

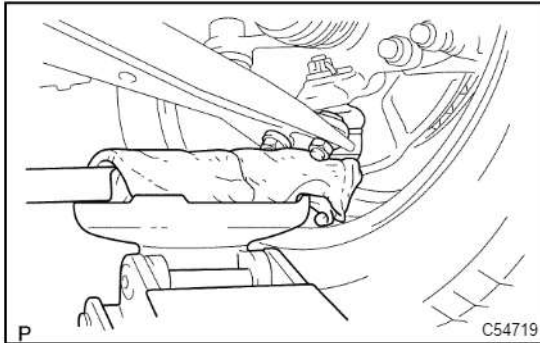
LOWER BALL JOINT ASSY FRONT LH

REPLACEMENT

2807Y-04

HINT:

COMPONENTS: See page 26-3

**1. INSPECT LOWER BALL JOINT ASSY FRONT LH**

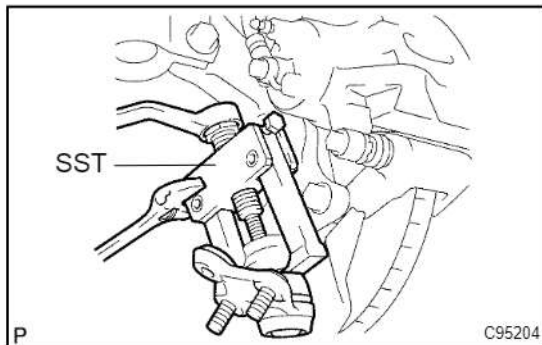
- (a) Jack up front side of the vehicle.
- (b) Check the rattle of the lower ball joint assy front LH.

2. REMOVE FRONT WHEEL**3. REMOVE FRONT AXLE HUB LH NUT(See page 30-6)**

SST 09930-00010

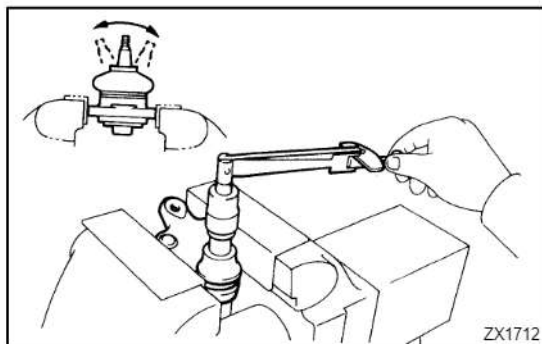
4. DISCONNECT SPEED SENSOR FRONT LH (W/ ABS)(See page 30-6)**5. SEPARATE TIE ROD END SUB-ASSY LH(See page 30-6)**

SST 09628-62011

6. SEPARATE FRONT SUSPENSION ARM SUB-ASSY LOWER NO.1 LH(See page 30-6)**7. SEPARATE FRONT AXLE ASSY LH(See page 30-6)****8. REMOVE LOWER BALL JOINT ASSY FRONT LH**

- (a) Remove the cotter pin and castle nut.
- (b) Using SST, remove the lower ball joint assy from the steering knuckle LH.

SST 09628-62011

**9. INSPECT LOWER BALL JOINT ASSY FRONT 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:**0.98 – 4.9 N·m (10 – 50 kgf·cm, 8.7 – 43 in·lbf)**

10. INSTALL LOWER BALL JOINT ASSY FRONT LH

- (a) Install the lower ball joint assy front LH to the steering knuckle LH, tighten the castle nut.
Torque: 103 N·m (1050 kgf·cm, 76 ft·lbf)

- (b) Install a new cotter pin.

11. INSTALL FRONT AXLE ASSY LH(See page 30-6)**12. INSTALL FRONT SUSPENSION ARM SUB-ASSY LOWER NO.1 LH(See page 30-6)****13. INSTALL TIE ROD END SUB-ASSY LH(See page 30-6)****14. INSTALL SPEED SENSOR FRONT LH (W/ ABS)(See page 30-6)****15. INSTALL FRONT AXLE HUB LH NUT(See page 30-6)**

SST 09931-00020

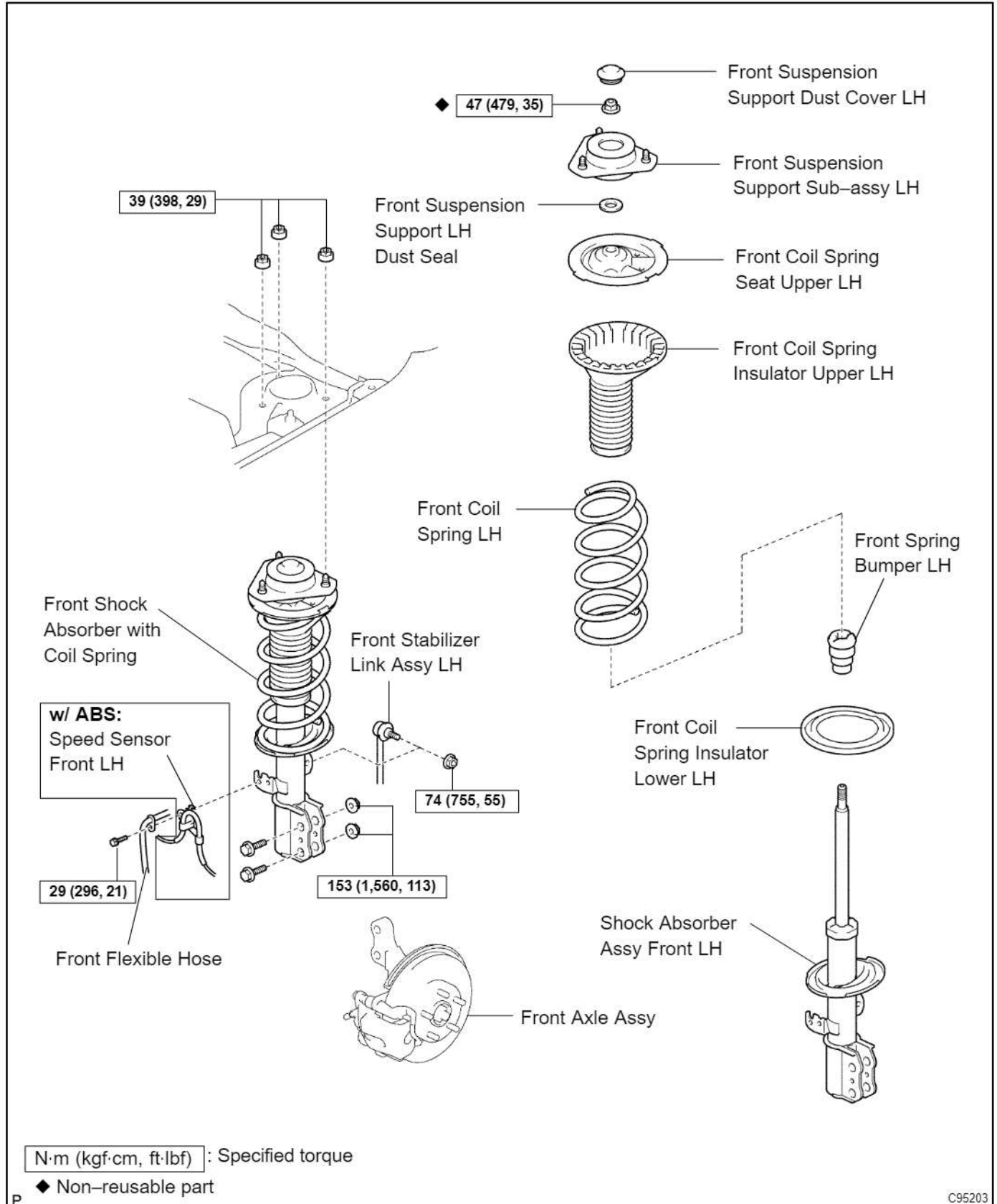
16. INSTALL FRONT WHEEL

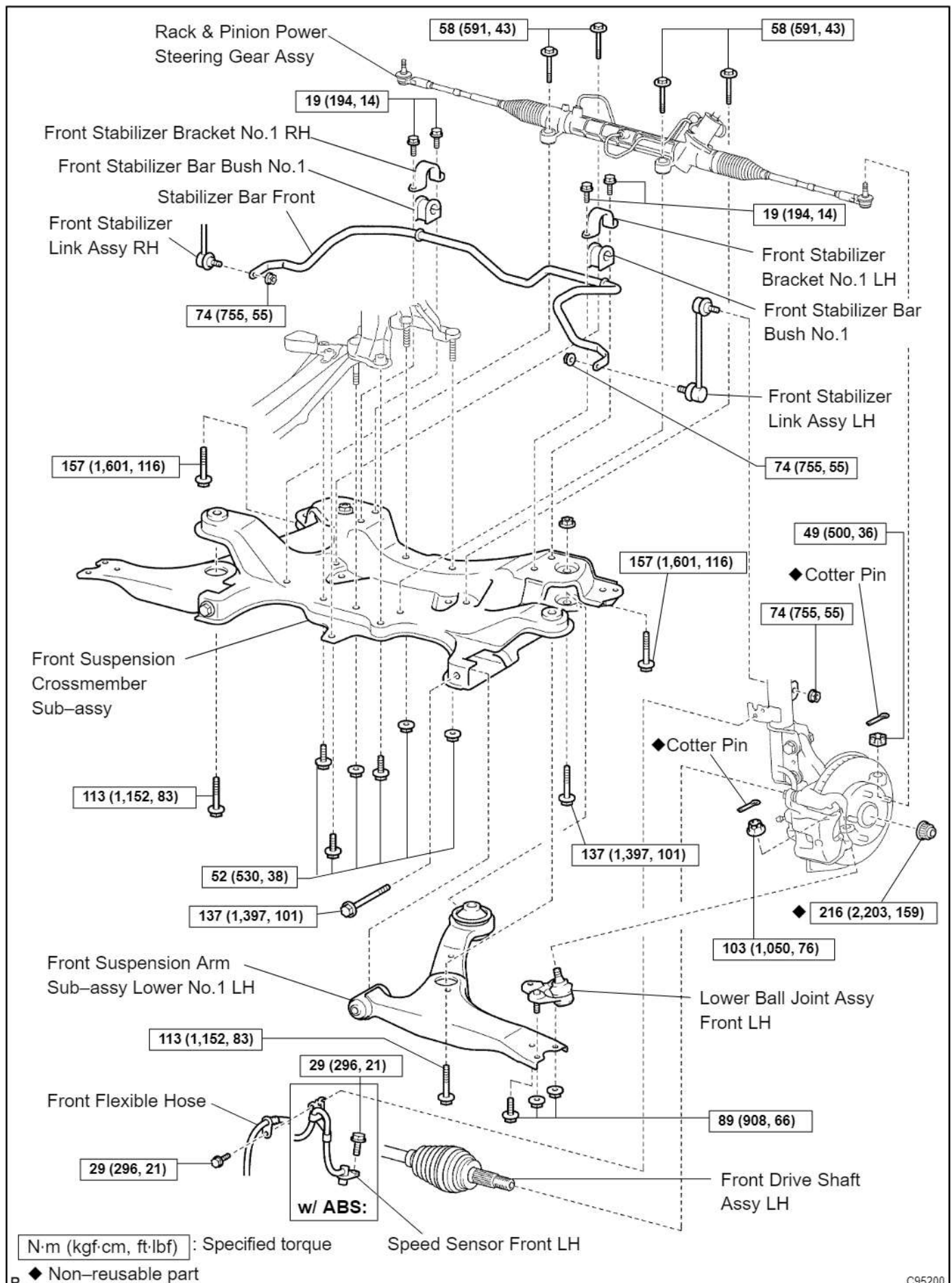
Torque: 103 N·m (1,050 kgf·cm, 76 ft·lbf)

17. INSPECT AND ADJUST FRONT WHEEL ALIGNMENT(See page 26-5)**18. CHECK ABS SPEED SENSOR SIGNAL (W/ ABS)(See page 05-297)**

FRONT SUSPENSION COMPONENTS

2807U-01



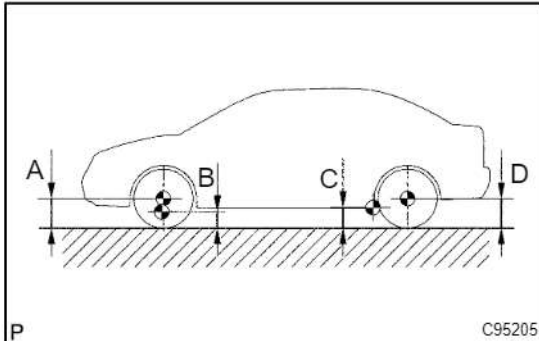


C95200

FRONT WHEEL ALIGNMENT ADJUSTMENT

2807T-01

1. INSPECT TIRE(See page 28-1)



2. MEASURE VEHICLE HEIGHT

Vehicle height:

	USA, Canada	Mexico
Front (A – B)	87 mm (3.43 in.)	72 mm (2.84 in.)
Rear (D – C)	43 mm (1.69 in.)	29 mm (1.14 in.)

Measuring points:

A: Ground clearance of front wheel center

B: Ground clearance of lower suspension arm front bolt center

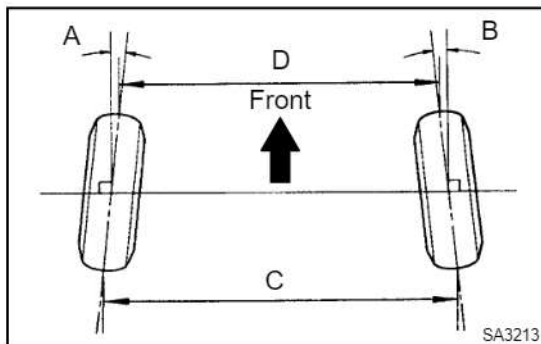
C: Ground clearance of axle beam set bolt center

D: Ground clearance of rear wheel 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: $0^\circ \pm 12'$ ($0^\circ \pm 0.2^\circ$) C – D: 0 ± 2 mm (0 ± 0.08 in.)
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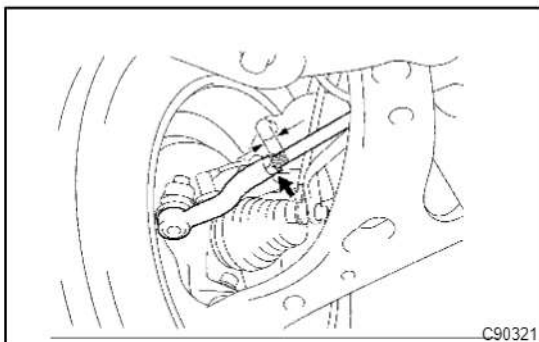
If the toe-in is not within the specified value, adjust it at the rack ends.

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.



- Make sure that the lengths of the right and left rack ends are the same.

Rack end length difference: 1.5 mm (0.059 in.) or less

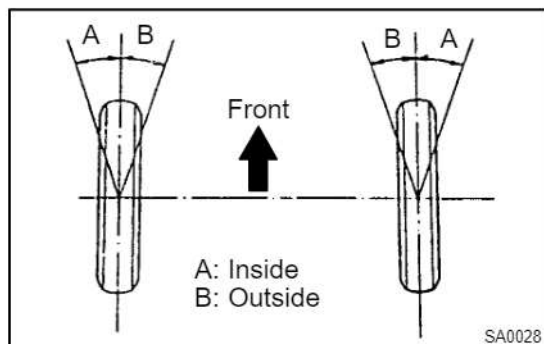
- Torque the tie rod end lock nuts.

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

- Place the boots on the seats and install the clips.

HINT:

Make sure that the boots are not twisted.



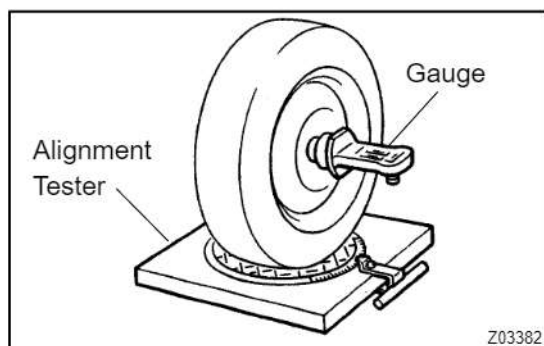
5. INSPECT WHEEL ANGLE

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

Wheel turning angle:

	USA, Canada	Mexico
Inside wheel	$37^{\circ}06' \pm 2^{\circ}$ ($37.10^{\circ} \pm 2^{\circ}$)	$37^{\circ}16' \pm 2^{\circ}$ ($37.27^{\circ} \pm 2^{\circ}$)
Outside wheel: Reference	$31^{\circ}49' (31.82^{\circ})$	$32^{\circ}08' (32.13^{\circ})$

If the right and left inside wheel angles differ from the specified value, check the right and left rack end lengths.



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, caster and steering axis inclination.

Camber, caster and steering axis inclination:

	USA, Canada	Mexico
Camber	$-0^{\circ}32' \pm 45'$ ($-0.53^{\circ} \pm 0.75^{\circ}$)	$-0^{\circ}22' \pm 45'$ ($-0.37^{\circ} \pm 0.75^{\circ}$)
Right-left error	45' (0.75°) or less	45' (0.75°) or less
Caster	$2^{\circ}50' \pm 45'$ ($2.83^{\circ} \pm 0.75^{\circ}$)	$2^{\circ}43' \pm 45'$ ($2.72^{\circ} \pm 0.75^{\circ}$)
Right-left error	45' (0.75°) or less	45' (0.75°) or less
Steering axis inclination	$11^{\circ}21' \pm 45'$ ($11.35^{\circ} \pm 0.75^{\circ}$)	$10^{\circ}59' \pm 45'$ ($10.98^{\circ} \pm 0.75^{\circ}$)
Right-left error	45' (0.75°) or less	45' (0.75°) or less

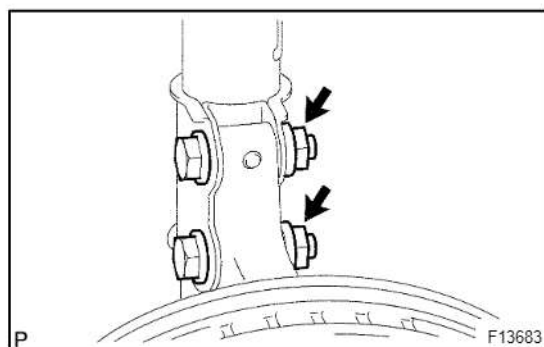
If the caster and steering axis inclination are not within the specified values, after the camber has been correctly adjusted, re-check the suspension parts for damaged and/or worn out parts.

7. ADJUST CAMBER

NOTICE:

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

- (a) Remove the front wheel.

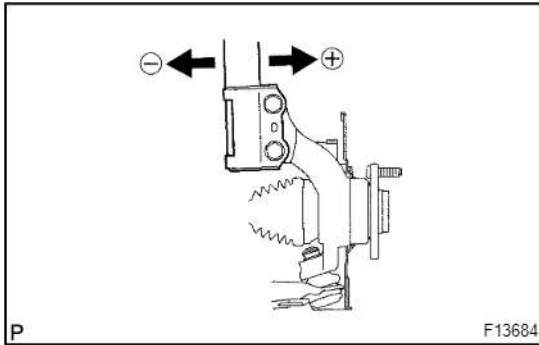


- (b) Remove the 2 nuts on the lower side of the shock absorber assy front LH.

NOTICE:

When removing nut, stop the bolt from rotating and loosen the nut.

- (c) Clean the installation surfaces of the shock absorber assy front LH and the steering knuckle.
(d) Temporarily install the 2 nuts.



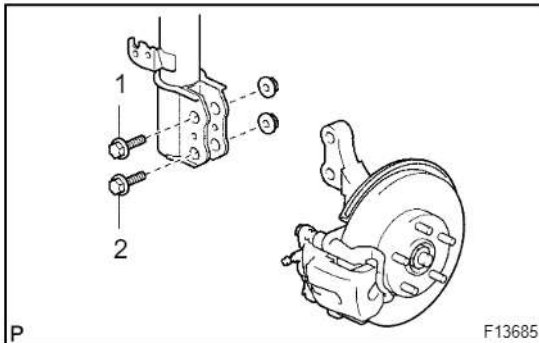
(e) Adjust the camber by pushing or pulling the lower side of the shock absorber in the direction in which the camber adjustment is required.

(f) Tighten the nuts.

Torque: 153 N·m (1,560 kgf·cm, 113 ft·lbf)

(g) Install the front wheel.

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



(h) Check the camber.

HINT:

- Try to adjust the camber to the center of the specified value.
- Adjusting value for the set bolts is $-1^{\circ}30' - 0^{\circ}30'$ ($-1.5^{\circ} - 0.5^{\circ}$).

If the camber is not within the specified value, using the following table, estimate how much additional camber adjustment will be required, and select the camber adjusting bolt.

Bolt	Set Bolt		Adjusting Bolt					
	90105-15001		90105-15004		90105-15005		90105-15006	
	11		1 Dot		2 Dots		3 Dots	
Adjusting Value								
	1	2	1	2	1	2	1	2
$-1^{\circ}30' - -1^{\circ}15'$							●	●
$-1^{\circ}15' - -1^{\circ}00'$					●			●
$-1^{\circ}00' - -45'$			●					●
$-45' - -30'$	●							●
$-30' - -15'$	●					●		
$-15' - 0'$	●			●				
$0' - 15'$	●			●				
$15' - 30'$	●					●		
$30' - 45'$	●							●
$45' - 1^{\circ}00'$			●					●
$1^{\circ}00' - 1^{\circ}15'$					●			●
$1^{\circ}15' - 1^{\circ}30'$							●	●

N

F12938

(i) Perform the steps mentioned above again. At step (e), replace 1 or 2 selected bolts.

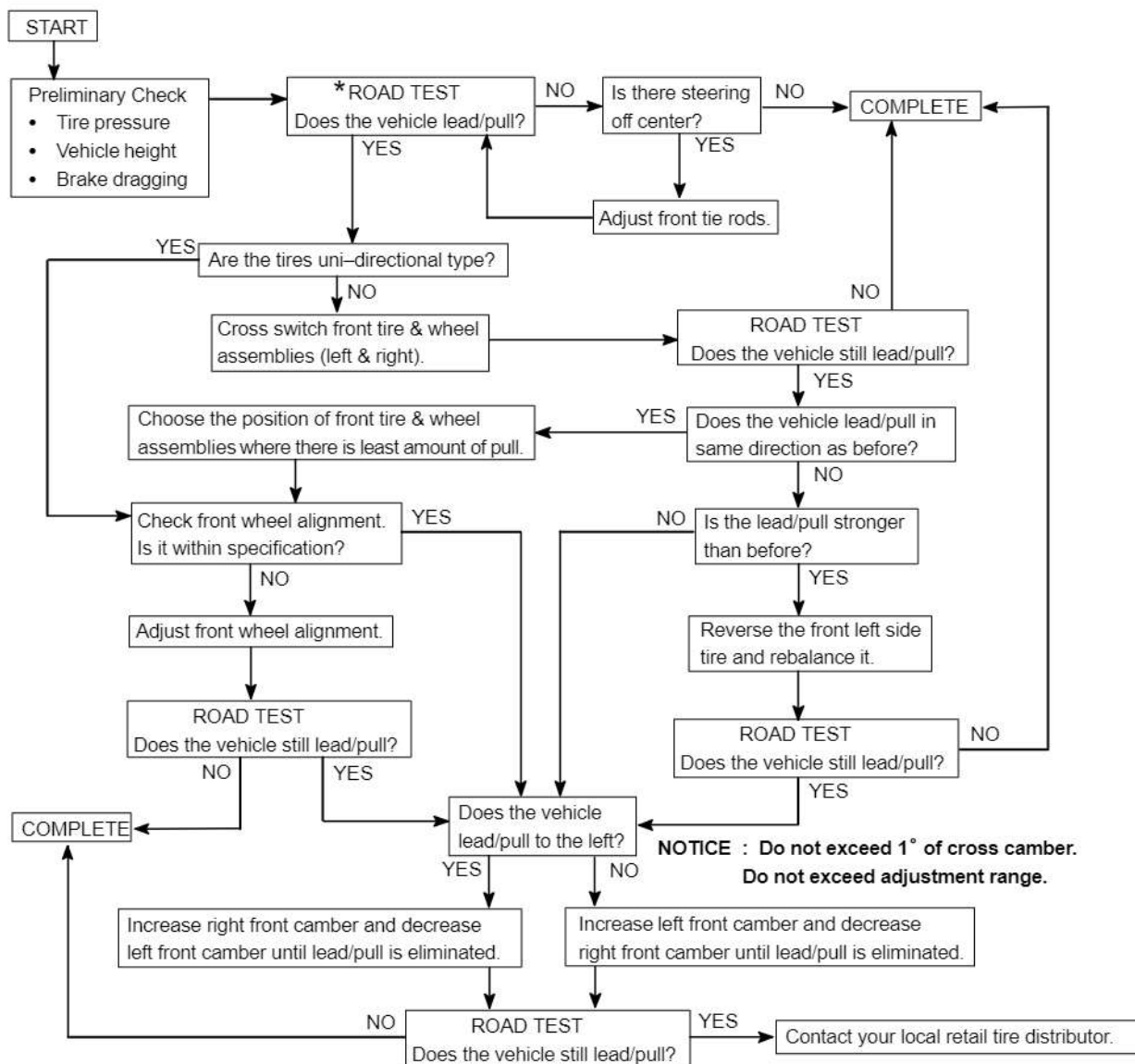
HINT:

When replacing the 2 bolts, replace 1 bolt at a time.

REPAIR

HINT:

This is a flow chart for vehicle pull.

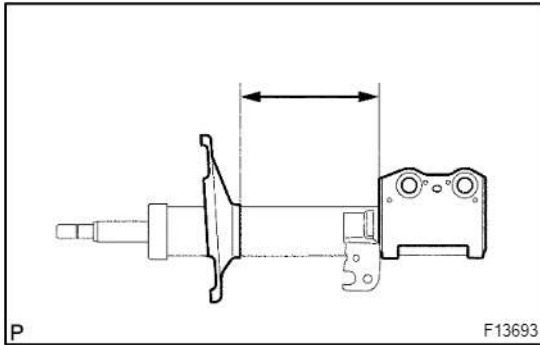


Select a flat road where the vehicle can be driven in a straight line for 100 meters at a constant speed of 35mph. Please confirm safety and set the steering wheel to its straight position. Drive the vehicle in a straight line for 100 meters at a constant speed of 35 mph without holding the steering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



DISPOSAL

1. DISPOSE SHOCK ABSORBER ASSY FRONT LH

- (a) Fully extend the shock absorber piston rod.
- (b) Using a drill, make a hole in the cylinder as shown in the illustration to discharge the gas inside.

CAUTION:

- When drilling, chips may fly out, work carefully.
- The gas is colorless, odorless and non-poisonous.

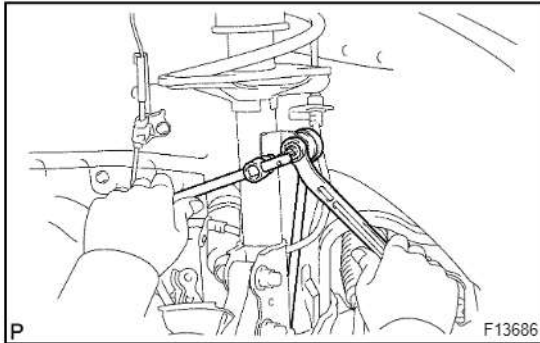
FRONT SHOCK ABSORBER WITH COIL SPRING OVERHAUL

2807V-01

HINT:

COMPONENTS: See page 26-3

1. REMOVE FRONT WHEEL

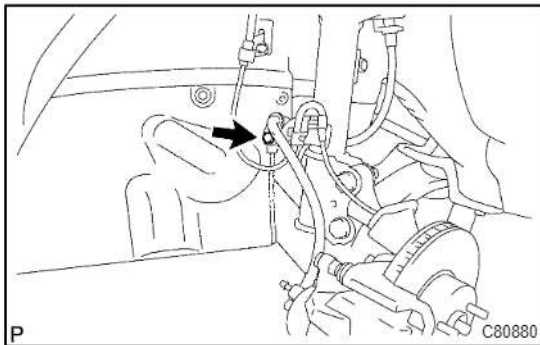


2. DISCONNECT FRONT STABILIZER LINK ASSY LH

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

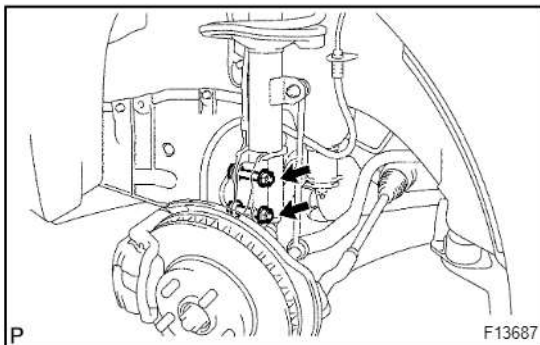
HINT:

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



3. DISCONNECT FRONT FLEXIBLE HOSE

- (a) w/ ABS:
Remove the bolt, disconnect the front flexible hose No. 1 and speed sensor front LH.
- (b) w/o ABS:
Remove the bolt, disconnect the front flexible hose.

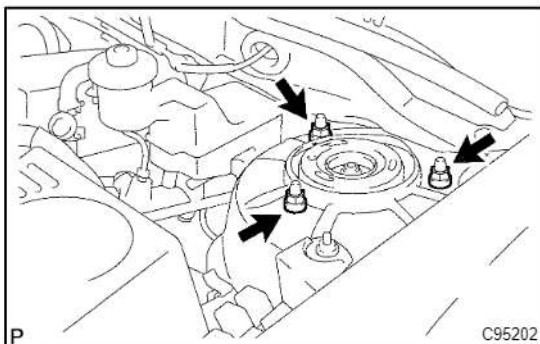


4. REMOVE FRONT SHOCK ABSORBER WITH COIL SPRING

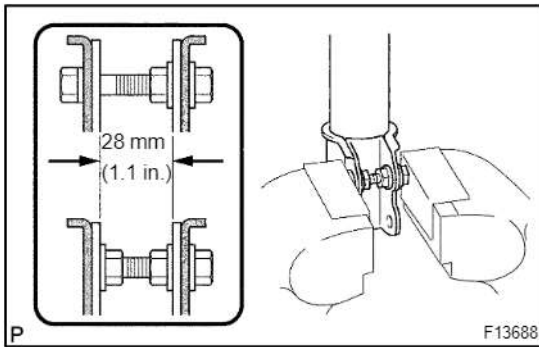
- (a) Remove the 2 bolts and nuts on the lower side of the shock absorber assy front LH.

NOTICE:

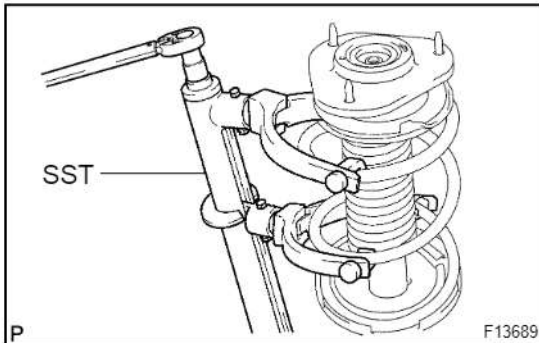
When removing the bolt, stop the bolt from rotating and loosen the nut.



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



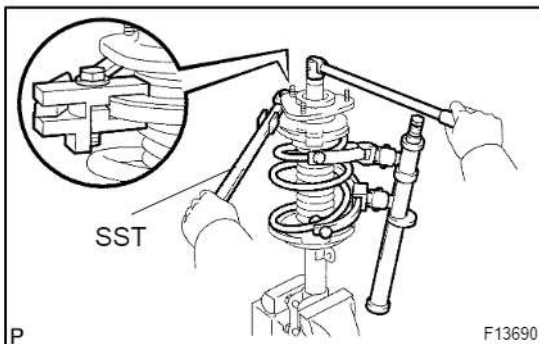
- 5. FIX FRONT SHOCK ABSORBER WITH COIL SPRING**
- (a) Install 2 nuts and a bolt to the bracket at the lower side of the shock absorber assy front LH and secure it in a vise.



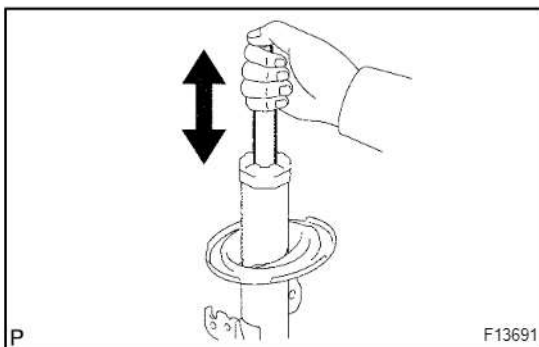
- 6. REMOVE SHOCK ABSORBER ASSY FRONT LH**
- (a) Remove the front suspension support dust cover LH from the front suspension support sub-assy LH.
- (b) Using SST, compress the front coil spring LH.
SST 09727-30021

NOTICE:

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



- (c) Using SST to hold the front coil spring seat upper LH, remove the nut.
SST 09729-22031
- (d) Remove the front suspension support sub-assy LH, front suspension support LH dust seal, front coil spring seat upper LH, front coil spring insulator upper LH, front coil spring LH, front spring bumper LH and front coil spring insulator lower LH.



- 7. 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.

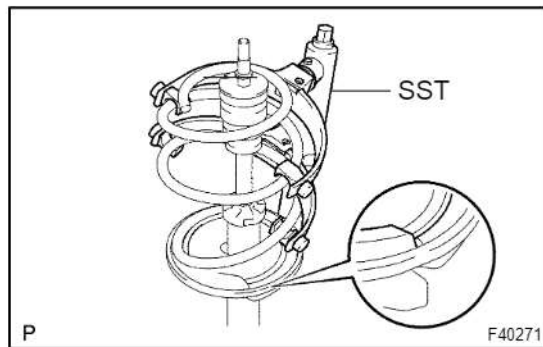
If there is any abnormality, replace the shock absorber with a new one.

NOTICE:

When disposing of the shock absorber, see DISPOSAL on page 26-12.

8. INSTALL SHOCK ABSORBER ASSY FRONT LH

- (a) Install the front coil spring insulator lower LH onto the shock absorber assy front LH.
- (b) Install the front spring bumper LH to the shock absorber piston rod.



- (c) Using SST, compress the front coil spring LH.
SST 09727-30021

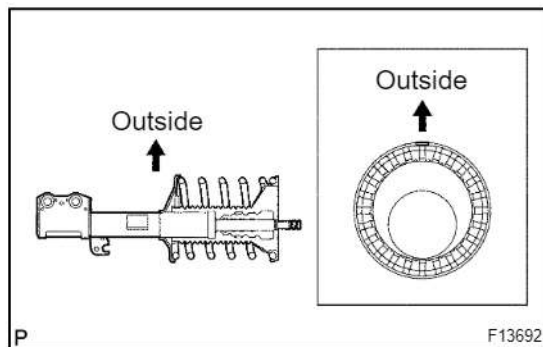
NOTICE:

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

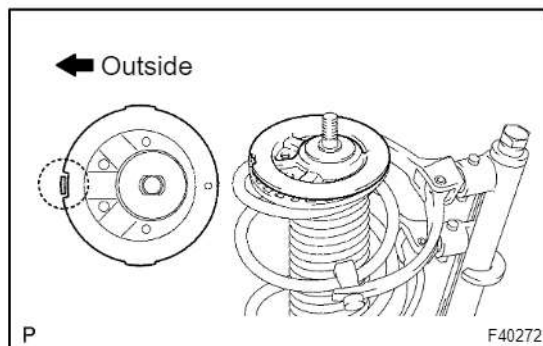
- (d) Install the front coil spring LH to the shock absorber assy front LH.

HINT:

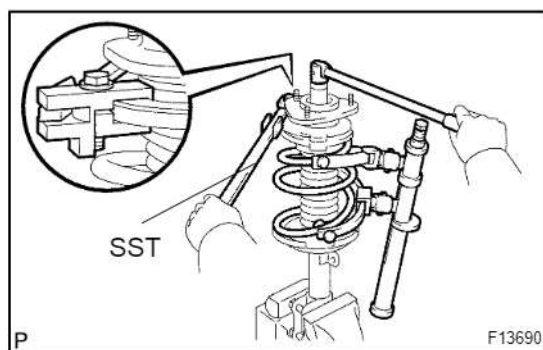
Fit the lower end of the front coil spring LH into the gap of the spring lower seat.



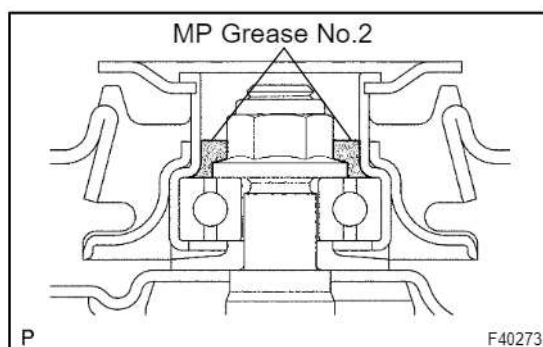
- (e) Install the front coil spring insulator upper LH as shown in the illustration.



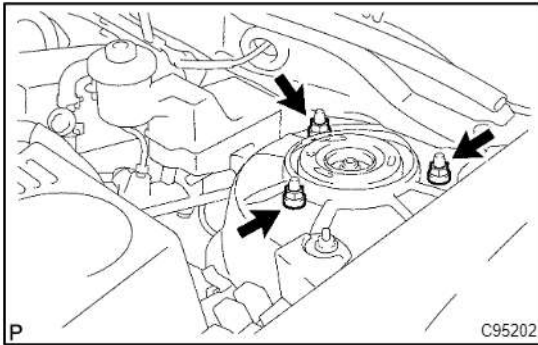
- (f) Install the front coil spring seat upper LH to the shock absorber assy front LH with the mark facing the outside of the vehicle.
(g) Install the front suspension support LH dust seal and front suspension support sub-assy LH.



- (h) Using SST to hold the front coil spring seat upper LH, install a new nut.
SST 09729-22031
Torque: 47 N·m (479 kgf·cm, 35 ft·lbf)
(i) Remove the SST.
(j) Install the front suspension support dust cover LH.



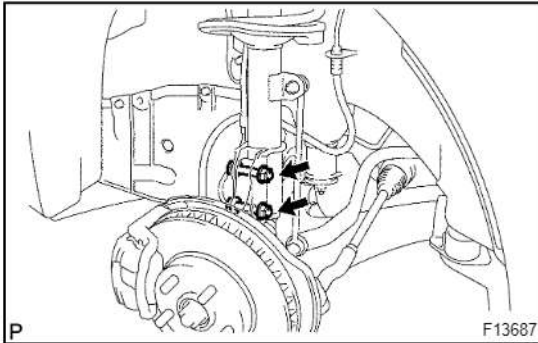
- (k) Apply MP grease No.2 into the suspension support sub-assy LH.
CAUTION:
Do not touch grease on rubber surface of upper support.



9. INSTALL FRONT SHOCK ABSORBER WITH COIL SPRING

- (a) Install the shock absorber with the 2 bolts.
- (b) Install the 3 nuts to the upper side of front shock absorber with coil spring.

Torque: 39 N·m (398 kgf·cm, 29 ft·lbf)

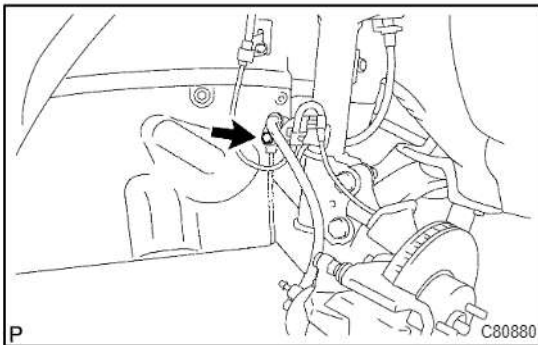


- (c) Install the 2 bolts and nuts to the lower side of front shock absorber with coil spring.

Torque: 153 N·m (1,560 kgf·cm, 113 ft·lbf)

NOTICE:

When installing bolt, stop the bolt from rotating and torque the nut.



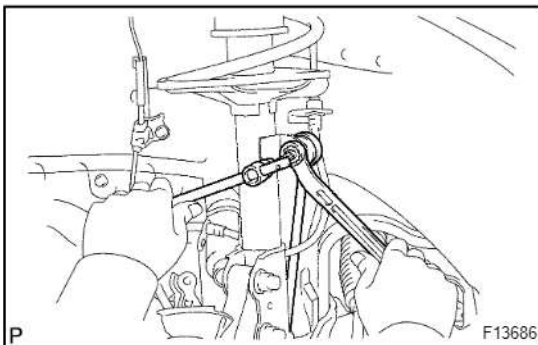
10. INSTALL FRONT FLEXIBLE HOSE

- (a) w/ ABS:
Install the front flexible hose and speed sensor front LH with the bolt.

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

- (b) w/o ABS:
Install the front flexible hose with the bolt.

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



11. INSTALL FRONT STABILIZER LINK ASSY LH

- (a) Install the front stabilizer link assy LH with the nut.

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

HINT:

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

12. INSTALL FRONT WHEEL

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

13. INSPECT AND ADJUST FRONT WHEEL ALIGNMENT(See page 26-5)

STABILIZER BAR FRONT

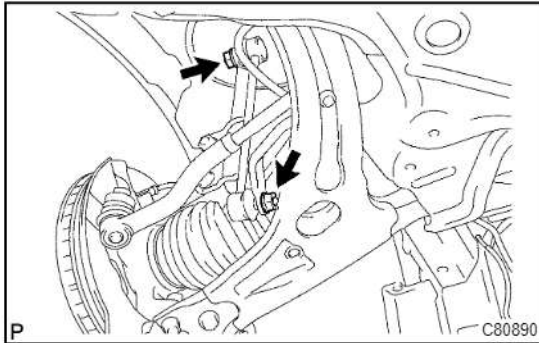
REPLACEMENT

2807Z-01

HINT:

COMPONENTS: See page 26-3

1. REMOVE FRONT WHEEL



2. REMOVE FRONT STABILIZER LINK ASSY LH

- (a) Remove the 2 nuts and stabilizer bar link.

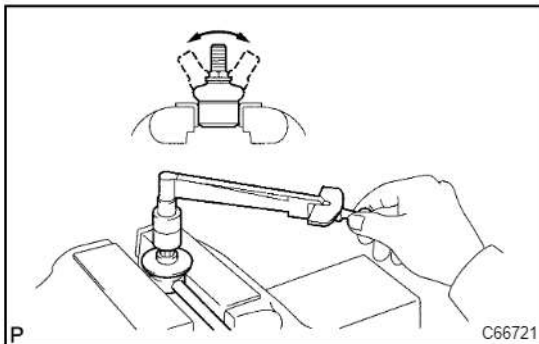
HINT:

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

3. REMOVE FRONT STABILIZER LINK ASSY RH

HINT:

Remove the RH side by the same procedure as the LH side.



4. INSPECT FRONT STABILIZER LINK ASSY

- (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:

0.05 – 1.96 N·m (0.5 – 20 kgf·cm, 0.4 – 17 in·lbf)

5. SEPARATE FRONT SUSPENSION ARM SUB-ASSY LOWER NO.1 LH(See page 26-13)

6. SEPARATE FRONT SUSPENSION ARM SUB-ASSY LOWER NO.1 RH

HINT:

Remove the RH side by the same procedure as the LH side.

7. SEPARATE RACK & PINION POWER STEERING GEAR ASSY(See page 26-13)

8. SUSPEND ENGINE ASSY

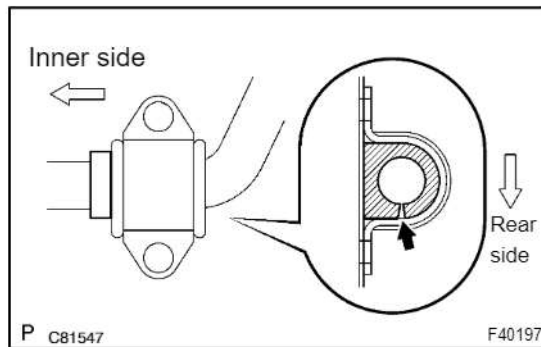
AT: (See page 40-9)

MT: (See page 41-17)

9. SEPARATE FRONT SUSPENSION CROSSMEMBER SUB-ASSY(See page 26-13)

10. REMOVE STABILIZER BAR FRONT

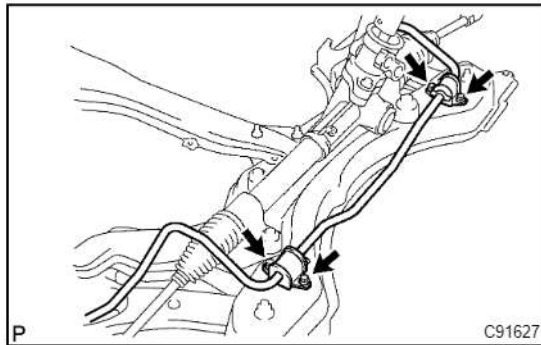
- (a) Remove the 4 bolts, front stabilizer bracket No.1 LH, front stabilizer bracket No.1 RH, 2 front stabilizer bar bushes No.1 and stabilizer bar front from the front suspension crossmember sub-assy.
- (b) Remove the 2 front stabilizer bar bushes No.1 from the stabilizer bar front.

**11. INSTALL STABILIZER BAR FRONT**

- (a) Install 2 front stabilizer bar bushes No.1, front stabilizer bracket No.1 LH and front stabilizer bracket No.1 RH to the stabilizer bar front.

HINT:

Install the bushing to the inner side of the bushing stopper on the stabilizer bar.



- (b) Install the stabilizer bar front and 4 bolts to the front suspension crossmember sub-assy.

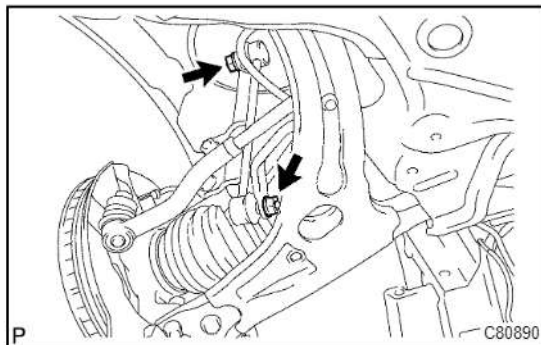
Torque: 19 N·m (194 kgf·cm, 14 ft·lbf)

12. INSTALL FRONT SUSPENSION CROSSMEMBER SUB-ASSY(See page 26-13)

SST 09670-00010

13. INSTALL RACK & PINION POWER STEERING GEAR ASSY(See page 26-13)**14. INSTALL FRONT SUSPENSION ARM SUB-ASSY LOWER NO.1 LH(See page 26-13)****15. INSTALL FRONT SUSPENSION ARM SUB-ASSY LOWER NO.1 RH****HINT:**

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

**16. INSTALL FRONT STABILIZER LINK ASSY LH**

- (a) Install the stabilizer bar link with the 2 nuts.

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

HINT:

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

17. INSTALL FRONT STABILIZER LINK ASSY LH**HINT:**

Install the RH side by the same procedure as the LH side.

18. INSTALL FRONT WHEEL

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

19. INSPECT AND ADJUST FRONT WHEEL ALIGNMENT(See page 26-5)

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

2807X-01

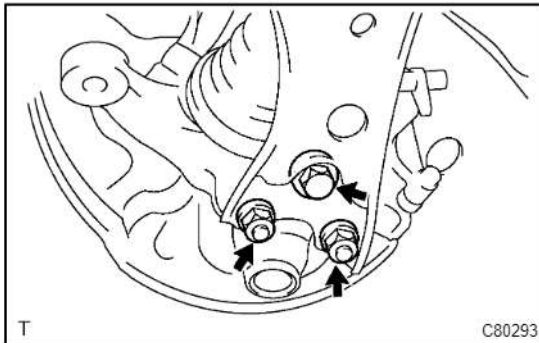
HINT:

COMPONENTS: See page 26-3

1. REMOVE FRONT WHEEL
2. DISCONNECT FRONT STABILIZER LINK ASSY LH (LH (A/T) POSITION)(See page 26-8)
3. DISCONNECT FRONT STABILIZER LINK ASSY RH (LH (A/T) POSITION)

HINT:

Remove the RH side by the same procedures as the LH side.



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

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

5. SEPARATE FRONT SUSPENSION ARM SUB-ASSY LOWER NO.1 RH (LH (A/T) POSITION)

HINT:

Remove the RH side by the same procedures as the LH side.

6. SEPARATE RACK & PINION POWER STEERING GEAR ASSY (LH (A/T) POSITION)

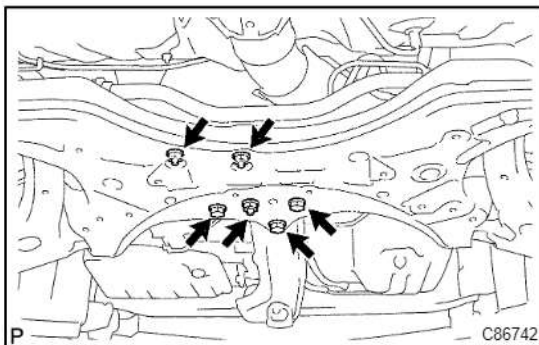
- (a) Remove the 4 bolts, separate the rack & pinion power steering gear assy.

NOTICE:

Loosen the bolt since the nut cannot be rotated.

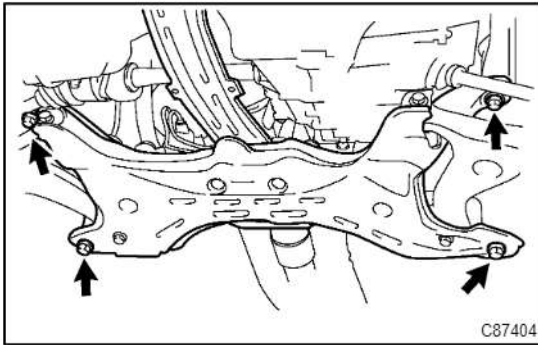
- (b) Suspend the rack & pinion power steering gear assy.

7. SUSPEND ENGINE ASSY (LH (A/T) POSITION)(See page 40-9)

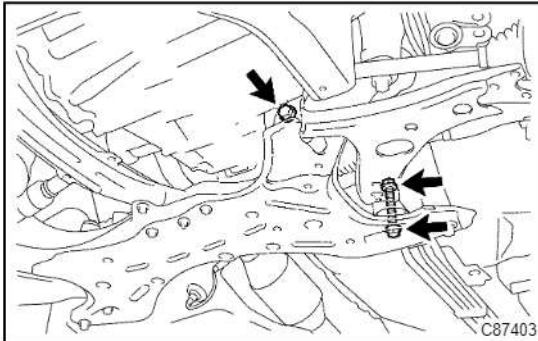


8. SEPARATE FRONT SUSPENSION CROSSMEMBER SUB-ASSY (LH (A/T) POSITION)

- (a) Remove the 3 bolts and 3 nuts, disconnect the transverse engine engine mounting insulator and engine mounting member sub-assy center from the front suspension crossmember sub-assy.

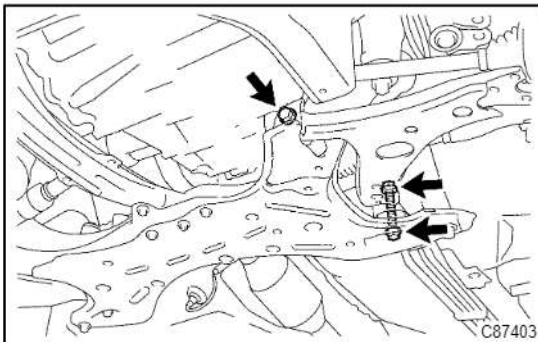


- (b) Remove the 4 bolts.
- (c) Lower the transmission jack, remove the front suspension crossmember sub-assy.



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

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

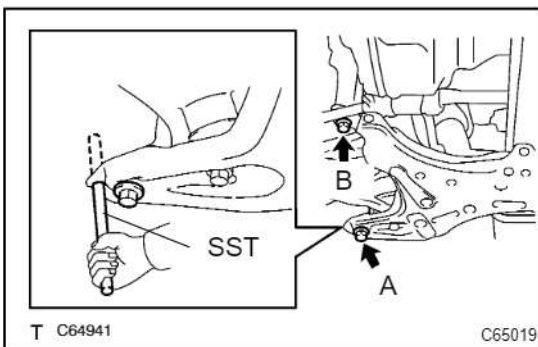


10. TEMPORARY TIGHTEN FRONT SUSPENSION ARM SUB-ASSY LOWER NO.1 LH

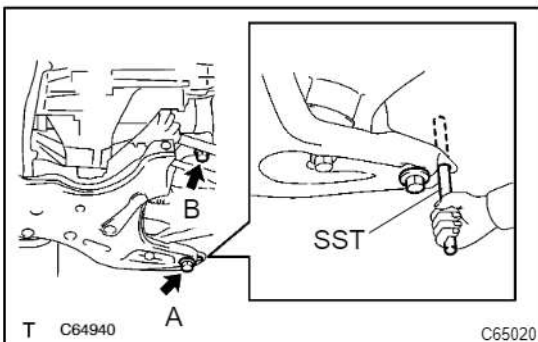
- (a) Install the front suspension arm sub-assy lower No. 1 LH, temporarily tighten the 2 bolts and nut.

11. INSTALL FRONT SUSPENSION CROSSMEMBER SUB-ASSY (LH (A/T) POSITION)

- (a) Lift the front suspension crossmember sub-assy up with a transmission jack.

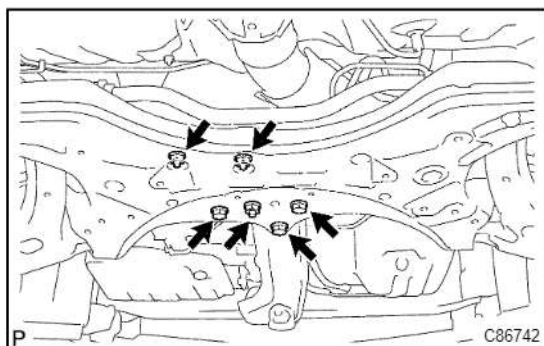


- (b) Insert SST to the base hole of the RH side crossmember and RH side of the vehicle.
SST 09670-00010
- (c) Tighten the bolt temporarily in the order A and B.



- (d) Insert SST to the base hole of the LH side of crossmember and LH side of the vehicle.
SST 09670-00010
- (e) Tighten the bolt temporarily in the order A and B.
- (f) Insert SST to the base hole of the RH side of crossmember and RH side of the vehicle.
SST 09670-00010

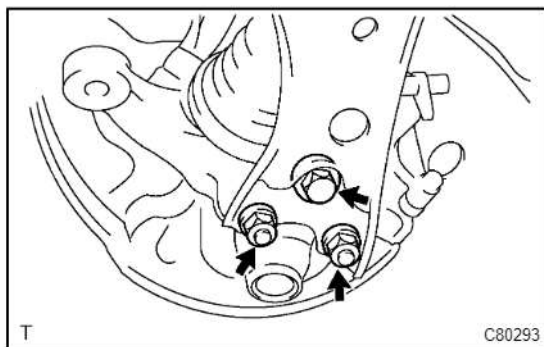
- (g) Then tighten the bolt A and B by the specified torque.
Torque:
Bolt A: 157 N·m (1,601 kgf·cm, 116 ft·lbf)
Bolt B: 113 N·m (1,152 kgf·cm, 83 ft·lbf)
- (h) Insert SST to the base hole of the LH side of crossmember and LH side of the vehicle.
SST 09670-00010
- (i) Tighten the bolt A and B by the specified torque.
Torque:
Bolt A: 157 N·m (1,601 kgf·cm, 116 ft·lbf)
Bolt B: 113 N·m (1,152 kgf·cm, 83 ft·lbf)



- (j) Connect the transverse engine engine mounting insulator and engine mounting member sub-assy center to the front suspension crossmember sub-assy.
- (k) Install the 3 bolts and 3 nuts.
Torque: 52 N·m (530 kgf·cm, 38 ft·lbf)

12. INSTALL RACK & PINION POWER STEERING GEAR ASSY (LH (A/T) POSITION)

- (a) Install the rack & pinion power steering gear assy with the 4 bolts.
Torque: 58 N·m (591 kgf·cm, 43 ft·lbf)



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

- (a) Install the front suspension arm sub-assy lower No.1 LH with the 2 nuts and bolt to the lower ball joint assy front LH.
Torque: 89 N·m (908 kgf·cm, 66 ft·lbf)

14. INSTALL FRONT SUSPENSION ARM SUB-ASSY LOWER NO.1 RH (LH (A/T) POSITION)

HINT:

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

15. INSTALL FRONT STABILIZER LINK ASSY LH (LH (A/T) POSITION)(See page 26-8)

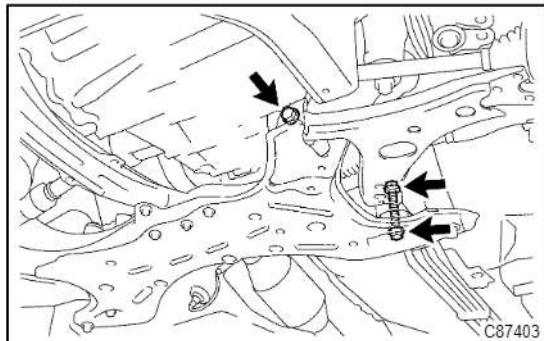
16. INSTALL FRONT STABILIZER LINK ASSY RH (LH (A/T) POSITION)

HINT:

Install the RH side by the same procedure as the LH side.

17. STABILIZE SUSPENSION

- (a) Install the front wheel and jack down the vehicle.
Torque: 103 N·m (1,050 kgf·cm, 76 ft·lbf)
- (b) Bounce the vehicle up and down several times to stabilize the suspension.

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

- (a) Fully tighten the 2 bolts and nut.
Torque: 137 N·m (1,397 kgf·cm, 101 ft·lbf)

NOTICE:

Tighten the bolt since the nut cannot be rotated.

19. INSPECT AND ADJUST FRONT WHEEL ALIGNMENT(See page 26-5)

FRONT SUSPENSION SYSTEM

2807R-01

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)	26-8
	3. Shock absorber (Worn)	26-8
Sways/pitches	1. Tire (Worn or improperly inflated)	28-1
	2. Stabilizer bar (Bent or broken)	26-19
	3. Shock absorber (Worn)	26-8
Front wheel shimmy	1. Tire (Worn or improperly inflated)	28-1
	2. Wheel (Out of balance)	28-1
	3. Shock absorber (Worn)	26-8
	4. Wheel alignment (Incorrect)	26-5
		27-3
	5. Ball joint (Worn)	26-17
	6. Hub bearing (Worn)	30-17
Abnormal tire wear	7. Steering linkage (Loose or worn)	–
	1. Tire (Worn or improperly inflated)	28-1
	2. Wheel alignment (Incorrect)	26-5
		27-3
	3. Shock absorber (Worn)	26-8
	4. Suspension parts (Worn)	–