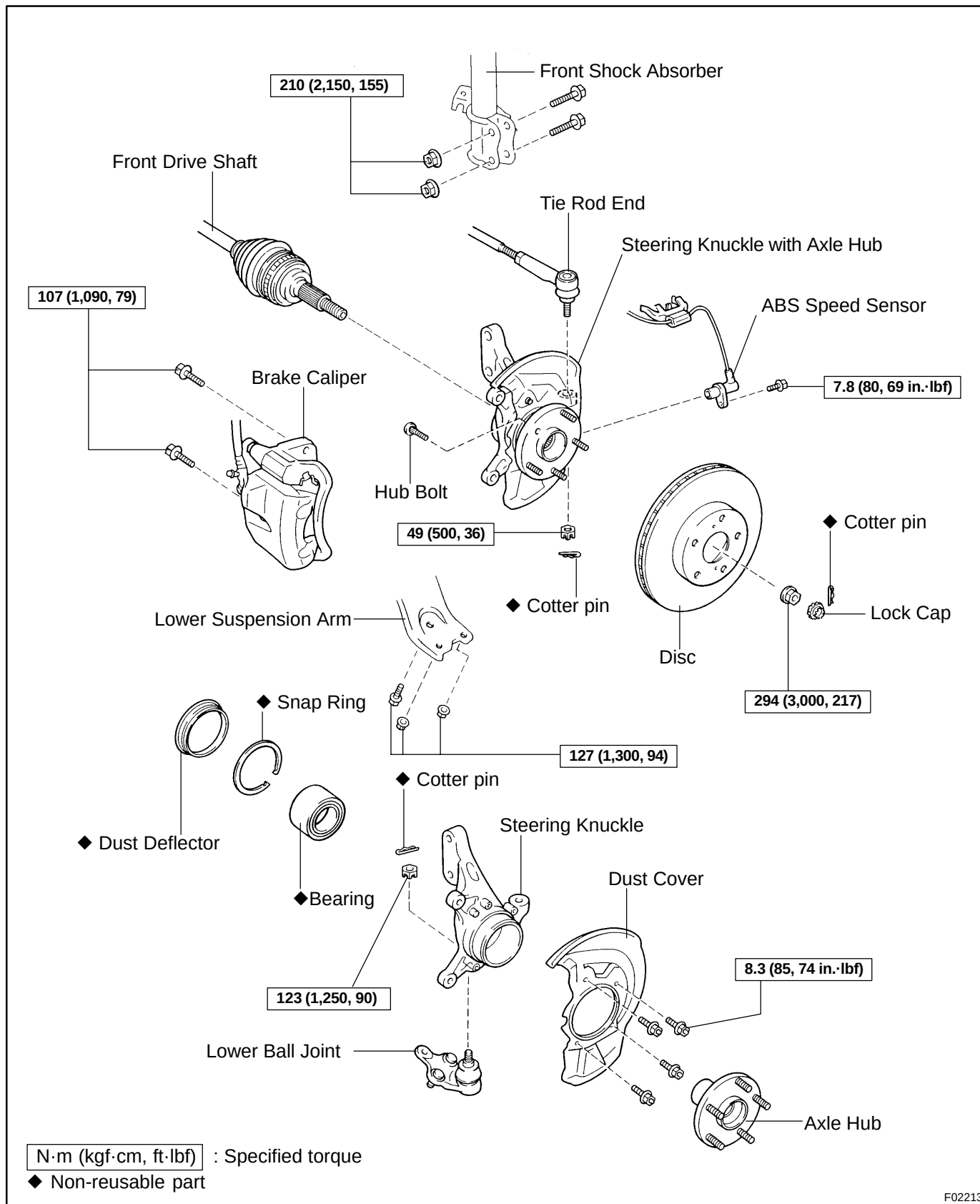


FRONT AXLE HUB COMPONENTS

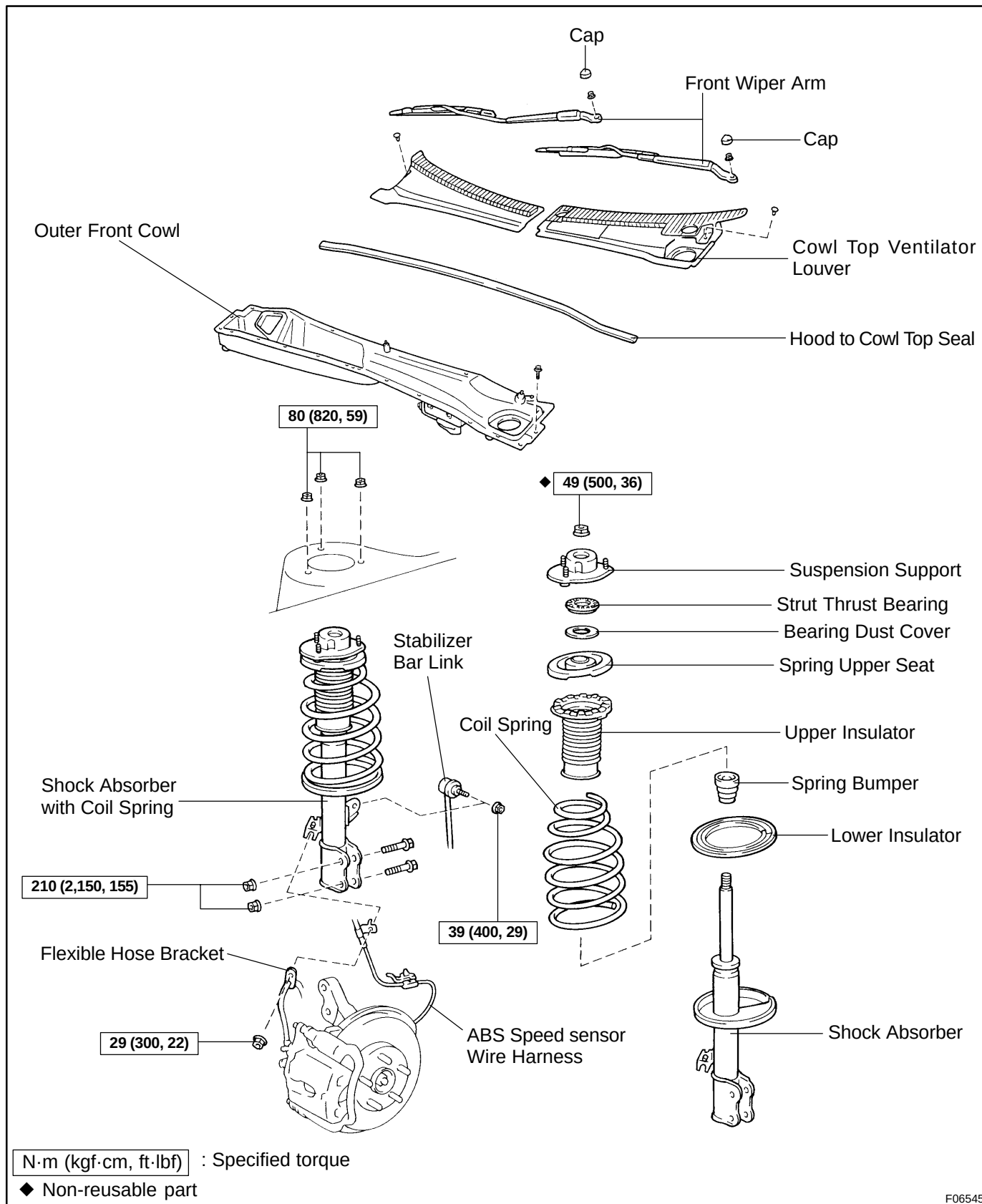
SA07B-02



F02213

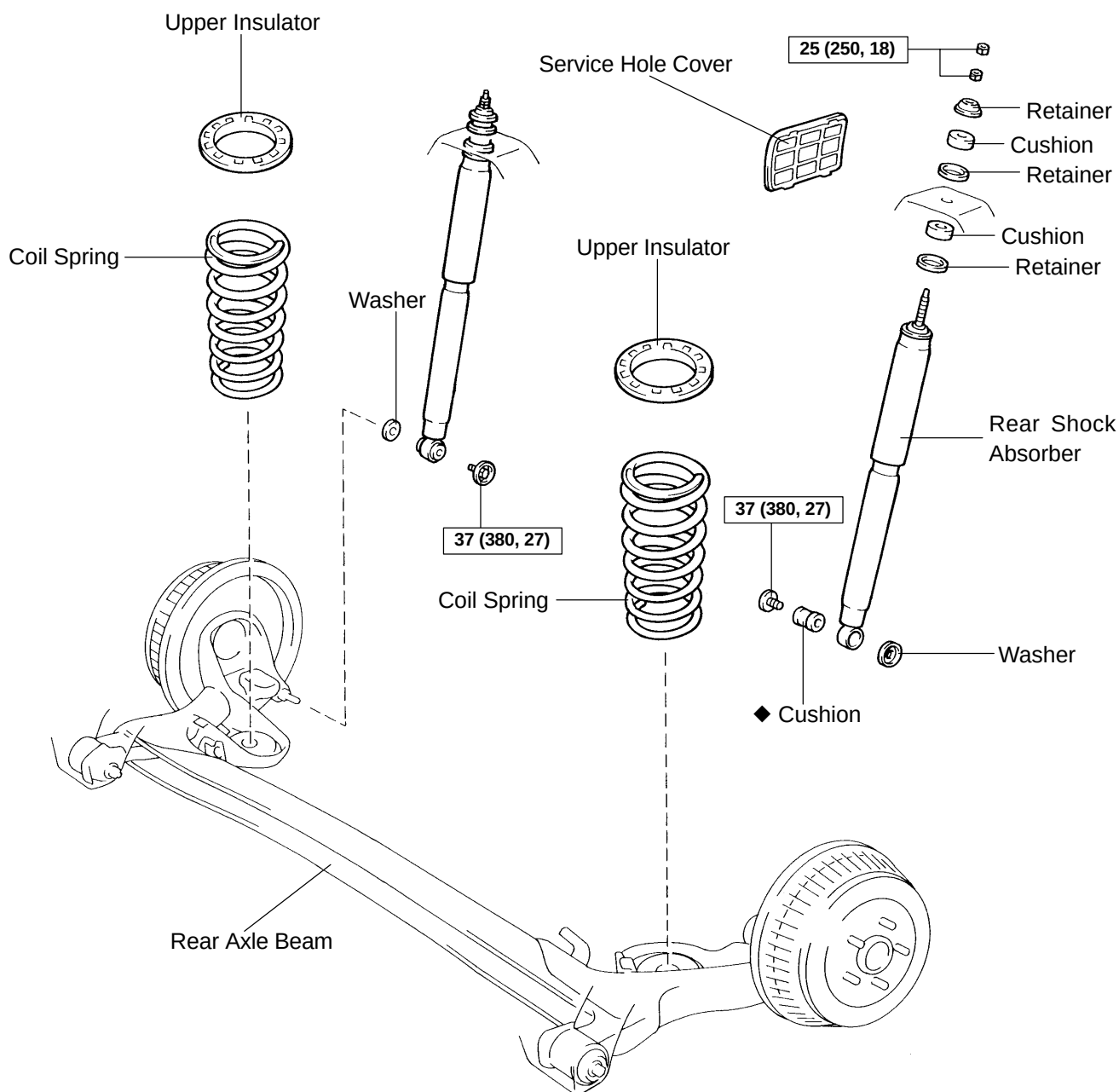
FRONT SHOCK ABSORBER COMPONENTS

SA07M-04



REAR SHOCK ABSORBER COMPONENTS

SA089-02

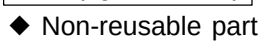


N·m (kgf·cm, ft·lbf) : Specified torque

◆ Non-reusable part

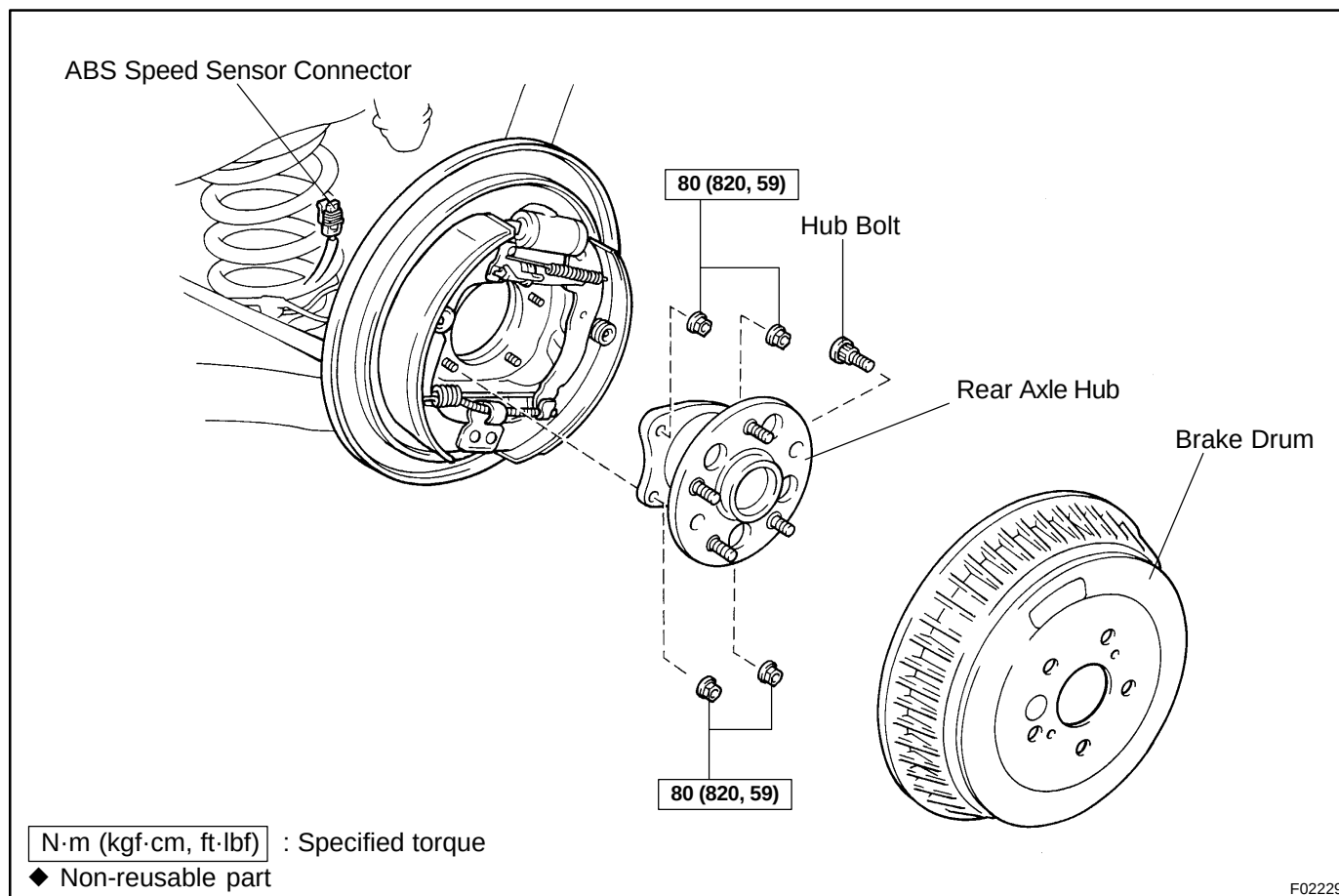
F02235

SA07H-02



REAR AXLE HUB COMPONENTS

SA085-02

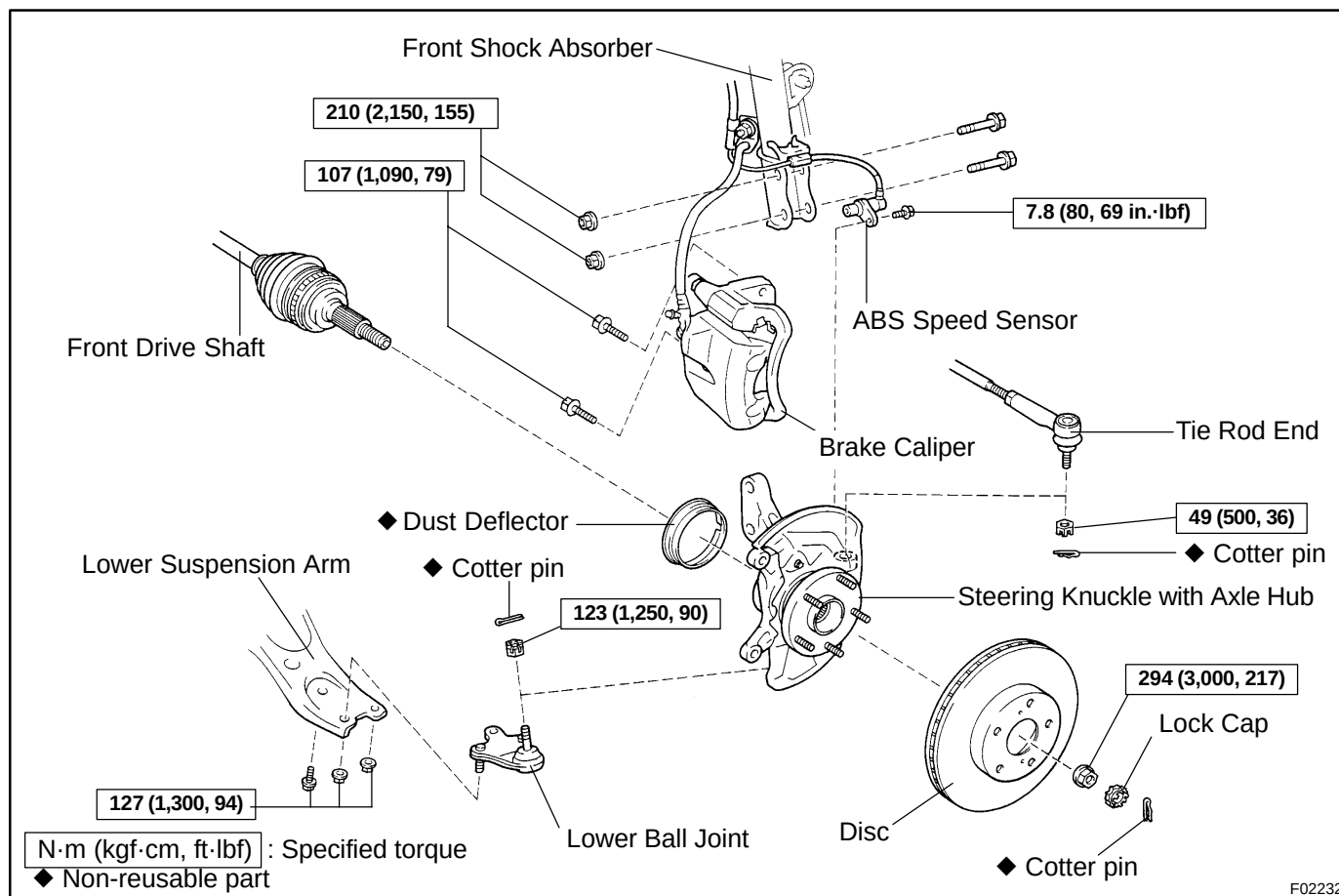


SA00W-02



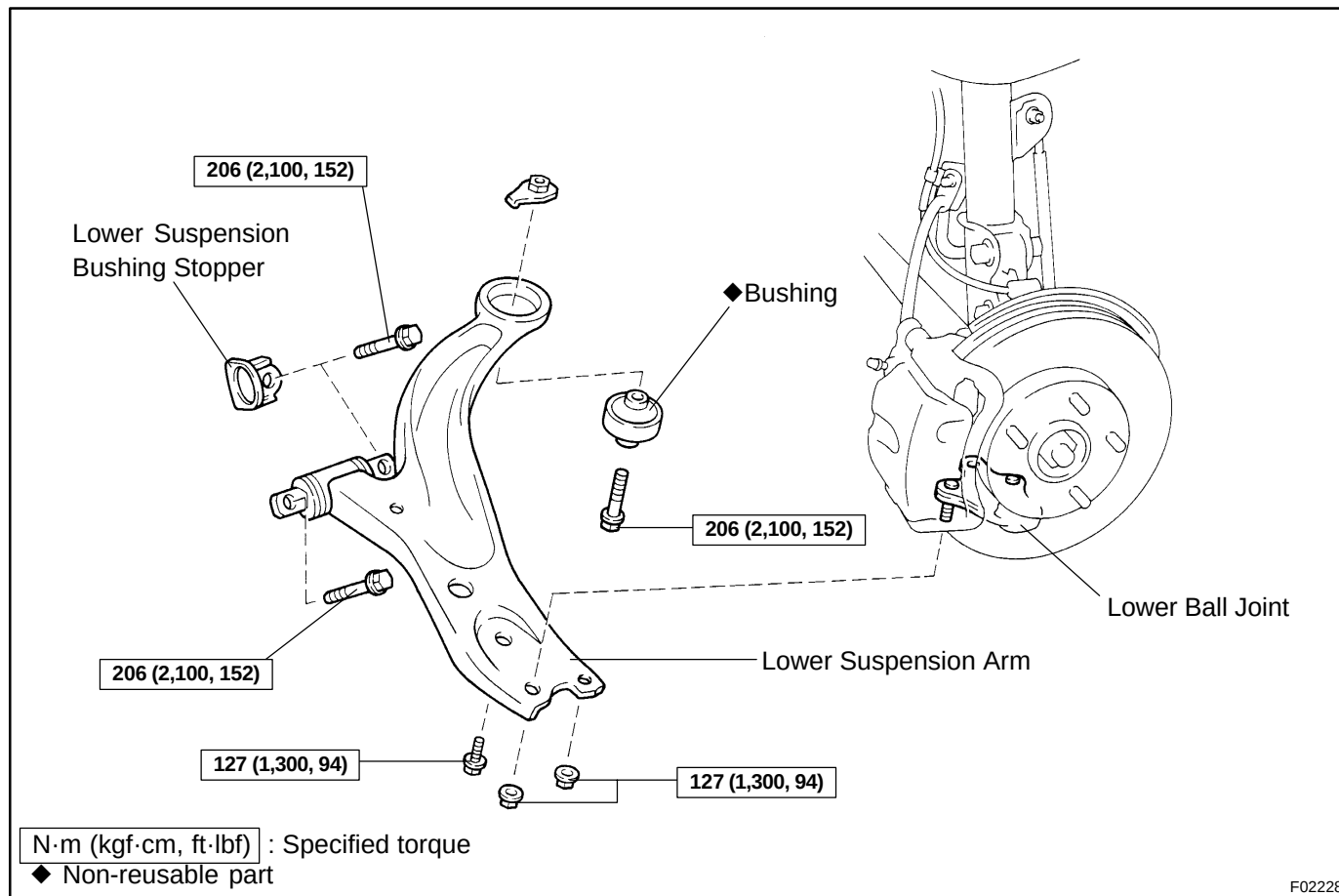
FRONT LOWER BALL JOINT COMPONENTS

SA07X-02



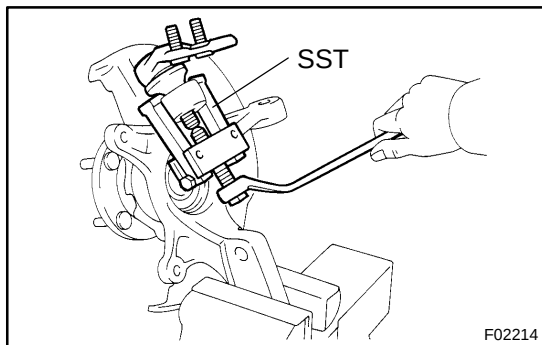
FRONT LOWER SUSPENSION ARM COMPONENTS

SA07T-02



SA081.02



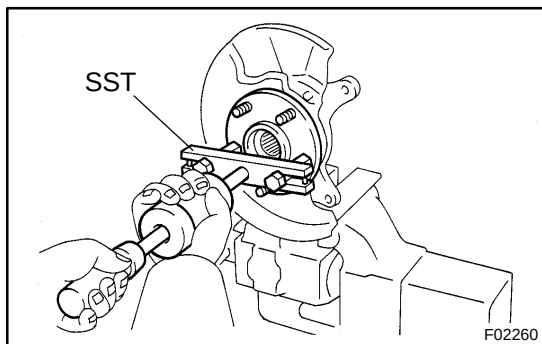


DISASSEMBLY

1. REMOVE LOWER BALL JOINT

- Using a screwdriver, remove the dust deflector.
- Remove the cotter pin and nut.
- Using SST, remove the lower ball joint.

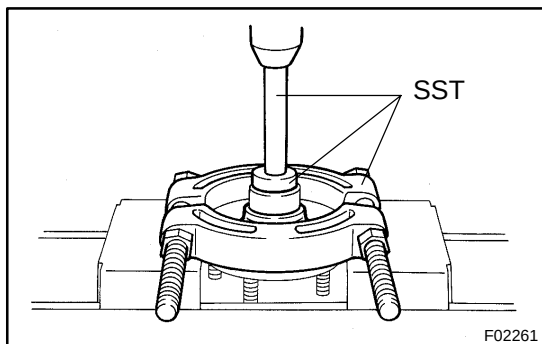
SST 09628-6201 1



2. REMOVE AXLE HUB

- Using SST, remove the axle hub.

SST 09520-00031

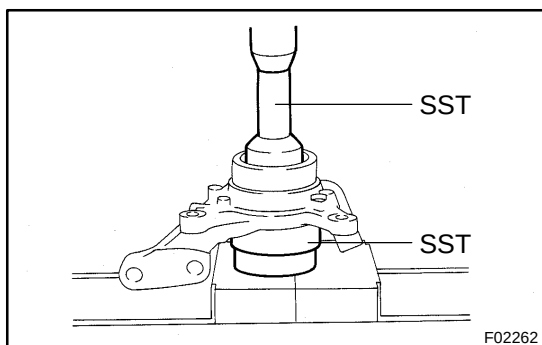


- Using SST and a press, remove the inner race (outside) from the axle hub.

SST 09555-55010, 09950-60010 (09951-00400),
09950-70010 (09951-07100)

3. REMOVE DUST COVER

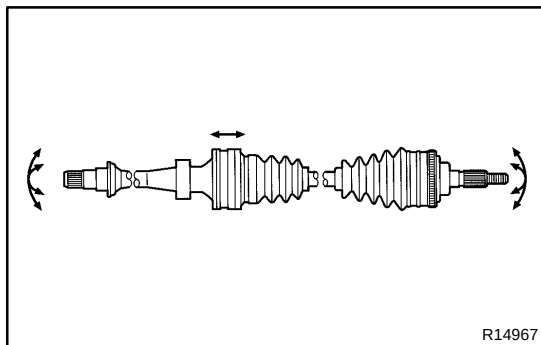
Using a torx wrench (T30), remove the 4 bolts and dust cover.



4. 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



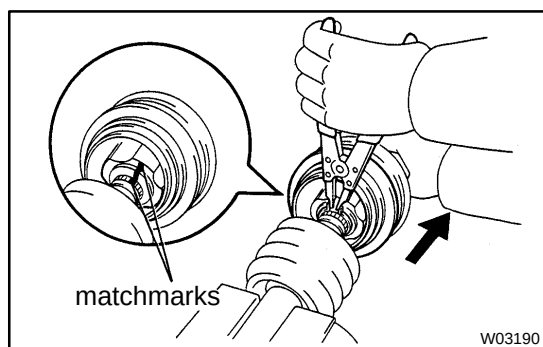
DISASSEMBLY

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.

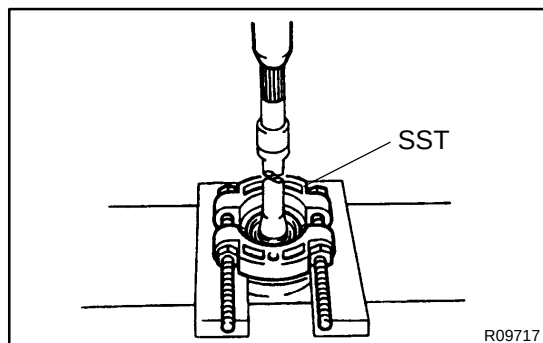
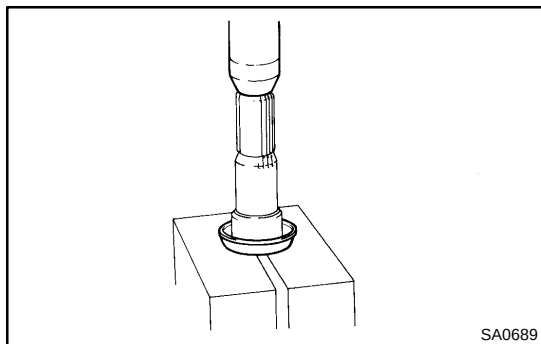
- Using a snap ring expander, pull out the outboard joint shaft with expanding the snap ring.

4. REMOVE INBOARD AND OUTBOARD JOINT BOOTS

Slide out the 2 boots.

5. REMOVE DUST COVER

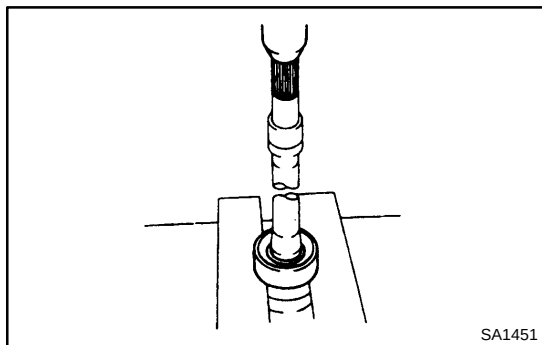
- LH drive shaft:
Using a screwdriver and hammer, remove the dust cover from the inboard joint shaft.
- RH drive shaft:
Using a press, remove the dust cover from the inboard joint shaft.



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.

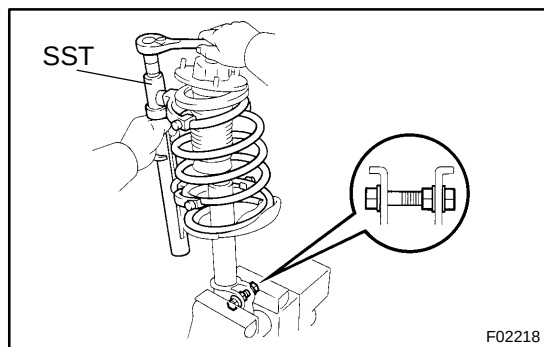
7. REMOVE NO.2 DUST DEFLECTOR

(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.



DISASSEMBLY

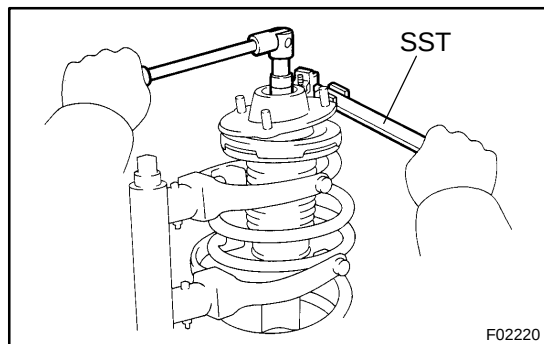
REMOVE COIL SPRING

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

SST 09727-30021

NOTICE:

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

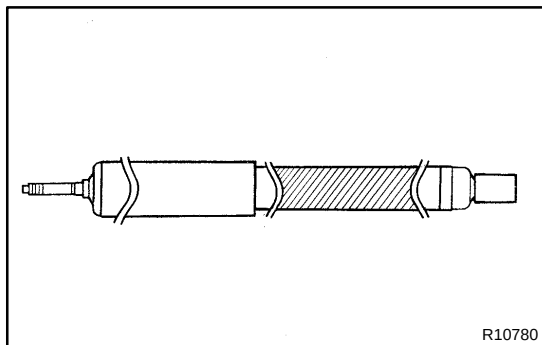


- (c) Using SST to hold the suspension support, remove the nut.

SST 09729-22031

- (d) Remove these parts from the shock absorber:

- Suspension support
- Bearing dust cover
- Strut thrust bearing
- Spring upper seat
- Upper insulator
- Coil spring
- Spring bumper
- Lower insulator



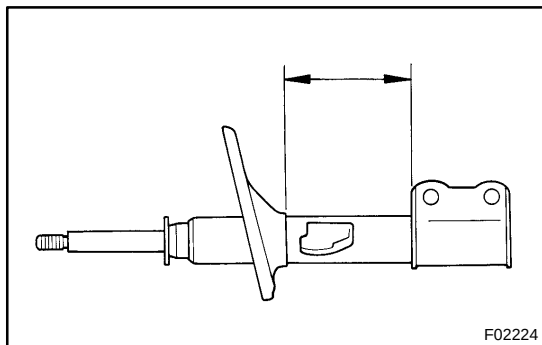
DISPOSAL

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

Using a drill, make a hole near the center of the cylinder as shown in the illustration to discharge the gas inside.

CAUTION:

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

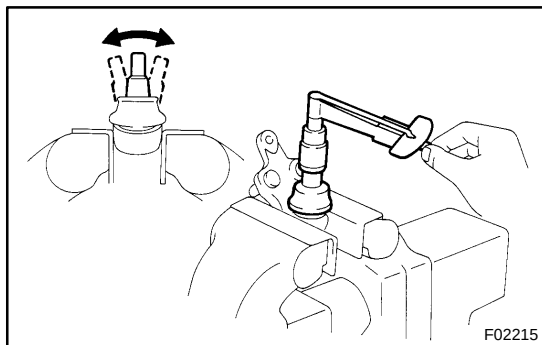


DISPOSAL

1. **FULLY EXTEND SHOCK ABSORBER ROD**
 2. **DRILL HOLE TO DISCHARGE GAS FROM CYLINDER**
- Using a drill, make a hole in the cylinder as shown in the illustration to discharge the gas inside.

CAUTION:

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



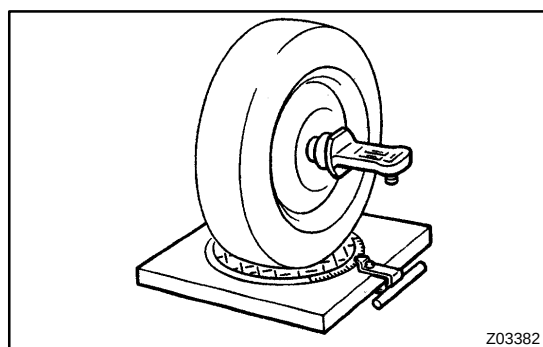
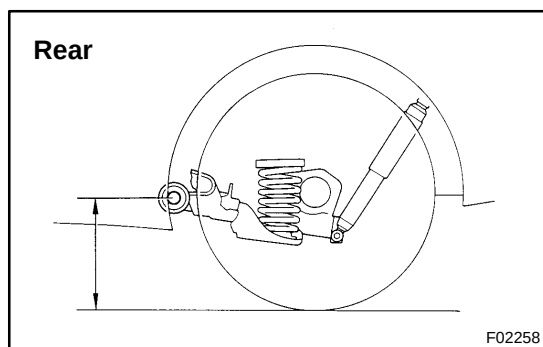
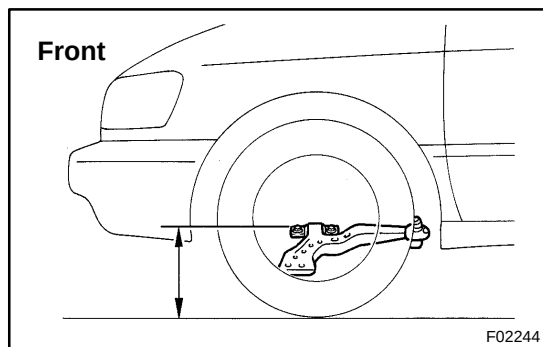
INSPECTION

INSPECT LOWER 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 per 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)



FRONT WHEEL ALIGNMENT INSPECTION

SA00Q-01

1. MEASURE VEHICLE HEIGHT

Tire size	Front* ¹ mm (in.)	Rear* ² mm (in.)
205/70R15	230 (9.06)	324 (12.76)
215/65R15	226 (8.90)	320 (12.60)

*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 axle beam bushing.

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

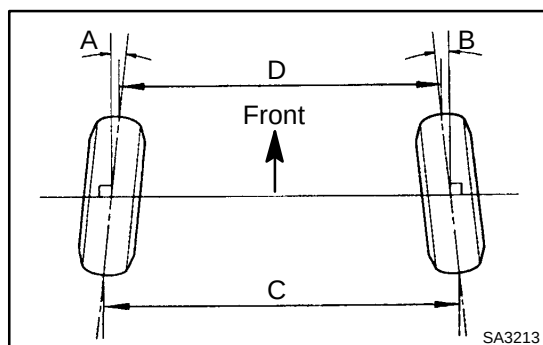
Follow the specific instructions of the equipment manufacturer.

3. INSPECT CAMBER, CASTER AND STEERING AXIS INCLINATION

Camber	-0°32' ± 45' (-0.5° ± 0.75°)
Left-right error	45' (0.75°) or less
Caster	1°32' ± 45' (1.53° ± 0.75°)
Left-right error	45' (0.75°) or less
Steering axis inclination	12°35' ± 45' (12.58° ± 0.75°)

HINT:

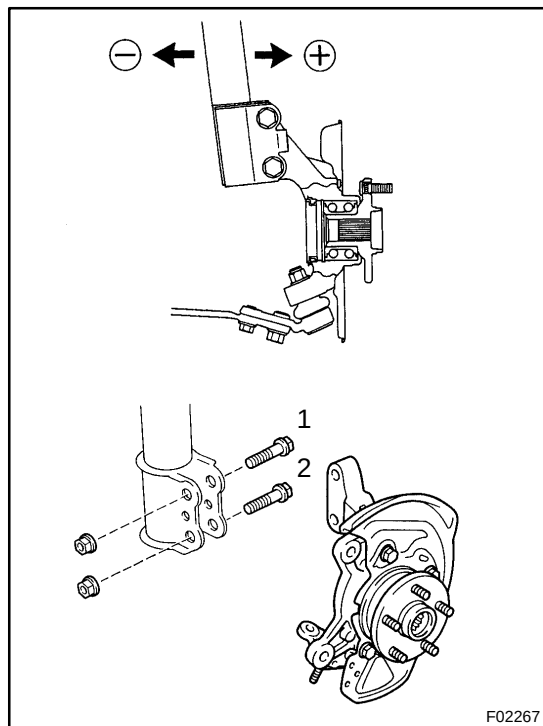
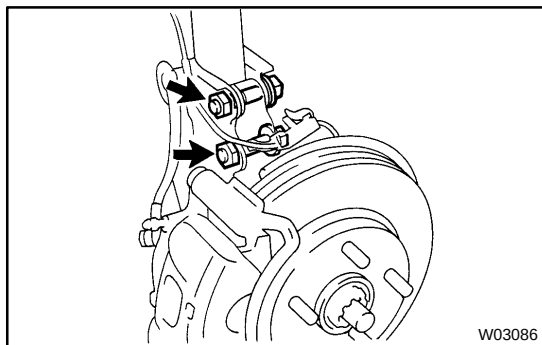
If the caster and steering axis inclination are not within the specification, after the camber has correctly adjusted, recheck the suspension parts for damaged and/or worn out parts.



4. INSPECT TOE-IN

Toe-in (Total)	A + B: 0°16' ± 12' (0.27° ± 0.2°) C - D: 2.6 ± 2 mm (0.10 ± 0.08 in.)
----------------	--

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 ABS 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: 210 N·m (2,150 kgf·cm, 155 ft·lbf)

- Install the front wheels.

Torque: 104 N·m (1,050 kgf·cm, 77 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.

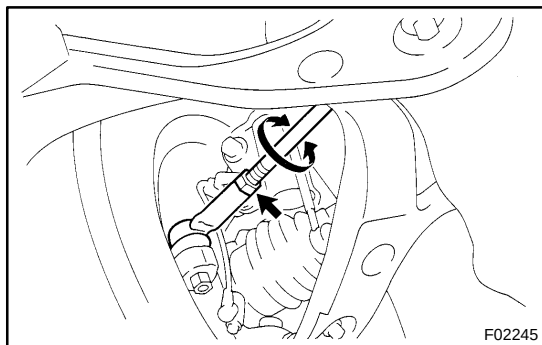
Bolt	Set Bolt		Adjusting Bolt					
	90105-17001		90105-17003		90105-17004		90105-17005	
			1 Dot		2 Dots		3 Dots	
Adjusting Value								
	1	2	1	2	1	2	1	2
15'	●			●				
30'	●					●		
45'	●							●
1°00'			●					●
1°15'					●			●
1°30'							●	●

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 are the same.

Rack end length difference:

1.5 mm (0.059 in.) or less

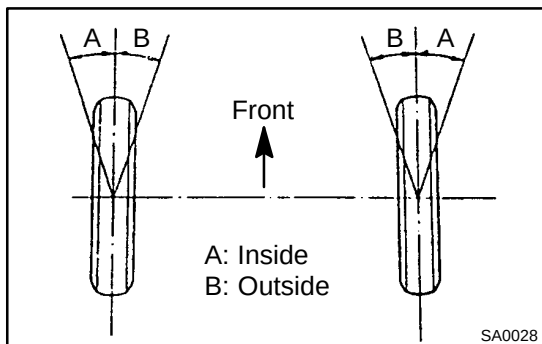
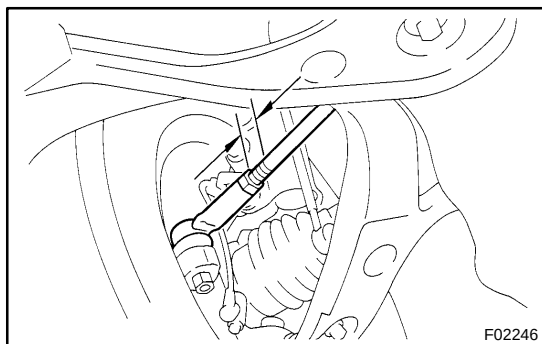
- Torque the tie rod end lock nuts.

Torque: 74 N·m (750 kgf·cm, 55 ft·lbf)

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

HINT:

Make sure that the boots are not twisted.

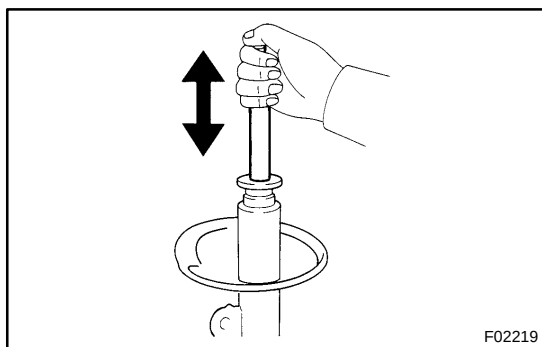


7. INSPECT WHEEL ANGLE

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

Inside wheel	$34^{\circ}19' \pm 1^{\circ}$ ($34.32^{\circ} \pm 1^{\circ}$)
Outside wheel < Reference >	$30^{\circ}19'$ (30.32°)

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



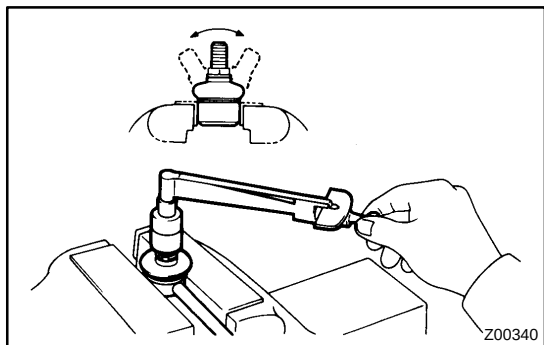
INSPECTION

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-28](#) .



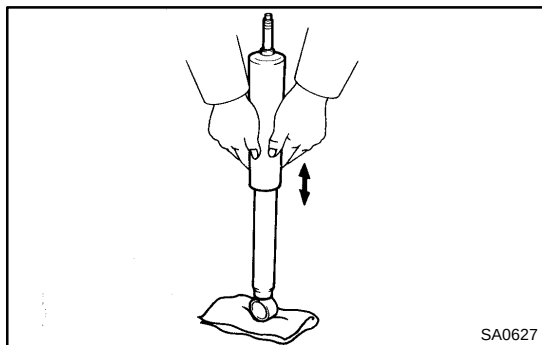
INSPECTION

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 per 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)



INSPECTION

INSPECT SHOCK ABSORBER

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

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

NOTICE:

When discarding the shock absorber, see **DISPOSAL** on page [SA-50](#) .

REAR WHEEL ALIGNMENT INSPECTION

SAOQR-01

1. MEASURE VEHICLE HEIGHT (See page SA-4)

NOTICE:

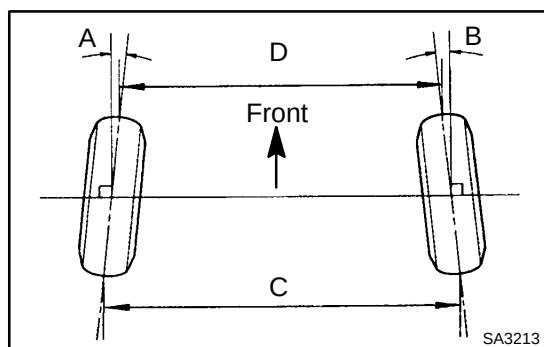
Before inspecting the wheel alignment, adjust the vehicle height to the specification.

2. INSPECT CAMBER

Camber	-0 °55' ± 45' (-0.92 ° ± 0.75 °)
Left-right error	45' (0.75 °) or less

HINT:

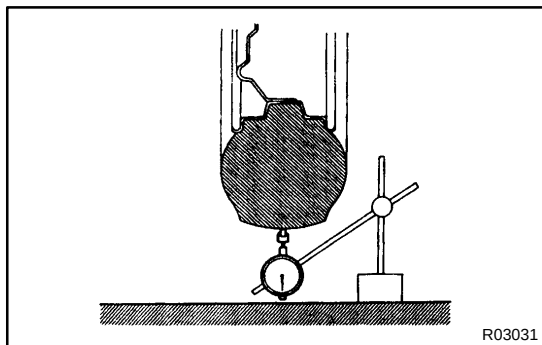
Camber is not adjustable. If the measurement is not within the specifications, inspect the suspension parts for damaged and/or worn-out and replace them if necessary.



3. INSPECT TOE-IN

Toe-in (Total)	A + B: 0°13' ± 18' (0.22 ° ± 0.30 °) C - D: 2.2 ± 3 mm (0.09 ± 0.12 in.)
----------------	---

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



TIRE AND WHEEL INSPECTION

SA078-05

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 ² , psi)
P205/70R15 95S	240 (2.4, 35)
P215/65R15 95S	220 (2.2, 32)* ¹ 240 (2.4, 35)* ²

*¹: Vehicle load up to 6 passengers

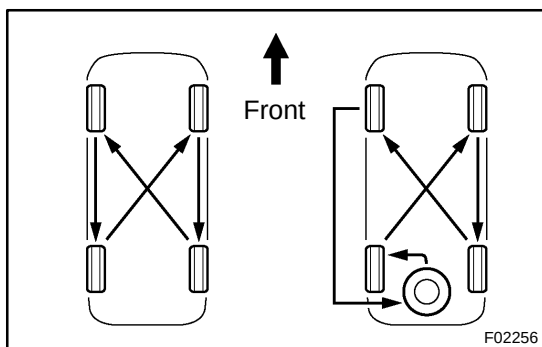
*²: Up to vehicle capacity weight

Trailer towing:

Tire size	Front, Rear kPa (kgf/cm ² , psi)
P205/70R15 95S	240 (2.4, 35)
P215/65R15 95S	240 (2.4, 35)

(b) Check the tire runout.

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

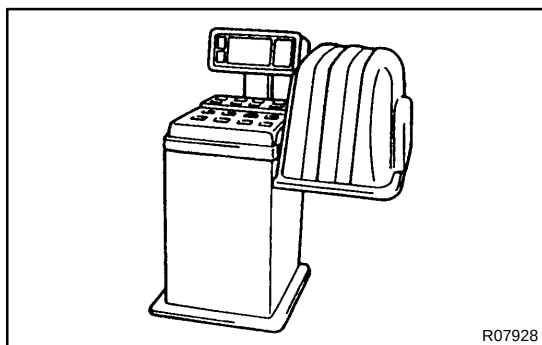


2. ROTATING TIRES

HINT:

- See the illustration for where to rotate each tire.
- If the vehicle is equipped with compact spare tire, exclude it from the rotational combination.

It is necessary to perform the initial setting of the tire pressure warning system when tire and wheel have been replaced or tire rotation has been done (See page [DI-209](#)).

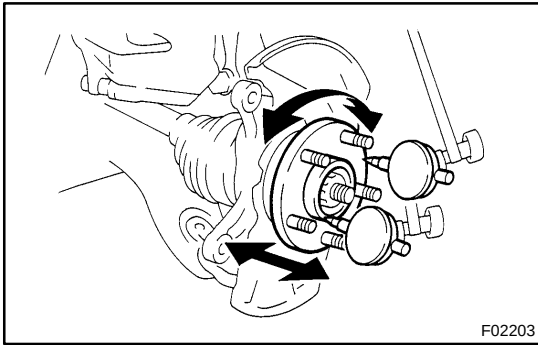


3. INSPECT WHEEL BALANCE

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

INSTALLATION

Installation is in the reverse order of removal (See page [SA-32](#)).

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

INSTALLATION

Installation is in the reverse order of removal (See page [SA-25](#)).

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

INSTALLATION

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

INSTALLATION

Installation is in the reverse order of removal (See page [SA-40](#)).

INSTALLATION

Installation is in the reverse order of removal (See page [SA-53](#)).

AFTER INSTALLATION, BLEED BRAKE SYSTEM (See page [BR-4](#)) AND CHECK ABS SPEED SENSOR SIGNAL (See page [DI-220](#))

INSTALLATION

Installation is in the reverse order of removal (See page [SA-44](#)).

AFTER INSTALLATION, CHECK ABS SPEED SENSOR SIGNAL (See page [DI-220](#))

INSTALLATION

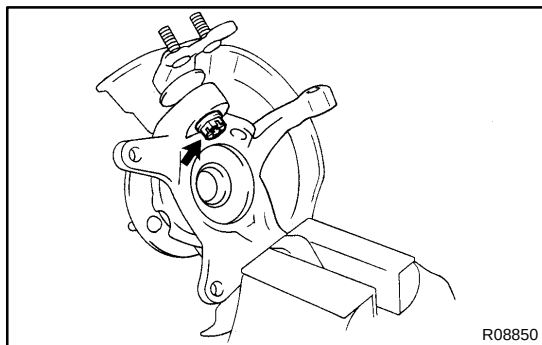
Installation is in the reverse order of removal (See page [SA-9](#)).

AFTER INSTALLATION, CHECK ABS SPEED SENSOR SIGNAL (See page [DI-220](#)) AND FRONT WHEEL ALIGNMENT (See page [SA-4](#))

INSTALLATION

Installation is in the reverse order of removal (See page [SA-16](#)).

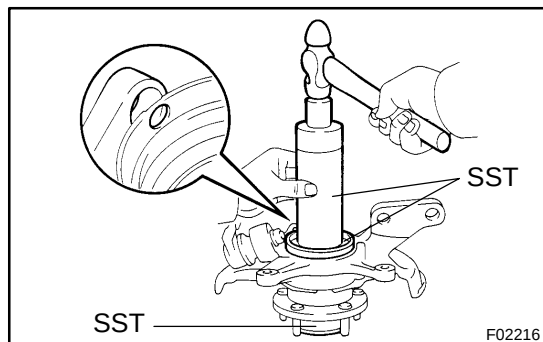
AFTER INSTALLATION, CHECK ABS SPEED SENSOR SIGNAL (See page [DI-220](#)) AND FRONT WHEEL ALIGNMENT (See page [SA-4](#))



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-220](#))

5. CHECK FRONT WHEEL ALIGNMENT

(See page [SA-4](#))

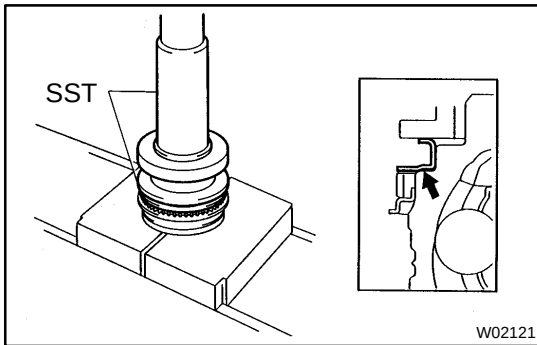
TROUBLESHOOTING

SA077-02

PROBLEM SYMPTOMS TABLE

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

Symptom	Suspect Area	See page
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)	SA-2 SA-4 SA-7 - SA-9 SA-43 - -
Bottoming	1. Vehicle (Overloaded) 2. Spring (Weak) 3. Shock absorber (Worn)	- SA-24 SA-47 SA-24 SA-47
Sways/pitches	1. Tire (Worn or improperly inflated) 2. Stabilizer bar (Bent or broken) 3. Shock absorber (Worn)	SA-2 SA-39 SA-24 SA-47
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)	SA-2 SA-2 SA-24 SA-4 SA-35 SA-9 - -
Abnormal tire wear	1. Tire (Worn or improperly inflated) 2. Wheels (Out of balance) 3. Suspension parts (Worn) 4. Shock absorber (Worn)	SA-2 SA-2 - SA-24 SA-47

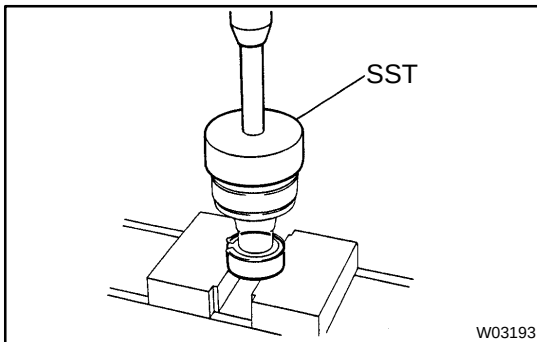


REASSEMBLY

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:

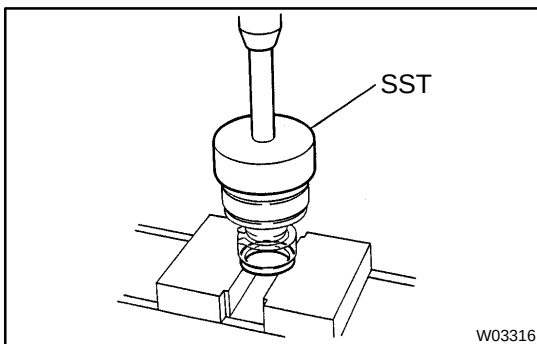
ASSEMBLE INBOARD JOINT SHAFT

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

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

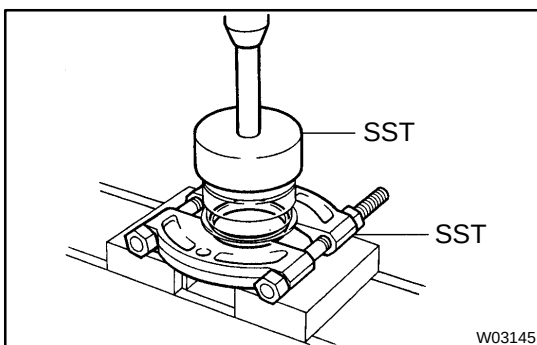
SST 09223-56010

(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

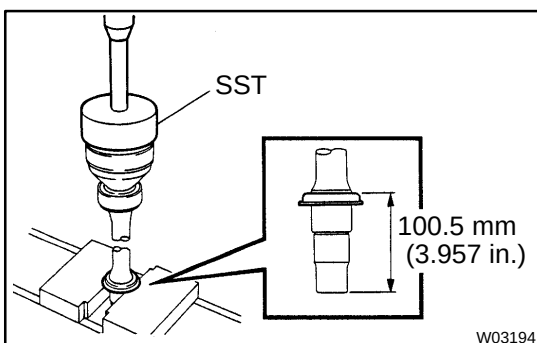


3. INSTALL DUST COVER

(a) LH drive shaft:

Using SST and a press, install a dust cover.

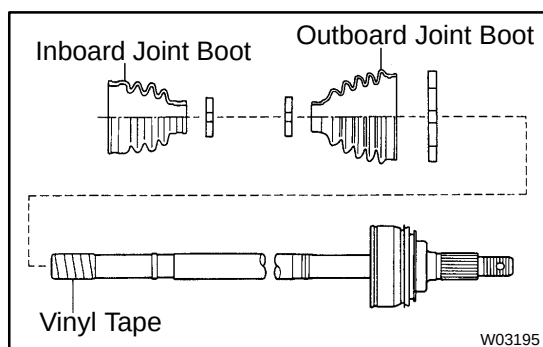
SST 09223-56010, 09555-55010



(b) 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 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 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 with 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

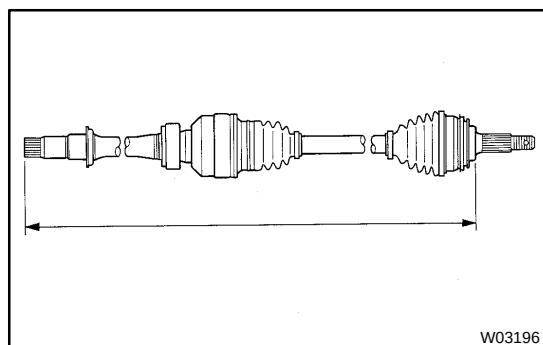
- (a) Pack the inboard joint and boot with grease in the boot kit.

Grease capacity: (Color = Gray)

Joint side: 120.0 - 130.0 g (4.2 - 4.6 oz.)

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

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

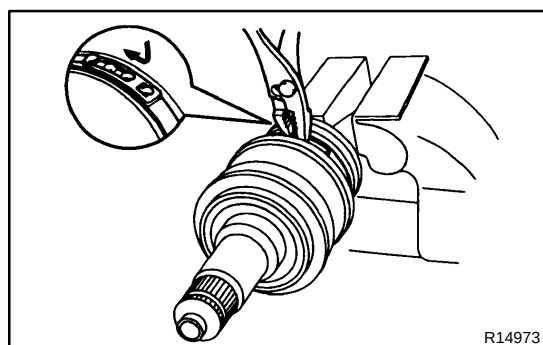


8. ASSEMBLE BOOT CLAMPS TO BOTH BOOTS

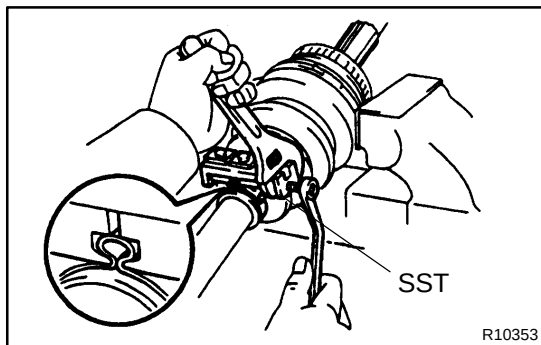
- (a) Make sure that the 2 boots are on the shaft groove.
- (b) Make sure that the 2 boots are not stretched or contracted when the drive shaft is at standard length.

Drive shaft standard length

LH	586.0 ± 2.0 mm (23.071 ± 0.079 in.)
RH	881.6 ± 2.0 mm (34.709 ± 0.079 in.)



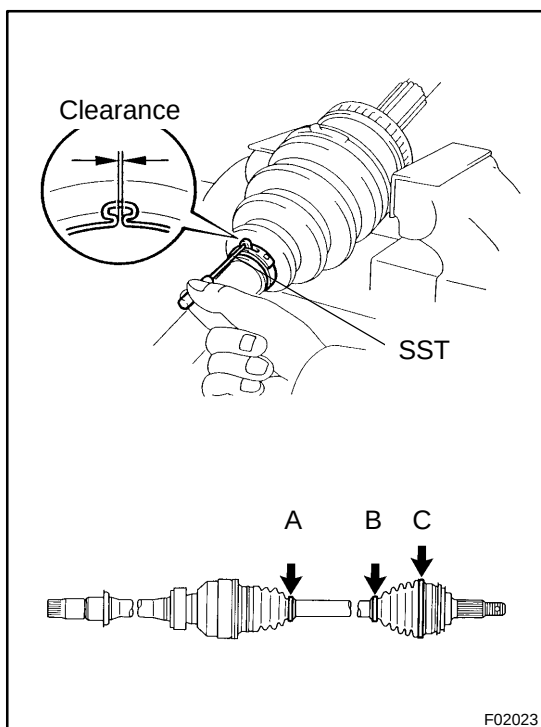
- (c) Holding the clamp near the closing hooks, using pliers, position the holes in the clamp's free end over the closing hooks.
- (d) Secure clamp by drawing the closing hooks together.



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

NOTICE:

Do not overtighten the SST.



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

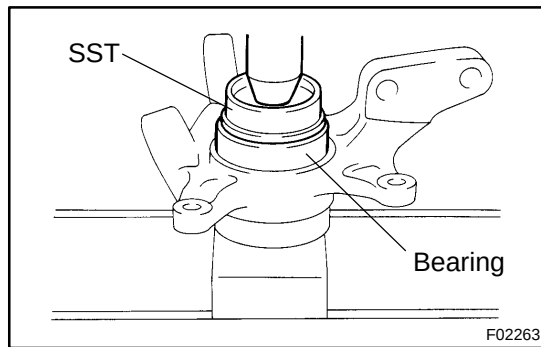
Clearance:

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-18](#))**



REASSEMBLY

1. INSTALL BEARING

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

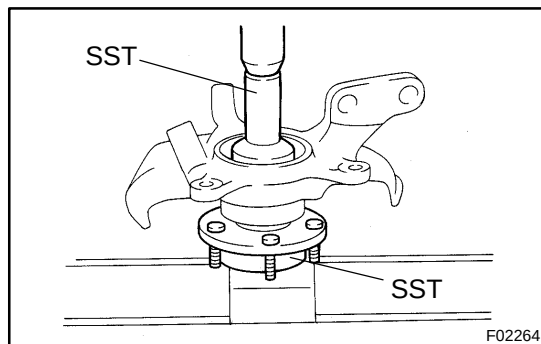
SST 09608-32010

- (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.

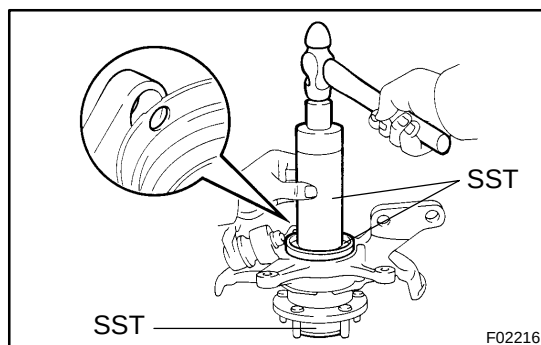
SST 09310-35010, 09608-32010

4. INSTALL LOWER BALL JOINT

- (a) Install the lower ball joint and tighten 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.

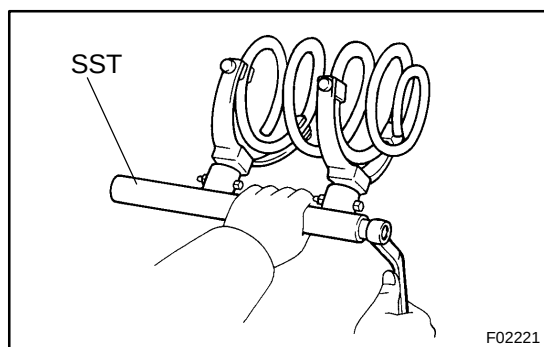
SST 09316-60011 (09316-00011, 09316-00041), 09608-32010

HINT:

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

REASSEMBLY

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

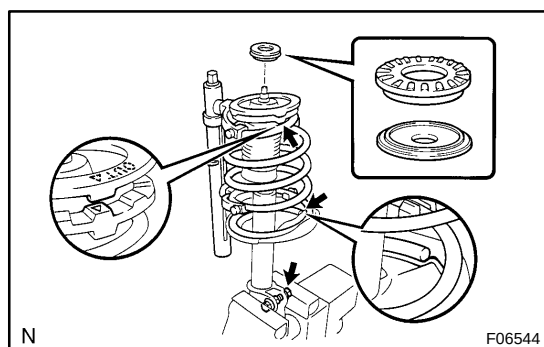


3. INSTALL COIL SPRING

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

NOTICE:

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



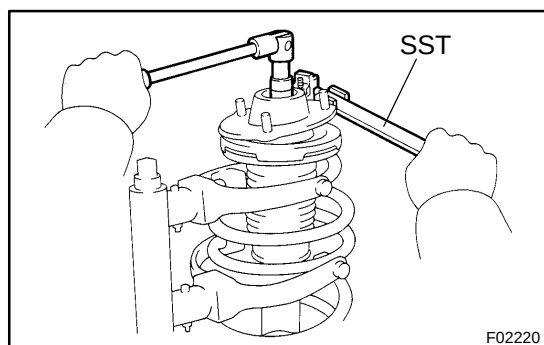
- (b) Install the coil spring to the shock absorber.

HINT:

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

4. INSTALL UPPER INSULATOR AND SPRING UPPER SEAT

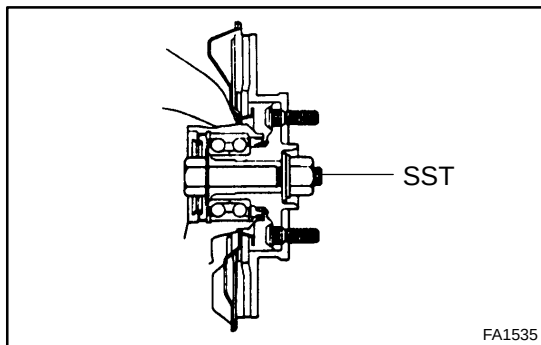
- (a) Align the 'OUT' mark of spring upper seat with the mark of the upper insulator.
- (b) Install the spring upper seat with upper insulator to the shock absorber with the mark facing to the outside of the vehicle.
- (c) Install the bearing dust cover, strut thrust bearing and suspension support.



- (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.



REMOVAL

NOTICE:

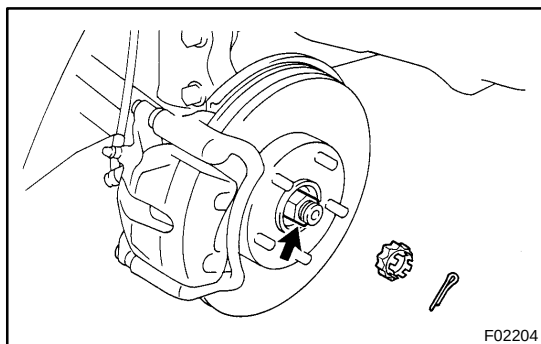
The hub bearing could be damaged if it is subjected to the vehicle weight, such as when moving the vehicle with the drive shaft removed.

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

Torque: 104 N·m (1,050 kgf·cm, 77 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)

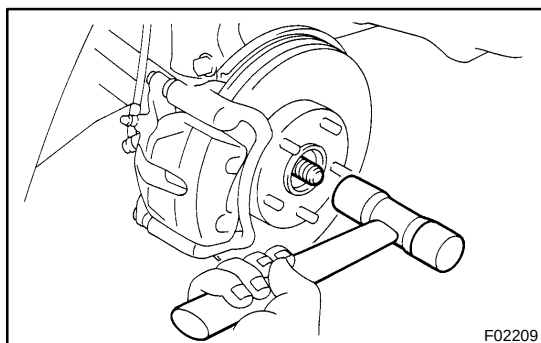
3. DRAIN ATF

4. REMOVE BOLT AND ABS SPEED SENSOR

Torque: 7.8 N·m (80 kgf·cm, 69 in·lbf)

5. DISCONNECT TIE ROD END FROM STEERING KNUCKLE (See page [SA-9](#))

6. DISCONNECT LOWER BALL JOINT FROM LOWER SUSPENSION ARM (See page [SA-9](#))



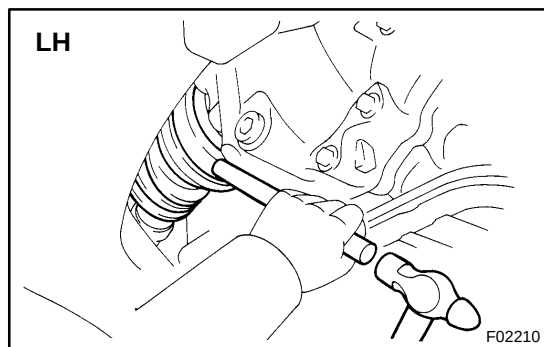
7. DISCONNECT DRIVE SHAFT FROM AXLE HUB

- (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 to separate the drive shaft from the axle hub.



8. REMOVE LH DRIVE SHAFT

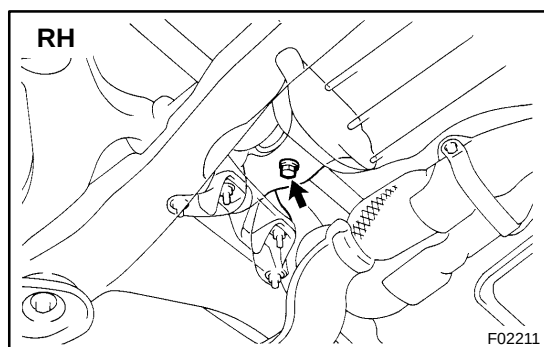
(a) Using a brass bar and hammer, remove the drive shaft.

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.
- Keeping inboard joint shaft in contact with pinion shaft or not can be known from the sound or feeling.
- 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.

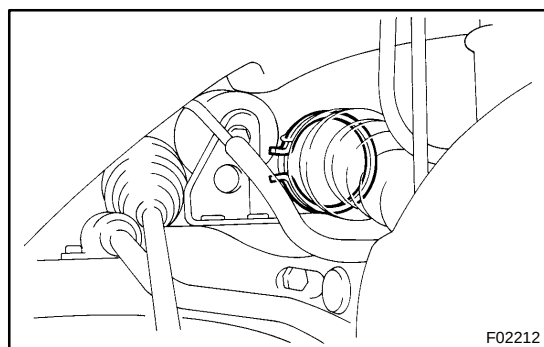
(b) Using a screwdriver, remove the snap ring from the inboard joint shaft.



9. 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.

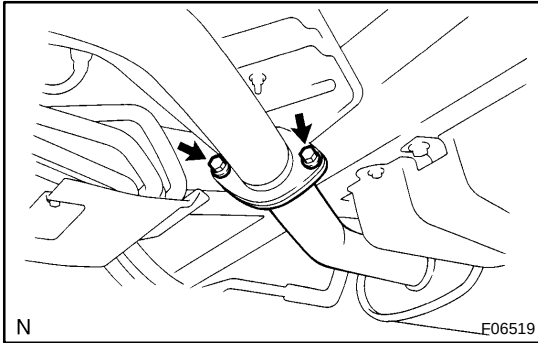
(c) Remove the drive shaft.

HINT:

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

REMOVAL

1. **REMOVE RIGHT AND LEFT REAR WHEELS**
Torque: 104 N·m (1,050 kgf·cm, 77 ft·lbf)
2. **REMOVE RIGHT AND LEFT BRAKE DRUMS**



3. DISCONNECT EXHAUST TAILPIPE

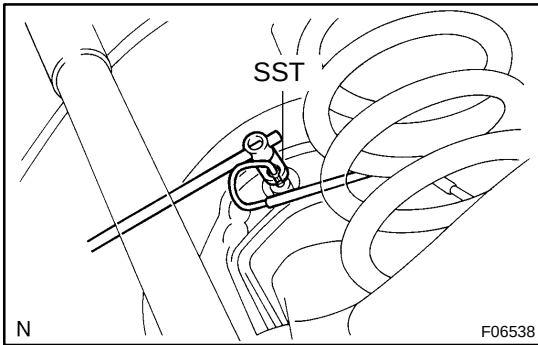
Remove the 2 bolts, nuts and gasket, and disconnect the exhaust tailpipe.

Torque: 56 N·m (550 kgf·cm, 41 ft·lbf)

4. REMOVE PARKING BRAKE CABLE CLAMP

Remove the 3 bolts and parking brake cable clamps.

Torque: 7.8 N·m (80 kgf·cm, 69 in·lbf)

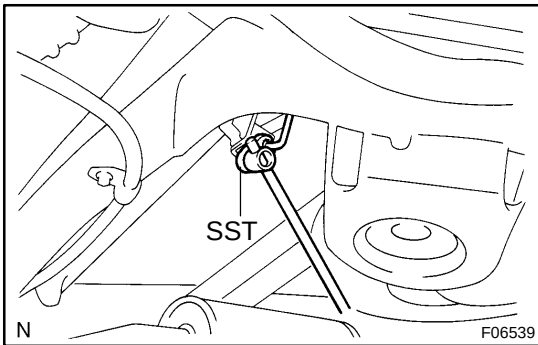


5. REMOVE RIGHT AND LEFT BRAKE LINES

- (a) Using SST, disconnect the right and left brake lines from the brake wheel cylinders.

SST 09023-00100

Torque: 15 N·m (155 kgf·cm, 11 ft·lbf)



- (b) Using SST, disconnect the right and left brake lines from the flexible hoses, and remove the clips and brake lines.
SST 09023-00100

Torque: 15 N·m (155 kgf·cm, 11 ft·lbf)

6. DISCONNECT RIGHT AND LEFT ABS SPEED SENSOR WIRE HARNESSES

- (a) Disconnect the right and left ABS speed sensor connectors.

- (b) Remove the 2 bolts and right and left ABS speed sensor wire harness clamps from the axle beam.

Torque: 18 N·m (185 kgf·cm, 13 ft·lbf)

- (c) Remove the 6 clips, and disconnect the right and left ABS speed sensor wire harness from the axle beam.

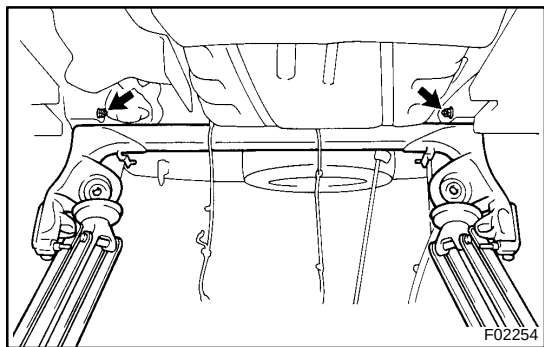
7. REMOVE RIGHT AND LEFT REAR AXLE HUBS

(See page [SA-44](#))

8. REMOVE RIGHT AND LEFT REAR BRAKE DRUM ASSEMBLIES AND AXLE BEARING RETAINERS

9. DISCONNECT RIGHT AND LEFT SHOCK ABSORBERS AND COIL SPRINGS FROM AXLE BEAM

(See page [SA-48](#))

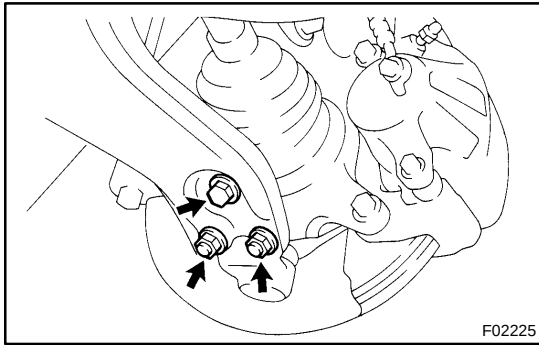
**10. REMOVE AXLE BEAM**

Remove the 2 nuts, bolts and axle beam.

Torque: 88 N·m (900 kgf·cm, 65 ft·lbf)

HINT:

At the time of tightening the nuts, adjust the vehicle height by pushing down or lifting up the body (See page [SA-7](#)).

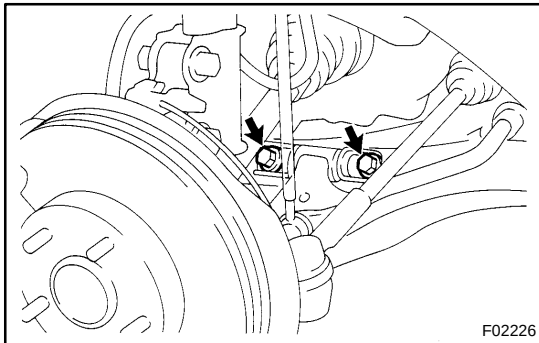


REMOVAL

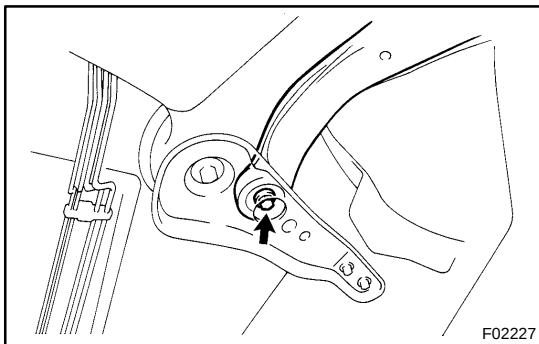
1. **REMOVE FRONT WHEEL**
Torque: 104 N·m (1,050 kgf·cm, 77 ft·lbf)
2. **DISCONNECT LOWER SUSPENSION ARM FROM LOWER BALL JOINT**

Remove the 2 nuts and bolt.

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



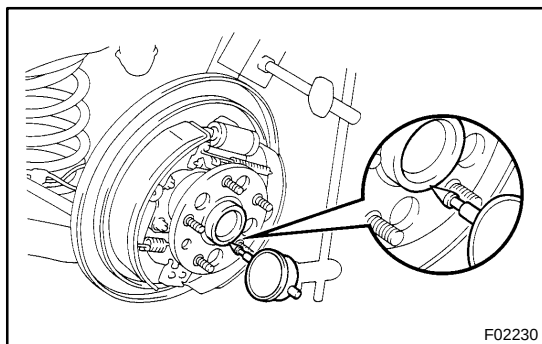
3. **REMOVE LOWER SUSPENSION ARM**
 - (a) Remove the 2 bolts on the front side of the lower suspension arm.
Torque: 206 N·m (2,100 kgf·cm, 152 ft·lbf)



- (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.

REMOVAL

1. **REMOVE REAR WHEEL**
Torque: 104 N·m (1,050 kgf·cm, 77 ft·lbf)
2. **REMOVE BRAKE DRUM**

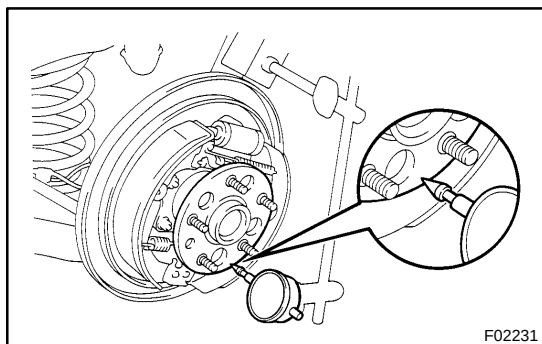


3. **CHECK BEARING BACKLASH AND AXLE HUB DEVIATION**

- (a) Set 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.



- (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.

4. **DISCONNECT ABS SPEED SENSOR CONNECTOR**
5. **REMOVE REAR AXLE HUB**

Remove the 4 nuts and rear axle hub assembly.

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

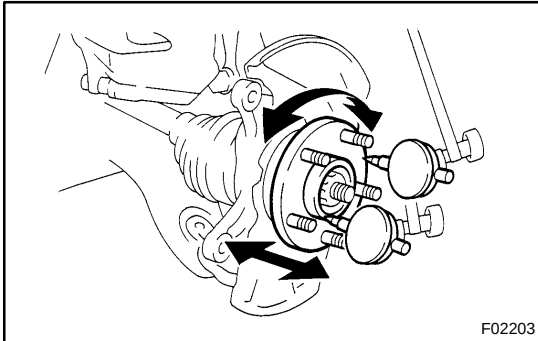
REMOVAL

1. REMOVE FRONT WHEEL

Torque: 104 N·m (1,050 kgf·cm, 77 ft·lbf)

2. CHECK BEARING BACKLASH AND AXLE HUB DEVIATION

- Remove the 2 bolts, brake caliper and disc.
- Support the brake caliper securely.



- Set 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.

- 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.

- Install the disc, 2 bolts and brake caliper.

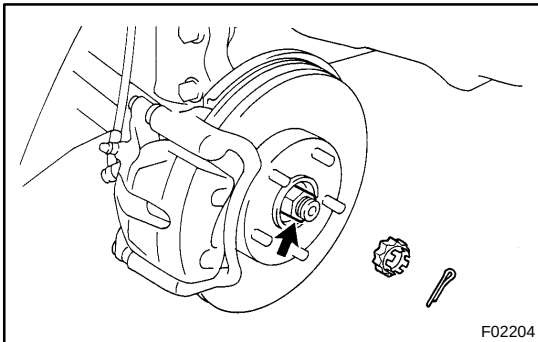
Torque: 107 N·m (1,090 kgf·cm, 79 ft·lbf)

3. REMOVE DRIVE SHAFT LOCK NUT

- Remove the cotter pin and lock cap.
- With applying the brakes, remove the nut.
- Remove the brake caliper and disc.
- Support the brake caliper securely.

4. REMOVE ABS SPEED SENSOR AND WIRE HARNESS CLAMP

Torque: 7.8 N·m (80 kgf·cm, 69 in·lbf)

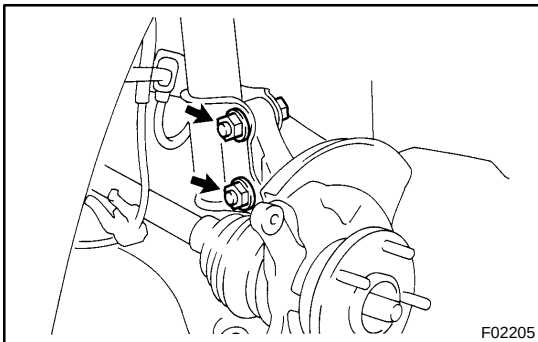


5. LOOSEN 2 NUTS ON LOWER SIDE OF SHOCK ABSORBER

Torque: 210 N·m (2,150 kgf·cm, 155 ft·lbf)

HINT:

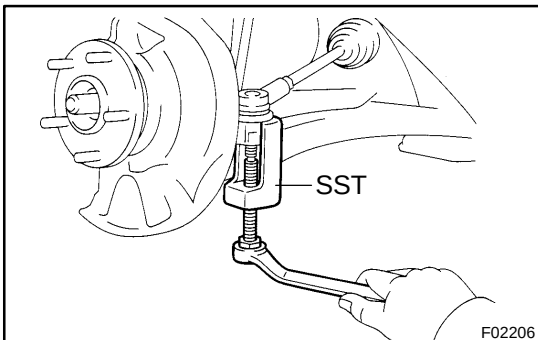
- Do not remove the bolts.
- At the time of installation, coat the nut's thread with engine oil.

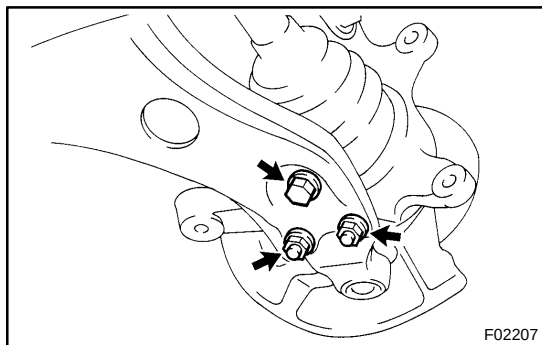


6. DISCONNECT TIE ROD END FROM STEERING KNUCKLE

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

SST 09610-20012





7. DISCONNECT LOWER BALL JOINT FROM LOWER SUSPENSION 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.

REMOVAL

1. **REMOVE FRONT WHEEL**
Torque: 104 N·m (1,050 kgf·cm, 77 ft·lbf)
2. **REMOVE FLEXIBLE HOSE BRACKET AND ABS SPEED SENSOR WIRE HARNESS CLAMPS FROM SHOCK ABSORBER**

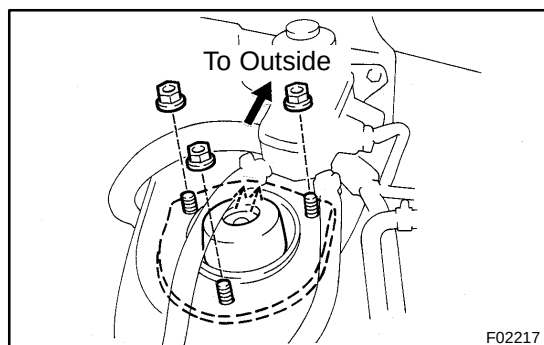
Remove the nut, flexible hose bracket and ABS wire harness clamps.

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

3. **DISCONNECT STABILIZER BAR LINK FROM SHOCK ABSORBER** (See page [SA-40](#))
4. **REMOVE OUTER FRONT COWL TOP PANEL**
(See page [BO-35](#))
5. **REMOVE SHOCK ABSORBER WITH COIL SPRING**
 - (a) Loosen the 2 nuts on the lower side of shock absorber.
Torque: 210 N·m (2,150 kgf·cm, 155 ft·lbf)

HINT:

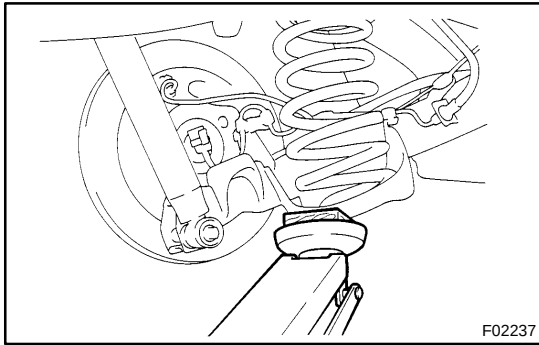
- Do not remove the bolts.
- At the time of installation, coat the nut's thread with engine oil.



- (b) Remove the 3 nuts on the upper side of the shock absorber.
Torque: 80 N·m (820 kgf·cm, 59 ft·lbf)
- (c) Remove the 2 nuts and bolts on the lower side of shock absorber.
- (d) Remove the shock absorber with coil spring.

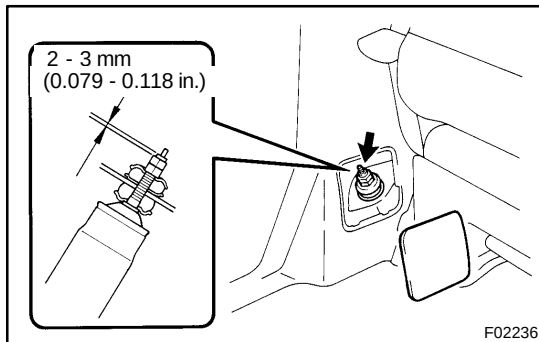
HINT:

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



REMOVAL

1. **REMOVE REAR WHEELS AND SUPPORT LEFT AND RIGHT SIDE OF REAR AXLE BEAM WITH JACKS**
Torque: 104 N·m (1,050 kgf·cm, 77 ft·lbf)



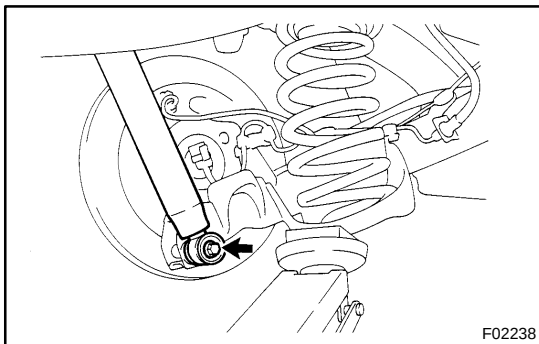
2. **REMOVE SHOCK ABSORBER**

- (a) Remove the deck trim side board service hole cover.
- (b) Remove the 2 nuts, 2 retainers and cushion.

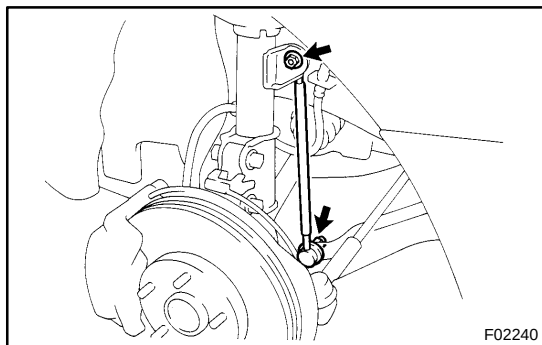
Torque: 25 N·m (250 kgf·cm, 18 ft·lbf)

HINT:

At the time of installation, tighten the nut until the screw of the shock absorber protrudes 2 - 3 mm (0.079 - 0.118 in.).



- (c) Remove the bolt, washer and shock absorber from the axle beam.
Torque: 37 N·m (380 kgf·cm, 27 ft·lbf)
- (d) Remove the cushion and retainer from the shock absorber.
- (e) Remove the cushion from the shock absorber.
- (f) Remove the bolt, washer, and disconnect the shock absorber of the other side.
Torque: 37 N·m (380 kgf·cm, 27 ft·lbf)
- (g) Lower the jacks gradually, and remove the coil spring and upper insulator.



REMOVAL

1. REMOVE LEFT AND RIGHT FRONT WHEELS

Torque: 104 N·m (1,050 kgf·cm, 77 ft·lbf)

2. REMOVE LEFT AND RIGHT STABILIZER BAR LINKS

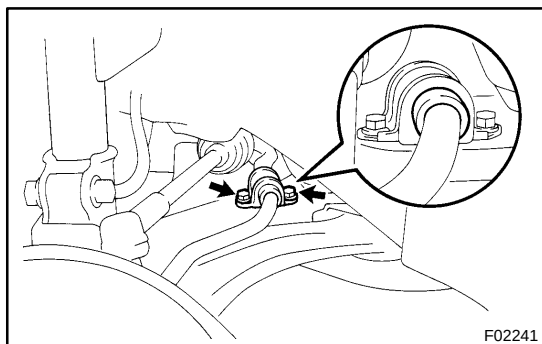
Remove the 4 nuts and 2 links.

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.
- At the time of installation, set the green colored stabilizer bar link at LH side and white one at RH side.

3. DISCONNECT TIE ROD ENDS FROM STEERING KNUCKLE (See page SA-9)



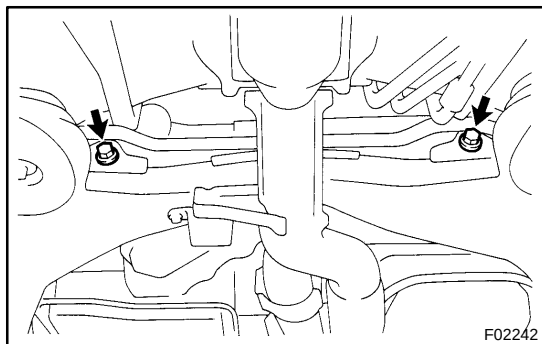
4. REMOVE LEFT AND RIGHT BRACKETS AND BUSHINGS

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 elastic bushing to the inside of the bushing on the stabilizer bar.



5. REMOVE PS GEAR ASSEMBLY SET BOLTS AND NUTS

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

6. REMOVE STABILIZER BAR

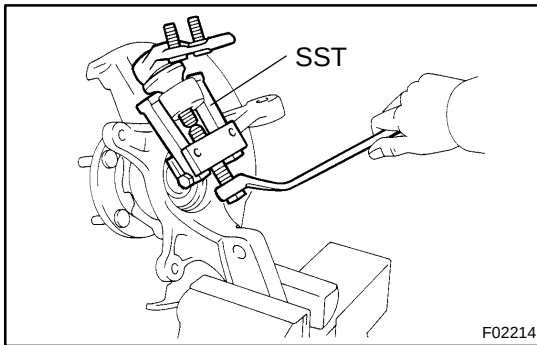
Remove the stabilizer bar from the left hand side with the PS gear assembly raised.

NOTICE:

Be careful not to damage the pressure feed tube.

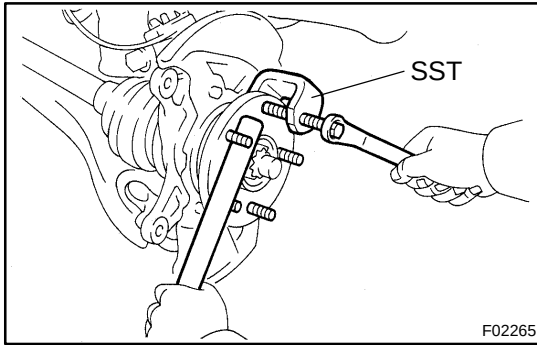
HINT:

At the time of installation, set the stabilizer bar with white colored side at LH side.



REMOVAL

1. **REMOVE STEERING KNUCKLE WITH AXLE HUB**
(See page [SA-9](#))
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 09628-6201 1



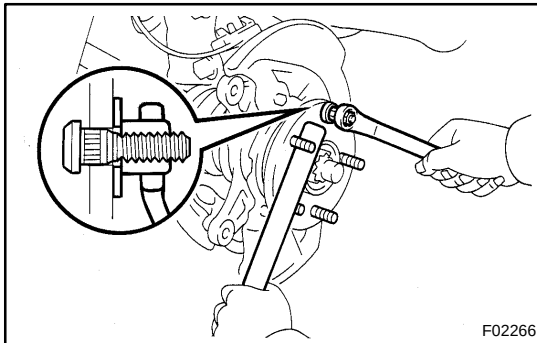
FRONT WHEEL HUB BOLT REPLACEMENT

SA07G-02

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 09628-1001 1



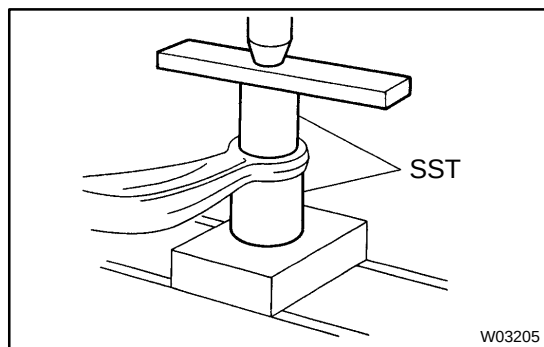
4. **INSTALL HUB BOLT**

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.

Torque: 107 N·m (1,090 kgf·cm, 79 ft·lbf)
6. **INSTALL FRONT WHEEL**

Torque: 104 N·m (1,050 kgf·cm, 77 ft·lbf)

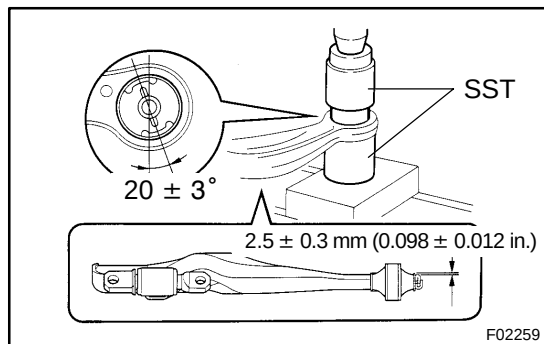


REPLACEMENT

1. REMOVE LOWER SUSPENSION ARM BUSHING

Using SST and a press, remove the bushing.

SST 09649-17010, 09710-04081



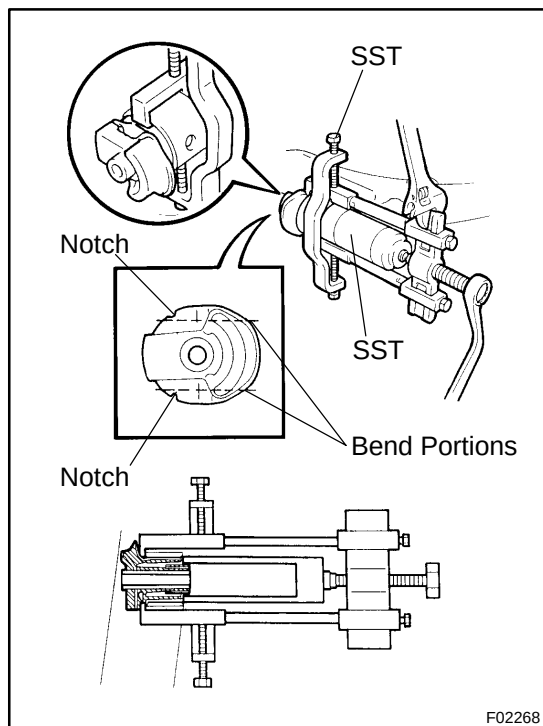
2. INSTALL LOWER SUSPENSION ARM BUSHING

Using SST and a press, install a new bushing.

SST 09238-47012, 09649-17010

HINT:

Before installing the bushing, set it in the correct direction, as shown in the illustration.



REPLACEMENT

1. REMOVE BUSHING

- Place matchmarks on the 2 notches of bushing and axle beam.
- Bend the 2 portions of bushing rib using a chisel and hammer.

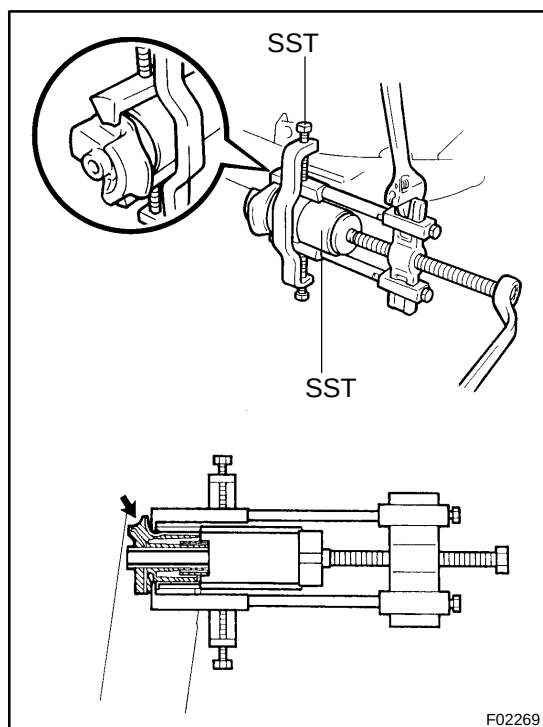
HINT:

Bend the bushing rib until the claw of SST can be hung.

- Using SST, remove the bushing from the axle beam.
SST 09309-37010, 09950-40011 (09951-04010, 09952-04010, 09953-04010, 09954-04020, 09955-04051, 09957-04010, 09958-04011)

NOTICE:

If the axle beam has been scratched, apply the paint.

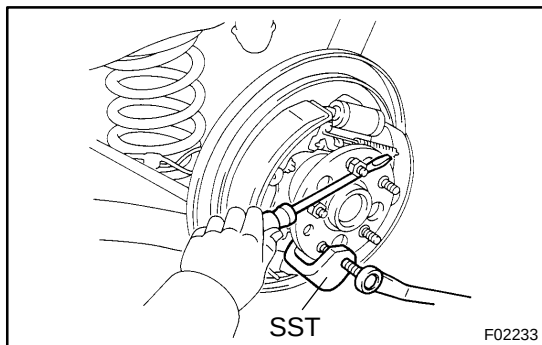


2. INSTALL BUSHING

- Align the matchmarks on the axle beam with 2 notches of a new bushing and temporarily install the bushing to the axle beam.
- Using SST, install the bushing to the axle beam.
SST 09710-14013 (09710-00021), 09950-40011 (09951-04010, 09952-04010, 09953-04030, 09954-04020, 09955-04031, 09957-04010, 09958-04011), 09950-60010 (09951-00560)

NOTICE:

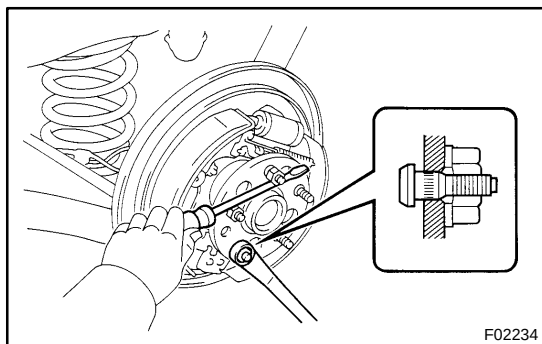
- Hang the claw of SST to the bushing deeply and firmly.
- Do not scratch the rubber portion of bushing.
- Do not transform the bushing rib.



REAR WHEEL HUB BOLT REPLACEMENT

1. REMOVE REAR WHEEL
2. REMOVE BRAKE DRUM
3. REMOVE HUB BOLT

Using SST, remove the hub bolt.
SST 09628-1001 1



4. INSTALL NEW 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 BRAKE DRUM
6. INSTALL REAR WHEEL

Torque: 104 N·m (1,050 kgf·cm, 77 ft·lbf)