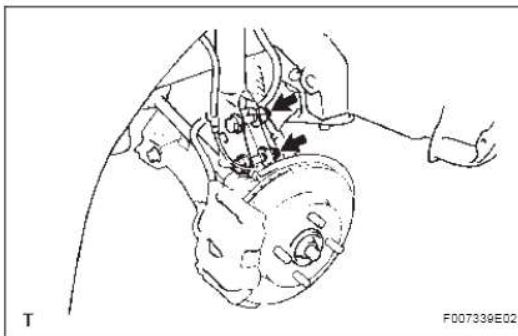
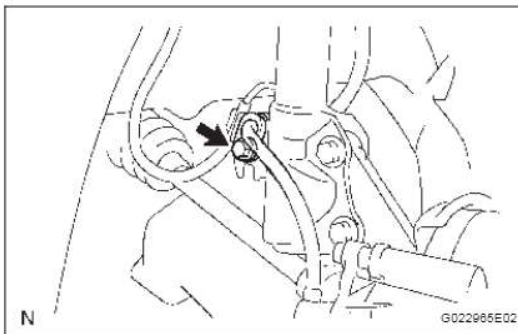


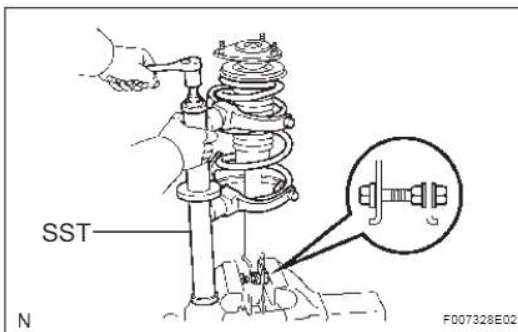
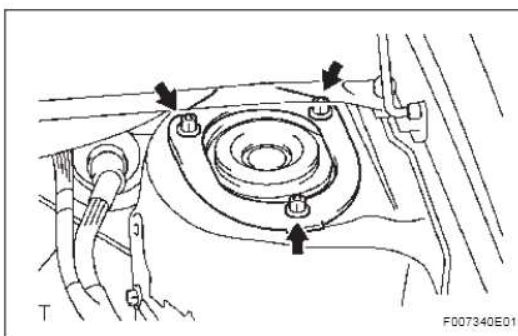
SUSPENSION – FRONT SHOCK ABSORBER WITH COIL SPRING**SP-11****REMOVAL**

1. REMOVE FRONT WIPER ARM HEAD CAP
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 for 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 ABS speed sensor wire harness 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.

**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)

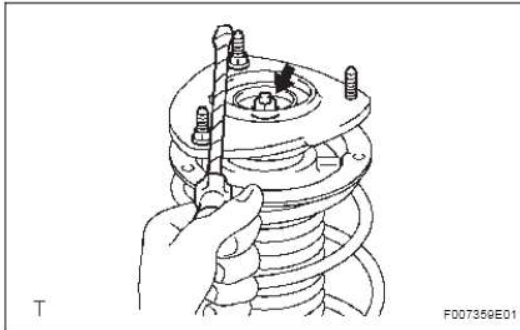
NOTICE:

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

SP

SP-12

SUSPENSION – FRONT SHOCK ABSORBER WITH COIL SPRING



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 shock absorber, remove the center nut.

NOTICE:

Be careful not to damage the suspension support stud bolts.

HINT:

Use the screwdriver tip before use.

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

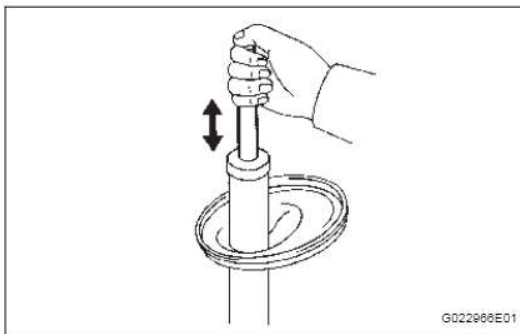
INSPECTION

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).



SP

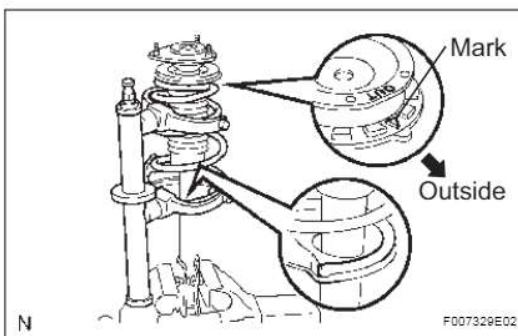
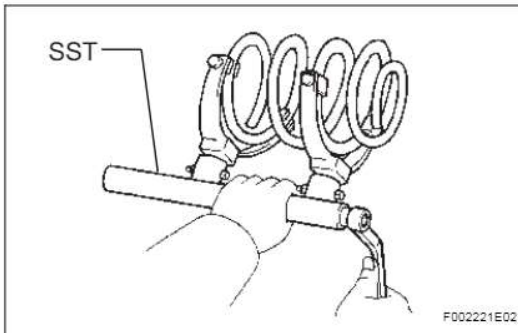
SUSPENSION – FRONT SHOCK ABSORBER WITH COIL SPRING**SP-13****REASSEMBLY**

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 upper seat 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 shock absorber, install a new center nut.

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

NOTICE:

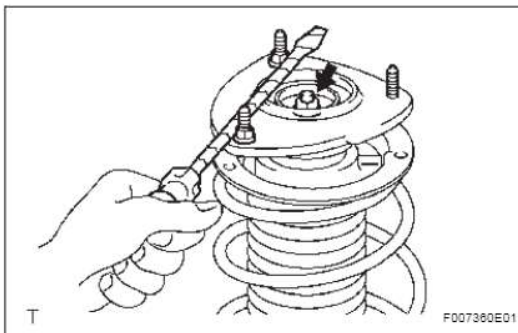
Be careful not to damage the suspension support stud bolts.

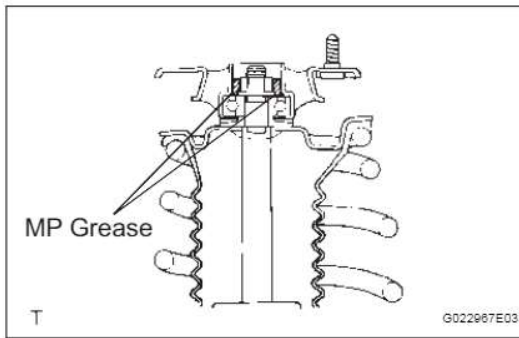
HINT:

Tape the screwdriver tip before use.

- (b) Remove the SST.

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

**SP**

SP-14**SUSPENSION – FRONT SHOCK ABSORBER WITH COIL SPRING**

(c) Apply MP grease to the suspension support.

9. INSTALL FRONT SUSPENSION SUPPORT DUST COVER LH

INSTALLATION

1. **INSTALL FRONT SHOCK ABSORBER ASSEMBLY LH**
 - (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.
Torque: 132 N*m (1,350 kgf*cm, 97 ft.*lbf)
NOTICE:
When installing the bolt, keep it from rotating and torque the nut.
2. **CONNECT FLEXIBLE HOSE**
 - (a) Connect 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 for 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](#)).

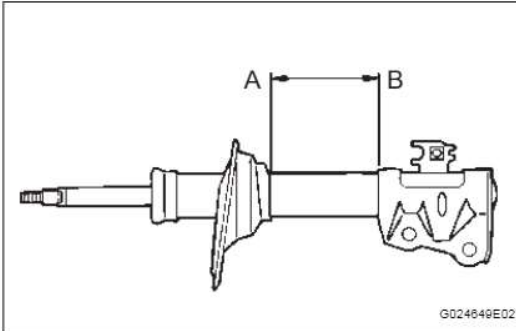
SP-16

SUSPENSION – FRONT SHOCK ABSORBER WITH COIL SPRING

DISPOSAL

HINT:

Disposal of the RH is the same as that of the LH.

**1. DISPOSE OF FRONT SHOCK ABSORBER ASSEMBLY LH**

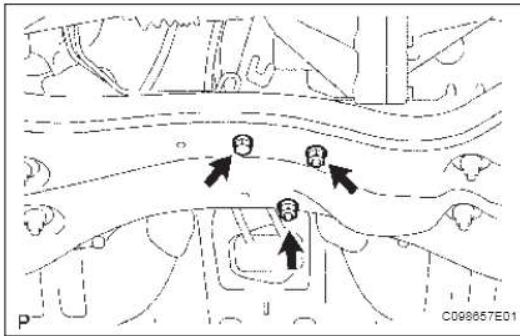
- (a) Fully extend the shock absorber rod.
- (b) Using a drill, make a hole in the cylinder somewhere between A and B as shown in the illustration to discharge the gas inside.

CAUTION:

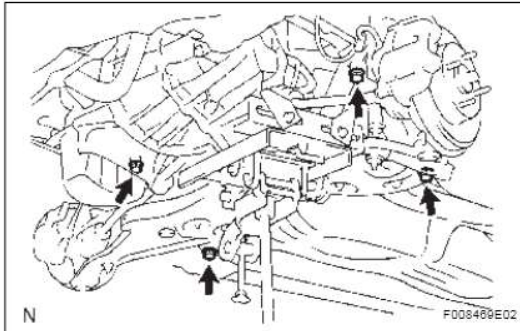
Be careful when drilling because shards of metal may fly about, so always use the proper safety equipment.

HINT:

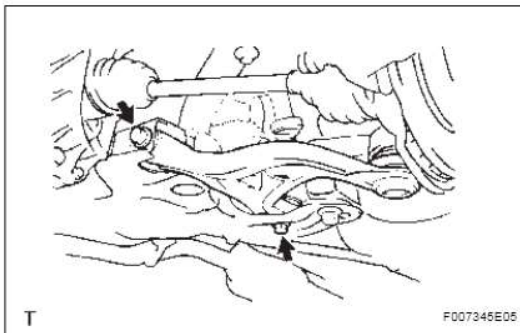
The gas is colorless, odorless and non-poisonous.

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.



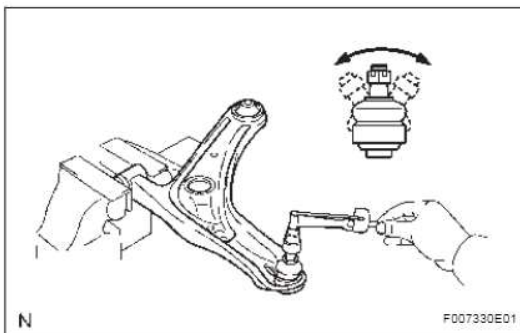
- (b) Support the crossmember with the jack.
(c) Remove the 4 bolts and disconnect the crossmember.

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

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

NOTICE:

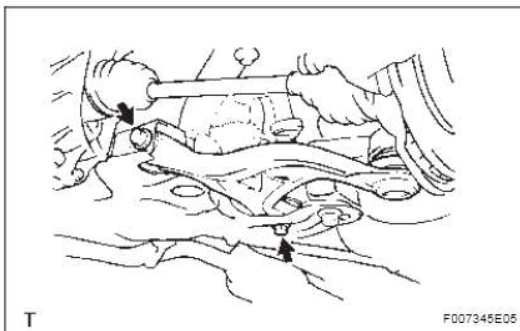
Do not turn the nut.

**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:

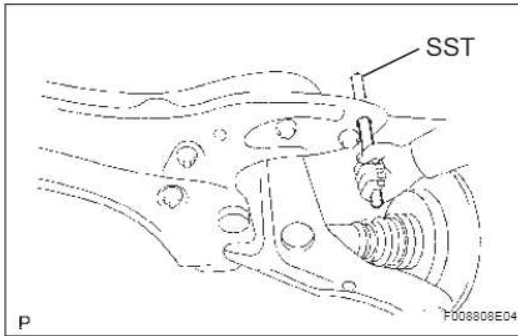
A bolt without a torque specification is shown in the standard bolt chart (see page [SS-32](#)).

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

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

SP

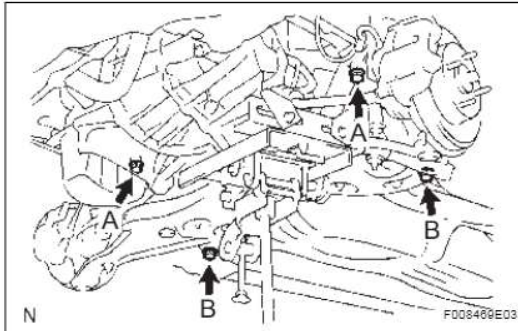
SP-18

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

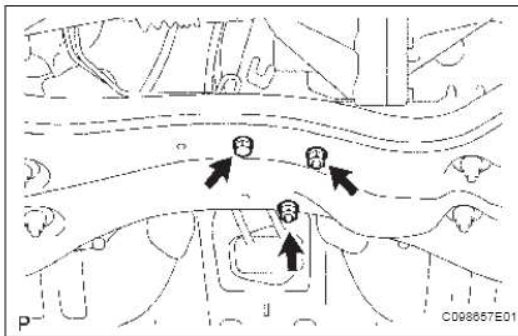
- (a) Using SST, align the holes of the suspension member and the body.

SST 09670-00010

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



- (c) Install the suspension member 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

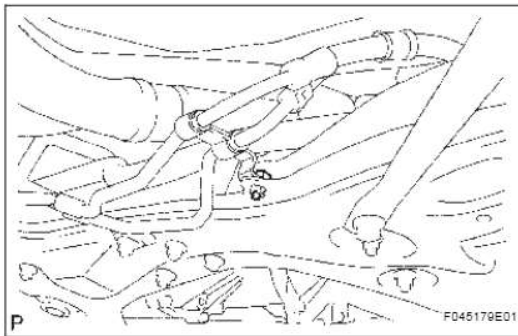
- (a) Install the reinforcement with the 2 bolts.

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)

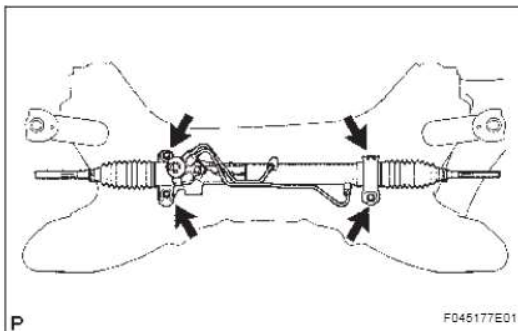
**6. CONNECT POWER STEERING LINK ASSEMBLY**

- (a) Install the steering link with the 4 bolts and 4 nuts.

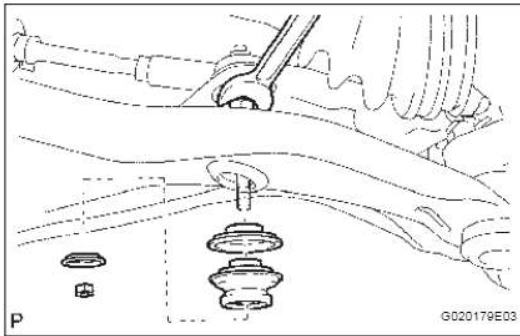
Torque: 74 N*m (755 kgf*cm, 55 ft.*lbf)

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. INSPECT AND ADJUST HOOD SUB-ASSEMBLY**
- 13. 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-23
	8. Suspension parts (worn)	-
Bottoming	1. Vehicle (overloaded)	-
	2. Spring for front (weak)	SP-11
	3. Spring for rear (weak)	SP-27
	4. Shock absorber for front (worn)	SP-10
	5. Shock absorber for rear (worn)	SP-31
Sways/pitches	1. Tire (worn or improperly inflated)	TW-3
	2. Stabilizer bar (bent or broken)	SP-24
	3. Spring for front (weak)	SP-11
	4. Spring for rear (weak)	SP-27
	5. Shock absorber for front (worn)	SP-10
	6. Shock absorber for rear (worn)	SP-31
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-10
	4. Shock absorber for rear (worn)	SP-31
	5. Wheel alignment for front (incorrect)	SP-2
	6. Wheel alignment for rear (incorrect)	SP-8
	7. Ball joint for automatic transaxle (worn)	SP-16
	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-23
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-10
	5. Shock absorber for rear (worn)	SP-31
	6. Suspension parts (worn)	-

SP

FRONT WHEEL ALIGNMENT

INSPECTION

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

Item	Specified Condition
Front A - B	91 mm (3.58 in.)
Rear D - C	19 mm (0.75 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.

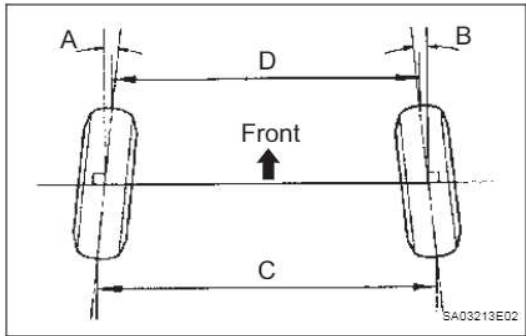
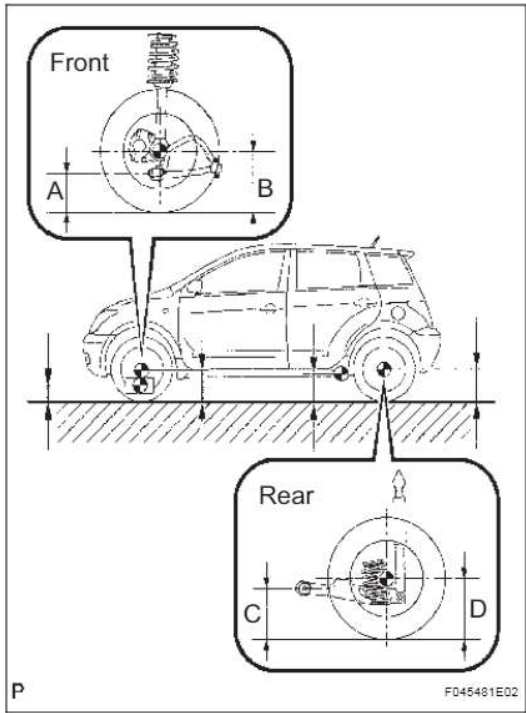
HINT:
Bounce the vehicle at the corners up and down to stabilize the suspension and inspect the vehicle height.

3. INSPECT TOE-IN
- Standard toe-in

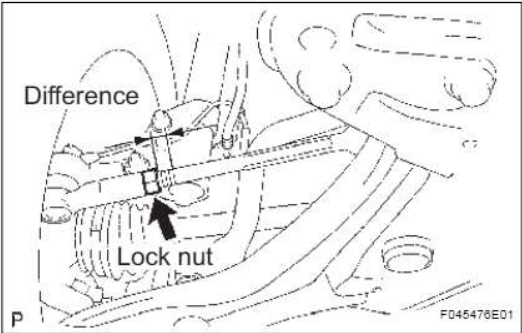
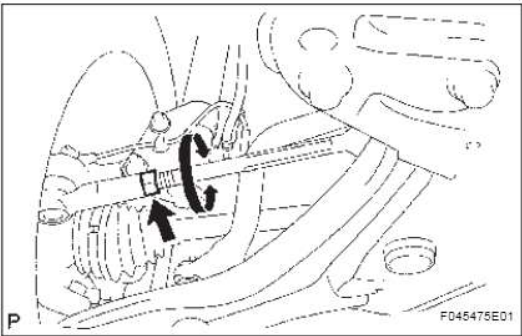
Item	Specified Condition
Toe-in (total)	A + B: 0° +-11' (0° +-0.19°) C - D: 0 +-2 mm (0 +-0.08 in)

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

4. ADJUST TOE-IN
- (a) Measure the thread lengths of the right and left rack ends.
- Standard rack end length difference:
- 1.5 mm (0.059 in.) or less
- (b) Remove the rack boots 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 ends if the measured toe-in deviates toward the inner side.
- (e) Turn the right and left rack ends by an equal amount to adjust toe-in.

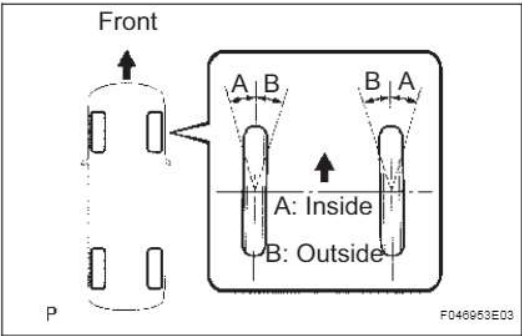
HINT:
Try to adjust toe-in to the center of the specified range.
- (f) Make sure that the lengths of the right and left rack ends are the same.

Standard rack end length difference:
0 +-1 mm (0 +-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 ends so that the lock nut and the steering rack end do not turn together. Hold the width across flat 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.



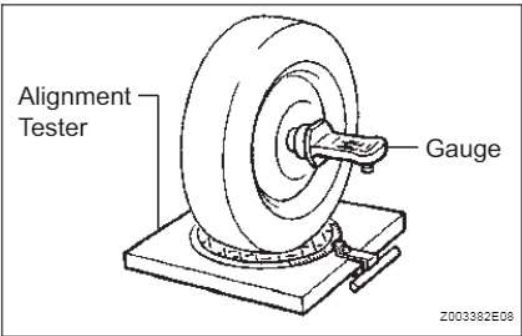
5. INSPECT WHEEL ANGLE

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

Standard wheel turning angle

Item	Specified Condition
Inside wheel	33°37' +-2° (33.62°+-2°)
Outside wheel (reference)	29°55' (29.92°)

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.

SP-4

SUSPENSION – FRONT WHEEL ALIGNMENT

- (d) Adjust the camber, caster and steering axis inclination.

Standard camber, caster and steering axis inclination

Item	Specified Condition
Camber Right-left error	$-0^{\circ}39' +45'$ ($-0.65^{\circ} +0.75^{\circ}$) 30' (0.5°) or less
Caster Right-left error	$1^{\circ}47' +45'$ ($1.78^{\circ} +0.75^{\circ}$) 30' (0.5°) or less
Steering axis inclination Right-left error	$10^{\circ}13' +45'$ ($10.22^{\circ} +0.75^{\circ}$) 30' (0.5°) or less

NOTICE:

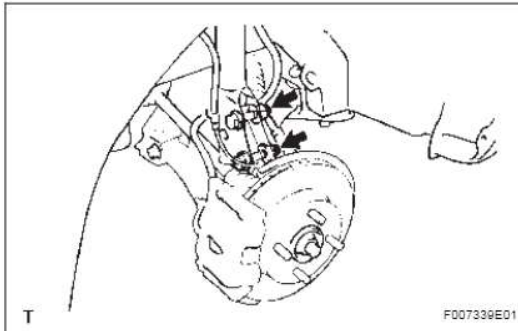
- Inspect while the vehicle is empty (without the spare tire or tools).
 - The maximum tolerance of right and left difference for the camber and caster is 30' or less.
- (e) Remove the camber-caster-steering axis inclination gauge and attachment.
- (f) Install the wheel cap.
- If the caster and steering 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

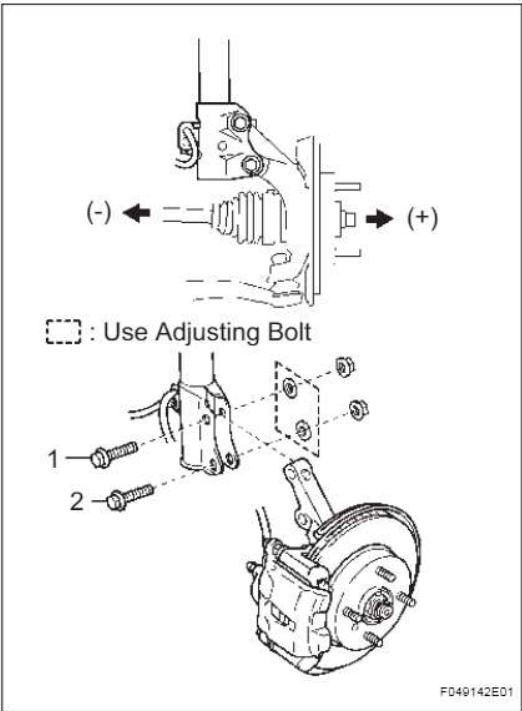
NOTICE:

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 the 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)

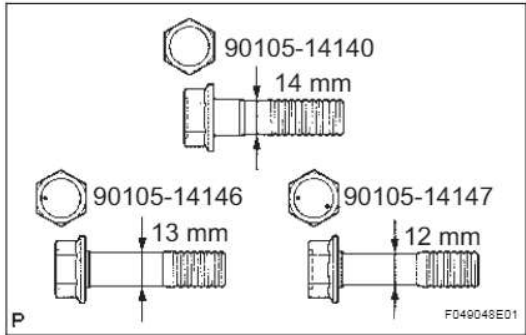
Table (1) Move the axle toward positive side

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

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NOTICE:

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

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

HINT:

Replace one bolt at a time when replacing 2 bolts.

Table (2) Move the axle toward negative side

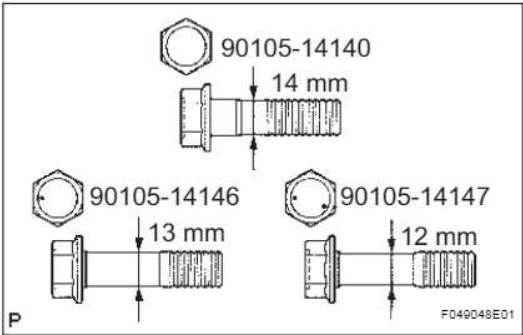
Installed Bolt Adjusting Value	1					
	2					
−1°00' to −0°45'	D					
−0°45' to −0°30'	C	D				
−0°30' to −0°15'	B	C	D			
−0°15' to 0°	A	B	C	D		
0° to 0°15'		E	A	B	C	
0°15' to 0°30'			E	A	B	
0°30' to 0°45'				E	A	
0°45' to 1°00'					E	

	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

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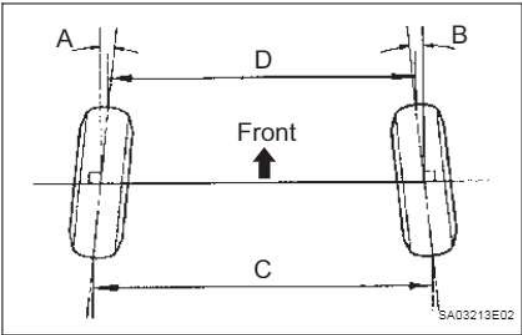


- NOTICE:**
- The body and suspension may be damaged if the camber is not correctly adjusted according to the above table.
 - Replace the nut with a new one when replacing the bolt.
- (j) Repeat the steps mentioned above. At step A, replace 1 or 2 selected bolts.
- HINT:**
- Replace one bolt at a time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

REAR WHEEL ALIGNMENT

INSPECTION

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 the vehicle height to the specified value.



3. INSPECT TOE-IN
- Standard toe-in

Item	Specified Condition
Toe-in (total)	A - B: 0°21' +20' (0.35° +0.33°) C-D: 3.4 +3.0 mm (0.13 +0.12 in.)

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

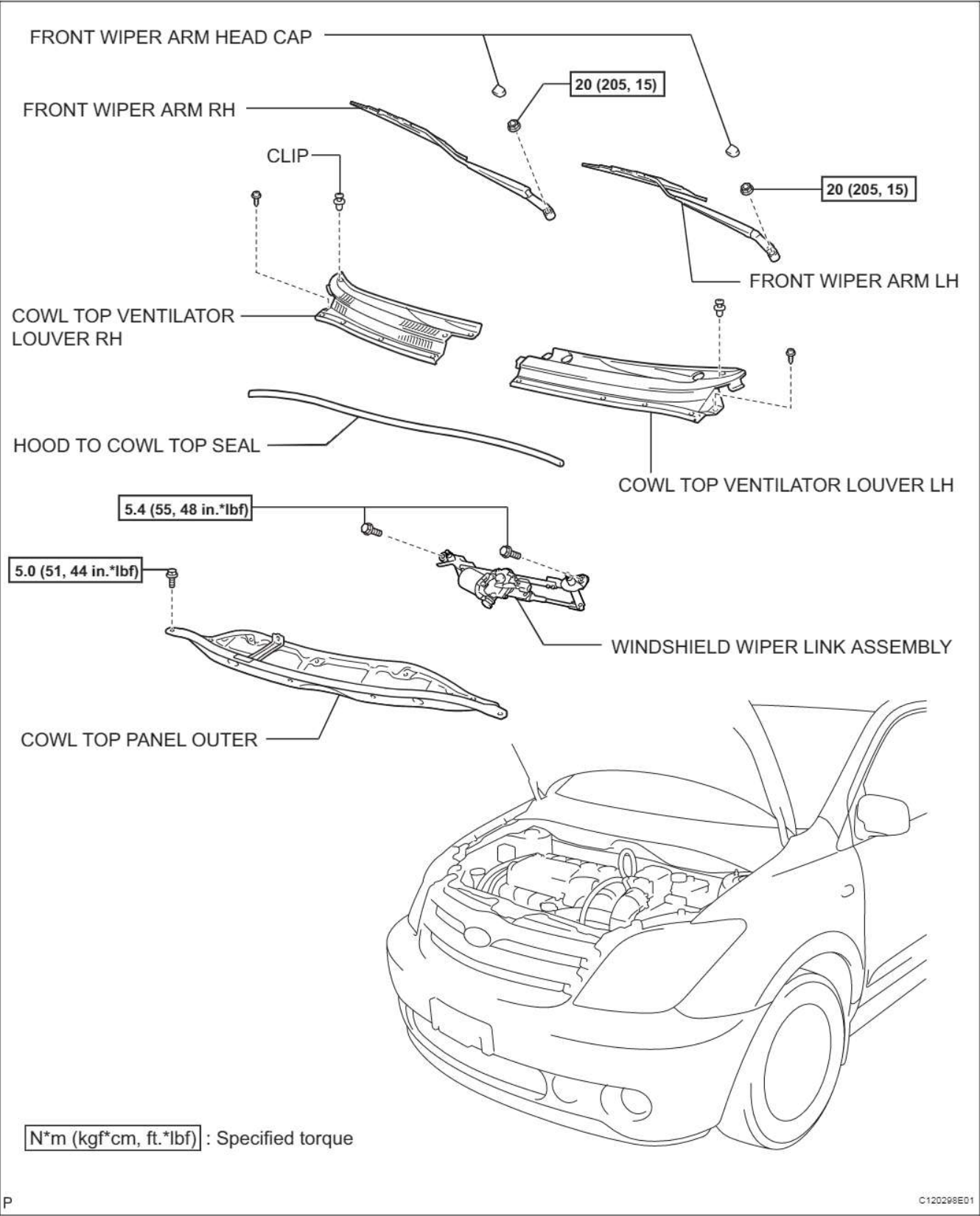
4. INSPECT CAMBER
- (a) Install the camber-caster-kingpin gauge or position the vehicle on a wheel alignment tester.
- (b) Inspect the camber.
- Standard camber

Item	Specified Condition
Camber	-0°+45' (-0.95°+0.75°)
Right-left error	30' (0.5°) or less

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

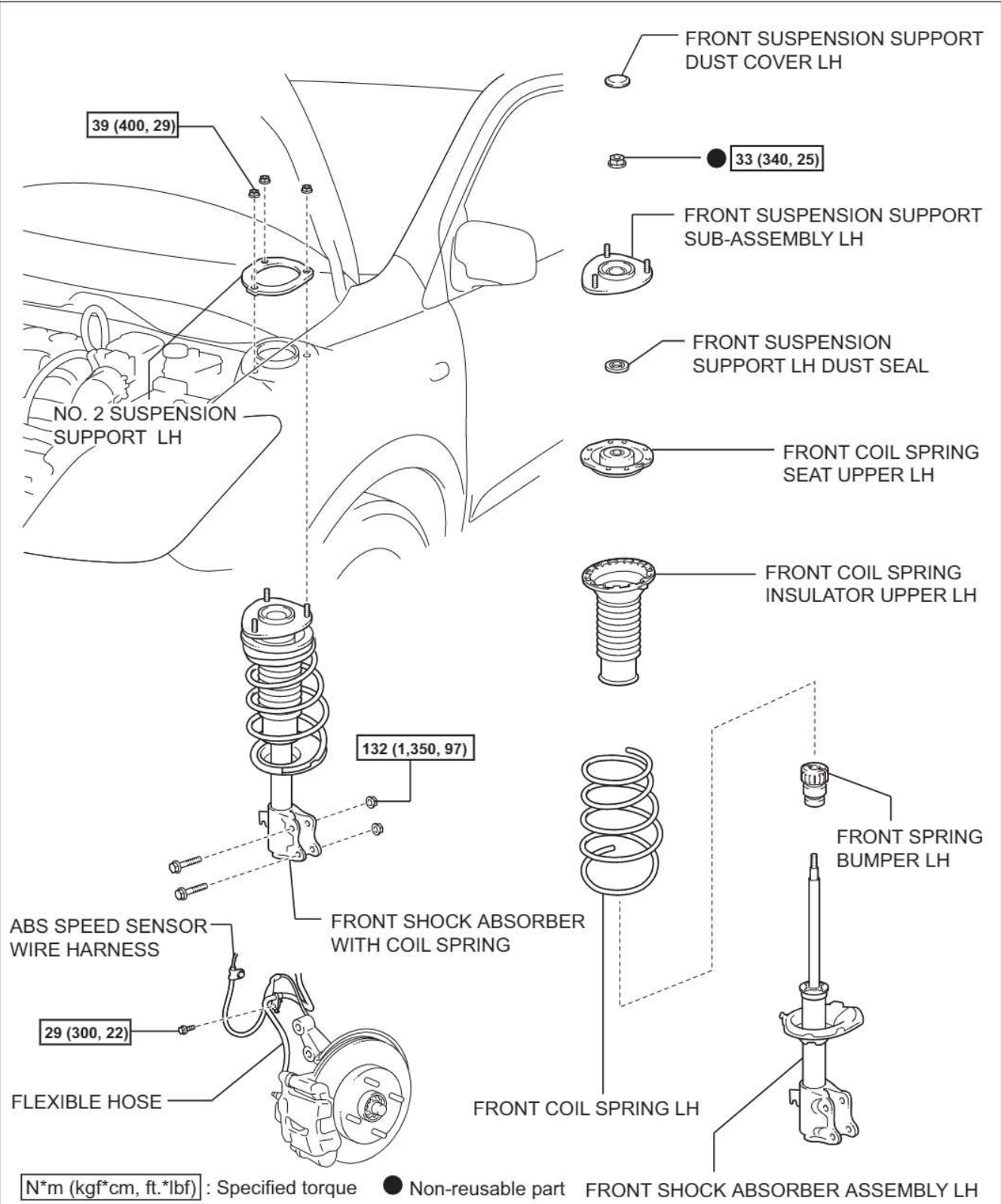
FRONT SHOCK ABSORBER WITH COIL SPRING

COMPONENTS



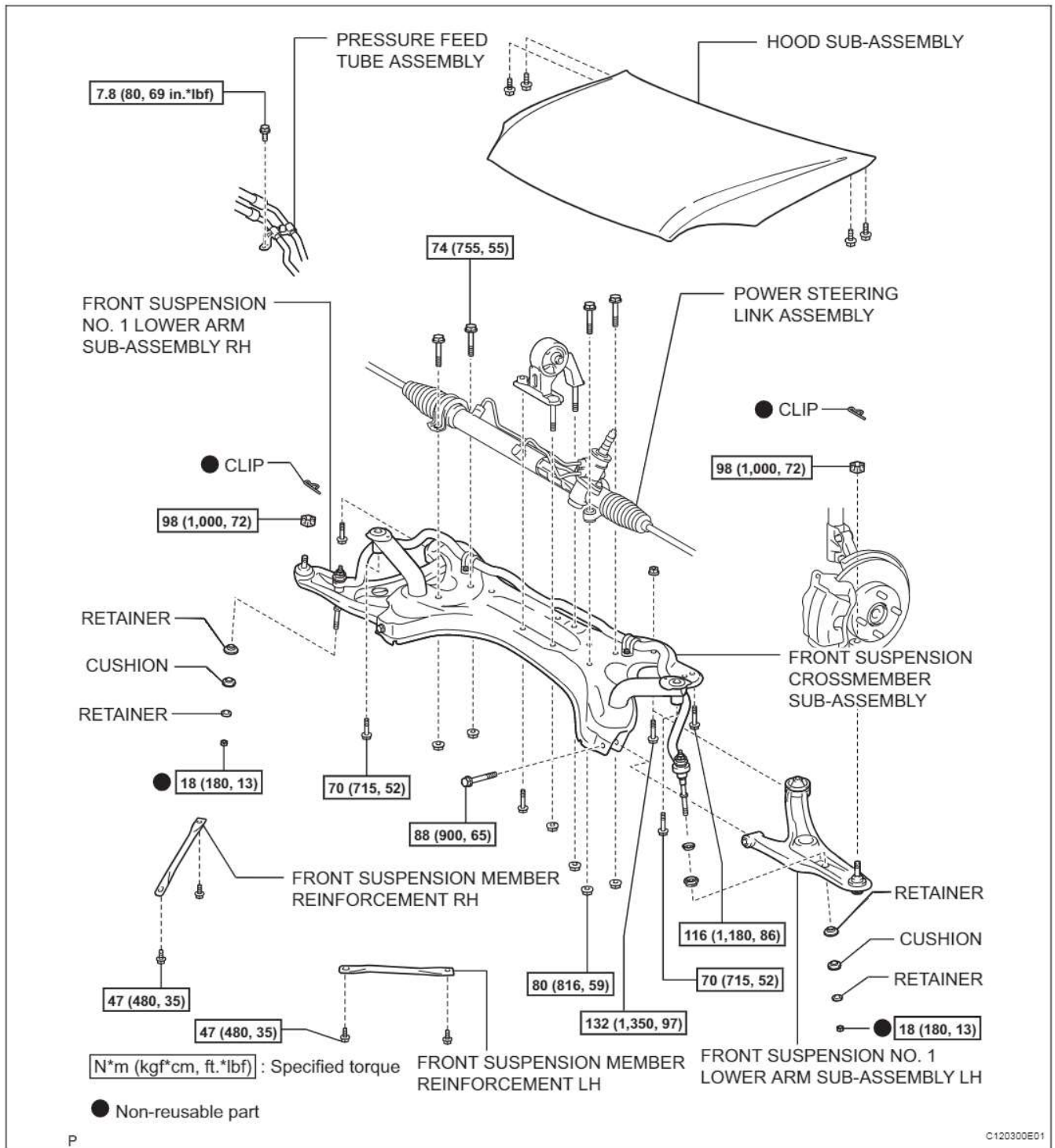
SP-10

SUSPENSION – FRONT SHOCK ABSORBER WITH COIL SPRING



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

COMPONENTS

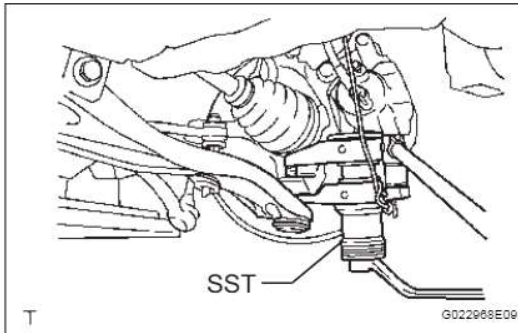


SP

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

The removal on the lower No. 1 RH can be performed without removing the power steering link assembly 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

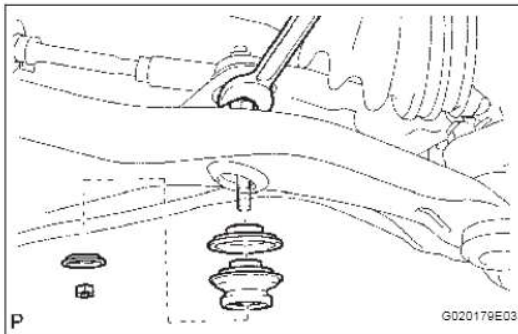


5. **DISCONNECT FRONT SUSPENSION NO. 1 LOWER ARM SUB-ASSEMBLY RH**

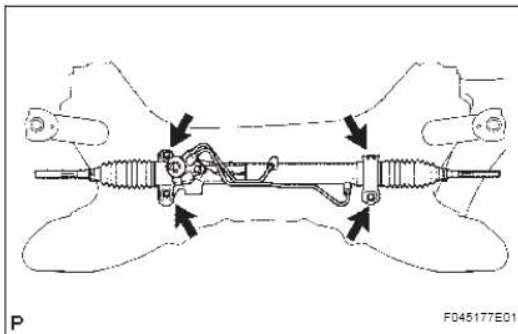
HINT:

Use the same procedures described for the LH side.

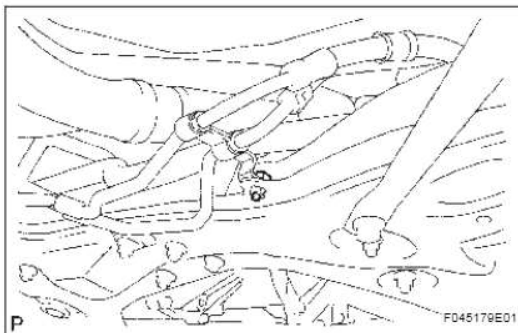
6. **DISCONNECT FRONT STABILIZER BAR**
 - (a) While holding the front stabilizer bolt with a wrench, remove the nut.
 - (b) Remove the 2 retainers and cushion, and then remove the stabilizer bolt.
 - (c) Perform the procedures above on the other side.



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.

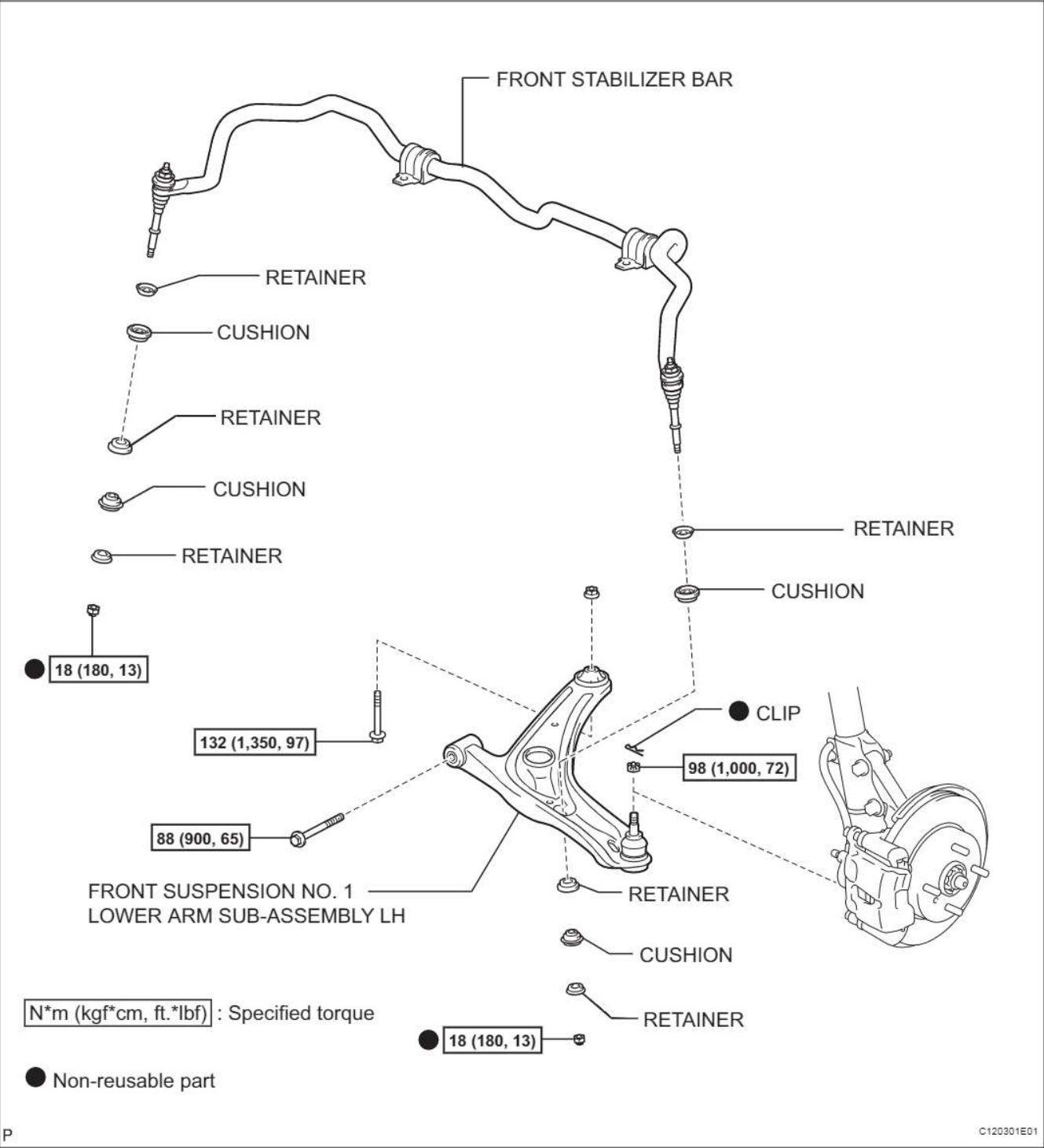


8. **DISCONNECT PRESSURE FEED TUBE ASSEMBLY**
 - (a) Remove the bolt and disconnect the pressure feed tube.
9. **REMOVE FRONT SUSPENSION MEMBER REINFORCEMENT LH**
 - (a) Remove the 2 bolts and reinforcement.
10. **REMOVE FRONT SUSPENSION MEMBER REINFORCEMENT RH**
 - (a) Remove the 2 bolts and reinforcement.

**SP**

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

COMPONENTS



REMOVAL

HINT:

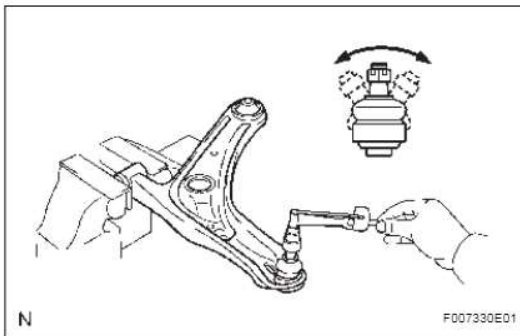
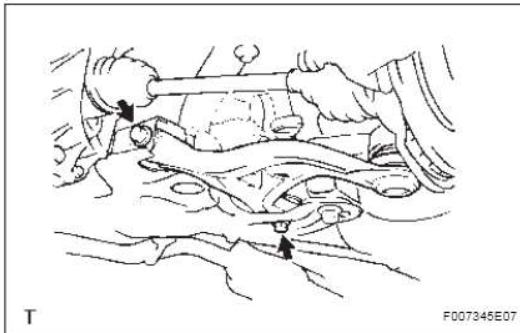
Remove the RH (Manual transmission) following the same procedures as the suspension lower arm LH (Automatic transmission).

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

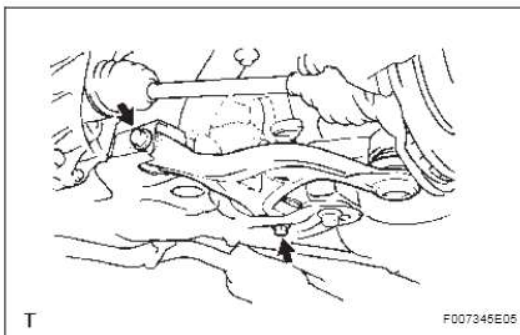
1. INSPECT FRONT SUSPENSION NO. 1 LOWER ARM SUB-ASSEMBLY LH
- (a) As shown in the illustration, flip the ball joint stud back and forth 5 times before installing the nut.
- (b) Using a torque wrench, turn the nut continuously at a rate of 2 to 4 seconds per turn and take the torque reading on the fifth 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 the 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)
5. FULLY TIGHTEN FRONT SUSPENSION NO. 1 LOWER ARM SUB-ASSEMBLY LH
- (a) Install 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



SP

SP-22**SUSPENSION – FRONT SUSPENSION LOWER NO. 1 ARM (for Manual Transaxle)**

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](#)).

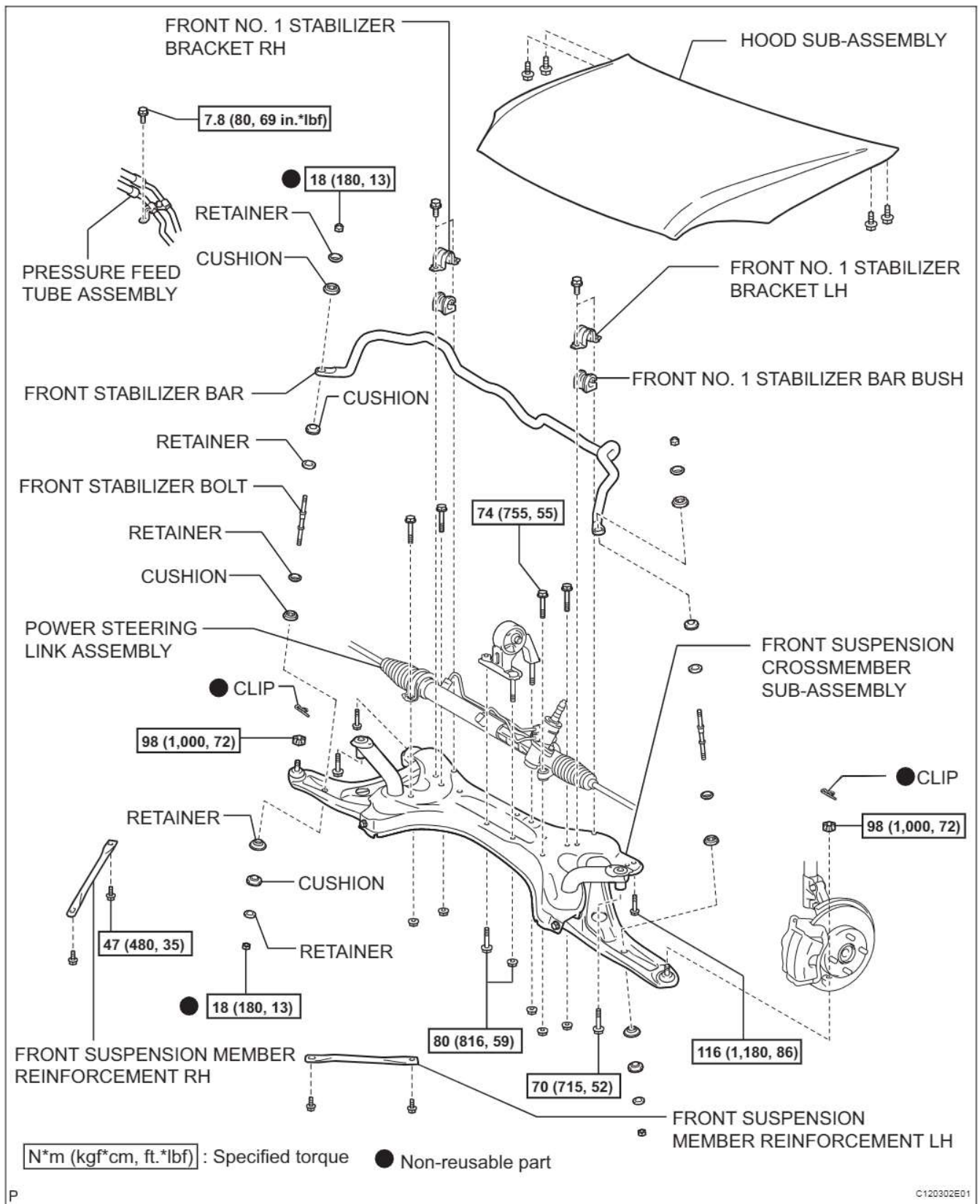
SP

SUSPENSION – FRONT STABILIZER BAR

SP-23

FRONT STABILIZER BAR

COMPONENTS



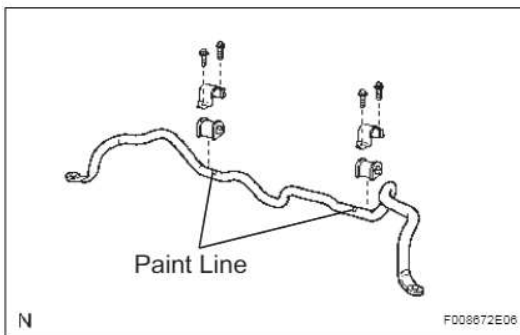
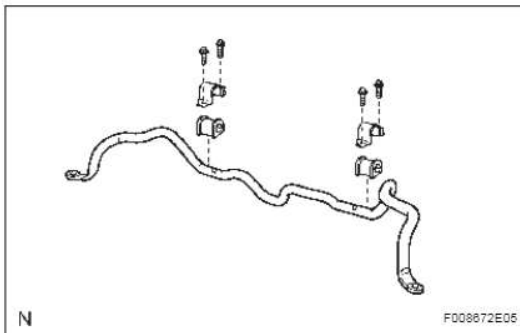
SP

SP-24

SUSPENSION – FRONT STABILIZER BAR

REMOVAL

1. REMOVE FRONT WHEEL
2. DISCONNECT 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 (375 kgf*cm, 27 ft.*lbf)
NOTICE:
 Install the bushes with the slit facing the rear side 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**

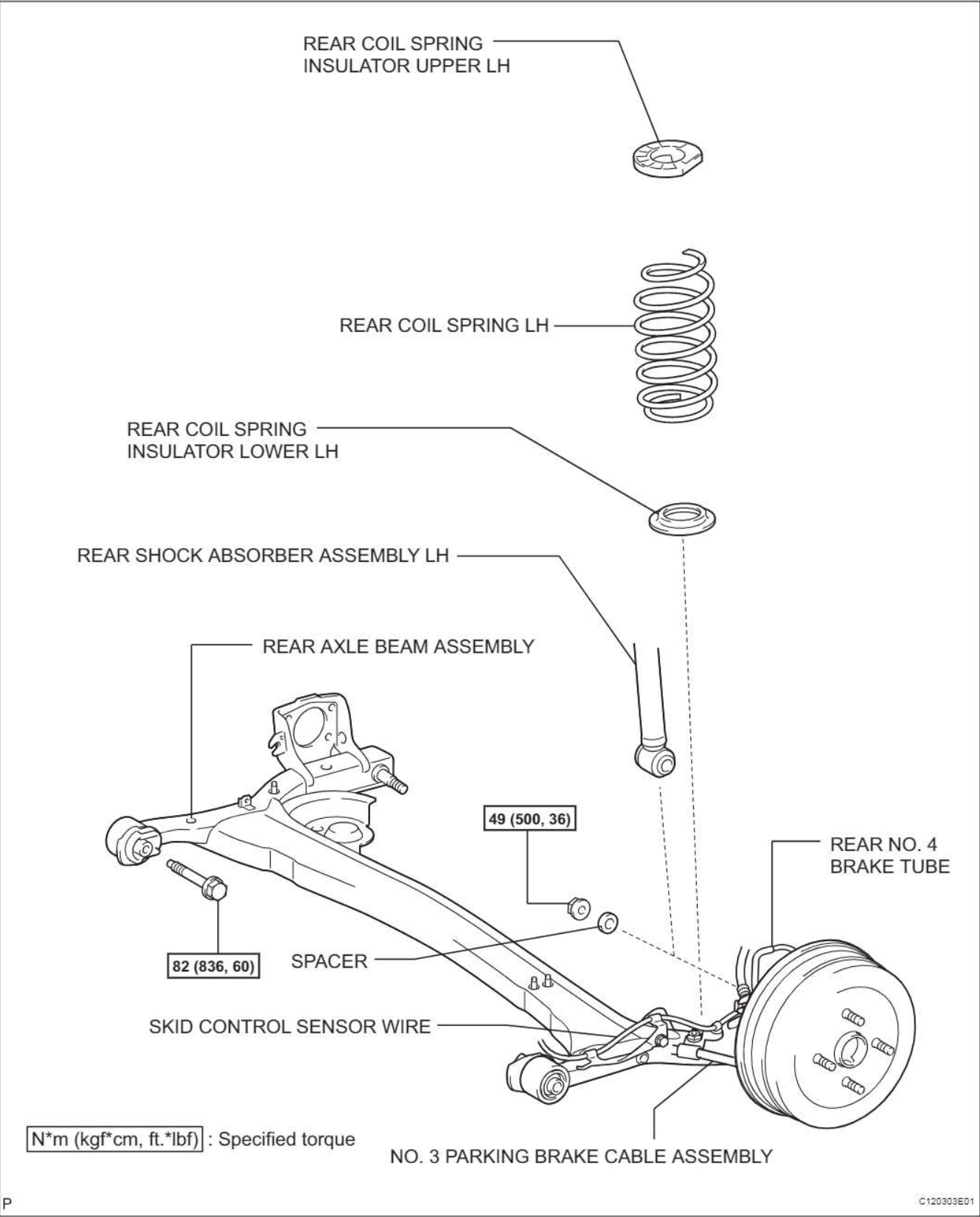
7. **CONNECT FRONT SUSPENSION NO. 1 LOWER ARM SUB-ASSEMBLY RH** (See page [SP-19](#))
8. **INSTALL FRONT WHEEL**
Torque: 103 N*m (1,050 kgf*cm, 76 ft.*lbf)
9. **INSTALL HOOD SUB-ASSEMBLY**
10. **INSPECT HOOD SUB-ASSEMBLY**
11. **ADJUST HOOD SUB-ASSEMBLY**
12. **INSPECT AND ADJUST FRONT WHEEL ALIGNMENT**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

SP

SP-26

SUSPENSION – REAR COIL SPRING

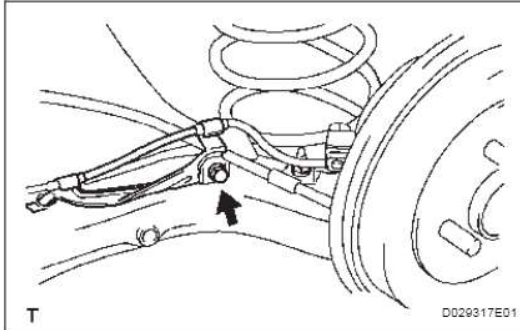
REAR COIL SPRING
COMPONENTS



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

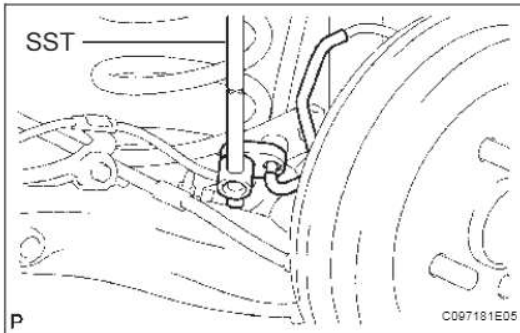
1. **REMOVE REAR WHEEL**
2. **DISCONNECT SKID CONTROL SENSOR WIRE**

- (a) Disconnect the sensor connector.
- (b) Remove the bolt, and disconnect the sensor wire from the axle beam.
HINT:
 Disconnect the RH side using the same procedures as the LH side.



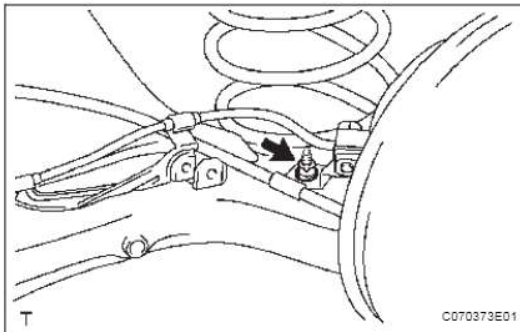
3. **DISCONNECT REAR NO. 4 BRAKE TUBE**

- (a) Using SST, disconnect the 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 side.

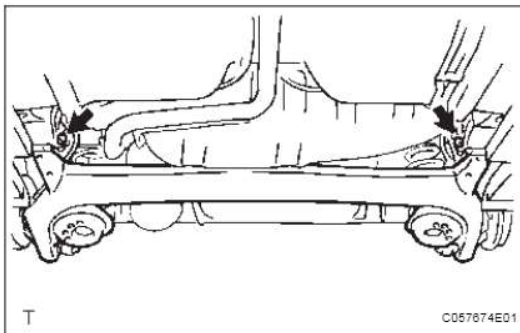


5. **DISCONNECT NO. 3 PARKING BRAKE CABLE ASSEMBLY**

- (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 side.



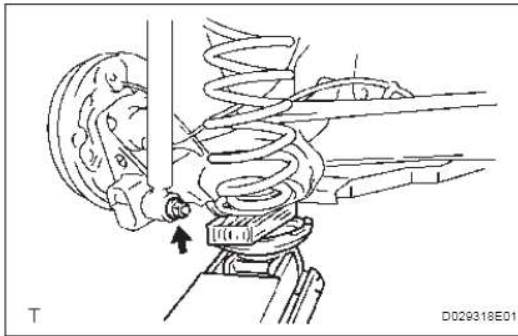
7. **LOOSEN REAR AXLE BEAM ASSEMBLY**

- (a) Loosen the 2 bolts.
NOTICE:
 Do not remove the bolt.

SP

SP-28

SUSPENSION – REAR COIL SPRING



8. DISCONNECT REAR SHOCK ABSORBER ASSEMBLY LH

- (a) Support both right and left sides of the axle beam with jacks.
- (b) Remove the nut and disconnect the shock absorber.

9. DISCONNECT REAR SHOCK ABSORBER ASSEMBLY RH

HINT:

Use the same procedures described for the LH side.

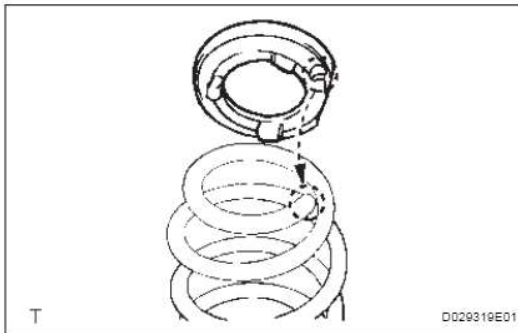
10. REMOVE REAR COIL SPRING LH

- (a) Remove the coil spring, insulator upper and insulator lower by slowly lowering the jacks.

INSTALLATION

1. INSTALL REAR COIL SPRING LH

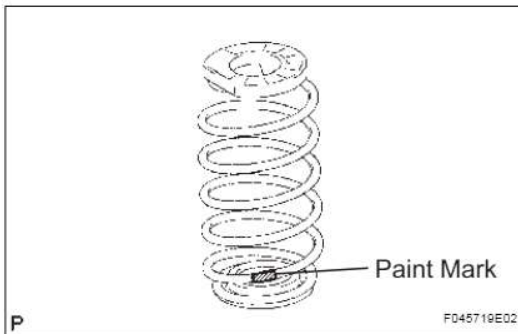
- (a) Install the insulator upper so that its gap fits to the end of the coil spring.



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

NOTICE:

Be sure to install the coil spring so that the paint mark comes to under the vehicle.



2. TEMPORARILY INSTALL REAR SHOCK ABSORBER ASSEMBLY LH

- (a) While raising the jacks, connect the shock absorber to the axle beam.
- (b) Temporarily install the spacer and nut.

3. TEMPORARILY INSTALL REAR SHOCK ABSORBER ASSEMBLY RH

HINT:

Use the same procedures described for the LH side.

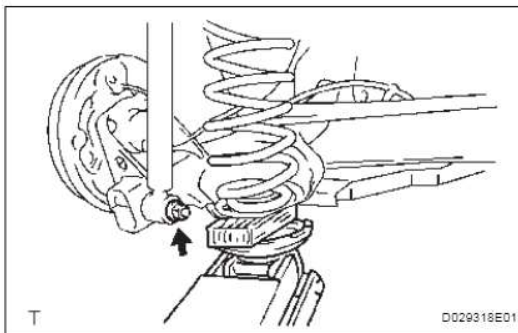
4. CONNECT NO. 3 PARKING BRAKE CABLE ASSEMBLY

- (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:

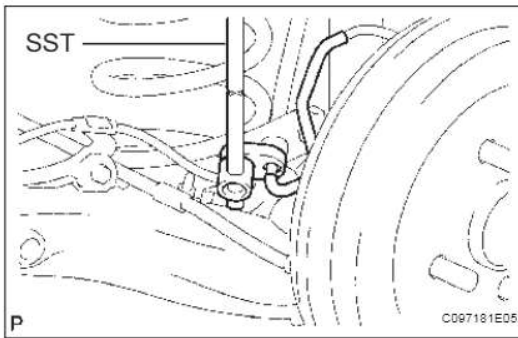
Use the same procedures described for the No. 3 cable.



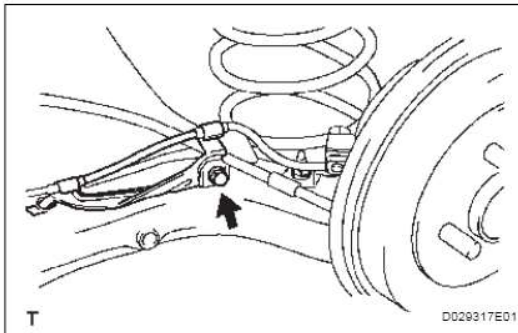
SP

SUSPENSION – REAR COIL SPRING

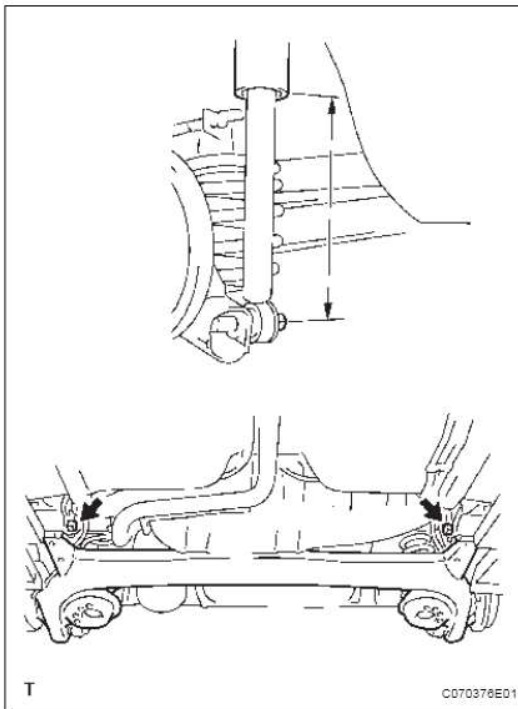
SP-29



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 connector.
HINT:
Use the same procedures described for the other side.



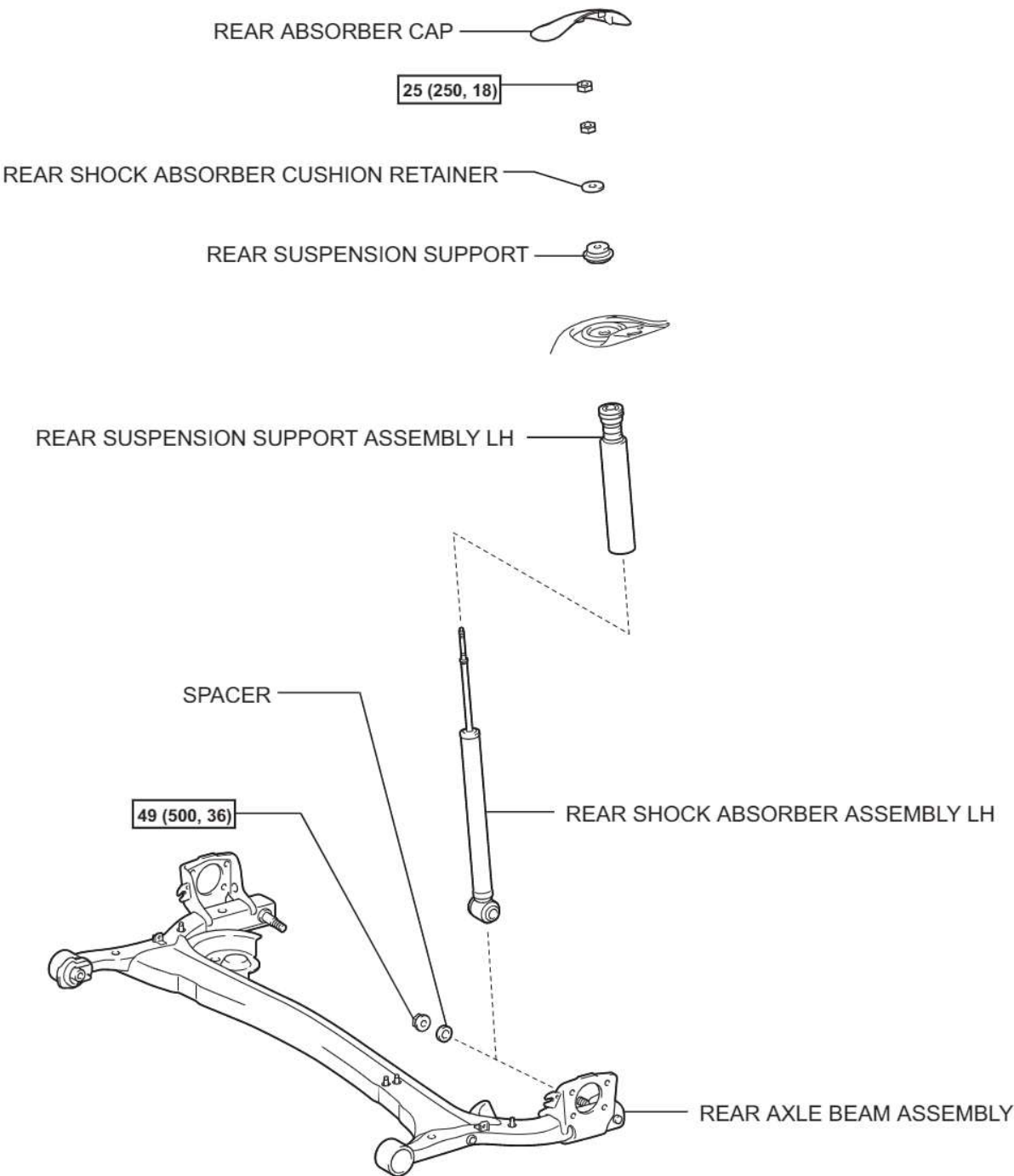
9. **FULLY TIGHTEN REAR AXLE BEAM ASSEMBLY**
 - (a) Stabilize the shock absorber.
HINT:
If it is difficult to tighten the bolt in this position, support the rear axle beam with a jack and load the rear compartment with a mass of approximately 90 kg (198 lb.).
Standard length of shock absorber:
250 mm (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)
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-73](#)).

SP

SP-30

SUSPENSION – REAR SHOCK ABSORBER

REAR SHOCK ABSORBER
COMPONENTS



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

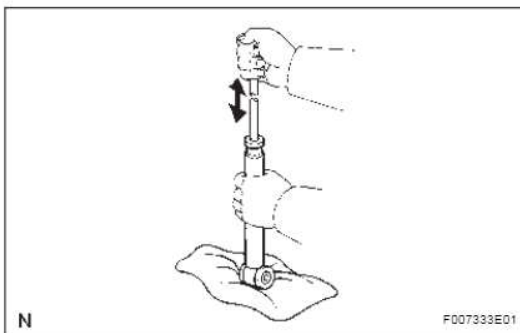
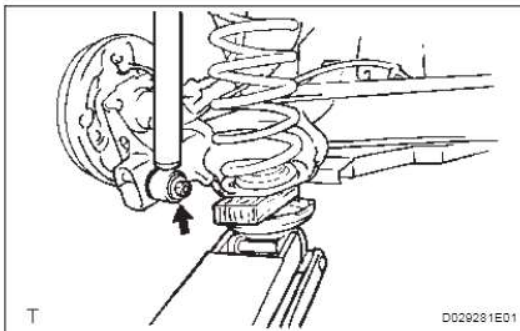
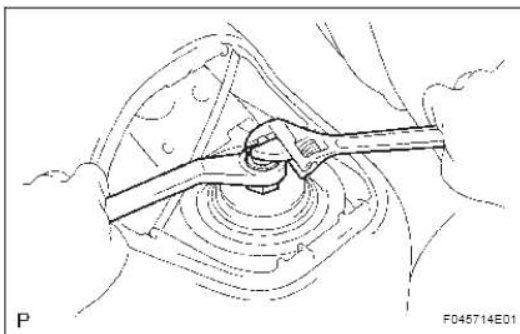
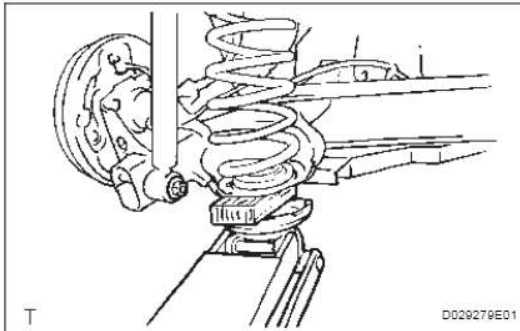
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SP

SUSPENSION – REAR SHOCK ABSORBER**SP-31****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 piston rod, remove the 2 nuts.
- (c) Remove the cushion retainer and 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-32).

SP

SP-32

SUSPENSION – REAR SHOCK ABSORBER

INSTALLATION

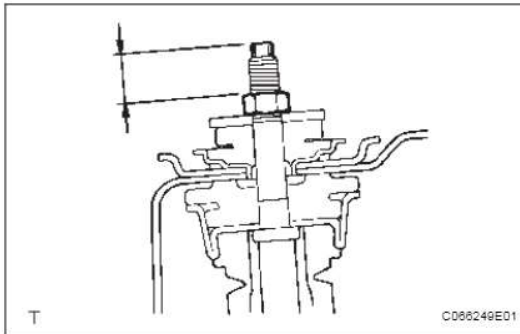
1. INSTALL REAR SHOCK ABSORBER ASSEMBLY LH

- 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 0.710 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 a 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 REAR WHEEL ALIGNMENT

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

DISPOSAL

1. DISPOSE OF REAR SHOCK ABSORBER ASSEMBLY LH

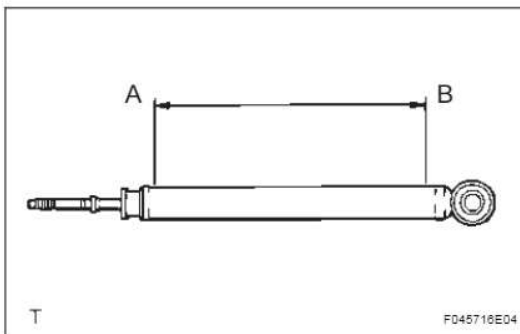
- Fully extend the shock absorber rod.
- Using a drill, make a hole in the cylinder somewhere between A and B as shown in the illustration to discharge the gas inside.

CAUTION:

Be careful when drilling because shards of metal may fly about, so always use the proper safety equipment.

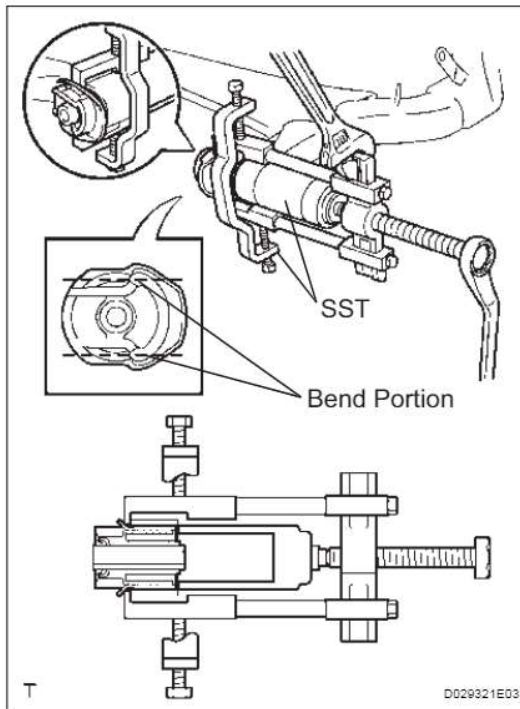
HINT:

The gas is colorless, odorless and non-poisonous.



SUSPENSION – REAR AXLE BEAM

SP-35



DISASSEMBLY

1. REMOVE REAR AXLE CARRIER BUSH LH

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

HINT:

Bend the bush rib so that the claw of SST can be hung.

- (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)

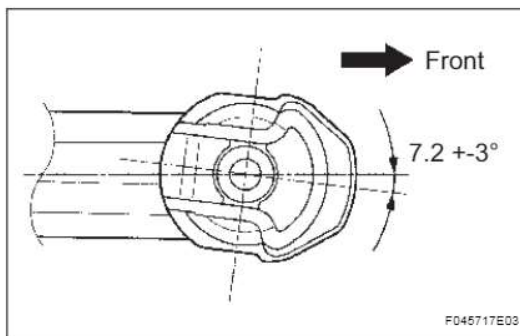
NOTICE:

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 and the axle beam as shown in the illustration.

- (b) Using SST, install the axle carrier bush to 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:

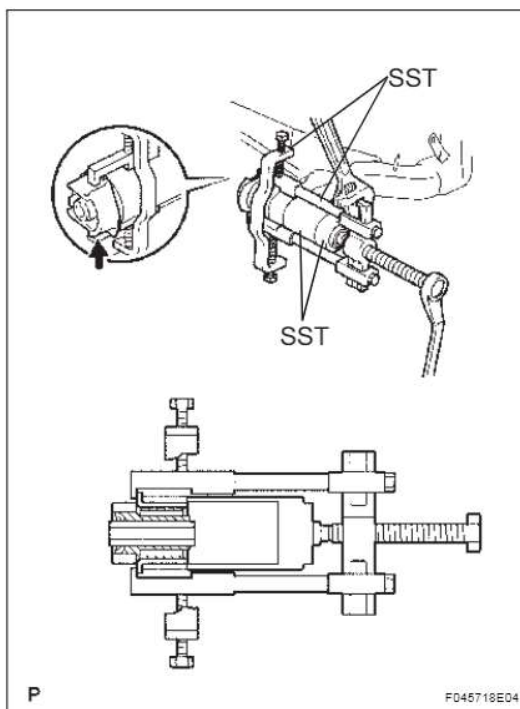
- Hang the claw of SST to the bush securely.
- Do not scratch the rubber portion of the bush.
- Do not deform the bush rib.

SP

2. INSTALL REAR AXLE CARRIER BUSH RH

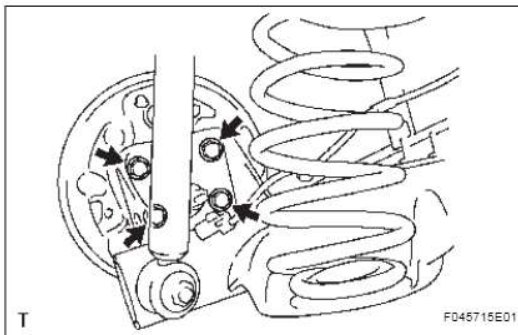
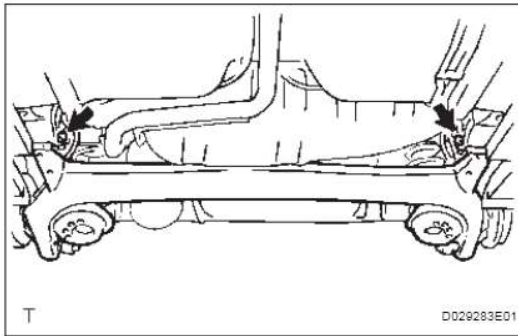
HINT:

Use the same procedures described for the LH side.



SP-36

SUSPENSION – REAR AXLE BEAM



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 procedure 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 (See page [SP-28](#))

6. INSTALL REAR AXLE HUB AND BEARING ASSEMBLY LH

- (a) Install the rear brake 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-34](#)).

9. ADJUST REAR DRUM BRAKE SHOE CLEARANCE

- (a) Adjust the rear drum brake shoe clearance (see page [BR-9](#)).

10. CONNECT NO. 3 PARKING BRAKE CABLE ASSEMBLY (See page [PB-6](#))

11. CONNECT NO. 2 PARKING BRAKE CABLE ASSEMBLY

HINT:

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

12. CONNECT REAR NO. 4 BRAKE TUBE

- (a) Connect the rear No. 4 brake tube (see page [BR-34](#)).

13. CONNECT REAR NO. 3 BRAKE TUBE

HINT:

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

14. CONNECT SKID CONTROL SENSOR WIRE (See page [BC-172](#))15. FULLY TIGHTEN REAR AXLE BEAM ASSEMBLY (See page [SP-29](#))16. FULLY TIGHTEN REAR SHOCK ABSORBER ASSEMBLY LH (See page [SP-29](#))

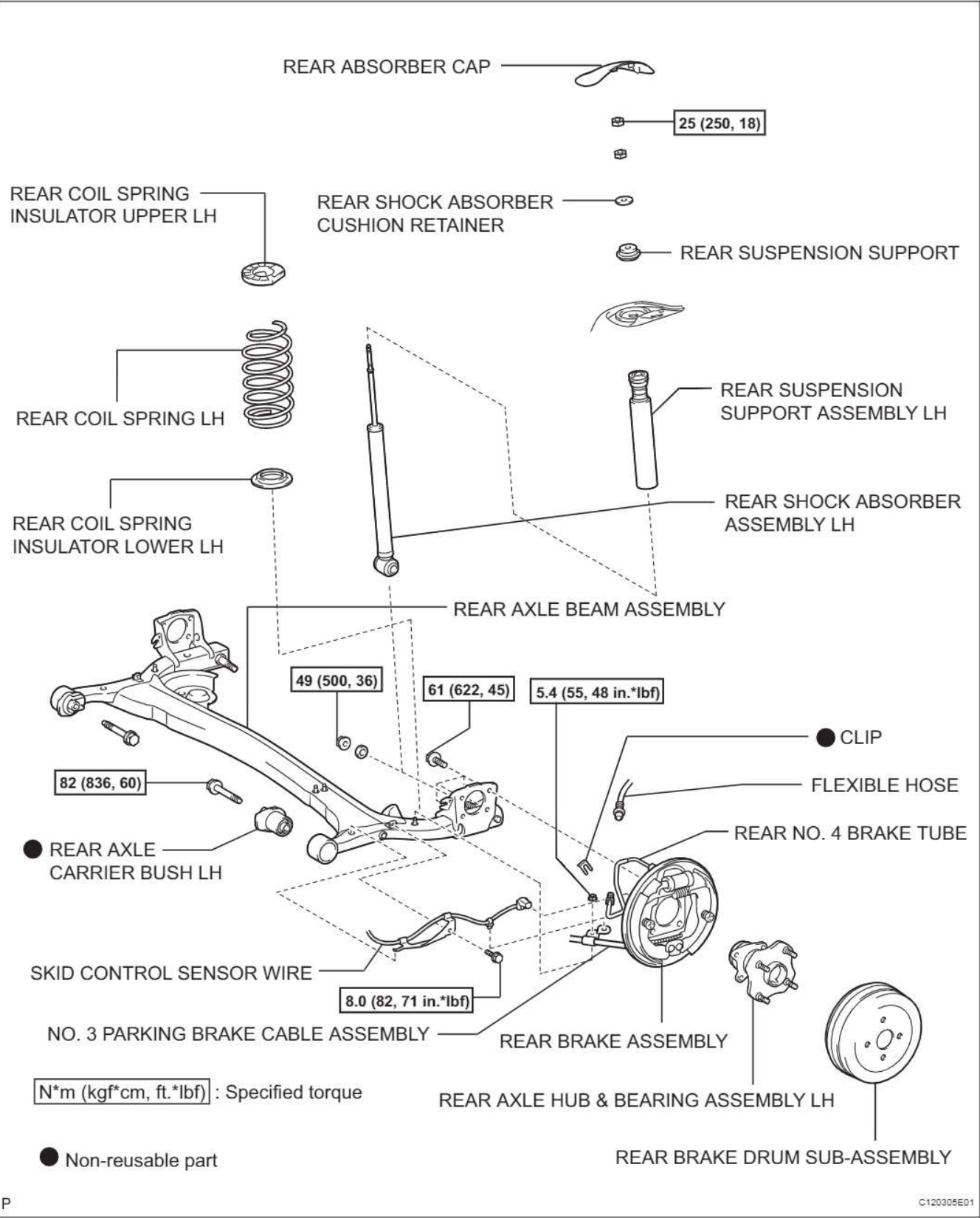
SUSPENSION – REAR AXLE BEAM**SP-37**

- 17. FULLY TIGHTEN REAR SHOCK ABSORBER ASSEMBLY RH** (See page [SP-29](#))
- 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 (see page [BC-73](#)).

SP

REAR AXLE BEAM

COMPONENTS



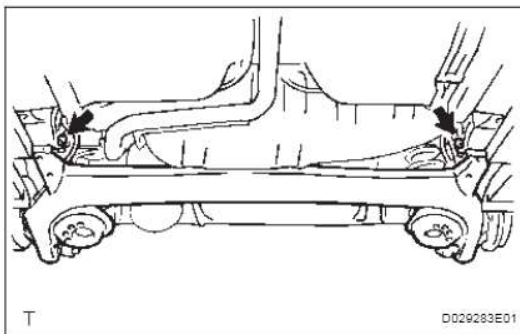
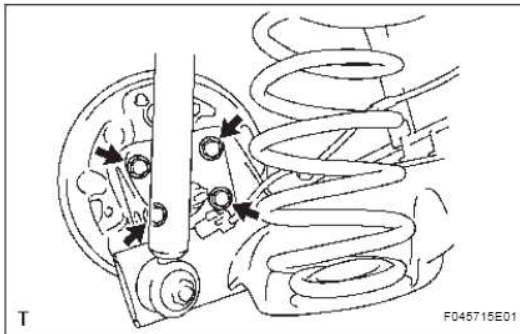
SP

SP-34

SUSPENSION – REAR AXLE BEAM

REMOVAL

1. **REMOVE REAR WHEEL**
2. **DISCONNECT SKID CONTROL SENSOR WIRE** (See page [BC-171](#))
3. **DISCONNECT REAR NO. 4 BRAKE TUBE**
(a) Disconnect the No. 4 brake tube (see page [BR-31](#)).
4. **DISCONNECT REAR NO. 3 BRAKE TUBE**
(a) Disconnect the No. 3 brake tube (see page [BR-31](#)).
5. **DISCONNECT NO. 3 PARKING BRAKE CABLE ASSEMBLY**
(a) Disconnect the No. 3 parking brake cable (see page [PB-4](#)).
6. **DISCONNECT NO. 2 PARKING BRAKE CABLE ASSEMBLY**
(a) Disconnect the No. 2 parking brake cable (see page [PB-4](#)).
7. **REMOVE REAR BRAKE DRUM SUB-ASSEMBLY**
8. **REMOVE REAR AXLE HUB AND BEARING ASSEMBLY LH**
(a) Remove the bolts and rear axle hub bearing.
(b) Separate the rear brake from the rear 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** (See page [SP-27](#))
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.
15. **REMOVE REAR AXLE BEAM ASSEMBLY**
(a) Support the axle beam with a jack.
(b) Remove the 2 bolts and axle beam.



SP