

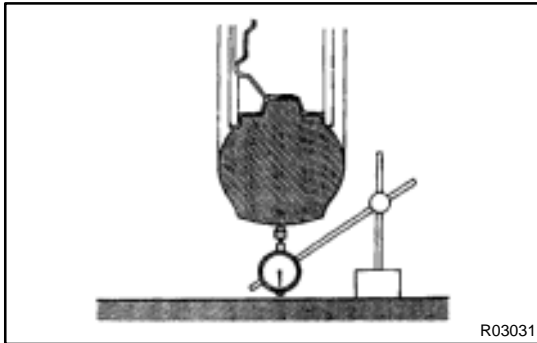
# TROUBLESHOOTING

## PROBLEM SYMPTOMS TABLE

SA077-01

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

Symptom	Suspect Area	See page
Wander/pulls	1. Tire (Worn or improperly inflated) 2. Wheel alignment (Incorrect) 3. Steering linkage (Loosen or worn) 4. Hub bearings (Worn) 5. Suspension parts (Worn) 6. Steering gear (Out of adjustment or broken)	<a href="#">SA-2</a> <a href="#">SA-4</a> <a href="#">SA-7</a> – <a href="#">SA-10</a> – –
Bottoming	1. Vehicle (Overloaded) 2. Spring (Weak) 3. Shock absorber (Worn)	– <a href="#">SA-33</a> <a href="#">SA-56</a> <a href="#">SA-33</a> <a href="#">SA-56</a>
Sways/pitches	1. Tire (Worn or improperly inflated) 2. Stabilizer bar (Bent or broken) 3. Shock absorber (Worn)	<a href="#">SA-2</a> <a href="#">SA-47</a> <a href="#">SA-69</a> <a href="#">SA-33</a> <a href="#">SA-56</a>
Front wheel shimmy	1. Tire (Worn or improperly inflated) 2. Wheels (Out of balance) 3. Shock absorber (Worn) 4. Wheel alignment (Incorrect) 5. Ball joints (Worn) 6. Hub bearings (Worn) 7. Steering linkage (Loosen or worn) 8. Steering gear (Out of adjustment or broken)	<a href="#">SA-2</a> <a href="#">SA-2</a> <a href="#">SA-33</a> <a href="#">SA-56</a> <a href="#">SA-4</a> <a href="#">SA-7</a> <a href="#">SA-43</a> <a href="#">SA-10</a> – –
Abnormal tire wear	1. Tire (Worn or improperly inflated) 2. Wheels (Out of balance) 3. Suspension parts (Worn) 4. Shock absorber (Worn)	<a href="#">SA-2</a> <a href="#">SA-2</a> – <a href="#">SA-33</a> <a href="#">SA-56</a>



## TIRE AND WHEEL INSPECTION

SA078-01

### 1. INSPECT TIRE

- (a) Check the tires for wear and proper inflation pressure.

**Cold inflation pressure:**

**Normal driving**

Tire size	Front, Rear kPa (kgf/cm <sup>2</sup> or bar, psi)
P195/70R14 90S, 90H	210 (2.1, 30)
P205/65R15 92H	*1 220 (2.2, 32) *2 200 (2.0, 29)

\*1: For all loads including full rated loads

\*2: For reduced loads (1 to 4 passengers)

**Trailer towing**

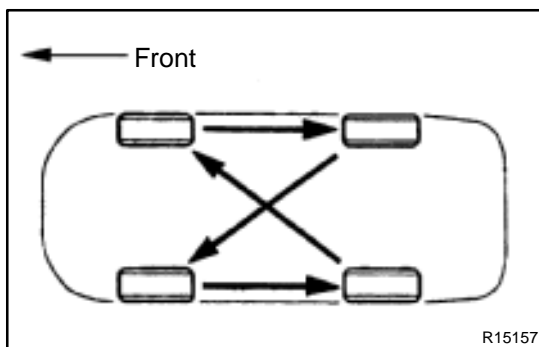
Tire size	Front, Rear kPa (kgf/cm <sup>2</sup> or bar, psi)
P195/70R14 90S	*1 210 (2.1, 30) *2 240 (2.4, 36)
P205/65R15 92H	*1 220 (2.2, 32) *2 240 (2.4, 36)

\*1: For driving under 160 km/h (100 mph)

\*2: For driving at 160 km/h (100 mph) or over

- (b) Check the tire runout.

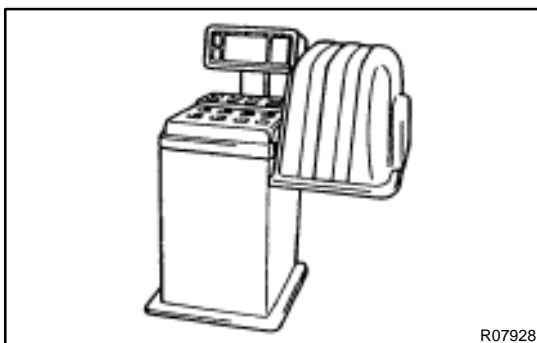
**Tire runout: 1.0 mm (0.039 in.) or less**



### 2. ROTATING TIRES

HINT:

See the illustration for where to rotate each tire.

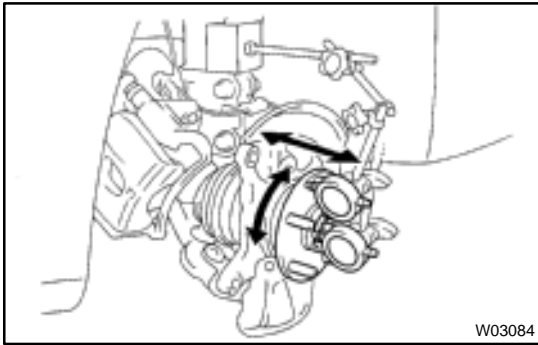


### 3. INSPECT WHEEL BALANCE

- (a) Check and adjust the Off-the-car balance.  
(b) If necessary, check and adjust the On-the-car balance.

**Imbalance after adjustment:**

**8.0 g (0.018 lb) or less**

**4. CHECK WHEEL BEARING LOOSENESS**

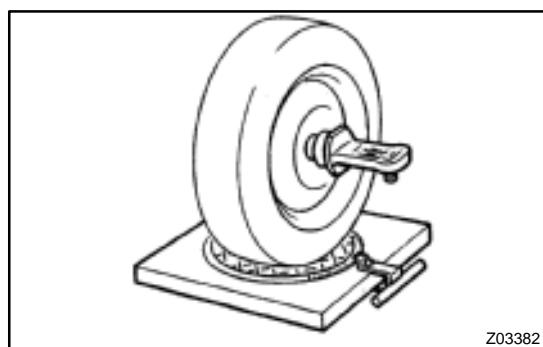
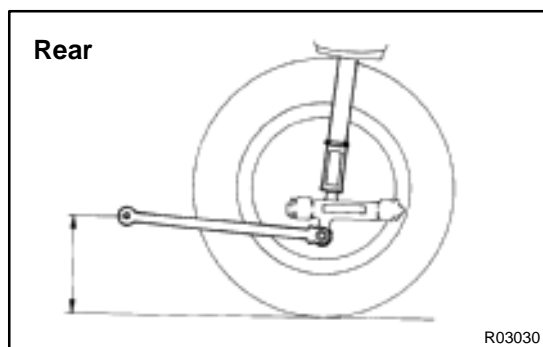
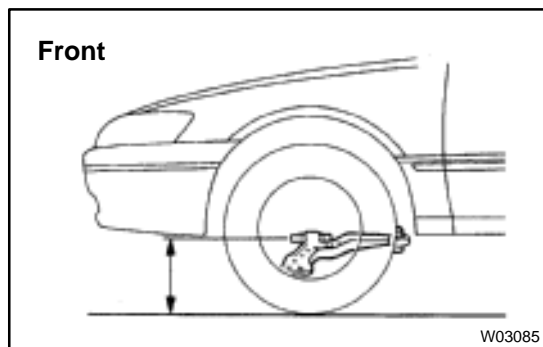
- (a) Check the backlash in the bearing shaft direction.  
**Maximum: 0.05 mm (0.0020 in.)**

- (b) Check the axle hub deviation.

**Maximum: 0.05 mm (0.0020 in.)**

**5. CHECK FRONT SUSPENSION FOR LOOSENESS****6. CHECK STEERING LINKAGE FOR LOOSENESS****7. CHECK BALL JOINT FOR LOOSENESS****8. CHECK SHOCK ABSORBER WORKS PROPERLY**

- ◆ Check for oil leaks
- ◆ Check mounting bushings for wear
- ◆ Check front and rear of the vehicle for bounce



## FRONT WHEEL ALIGNMENT INSPECTION

SA079-01

### 1. MEASURE VEHICLE HEIGHT

Tire size	Front* <sup>1</sup> mm (in.)	Rear* <sup>2</sup> mm (in.)
195/70R14	212 (8.35)	264 (10.39)
205/65R15	215 (8.46)	266 (10.49)

#### \*1: Front measuring point

Measure from the ground to the center of the front side lower suspension arm mounting bolt.

#### \*2: Rear measuring point

Measure from the ground to the center of the strut rod mounting bolt.

#### NOTICE:

**Before inspecting the wheel alignment, adjust the vehicle height to the specification.**

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

### 2. INSTALL CAMBER-CASTER-KINGPIN GAUGE ONTO VEHICLE OR POSITION VEHICLE ON WHEEL ALIGNMENT TESTER

Follow the specific instructions of the equipment manufacturer.

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

	5S-FE	1MZ-FE
Camber	$-0^{\circ}36' \pm 45'$ ( $-0.6^{\circ} \pm 0.75^{\circ}$ )	$-0^{\circ}37' \pm 45'$ ( $-0.62^{\circ} \pm 0.75^{\circ}$ )
Left-right error	45' (0.75°) or less	45' (0.75°) or less
Caster	$2^{\circ}10' \pm 45'$ ( $2.17^{\circ} \pm 0.75^{\circ}$ )	$2^{\circ}11' \pm 45'$ ( $2.18^{\circ} \pm 0.75^{\circ}$ )
Left-right error	45' (0.75°) or less	45' (0.75°) or less
Steering axis inclination	$13^{\circ}01' \pm 45'$ ( $13.02^{\circ} \pm 0.75^{\circ}$ )	$13^{\circ}04' \pm 45'$ ( $13.07^{\circ} \pm 0.75^{\circ}$ )
Left-right error	45' (0.75°) or less	45' (0.75°) or less

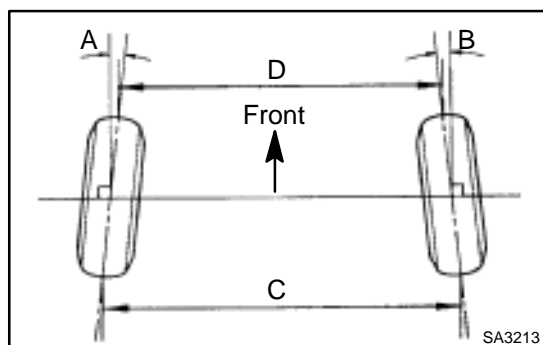
#### HINT:

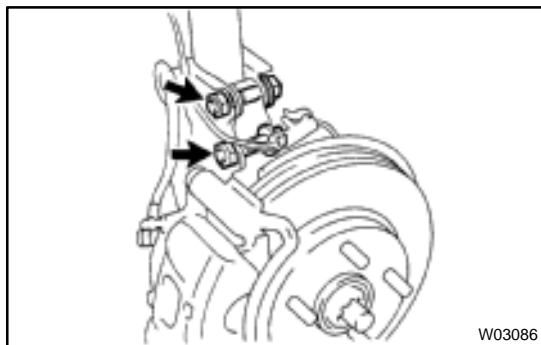
If the caster and steering axis inclination are not within the specification, after the camber has correctly adjusted, recheck the suspension parts for damaged and/or worn out parts.

### 4. INSPECT TOE-IN

Toe-in (Total)	A + B: $0^{\circ} \pm 12'$ ( $0^{\circ} \pm 0.2^{\circ}$ ) C - D: $0 \pm 2$ mm ( $0 \pm 0.08$ in.)
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If the toe-in is not within the specification, adjust it at the rack ends.



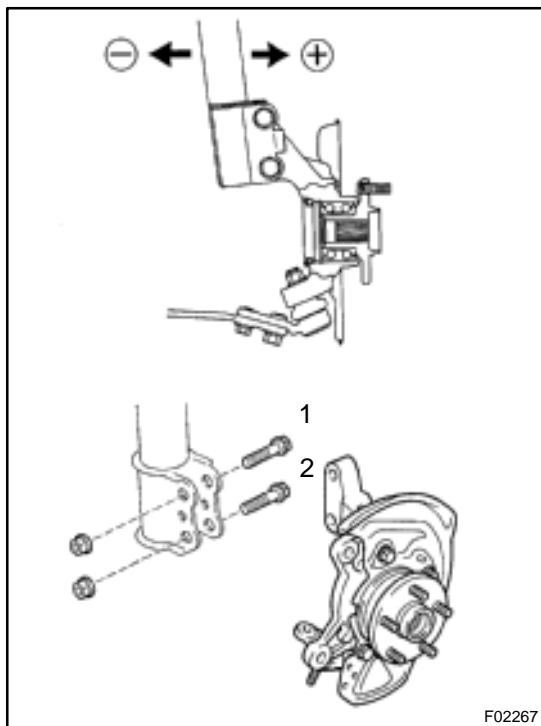


## 5. ADJUST CAMBER

### NOTICE:

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

- Remove the front wheels and speed sensor clamp.
- Remove the 2 nuts on the lower side of the shock absorber.
- Coat the threads of the nuts with engine oil.
- Temporarily install the 2 nuts.



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

- Tighten the nuts.

**Torque: 211 N·m (2,150 kgf·cm, 156 ft·lbf)**

- Install the front wheels.





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

- Check the camber.

### HINT:

- Try to adjust the camber to the center value.
- Adjusting value for the set bolts is 6' – 30' (0.1° – 0.5°).

If the camber is not within the specification, using the table below, estimate for how much additional camber adjustment will be required, and select the camber adjusting bolt.

Bolt	Set Bolt		Adjusting Bolt					
	90105-15001		90105-15004		90105-15005		90105-15006	
			1 Dot		2 Dots		3 Dots	
Adjusting Value								
	1	2	1	2	1	2	1	2
15'	●			●				
30'	●					●		
45'	●							●
1°00'			●					●
1°15'					●			●
1°30'							●	●

F01195

- Follow the above mentioned steps again. Between step (b) and (c), exchange 1 or 2 selected bolts.

### HINT:

When exchanging the 2 bolts, exchange 1 bolt for each time.



## 6. ADJUST TOE-IN

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

HINT:

- ◆ Try to adjust the toe-in to the center value.
- ◆ Make sure that the length of the left and right rack ends is the same.

**Rack end length difference:**

**1.5 mm (0.059 in.) or less**

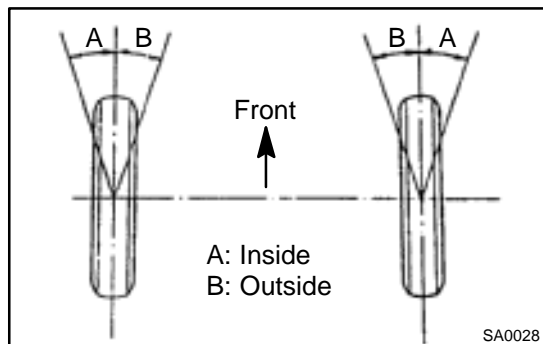
- Torque the tie rod end lock nuts.

**Torque: 74 N·m (750 kgf-cm, 54 ft-lbf)**

- Place the boot on the seat and install the clip it.

HINT:

Make sure that the boots are not twisted.



## 7. INSPECT WHEEL ANGLE

Turn the steering wheel fully, and measure the turning angle.

Tire size	Inside wheel	Outside wheel <Reference>
195/70R14	$37^{\circ}12' \pm 2^{\circ}$ ( $37.2^{\circ} \pm 2^{\circ}$ )	$32^{\circ}21'$ ( $32.45^{\circ}$ )
205/65R15	$35^{\circ}47' \pm 2^{\circ}$ ( $35.78^{\circ} \pm 2^{\circ}$ )	$31^{\circ}25'$ ( $31.42^{\circ}$ )

If the wheel angles differ from the specification, check the left and right rack end length.

## REAR WHEEL ALIGNMENT INSPECTION

SA07A-01

### 1. MEASURE VEHICLE HEIGHT

Vehicle height: See page [SA-4](#)

#### NOTICE:

Before inspecting the wheel alignment, adjust the vehicle height to specification.

### 2. INSTALL CAMBER – CASTER – KINGPIN GAUGE ONTO VEHICLE OR POSITION VEHICLE ON WHEEL ALIGNMENT TESTER

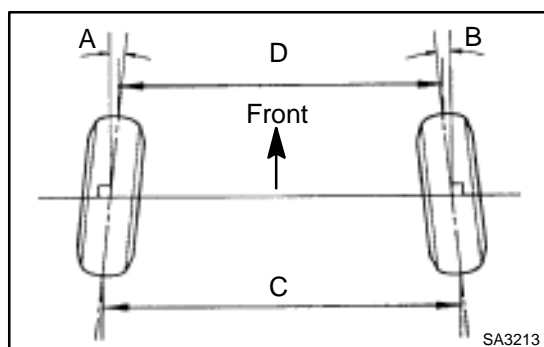
Follow the specific instructions on the equipment manufacturer.

### 3. INSPECT CAMBER

	5S-FE	1MZ-FE
Camber	$-0^{\circ}42' \pm 45'$ $(-0.7^{\circ} \pm 0.75^{\circ})$	$-0^{\circ}45' \pm 45'$ $(-0.75^{\circ} \pm 0.75^{\circ})$
Left-right error	45' (0.75°) or less	45' (0.75°) or less

#### HINT:

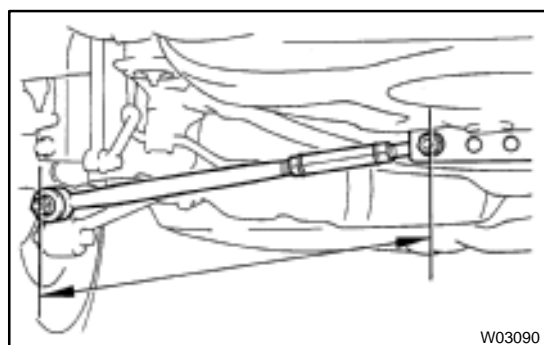
Camber is not adjustable, if measurement is not within the specifications, inspect the suspension parts for damaged and/or worn-out parts and replace them as necessary.



### 4. INSPECT TOE-IN

Toe-in (Total)	A + B: $0^{\circ}24' \pm 12'$ ( $0.4^{\circ} \pm 0.2^{\circ}$ ) C - D: $4 \pm 2$ mm ( $0.16 \pm 0.08$ in.)
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If the toe-in is not within the specification, adjust it at the No.2 lower suspension arm.

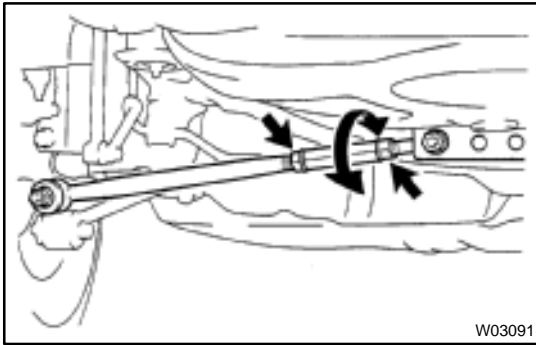


### 5. ADJUST TOE-IN

- (a) Measure the length of the left and right No.2 lower suspension arms.

**No.2 lower suspension arm length difference:  
1 mm (0.04 in.) or less**

If the left-right difference is larger than the specification, adjust the length.



- (b) Loosen the lock nuts.
- (c) Turn the left and right lower suspension arms an equal amount to adjust toe-in.

HINT:

- ◆ Try to adjust the toe-in to the center value.
- ◆ One turn of the each adjusting tube will adjust the toe-in about 36' (0.6°, 6.7 mm, 0.264 in.).

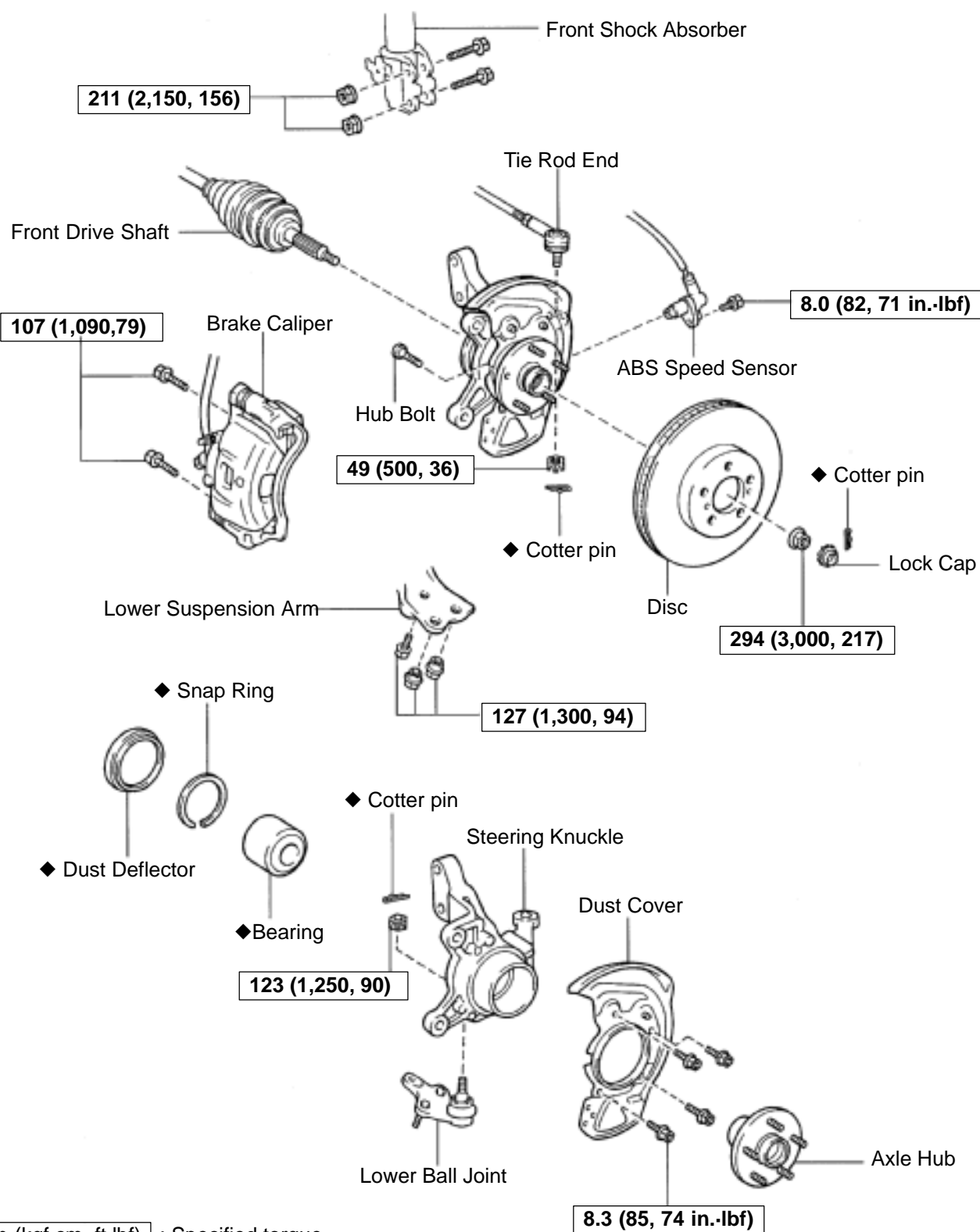
- (d) Torque the lock nuts.

**Torque: 56 N·m (570 kgf-cm, 41 ft-lbf)**



# FRONT AXLE HUB COMPONENTS

SA07B-01



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

◆ Non-reusable part

W03092

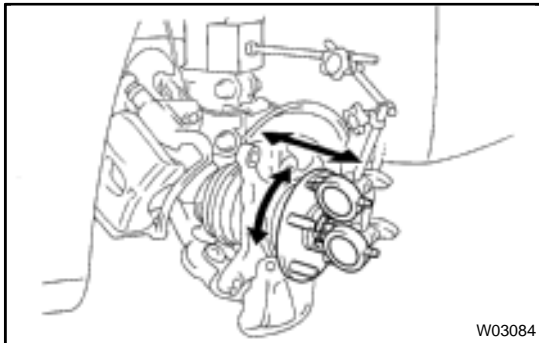
## REMOVAL

### 1. REMOVE FRONT WHEEL

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

### 2. CHECK BEARING BACKLASH AND AXLE HUB DEVIATION

- (a) Remove the 2 bolts, brake caliper and disc.
- (b) Support the brake caliper securely.



- (c) Using a dial indicator near the center of the axle hub and check the backlash in the bearing shaft direction.

**Maximum: 0.05 mm (0.0020 in.)**

If the backlash exceeds the maximum, replace the bearing.

- (d) Using a dial indicator, check the deviation at the surface of the axle hub outside the hub bolt.

**Maximum: 0.05 mm (0.0020 in.)**

If the deviation exceeds the maximum, replace the bearing.

- (e) Install the disc, 2 bolts and brake caliper.

**Torque: 107 N·m (1,090 kgf·cm, 79 ft·lbf)**

### 3. REMOVE DRIVE SHAFT LOCK NUT

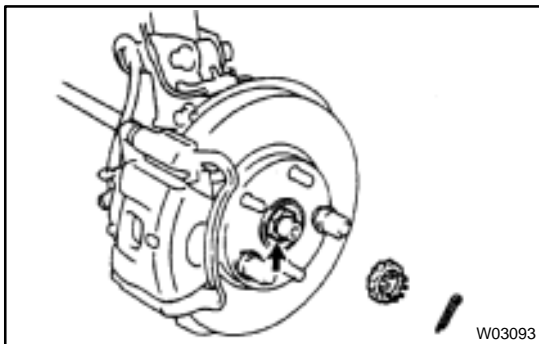
- (a) Remove the cotter pin and lock cap.
- (b) With applying the brakes, remove the nut.
- (c) Remove the brake caliper and disc.

**Torque: 294 N·m (3,000 kgf·cm, 217 ft·lbf)**

### 4. w/ ABS:

### REMOVE ABS SPEED SENSOR AND WIRE HARNESS CLAMP

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

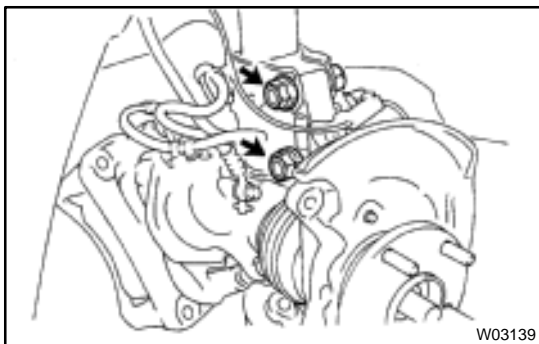


### 5. LOOSEN 2 NUTS ON LOWER SIDE OF SHOCK ABSORBER

**Torque: 211 N·m (2,150 kgf·cm, 156 ft·lbf)**

#### HINT:

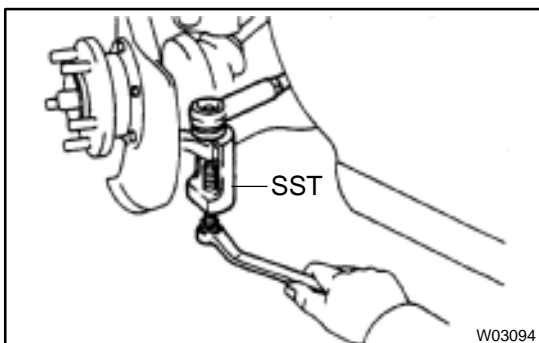
- ◆ Do not remove the bolts.
- ◆ At the time of installation, coat the nut's thread with engine oil.

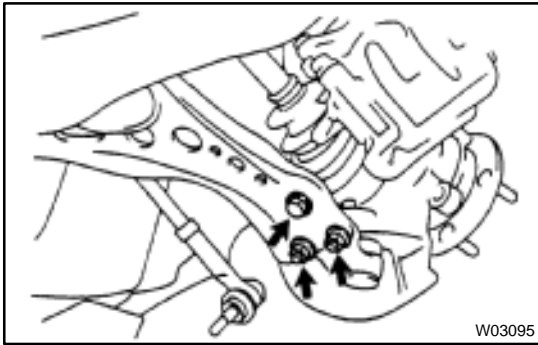


### 6. DISCONNECT TIE ROD END FROM STEERING KNUCKLE

- (a) Remove the cotter pin and nut.
- (b) Using SST, disconnect the tie rod end from the steering knuckle.

SST 09610-20012





**7. DISCONNECT LOWER BALL JOINT FROM LOWER ARM**

Remove the 2 nuts and bolt.

**Torque: 127 N·m (1,300 kgf·cm, 94 ft·lbf)**

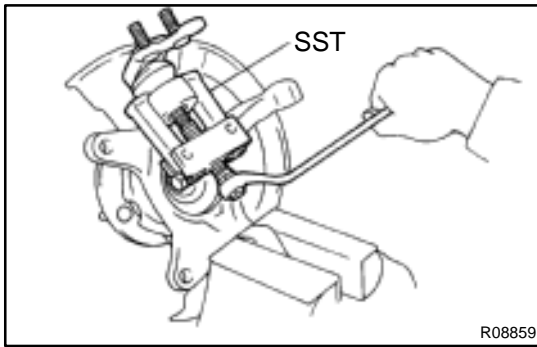
**8. REMOVE STEERING KNUCKLE WITH AXLE HUB**

(a) Remove the 2 bolts on the lower side of the shock absorber.

(b) Remove the steering knuckle with the axle hub.

**NOTICE:**

**Be careful not to damage the oil seal with drive shaft.**



## DISASSEMBLY

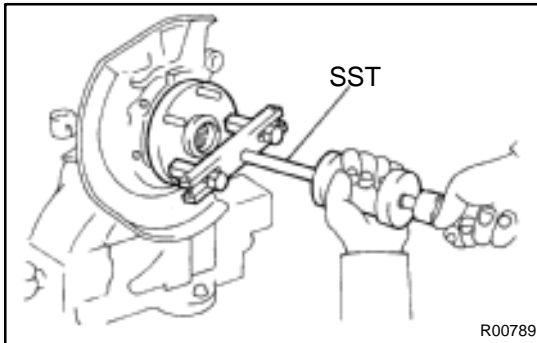
### 1. REMOVE DUST DEFLECTOR

Using a screwdriver, remove the dust deflector.

### 2. REMOVE LOWER BALL JOINT

- Remove the cotter pin and nut.
- Using SST, remove the lower ball joint.

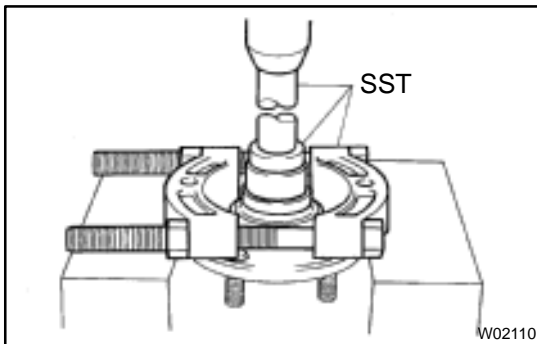
SST 09628-62011



### 3. REMOVE AXLE HUB

- Using SST, remove the axle hub.

SST 09520-00031

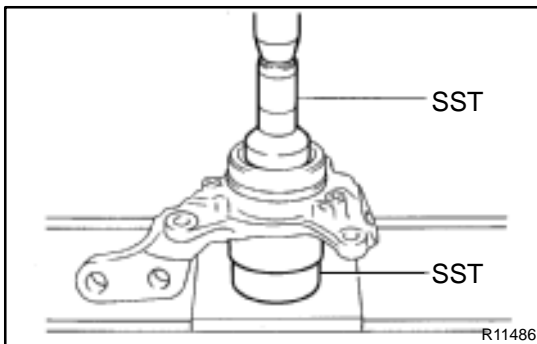


- Using SST and a press, remove the inner race (outside) from the axle hub.

SST 09950-00020, 09950-60010 (09951-00400),  
09950-70010 (09951-07100)

### 4. REMOVE DUST COVER

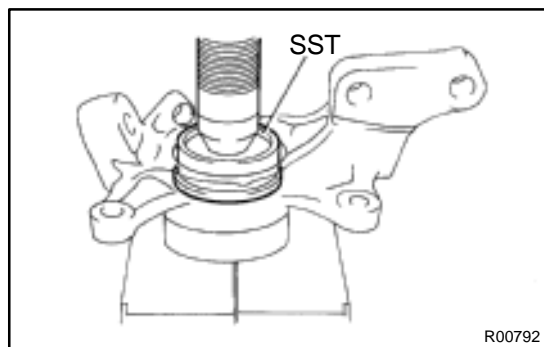
Using a torx wrench (T30), remove the 4 bolts and dust cover.



### 5. REMOVE BEARING FROM STEERING KNUCKLE

- Using snap ring pliers, remove the snap ring.
- Place the inner race on the outside of the bearing.
- Using SST and a press, remove the bearing.

SST 09310-35010, 09527-17011



## REASSEMBLY

### 1. INSTALL BEARING

- (a) Using SST and a press, install a new bearing to the steering knuckle.

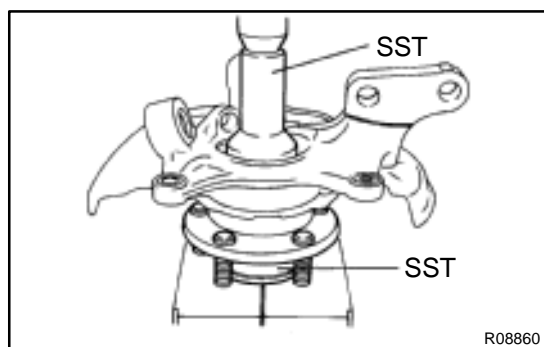
SST 09608-32010

- (b) Using snap ring pliers, install a new snap ring.

### 2. INSTALL DUST COVER

Place the dust cover and using a torx wrench (T30), torque the 4 bolts.

**Torque: 8.3 N·m (85 kgf·cm, 74 in.-lbf)**



### 3. INSTALL FRONT AXLE HUB

Using SST and a press, install the axle hub.

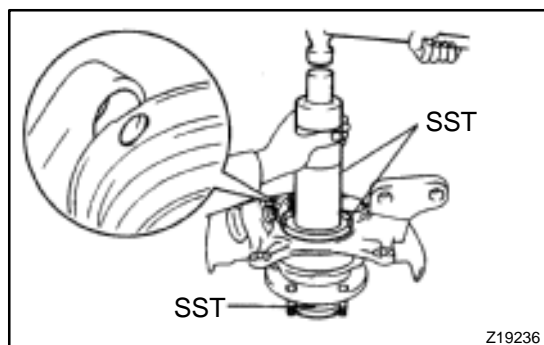
SST 09310-35010, 09608-32010

### 4. INSTALL LOWER BALL JOINT

- (a) Install the lower ball joint and torque the nut.

**Torque: 123 N·m (1,250 kgf·cm, 90 ft·lbf)**

- (b) Install a new cotter pin.



### 5. INSTALL DUST DEFLECTOR

Using SST and a hammer, install a new dust deflector.

SST 09316-60011 (09316-00011, 09316-00041), 09608-32010

#### HINT:

Align the holes for the ABS speed sensor in the dust deflector and steering knuckle.

## INSTALLATION

Installation is in the reverse order of removal (See page [SA-10](#)).

**AFTER INSTALLATION, CHECK ABS SPEED SENSOR SIGNAL (See page [DI-493](#) or [DI-539](#)) AND FRONT WHEEL ALIGNMENT (See page [SA-4](#))**



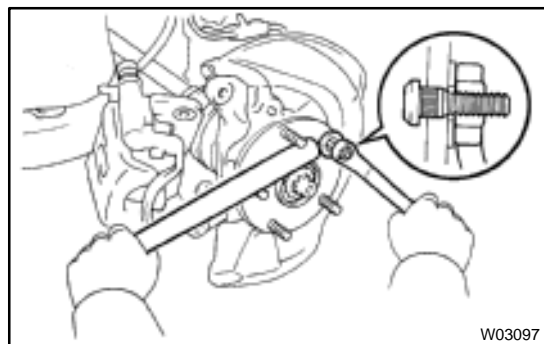
## FRONT WHEEL HUB BOLT REPLACEMENT

SA07G-01

1. **REMOVE FRONT WHEEL**
2. **REMOVE BRAKE CALIPER AND DISC**
  - (a) Remove the 2 bolts, brake caliper and disc.
  - (b) Support the brake caliper securely.
3. **REMOVE HUB BOLT**

Using SST, remove the hub bolt.

SST 09628-10011



4. **INSTALL HUB BOLT**

Install a washer and nut to the hub bolt as shown in the illustration, and install the hub bolt by torquing the nut.
5. **INSTALL BRAKE DISC AND CALIPER**

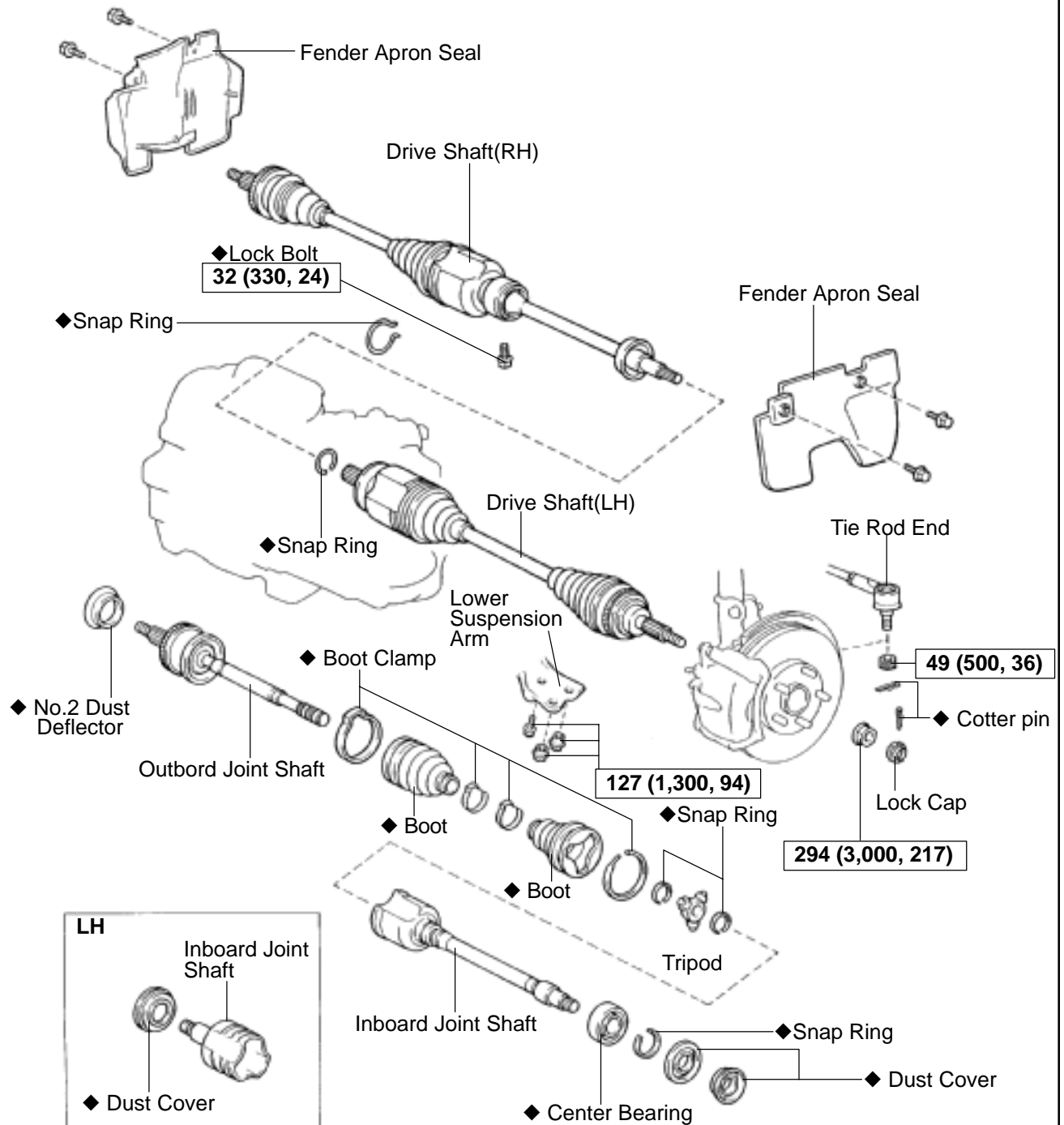
Install the disc, 2 bolts and brake caliper.
6. **INSTALL FRONT WHEEL**

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

# FRONT DRIVE SHAFT (5S-FE)

## COMPONENTS

SA08P-01

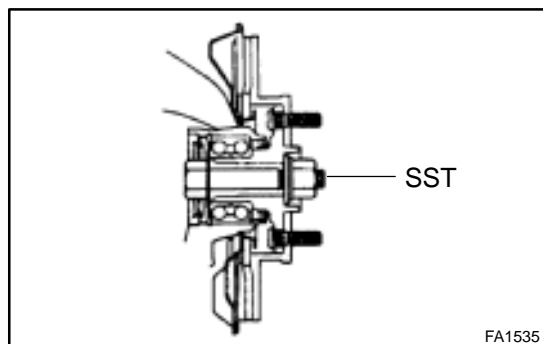


N·m (kgf·cm, ft·lbf) : Specified torque

◆ Non-reusable part

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## REMOVAL

### NOTICE:

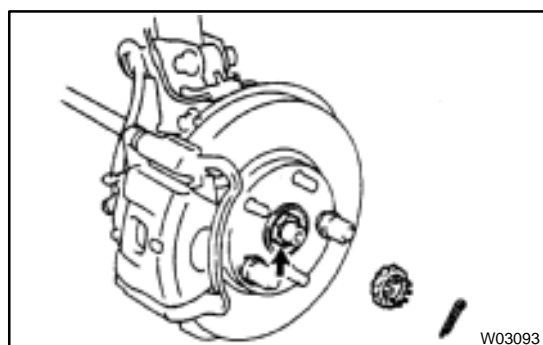
The hub bearing could be damaged if it is subjected to the vehicle weight, such as when moving the vehicle with the drive shaft removed.

Therefore, if it is absolutely necessary to place the vehicle weight on the hub bearing, first support it with SST.

SST 09608-16042 (09608-02021, 09608-02041)

### 1. REMOVE FRONT WHEEL AND FRONT FENDER APRON SEAL

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



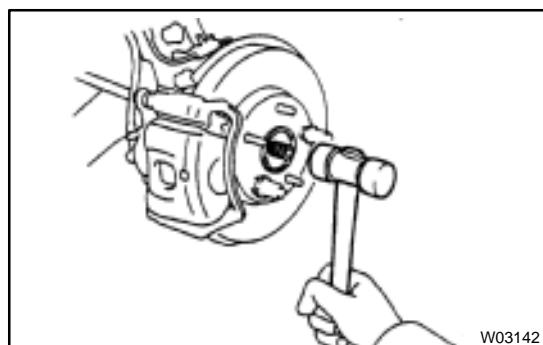
### 2. REMOVE DRIVE SHAFT LOCK NUT

- (a) Remove the cotter pin and lock cap.
  - (b) With applying the brakes, remove the nut.
- Torque: 294 N·m (3,000 kgf·cm, 217 ft·lbf)

### 3. DRAIN GEAR OIL (M/T) or ATF (A/T)

### 4. DISCONNECT TIE ROD END FROM STEERING KNUCKLE (See page SA-10)

### 5. DISCONNECT LOWER BALL JOINT FROM LOWER SUSPENSION ARM (See page SA-10)



### 6. DISCONNECT DRIVE SHAFT FROM AXLE HUB

- (a) Using a plastic hammer, disconnect the drive shaft from the axle hub.

### NOTICE:

Cover the drive shaft boot with cloth to protect it from damage.

- (b) Push the front axle hub toward the outside of the vehicle, and separate the drive shaft from the axle hub.

**7. REMOVE LH DRIVE SHAFT**

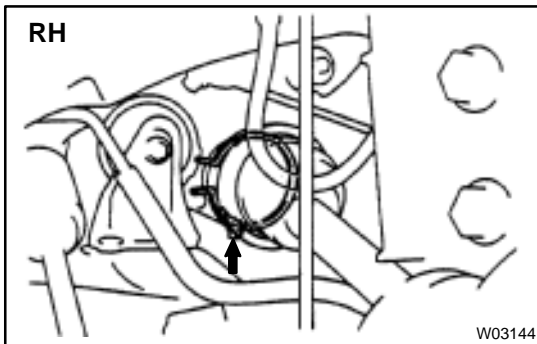
- (a) Using a brass bar and hammer, remove the drive shaft.

HINT:

At the time of installation, please refer to the following items.

- ◆ Coat gear oil to the inboard joint shaft and differential case sliding surface.
- ◆ Before installing the drive shaft, set the snap ring with its opening side facing downward.
- ◆ Whether or not the inboard joint shaft is making contact with the pinion shaft can be known by the sound or feeling when driving it in.
- ◆ After installation, check that there is 2 – 3 mm (0.08 – 0.12 in.) of play in the axial direction.
- ◆ After installation, check that the drive shaft cannot be removed by hand.

- (b) Using a screwdriver, remove the snap ring from the inboard joint shaft.

**8. REMOVE RH DRIVE SHAFT**

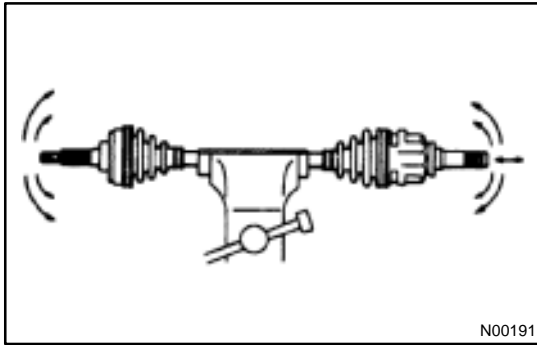
- (a) Remove the bearing lock bolt.

**Torque: 32 N·m (330 kgf-cm, 24 ft-lbf)**

- (b) Using pliers, remove the snap ring and drive shaft.

HINT:

At the time of installation, coat gear oil to the inboard joint shaft and differential case sliding surface.



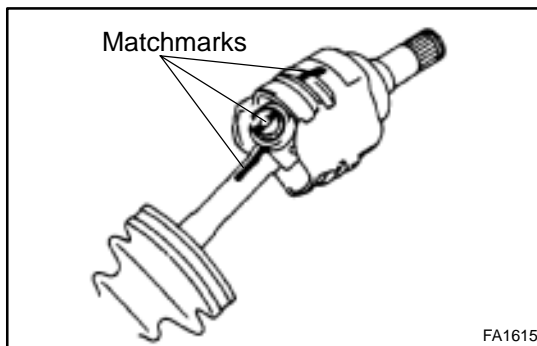
## DISASSEMBLY

### 1. CHECK DRIVE SHAFT

- Check to see that there is no play in the outboard joint shaft.
- Check to see that the inboard joint shaft slides smoothly in the thrust direction.
- Check to see that there is no remarkable play in the radial direction of the inboard joint shaft.
- Check for damage to boots.

### 2. REMOVE INBOARD AND OUTBOARD JOINT BOOT CLAMPS

- Using pliers, draw the hooks together and remove the large inboard joint boot clamp.
- Using a side cutter, cut the small inboard and 2 outboard joint boot clamps and remove them.



### 3. REMOVE INBOARD JOINT SHAFT

- Place matchmarks on the tripod, inboard and outboard-joint shafts.

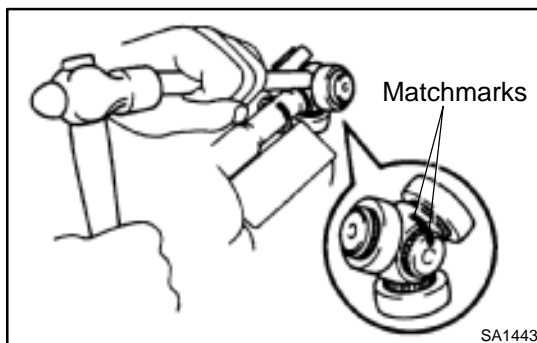
#### NOTICE:

**Do not punch the marks.**

- Remove the inboard joint shaft from the outboard joint shaft.

### 4. REMOVE TRIPOD

- Using a snap ring expander, remove the snap ring.
- Using a snap ring expander, temporarily slide the snap ring toward the outboard joint shaft side.



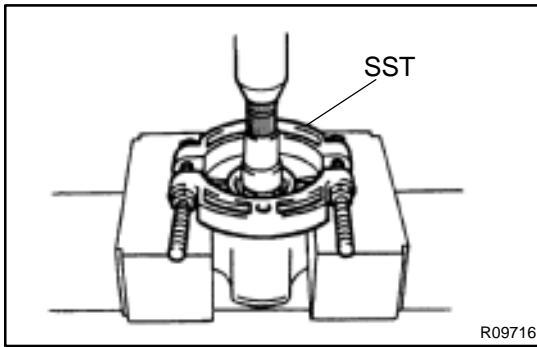
- Place matchmarks on the outboard joint shaft and tripod.
- Using a brass bar and hammer, remove the tripod from the outboard joint shaft.
- Using a snap ring expander, remove the snap ring.

### 5. REMOVE INBOARD AND OUTBOARD JOINT BOOTS

Slide out the 2 boots.

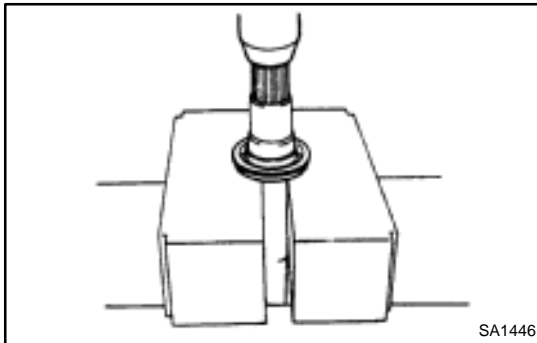
#### NOTICE:

**Do not disassemble the outboard joint.**

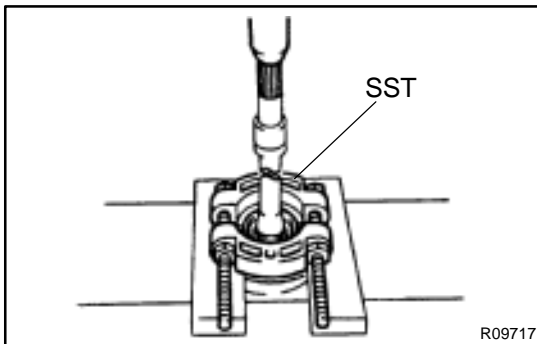


## 6. REMOVE DUST COVER

- ◆ (LH drive shaft)  
Using SST and a press, remove the dust cover from the inboard joint shaft.  
SST 09950-00020



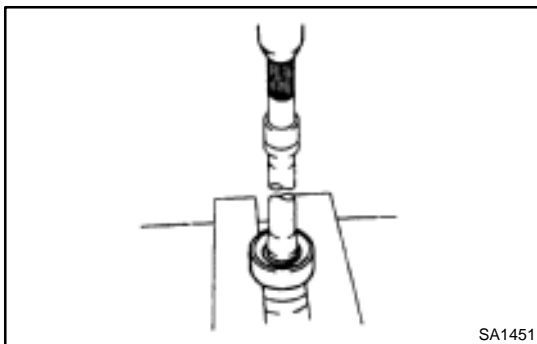
- ◆ (RH drive shaft)  
Using a press, remove the dust cover from the inboard joint shaft.



## 7. RH DRIVE SHAFT:

### DISASSEMBLE INBOARD JOINT SHAFT

- (a) Using SST and a press, remove the dust cover.  
SST 09950-00020
- (b) Using a snap ring expander, remove the snap ring.



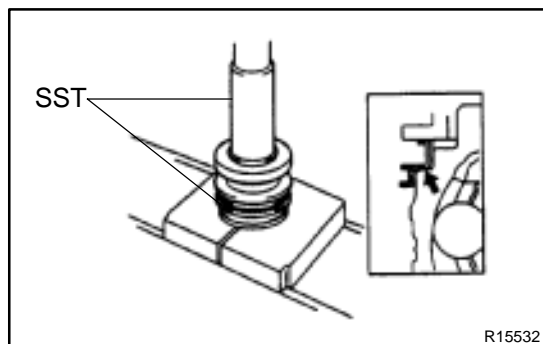
- (c) Using a press, remove the bearing.
- (d) Remove the snap ring.

## 8. REMOVE NO.2 DUST DEFLECTOR

- (a) Mount outboard joint shaft in a soft jaw vise.
- (b) Using a screwdriver and hammer, remove the No.2 dust deflector.

### NOTICE:

Be careful not to damage the ABS speed sensor rotor.

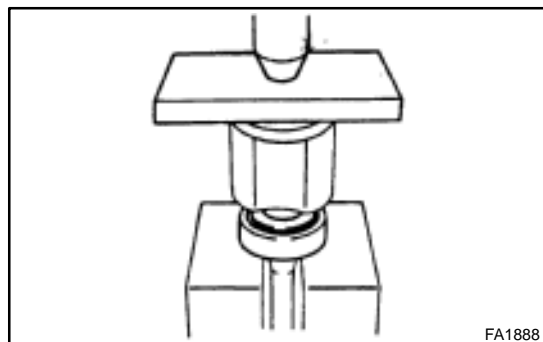


## REASSEMBLY

### 1. INSTALL NO.2 DUST DEFLECTOR

Using SST and a press, install a new No.2 dust deflector.

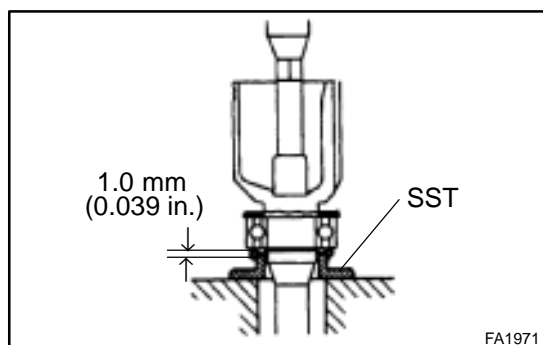
SST 09309-36010, 09316-20011



### 2. RH DRIVE SHAFT:

#### ASSEMBLE INBOARD JOINT SHAFT

- (a) Install a new snap ring to the inboard joint shaft.
- (b) Using a press, install a new bearing.
- (c) Using a snap ring expander, install a new snap ring.

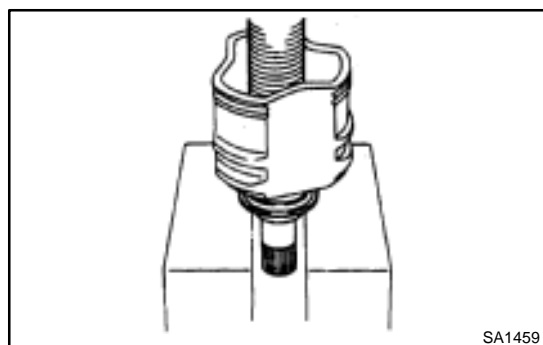


- (d) Using SST, an extension bar and press, install a new dust cover.

SST 09506-35010

#### HINT:

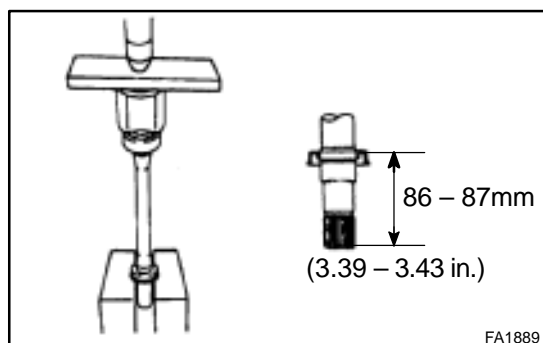
The clearance between the dust cover and the bearing should be kept in the range shown in the illustration.



### 3. INSTALL DUST COVER

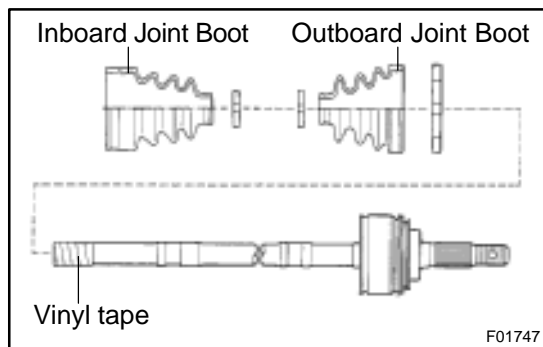
- ◆ (LH drive shaft)

Using a press, install a new dust cover.



- ◆ (RH drive shaft)

Using a press, install a new dust cover until the distance from the tip of the inboard joint shaft to the dust cover falls within the specification, as shown in the illustration.



#### 4. TEMPORARILY INSTALL OUTBOARD AND INBOARD JOINT BOOTS AND NEW BOOT CLAMPS

##### HINT:

- ◆ Before installing the boots, wrap the spline of the drive shaft in vinyl tape to prevent the boots from being damaged.
- ◆ Before installing the boots, place 3 new clamps to the small boot ends and large end (wheel side) and then install boots to drive shaft.

#### 5. INSTALL TRIPOD

- (a) Using a snap ring expander, install a new snap ring.
- (b) Place the beveled side of the tripod axial spline toward the outboard joint shaft.
- (c) Align the matchmarks placed before removal.
- (d) Using a brass bar and hammer, tap in the tripod to the outboard joint shaft.

##### NOTICE:

**Do not tap the roller.**

- (e) Using a snap ring expander, install a new snap ring.

#### 6. INSTALL BOOT TO OUTBOARD JOINT SHAFT

Before assembling the boot, coat the outboard joint and boot with grease in the boot kit.

**Grease capacity: (Color = Black)**

**100 – 120 g (3.5 – 4.2 oz.)**

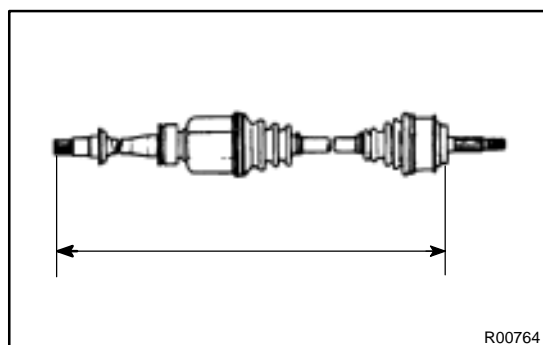
#### 7. INSTALL INBOARD JOINT SHAFT TO OUTBOARD JOINT SHAFT

- (a) Coat the inboard joint and boot with grease in the boot kit.

**Grease capacity: (Color = Yellow ocher)**

**125 – 155 g (4.4 – 5.5 oz)**

- (b) Align the matchmarks placed before removal, and install the inboard joint shaft to the outboard joint shaft.
- (c) Install the boot to the inboard joint shaft.

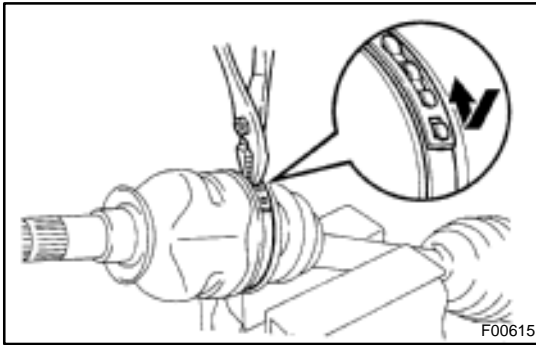


#### 8. ASSEMBLE BOOT CLAMPS TO BOTH BOOTS

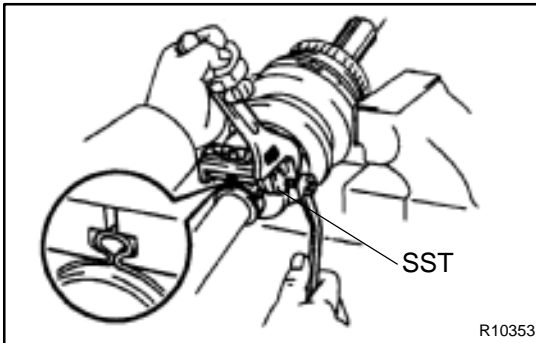
- (a) Make sure that the 2 boots are on the shaft groove.
- (b) Make sure that the 2 boots are not stretched or contracted when the drive shaft is at standard length.

##### Drive shaft standard length

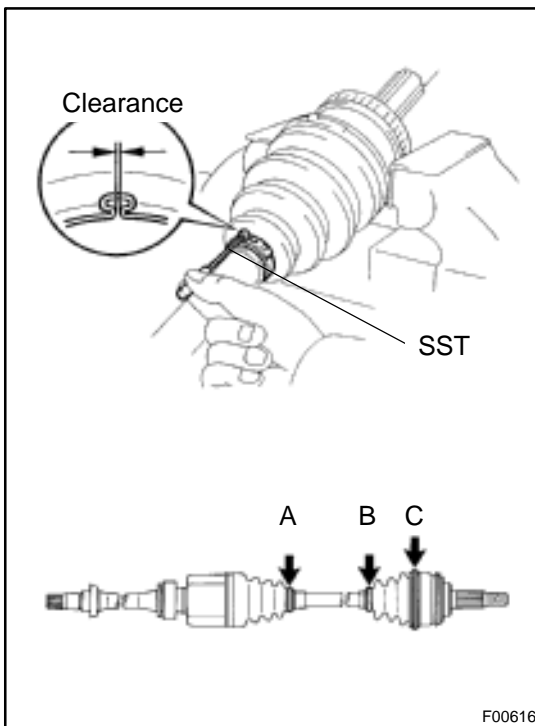
LH	609.2 ± 2.0 mm (23.984 ± 0.079 in.)
RH	867.3 ± 2.0 mm (34.146 ± 0.079 in.)



- (c) Holding the clamp near the closing hooks, using pliers, position the holes in the clamp's free end over the closing hooks.
- (d) Secure clamp by drawing the closing hooks together.



- (e) Secure the preplaced 3 clamps onto the boots.
- (f) Place SST onto the clamp.  
SST 09521-24010
- (g) Tighten the SST so that the clamp is pinched.

**NOTICE:****Do not overtighten the SST.**

- (h) Using SST, adjust the clearance of the clamp.  
SST 09240-00020

**Clearance:****A : 1.9 mm (0.075 in.) or less****B : 1.5 – 2.5 mm (0.059 – 0.098 in.)****C : 3.0 – 4.0 mm (0.118 – 0.157 in.)****9. CHECK DRIVE SHAFT (See page SA-19)**

## INSTALLATION

Installation is in the reverse order of removal (See page [SA-17](#)).

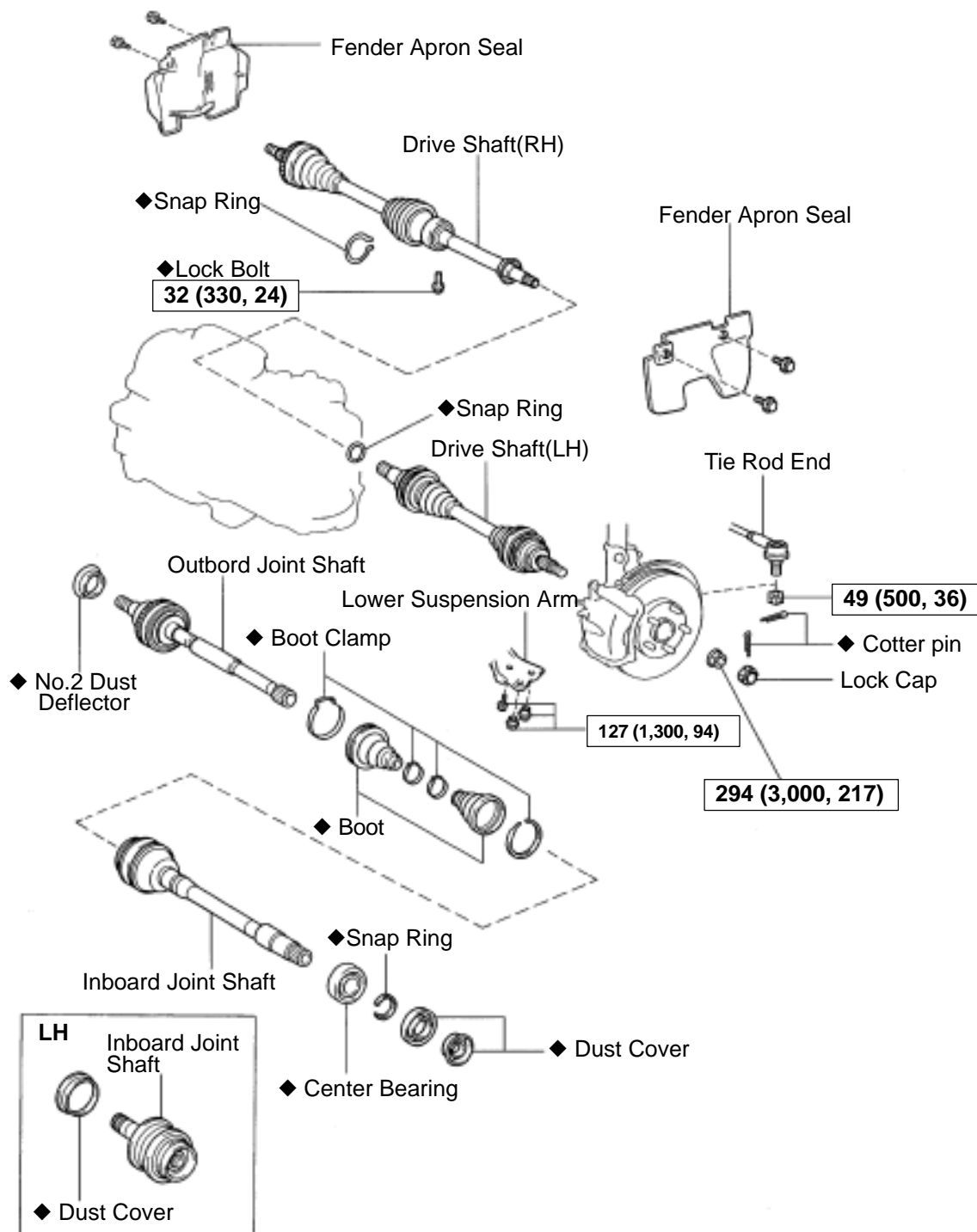
**AFTER INSTALLATION, CHECK ABS SPEED SENSOR SIGNAL (See page [DI-493](#) or [DI-539](#)) AND FRONT WHEEL ALIGNMENT(See page [SA-4](#))**



# FRONT DRIVE SHAFT (1MZ-FE)

## COMPONENTS

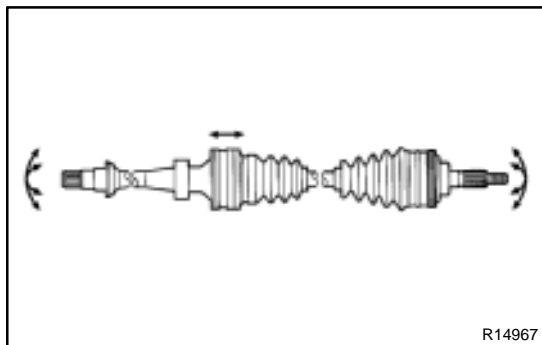
SA07H-01



W03141

## REMOVAL

(See page [SA-17](#))



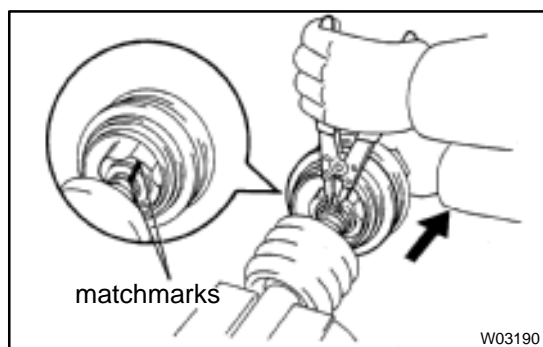
## DISASSEMBLY

### 1. CHECK DRIVE SHAFT

- Check to see that there is no play in the outboard joint shaft.
- Check to see that the inboard joint shaft slides smoothly in the thrust direction.
- Check to see that there is no remarkable play in the radial direction of the inboard joint shaft.
- Check for damage to boots.

### 2. REMOVE INBOARD AND OUTBOARD JOINT BOOT CLAMPS

- Using pliers, draw the hooks together and remove the large inboard joint boot clamp.
- Using a side cutter, cut the small inboard and 2 outboard joint boot clamps and remove them.



### 3. REMOVE INBOARD JOINT SHAFT FROM OUTBOARD JOINT SHAFT

- Place matchmarks on the inboard and outboard joint shafts.

#### NOTICE:

**Do not punch the marks.**

- Using a snap ring expander, pull out the outboard joint shaft expanding the snap ring.

### 4. REMOVE INBOARD AND OUTBOARD JOINT BOOTS

Slide out the 2 boots.

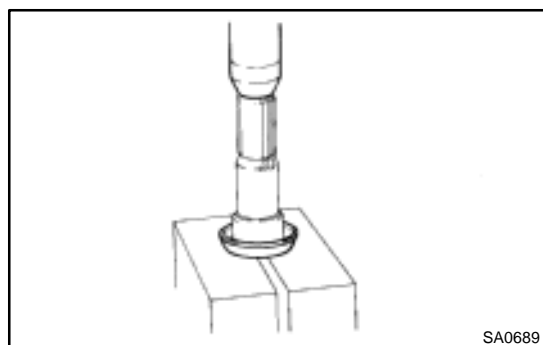
### 5. REMOVE DUST COVER

- ◆ (LH drive shaft)

Using a screwdriver and hammer, remove the dust cover from the inboard joint shaft.

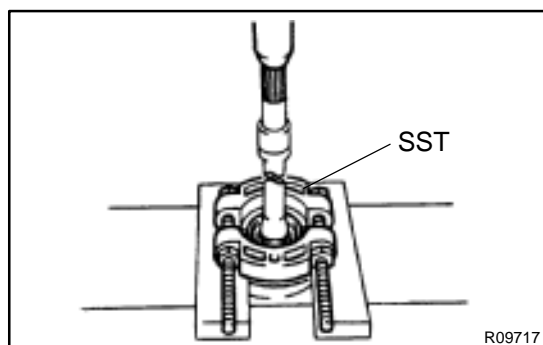
- ◆ (RH drive shaft)

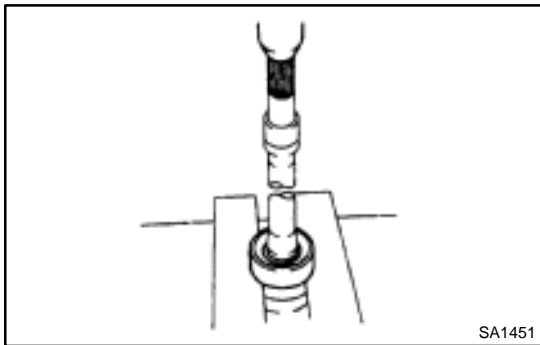
Using a press, remove the dust cover from the inboard joint shaft.



### 6. RH DRIVE SHAFT: DISASSEMBLE INBOARD JOINT SHAFT

- Using SST and a press, remove the dust cover.  
SST 09950-00020
- Using a snap ring expander, remove the snap ring.





(c) Using a press, remove the bearing.

(d) Remove the snap ring.

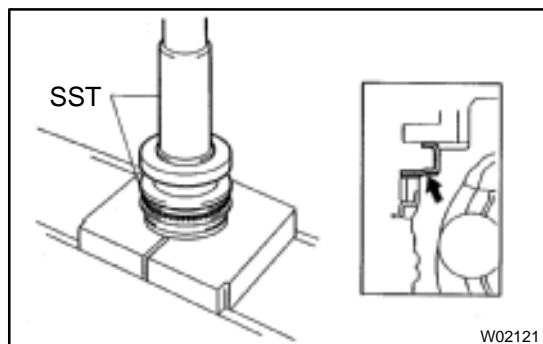
**7. REMOVE NO.2 DUST DEFLECTOR**

(a) Mount outboard joint shaft in a soft jaw vise.

(b) Using a screwdriver and hammer, remove the No.2 dust deflector.

**NOTICE:**

**Be careful not to damage the ABS speed sensor rotor.**

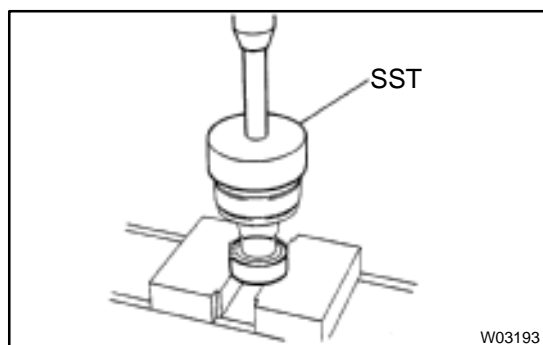


## REASSEMBLY

### 1. INSTALL NO.2 DUST DEFLECTOR

Using SST and a press, install a new No.2 dust deflector.

SST 09309-36010, 09316-20011



### 2. RH DRIVE SHAFT:

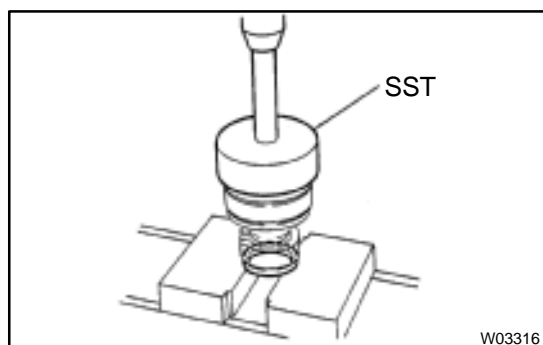
#### ASSEMBLE INBOARD JOINT SHAFT

(a) Install a new snap ring to the inboard joint shaft.

(b) Using SST and a press, install a new bearing.

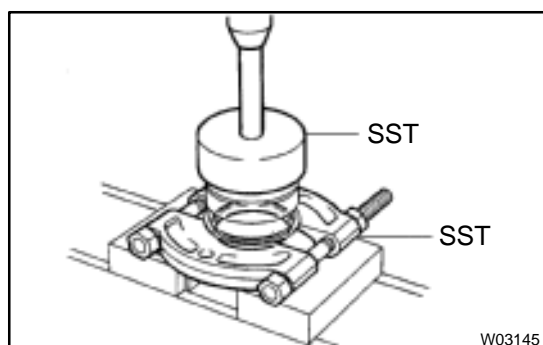
SST 09223-56010

(c) Using a snap ring expander, install a new snap ring.



(d) Using SST and a press, install a new dust cover.

SST 09223-56010

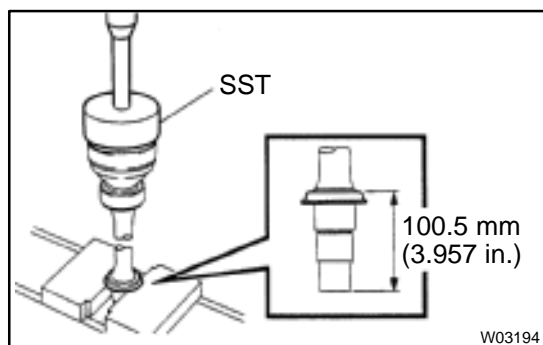


### 3. INSTALL DUST COVER

◆ (LH drive shaft)

Using SST and a press, install a dust cover.

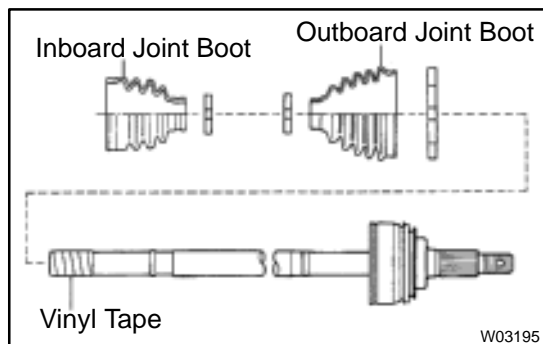
SST 09223-56010, 09555-55010



◆ (RH drive shaft)

Using SST and a press, install a new dust cover until the distance from the tip of the inboard joint shaft to the dust cover falls within the specification, as shown in the illustration.

SST 09223-56010



#### 4. TEMPORARILY INSTALL OUTBOARD AND INBOARD JOINT BOOTS AND NEW BOOT CLAMPS

##### HINT:

- ◆ Before installing the boots, wrap the spline of the drive shaft in vinyl tape to prevent the boots from being damaged.
- ◆ Before installing the boots, place 3 new clamps to the small boot ends and large end (wheel side) and then install boots to drive shaft.

#### 5. INSTALL INBOARD JOINT SHAFT TO OUTBOARD JOINT SHAFT

Align the matchmarks placed at removal, and using a snap ring expander, put in the inboard joint shaft expanding the snap ring.

#### 6. INSTALL BOOT TO OUTBOARD JOINT

Before assembling the boot, pack the outboard joint and boot with grease in the boot kit.

**Grease capacity: (Color = Black)**

**105 – 125 g (3.7 – 4.4 oz.)**

#### 7. INSTALL BOOT TO INBOARD JOINT SHAFT

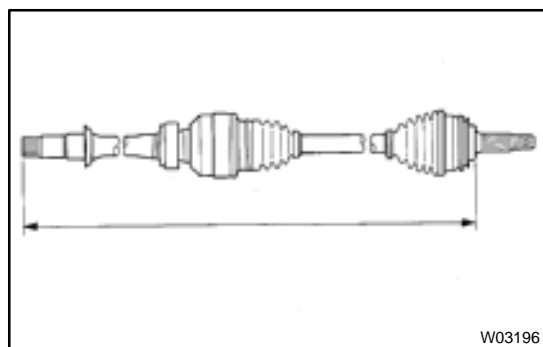
- (a) Pack the inboard joint and boot with grease in the boot kit.

**Grease capacity: (Color = Gray)**

**Joint side: 142.5 – 157.5 g (5.0 – 5.6 oz.)**

**Boot side: 52.5 – 57.5 g (2.1 – 2.3 oz.)**

- (b) Install the boot to the inboard joint shaft.

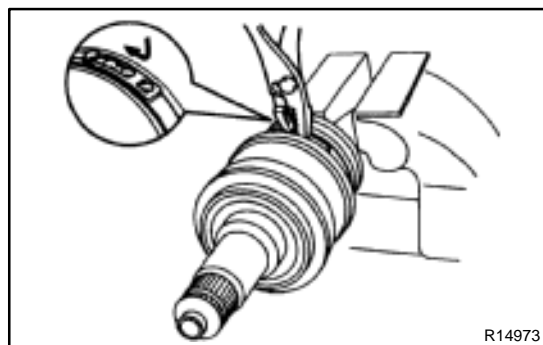


#### 8. ASSEMBLE BOOT CLAMPS TO BOTH BOOTS

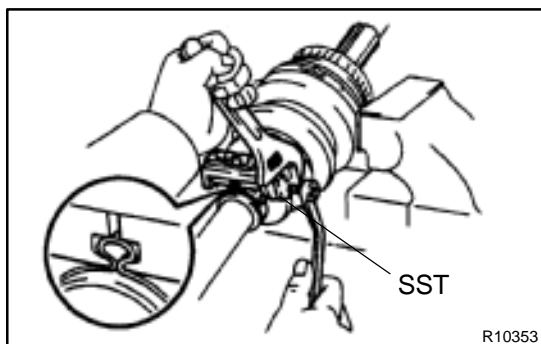
- (a) Make sure that the 2 boots are on the shaft groove.
- (b) Make sure that the 2 boots are not stretched or contracted when the drive shaft is at standard length.

**Drive shaft standard length:**

M/T LH	601.5 ± 2.0 mm (23.681 ± 0.079 in.)
RH	871.6 ± 2.0 mm (34.315 ± 0.079 in.)
A/T LH	586.0 ± 2.0 mm (23.071 ± 0.079 in.)
RH	881.6 ± 2.0 mm (34.709 ± 0.079 in.)



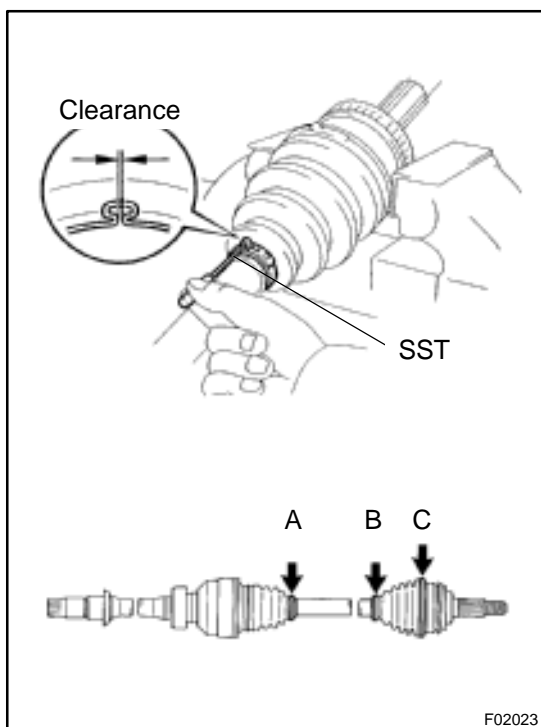
- (c) Holding the clamp near the closing hooks, using pliers, position the holes in the clamp's free end over the closing hooks.
- (d) Secure clamp by drawing the closing hooks together.



- (e) Secure the preplaced 3 clamps onto the boots.
- (f) Place SST onto the clamp.  
SST 09521-24010
- (g) Tighten the SST so that the clamp is pinched.

**NOTICE:**

**Do not overtighten the SST.**



- (h) Using SST, adjust the clearance of the clamp.  
SST 09240-00020

**Clearance:**

**A : 1.9 mm (0.075 in.) or less**

**B : 1.5 – 2.5 mm (0.059 – 0.098 in.)**

**C : 3.0 – 4.0 mm (0.118 – 0.157 in.)**

- 9. CHECK DRIVE SHAFT (See page [SA-27](#))**

## INSTALLATION

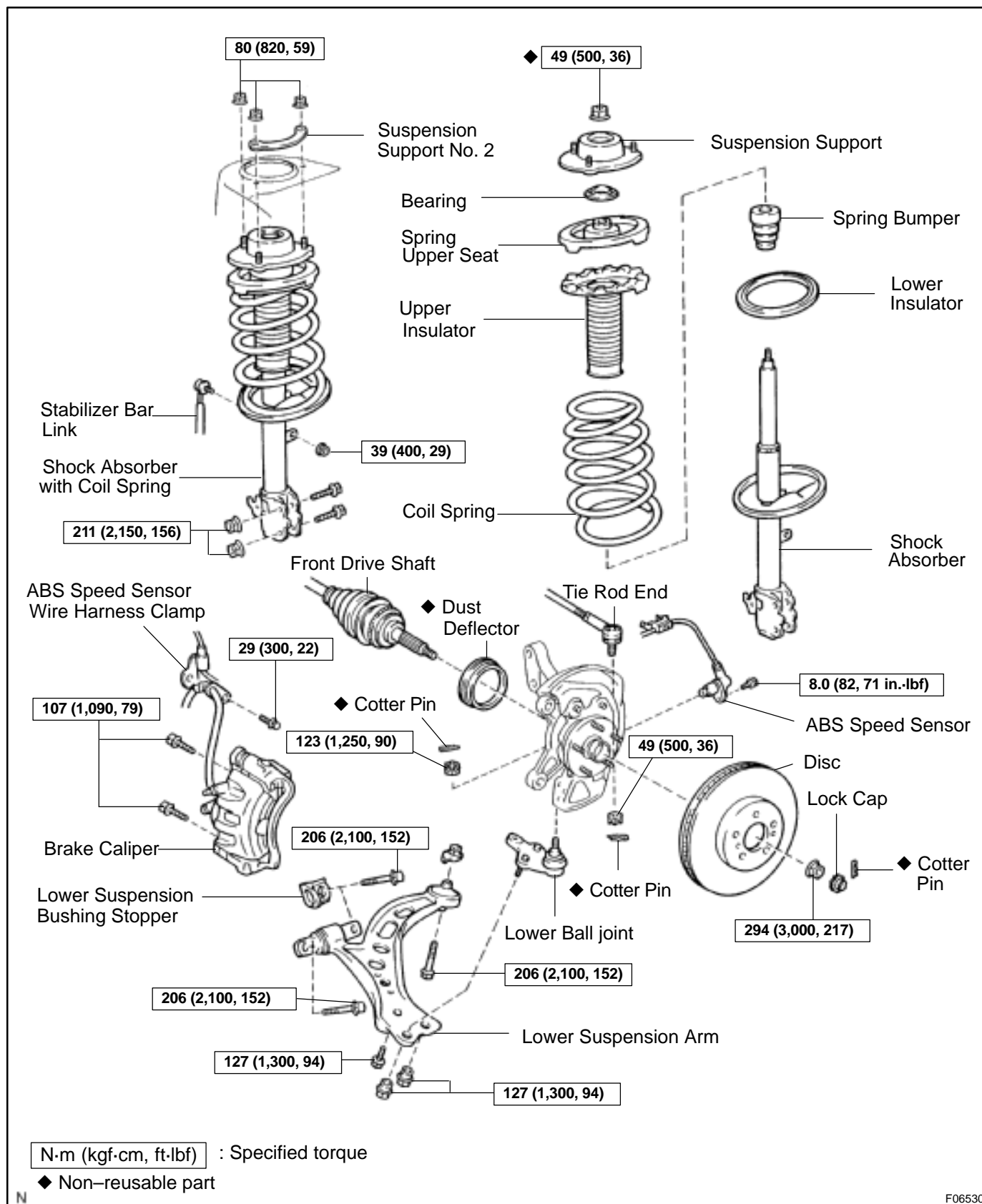
Installation is in the reverse order of removal (See page [SA-26](#)).

**AFTER INSTALLATION, CHECK ABS SPEED SENSOR SIGNAL (See page [DI-493](#) or [DI-539](#)) AND FRONT WHEEL ALIGNMENT (See page [SA-4](#))**



# FRONT SHOCK ABSORBER COMPONENTS

SA07M-05



F06530

## REMOVAL

1. **REMOVE FRONT WHEEL**  
Torque: 103 N·m (1,050 kgf·cm, 76 ft·lbf)
2. **REMOVE FLEXIBLE HOSE AND ABS SPEED SENSOR WIRE HARNESS (w/ ABS) AND CLAMP FROM SHOCK ABSORBER**

Remove the bolt, flexible hose and ABS wire harness clamp.

Torque: 29 N·m (300 kgf·cm, 22 ft·lbf)

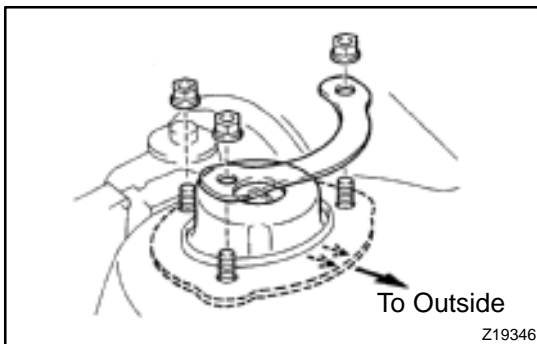
3. **DISCONNECT STABILIZER BAR LINK FROM SHOCK ABSORBER (See page SA-48)**
4. **DISCONNECT SHOCK ABSORBER FROM STEERING KNUCKLE**
  - (a) Remove the 2 nuts and bolts on the lower side of the shock absorber.

Torque: 211 N·m (2,150 kgf·cm, 156 ft·lbf)

- (b) Remove the shock absorber from the steering knuckle.

HINT:

At the time of installation, coat the nut's threads with engine oil.



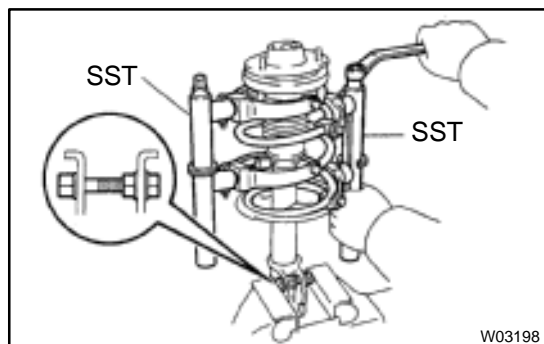
5. **REMOVE SHOCK ABSORBER WITH COIL SPRING**

Remove the 3 nuts, suspension support No.2 and shock absorber with the coil spring.

Torque: 80 N·m (820 kgf·cm, 59 ft·lbf)

HINT:

At the time of installation rotate the suspension support and set it in the direction, as shown in the illustration.



## DISASSEMBLY

### REMOVE COIL SPRING

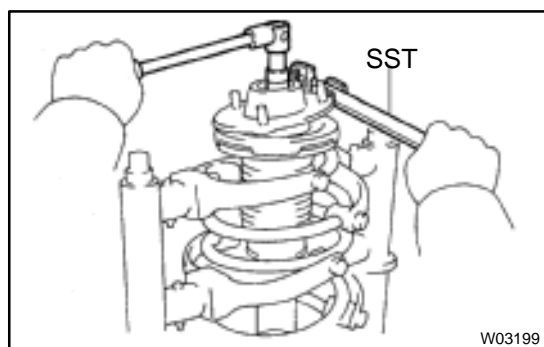
- (a) Install 2 nuts and a bolt to the bracket at the lower portion of the shock absorber and secure it in a vise.
- (b) Using SST, compress the coil spring.  
SST 09727-30021

#### NOTICE:

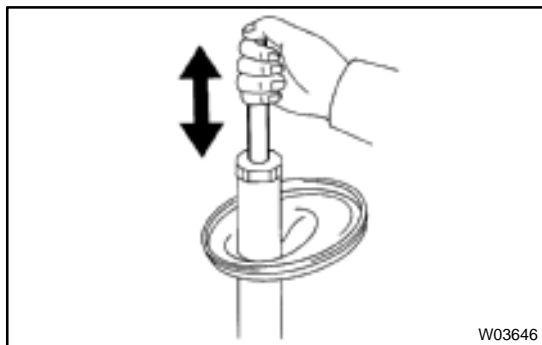
- ◆ When holding the shock absorber with the coil spring removed, do not hold it by the spring lower seat. Also, do not knock the spring lower seat.
- ◆ Do not use an impact wrench. It will damage the SST.

#### HINT:

Use 2 of the same type of SST.



- (c) Using SST to hold the suspension support, remove the nut.  
SST 09729-22031
- (d) Remove these parts from the shock absorber:
  - ◆ Suspension support
  - ◆ Bearing
  - ◆ Spring upper seat
  - ◆ Upper insulator
  - ◆ Coil spring
  - ◆ Lower insulator
  - ◆ Spring bumper



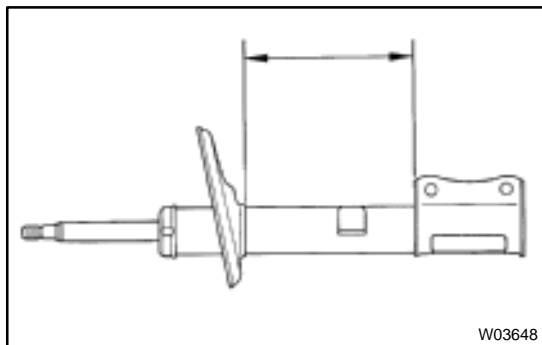
## INSPECTION

### INSPECT SHOCK ABSORBER

Compress and extend the shock absorber rod and check that there is no abnormal resistance or unusual operation sound.

#### NOTICE:

When discarding the shock absorber, see **DISPOSAL** on page [SA-37](#).



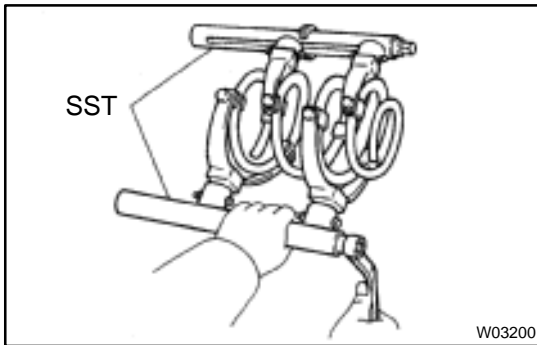
## DISPOSAL

1. FULLY EXTEND SHOCK ABSORBER ROD
2. DRILL HOLE TO REMOVE GAS FROM CYLINDER

Using a drill, make a hole in the cylinder as shown in the illustration to remove the gas inside.

### CAUTION:

The discharged gas is harmless, but be careful of chips which may fly up when drilling.



## REASSEMBLY

1. **INSTALL LOWER INSULATOR ONTO SHOCK ABSORBER**
2. **INSTALL SPRING BUMPER TO PISTON ROD**
3. **INSTALL COIL SPRING**

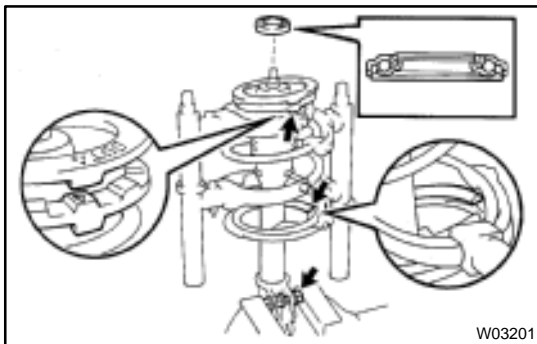
- (a) Using SST, compress the coil spring.  
SST 09727-30021

### NOTICE:

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

### HINT:

Use 2 of the same type of SST.



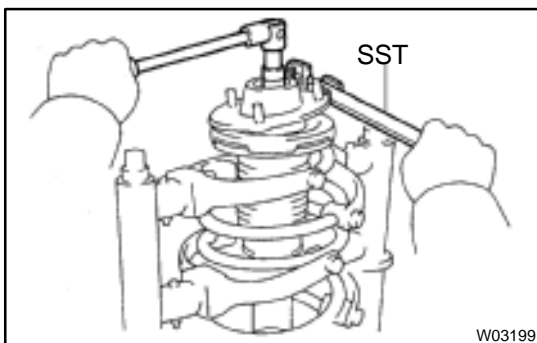
- (b) Install the coil spring to the shock absorber.

### HINT:

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

4. **INSTALL SPRING UPPER SEAT AND INSULATOR**

- (a) Align the 'OUT' mark of spring upper seat with the mark of the upper insulator.
- (b) Install the spring upper seat with upper insulator to the shock absorber with the mark facing the outside of the vehicle.
- (c) Install the bearing and suspension support.



- (d) Using SST to hold the suspension support, install a new nut.  
SST 09729-22031  
**Torque: 49 N·m (500 kgf-cm, 36 ft-lbf)**
- (e) Remove the SST from the coil spring.  
SST 09727-30021

### NOTICE:

**Check that the bearing fits into the recess in the suspension support.**

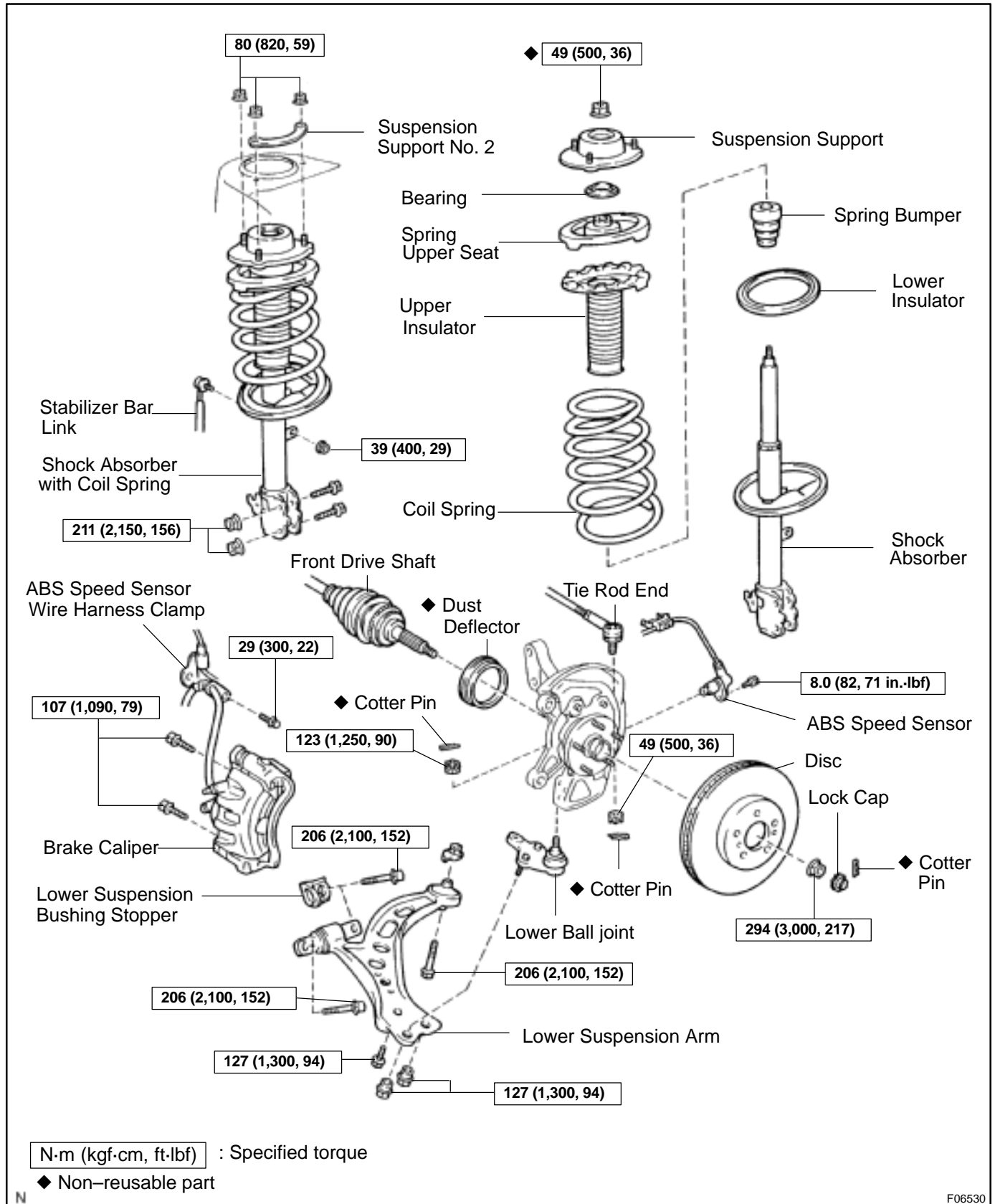
## INSTALLATION

Installation is in the reverse order of removal (See page [SA-34](#)).

**AFTER INSTALLATION, CHECK FRONT WHEEL ALIGNMENT (See page [SA-4](#))**

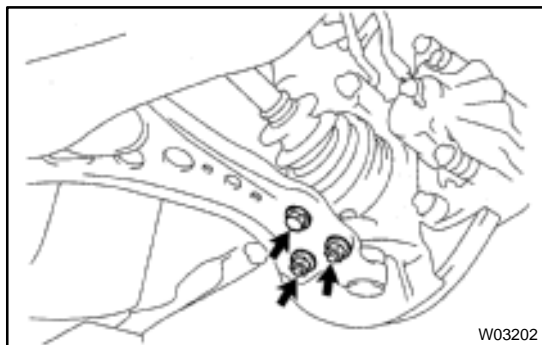
# FRONT LOWER SUSPENSION ARM COMPONENTS

SA07T-04



F06530



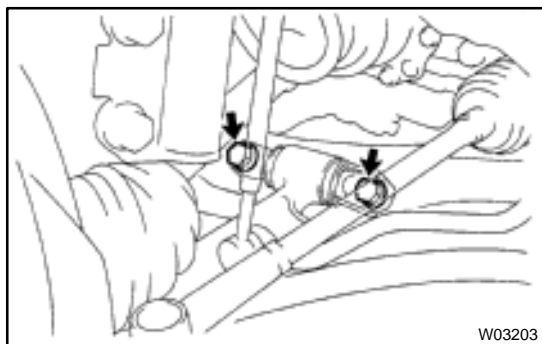


## REMOVAL

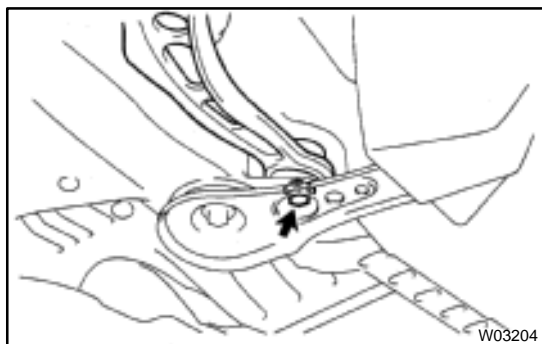
1. **REMOVE FRONT WHEEL**  
Torque: 103 N·m (1,050 kgf·cm, 76 ft·lbf)
2. **DISCONNECT LOWER SUSPENSION ARM FROM LOWER BALL JOINT**

Remove the 2 nuts and bolt.

**Torque: 127 N·m (1,300 kgf·cm, 94 ft·lbf)**



3. **REMOVE LOWER SUSPENSION ARM**
  - (a) Remove the 2 bolts on the front side of the lower suspension arm.  
**Torque: 206 N·m (2,100 kgf·cm, 152 ft·lbf)**



- (b) Remove the bolt and nut on the rear side of the lower suspension arm.  
**Torque: 206 N·m (2,100 kgf·cm, 152 ft·lbf)**
  - (c) Remove the lower suspension arm.
  - (d) Remove the lower suspension arm bushing stopper from the lower suspension arm shaft.

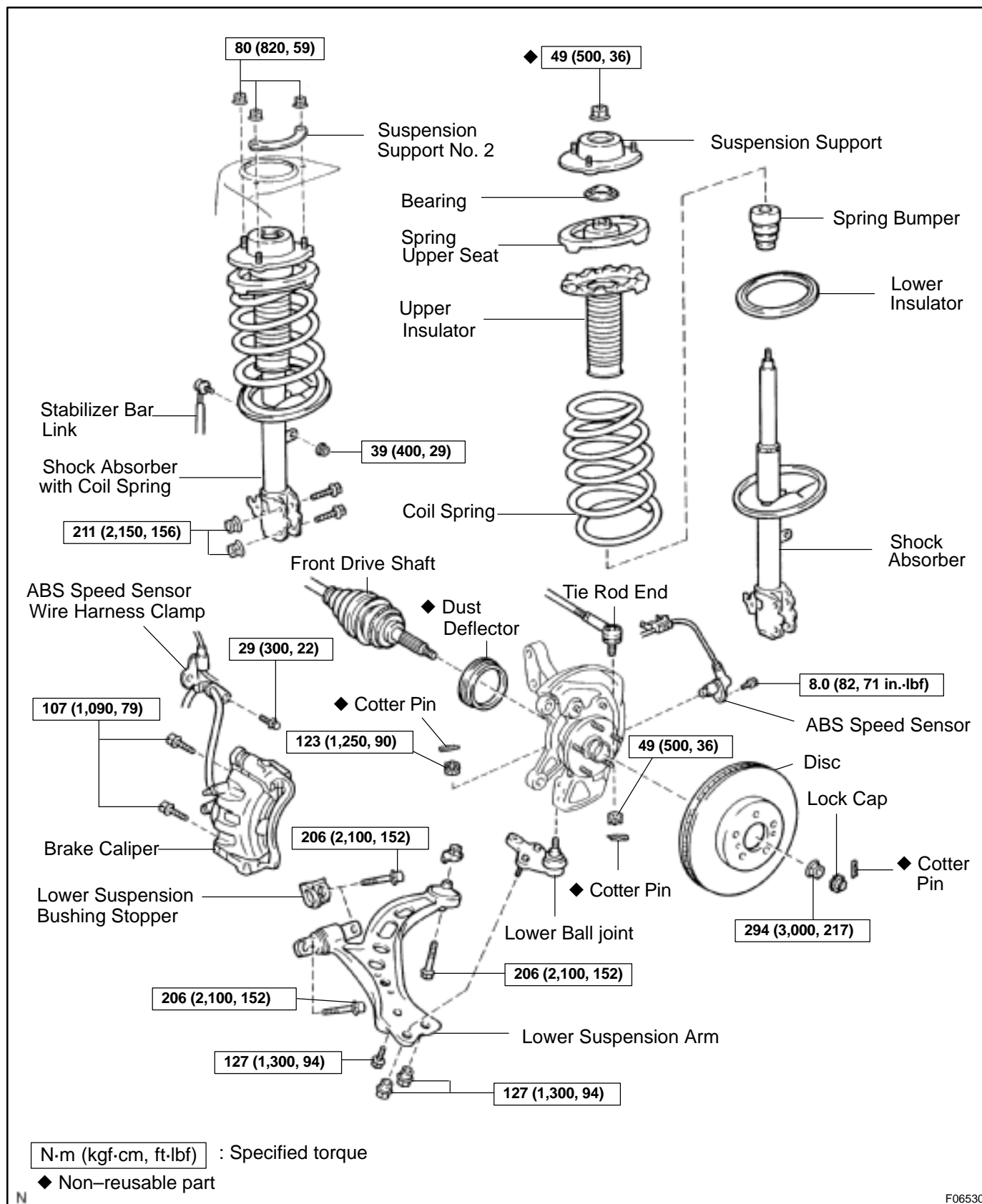
## INSTALLATION

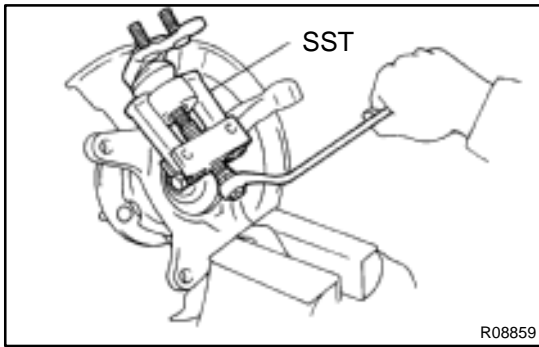
Installation is in the reverse order of removal (See page [SA-41](#)).

**AFTER INSTALLATION, CHECK FRONT WHEEL ALIGNMENT (See page [SA-4](#))**

# FRONT LOWER BALL JOINT COMPONENTS

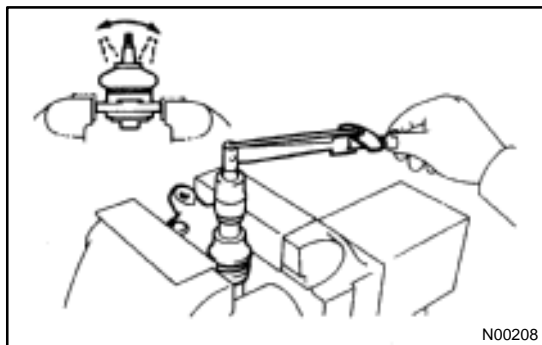
SA07X-05





## REMOVAL

1. **REMOVE STEERING KNUCKLE WITH AXLE HUB**  
(See page [SA-10](#))
2. **REMOVE LOWER BALL JOINT**
  - (a) Using a screwdriver, remove the dust deflector.
  - (b) Remove the cotter pin and nut.
  - (c) Using SST, remove the lower ball joint.  
SST 09628-62011



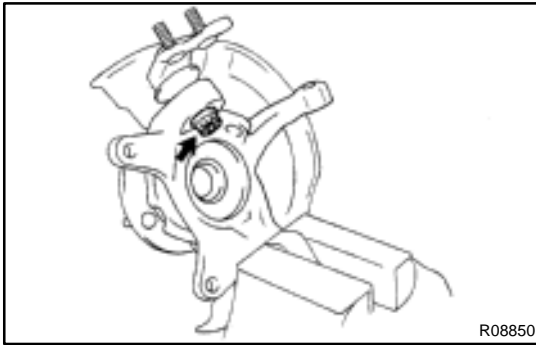
## INSPECTION

### INSPECT BALL JOINT FOR ROTATION CONDITION

- (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 one turn each 2 – 4 seconds and take the torque reading on the 5th turn.

#### Turning torque:

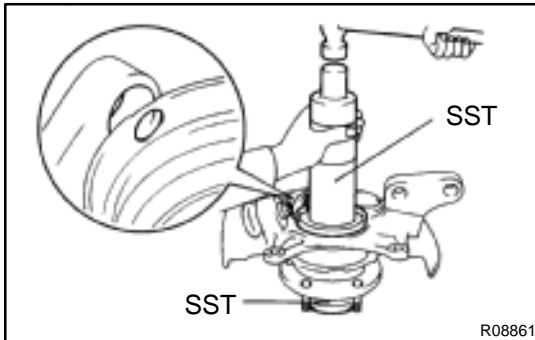
**1.0 – 3.4 N·m (10 – 35 kgf·cm, 8.7 – 30 in.-lbf)**



## INSTALLATION

### 1. INSTALL LOWER BALL JOINT

- (a) Install the lower ball joint and tighten the nut.  
**Torque: 123 N·m (1,250 kgf·cm, 90 ft·lbf)**
- (b) Install a new cotter pin.



### 2. INSTALL NEW DUST DEFLECTOR

Using SST and a hammer, install a new dust deflector.

SST 09316-60011 (09316-00011, 09316-00041),  
09608-32010

#### HINT:

Align the holes for the ABS speed sensor in the dust deflector and steering knuckle.

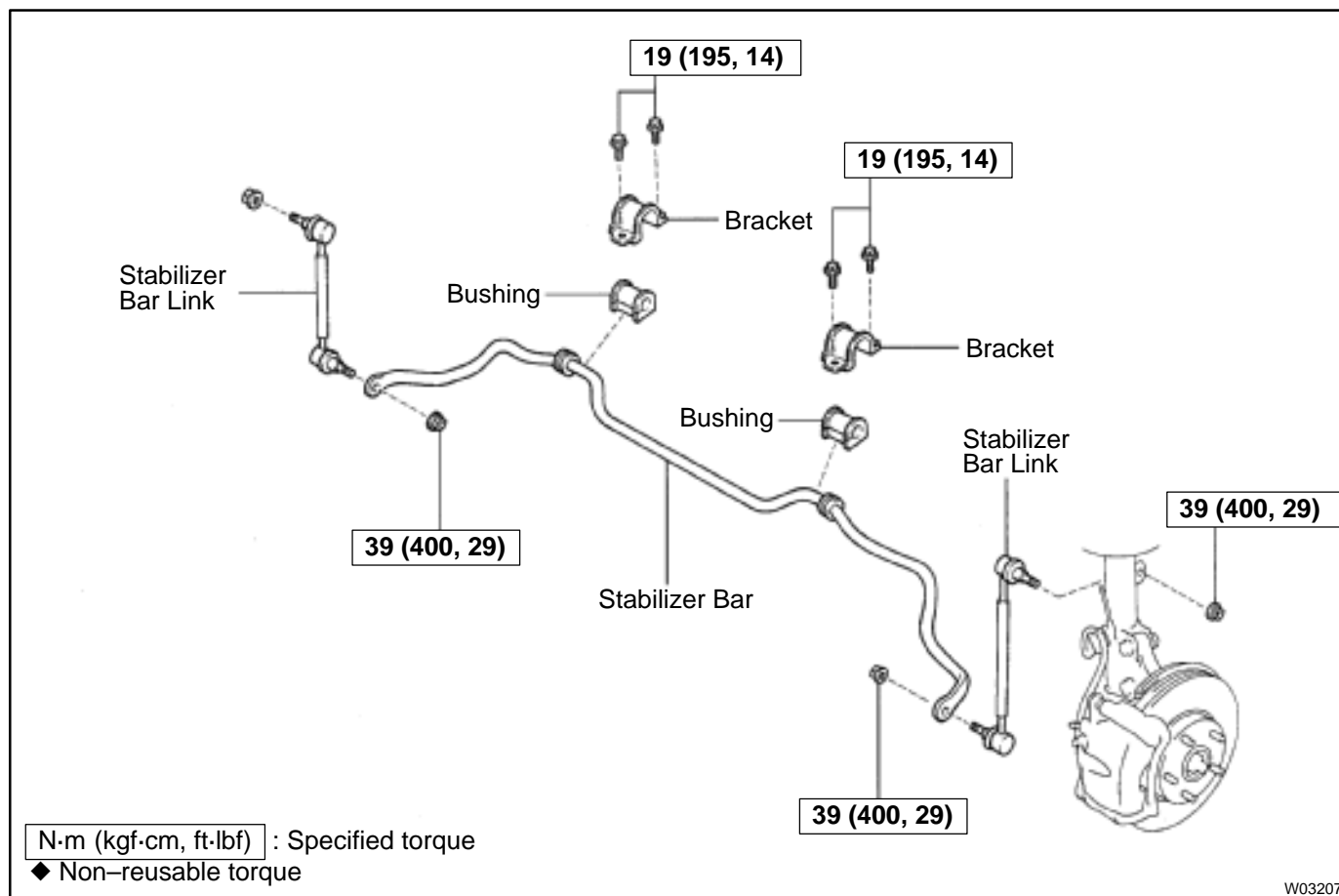
### 3. INSTALL STEERING KNUCKLE WITH AXLE HUB

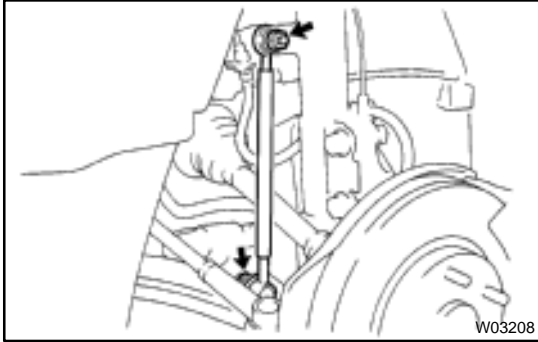
(See page [SA-13](#))

### 4. CHECK ABS SPEED SENSOR SIGNAL (See page [DI-493](#) or [DI-539](#)) AND FRONT WHEEL ALIGNMENT (See page [SA-4](#))

# FRONT STABILIZER BAR COMPONENTS

SA081-01





## REMOVAL

### 1. REMOVE LEFT AND RIGHT FRONT WHEELS

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

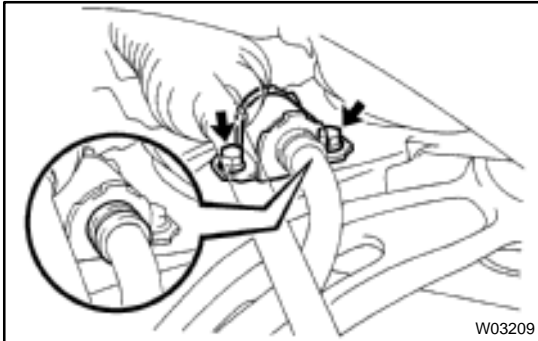
### 2. REMOVE LEFT AND RIGHT STABILIZER BAR LINKS

Remove the 4 nuts and 2 links.

**Torque: 39 N·m (400 kgf·cm, 29 ft·lbf)**

#### HINT:

If the ball joint turns together with the nut, use a 5 mm hexagon wrench to hold the stud.



### 3. REMOVE LEFT AND RIGHT BRACKETS AND BUSHINGS

Remove the 4 bolts, 2 brackets and bushings.

**Torque: 19 N·m (195 kgf·cm, 14 ft·lbf)**

#### HINT:

At the time of installation, please refer to the following item.  
Install the bushing to the inside of the bushing on the stabilizer bar.

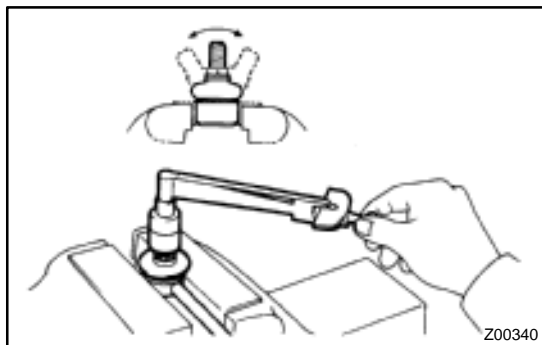
### 4. REMOVE STABILIZER BAR

Remove the stabilizer bar from the left hand side.

#### NOTICE:

**Be careful not to damage the pressure feed tube.**





## INSPECTION

### INSPECT STABILIZER BAR LINK BALL JOINT FOR ROTATION CONDITION

- (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 one turn each 2 – 4 seconds and take the torque reading on the 5th turn.

#### Turning torque:

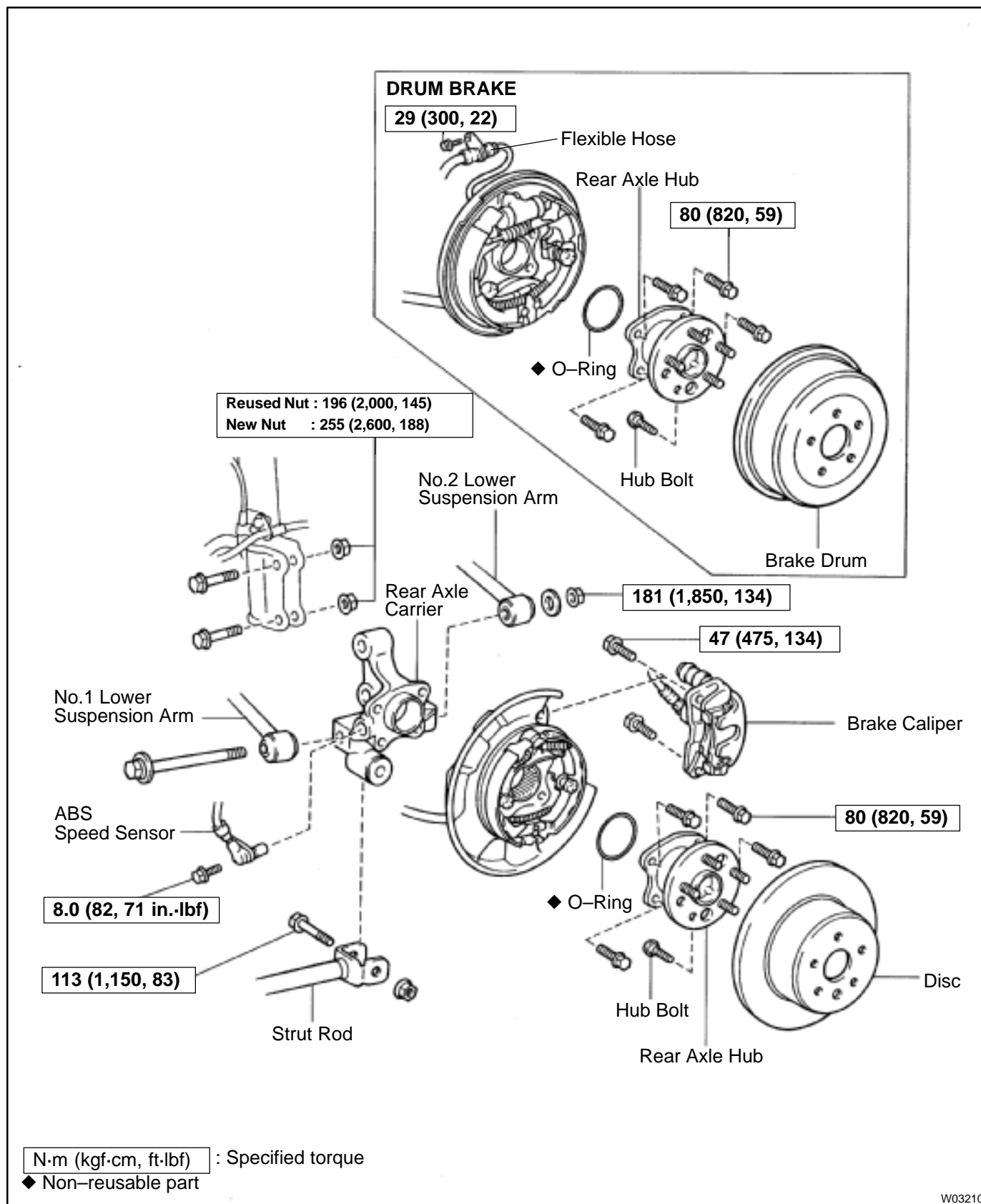
**0.05 – 1.0 N·m (0.5 – 10 kgf·cm, 0.4 – 8.7 in.-lbf)**

## INSTALLATION

Installation is in the reverse order of removal (See page [SA-48](#)).

# REAR AXLE HUB COMPONENTS

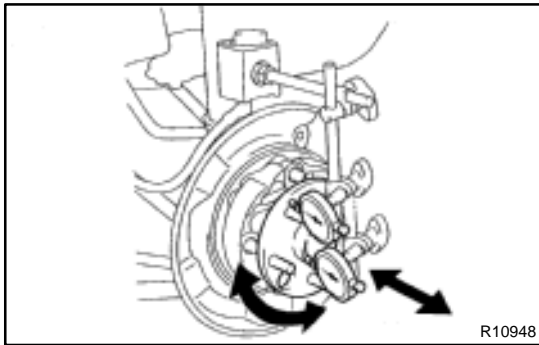
SA085-01



W03210

## REMOVAL

1. **REMOVE REAR WHEEL**  
**Torque: 103 N·m (1,050 kgf·cm, 76 ft·lbf)**
2. **w/ DISC BRAKE:**  
**REMOVE BRAKE CALIPER AND DISC**
  - (a) Remove the brake caliper and disc.  
**Torque: 47 N·m (475 kgf·cm, 34 ft·lbf)**
  - (b) Support the brake caliper securely.
3. **w/ DRUM BRAKE:**  
**REMOVE BRAKE DRUM**



4. **CHECK BEARING BACKLASH AND AXLE HUB DEVIATION**

- (a) Using a dial indicator near the center of the axle hub and check the backlash in the bearing shaft direction.

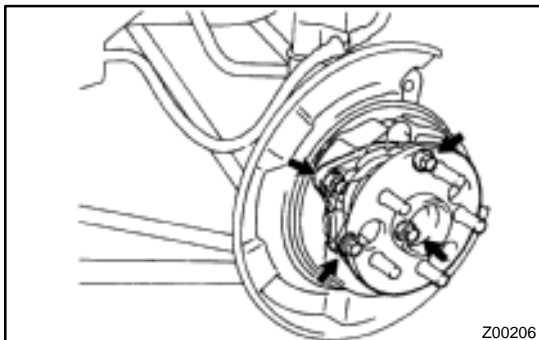
**Maximum: 0.05 mm (0.0020 in.)**

If the backlash exceeds the maximum, replace the axle hub with the bearing.

- (b) Using a dial indicator, check the deviation at the surface of the axle hub outside the hub bolt.

**Maximum: 0.07 mm (0.0028 in.)**

If the deviation exceeds the maximum, replace the axle hub with the bearing.



5. **REMOVE REAR AXLE HUB**

- (a) Remove the 4 bolts and rear axle hub.  
**Torque: 80 N·m (820 kgf·cm, 59 ft·lbf)**
  - (b) Remove the O-ring.

**HINT:**

At the time of installation, coat a new O-ring with MP grease.

- (c) w/ Drum brake:  
Remove the bolt, and disconnect the flexible hose from the shock absorber.

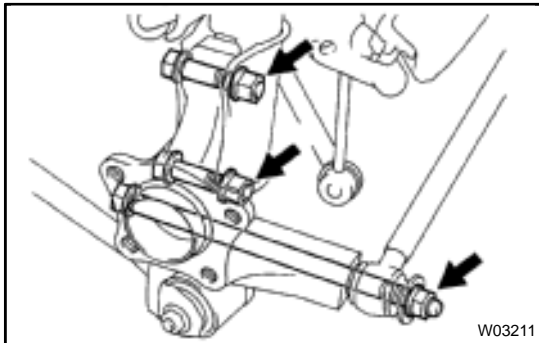
**Torque: 29 N·m (300 kgf·cm, 22 ft·lbf)**

- (d) Support the backing plate securely.

**6. w/ ABS:**

**REMOVE ABS SPEED SENSOR**

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



**7. REMOVE REAR AXLE CARRIER**

- (a) Loosen the 3 nuts.

**Torque:**

**Nut A:**

**Reused nut: 196 N·m (2,000 kgf·cm, 145 ft·lbf)**

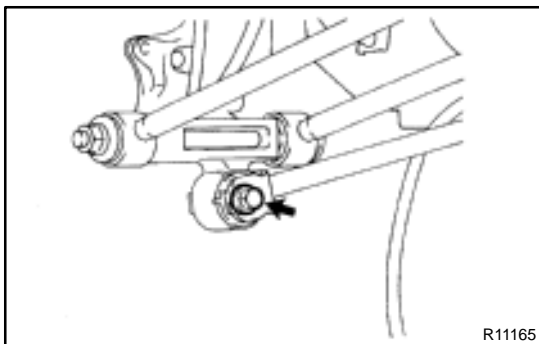
**New nut: 255 N·m (2,600 kgf·cm, 188 ft·lbf)**

**Nut B: 181 N·m (1,850 kgf·cm, 134 ft·lbf)**

**HINT:**

At the time of installation, please refer to the following items.

- ◆ If reusing the 2 nuts, coat the nut's threads with engine oil.
- ◆ After stabilizing the suspension, torque the nuts.



- (b) Remove the bolt and nut, and disconnect the strut rod from the rear axle carrier.

**NOTICE:**

**When removing/installing bolt, stop the nut from rotating and loosen/torque the bolt.**

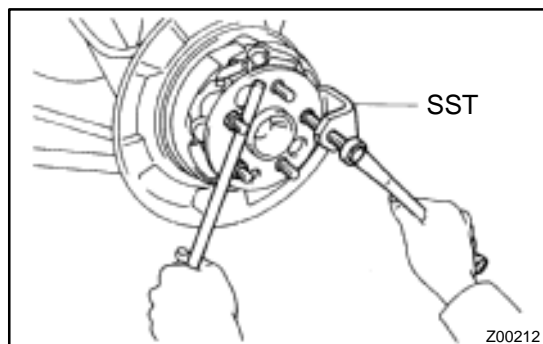
**Torque: 113 N·m (1,150 kgf·cm, 83 ft·lbf)**

- (c) Remove the 2 nuts and bolts on the lower side of the shock absorber.
- (d) Remove the nut, bolt and No.2 lower suspension arm.
- (e) Remove the rear axle carrier.

## INSTALLATION

Installation is in the reverse order of removal (See page [SA-52](#)).

**AFTER INSTALLATION, CHECK ABS SPEED SENSOR SIGNAL (See page [DI-493](#) or [DI-539](#)) AND REAR WHEEL ALIGNMENT (See page [SA-7](#))**



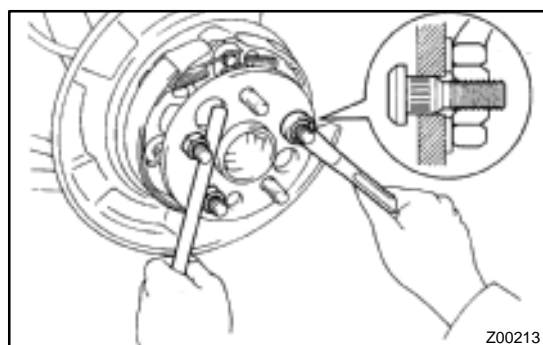
## REAR WHEEL HUB BOLT REPLACEMENT

SA088-01

1. REMOVE REAR WHEEL
2. REMOVE REAR DISC OR DRUM (See page [SA-52](#))
3. REMOVE HUB BOLT

Using SST, remove the hub bolt.

SST 09628-10011



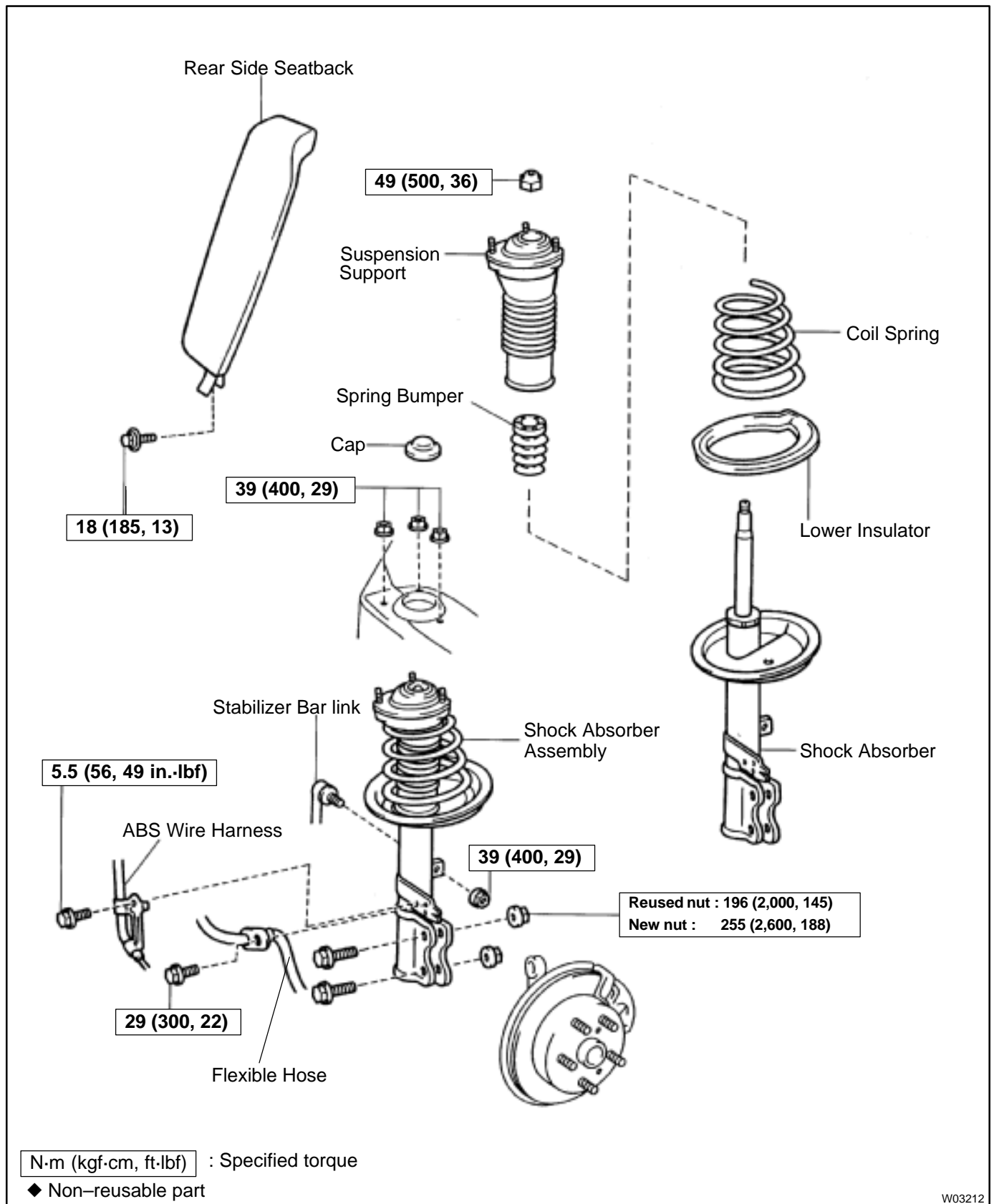
4. INSTALL HUB BOLT

Install a washer and nut to the hub bolt, as shown in the illustration, and install the hub bolt by tightening the nut.

5. INSTALL REAR DISC OR DRUM
  6. INSTALL REAR WHEEL
- Torque: 103 N·m (1,050 kgf·cm, 76 ft·lbf)

# REAR SHOCK ABSORBER COMPONENTS

SA089-01

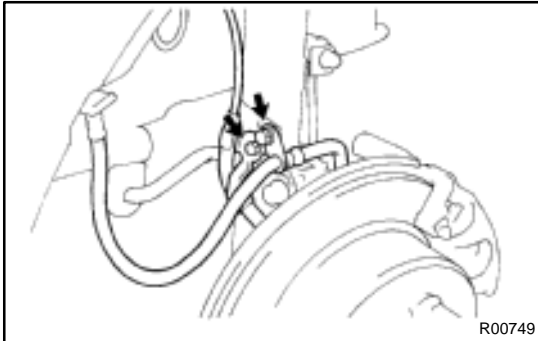


W03212



## REMOVAL

1. REMOVE REAR SIDE SEATBACK  
(See page [BO-113](#) or [BO-118](#))
2. REMOVE REAR WHEEL  
Torque: 103 N·m (1,050 kgf·cm, 76 ft·lbf)



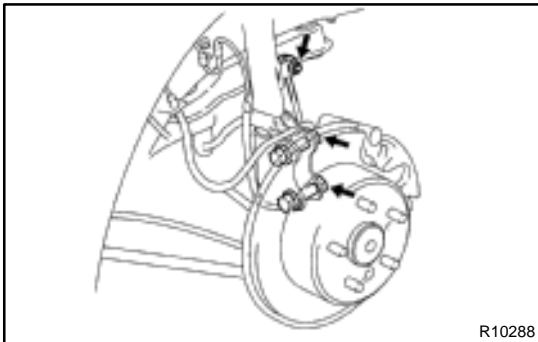
3. REMOVE FLEXIBLE HOSE AND ABS SPEED SENSOR WIRE HARNESS (w/ ABS) FROM SHOCK ABSORBER

Remove the 2 bolts, flexible hose bracket and ABS wire harness clamp.

**Torque:**

**Flexible hose: 29 N·m (300 kgf·cm, 22 ft·lbf)**

**ABS wire: 5.5 N·m (56 kgf·cm, 49 in·lbf)**



4. DISCONNECT STABILIZER BAR LINK FROM SHOCK ABSORBER (See page [SA-70](#))

5. REMOVE SHOCK ABSORBER WITH COIL SPRING
  - (a) Loosen the 2 nuts on the lower side of the shock absorber.

**Torque:**

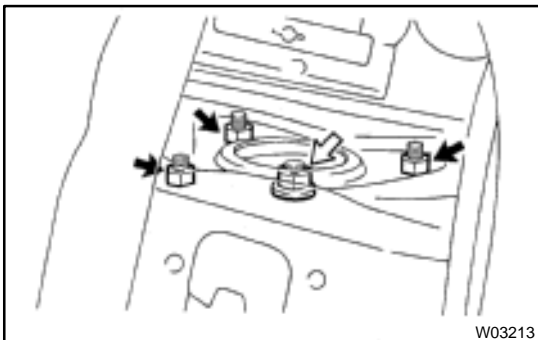
**Reused nut: 196 N·m (2,000 kgf·cm, 145 ft·lbf)**

**New nut: 255 N·m (2,600 kgf·cm, 188 ft·lbf)**

**HINT:**

At the time of installation, coat the nut's threads with engine oil.

- (b) Support the rear axle carrier with a jack.



- (c) Remove the cap.
- (d) Loosen the nut in the middle of the suspension support.

**NOTICE:**

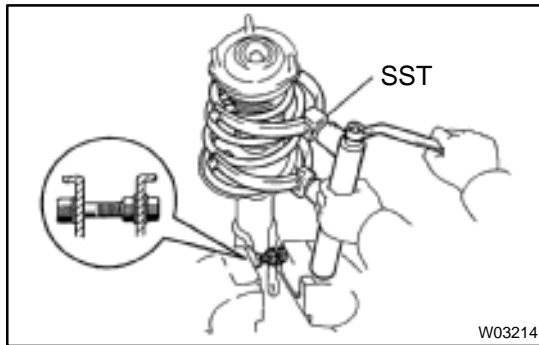
**Do not remove it.**

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

- (e) Remove the 3 nuts of the suspension support.

**Torque: 39 N·m (400 kgf·cm, 29 ft·lbf)**

- (f) Lower the rear axle carrier and remove the 2 bolts.
- (g) Remove the shock absorber with the coil spring.



## DISASSEMBLY

### REMOVE COIL SPRING

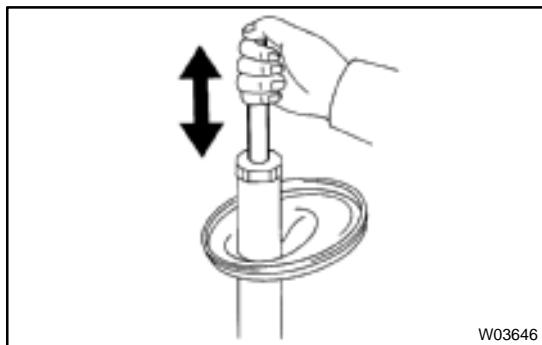
- (a) Install 2 nuts and a bolt to the bracket at the lower part of the shock absorber and secure it in a vise.
- (b) Using SST, compress the coil spring.

#### NOTICE:

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

SST 09727-30021

- (c) Remove the suspension support nut.
- (d) Remove these parts from the shock absorber:
  - ◆ Suspension support
  - ◆ Coil spring
  - ◆ Lower insulator
  - ◆ Spring bumper



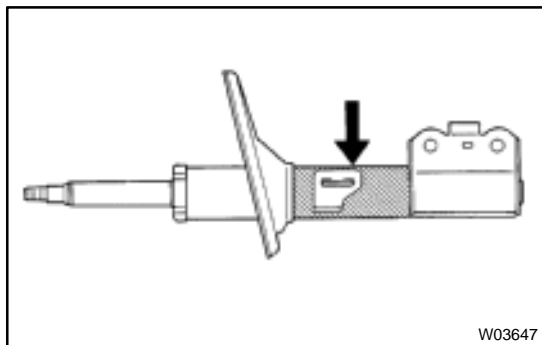
## INSPECTION

### INSPECT SHOCK ABSORBER

Compress and extend the shock absorber rod and check that there is no abnormal resistance or unusual operation sound.

#### NOTICE:

When discarding the shock absorber, see **DISPOSAL** on page [SA-60](#).



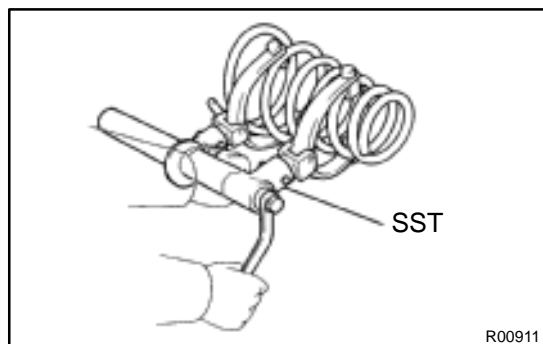
## DISPOSAL

1. FULLY EXTEND SHOCK ABSORBER ROD
2. DRILL HOLE TO REMOVE GAS FROM CYLINDER

Using a drill, make a hole in the cylinder as shown in the illustration to remove the gas inside.

### CAUTION:

The discharged gas is harmless, but be careful of chips which may fly up when drilling.



## REASSEMBLY

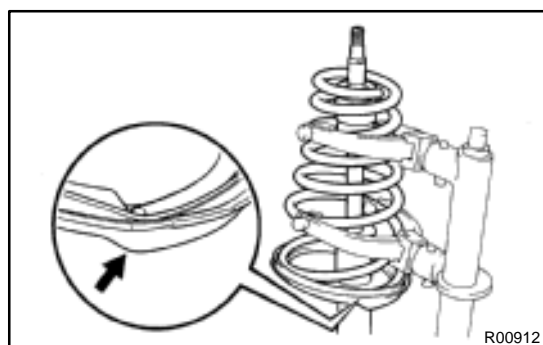
1. **INSTALL LOWER INSULATOR**
2. **INSTALL SPRING BUMPER TO PISTON ROD**
3. **INSTALL COIL SPRING**

(a) Using SST, compress the coil spring.

SST 09727-30021

### NOTICE:

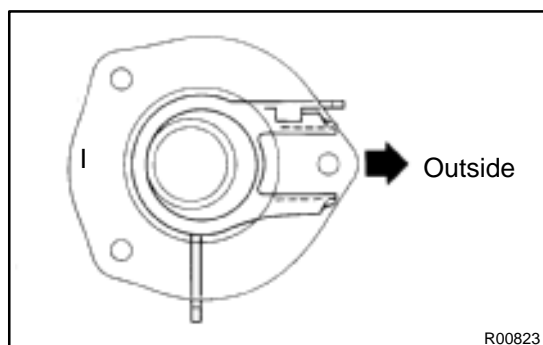
**Do not use an impact wrench. It will damage the SST.**



(b) Install the coil spring to the shock absorber.

### HINT:

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



## 4. INSTALL SUSPENSION SUPPORT

(a) Install the suspension support to the piston rod and temporarily tighten a new nut.

(b) Rotate the suspension support and set it in the direction shown in the illustration.

(c) Remove the SST.

SST 09727-30021

### HINT:

After removing SST, again check the direction of the suspension support.

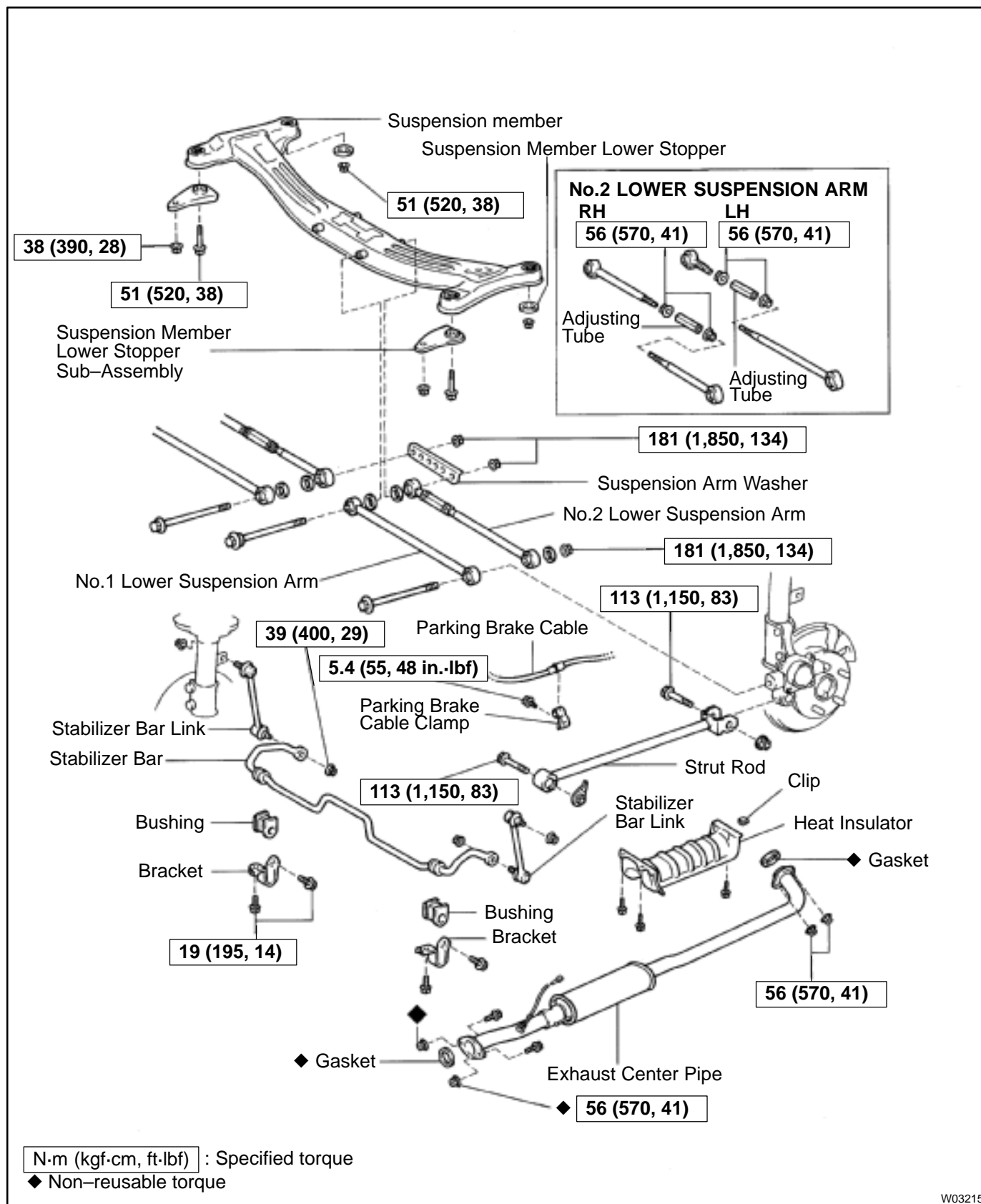
## INSTALLATION

Installation is in the reverse order of removal (See page [SA-57](#)).

**AFTER INSTALLATION, CHECK REAR WHEEL ALIGNMENT (See page [SA-7](#))**

# REAR LOWER SUSPENSION ARM AND STRUT ROD COMPONENTS

SA08G-01



W03215

## REMOVAL

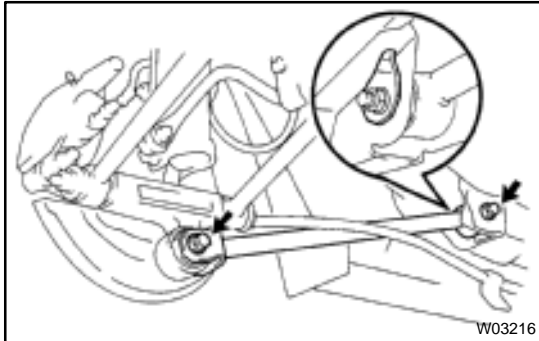
### 1. REMOVE REAR WHEEL

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

### 2. REMOVE EXHAUST CENTER PIPE

**5S-FE Engine: (See page EM-114)**

**1MZ-FE Engine: (See page EM-111)**



### 3. REMOVE STRUT ROD

- (a) Remove the bolt and disconnect the parking brake cable.

**Torque: 5.4 N·m (55 kgf·cm, 48 in·lbf)**

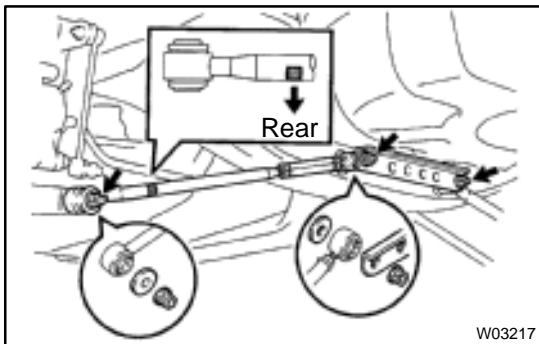
- (b) Remove the 2 bolts and nuts.

**Torque: 113 N·m (1,150 kgf·cm, 83 ft·lbf)**

**HINT:**

At the time of installation, after stabilizing the suspension, torque the bolts.

- (c) Remove the strut rod.



### 4. REMOVE NO.2 LOWER SUSPENSION ARM

- (a) Remove the 3 nuts, suspension arm washer and washers.

**Torque: 181 N·m (1,850 kgf·cm, 134 ft·lbf)**

**HINT:**

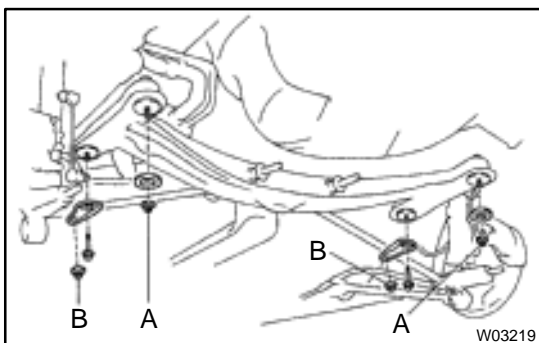
At the time of installation, after stabilizing the suspension, torque the nuts.

- (b) Remove the No.2 lower suspension arm.

**HINT:**

At the time of installation, face the paint mark to the rearward.

### 5. REMOVE LEFT AND RIGHT STABILIZER BRACKETS (See page SA-70)



### 6. REMOVE NO.1 LOWER SUSPENSION ARM

- (a) Support the suspension member with a jack.

- (b) Remove the 4 nuts, 2 bolts and suspension member lower stoppers.

**Torque:**

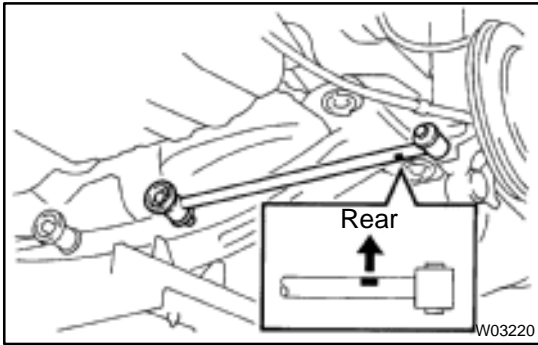
**Bolt: 51 N·m (520 kgf·cm, 38 ft·lbf)**

**Nut A: 51 N·m (520 kgf·cm, 38 ft·lbf)**

**Nut B: 38 N·m (390 kgf·cm, 28 ft·lbf)**

- (c) Lower the suspension member.

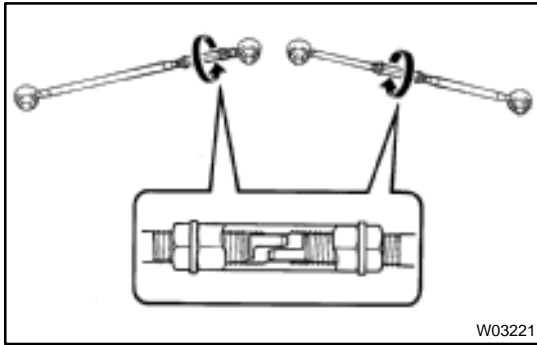




- (d) Remove the No.1 lower suspension arm with the 2 bolts and washer.

HINT:

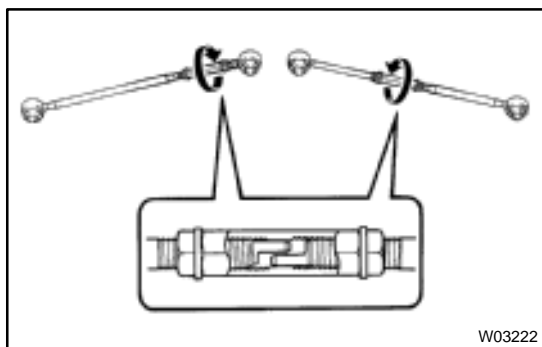
At the time of installation, face the paint mark to the rearward.



## DISASSEMBLY

### DISASSEMBLE NO.2 LOWER SUSPENSION ARM

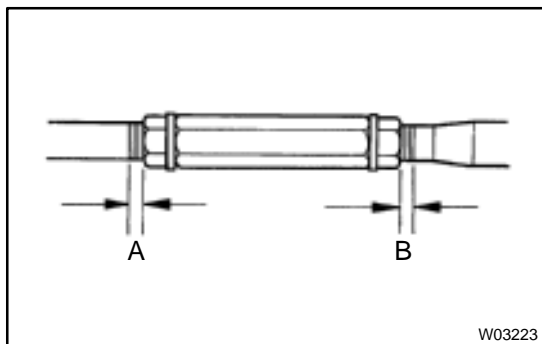
- (a) Loosen the 2 lock nuts.
- (b) Turn and disassemble the No.2 lower suspension arm.
- (c) Remove the lock nuts from the No.2 lower suspension arm.



## REASSEMBLY

### ASSEMBLE NO.2 LOWER SUSPENSION ARM

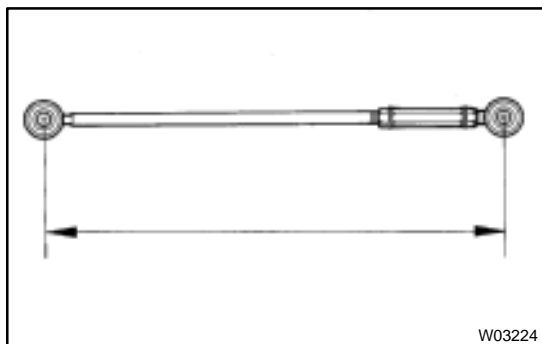
- Install the 2 lock nuts to the No.2 lower suspension arm.
- Turn the adjusting tube and assemble the No.2 lower suspension arm.



#### HINT:

When assembling the No.2 lower suspension arm, make sure that the length of A and B shown in the illustration is the same.

**Maximum difference: 3.0 mm (0.118 in.)**



- Adjust the No.2 lower suspension arm length by turning the adjusting tube.

**Arm length: 512.3 mm (20.169 in.)**

- Temporarily tighten the 2 lock nuts.

#### HINT:

After adjusting the rear wheel alignment, torque the lock nuts (See page [SA-7](#)).

**Torque: 56 N·m (570 kgf-cm, 41 ft·lbf)**

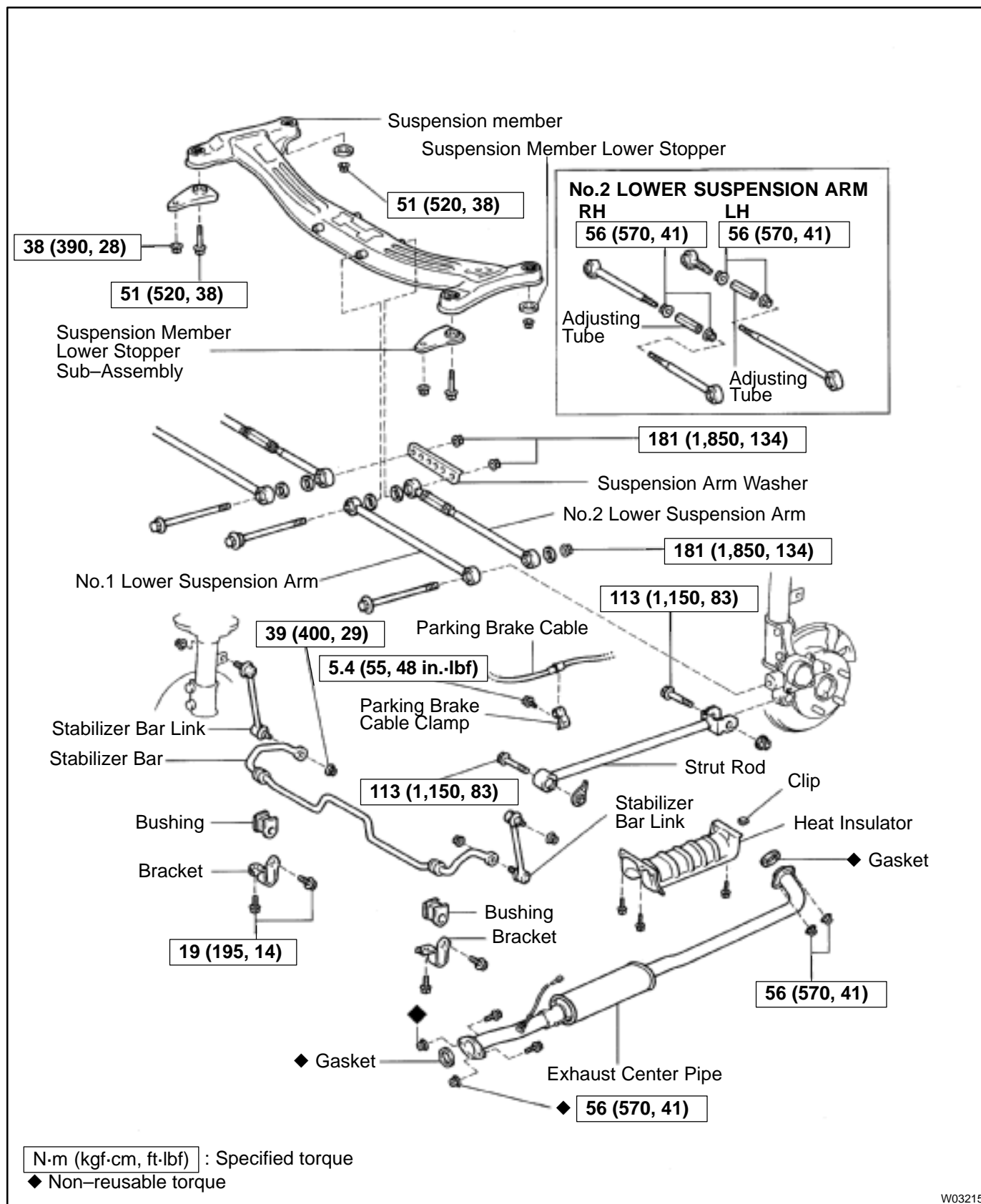
## INSTALLATION

Installation is in the reverse order of removal (See page [SA-64](#)).

**AFTER INSTALLATION, CHECK REAR WHEEL ALIGNMENT (See page [SA-7](#))**

# REAR STABILIZER BAR COMPONENTS

SA08L-01

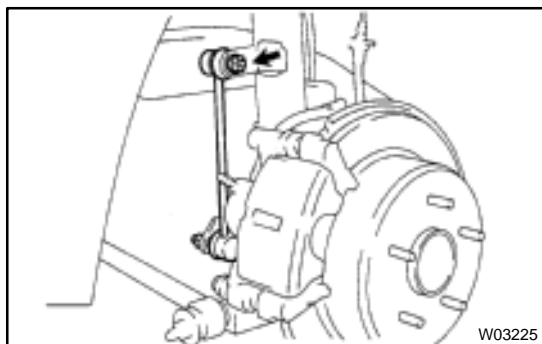


W03215

## REMOVAL

### 1. REMOVE REAR WHEELS

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



### 2. REMOVE LEFT AND RIGHT STABILIZER BAR LINKS

Remove the 4 nuts and 2 links.

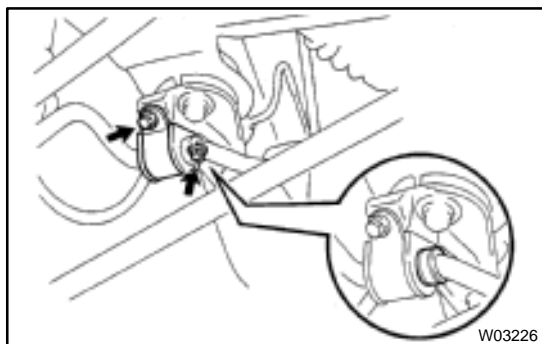
HINT:

If the ball joint turns together with the nut, use a 5 mm hexagon wrench to hold the stud.

Torque: 39 N·m (400 kgf·cm, 29 ft·lbf)

### 3. REMOVE HEAT INSULATOR

Remove the 3 bolts, clip and heat insulator.



### 4. REMOVE LEFT AND RIGHT BRACKETS AND BUSHINGS

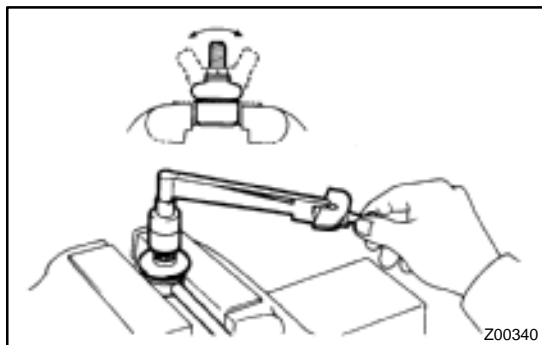
Remove the 4 bolts, 2 brackets and bushings.

Torque: 19 N·m (195 kgf·cm, 14 ft·lbf)

HINT:

At the time of installation, install the bushing to the portion outside the bushing on the stabilizer bar.

### 5. REMOVE STABILIZER BAR



## INSPECTION

### INSPECT STABILIZER BAR LINK BALL JOINT FOR ROTATION CONDITION

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

#### Turning torque:

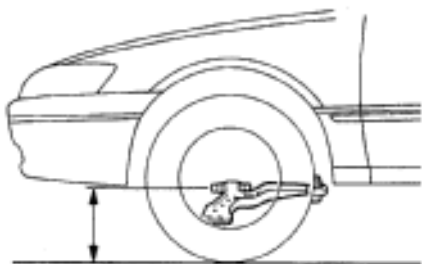
**0.05 – 1.0 N·m (0.5 – 10 kgf·cm, 0.4 – 8.7 in.-lbf)**

## INSTALLATION

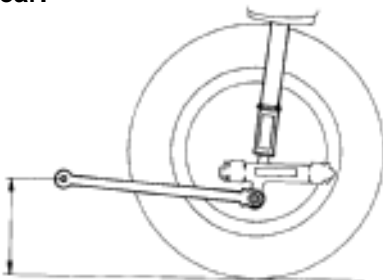
Installation is in the reverse order of removal (See page [SA-70](#)).



Front:



Rear:



F08080

## FRONT WHEEL ALIGNMENT INSPECTION

### 1. MEASURE VEHICLE HEIGHT

Vehicle height:

Tire size	Front*1 mm (in.)	Rear*2 mm (in.)
205/65R15	218 (8.58)	270 (10.63)

\*1: Front measuring point

Measure the distance from the ground to the center of the front side lower suspension arm mounting bolt.

\*2: Rear measuring point

Measure the distance from the ground to the center of the front side strut rod mounting bolt.

#### NOTICE:

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

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

### 2. INSTALL CAMBER-CASTER-KINGPIN GAUGE OR POSITION VEHICLE ON WHEEL ALIGNMENT TESTER

Follow the specific instructions of the equipment manufacturer.

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

Camber, caster and steering axis inclination:

Camber	Right-left error	$-0^{\circ}36' \pm 45'$ ( $-0.6^{\circ} \pm 0.75^{\circ}$ ) 45' (0.75°) or less
Caster	Right-left error	$2^{\circ}10' \pm 45'$ ( $2.17^{\circ} \pm 0.75^{\circ}$ ) 45' (0.75°) or less
Steering axis inclination	Right-left error	$13^{\circ}01' \pm 45'$ ( $13.02^{\circ} \pm 0.75^{\circ}$ ) 45' (0.75°) or less

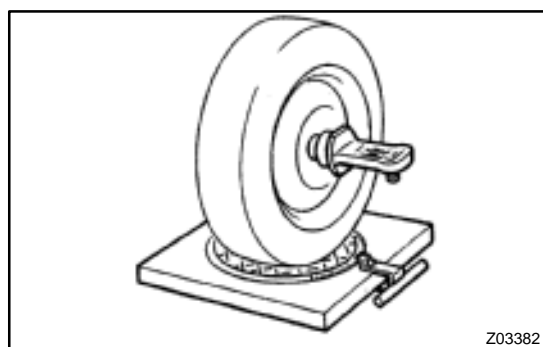
If the caster and steering axis inclination are not within the specified values, after the camber has been correctly adjusted, re-check the suspension parts for damaged and/or worn out parts.

### 4. ADJUST CAMBER

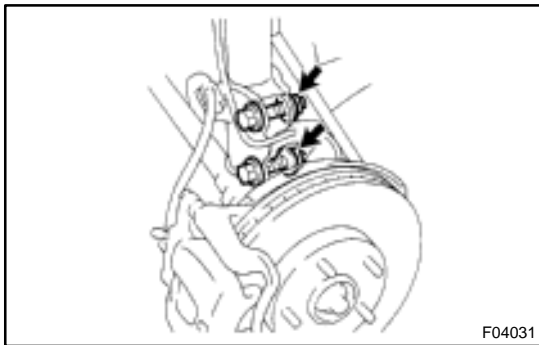
#### NOTICE:

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

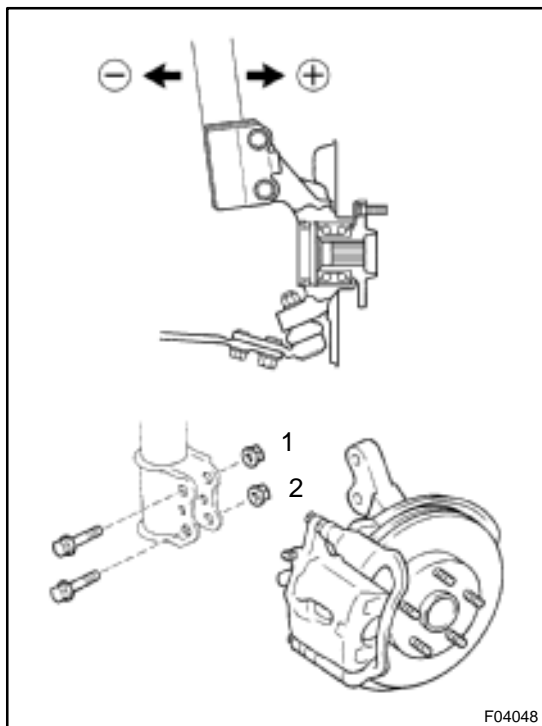
(a) Remove the front wheel and ABS speed sensor clamp.



Z03382







- (b) Remove the 2 nuts on the lower side of the shock absorber.
- (c) Coat the threads of the nuts with engine oil.
- (d) Temporarily install the 2 nuts.



- (e) Adjust the camber by pushing or pulling the lower side of the shock absorber in the direction in which the camber adjustment is required.
- (f) Tighten the nuts.  
**Torque: 211 N·m (2,150 kgf·cm, 156 ft·lbf)**
- (g) Install the ABS speed sensor clamp and front wheel.  
**Torque: 103 N·m (1,050 kgf·cm, 76 ft·lbf)**
- (h) Check the camber.

## HINT:

- ◆ Try to adjust the camber to the center of the specified value.
  - ◆ Adjusting value for the set bolts is 6' – 30' (0.1° – 0.5°).
- If the camber is not within the specified value, using the following table, estimate how much additional camber adjustment will be required, and select the camber adjusting bolt.

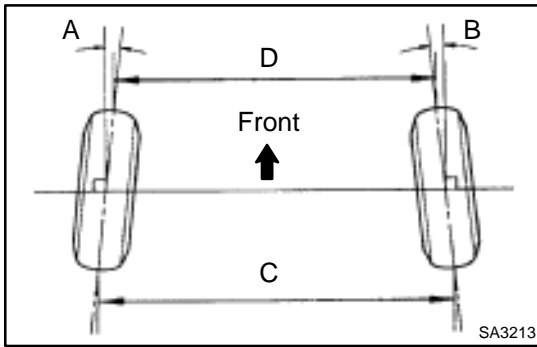
Bolt	Set Bolt		Adjusting Bolt					
	90105-15001		90105-15004		90105-15005		90105-15006	
			1 Dot		2 Dots		3 Dots	
Adjusting Value								
	1	2	1	2	1	2	1	2
15'	●			●				
30'	●					●		
45'	●							●
1°00'			●					●
1°15'					●			●
1°30'							●	●

F01195

- (i) Do the steps mentioned above again. Between step (b) and (c), replace 1 or 2 selected bolts.

## HINT:

When replacing the 2 bolts, replace 1 bolt for each time.



## 5. INSPECT TOE-IN

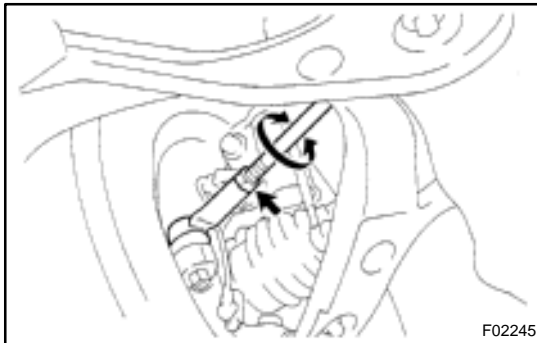
### Toe-in:

Toe-in (total)	A + B: $0^{\circ} \pm 12'$ ( $0^{\circ} \pm 0.2^{\circ}$ ) C - D: $0 \pm 2$ mm ( $0 \pm 0.08$ in.)
-------------------	---

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

## 6. ADJUST TOE-IN

(a) Using pliers, remove the rack boot set clips.

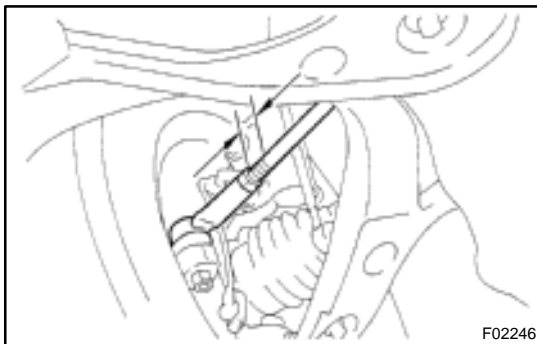


(b) Loosen the tie rod end lock nuts.

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

### HINT:

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



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

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

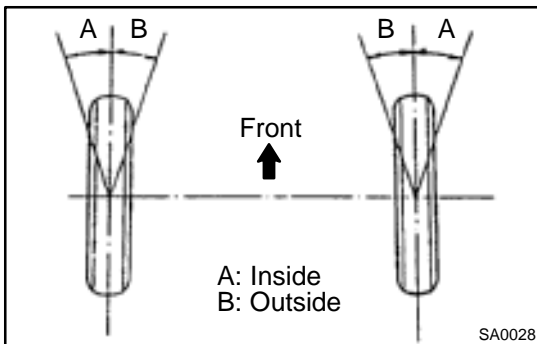
(e) Torque the tie rod end lock nuts.

**Torque: 74 N·m (750 kgf·cm, 54 ft·lbf)**

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

### HINT:

Make sure that the boots are not twisted.



## 7. INSPECT WHEEL ANGLE

Turn the steering wheel fully, and measure the turning angle.

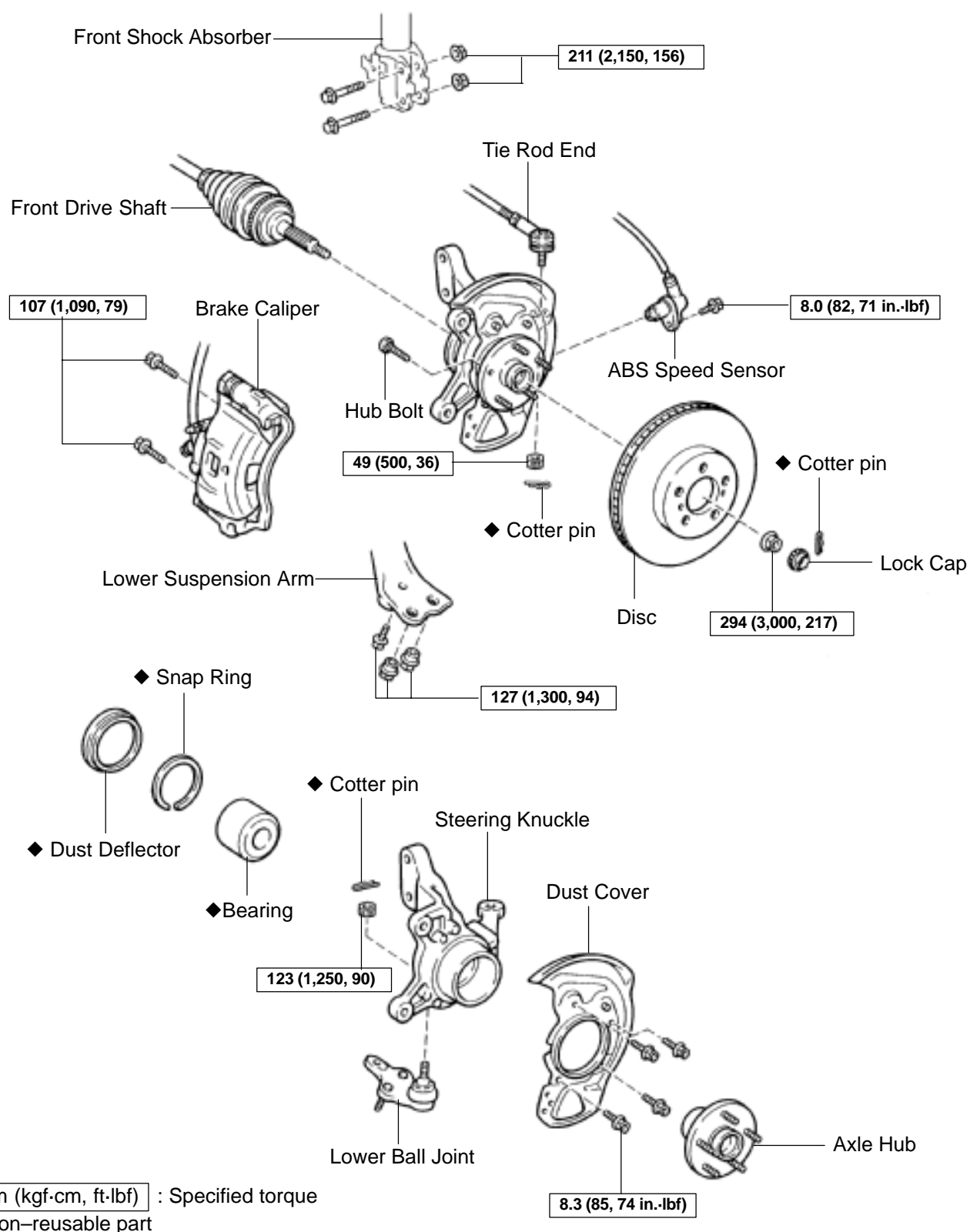
### Wheel turning angle:

Inside wheel	$35^{\circ}50' \pm 2^{\circ}$ ( $35.84^{\circ} \pm 2^{\circ}$ )
Outside wheel: Reference	$31^{\circ}28'$ ( $31.47^{\circ}$ )

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

## FRONT AXLE HUB COMPONENTS

SA07B-05

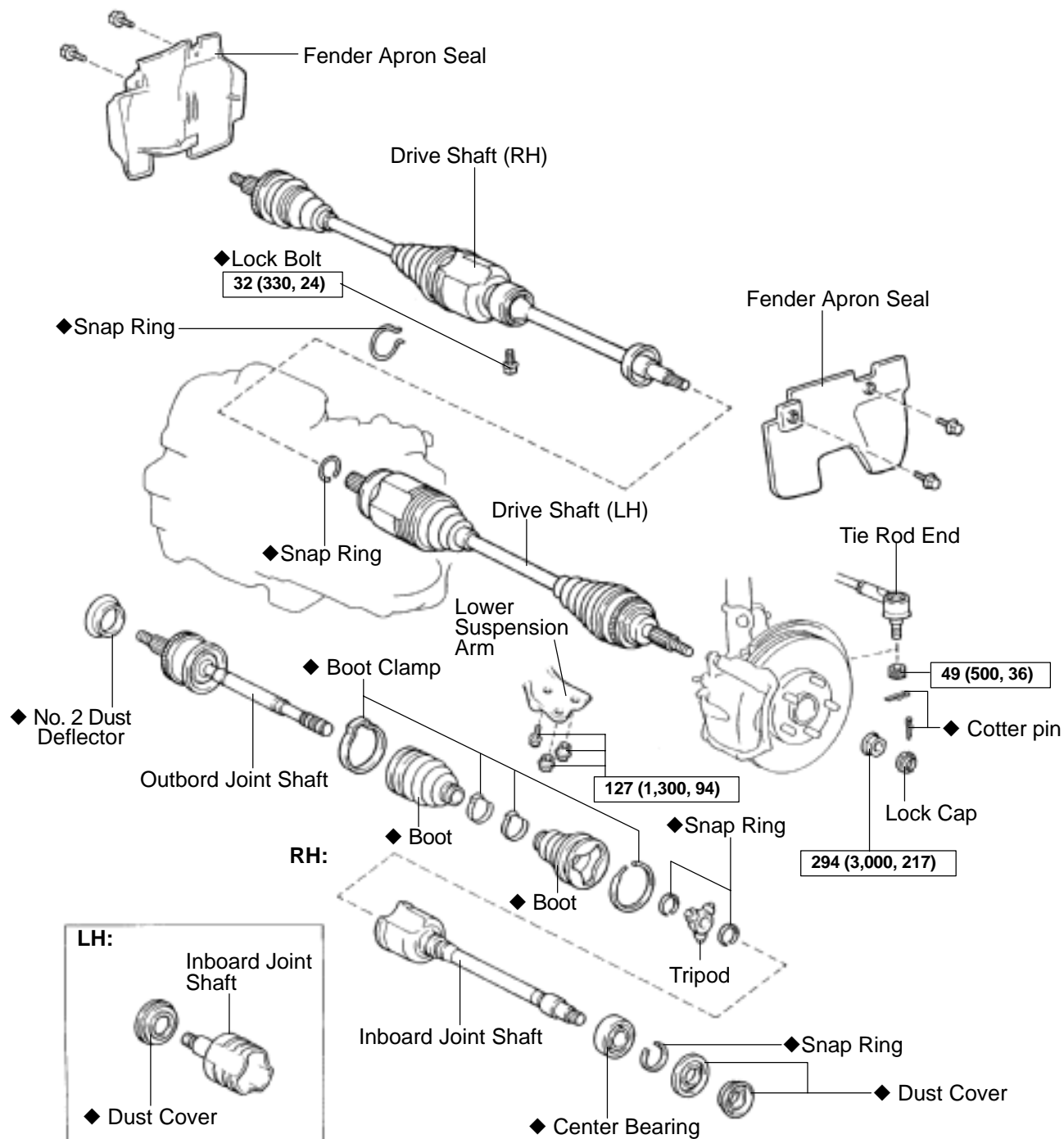


N

F08042

# FRONT DRIVE SHAFT COMPONENTS

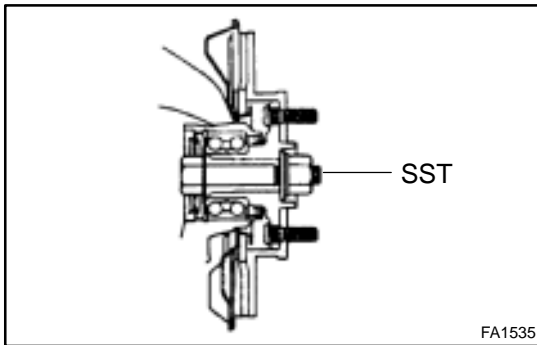
SA08P-02



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

◆ Non-reusable part

F03274



## REMOVAL

### NOTICE:

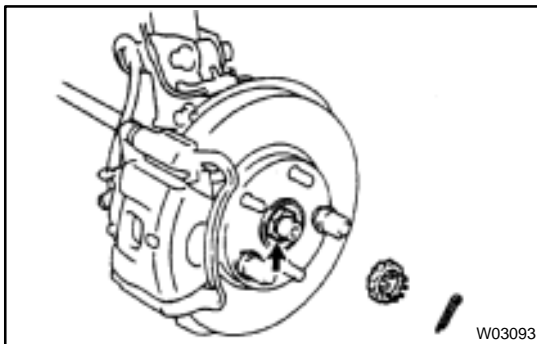
- ◆ The hub bearing could be damaged if it is subjected to the vehicle weight, such as when moving the vehicle with the drive shaft removed.

Therefore, if it is absolutely necessary to place the vehicle weight on the hub bearing, first support it with SST.

SST 09608-16042 (09608-02021, 09608-02041)

- ◆ After disconnecting the drive shaft from the axle hub, work carefully so as not to damage the ABS speed sensor rotor serration on the drive shaft.

1. REMOVE FRONT WHEEL AND FRONT FENDER APRON SEAL
2. DRAIN ATF

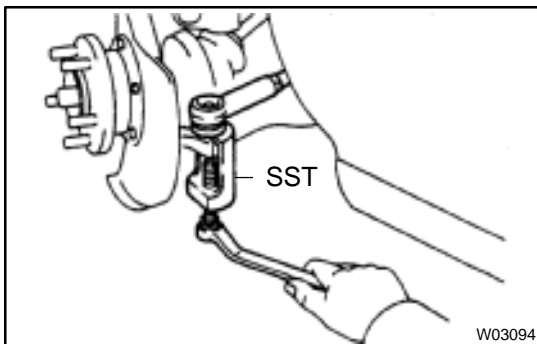


### 3. REMOVE DRIVE SHAFT LOCK NUT

- (a) Remove the cotter pin and lock cap.
- (b) While applying the brakes, remove the nut.

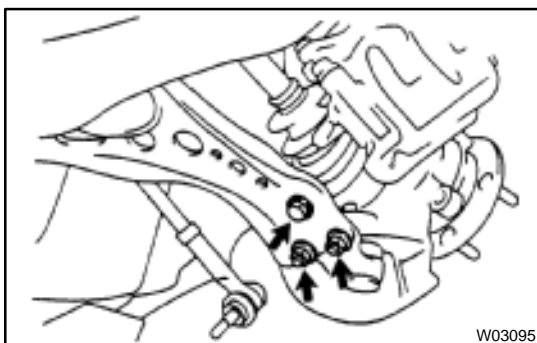
### 4. DISCONNECT TIE ROD END FROM STEERING KNUCKLE

- (a) Remove the cotter pin and nut.



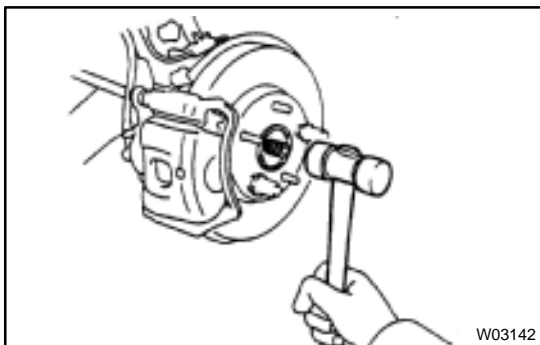
- (b) Using SST, disconnect the tie rod end from the steering knuckle.

SST 09610-20012



### 5. DISCONNECT LOWER SUSPENSION ARM FROM LOWER BALL JOINT

Remove the bolt and 2 nuts, and disconnect the lower suspension arm from the lower ball joint.

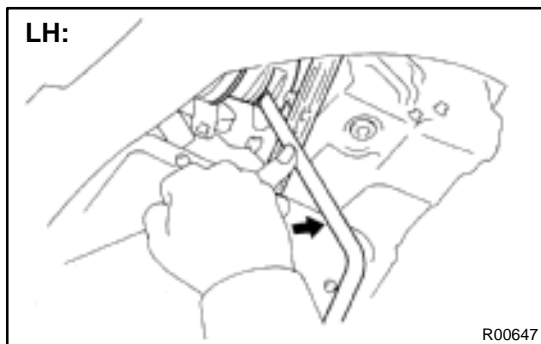
**6. DISCONNECT DRIVE SHAFT FROM AXLE HUB**

- (a) Using a plastic hammer, disconnect the drive shaft from the axle hub.

**NOTICE:**

**Be careful not to damage the boot and ABS speed sensor rotor.**

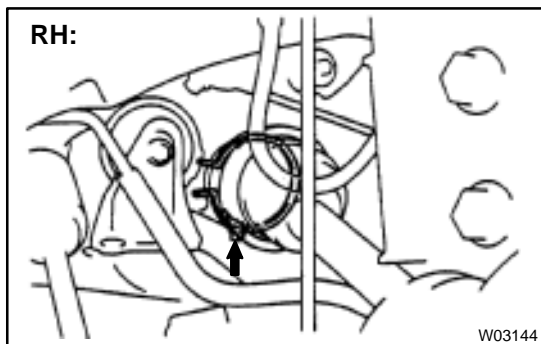
- (b) Push the front axle hub toward the outside of the vehicle, and separate the drive shaft from the axle hub.

**LH:****7. REMOVE LH DRIVE SHAFT**

- (a) Using a hub nut wrench and wooden block or an equivalent, remove the drive shaft.
- (b) Using a screwdriver, remove the snap ring from the in-board joint shaft.

**NOTICE:**

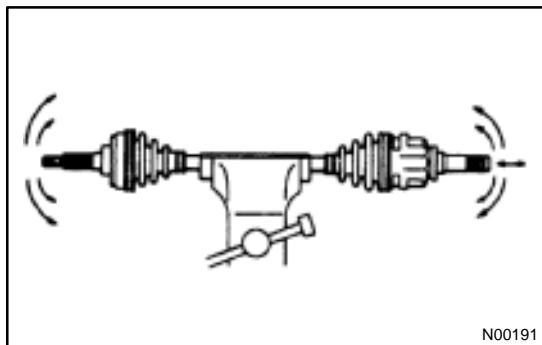
**Be careful not to damage the boot and ABS speed sensor rotor.**

**RH:****8. REMOVE RH DRIVE SHAFT**

- (a) Remove the bearing lock bolt.
- (b) Using pliers, remove the snap ring and drive shaft.

**NOTICE:**

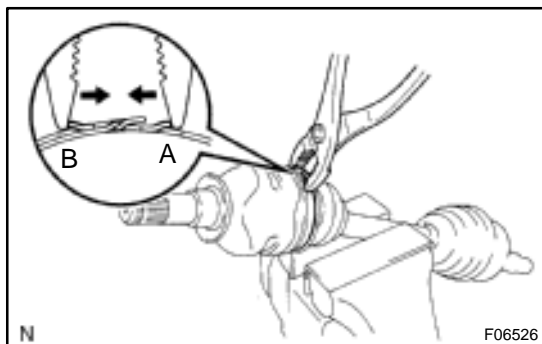
**Be careful not to damage the boot and ABS speed sensor rotor.**



## DISASSEMBLY

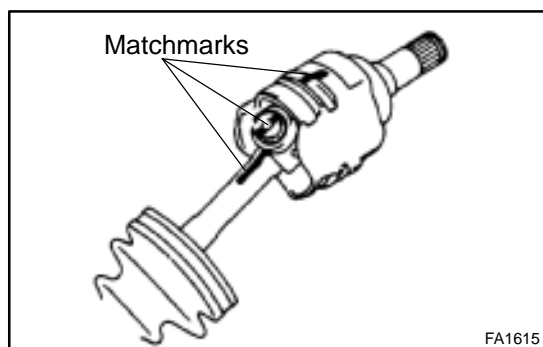
### 1. CHECK DRIVE SHAFT

- Check to see that there is no remarkable play in the outboard joint.
- Check to see that the inboard joint slides smoothly in the thrust direction.
- Check to see that there is no remarkable play in the radial direction of the inboard joint.
- Check the boots for damage.



### 2. REMOVE INBOARD AND OUTBOARD JOINT BOOT CLAMPS

- Using pliers, pinch the claw A and B to compress the large inboard joint boot clamp and remove it.
- Using a side cutter, cut the small inboard joint boot clamp and remove it.
- Using a side cutter, cut the 2 outboard joint boot clamps and remove them.



### 3. REMOVE INBOARD JOINT SHAFT

- Place matchmarks on the tripod, inboard and outboard joint shafts.

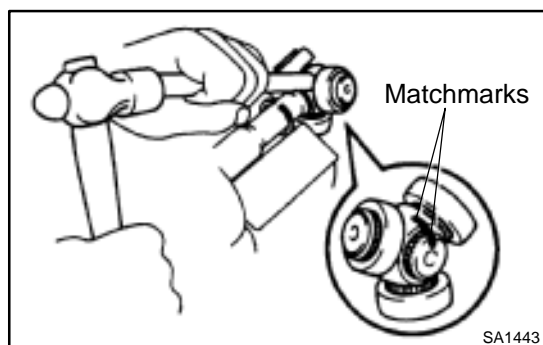
#### NOTICE:

**Do not punch the marks.**

- Remove the inboard joint shaft from the outboard joint shaft.

### 4. REMOVE TRIPOD

- Using a snap ring expander, remove the inboard joint side snap ring.
- Using a snap ring expander, temporarily slide the outboard joint side snap ring toward the outboard joint side.



- Place matchmarks on the outboard joint shaft and tripod.

#### NOTICE:

**Do not punch the marks.**

- Using a brass bar and hammer, remove the tripod from the outboard joint shaft.

#### NOTICE:

**Do not tap the roller.**

- Using a snap ring expander, remove the snap ring.

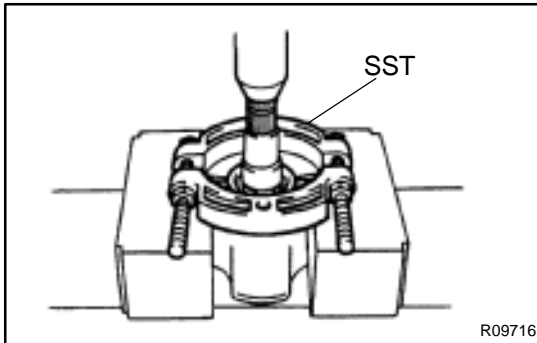


**5. REMOVE INBOARD AND OUTBOARD JOINT BOOTS**

Slide out the 2 boots.

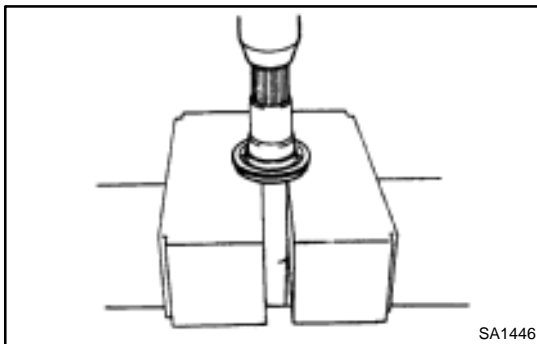
**NOTICE:**

**Do not disassemble the outboard joint.**

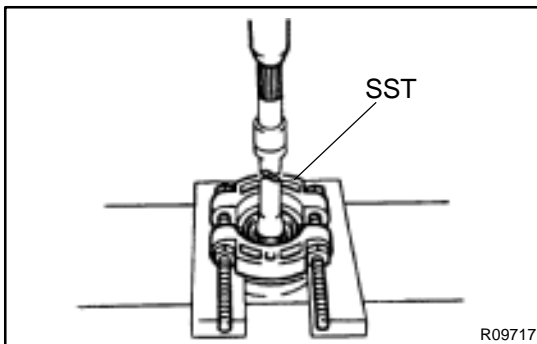
**6. LH drive shaft:  
REMOVE DUST COVER**

Using SST and a press, remove the dust cover from the inboard joint shaft.

SST 09950-00020

**7. RH drive shaft:  
DISASSEMBLE INBOARD JOINT SHAFT**

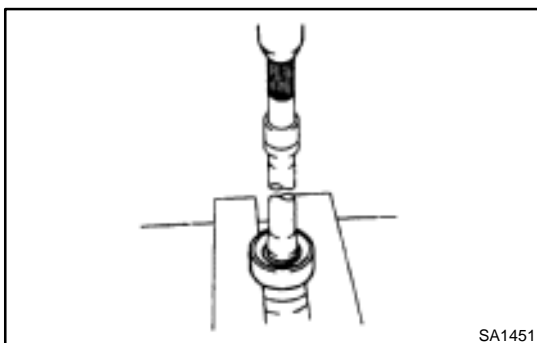
(a) Using a press, remove the transaxle side dust cover from the inboard joint shaft.



(b) Using SST and a press, remove the bearing side dust cover.

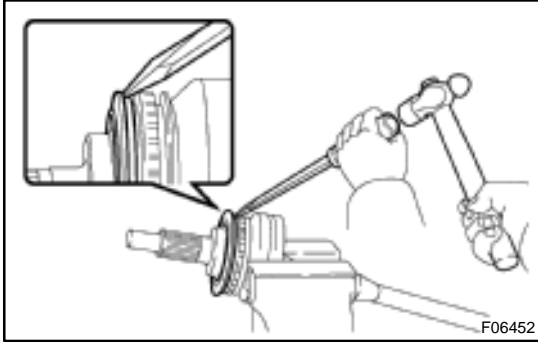
SST 09950-00020

(c) Using a snap ring expander, remove the snap ring.



(d) Using a press, remove the bearing.

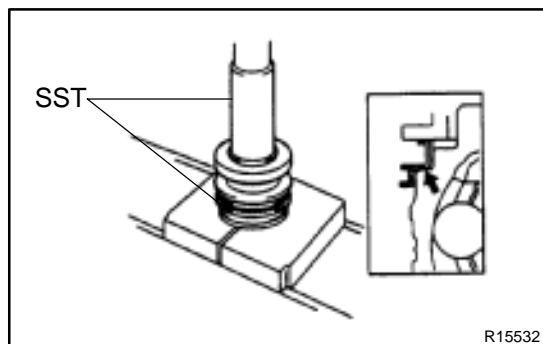
(e) Remove the snap ring.

**8. REMOVE NO. 2 DUST DEFLECTOR**

- (a) Mount the outboard joint shaft in a soft jaw vise.
- (b) Using a screwdriver and hammer, remove the No. 2 dust deflector.

**NOTICE:**

**Be careful not to damage the ABS speed sensor rotor.**



## REASSEMBLY

### 1. INSTALL NO. 2 DUST DEFLECTOR

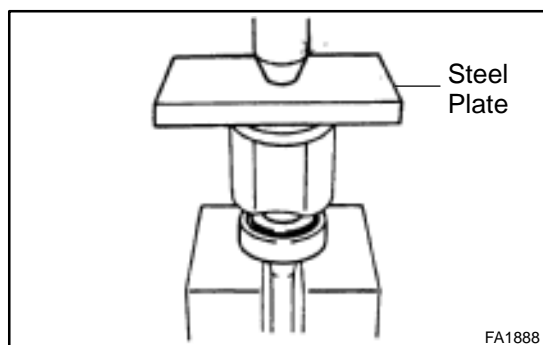
Using SST and a press, install a new No. 2 dust deflector.

SST 09309-36010, 09316-20011

### 2. RH drive shaft:

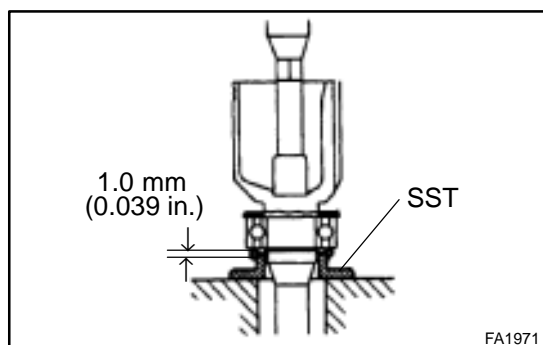
#### ASSEMBLE INBOARD JOINT SHAFT

(a) Install a new snap ring to the inboard joint shaft.



(b) Using a steel plate and press, install a new bearing.

(c) Using a snap ring expander, install a new snap ring.

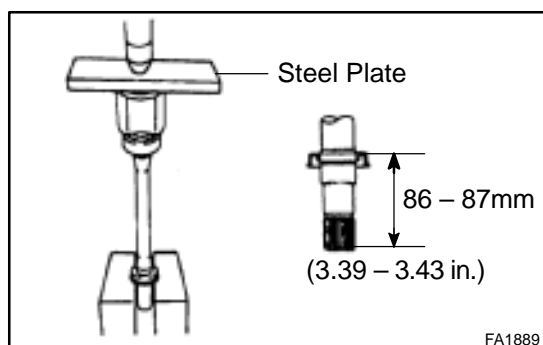


(d) Using SST, an extension bar and press, install a new bearing side dust cover.

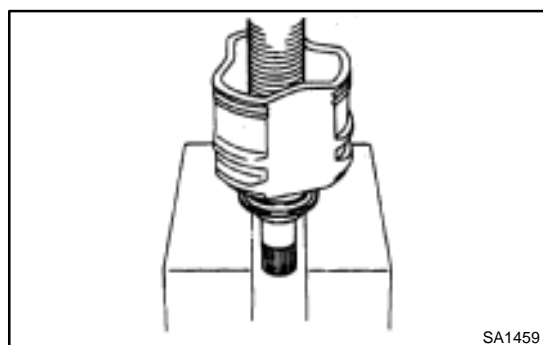
SST 09506-35010

#### HINT:

The clearance between the dust cover and the bearing should be kept in the range shown in the illustration.



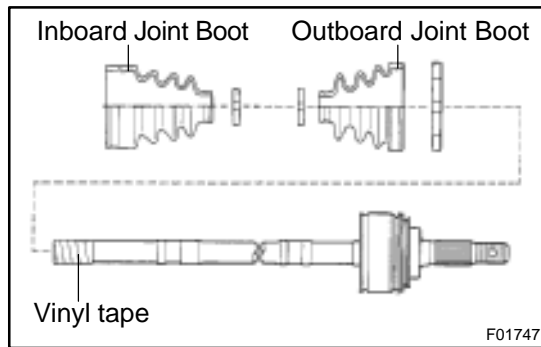
(e) Using a steel plate and press, install a new transaxle side dust cover until the distance from the tip of the inboard joint shaft to the dust cover falls within the specified value, as shown in the illustration.



### 3. LH drive shaft:

#### INSTALL DUST COVER

Using a press, install a new dust cover.



#### 4. TEMPORARILY INSTALL OUTBOARD AND INBOARD JOINT BOOTS AND NEW BOOT CLAMPS

##### HINT:

- ◆ Before installing the boots, wrap the spline of the outboard joint shaft with vinyl tape to prevent the boots from being damaged.
- ◆ Before installing the boots, place 3 new clamps to the small boot ends and large boot end (outboard joint side).

#### 5. INSTALL TRIPOD

- (a) Using a snap ring expander, install a new snap ring.
- (b) Place the beveled side of the tripod axial spline toward the outboard joint.
- (c) Align the matchmarks placed before removal.
- (d) Using a brass bar and hammer, tap in the tripod to the outboard joint shaft.

##### NOTICE:

**Do not tap the roller.**

- (e) Using a snap ring expander, install a new snap ring.

#### 6. INSTALL BOOT TO OUTBOARD JOINT

Before assembling the boot, pack the outboard joint and boot with grease in the boot kit.

**Grease capacity (Color = Black):**

**100 – 120 g (3.5 – 4.2 oz.)**

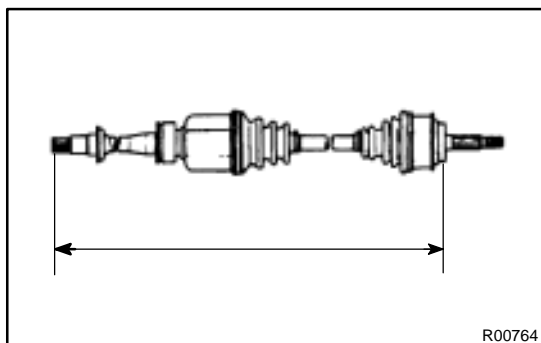
#### 7. INSTALL INBOARD JOINT SHAFT TO OUTBOARD JOINT SHAFT

- (a) Pack the inboard joint and boot with grease in the boot kit.

**Grease capacity (Color = Yellow ochre):**

**125 – 155 g (4.4 – 5.5 oz.)**

- (b) Align the matchmarks placed before removal, and install the inboard joint shaft to the outboard joint shaft.
- (c) Temporarily install the boot to the inboard joint shaft.



#### 8. CHECK DRIVE SHAFT LENGTH

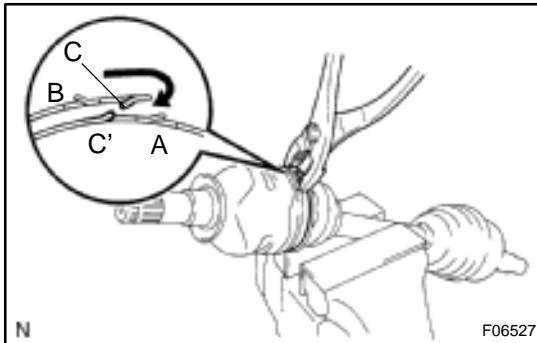
- (a) Make sure that the 2 boots are on the shaft groove.
- (b) Make sure that the 2 boots are not stretched or contracted when the drive shaft is at standard length.

**Drive shaft standard length:**

LH	609.2 ± 2.0 mm (23.984 ± 0.079 in.)
RH	842.9 ± 2.0 mm (33.185 ± 0.079 in.)

**9. Large inboard joint boot clamp:  
INSTALL BOOT CLAMP TO INBOARD JOINT SHAFT  
BOOT**

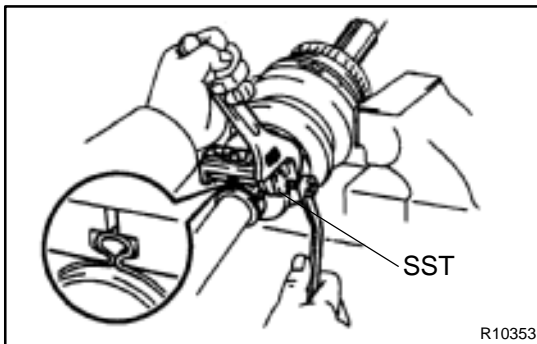
- (a) Place the large inboard joint boot clamp.



- (b) Using pliers, pinch the claw A and B to compress the clamp and engage the claw C and C'.

**10. Others:  
INSTALL BOOT CLAMPS TO BOTH BOOTS**

- (a) Secure the preplaced 3 clamps onto the boots.



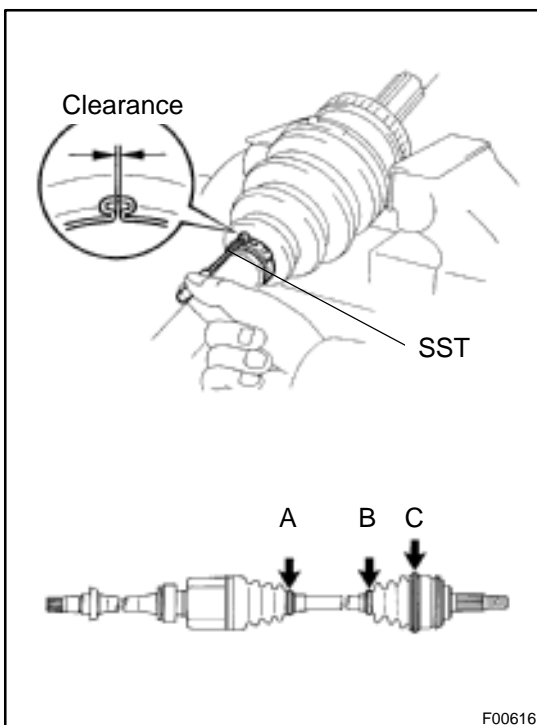
- (b) Place SST onto the clamp.

SST 09521-24010

- (c) Tighten the SST so that the clamp is pinched.

**NOTICE:**

**Do not overtighten the SST.**



- (d) Using SST, adjust the clearance of the clamp.

SST 09240-00020

**Clearance:**

**A : 1.9 mm (0.075 in.) or less**

**B : 1.5 – 2.5 mm (0.059 – 0.098 in.)**

**C : 3.0 – 4.0 mm (0.118 – 0.157 in.)**

**11. CHECK DRIVE SHAFT (See page SA-8)**

## INSTALLATION

### 1. LH drive shaft:

#### INSTALL DRIVE SHAFT TO TRANSAXLE

- (a) Install a new snap ring to the inboard joint shaft.
- (b) Coat the gear oil to the inboard joint shaft and differential case sliding surface.
- (c) Set the snap ring with opening side facing downward.
- (d) Using a brass bar and hammer, install the drive shaft.

#### NOTICE:

**Be careful not to damage the dust cover of the drive shaft and oil seal lip of the transaxle.**

#### HINT:

Whether the inboard joint shaft is in contact with the pinion shaft or not can be known from the sound or feeling when driving it in.

- (e) Check that there is 2 – 3 mm (0.08 – 0.12 in.) of play in the axial direction.
- (f) Check that the drive shaft cannot be removed by hand.

### 2. RH drive shaft:

#### INSTALL DRIVE SHAFT TO TRANSAXLE

- (a) Install the drive shaft.

#### NOTICE:

**Be careful not to damage the dust cover of the drive shaft and oil seal lip of the transaxle.**

- (b) Using pliers, install a new snap ring.
- (c) Install a new bearing lock bolt.

**Torque: 32 N·m (330 kgf·cm, 24 ft·lbf)**

### 3. CONNECT DRIVE SHAFT TO AXLE HUB

#### NOTICE:

**Be careful not to damage the boot and ABS speed sensor rotor.**

### 4. CONNECT LOWER SUSPENSION ARM TO LOWER BALL JOINT

**Torque: 127 N·m (1,300 kgf·cm, 94 ft·lbf)**

### 5. CONNECT TIE ROD END TO STEERING KNUCKLE

- (a) Connect the tie rod end to the steering knuckle.
- (b) Install the nut and a new cotter pin.

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

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

### 6. INSTALL DRIVE SHAFT LOCK NUT

- (a) While applying brakes, install the nut.

**Torque: 294 N·m (3,000 kgf·cm, 217 ft·lbf)**

- (b) Install the lock cap and a new cotter pin.

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

### 7. FILL AND CHECK ATF (See page [DI-133](#))

### 8. INSTALL FRONT FENDER APRON SEAL

### 9. INSTALL FRONT WHEEL

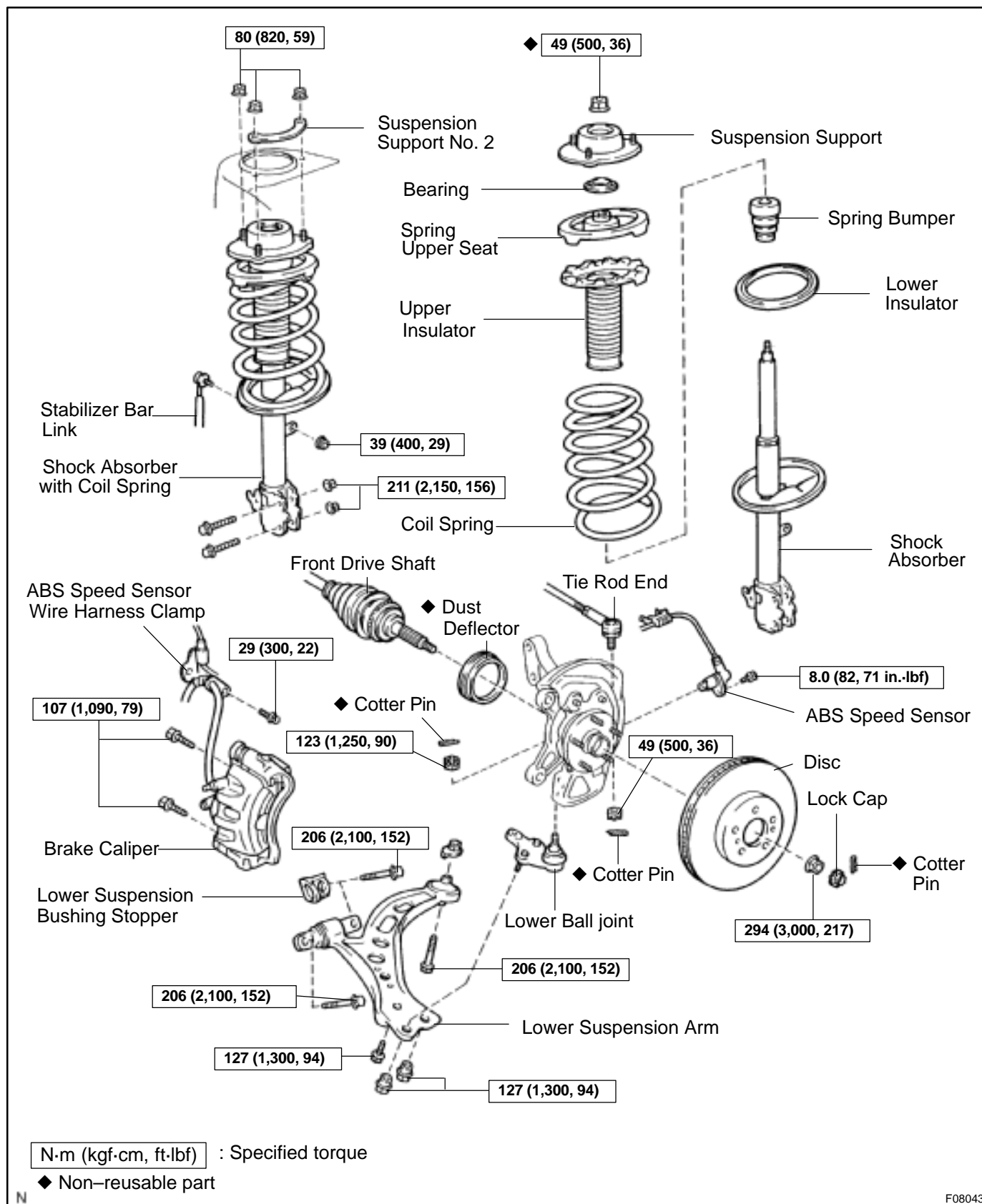
**Torque: 103 N·m (1,050 kgf·cm, 76 ft·lbf)**

### 10. CHECK FRONT WHEEL ALIGNMENT (See page [SA-1](#))

### 11. CHECK ABS SPEED SENSOR SIGNAL (See page [DI-177](#))

# FRONT LOWER BALL JOINT COMPONENTS

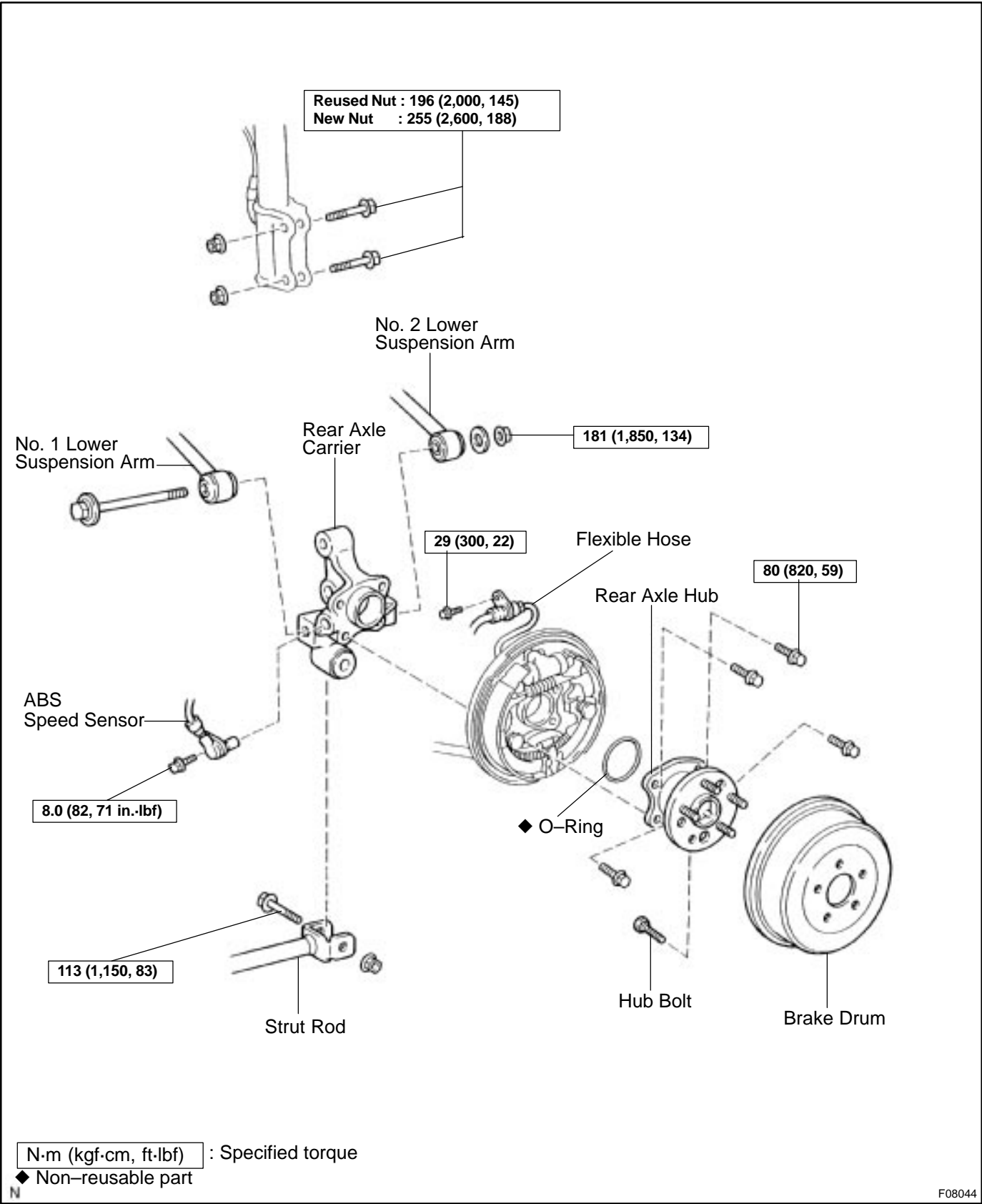
SA07X-06



F08043

# REAR AXLE HUB COMPONENTS

SA085-04

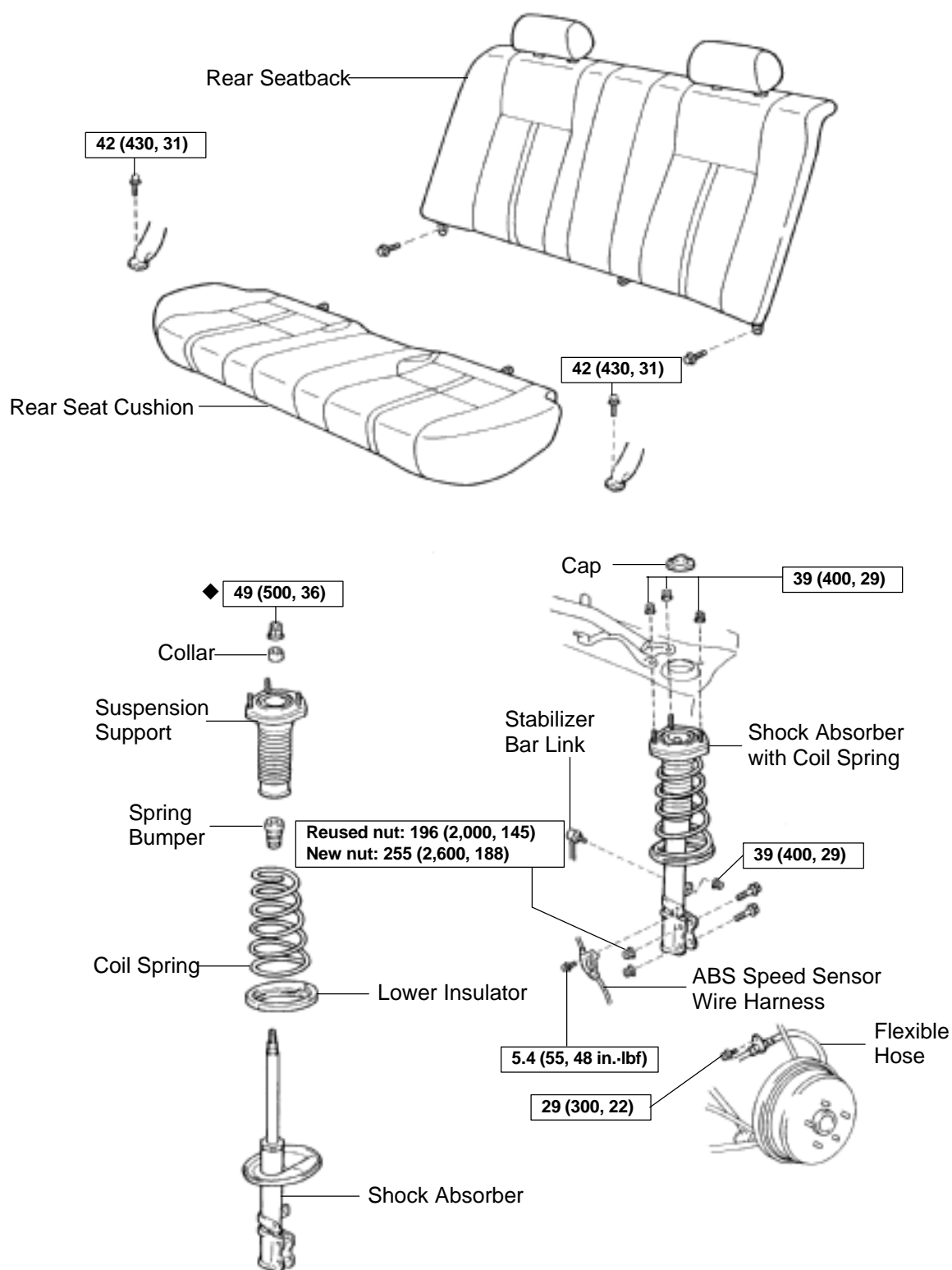


F08044



# REAR SHOCK ABSORBER COMPONENTS

SA1EZ-03



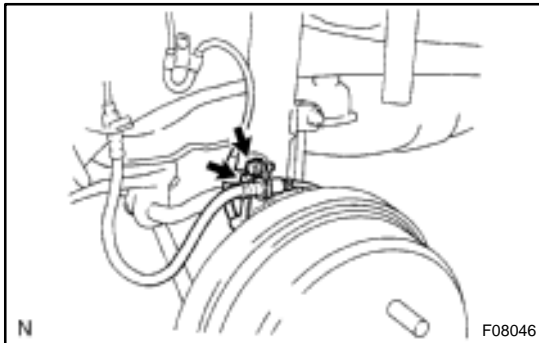
N·m (kgf·cm, ft·lbf) : Specified torque

◆ Non-reusable part

F08045

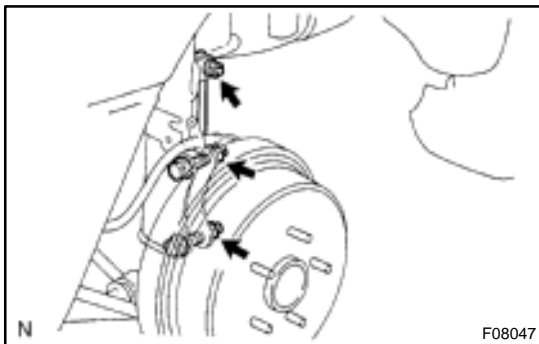
## REMOVAL

1. REMOVE REAR SEATBACK AND REAR SEAT CUSHION (See page [BO-22](#))
2. REMOVE REAR WHEEL



3. DISCONNECT FLEXIBLE HOSE AND ABS SPEED SENSOR WIRE HARNESS CLAMP FROM SHOCK ABSORBER

Remove the 2 bolts and disconnect the flexible hose bracket and ABS wire harness clamp.



4. DISCONNECT STABILIZER BAR LINK FROM SHOCK ABSORBER

Remove the nut and stabilizer bar link.

HINT:

If the ball joint turns together with the nut, use a 5 mm hexagon wrench to hold the stud.

5. REMOVE SHOCK ABSORBER WITH COIL SPRING
  - (a) Loosen the 2 nuts on the lower side of the shock absorber.
  - (b) Remove the cap.



- (c) Loosen the nut in the center of the suspension support.

**NOTICE:**

**Do not remove it.**

HINT:

If not disassembling the shock absorber, it is not necessary to loosen the nut.

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

## INSTALLATION

### 1. INSTALL SHOCK ABSORBER WITH COIL SPRING

- (a) Install the 3 nuts and shock absorber with the coil spring.

**Torque: 39 N·m (400 kgf·cm, 29 ft·lbf)**

- (b) Install the shock absorber with the coil spring, 2 bolts and nuts.

**Torque:**

**Reused nut: 196 N·m (2,000 kgf·cm, 145 ft·lbf)**

**New nut: 255 N·m (2,600 kgf·cm, 188 ft·lbf)**

HINT:

If reusing the 2 nuts, coat the threads of the 2 nuts with engine oil.

- (c) Torque the nut in the center of the suspension support.

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

HINT:

If the shock absorber has not been disassembled, it is not necessary to torque the nut.

- (d) Install the cap.

### 2. CONNECT STABILIZER BAR LINK

**Torque: 39 N·m (400 kgf·cm, 29 ft·lbf)**

HINT:

If the ball joint turns together with the nut, use a hexagon (5 mm) wrench to hold the stud.

### 3. CONNECT FLEXIBLE HOSE AND ABS SPEED SENSOR WIRE HARNESS CLAMP

**Torque:**

**Flexible hose: 29 N·m (300 kgf·cm, 22 ft·lbf)**

**ABS speed sensor wire harness: 5.4 N·m (55 kgf·cm, 48 in.-lbf)**

### 4. INSTALL REAR WHEEL

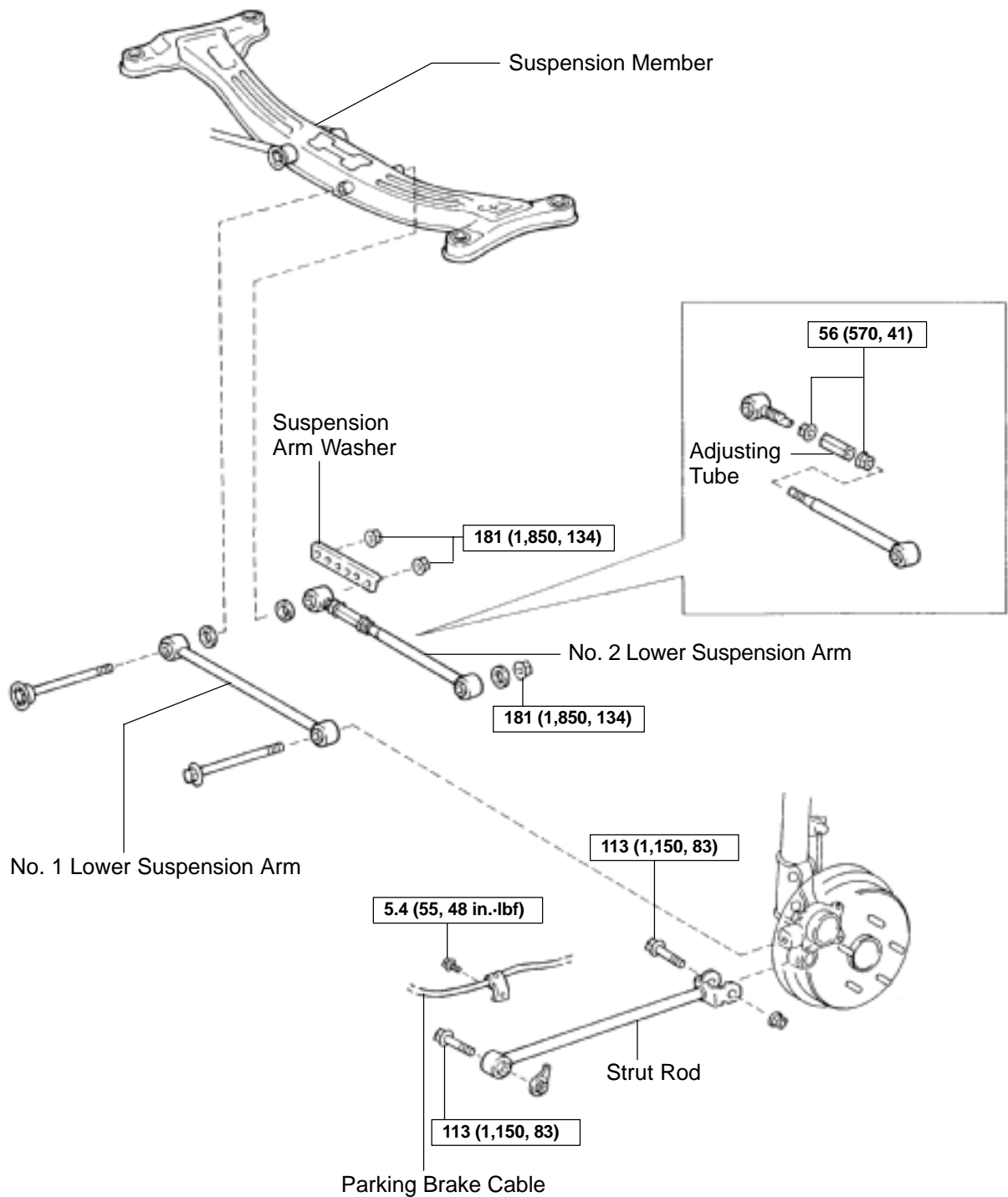
**Torque: 103 N·m (1,050 kgf·cm, 76 ft·lbf)**

### 5. INSTALL REAR SEATBACK AND REAR SEAT CUSHION (See page [BO-25](#))

### 6. CHECK REAR WHEEL ALIGNMENT (See Pub. No. RM654U on page SA-7)

# REAR LOWER SUSPENSION ARM AND STRUT ROD COMPONENTS

SA1F6-02



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

N ◆ Non-reusable part

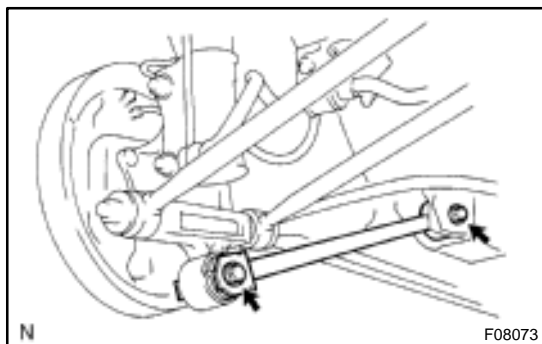
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## REMOVAL

### 1. REMOVE REAR WHEEL

### 2. REMOVE STRUT ROD

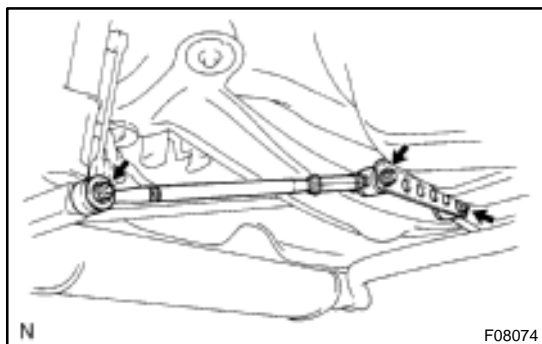
- (a) Remove the bolt and disconnect the parking brake cable.



- (b) Remove the 2 bolts, nuts and strut rod.

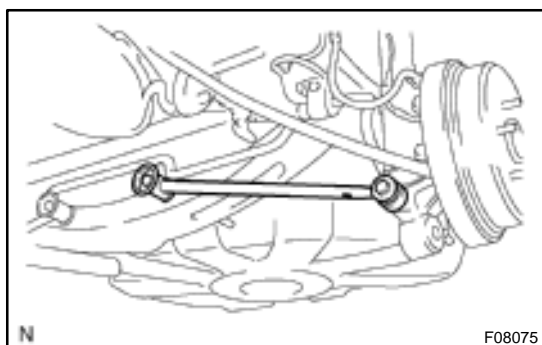
### NOTICE:

**Loosen the bolt since the nut cannot be rotated.**



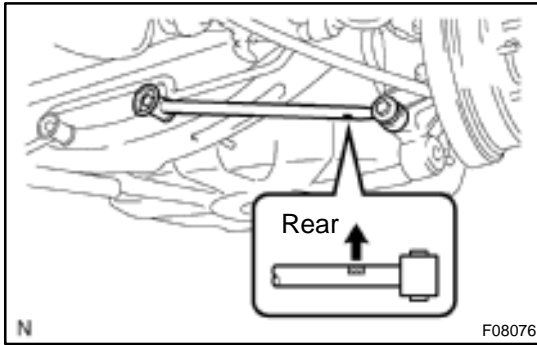
### 3. REMOVE NO. 2 LOWER SUSPENSION ARM

- (a) Remove the 3 nuts, suspension arm washer and washer.  
(b) Remove the No. 2 lower suspension arm and washer.



### 4. REMOVE NO. 1 LOWER SUSPENSION ARM

Remove the 2 bolts with the washer and No. 1 lower suspension arm.



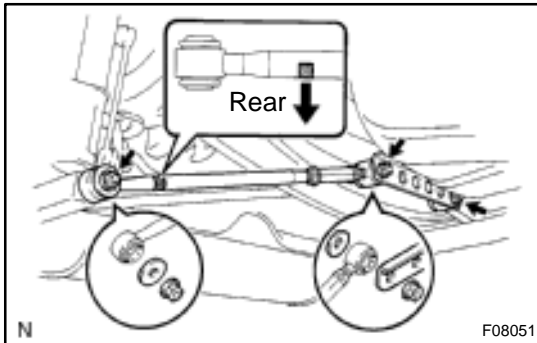
## INSTALLATION

### 1. INSTALL NO. 1 LOWER SUSPENSION ARM

Install the No. 1 lower suspension arm, washer and 2 bolts.

HINT:

Face the paint mark to the rearward.



### 2. INSTALL NO. 2 LOWER SUSPENSION ARM

- (a) Install the No. 2 lower suspension arm, washer and nut to the axle carrier.

**Torque: 181 N·m (1,850 kgf·cm, 134 ft·lbf)**

HINT:

- ◆ Face the paint mark to the rearward.
- ◆ After stabilizing the suspension, torque the nut.

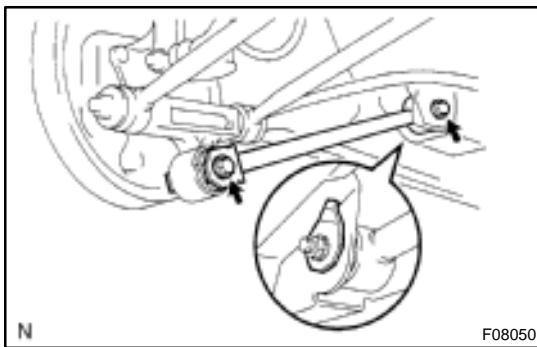
- (b) Install the washer and connect the No. 2 lower suspension arm to the suspension member.

- (c) Install the suspension arm washer and 2 nuts.

**Torque: 181 N·m (1,850 kgf·cm, 134 ft·lbf)**

HINT:

After stabilizing the suspension, torque the nut.



### 3. INSTALL STRUT ROD

**Torque: 113 N·m (1,150 kgf·cm, 83 ft·lbf)**

**NOTICE:**

**Torque the bolt since the nut cannot be rotated.**

HINT:

After stabilizing the suspension, torque the bolt.

### 4. CONNECT PARKING BRAKE CABLE

**Torque: 5.4 N·m (55 kgf·cm, 48 in·lbf)**

### 5. INSTALL REAR WHEEL

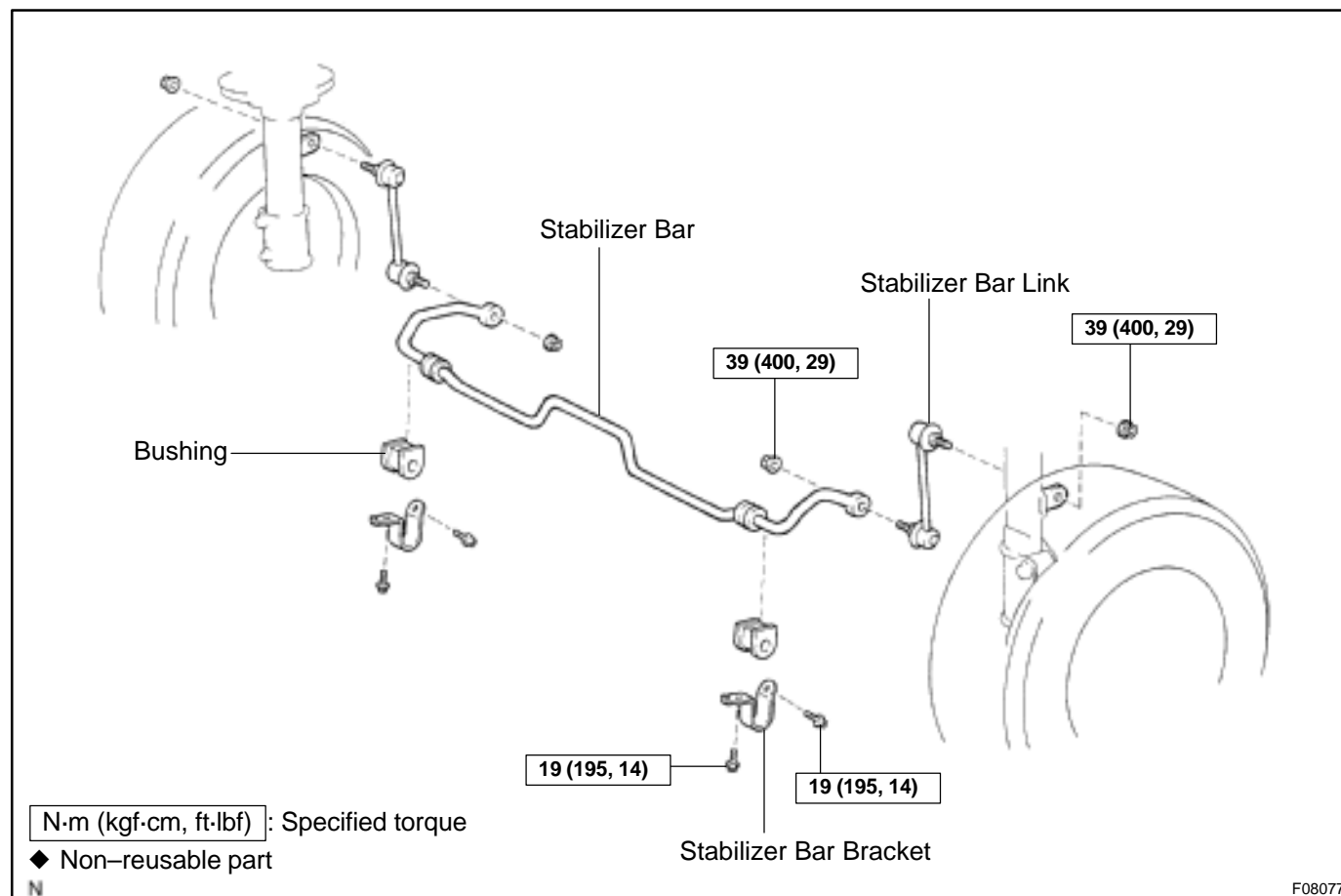
**Torque: 103 N·m (1,050 kgf·cm, 76 ft·lbf)**

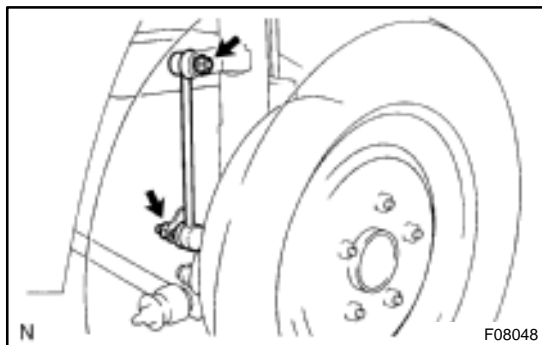
### 6. CHECK REAR WHEEL ALIGNMENT

(See Pub. No. RM654U on page SA-7)

# REAR STABILIZER BAR COMPONENTS

SA1FB-02





## REMOVAL

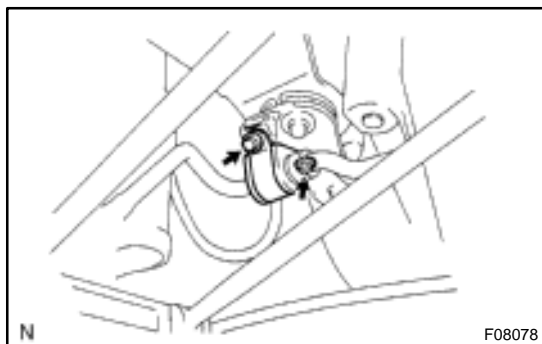
### 1. REMOVE RIGHT AND LEFT STABILIZER BAR LINKS

- (a) Remove the 2 nuts and link.

HINT:

If the ball joint turns together with the nut, use a hexagon (5 mm) wrench to hold the stud.

- (b) Employ the same manner described above to the other side.



### 2. REMOVE RIGHT AND LEFT BRACKETS AND BUSHINGS

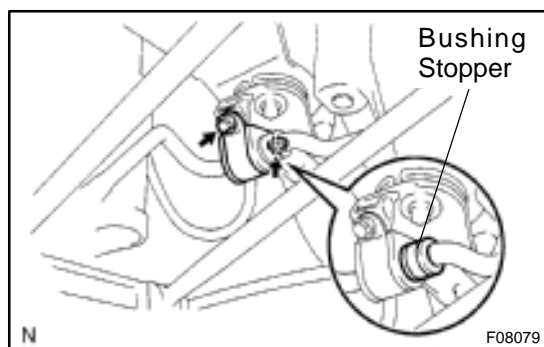
- (a) Remove the 2 bolts, bracket and bushings.  
(b) Employ the same manner described above to the other side.

### 3. REMOVE STABILIZER BAR



## INSTALLATION

### 1. INSTALL STABILIZER BAR



### 2. INSTALL RIGHT AND LEFT BUSHINGS AND STABILIZER BAR BRACKETS

**Torque: 19 N·m (195 kgf-cm, 14 ft-lbf)**

#### HINT:

Install the bushing to the outside of the bushing stopper on the stabilizer bar.

### 3. INSTALL RIGHT AND LEFT STABILIZER BAR LINKS

**Torque: 39 N·m (400 kgf-cm, 29 ft-lbf)**

#### HINT:

If the ball joint turns together with the nut, use a hexagon (5 mm) wrench to hold the stud.