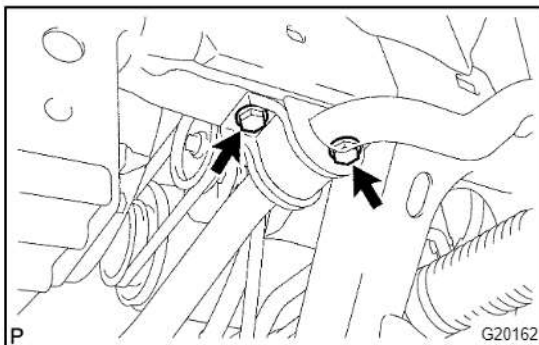
- (a) As shown in the illustration, flip the ball joint stud back and forth 5 times, before installing the nut.
 (b) Using a torque wrench, turn the nut continuously at a rate of 2 – 4 seconds per 1 turn and take the torque reading on the 5th turn.

Turning torque:**2.0 N·m (20 kgf·cm, 18 in·lbf) or less**

- (c) Check for any cracks and grease leaks on the ball joint dust cover.

5. REMOVE FRONT STABILIZER BRACKET NO.2 LH

- (a) Remove the 2 bolts and front stabilizer bracket No.2 LH.



6. REMOVE FRONT STABILIZER BRACKET NO.1 RH

HINT:

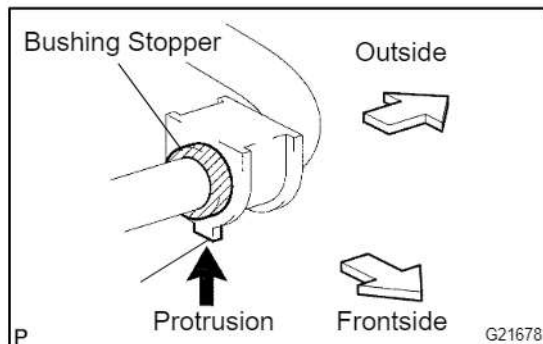
Remove the RH side by following the same procedures with the LH side.

7. REMOVE FRONT STABILIZER BAR BUSH NO.1

- (a) Remove the 2 front stabilizer bar bush No.1.

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8. REMOVE STABILIZER BAR FRONT
9. INSTALL STABILIZER BAR FRONT

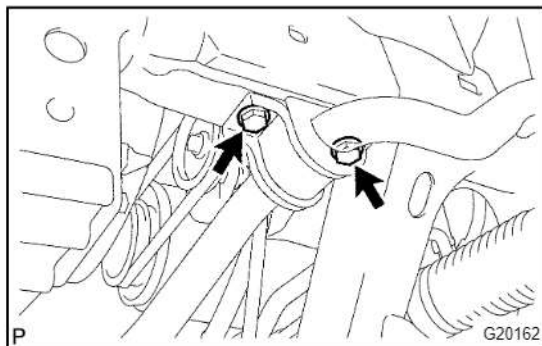


10. INSTALL FRONT STABILIZER BAR BUSH NO.1

- (a) Install the 2 front stabilizer bar bush No.1.

HINT:

- Install the bushing to the inner side of the bushing stopper on the stabilizer bar.
- Install the stabilizer bush No.1 as the protrusion to be on the inner side of the vehicle.



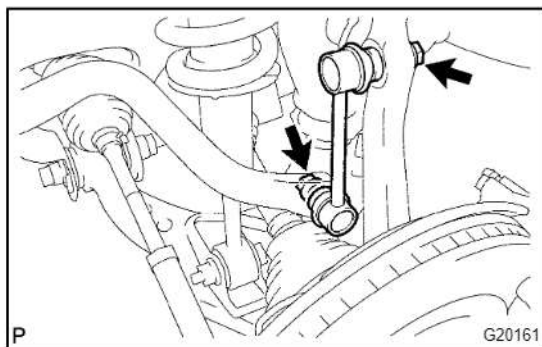
11. INSTALL FRONT STABILIZER BRACKET NO.2 LH

- (a) Install the front stabilizer bracket No.2 LH with the 2 bolts.
Torque: 40 N·m (410 kgf·cm, 30 ft·lbf)

12. INSTALL FRONT STABILIZER BRACKET NO.1 RH

HINT:

Install the RH side by following the same procedures with the LH side.



13. INSTALL FRONT STABILIZER LINK ASSY LH

- (a) Install the front stabilizer link assy LH with the 2 nuts.
Torque: 70 N·m (710 kgf·cm, 52 ft·lbf)

HINT:

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

14. INSTALL FRONT STABILIZER LINK ASSY RH

HINT:

Install the RH side by following the same procedures with the LH side.

15. INSTALL FRONT WHEELS

Torque: 112 N·m (1,140 kgf·cm, 83 ft·lbf)