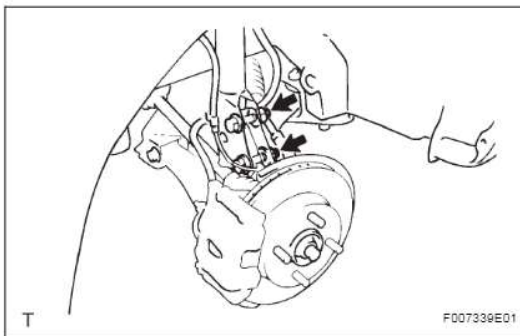
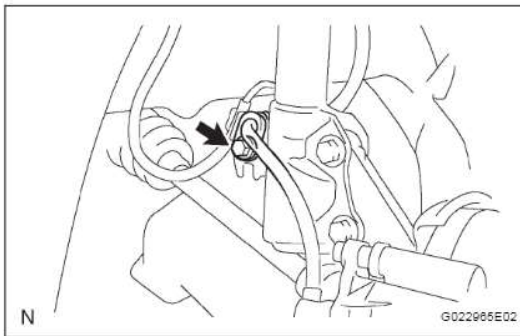


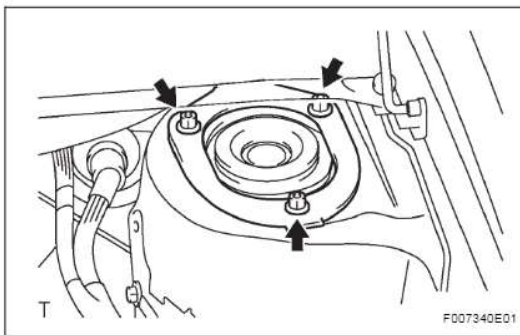
SUSPENSION – FRONT SHOCK ABSORBER WITH COIL SPRING**SP-11****REMOVAL**

1. REMOVE WINDSHIELD WIPER ARM COVER
2. REMOVE FRONT WIPER ARM LH
3. REMOVE FRONT WIPER ARM RH
4. REMOVE HOOD TO COWL TOP SEAL
5. REMOVE COWL TOP VENTILATOR LOUVER LH
6. REMOVE COWL TOP VENTILATOR LOUVER RH
7. REMOVE WINDSHIELD WIPER LINK ASSEMBLY
8. REMOVE COWL TOP PANEL OUTER
 - (a) Disconnect the hose and wire harness from the wiper.
 - (b) Remove the cowl top panel outer with the 8 bolts.
9. REMOVE FRONT WHEEL
10. DISCONNECT FLEXIBLE HOSE
 - (a) Remove the bolt and disconnect the flexible hose and speed sensor wire clamp from the shock absorber bracket.



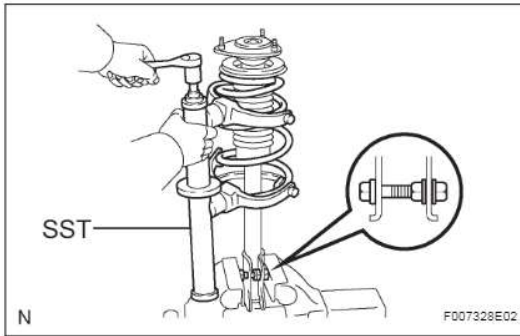
11. REMOVE FRONT SHOCK ABSORBER WITH COIL SPRING

- (a) Remove the 2 nuts and 2 bolts, and disconnect the shock absorber from the steering knuckle.
- (b) Remove the 3 nuts and shock absorber.
- (c) Remove the No. 2 suspension support.

**SP**

SP-12

SUSPENSION – FRONT SHOCK ABSORBER WITH COIL SPRING



DISASSEMBLY

1. FIX FRONT SHOCK ABSORBER WITH COIL SPRING

- (a) Install the 2 nuts and bolt on the bracket at the lower side of the shock absorber and secure it in a vise.
- (b) Using SST, compress the coil spring.

SST 09727-30021 (09727-00010, 09727-00021, 09727-00031)

NOTICE:

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

2. REMOVE FRONT SUSPENSION SUPPORT DUST COVER LH

- (a) Remove the dust cover from the suspension support.

3. REMOVE FRONT SUPPORT TO FRONT SHOCK ABSORBER LH NUT

- (a) Using the 2 nuts and a screwdriver or an equivalent to secure the front shock absorber, remove the center nut.

NOTICE:

Be careful not to damage the suspension support stud bolts.

4. REMOVE FRONT SUSPENSION SUPPORT SUB-ASSEMBLY LH

5. REMOVE FRONT SUSPENSION SUPPORT LH DUST SEAL

6. REMOVE FRONT COIL SPRING SEAT UPPER LH

7. REMOVE FRONT COIL SPRING INSULATOR UPPER LH

8. REMOVE FRONT COIL SPRING LH

9. REMOVE FRONT SPRING BUMPER LH

10. REMOVE FRONT SHOCK ABSORBER ASSEMBLY LH

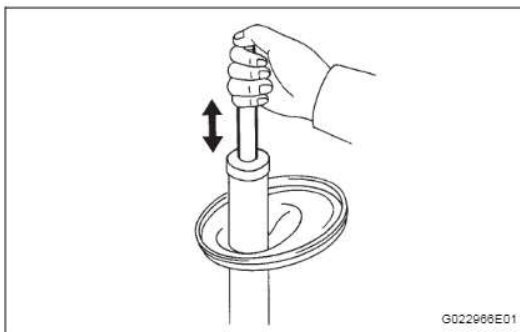
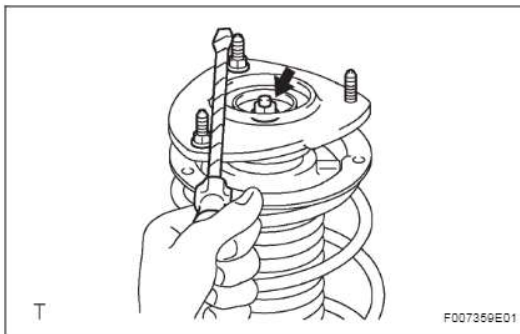
INSPECTION

1. INSPECT FRONT SHOCK ABSORBER ASSEMBLY 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 (see page SP-14).



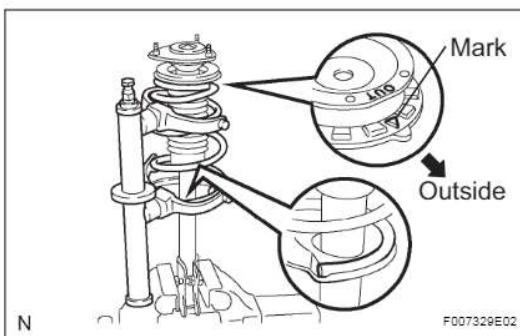
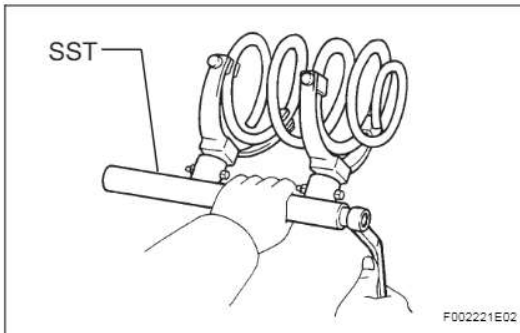
SUSPENSION – FRONT SHOCK ABSORBER WITH COIL SPRING**SP-13****REASSEMBLY**

1. **INSTALL FRONT SHOCK ABSORBER ASSEMBLY LH**
2. **INSTALL FRONT SPRING BUMPER LH**
3. **INSTALL FRONT COIL SPRING LH**

- (a) Using SST, compress the coil spring.
SST 09727-30021 (09727-00010, 09727-00021, 09727-00031)

NOTICE:

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



- (b) Install the coil spring on the shock absorber.
HINT:
 Fit the lower end of the coil spring into the gap of the spring lower seat.

4. **INSTALL FRONT COIL SPRING INSULATOR UPPER LH**

- (a) Install the upper insulator with the mark facing the outside of the vehicle.

5. **INSTALL FRONT COIL SPRING SEAT UPPER LH**

- (a) Install the spring seat upper with the "OUT" mark facing the outside of the vehicle.

6. **INSTALL FRONT SUSPENSION SUPPORT LH DUST SEAL**

7. **INSTALL FRONT SUSPENSION SUPPORT SUB-ASSEMBLY LH**

8. **INSTALL FRONT SUPPORT TO FRONT SHOCK ABSORBER LH NUT**

- (a) Using the 2 nuts and a screwdriver or an equivalent to secure the front shock absorber, install a new center nut.

Torque: 33 N*m (340 kgf*cm, 25 ft.*lbf)

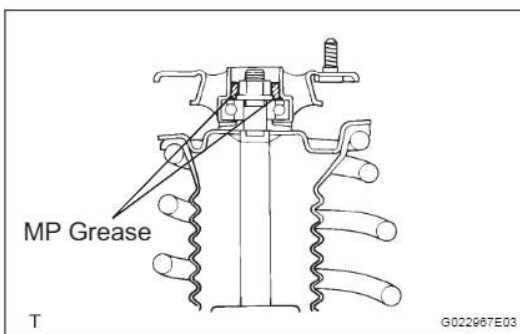
NOTICE:

Be careful not to damage the suspension support stud bolts.

- (b) Remove the SST.

- (c) Apply MP grease to the suspension support.

9. **INSTALL FRONT SUSPENSION SUPPORT DUST COVER LH**

**SP**

SP-14

SUSPENSION – FRONT SHOCK ABSORBER WITH COIL SPRING

INSTALLATION

1. INSTALL FRONT SHOCK ABSORBER WITH COIL SPRING

- (a) Install the No. 2 suspension support.
- (b) Install the shock absorber with the 3 nuts.
Torque: 39 N*m (400 kgf*cm, 29 ft.*lbf)
- (c) Connect the shock absorber to the steering knuckle.
- (d) Install the 2 bolts and nut.

NOTICE:

When installing the bolt, keep it from rotating and torque the nut.

Torque: 132 N*m (1,350 kgf*cm, 97 ft.*lbf)

2. INSTALL FLEXIBLE HOSE

- (a) Install the flexible hose.
Torque: 29 N*m (300 kgf*cm, 22 ft.*lbf)

3. INSTALL FRONT WHEEL

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

4. INSTALL COWL TOP PANEL OUTER

- (a) Install the cowl top panel outer with the 8 bolts.
Torque: 5.0 N*m (51 kgf*cm, 44 in.*lbf)
- (b) Connect the hose and wire harness to the wiper.

5. INSTALL WINDSHIELD WIPER LINK ASSEMBLY

6. INSTALL COWL TOP VENTILATOR LOUVER RH

7. INSTALL COWL TOP VENTILATOR LOUVER LH

8. INSTALL HOOD TO COWL TOP SEAL

9. INSTALL FRONT WIPER ARM LH

10. INSTALL FRONT WIPER ARM RH

11. INSPECT AND ADJUST FRONT WHEEL ALIGNMENT

- (a) Inspect and adjust the front wheel alignment (see page [SP-2](#)).

DISPOSAL

1. DISPOSE OF FRONT SHOCK ABSORBER ASSEMBLY LH

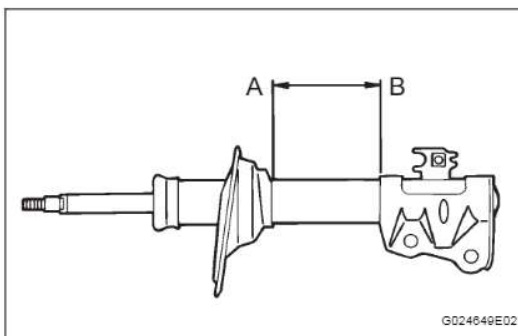
- (a) Fully extend the shock absorber rod.
- (b) Using a drill, make a hole in the cylinder somewhere between A and B as shown in the illustration to discharge the gas inside.

CAUTION:

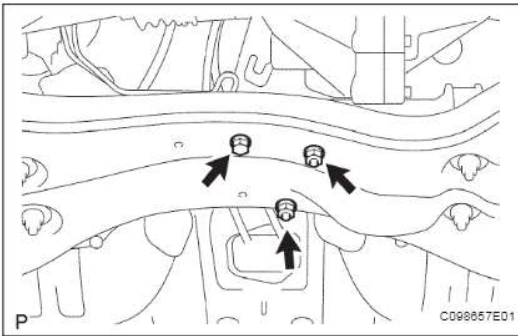
Be careful when drilling as shards of metal may fly out, and always use the proper safety equipment.

NOTICE:

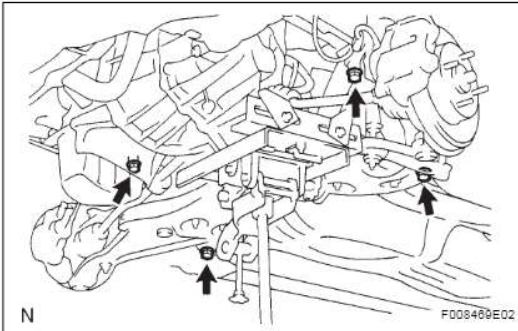
The gas is colorless, odorless and harmless.



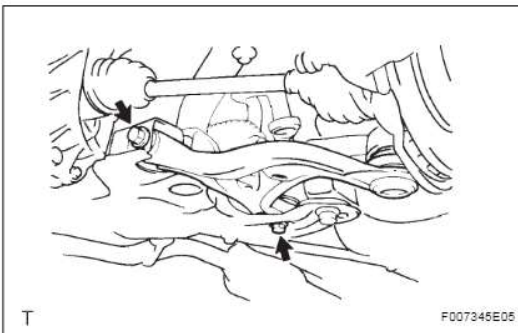
SP

SUSPENSION – FRONT SUSPENSION LOWER NO. 1 ARM (for Automatic Transaxle)**SP-17****11. DISCONNECT FRONT SUSPENSION CROSSMEMBER SUB-ASSEMBLY**

- (a) Remove the bolt and 2 nuts.



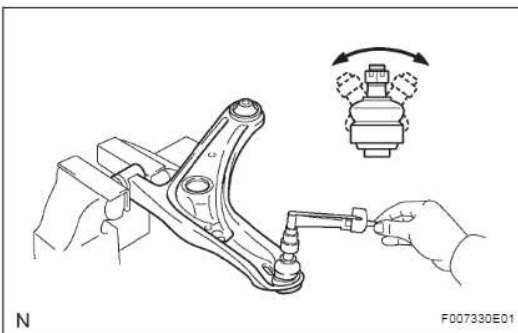
- (b) Support the crossmember with a jack.
(c) Remove the 4 bolts and disconnect the crossmember.

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

- (a) Remove the 2 bolts, nut and lower arm.

NOTICE:

Do not turn the nut.

**INSPECTION****1. INSPECT FRONT SUSPENSION NO. 1 LOWER ARM SUB-ASSEMBLY LH**

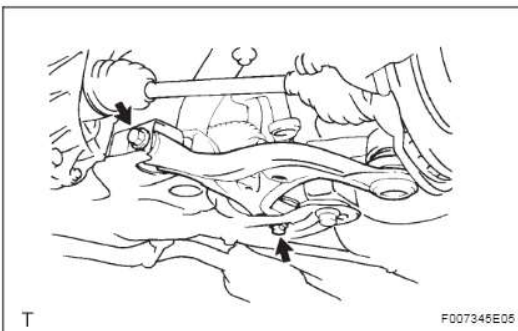
- (a) As shown in the illustration, flip the ball joint stud back and forth 5 times before installing the nut.
(b) Using a torque wrench, turn the nut continuously at a rate of 2 to 4 seconds per turn and take the torque reading on the fifth turn.

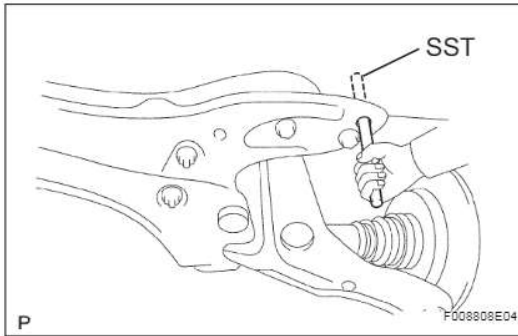
HINT:

A bolt without a torque specification is shown in the standard bolt chart (see page [SS-32](#)).

SP**INSTALLATION****1. TEMPORARILY INSTALL FRONT SUSPENSION NO. 1 LOWER ARM SUB-ASSEMBLY LH**

- (a) Temporarily install the lower arm with the 2 bolts and nut.

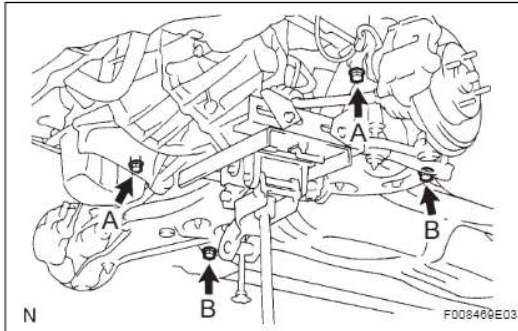


SP-18**SUSPENSION – FRONT SUSPENSION LOWER NO. 1 ARM (for Automatic Transaxle)****2. CONNECT FRONT SUSPENSION CROSSMEMBER SUB-ASSEMBLY**

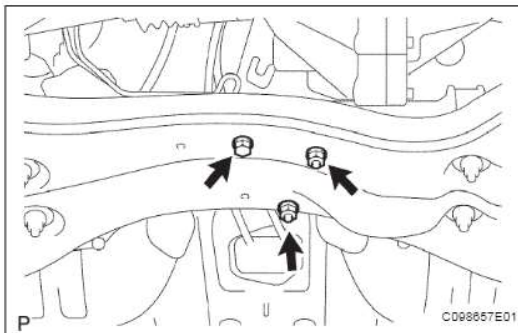
- (a) Using SST, align the holes of the suspension crossmember and body.

SST 09670-00010

- (b) Perform the procedure above on the other side.



- (c) Install the suspension crossmember with the 4 bolts.
Torque: 70 N*m (715 kgf*cm, 52 ft.*lbf) for bolt A
116 N*m (1,180 kgf*cm, 86 ft.*lbf) for bolt B



- (d) Install the bolt and 2 nuts.

Torque: 80 N*m (816 kgf*cm, 59 ft.*lbf)

3. INSTALL FRONT SUSPENSION MEMBER REINFORCEMENT LH

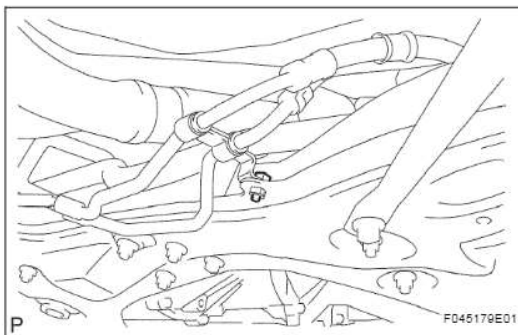
- (a) Install the reinforcement with the 2 bolts.
Torque: 47 N*m (480 kgf*cm, 35 ft.*lbf)

4. INSTALL FRONT SUSPENSION MEMBER REINFORCEMENT RH

- (a) Install the reinforcement with the 2 bolts.
Torque: 47 N*m (480 kgf*cm, 35 ft.*lbf)

5. CONNECT PRESSURE FEED TUBE ASSEMBLY

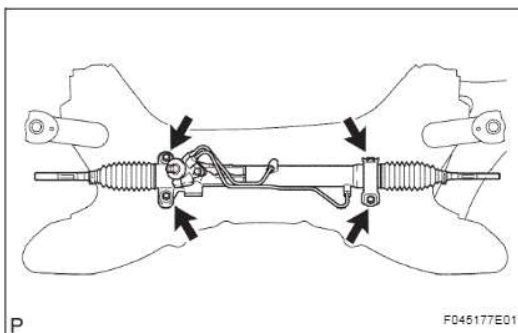
- (a) Connect the pressure feed tube with the bolt.
Torque: 7.8 N*m (80 kgf*cm, 69 in.*lbf)

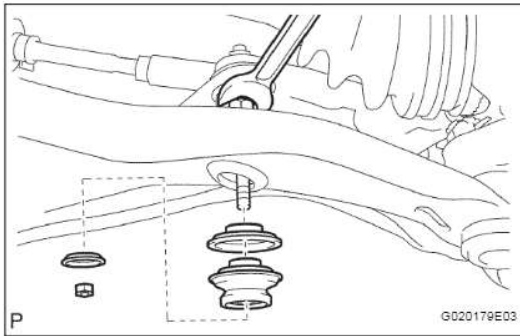
**6. CONNECT POWER STEERING LINK ASSEMBLY**

- (a) Install the steering link with the 4 bolts and 4 nuts.
Torque: 74 N*m (755 kgf*cm, 55 ft.*lbf)

NOTICE:

Do not turn the nut.

**SP**

SUSPENSION – FRONT SUSPENSION LOWER NO. 1 ARM (for Automatic Transaxle)**SP-19****7. CONNECT FRONT STABILIZER BAR**

- (a) Install the 2 retainers and cushion.
- (b) While holding the stabilizer bolt with a wrench, install the nut.

Torque: 18 N*m (180 kgf*cm, 13 ft.*lbf)

HINT:

Support the lower arm with a jack.

- (c) Perform the procedure above on the other side.

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

- (a) Connect the lower arm to the steering knuckle with the nut.

Torque: 98 N*m (1,000 kgf*cm, 72 ft.*lbf)

- (b) Install a new clip.

NOTICE:

If the holes for the clip are not aligned, tighten the nut further up to 60°.

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

HINT:

Use the same procedures described for the LH side.

10. INSTALL FRONT WHEEL

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

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

- (a) Fully tighten the lower arm with the 2 bolts.

Torque: 88 N*m (900 kgf*cm, 65 ft.*lbf) for bolt A
132 N*m (1,350 kgf*cm, 97 ft.*lbf) for bolt B

NOTICE:

Do not turn the nut.

12. INSTALL HOOD SUB-ASSEMBLY**13. INSPECT AND ADJUST HOOD SUB-ASSEMBLY****14. INSPECT AND ADJUST FRONT WHEEL ALIGNMENT**

- (a) Inspect and adjust the front wheel alignment (see page [SP-2](#)).

SP

SUSPENSION – SUSPENSION SYSTEM**SP-1****SUSPENSION SYSTEM****PROBLEM SYMPTOMS TABLE****HINT:**

Use the table below to help determine the cause of the problem symptom. 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
Wanders/pulls	1. Tire (worn or improperly inflated)	TW-3
	2. Wheel alignment for front (incorrect)	SP-2
	3. Wheel alignment for rear (incorrect)	SP-8
	4. Steering linkage (loose or worn)	-
	5. Hub bearing for front (worn)	AH-6
	6. Hub bearing for rear (worn)	AH-15
	7. Steering gear (out of adjustment or broken)	PS-2
	8. Suspension parts (worn)	-
Bottoming	1. Vehicle (overloaded)	-
	2. Spring for front (weak)	SP-12
	3. Spring for rear (weak)	SP-27
	4. Shock absorber for front (worn)	SP-12
	5. Shock absorber for rear (worn)	SP-32
Sways/pitches	1. Tire (worn or improperly inflated)	TW-3
	2. Stabilizer bar (bent or broken)	SP-24
	3. Spring for front (weak)	SP-12
	4. Spring for rear (weak)	SP-27
	5. Shock absorber for front (worn)	SP-12
	6. Shock absorber for rear (worn)	SP-32
Front wheel shimmy	1. Tire (worn or improperly inflated)	TW-3
	2. Wheel (out of balance)	TW-3
	3. Shock absorber for front (worn)	SP-12
	4. Shock absorber for rear (worn)	SP-32
	5. Wheel alignment for front (incorrect)	SP-2
	6. Wheel alignment for rear (incorrect)	SP-8
	7. Ball joint for automatic transaxle (worn)	SP-17
	8. Ball joint for manual transaxle (worn)	SP-21
	9. Hub bearing for front (worn)	AH-6
	10. Hub bearing for rear (worn)	AH-15
	11. Steering linkage (loose or worn)	-
	12. Steering gear (out of adjustment or broken)	PS-2
Abnormal tire wear	1. Tire (worn or improperly inflated)	TW-3
	2. Wheel alignment for front (incorrect)	SP-2
	3. Wheel alignment for rear (incorrect)	SP-8
	4. Shock absorber for front (worn)	SP-12
	5. Shock absorber for rear (worn)	SP-32
	6. Suspension parts (worn)	-

SP

FRONT WHEEL ALIGNMENT

ADJUSTMENT

1. INSPECT TIRE
- (a) Inspect the tire (see page TW-3).
2. INSPECT VEHICLE HEIGHT
- Standard vehicle height

Item	Specified Condition
Front A - B	82 mm (3.22 in.)
Rear D - C	12 mm (0.47 in.)

- Measure 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.

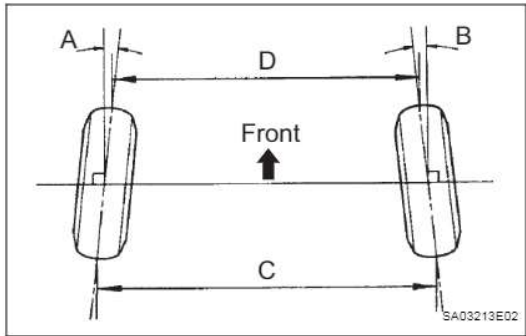
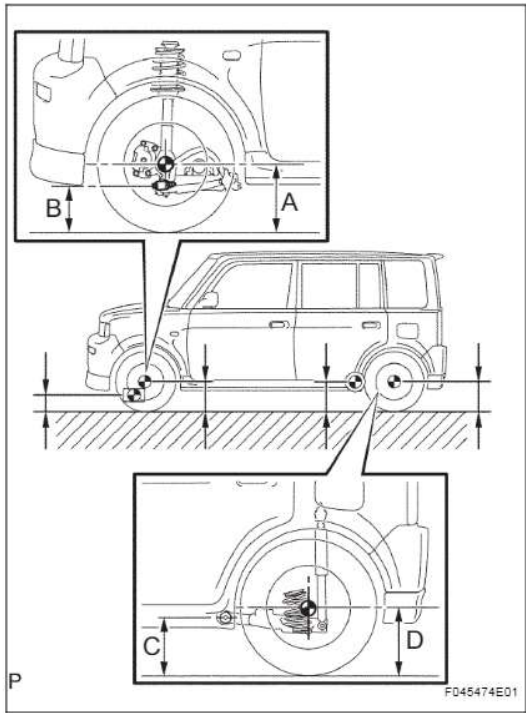
HINT:
Bounce the vehicle at the corners to stabilize the suspension and inspect the vehicle height.

3. INSPECT TOE-IN
- Standard toe-in

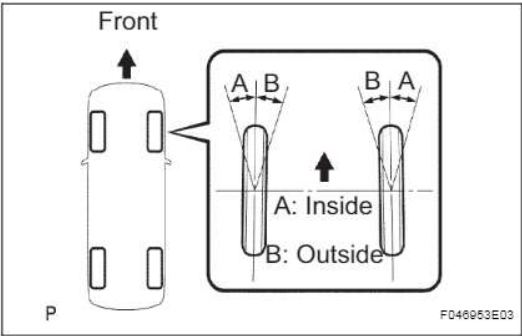
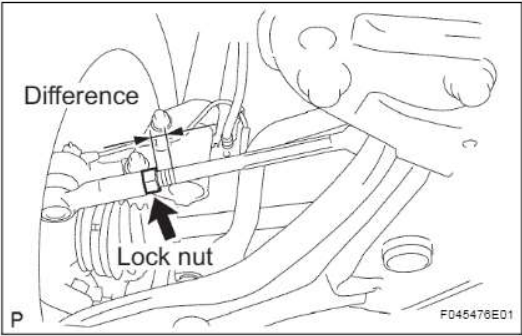
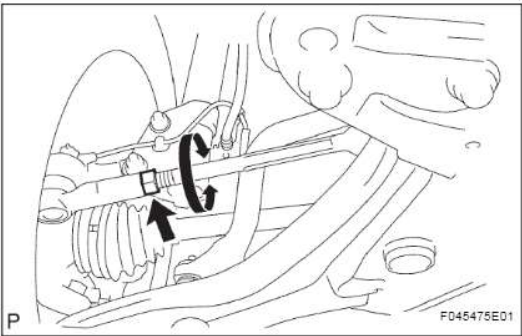
Item	Specified Condition
Toe-in (total)	A + B: 0°+/-11' (0° +/-0.19°) C - D: 0 +/-2 mm (0 +/-0.08 in.)

- HINT:**
- Measure "C - D" only when "A + B" cannot be measured.
 - If the toe-in is not within the specified range, adjust it at the rack ends.

4. ADJUST TOE-IN
- (a) Measure the thread lengths of the right and left rack ends.
- Rack end length difference:
1.5 mm (0.059 in.) or less
- (b) Remove the rack boot set clips.



SUSPENSION – FRONT WHEEL ALIGNMENT



- (c) Loosen the tie rod end lock nuts.
- (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.

HINT:
Try to adjust the toe-in to the center of the specified range.
- (f) Make sure that the lengths of the right and left rack ends are the same.

Standard rack end length difference:
0 +1 mm (0.0039 in.)
- (g) Torque the tie rod end lock nuts.

Torque: 74 N*m (749 kgf*cm, 54 ft.*lbf)

NOTICE:
Temporarily tighten the lock nut while holding the hexagonal part of the steering rack end so that the lock nut and the steering rack end do not turn together. Hold the flat section of the tie rod end and tighten the lock nut.
- (h) Place the boots on the seats and install the clips.

HINT:
Make sure that the boots are not twisted.
- (i) Perform VSC system calibration (see page BC-11).

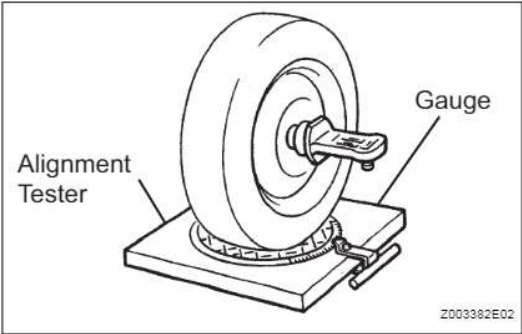
5. INSPECT WHEEL ANGLE

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

Standard wheel turning angle

Item	Specified Condition
Inside wheel	33°42' +2° (33.70° +2°)
Outside wheel (reference)	30°04' (30.07°)

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) Put the front wheel on the center of the alignment tester.
- (b) Remove the wheel cap.
- (c) Install the camber-caster-steering axis inclination gauge at the center of the axle hub or drive shaft.
- (d) Adjust the camber, caster and steering axis inclination.

Standard camber, caster and steering axis inclination

Item	Specified Condition
Camber Right-left error	-0°34' +45' (-0.57° +0.75°) 30' (0.5°) or less
Caster Right-left error	1°45' +45' (1.75° +0.75°) 30' (0.5°) or less
Steering axis inclination Right-left error	10°01' +45' (10.02° +0.75°) 30' (0.5°) or less

NOTICE:

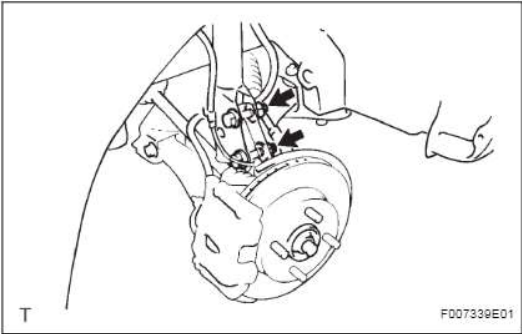
- Inspect while the vehicle is empty (without the spare tire or tools on board).
 - The maximum tolerance of right and left difference for the camber and caster is 30' or less.
- (e) Remove the camber-caster-steering axis inclination gauge and attachment.
 - (f) Install the wheel cap.
If the caster and steering axis inclination are not within the specified values after the camber has been correctly adjusted, recheck the suspension parts for any damage and/or worn-out parts.

7. ADJUST CAMBER

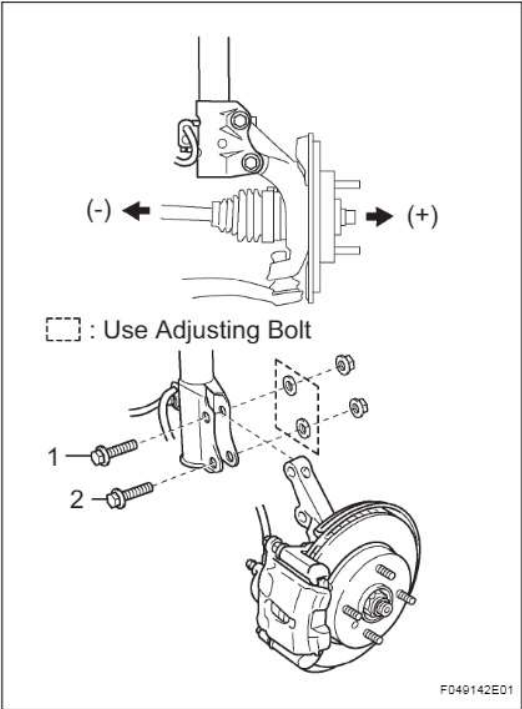
NOTICE:

Inspect toe-in after the camber has been adjusted.

- (a) Remove the front wheel.
- (b) Remove the 2 nuts on the lower side of the shock absorber.
- (c) Clean the installation surface of the shock absorber and steering knuckle.



SUSPENSION – FRONT WHEEL ALIGNMENT



- (d) Temporarily install the 2 nuts (step A).
- (e) Fully push or pull the front axle hub in the direction of the required adjustment (step B).
- (f) Tighten the 2 nuts.

Torque: 132 N*m (1,350 kgf*cm, 97 ft.*lbf)

NOTICE:

Keep the bolts from rotating and torque the nuts.

- (g) Install the front wheel.
Torque: 103 N*m (1,050 kgf*cm, 76 ft.*lbf)
- (h) Check the camber.
If the measured value is not within the specified range, calculate the required adjustment amount using the formula below.

Camber adjustment amount:

Center of the specified range - Measured value
Check installed bolts combination. Select appropriate bolts from the table below to adjust the camber to within the specified range.

Standard selection table

Item	Selection Table
Move the axle toward (+) in step (B)	Refer to table (1) (Move the axle toward positive side)
Move the axle toward (-) in step (B)	Refer to table (2) (Move the axle toward negative side)

SP-6

SUSPENSION – FRONT WHEEL ALIGNMENT

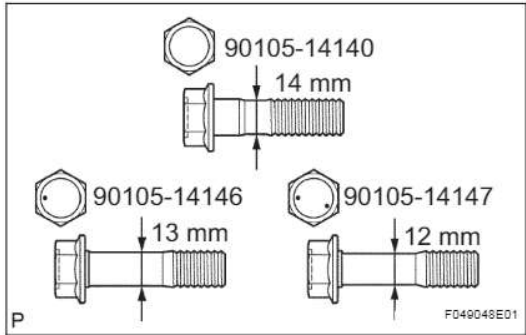
Table (1) Move the axle toward positive side

Installed Bolt Adjusting Value	1					
		90105-14140	90105-14140	90105-14140	90105-14146	90105-14147
	2					
		90105-14140	90105-14146	90105-14147	90105-14147	90105-14147
-1°00' to -0°45'						E
-0°45' to -0°30'					E	A
-0°30' to -0°15'				E	A	B
-0°15' to 0°			E	A	B	C
0° to 0°15'		A	B	C	D	
0°15' to 0°30'		B	C	D		
0°30' to 0°45'		C	D			
0°45' to 1°00'		D				

	A	B	C	D	E
1					
	90105-14140	90105-14140	90105-14146	90105-14147	90105-14140
2					
	90105-14146	90105-14147	90105-14147	90105-14147	90105-14140

P

C120288E02



NOTICE:

- The body and suspension may be damaged if the camber is not correctly adjusted according to the table above.
- Replace the nut with a new one when replacing the bolt.

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

HINT:

Replace one bolt at a time when replacing 2 bolts.

SUSPENSION – FRONT WHEEL ALIGNMENT

SP-7

Table (2) Move the axle toward negative side

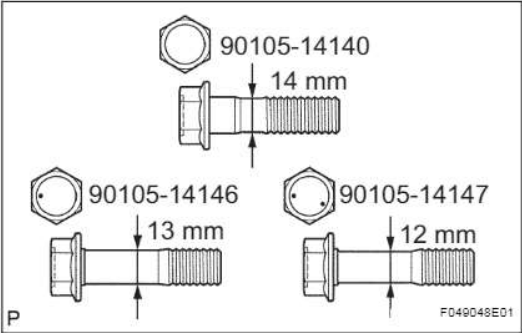
Installed Bolt Adjusting Value	1					
		90105-14140	90105-14140	90105-14140	90105-14146	90105-14147
	2					
		90105-14140	90105-14146	90105-14147	90105-14147	90105-14147
-1°00' to -0°45'		D				
-0°45' to -0°30'		C	D			
-0°30' to -0°15'		B	C	D		
-0°15' to 0°		A	B	C	D	
0° to 0°15'			E	A	B	C
0°15' to 0°30'				E	A	B
0°30' to 0°45'					E	A
0°45' to 1°00'						E

	A	B	C	D	E
1					
	90105-14140	90105-14140	90105-14146	90105-14147	90105-14140
2					
	90105-14146	90105-14147	90105-14147	90105-14147	90105-14140

SP

P

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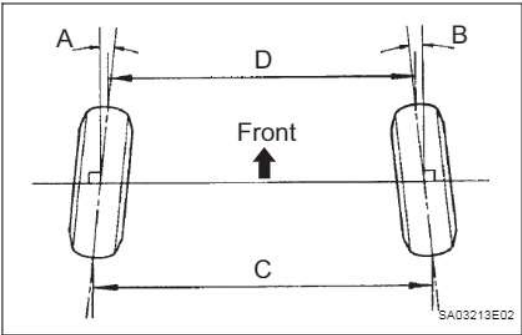


- NOTICE:**
- The body and suspension may be damaged if the camber is not correctly adjusted according to the table above.
 - Replace the nut with a new one when replacing the bolt.
- (j) Repeat the steps mentioned above. In step (A), replace 1 or 2 selected bolts.
- HINT:**
- Replace one bolt at a time when replacing 2 bolts.

REAR WHEEL ALIGNMENT

ADJUSTMENT

1. INSPECT TIRE
- (a) Inspect the tire (see page TW-3).
2. INSPECT VEHICLE HEIGHT
- (a) Inspect the vehicle height (see page SP-2).
- NOTICE:
- Before inspecting wheel alignment, adjust vehicle height to the specified value.



3. INSPECT TOE-IN
- Standard toe-in

Item	Specified Condition
Toe-in (total)	A + B: 0°20' +20' (0.33° +0.33°) C - D: 3.2 +-3.0 mm (0.13 +-3.0 mm (0.13 +-0.12 in.))

If the toe-in is not within the specified value, inspect and replace the suspension parts as necessary.

4. INSPECT CAMBER
- (a) Install the camber-caster-kingpin gauge or position the vehicle on the wheel alignment tester.
- (b) Inspect the camber.
- Standard camber

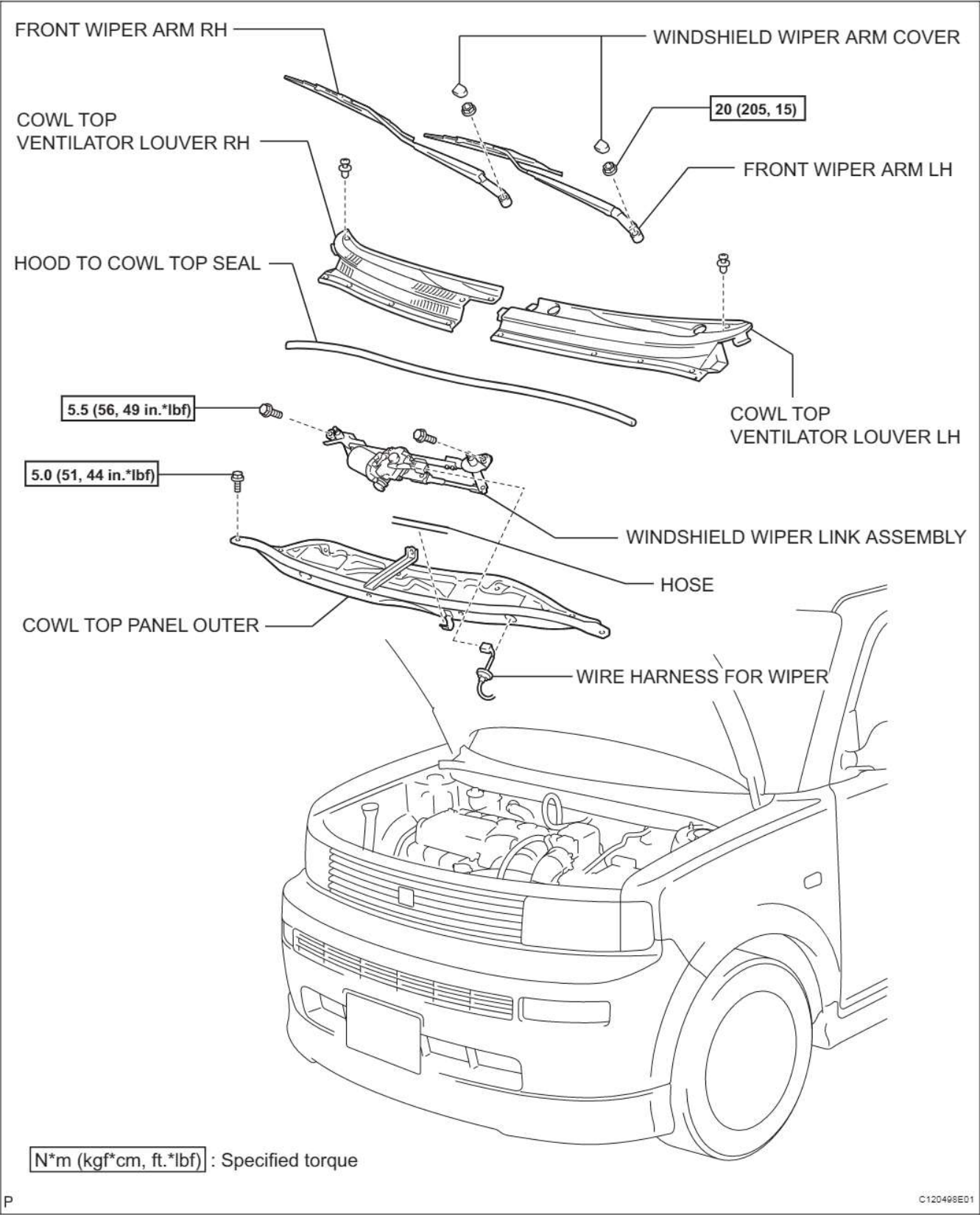
Item	Specified Condition
Camber Right-left error	-0°57' +25' (-0.95°+0.42°) 45' (0.75°) or less

If the measured value is not within the specified value, inspect the suspension parts for damage and/or wear and replace them as necessary because the camber is not adjustable.

SUSPENSION – FRONT SHOCK ABSORBER WITH COIL SPRING

FRONT SHOCK ABSORBER WITH COIL SPRING

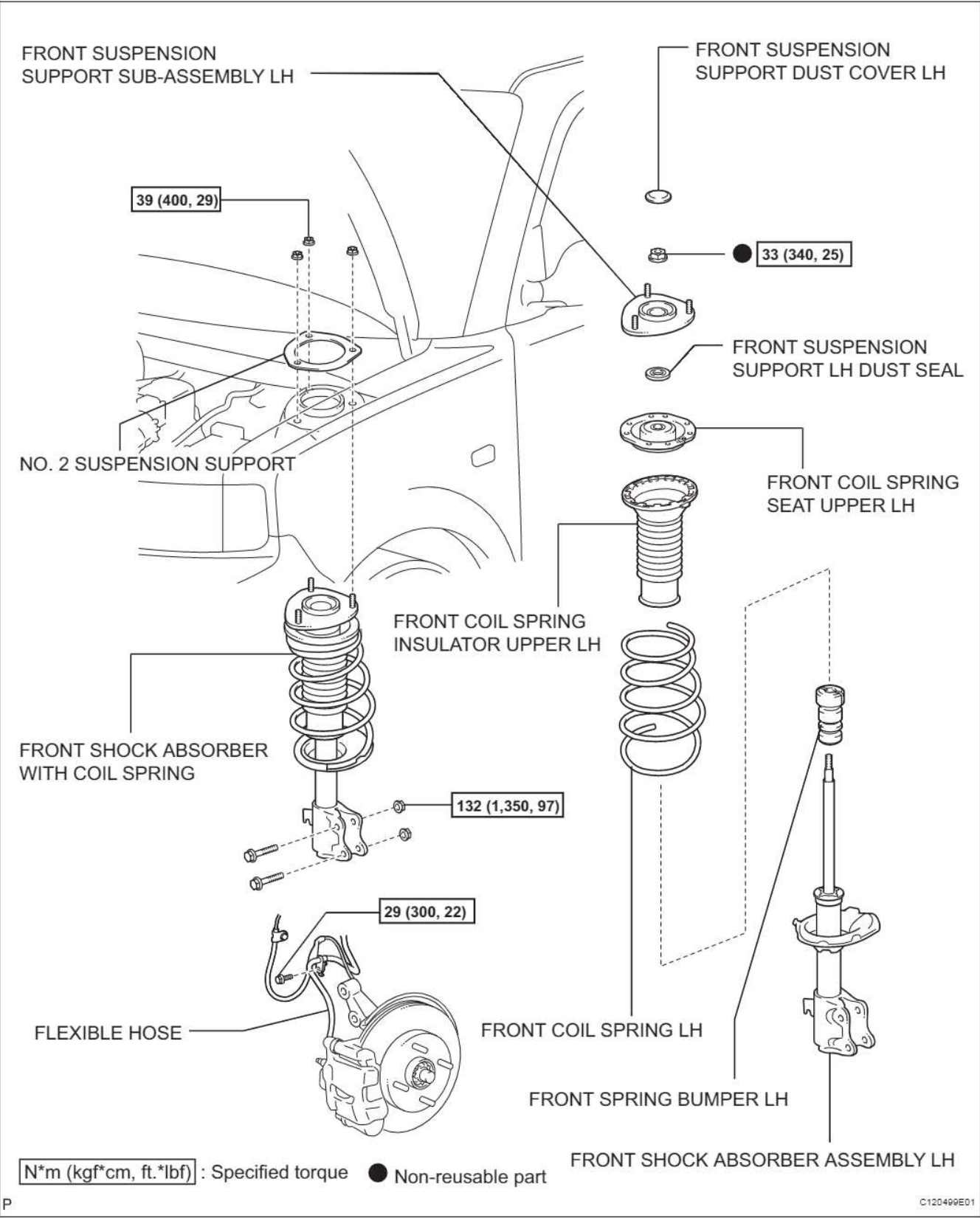
COMPONENTS

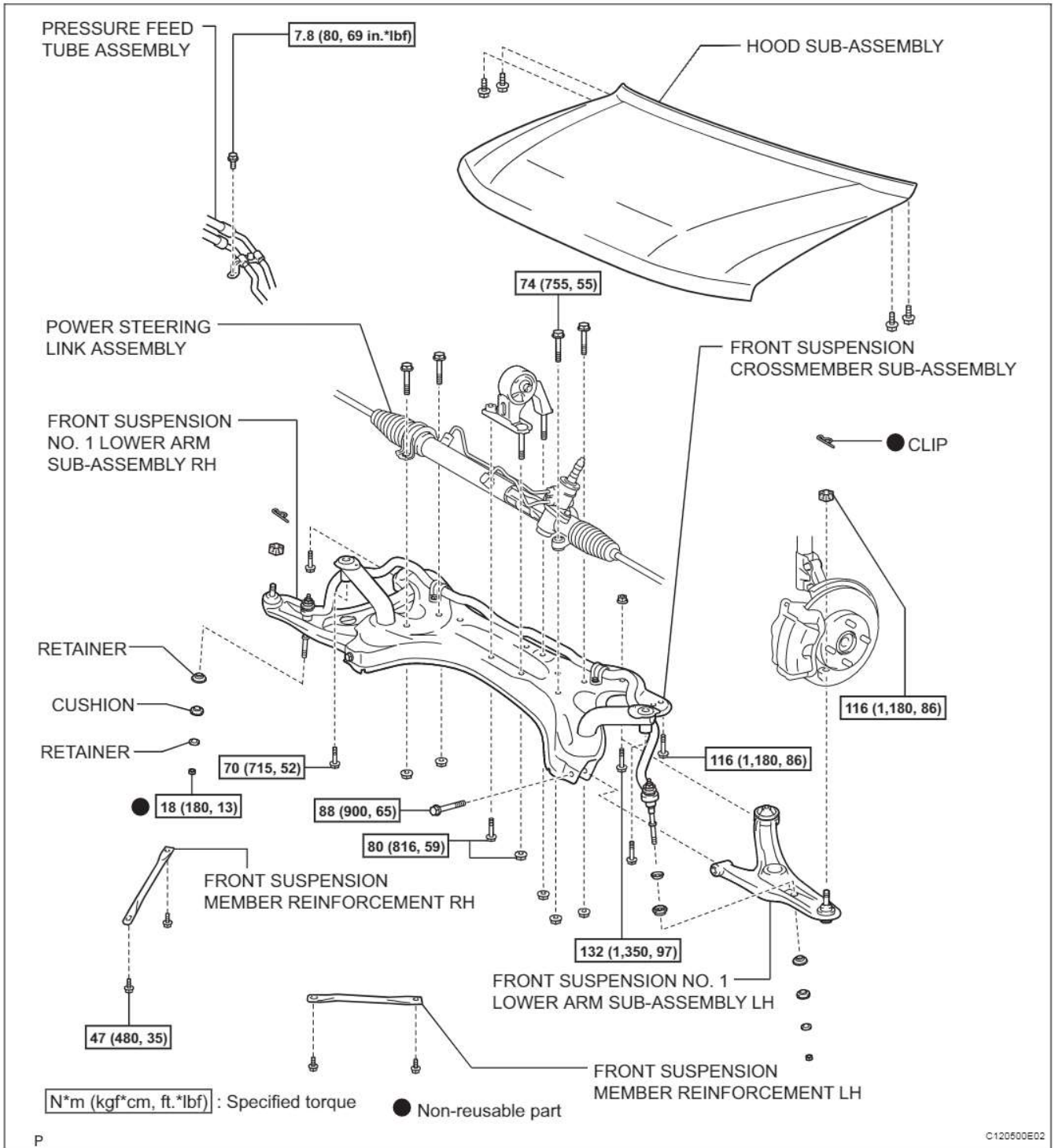


SP

SP-10

SUSPENSION – FRONT SHOCK ABSORBER WITH COIL SPRING



SUSPENSION – FRONT SUSPENSION LOWER NO. 1 ARM (for Automatic Transaxle)**SP-15****FRONT SUSPENSION LOWER NO. 1 ARM (for Automatic Transaxle)****COMPONENTS**

P

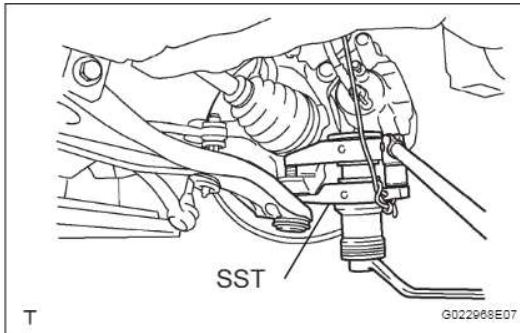
C120500E02

SP

SP-16**SUSPENSION – FRONT SUSPENSION LOWER NO. 1 ARM (for Automatic Transaxle)****REMOVAL****HINT:**

The removal procedures on the front suspension No. 1 lower arm sub-assembly can be performed without removing the power steering link and front suspension crossmember.

1. **REMOVE FRONT WHEEL**
2. **REMOVE HOOD SUB-ASSEMBLY**
3. **SUSPEND ENGINE ASSEMBLY**
4. **DISCONNECT FRONT SUSPENSION NO. 1 LOWER ARM SUB-ASSEMBLY LH**
 - (a) Remove the clip and nut.
 - (b) Using SST, disconnect the lower arm from the steering knuckle.
SST 09628-00011

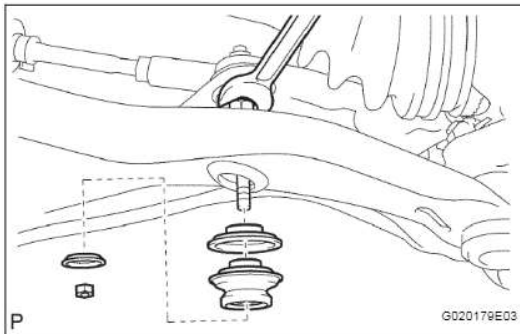


5. **DISCONNECT FRONT SUSPENSION NO. 1 LOWER ARM SUB-ASSEMBLY RH**

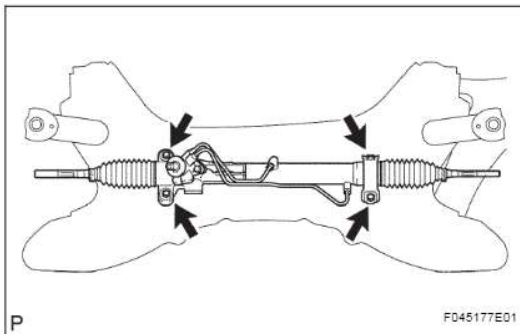
HINT:

Use the same procedures described for the LH side.

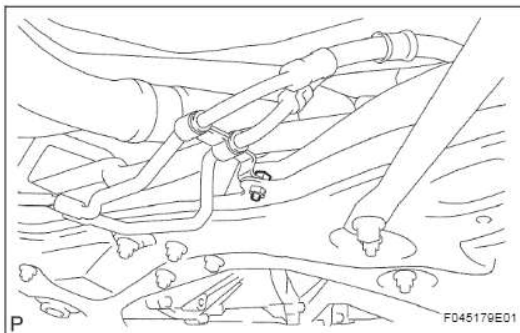
6. **DISCONNECT FRONT STABILIZER BAR**
 - (a) While holding the front stabilizer bolt with the spanner, remove the nut.
 - (b) Remove the 2 retainers and cushion, and then remove the front stabilizer bolt.
 - (c) Perform the procedure above on the other side.



7. **DISCONNECT POWER STEERING LINK ASSEMBLY**
 - (a) Remove the 4 bolts and 4 nuts, and disconnect the steering link.**HINT:**
Perform this procedure with the steering link suspended.



8. **DISCONNECT PRESSURE FEED TUBE ASSEMBLY**
 - (a) Remove the bolt and disconnect the pressure feed tube.
9. **REMOVE FRONT SUSPENSION MEMBER REINFORCEMENT LH**
 - (a) Remove the 2 bolts and reinforcement.
10. **REMOVE FRONT SUSPENSION MEMBER REINFORCEMENT RH**
 - (a) Remove the 2 bolts and reinforcement.

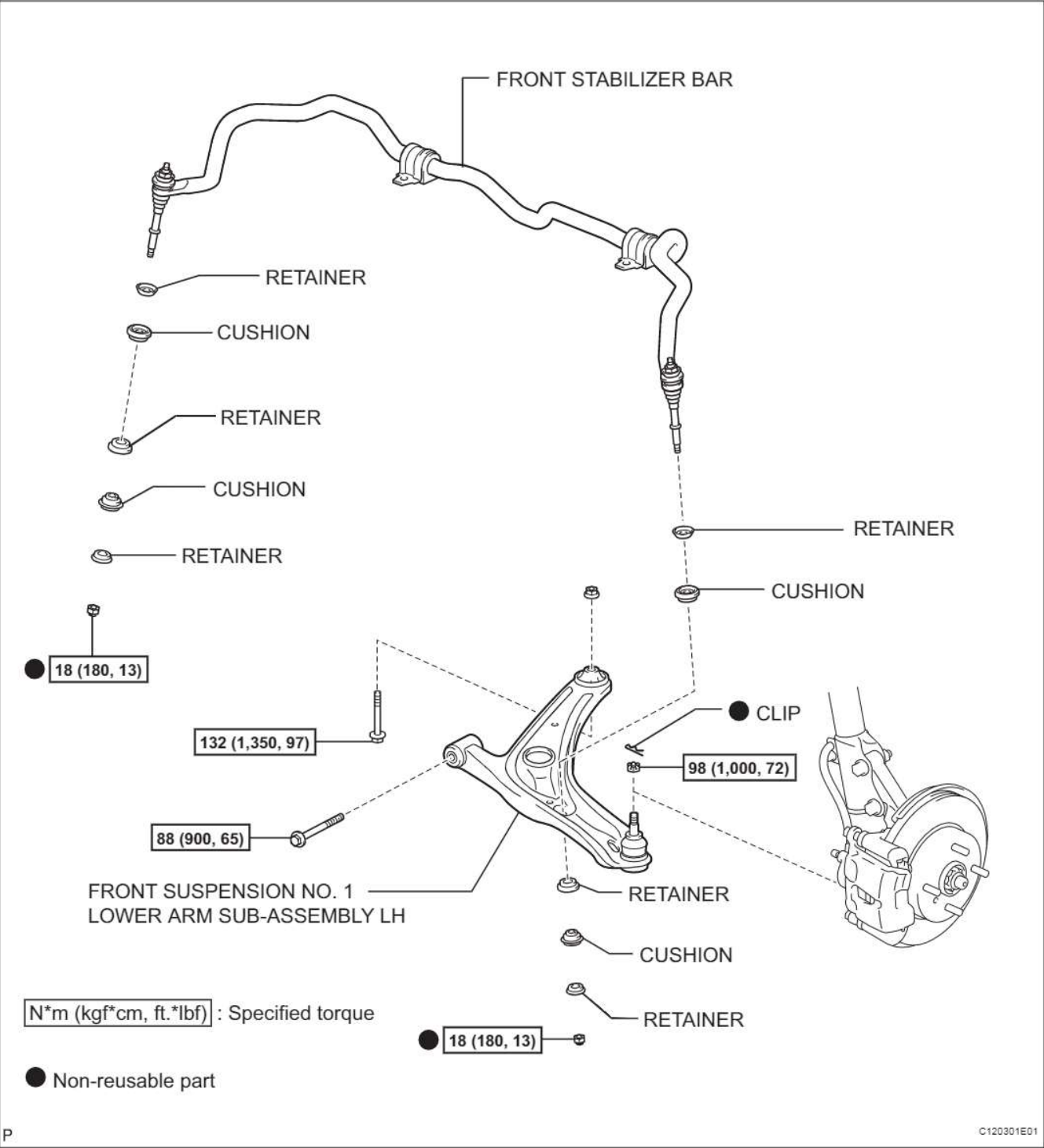
**SP**

SP-20

SUSPENSION – FRONT SUSPENSION LOWER NO. 1 ARM (for Manual Transaxle)

FRONT SUSPENSION LOWER NO. 1 ARM (for Manual Transaxle)

COMPONENTS



REMOVAL

HINT:

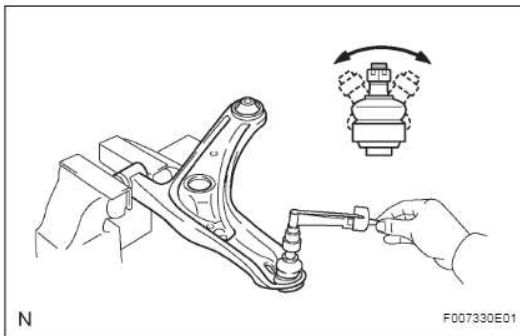
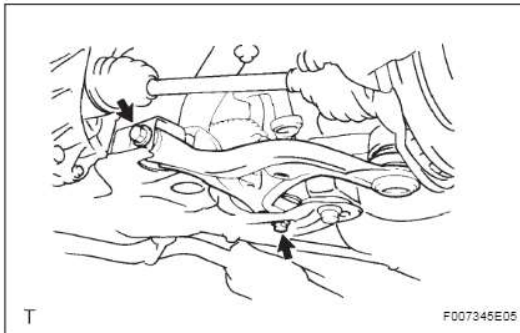
Remove the suspension lower arm RH (Manual Transaxle) following the same procedures as the suspension lower arm LH (Automatic Transaxle).

1. REMOVE FRONT WHEEL
2. DISCONNECT FRONT SUSPENSION NO. 1 LOWER ARM SUB-ASSEMBLY LH (See page [SP-16](#))
3. DISCONNECT FRONT STABILIZER BAR (See page [SP-16](#))
4. REMOVE FRONT SUSPENSION NO. 1 LOWER ARM SUB-ASSEMBLY LH

- (a) Remove the 2 bolts, nut and lower arm.

NOTICE:

Do not turn the nut.



INSPECTION

1. INSPECT FRONT SUSPENSION NO. 1 LOWER ARM SUB-ASSEMBLY 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 to 4 seconds per turn and take the torque reading on the fifth turn.

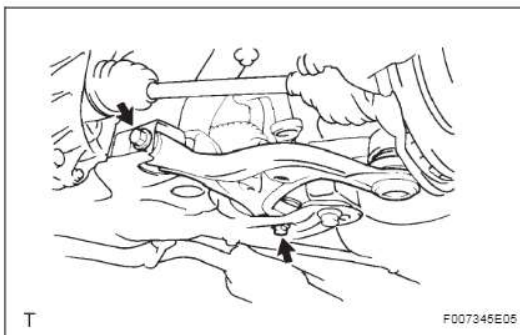
HINT:

A bolt without a torque specification is shown in the standard bolt chart (see page [SS-32](#)).

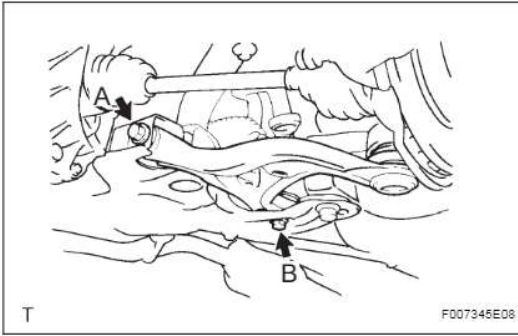
INSTALLATION

1. TEMPORARILY INSTALL FRONT SUSPENSION NO. 1 LOWER ARM SUB-ASSEMBLY LH
- (a) Temporarily install the lower arm with the 2 bolts and nut.
2. CONNECT FRONT SUSPENSION NO. 1 LOWER ARM SUB-ASSEMBLY LH (See page [SP-19](#))
3. CONNECT FRONT STABILIZER BAR (See page [SP-19](#))
4. INSTALL FRONT WHEEL

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



SP

SP-22**SUSPENSION – FRONT SUSPENSION LOWER NO. 1 ARM (for Manual Transaxle)****5. FULLY TIGHTEN FRONT SUSPENSION NO. 1 LOWER ARM SUB-ASSEMBLY LH**

- (a) Install the lower suspension arm with the 2 bolts.
Torque: 88 N*m (900 kgf*cm, 65 ft.*lbf) for bolt A
132 N*m (1,350 kgf*cm, 97 ft.*lbf) for bolt B

NOTICE:

Do not turn the nut.

6. INSPECT AND ADJUST FRONT WHEEL ALIGNMENT

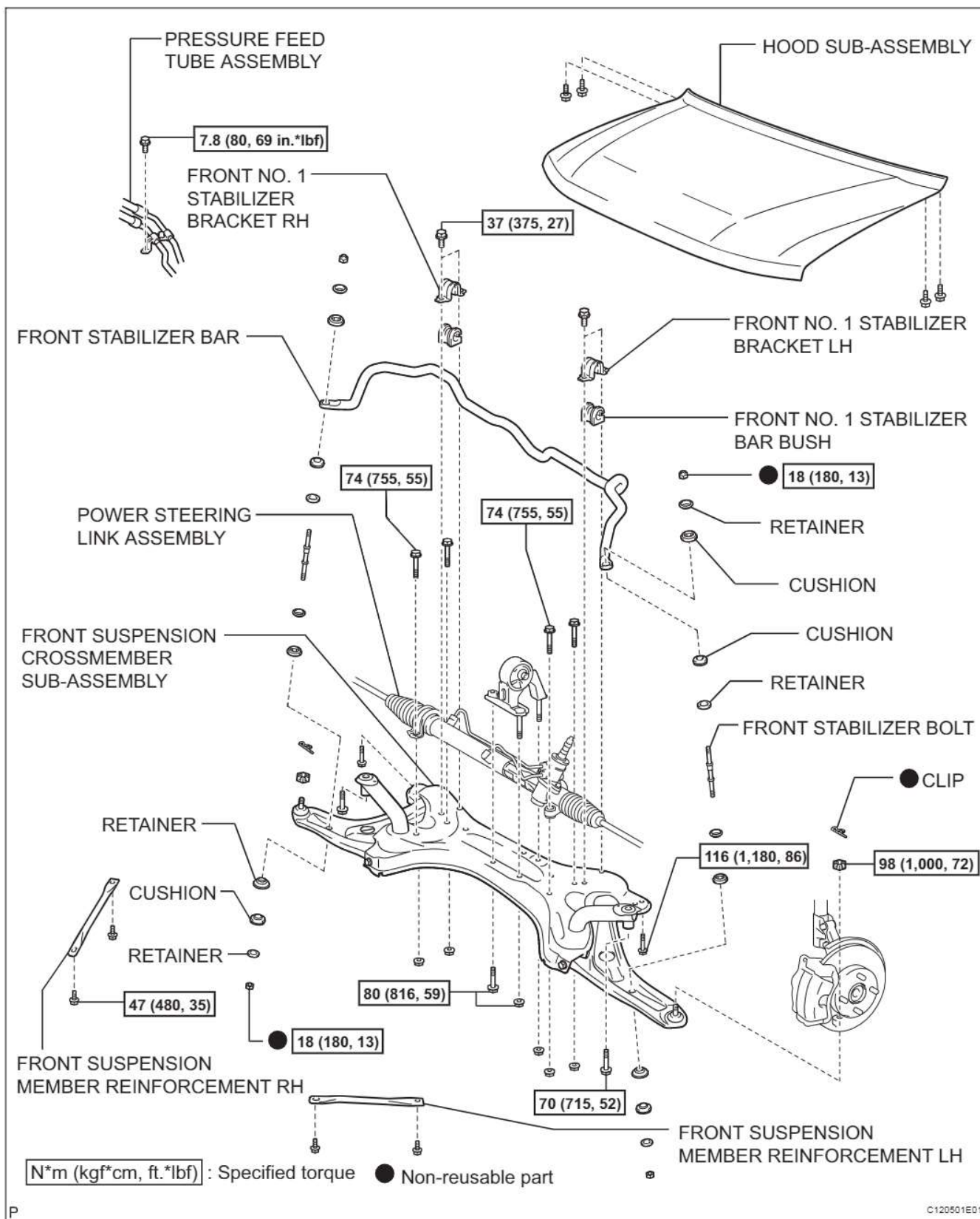
- (a) Inspect and adjust the front wheel alignment (see page [SP-2](#)).

SUSPENSION – FRONT STABILIZER BAR

SP-23

FRONT STABILIZER BAR

COMPONENTS



SP

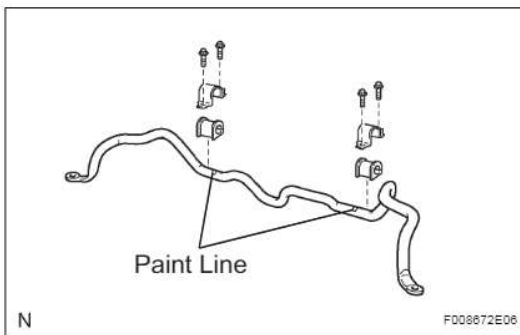
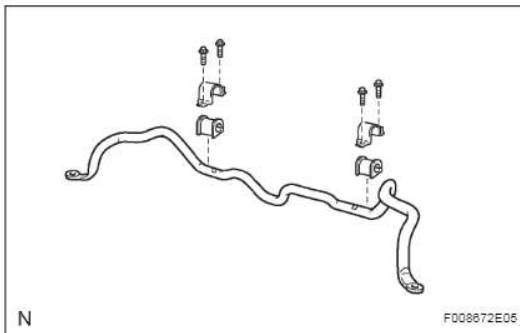
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SP-24

SUSPENSION – FRONT STABILIZER BAR

REMOVAL

1. REMOVE FRONT WHEEL
2. REMOVE HOOD SUB-ASSEMBLY
3. SUSPEND ENGINE ASSEMBLY
4. DISCONNECT FRONT SUSPENSION NO. 1 LOWER ARM SUB-ASSEMBLY LH (See page [SP-16](#))
5. DISCONNECT FRONT SUSPENSION NO. 1 LOWER ARM SUB-ASSEMBLY RH (See page [SP-16](#))
6. DISCONNECT FRONT STABILIZER BAR (See page [SP-16](#))
7. DISCONNECT POWER STEERING LINK ASSEMBLY (See page [SP-16](#))
8. DISCONNECT PRESSURE FEED TUBE ASSEMBLY (See page [SP-16](#))
9. DISCONNECT FRONT SUSPENSION CROSSMEMBER SUB-ASSEMBLY (See page [SP-17](#))
10. REMOVE FRONT STABILIZER BAR
 - (a) Remove the 4 bolts, 2 bushes and No. 1 stabilizer bracket LH and RH.
 - (b) Remove the stabilizer bar.



INSTALLATION

1. INSTALL FRONT STABILIZER BAR
 - (a) Install the stabilizer bar, 2 bushes and 2 brackets with the 4 bolts.
 Torque: 37 N*m (377 kgf*cm, 27 ft.*lbf)
NOTICE:
 Install the bushes with the slit facing the rear of the vehicle.
HINT:
 Install the bushes on the outside of each paint line.
2. CONNECT FRONT SUSPENSION CROSSMEMBER SUB-ASSEMBLY (See page [SP-18](#))
3. CONNECT PRESSURE FEED TUBE ASSEMBLY (See page [SP-18](#))
4. CONNECT POWER STEERING LINK ASSEMBLY (See page [SP-18](#))
5. CONNECT FRONT STABILIZER BAR (See page [SP-19](#))
6. CONNECT FRONT SUSPENSION NO. 1 LOWER ARM SUB-ASSEMBLY LH (See page [SP-19](#))

SP

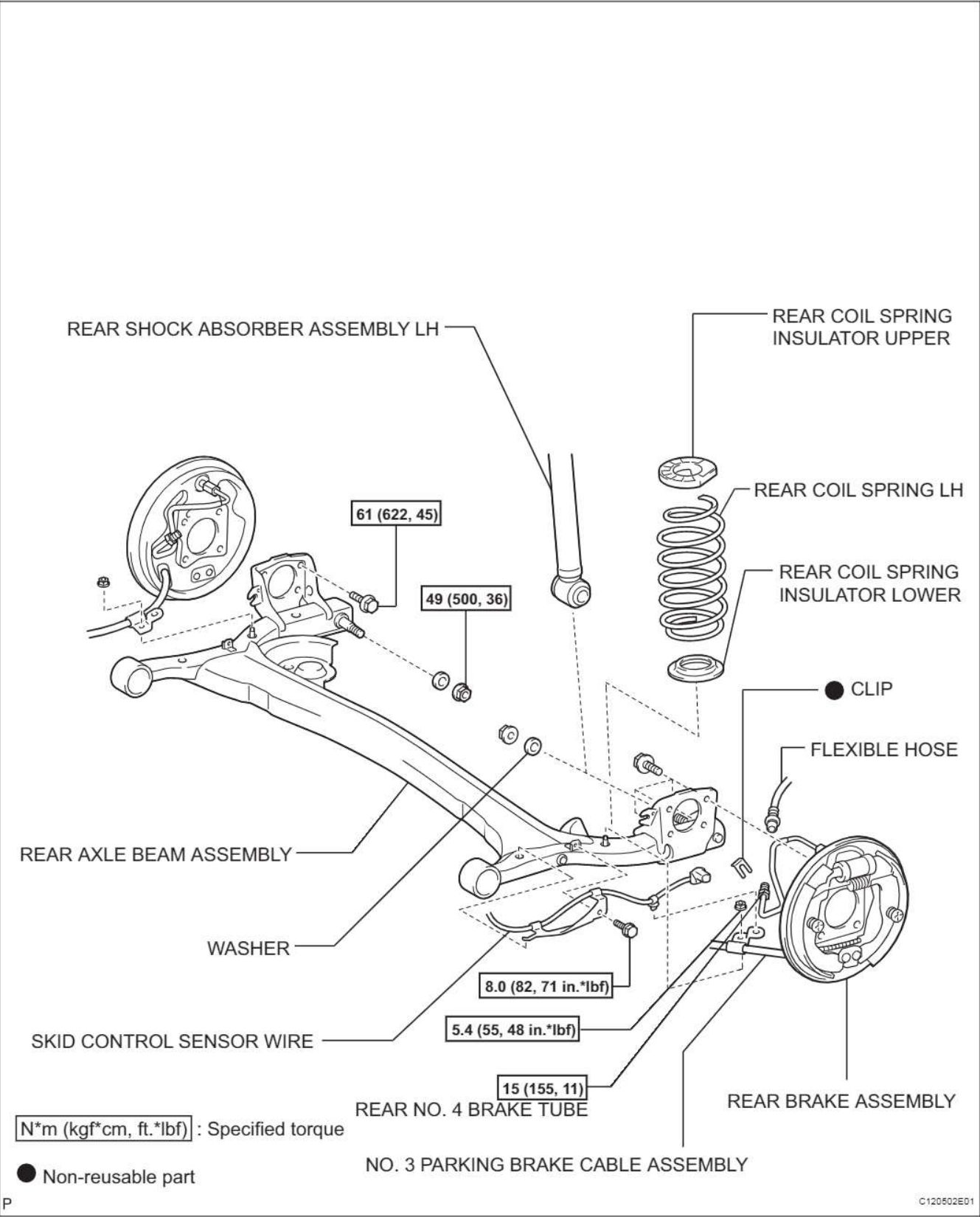
SUSPENSION – FRONT STABILIZER BAR**SP-25**

- 7. CONNECT FRONT SUSPENSION NO. 1 LOWER ARM SUB-ASSEMBLY RH (See page [SP-19](#))**
- 8. INSTALL FRONT WHEEL**
Torque: 103 N*m (1,050 kgf*cm, 76 ft.*lbf)
- 9. INSTALL HOOD SUB-ASSEMBLY**
- 10. INSPECT HOOD SUB-ASSEMBLY**
(a) Inspect the hood (see page [ED-1](#)).
- 11. ADJUST HOOD SUB-ASSEMBLY**
(a) Adjust the hood (see page [ED-1](#)).
- 12. INSPECT AND ADJUST FRONT WHEEL ALIGNMENT**
(a) Inspect and adjust the front wheel alignment (see page [SP-2](#)).

SP

REAR COIL SPRING

COMPONENTS



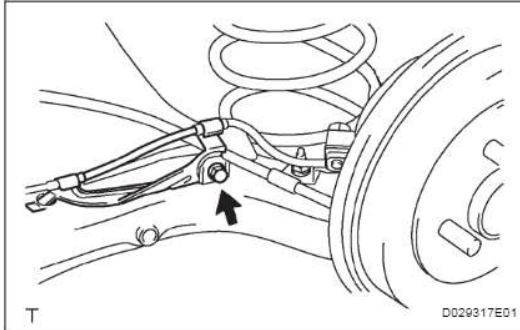
SUSPENSION – REAR COIL SPRING**SP-27****REMOVAL**

1. **REMOVE REAR WHEEL**
2. **DISCONNECT SKID CONTROL SENSOR WIRE**

- (a) Disconnect the sensor connector.
- (b) Remove the bolt and disconnect the sensor wire from the axle beam.

HINT:

Perform the procedures above for the other side.



3. **DISCONNECT REAR NO. 4 BRAKE TUBE**

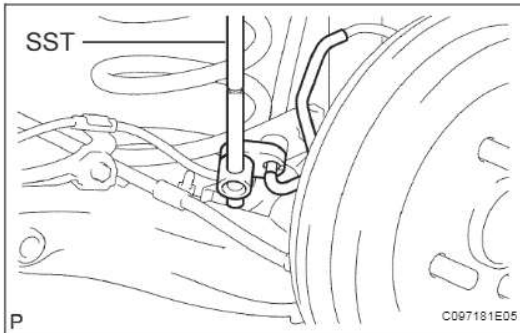
- (a) Using SST, disconnect the rear brake tube.

SST 09023-00101

- (b) Remove the clip.

NOTICE:

The clip should not be reused.



4. **DISCONNECT REAR NO. 3 BRAKE TUBE**

HINT:

Use the same procedures described for the No. 4 tube.

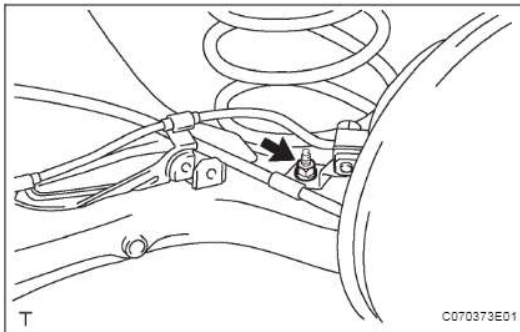
5. **DISCONNECT NO. 3 PARKING BRAKE CABLE ASSEMBLY**

- (a) Remove the nut and disconnect the parking brake cable from the axle beam.

6. **DISCONNECT NO. 2 PARKING BRAKE CABLE ASSEMBLY**

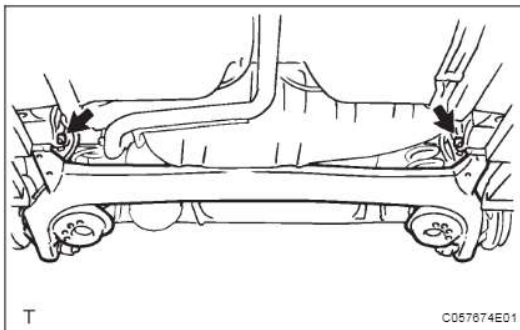
HINT:

Use the same procedures described for the No. 3 cable.



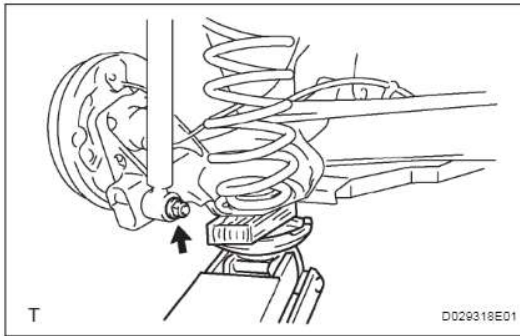
7. **LOOSEN REAR AXLE BEAM ASSEMBLY**

- (a) Loosen the 2 bolts of the rear axle beam.

**SP**

SP-28

SUSPENSION – REAR COIL SPRING



8. DISCONNECT REAR SHOCK ABSORBER ASSEMBLY LH

- Support the right and left sides of the rear axle beam with jacks.
- Remove the nut and washer, and disconnect the shock absorber.

9. DISCONNECT REAR SHOCK ABSORBER ASSEMBLY RH

HINT:

Use the same procedures described for the LH side.

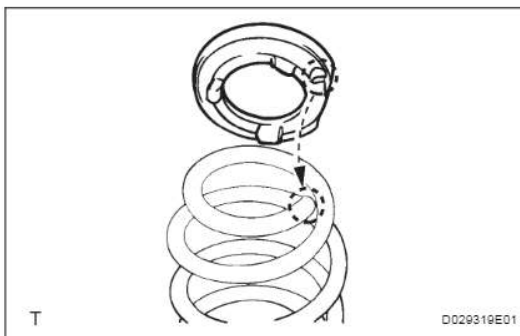
10. REMOVE REAR COIL SPRING LH

- Remove the coil spring, upper insulator and lower insulator by slowly lowering the jack.

INSTALLATION

1. INSTALL REAR COIL SPRING LH

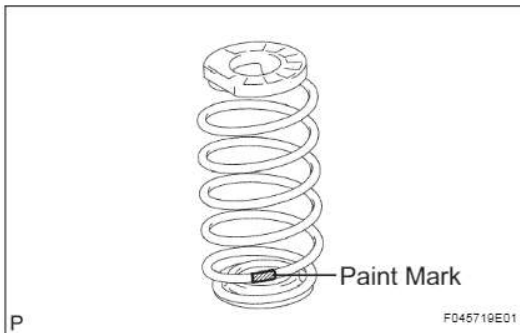
- Install the coil spring insulator upper so that its gap fits to the end of the coil spring.



- Install the coil spring insulator lower and coil spring to the axle beam.

NOTICE:

Be sure to install the coil spring so that the paint mark comes to a position below the vehicle body.



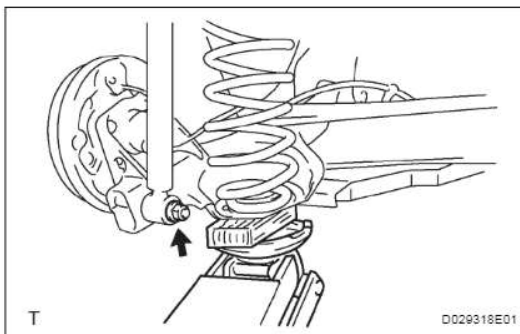
2. TEMPORARILY INSTALL REAR SHOCK ABSORBER ASSEMBLY LH

- While lifting up the axle beam with jacks, install the shock absorber to the axle beam.
- Temporarily install the washer and nut.

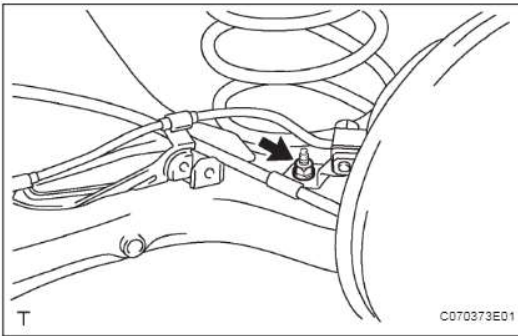
3. TEMPORARILY INSTALL REAR SHOCK ABSORBER ASSEMBLY RH

HINT:

Use the same procedures described for the LH side.



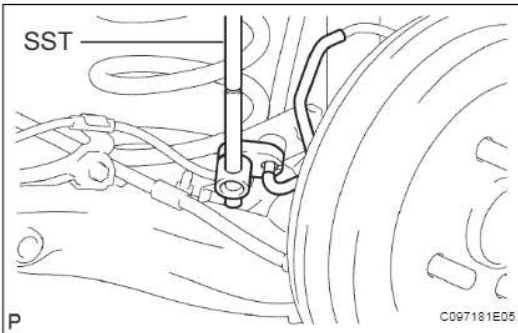
SP

SUSPENSION – REAR COIL SPRING**SP-29****4. CONNECT NO. 3 PARKING BRAKE CABLE ASSEMBLY**

- (a) Install the parking brake cable with the nut.
Torque: 5.4 N*m (55 kgf*cm, 48 in.*lbf)

5. CONNECT NO. 2 PARKING BRAKE CABLE ASSEMBLY**HINT:**

Use the same procedures described for the No. 3 cable.

**6. CONNECT REAR NO. 4 BRAKE TUBE**

- (a) Using SST, connect the brake tube to the flexible hose.

SST 09023-00101**Torque: 15 N*m (155 kgf*cm, 11 ft.*lbf)**

- (b) Install the clip.

7. CONNECT REAR NO. 3 BRAKE TUBE**HINT:**

Use the same procedures described for the No. 4 tube.

8. CONNECT SKID CONTROL SENSOR WIRE

- (a) Install the sensor wire with the bolt.

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

- (b) Connect the sensor wire.

HINT:

Use the same procedures described for the other side.

9. FULLY TIGHTEN REAR AXLE BEAM ASSEMBLY

- (a) Stabilize the shock absorber.

HINT:

If the bolt cannot be tightened at this position, support the axle beam with the jack and load the rear compartment with a mass of approximately 90 kg (198 lb.).

Standard length of shock absorber:**250 mm (9.8 in.)**

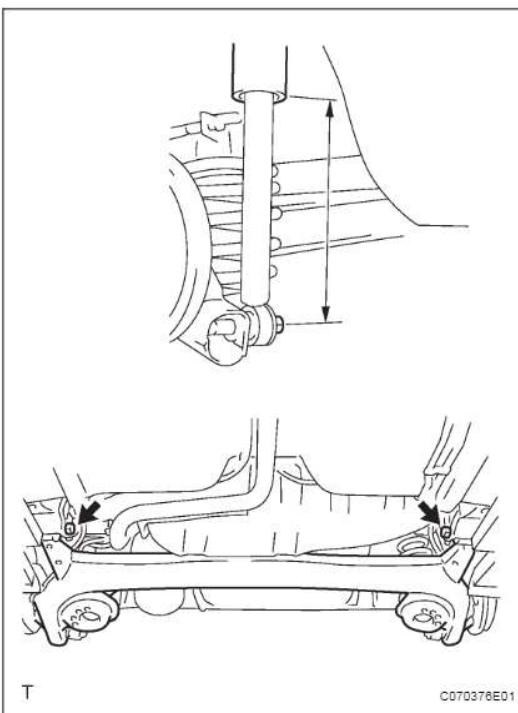
- (b) Fully tighten the bolt.

Torque: 82 N*m (836 kgf*cm, 60 ft.*lbf)**10. FULLY TIGHTEN REAR SHOCK ABSORBER ASSEMBLY LH**

- (a) Fully tighten the nut.

Torque: 49 N*m (500 kgf*cm, 36 ft.*lbf)**11. FULLY TIGHTEN REAR SHOCK ABSORBER ASSEMBLY RH****HINT:**

Use the same procedures described for the LH side.

**12. BLEED BRAKE LINE**

- (a) Bleed the brake line (see page [BR-3](#)).

13. INSTALL REAR WHEEL**Torque: 103 N*m (1,050 kgf*cm, 76 ft.*lbf)****SP**

SP-30**SUSPENSION – REAR COIL SPRING**

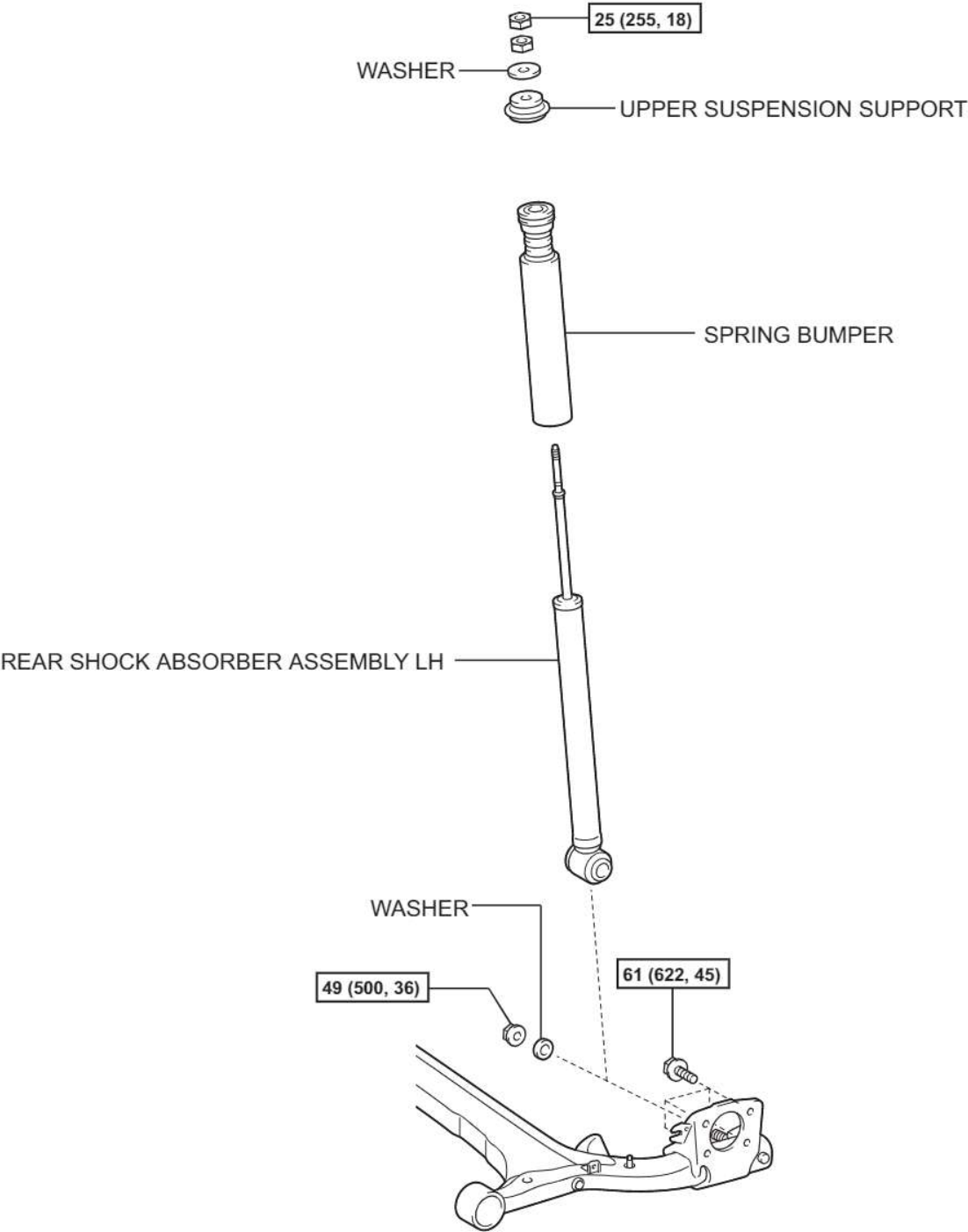
14. INSPECT REAR WHEEL ALIGNMENT

- (a) Inspect the rear wheel alignment (see page [SP-8](#)).

15. CHECK ABS SPEED SENSOR SIGNAL

- (a) Check the ABS speed sensor signal (see page [BC-15](#)).

REAR SHOCK ABSORBER COMPONENTS



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

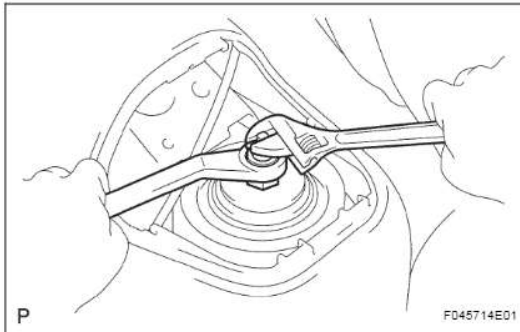
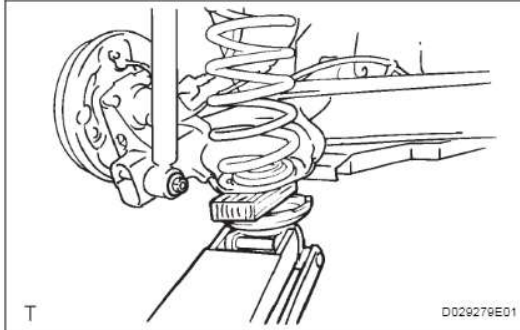
SP

SP-32

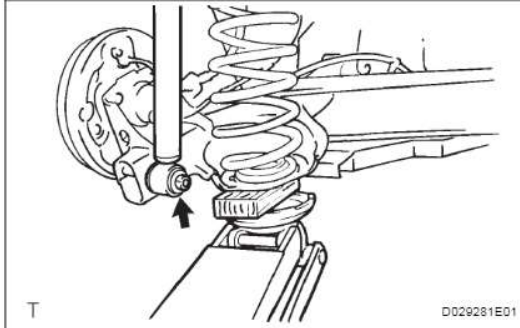
SUSPENSION – REAR SHOCK ABSORBER

REMOVAL

1. REMOVE REAR ABSORBER CAP
2. REMOVE REAR WHEEL
3. REMOVE REAR SHOCK ABSORBER ASSEMBLY LH
 - (a) Support the axle beam with a jack.



- (b) While holding the pinion rod, remove the 2 nuts.
- (c) Remove the cushion retainer and the suspension support.



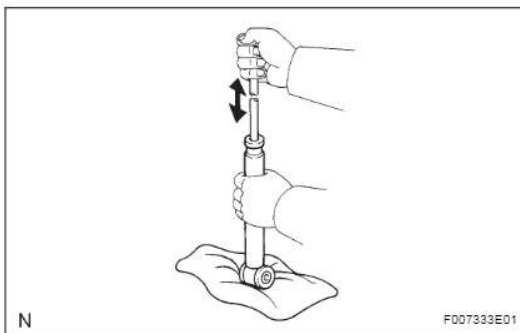
- (d) Remove the nut, spacer and shock absorber assembly.
- (e) Remove the suspension support from the shock absorber.

INSPECTION

1. INSPECT REAR SHOCK ABSORBER ASSEMBLY LH
 - (a) Compress and extend the shock absorber rod, and check that there is no abnormal resistance or unusual sound.
If there is any abnormality, replace the shock absorber with a new one.

NOTICE:

When disposing of the shock absorber, see DISPOSAL (see page SP-14).



SP

INSTALLATION

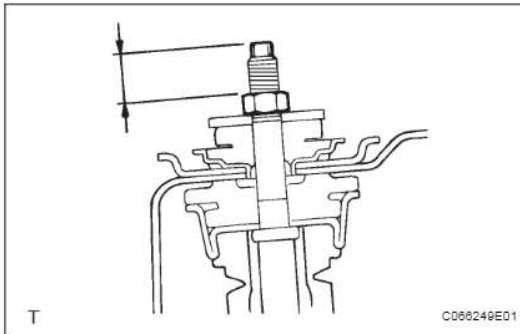
1. INSTALL REAR SHOCK ABSORBER ASSEMBLY LH

- Install the suspension support to the shock absorber.
- Install the shock absorber, suspension support and cushion retainer to the body.
- While holding the piston rod, install the lower nut so that the piston rod protrudes 15 to 18 mm (0.59 to 0.71 in.) from the lower nut.
- Install the upper nut and torque it against the lower one.

Torque: 25 N*m (250 kgf*cm, 18 ft.*lbf)

- While raising the jack, install the shock absorber to the axle beam with the spacer and nut.

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



2. INSTALL REAR WHEEL

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

3. INSPECT AND ADJUST REAR WHEEL ALIGNMENT

- Inspect the rear wheel alignment (see page [SP-2](#)).

DISPOSAL

1. DISPOSE OF REAR SHOCK ABSORBER ASSEMBLY LH

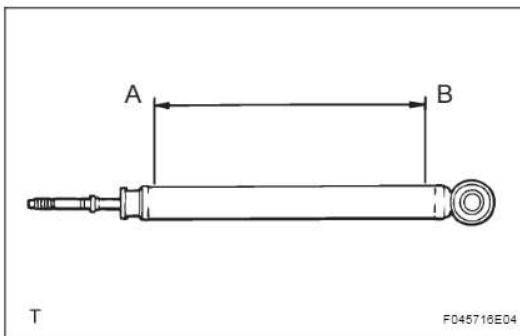
- Fully extend the shock absorber rod.
- Using a drill, make a hole in the cylinder somewhere between A and B, shown in the illustration, to discharge the gas inside.

CAUTION:

Be careful when drilling as shards of metal may fly out, and always use the proper safety equipment.

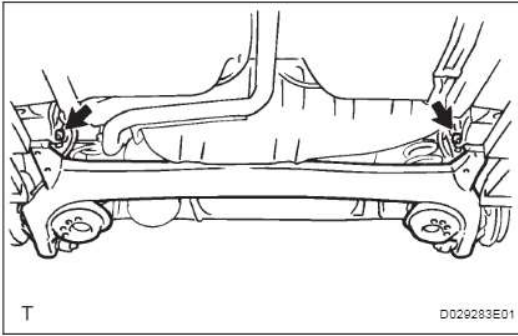
NOTICE:

The gas is colorless, odorless and harmless.



SP-36

SUSPENSION – REAR AXLE BEAM

**15. REMOVE REAR AXLE BEAM ASSEMBLY**

- (a) Support the axle beam with a jack.
- (b) Remove the 2 bolts and the axle beam.

DISASSEMBLY**1. REMOVE REAR AXLE CARRIER BUSH LH**

- (a) Using a chisel and hammer, bend the 2 portions of the bush's rib.

HINT:

Bend the bush's rib until the claw of SST can be hung as shown in the illustration.

- (b) Using SST, remove the bush from the axle beam.

SST 09309-37010, 09950-40011 (09951-04010, 09952-04010, 09953-04010, 09954-04020, 09955-04051, 09957-04010, 09958-04011)

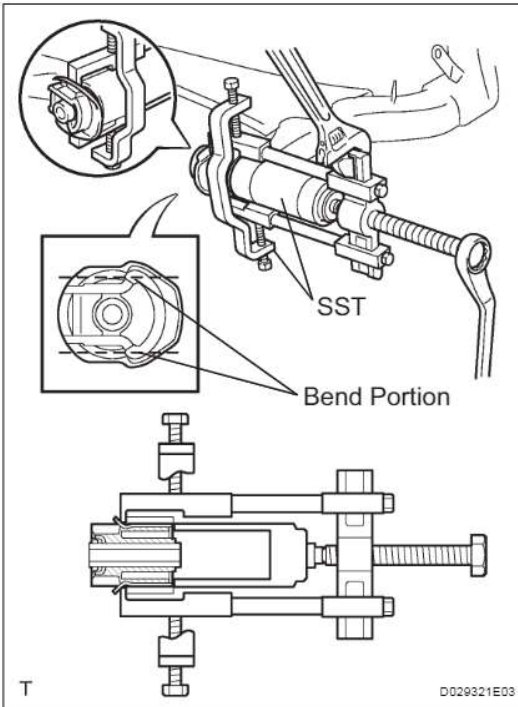
NOTICE:

If the axle beam has been scratched, apply paint.

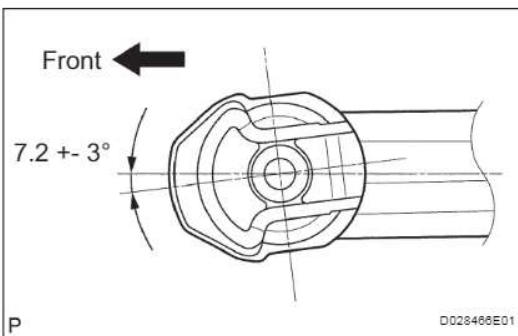
2. REMOVE REAR AXLE CARRIER BUSH RH

HINT:

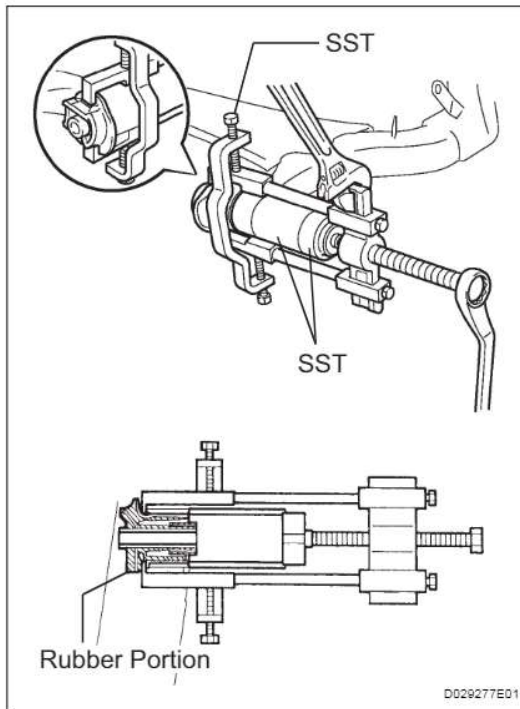
Use the same procedures described for the LH side.

**REASSEMBLY****1. INSTALL REAR AXLE CARRIER BUSH LH**

- (a) Position the axle carrier bush with the axle beam as shown in the illustration.



SP

SUSPENSION – REAR AXLE BEAM**SP-37**

- (b) Using SST, install the bushes on the axle beam.

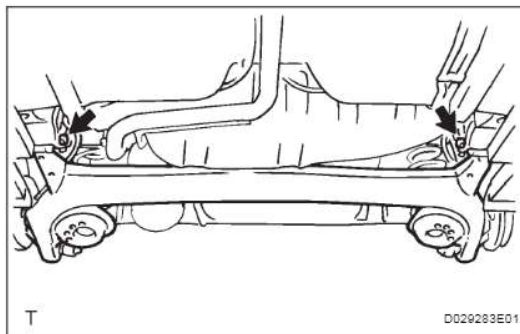
SST 09710-14013 (09710-00021), 09950-40011
(09951-04010, 09952-04010, 09953-04030,
09954-04020, 09955-04031, 09957-04010,
09958-04011), 09950-60010 (09951-00560)

NOTICE:

- Hang the claw of SST to the bush deeply and firmly.
- Do not scratch the rubber portion of the bush.
- Do not deform the bush's rib.

2. INSTALL REAR AXLE CARRIER BUSH RH**HINT:**

Use the same procedures described for the LH side.

**INSTALLATION****1. TEMPORARILY INSTALL REAR AXLE BEAM ASSEMBLY**

- (a) Support the axle beam with a jack.
(b) Install the axle beam, and temporarily install the 2 bolts.

2. INSTALL REAR COIL SPRING LH (See page [SP-28](#))**3. INSTALL REAR COIL SPRING RH****HINT:**

Use the same procedures described for the LH side.

4. TEMPORARILY INSTALL REAR SHOCK ABSORBER ASSEMBLY LH (See page [SP-28](#))**5. TEMPORARILY INSTALL REAR SHOCK ABSORBER ASSEMBLY RH****HINT:**

Use the same procedures described for the LH side.

6. INSTALL REAR AXLE HUB AND BEARING ASSEMBLY LH

- (a) Install the brake and the axle hub and bearing with the 4 bolts.

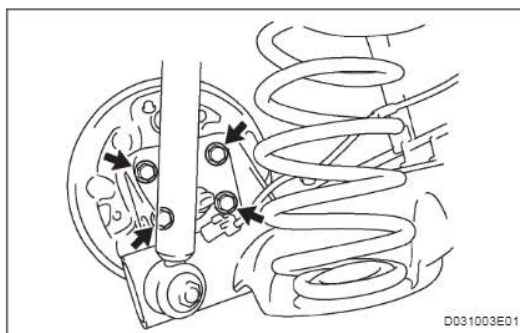
Torque: 61 N*m (622 kgf*cm, 45 ft.*lbf)

7. INSTALL REAR AXLE HUB AND BEARING ASSEMBLY RH**HINT:**

Use the same procedures described for the LH side.

8. INSTALL REAR BRAKE DRUM SUB-ASSEMBLY

- (a) Install the rear brake drum (see page [BR-37](#)).

**SP**

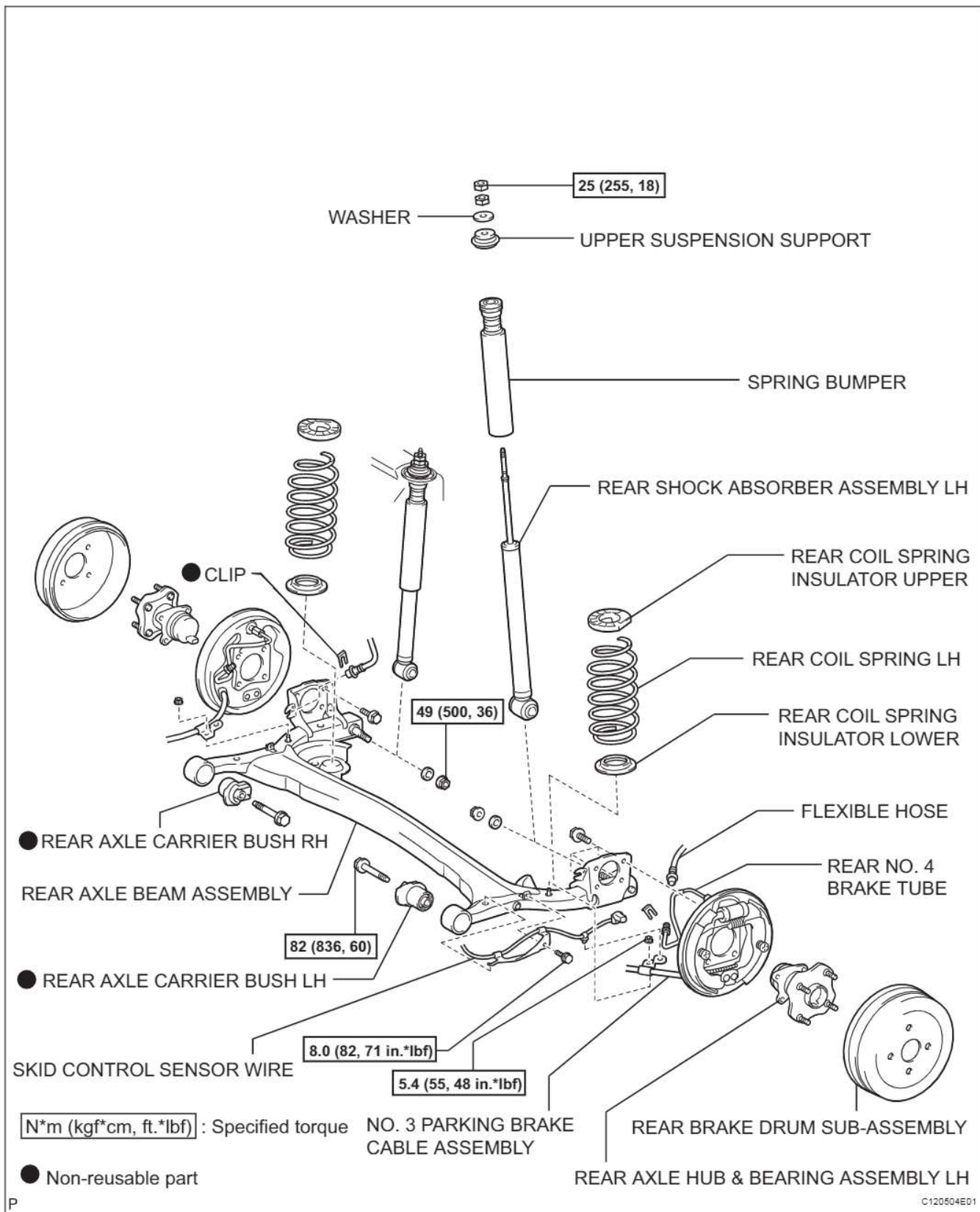
SP-38**SUSPENSION – REAR AXLE BEAM**

- 9. ADJUST REAR DRUM BRAKE SHOE CLEARANCE**
 - (a) Adjust the rear drum brake shoe clearance (see page [BR-38](#)).
- 10. CONNECT NO. 3 PARKING BRAKE CABLE ASSEMBLY** (See page [SP-29](#))
- 11. CONNECT NO. 2 PARKING BRAKE CABLE ASSEMBLY** (See page [SP-29](#))
- 12. CONNECT REAR NO. 4 BRAKE TUBE** (See page [SP-29](#))
- 13. CONNECT REAR NO. 3 BRAKE TUBE** (See page [SP-29](#))
- 14. CONNECT SKID CONTROL SENSOR WIRE** (See page [SP-29](#))
- 15. FULLY TIGHTEN REAR AXLE BEAM ASSEMBLY**
Torque: 82 N*m (836 kgf*cm, 60 ft.*lbf)
- 16. FULLY TIGHTEN REAR SHOCK ABSORBER ASSEMBLY LH** (See page [SP-29](#))
- 17. FULLY TIGHTEN REAR SHOCK ABSORBER ASSEMBLY RH**
HINT:
Use the same procedures described for the LH side.
- 18. BLEED BRAKE LINE**
 - (a) Bleed the brake line (see page [BR-3](#)).
- 19. INSTALL REAR WHEEL**
Torque: 103 N*m (1,050 kgf*cm, 76 ft.*lbf)
- 20. INSPECT REAR WHEEL ALIGNMENT**
 - (a) Inspect the rear wheel alignment (see page [SP-8](#)).
- 21. CHECK ABS SPEED SENSOR SIGNAL**
 - (a) Check the ABS speed sensor signal (see page [BC-15](#)).

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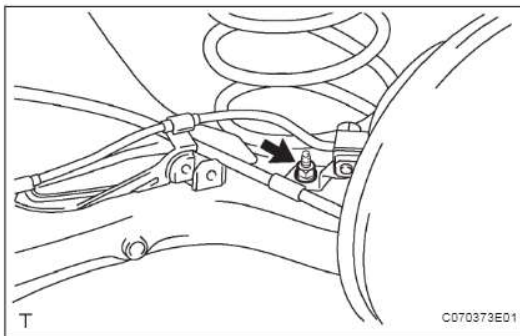
SUSPENSION – REAR AXLE BEAM

REAR AXLE BEAM COMPONENTS

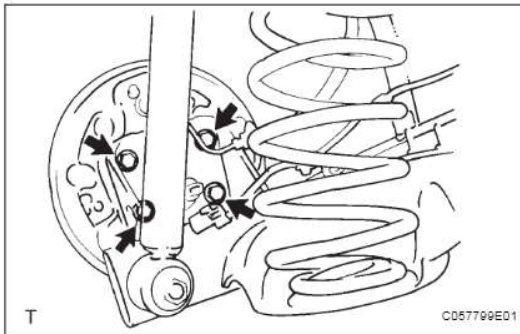


SUSPENSION – REAR AXLE BEAM**SP-35****REMOVAL**

1. REMOVE REAR WHEEL
2. DISCONNECT SKID CONTROL SENSOR WIRE
3. DISCONNECT REAR NO. 4 BRAKE TUBE (See page [SP-27](#))
4. DISCONNECT REAR NO. 3 BRAKE TUBE (See page [SP-27](#))
5. DISCONNECT NO. 3 PARKING BRAKE CABLE ASSEMBLY (See page [SP-27](#))
6. DISCONNECT NO. 2 PARKING BRAKE CABLE ASSEMBLY (See page [SP-27](#))
7. REMOVE REAR BRAKE DRUM SUB-ASSEMBLY (See page [BR-31](#))



8. REMOVE REAR AXLE HUB AND BEARING ASSEMBLY LH
 - (a) Remove the nut and disconnect the No. 3 parking brake cable from the axle beam.



- (b) Remove the 4 bolts and axle hub and bearing.
 - (c) Disconnect the brake from the axle beam.
9. REMOVE REAR AXLE HUB AND BEARING ASSEMBLY RH
HINT:
Use the same procedures described for the LH side.
10. LOOSEN REAR AXLE BEAM ASSEMBLY
11. DISCONNECT REAR SHOCK ABSORBER ASSEMBLY LH (See page [SP-28](#))
12. DISCONNECT REAR SHOCK ABSORBER ASSEMBLY RH (See page [SP-28](#))
13. REMOVE REAR COIL SPRING LH (See page [SP-28](#))
14. REMOVE REAR COIL SPRING RH
HINT:
Use the same procedures described for the LH side.

SP