
SUSPENSION AND AXLE

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TROUBLESHOOTING

PROBLEM SYMPTOMS TABLE

SA077-03

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
Wanders/pulls	1. Tire (Worn or improperly inflated) 2. Wheel alignment (Incorrect) 3. Steering linkage (Loosen or worn) 4. Hub bearing (Worn) 5. Steering gear (Out of adjustment or broken) 6. Suspension parts (Worn)	SA-2 SA-4 SA-8 – SA-11 SA-51 – –
Bottoming	1. Vehicle (Overloaded) 2. Spring (Weak) 3. Shock absorber (Worn)	– SA-29 SA-55 SA-29 SA-55
Sways/pitches	1. Tire (Worn or improperly inflated) 2. Stabilizer bar (Bent or broken) 3. Shock absorber (Worn)	SA-2 SA-46 SA-69 SA-29 SA-55
Front wheel shimmy	1. Tire (Worn or improperly inflated) 2. Wheel (Out of balance) 3. Shock absorber (Worn) 4. Wheel alignment (Incorrect) 5. Ball joint (Worn) 6. Hub bearing (Worn) 7. Steering linkage (Loosen or worn) 8. Steering gear (Out of adjustment or broken)	SA-2 SA-2 SA-29 SA-4 SA-42 SA-11 – –
Abnormal tire wear	1. Tire (Improperly inflated) 2. Wheel alignment (Incorrect) 3. Suspension parts (Worn) 4. Shock absorber (Worn)	SA-2 SA-4 SA-8 – SA-29 SA-55

TIRE AND WHEEL INSPECTION

SA078-03

1. INSPECT TIRE

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

Cold inflation pressure

For driving under 160 km/h (100 mph)

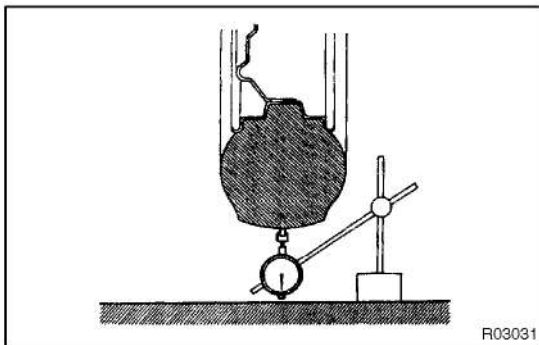
Tire size	Front kPa (kgf/cm ² , psi)	Rear kPa (kgf/cm ² , psi)
185/65R14 86H	220 (2.2, 32)	220 (2.2, 32)
195/60R15 88H	220 (2.2, 32)	220 (2.2, 32)

For driving at 160 km/h (100 mph) or over

Tire size	Front kPa (kgf/cm ² , psi)	Rear kPa (kgf/cm ² , psi)
185/65R14 86H	*1 260 (2.6, 38)	*1 270 (2.7, 39)
	*2 250 (2.5, 36)	*2 260 (2.6, 38)
195/60R15 88H	*1 240 (2.4, 35)	*1 260 (2.6, 38)
	*2 230 (2.3, 33)	*2 240 (2.4, 35)

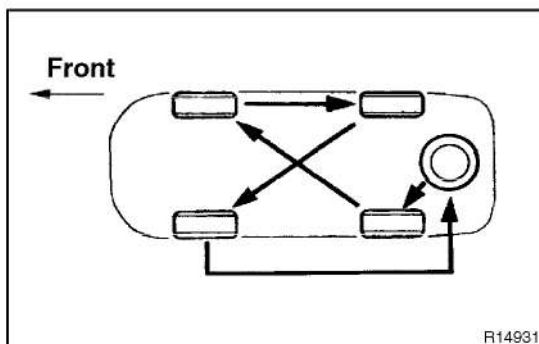
*1: Standard inflation for all loads including full rated loads.

*2: Optional inflation for reduced loads (1 to 4 passengers).



- (b) Check the tire runout.

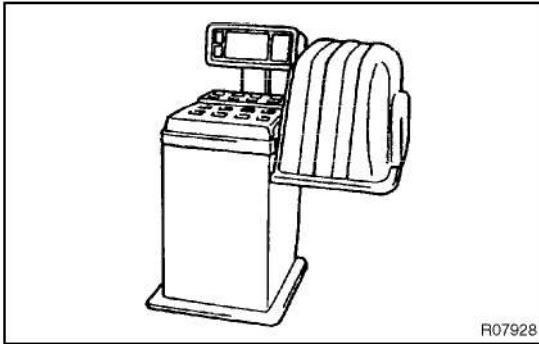
Tire runout: 1.0 mm (0.039 in.) or less



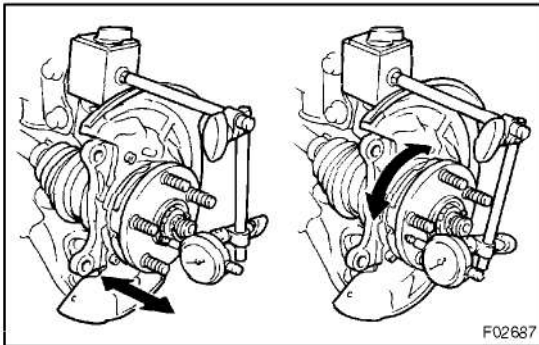
2. ROTATING TIRES

HINT:

See the illustration for where to rotate each tire.

**3. INSPECT WHEEL BALANCE**

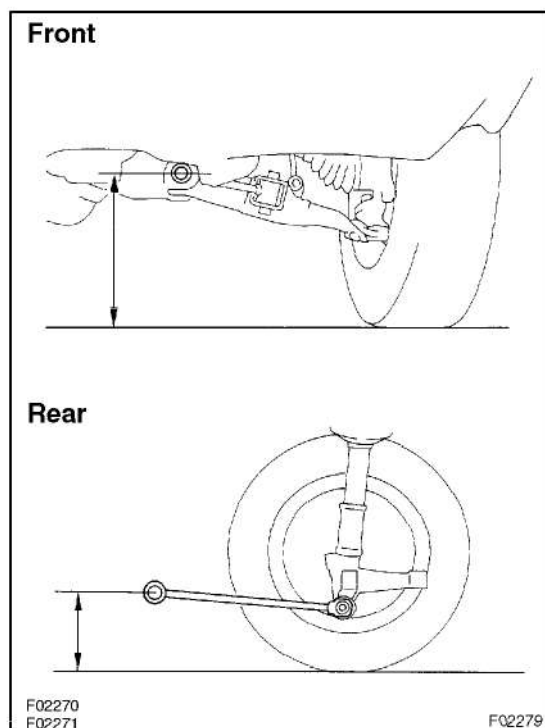
- (a) Check and adjust the Off-the-car balance.
 - (b) If necessary, check and adjust the On-the-car balance.
- Imbalance after adjustment: 8.0 g (0.018 lb) or less**

**4. CHECK WHEEL BEARING LOOSENESS**

- (a) Check the backlash in the bearing shaft direction.
Maximum: 0 mm (0 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
- Bounce front and rear of the vehicle



FRONT WHEEL ALIGNMENT INSPECTION

SA107-01

1. MEASURE VEHICLE HEIGHT

Rough Road Package

Items	*1 Front	*2 Rear
SEDAN and LIFTBACK		
185/65R14 86H	206 mm (8.11 in.)	269 mm (10.59 in.)
195/60R15 88H	216 mm (8.50 in.)	279 mm (10.98 in.)
WAGON		
185/65R14 86H	205 mm (8.07 in.)	263 mm (10.35 in.)
195/60R15 88H	215 mm (8.46 in.)	273 mm (10.75 in.)

Others

Items	*1 Front	*2 Rear
SEDAN and LIFTBACK		
185/65R14 86H	191 mm (7.52 in.)	259 (10.20 in.)
195/60R15 88H	201 mm (7.91 in.)	269 (10.59 in.)
WAGON		
185/65R14 86H	190 mm (7.48 in.)	261 (10.28 in.)
195/60R15 88H	200 mm (7.87 in.)	271 (10.67 in.)

*1: Front measuring point

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

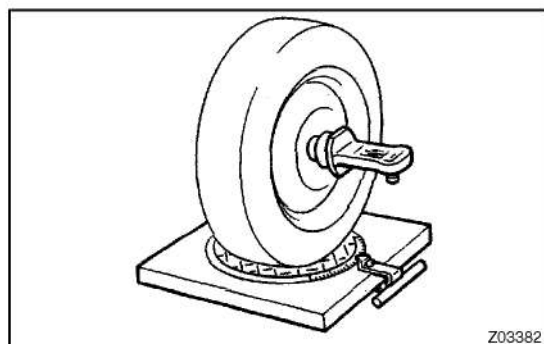
*2: Rear measuring point

Measure the distance from the ground to the center of the 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 OR POSITION VEHICLE ON WHEEL ALIGNMENT TESTER

Follow the specific instructions of the equipment manufacturer.

3. INSPECT CAMBER, CASTER AND STEERING AXIS INCLINATION

Rough Road Package

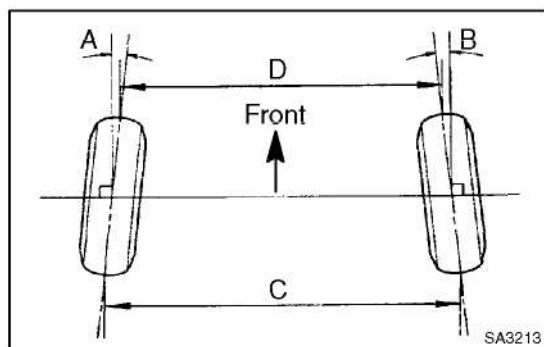
Camber		$-0^{\circ}50' \pm 45'$ ($-0.83^{\circ} \pm 0.75^{\circ}$)
	Left-right error	45' (0.75°) or less
Caster		$1^{\circ}15' \pm 45'$ ($1.25^{\circ} \pm 0.75^{\circ}$)
	Left-right error	45' (0.75°) or less
Steering axis inclination		$14^{\circ}14' \pm 45'$ ($14.23^{\circ} \pm 0.75^{\circ}$)

Others

Camber		$-0^{\circ}21' \pm 45'$ ($-0.35^{\circ} \pm 0.75^{\circ}$)
	Left-right error	45' (0.75°) or less
Caster		$1^{\circ}20' \pm 45'$ ($1.33^{\circ} \pm 0.75^{\circ}$)
SEDAN and LIFTBACK		$1^{\circ}21' \pm 45'$ ($1.35^{\circ} \pm 0.75^{\circ}$)
WAGON		
	Left-right error	45' (0.75°) or less
Steering axis inclination		$13^{\circ}22' \pm 45'$ ($13.37^{\circ} \pm 0.75^{\circ}$)

HINT:

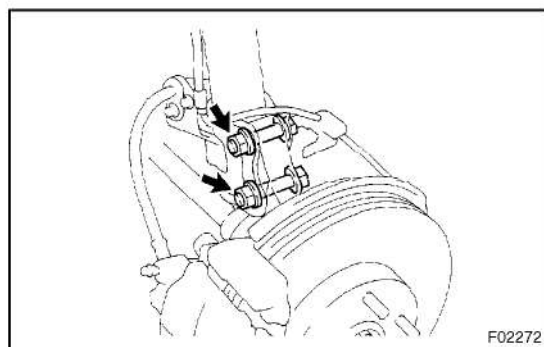
If the caster and steering axis inclination are not within the specification, after the camber has been correctly adjusted, recheck the suspension parts for damaged and/or worn out parts.



4. INSPECT TOE-IN

Toe-in (Total)	A + B: $0^{\circ}06' \pm 12'$ ($0.1^{\circ} \pm 0.2^{\circ}$) C - D: 1 ± 2 mm (0.04 ± 0.08 in.)
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If the toe-in is not within the specification, adjust it at the rack ends.

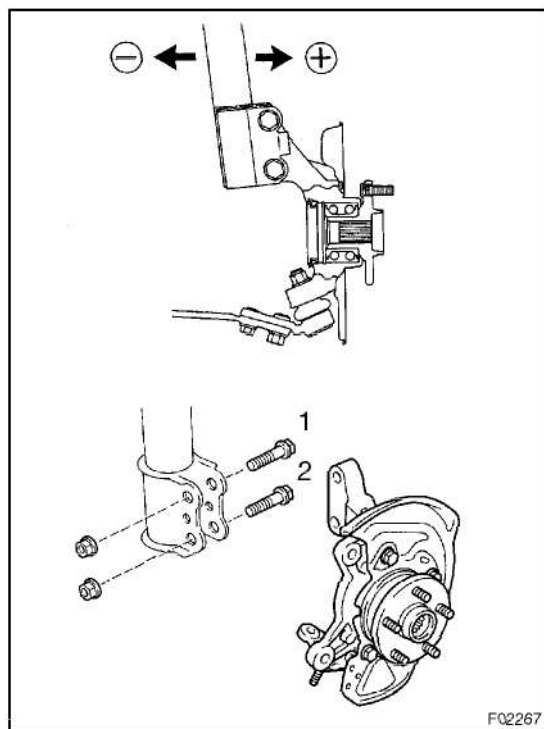


5. ADJUST CAMBER

NOTICE:

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

- Remove the front wheels and 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.



(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: 255 N·m (2,600 kgf·cm, 188 ft·lbf)

(g) Install the front wheels.

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

(h) 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.

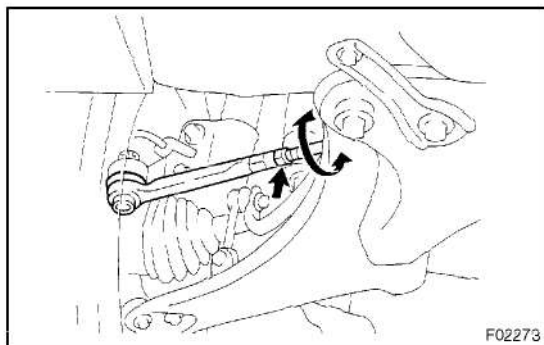
Bolt	Set Bolt		Adjusting Bolt					
	90105-15001		90105-15004		90105-15005		90105-15006	
			1 Dot		2 Dots		3 Dots	
Adjusting Value								
	1	2	1	2	1	2	1	2
15'	●			●				
30'	●					●		
45'	●							●
1°00'			●					●
1°15'					●			●
1°30'							●	●

F01195

(i) 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.

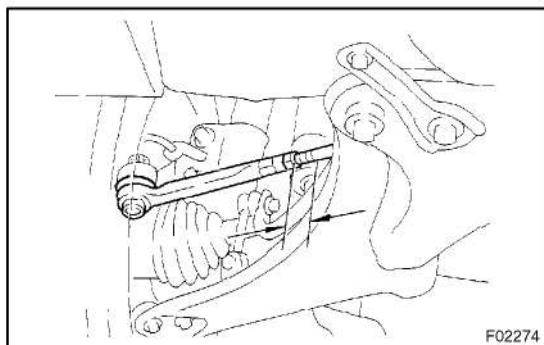


6. ADJUST TOE-IN

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

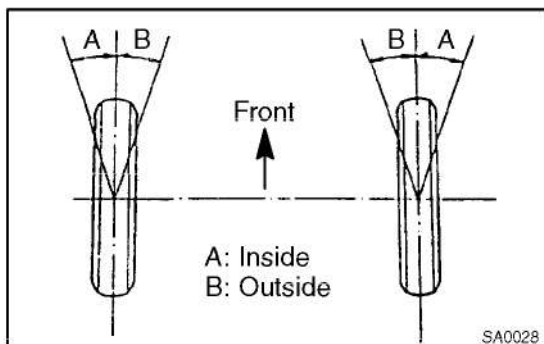
Rack end length difference: 1.5 mm (0.059 in.) or less

- Torque the tie rod end lock nuts.
- Place the boot on the seat and install the clip to it.

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

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	Outside wheel < Reference >
Rough road package	36° 48' ± 2° (36.80° ± 2°)	31° 19' (31.32°)
Others	37° 52' ± 2° (37.87° ± 2°)	32° 05' (32.08°)

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

REAR WHEEL ALIGNMENT INSPECTION

SA07A-02

1. MEASURE VEHICLE HEIGHT (See page SA-4)
2. INSTALL CAMBER-CASTER-KINGPIN GAUGE OR POSITION VEHICLE ON WHEEL ALIGNMENT TESTER

Follow the specific instructions of the equipment manufacturer.

3. INSPECT CAMBER

Rough Road Package

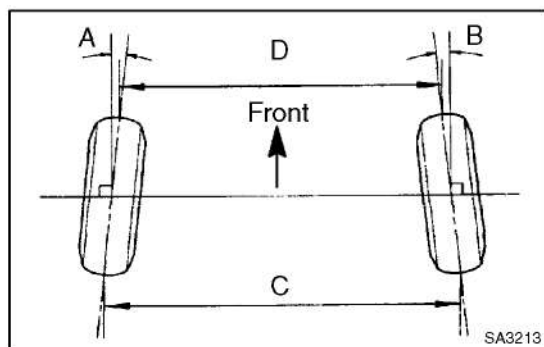
Camber	
SEDAN and LIFTBACK	$-0^{\circ}18' \pm 30' (-0.30^{\circ} \pm 0.5^{\circ})$
WAGON	$-0^{\circ}25' \pm 30' (-0.42^{\circ} \pm 0.5^{\circ})$
Left-right error	45' (0.75°) or less

Others

Camber	
SEDAN and LIFTBACK	$-0^{\circ}31' \pm 30' (-0.52^{\circ} \pm 0.5^{\circ})$
WAGON	$-0^{\circ}25' \pm 30' (-0.42^{\circ} \pm 0.5^{\circ})$
Left-right error	45' (0.75°) or less

HINT:

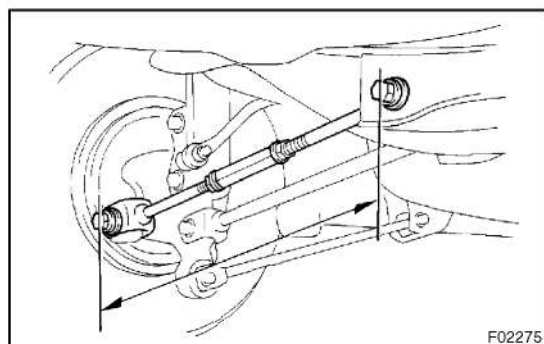
Camber is not adjustable, if measurement is not within the specifications, inspect the suspension parts for damaged and/or worn-out parts and replace them as necessary.



4. INSPECT TOE-IN

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

If the toe-in is not within the specification, adjust it at the No.2 lower suspension arm.

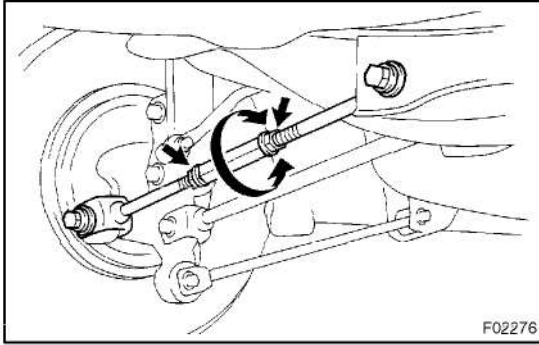


5. ADJUST TOE-IN

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

No.2 lower suspension arm length difference:
1.0 mm (0.039 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 adjusting tubes an equal amount to adjust toe-in.

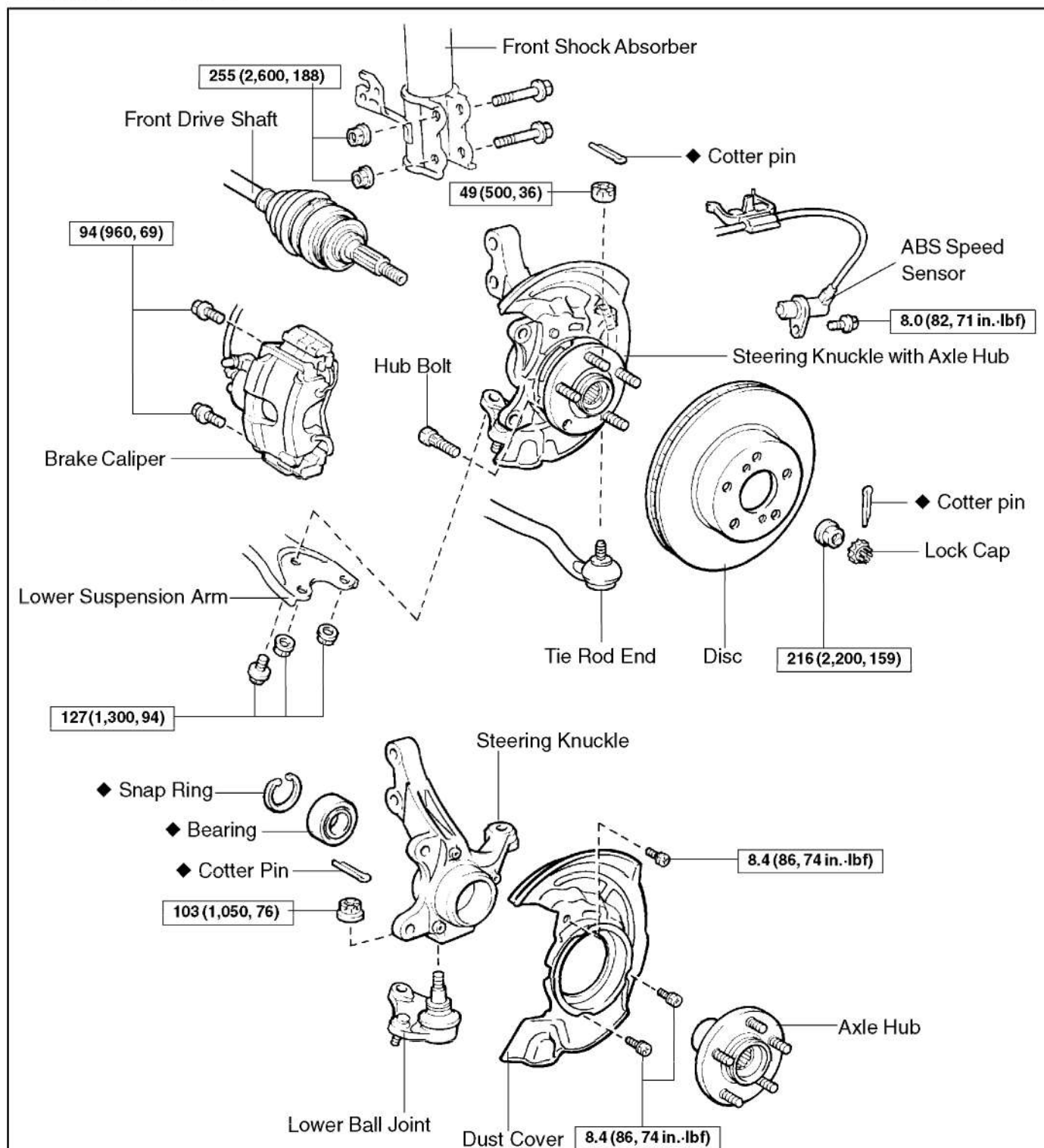
HINT:

- Try to adjust the toe-in to the center value.
 - One turn of the each adjusting tube will adjust the toe-in by about 53' (0.9°, 8.9 mm, 0.350 in.).
- (d) Torque the lock nuts.

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

FRONT AXLE HUB COMPONENTS

SA07B-03



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

◆ Non-reusable part

F02684

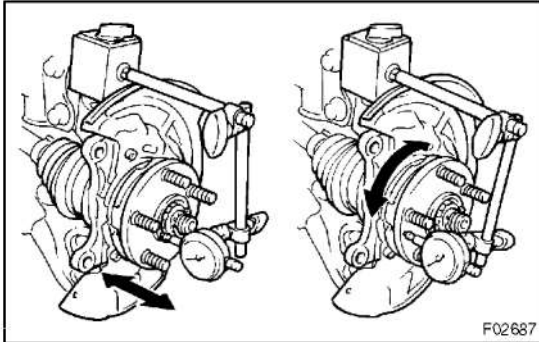
REMOVAL

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, check the backlash near the center of the axle hub.

Maximum: 0 mm (0 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: 94 N·m (960 kgf·cm, 69 ft·lbf)

3. REMOVE DRIVE SHAFT LOCK NUT

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

Torque: 216 N·m (2,200 kgf·cm, 159 ft·lbf)

4. w/ ABS:

REMOVE ABS SPEED SENSOR AND WIRE HARNESS CLAMP

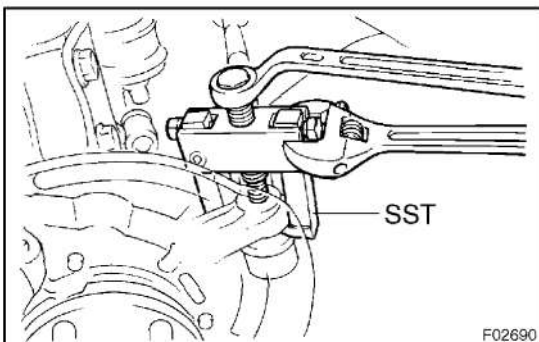
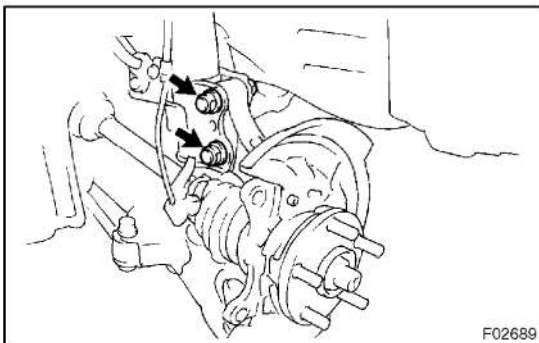
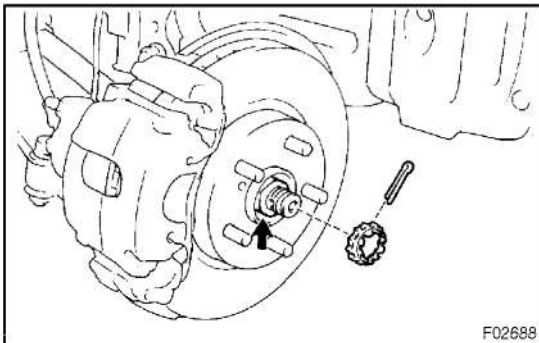
Torque: 8.0 N·m (82 kgf·cm, 71 in·lbf)

5. LOOSEN 2 NUTS ON LOWER SIDE OF SHOCK ABSORBER

Torque: 255 N·m (2,600 kgf·cm, 188 ft·lbf)

HINT:

Do not remove the 2 bolts and nuts.

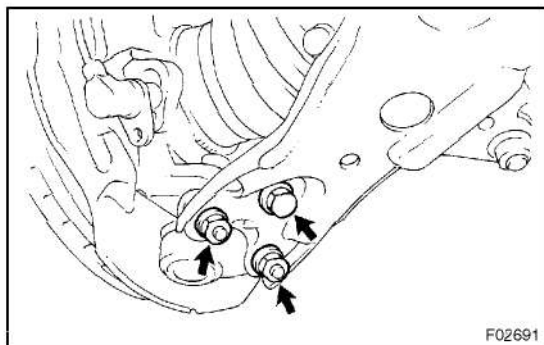


6. DISCONNECT TIE ROD END FROM STEERING KNUCKLE

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

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

SST 09628-62011



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 and nuts on the lower side of the shock absorber.

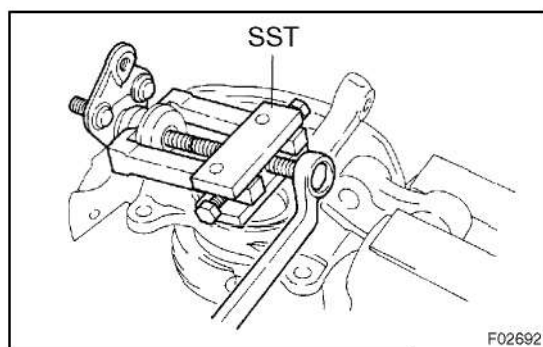
(b) Remove the steering knuckle with the axle hub.

NOTICE:

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

HINT:

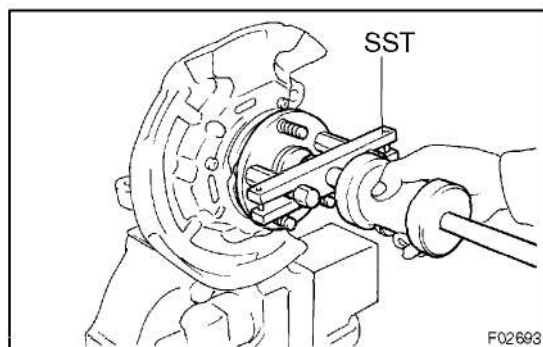
At the time of installation, coat the nut's thread with engine oil.



DISASSEMBLY

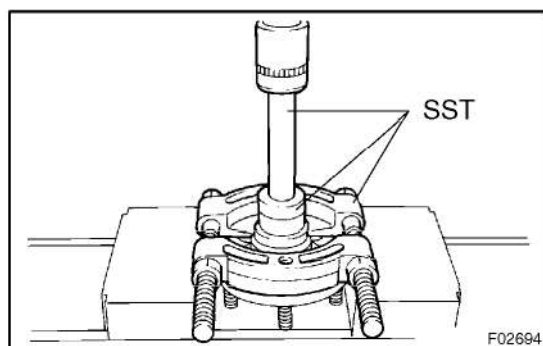
1. REMOVE LOWER BALL JOINT

- (a) Remove the cotter pin and nut.
- (b) Using SST, remove the lower ball joint.
SST 09628-62011



2. REMOVE AXLE HUB

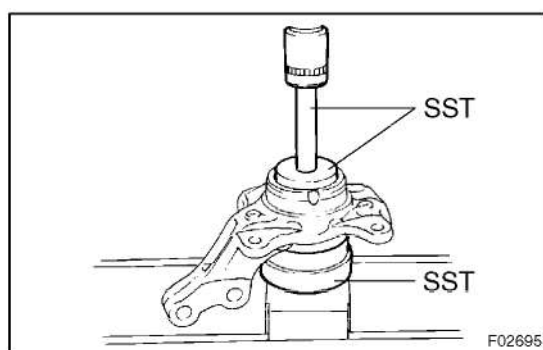
- (a) Using SST, remove the axle hub.
SST 09520-00031



- (b) Using SST and a press, remove the inner race (outside) from the axle hub.
SST 09950-00020, 09950-60010 (09951-00390), 09950-70010 (09951-07100)

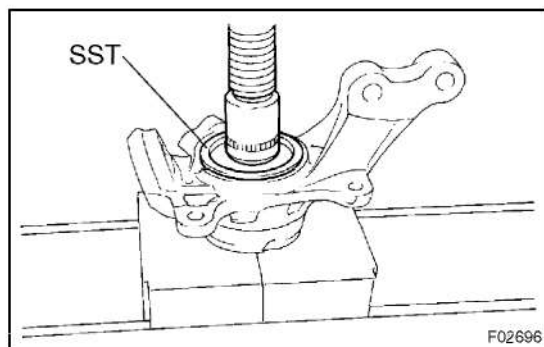
3. REMOVE DUST COVER

Using a torx socket (T30), remove the 3 bolts and dust cover.



4. REMOVE BEARING FROM STEERING KNUCKLE

- (a) Using snap ring pliers, remove the snap ring.
- (b) Place the inner race on the outside of the bearing.
- (c) Using SST and a press, remove the bearing.
SST 09527-17011, 09950-60010 (09951-00640), 09950-70010 (09951-07150)



REASSEMBLY

1. INSTALL BEARING

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

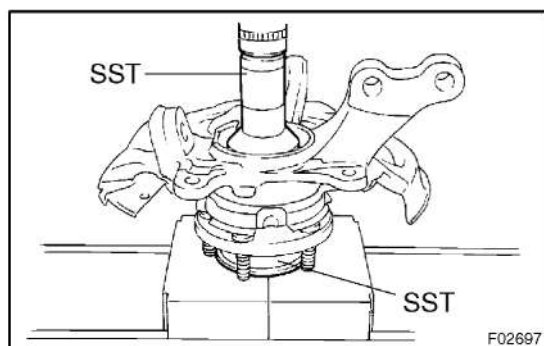
SST 09608-32010

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

2. INSTALL DUST COVER

Place the dust cover and using a torx socket (T30), torque the 3 bolts.

Torque: 8.4 N·m (86 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: 103 N·m (1,050 kgf·cm, 76 ft-lbf)

- (b) Install a new cotter pin.

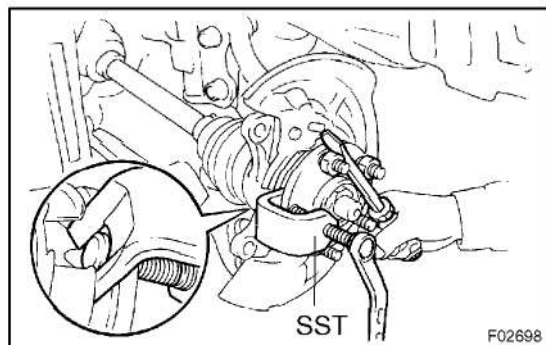
INSTALLATION

Installation is in the reverse order of removal (See page SA-11).

AFTER INSTALLATION, CHECK ABS SPEED SENSOR SIGNAL (See page DI-115) AND FRONT WHEEL ALIGNMENT (See page SA-4)

FRONT WHEEL HUB BOLT REPLACEMENT

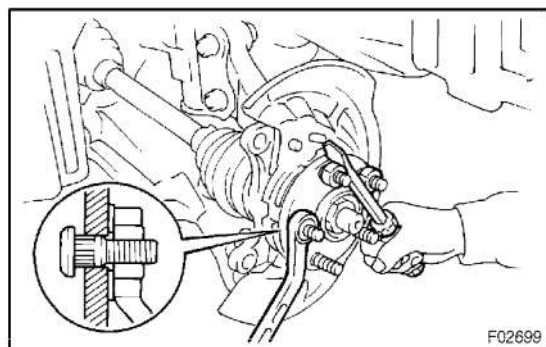
1. REMOVE FRONT WHEEL
2. REMOVE BRAKE CALIPER AND DISC
 - (a) Remove the 2 bolts, brake caliper and disc.
 - (b) Support the brake caliper securely.



3. REMOVE HUB BOLT

Using SST, remove the hub bolt.

SST 09628-10011



4. INSTALL HUB BOLT

- (a) Install a washer and nut to the hub bolt, as shown in the illustration.
- (b) Install the hub bolt by torquing the nut.

5. INSTALL BRAKE DISC AND CALIPER

Install the disc, 2 bolts and brake caliper.

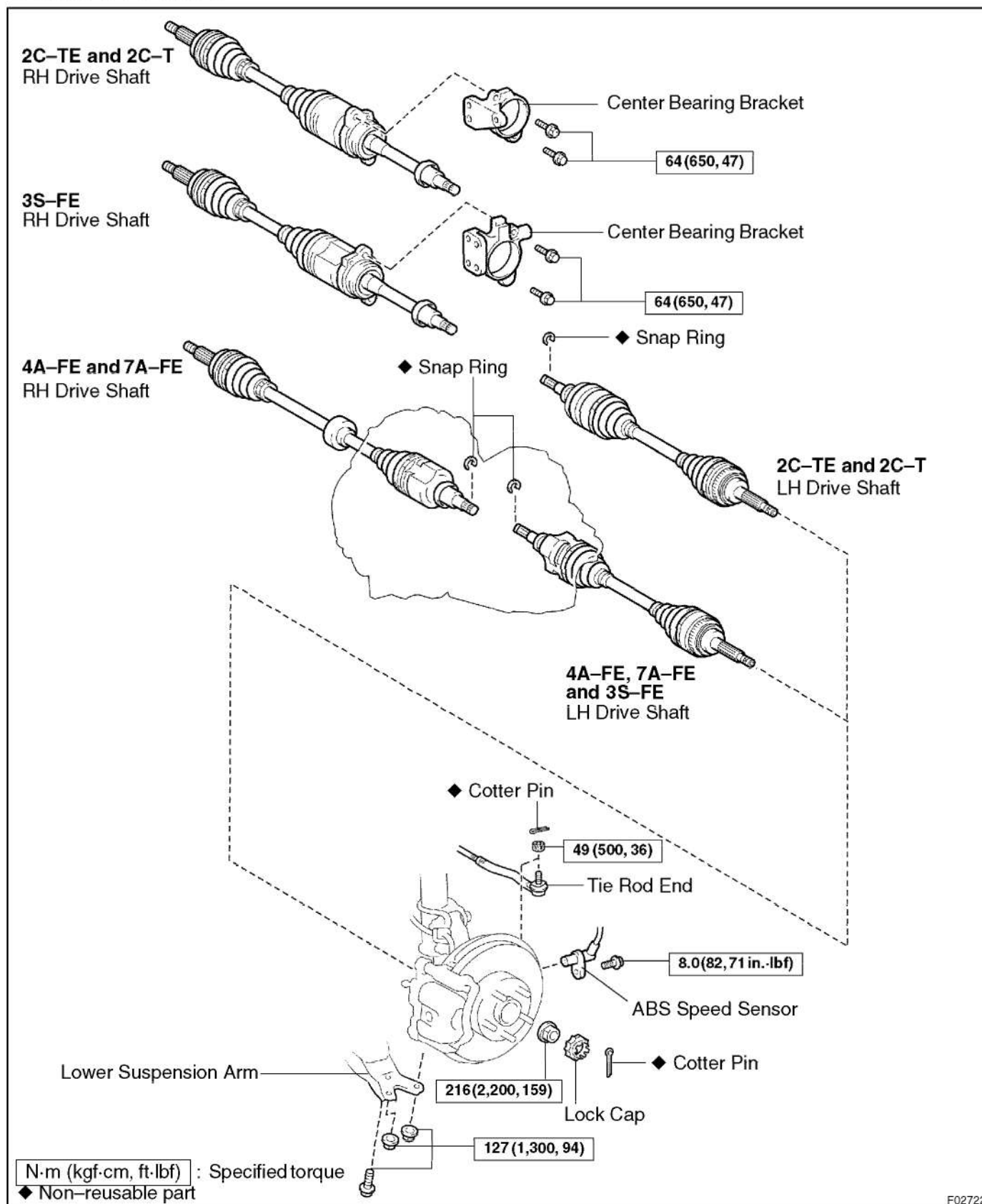
Torque: 94 N·m (960 kgf·cm, 69 ft·lbf)

6. INSTALL FRONT WHEEL

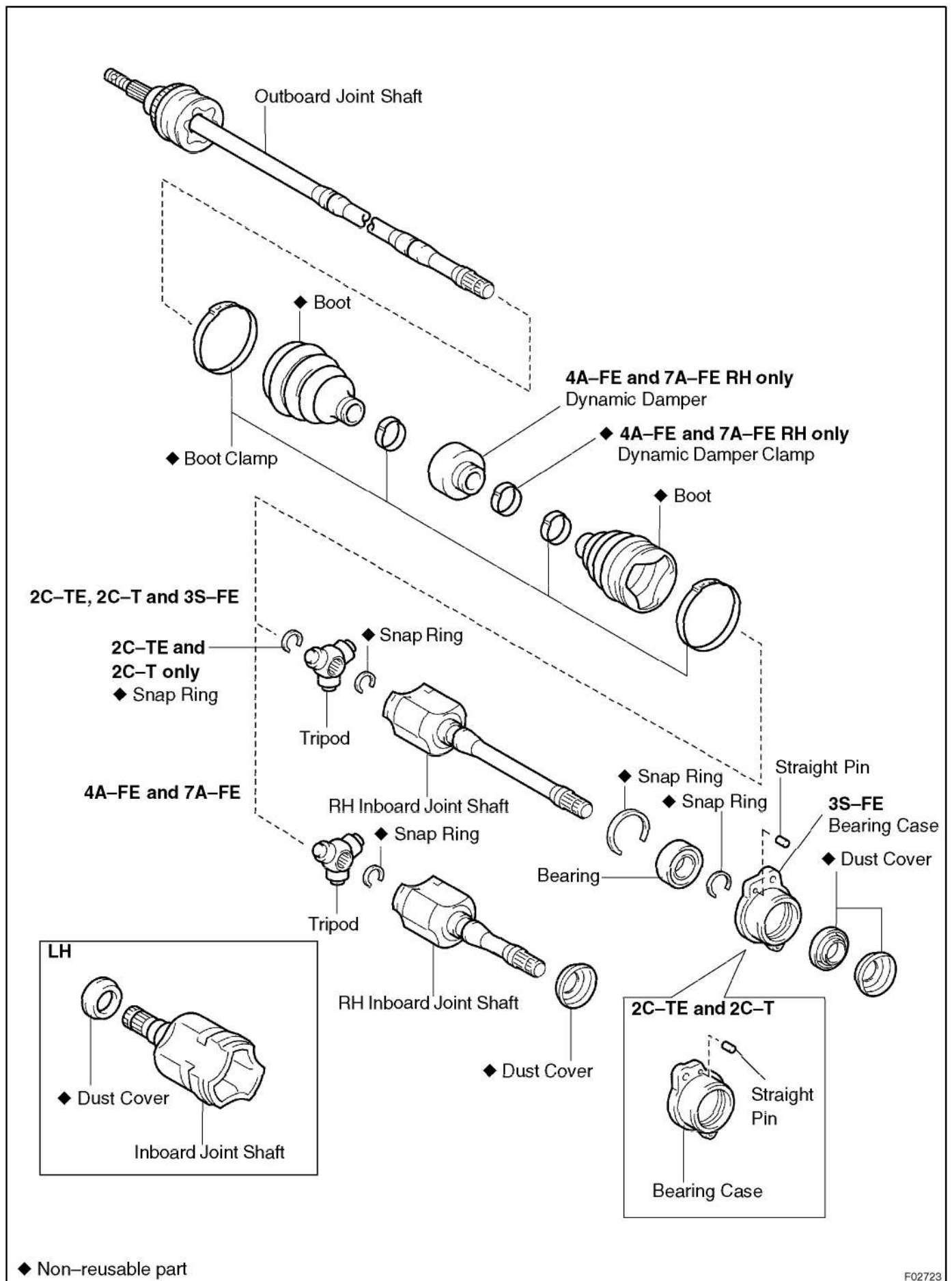
Torque: 103 N·m (1,050 kgf·cm, 76 ft·lbf)

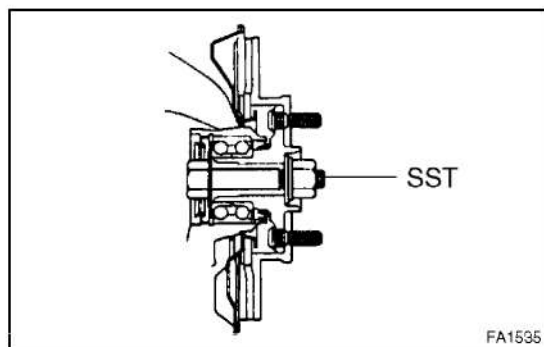
FRONT DRIVE SHAFT COMPONENTS

SA109-01



F02722





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 the SST.

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

w/ ABS:

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

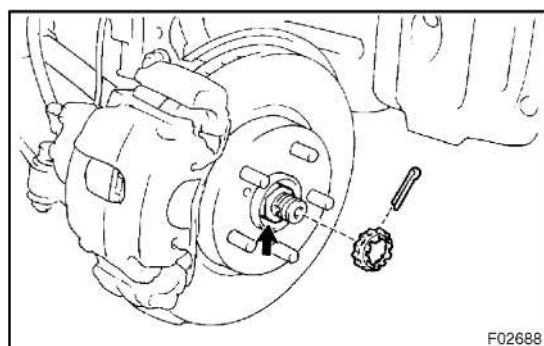
Torque: 103 N·m (1,050 kgf·cm, 76 ft·lbf)

2. DRAIN OUT GEAR OIL (M/T) OR ATF (A/T)

3. w/ ABS:

REMOVE BOLT AND ABS SPEED SENSOR

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



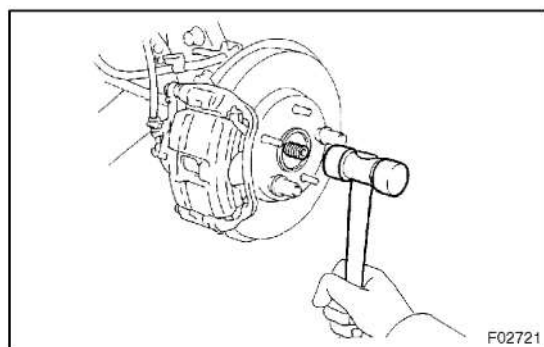
4. REMOVE DRIVE SHAFT LOCK NUT

- Remove the cotter pin and lock cap.
- While applying the brakes, remove the nut.

Torque: 216 N·m (2,200 kgf·cm, 159 ft·lbf)

5. DISCONNECT TIE ROD END FROM STEERING KNUCKLE (See page SA-11)

6. DISCONNECT LOWER BALL JOINT FROM LOWER SUSPENSION ARM (See page SA-11)



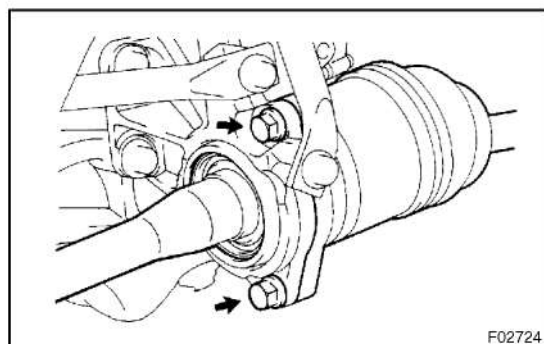
7. DISCONNECT DRIVE SHAFT FROM AXLE HUB

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

NOTICE:

Cover the drive shaft boot and ABS speed sensor rotor with cloth to protect it from being damaged.

- Push the front axle hub toward the outside of the vehicle to separate the drive shaft from the axle hub.



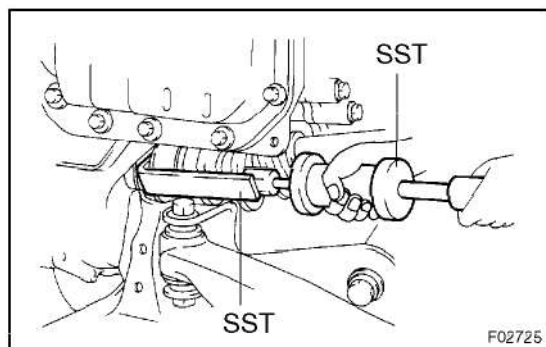
8. REMOVE DRIVE SHAFT

- RH drive shaft of 3S-FE, 2C-TE and 2C-T engine: Remove the 2 bolts and pull out the drive shaft together with the center bearing bracket.

Torque: 64 N·m (650 kgf·cm, 47 ft·lbf)

HINT:

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



(b) Others:

(1) Using SST, remove the drive shaft.

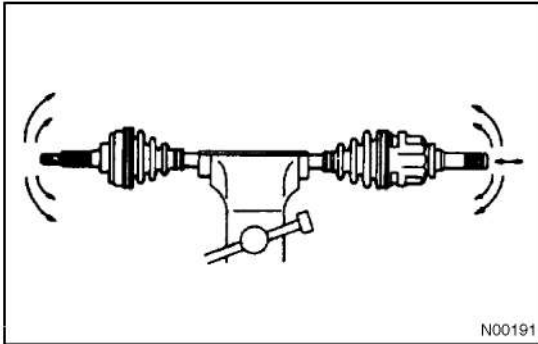
SST 09520-01010, 09520-24010 (09520-32040)

(2) Using a screwdriver, remove the snap ring.

HINT:

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

- Apply 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 inboard joint shaft is 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.



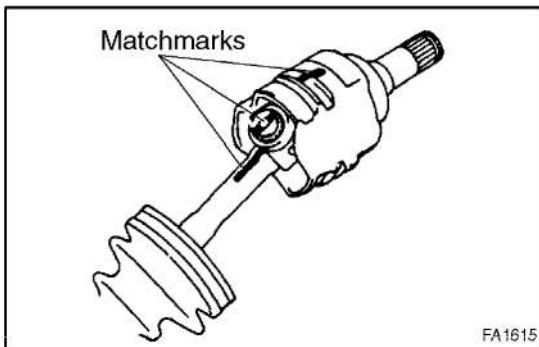
DISASSEMBLY

1. CHECK DRIVE SHAFT

- Check to see that there is no obvious 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 obvious play in the radial direction of the inboard joint.
- Check the boots for damage.

2. REMOVE INBOARD AND OUTBOARD JOINT BOOT CLAMPS

Using a side cutter, cut the 4 boots clamps and remove them.



3. REMOVE INBOARD JOINT SHAFT

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

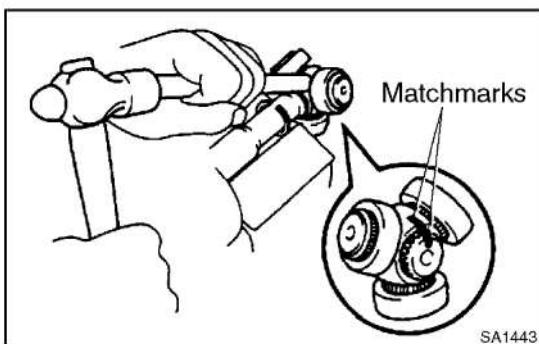
NOTICE:

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.
- 2C-TE and 2C-T engine:
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.

NOTICE:

Do not punch the marks.

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

NOTICE:

Do not tap the roller.

- 2C-TE and 2C-T engine:
Using a snap ring expander, remove the snap ring.

5. REMOVE INBOARD JOINT BOOT

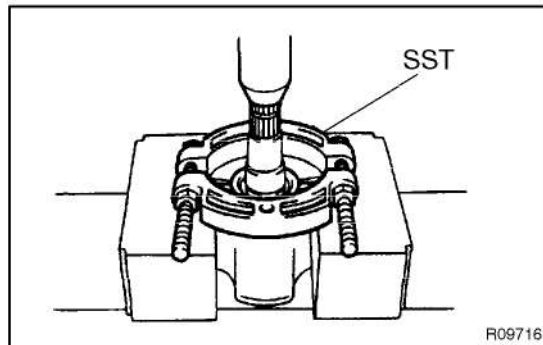
**6. RH drive shaft of 4A-FE and 7A-FE engine:
REMOVE DYNAMIC DAMPER**

- (a) Using a side cutter, cut the dynamic damper clamp and remove it.
- (b) Remove the dynamic damper.

7. REMOVE OUTBOARD JOINT BOOT

NOTICE:

Do not disassemble the outboard joint.

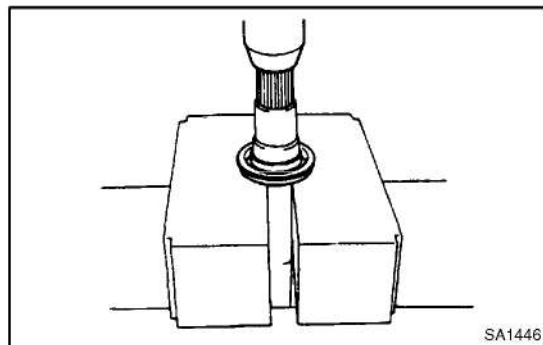


8. REMOVE DUST COVER

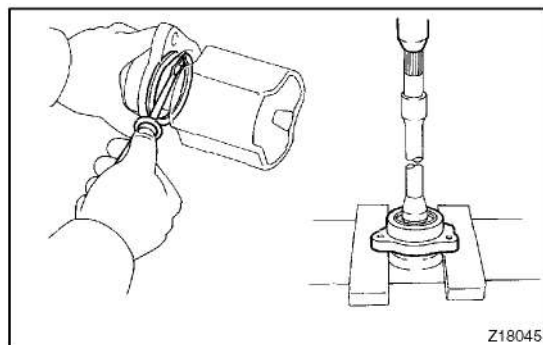
- (a) RH drive shaft of 4A-FE and 7A-FE engine and LH drive shaft:

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

SST 09950-00020

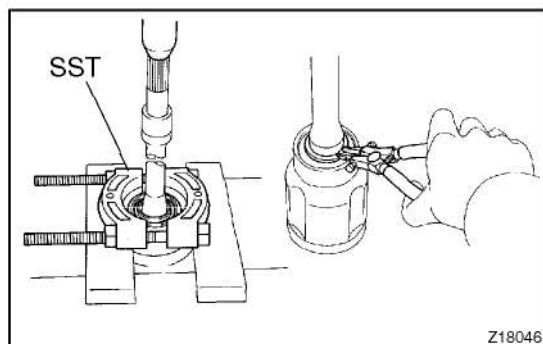


- (b) Others:
Using a press, remove the dust cover from the inboard joint shaft.

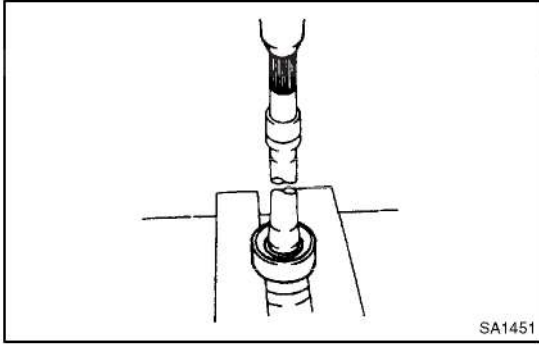


**9. RH drive shaft of 3S-FE, 2C-TE and 2C-T engine:
DISASSEMBLE INBOARD JOINT SHAFT**

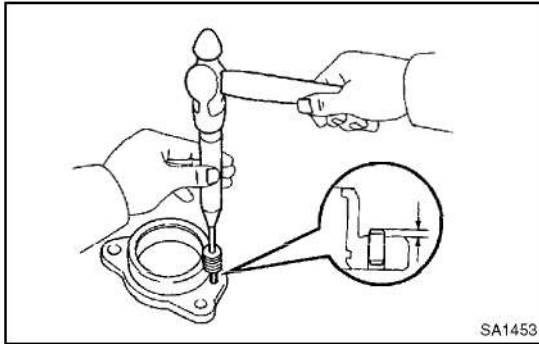
- (a) Using a screwdriver, remove the snap ring.
- (b) Using a press, remove the bearing case.
- (c) Using a pin punch and hammer, remove the straight pin from the bearing case.



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



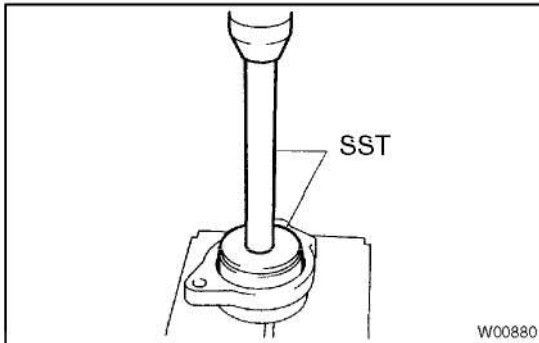
(f) Using a press, remove the bearing.



REASSEMBLY

1. RH drive shaft of 3S-FE, 2C-TE and 2C-T engine: ASSEMBLE INBOARD JOINT SHAFT

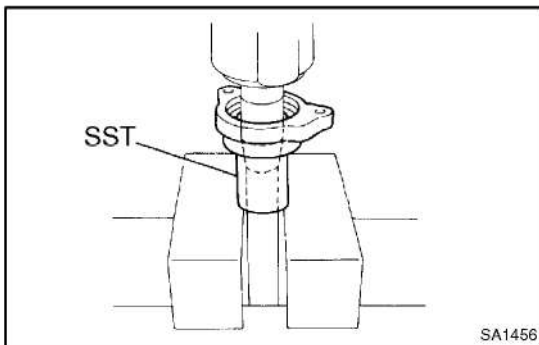
- (a) Using a pin punch and hammer, install the straight pin into the bearing case.



- (b) Using SST and a press, install a new bearing into the bearing case.

SST 09950-60010 (09951-00640), 09950-70010 (09951-07150)

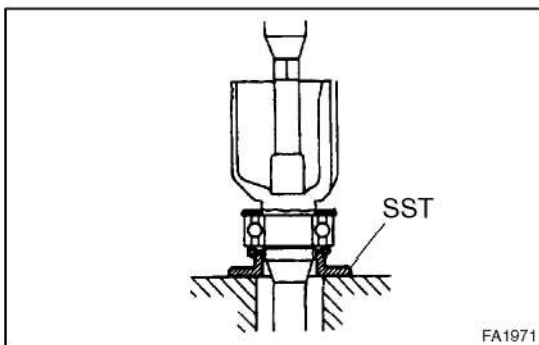
- (c) Using a screwdriver, install a new snap ring.



- (d) Using SST and a press, install the bearing case assembly to the inboard joint shaft.

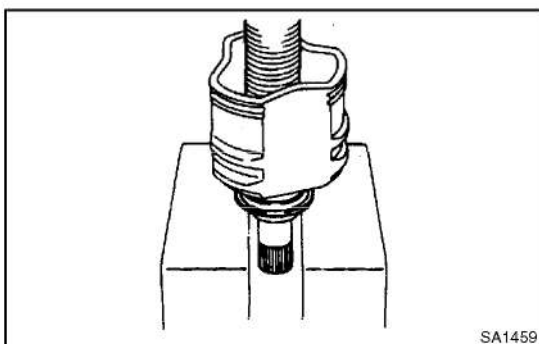
SST 09710-30021 (09710-03141)

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



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

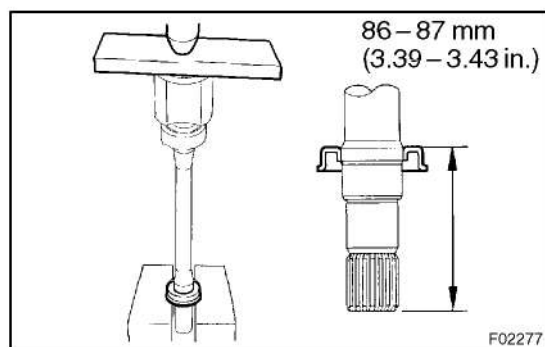
SST 09506-35010



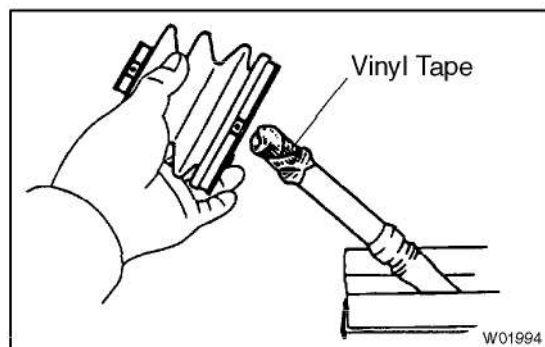
2. INSTALL NEW DUST COVER

- (a) RH drive shaft of 4A-FE and 7A-FE engine and LH drive shaft:

Using a press, install a new dust cover.



- (b) Others:
Using a steel plate and press, install a new dust cover until the distance from the tip of center drive shaft to the dust cover reaches the specification, as shown in the illustration.



3. TEMPORARILY INSTALL NEW OUTBOARD AND INBOARD JOINT BOOTS WITH NEW BOOT CLAMPS

HINT:

- Before installing the boots (and dynamic damper), wrap the spline of the outboard joint shaft with vinyl tape to prevent them from being damaged.
 - Before installing the boots (and dynamic damper), place new clamps to each of them and then install boots to drive shaft.
- (a) Temporarily install a new outboard joint boot with 2 clamps to the drive shaft.
- (b) w/ Dynamic damper:
Temporarily install the dynamic damper with clamp to the drive shaft.
- (c) Temporarily install a new inboard joint boot with 2 clamps to the drive shaft.

4. INSTALL TRIPOD

- (a) 2C-TE and 2C-T engine:
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 drive shaft.

NOTICE:

Do not tap the roller.

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

5. INSTALL BOOT TO OUTBOARD JOINT

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

Grease capacity: (Color = Black)

85 – 105 g (3.00 – 3.70 oz.)

6. INSTALL INBOARD JOINT SHAFT TO OUTBOARD JOINT SHAFT

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

Grease capacity: (Color = Yellow)

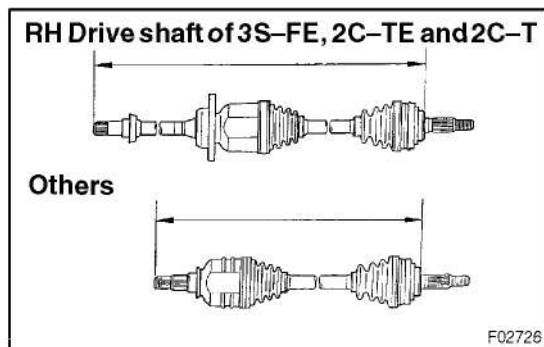
2C-TE and 2C-T engine:

120 – 130 g (4.23 – 4.59 oz.)

Others:

125.5 – 135.5 g (4.43 – 4.78 oz.)

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



7. 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:

4A-FE and 7A-FE engine:

RH	$859.30 \pm 2.0 \text{ mm}$ ($33.83 \pm 0.079 \text{ in.}$)
LH	$544.70 \pm 2.0 \text{ mm}$ ($21.44 \pm 0.079 \text{ in.}$)

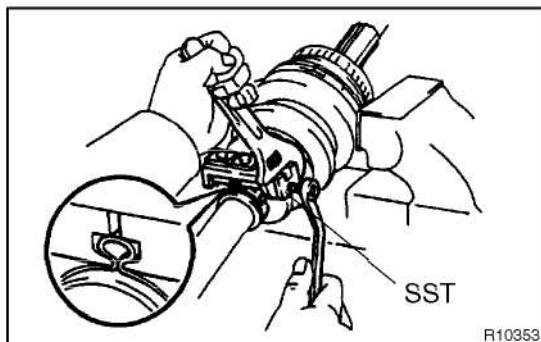
3S-FE and 7A-FE engine:

RH	$840.70 \pm 2.0 \text{ mm}$ ($33.10 \pm 0.079 \text{ in.}$)
LH	$554.00 \pm 2.0 \text{ mm}$ ($21.81 \pm 0.079 \text{ in.}$)

2C-TE and 2C-T engine:

RH	$844.25 \pm 2.0 \text{ mm}$ ($33.24 \pm 0.079 \text{ in.}$)
LH	$557.95 \pm 2.0 \text{ mm}$ ($21.97 \pm 0.079 \text{ in.}$)

- (c) Secure the clamps onto the boot.



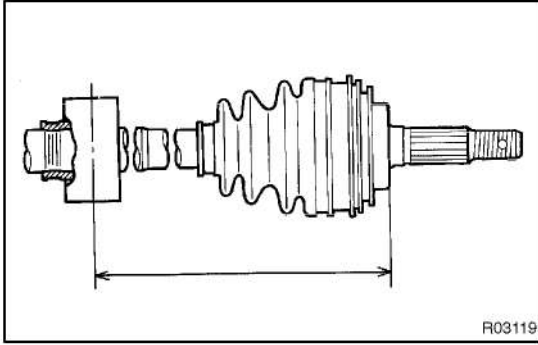
- (d) Place SST onto the clamps.
 SST 09521-24010
 (e) Tighten the SST so that the clamps are pinched.

NOTICE:

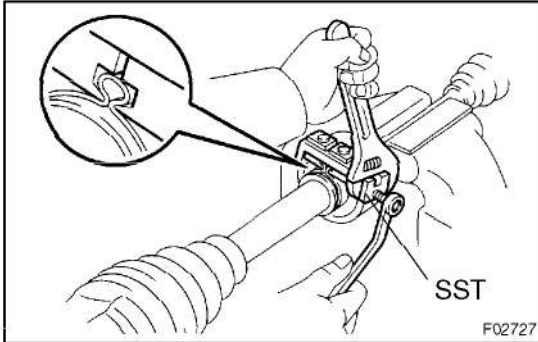
Do not overtighten the SST.

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

Clearance: 1.9 mm (0.075 in.) or less

**8. RH drive shaft of 4A-FE and 7A-FE engine:****ASSEMBLE DAMPER CLAMP**

- (a) Make sure that the dynamic damper is on the shaft groove.
- (b) Set the distance, as described below.
Distance: 432.1 ± 2.0 mm (17.012 ± 0.079 in.)
- (c) Secure the clamp onto the damper.



- (d) Place SST onto the clamps.
SST 09521-24010
- (e) Tighten the SST so that the clamps are pinched.

NOTICE:

Do not overtighten the SST.

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

Clearance: 1.9 mm (0.075 in.) or less

9. CHECK DRIVE SHAFT (See page SA-21)

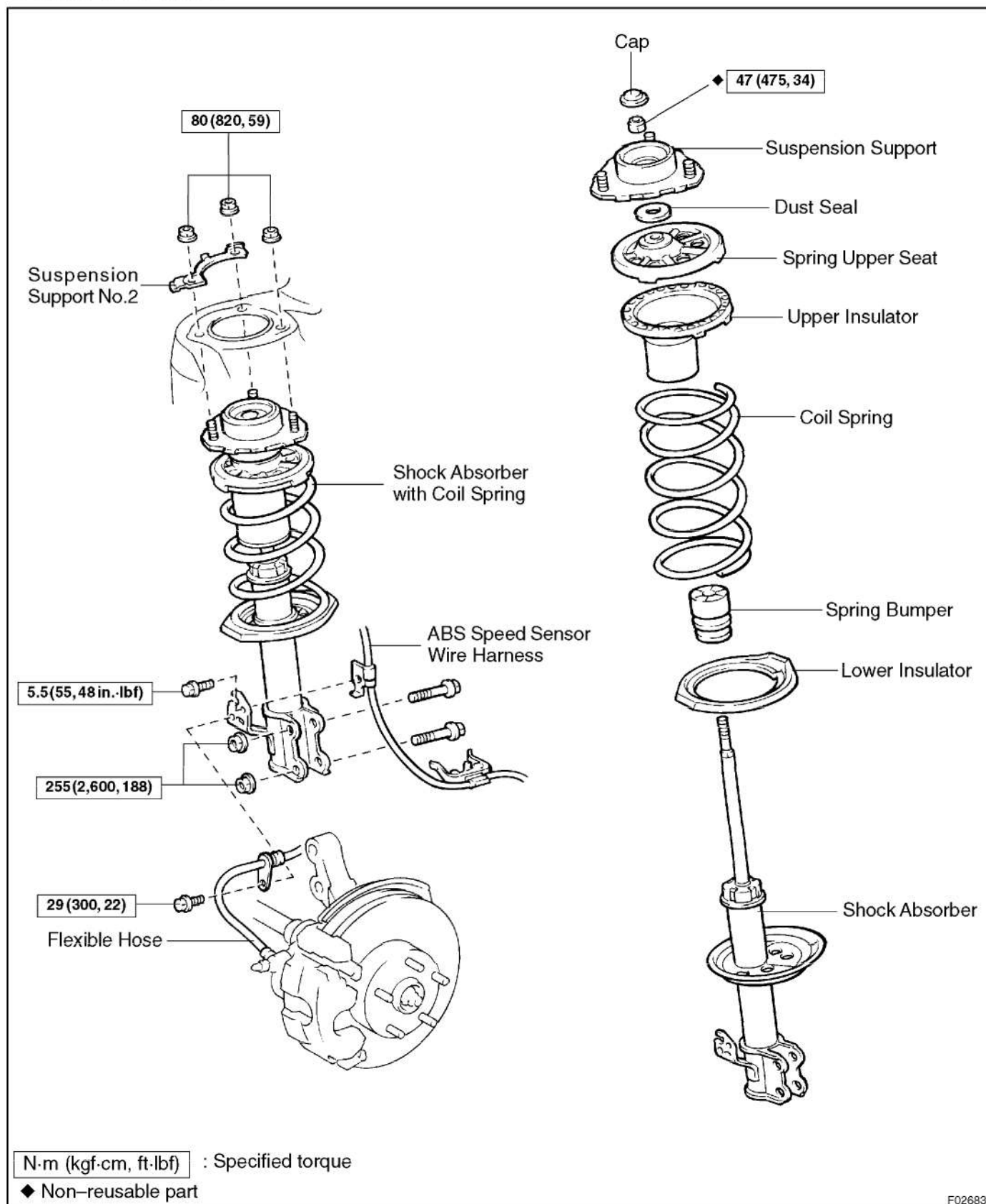
INSTALLATION

Installation is in the reverse order of removal (See page SA-19).

AFTER INSTALLATION, CHECK ABS SPEED SENSOR SIGNAL (See page DI-115) AND FRONT WHEEL ALIGNMENT (See page SA-4)

FRONT SHOCK ABSORBER COMPONENTS

SA10J-01



F02683

REMOVAL

1. REMOVE FRONT WHEEL

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

2. DISCONNECT ABS SPEED SENSOR WIRE HARNESS CLAMPS FROM SHOCK ABSORBER

Remove the bolt and disconnect the ABS speed sensor wire harness clamps.

Torque: 5.5 N·m (55 kgf·cm, 48 in·lbf)

3. DISCONNECT FLEXIBLE HOSE

Remove the bolt and disconnect the flexible hose from the shock absorber bracket.

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

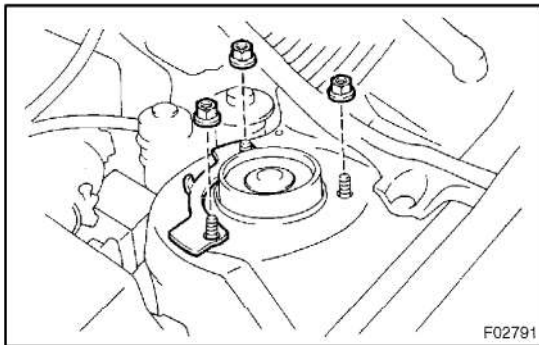
4. REMOVE SHOCK ABSORBER WITH COIL SPRING

(a) Loosen the 2 nuts on the lower side of shock absorber.

Torque: 255 N·m (2,600 kgf·cm, 188 ft·lbf)

HINT:

Do not remove the 2 bolts.



(b) Remove the 3 nuts and suspension support No.2 on the upper side of the shock absorber.

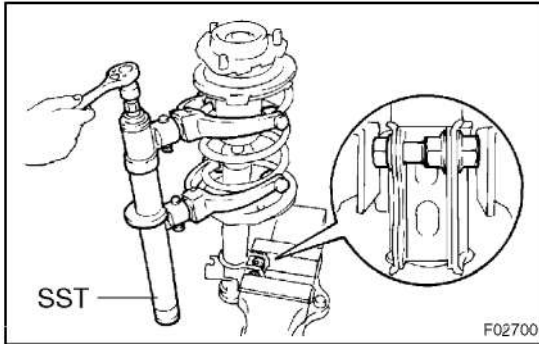
Torque: 80 N·m (820 kgf·cm, 59 ft·lbf)

(c) Remove the 2 nuts and bolts on the lower side of shock absorber.

HINT:

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

(d) Remove the shock absorber with coil spring.



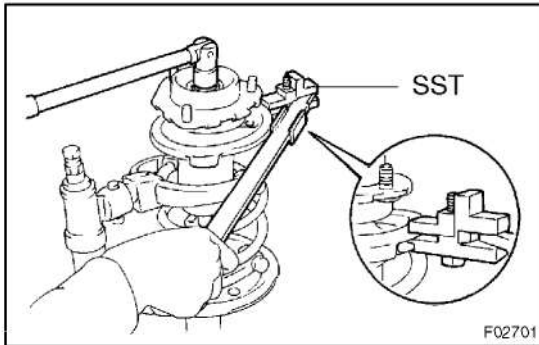
DISASSEMBLY

REMOVE COIL SPRING

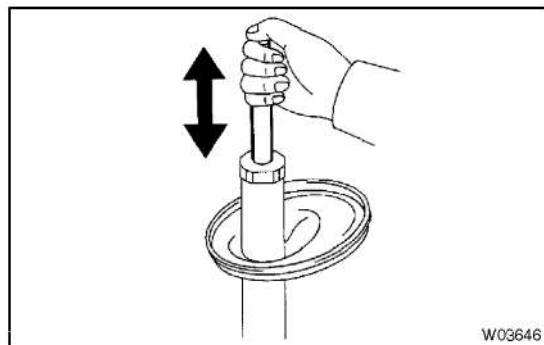
- (a) Install 2 nuts and a bolt to the bracket at the lower side of the shock absorber and secure it in a vise.
- (b) Using SST, compress the coil spring.
SST 09727-30021

NOTICE:

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



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



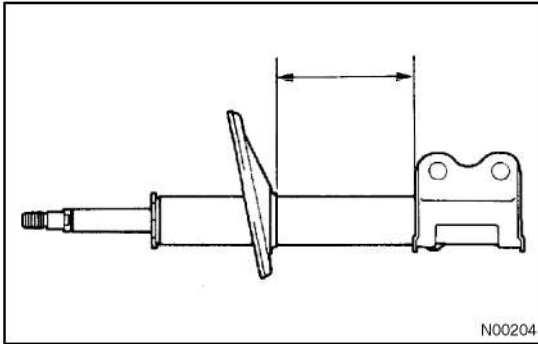
INSPECTION

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 disposing of the shock absorber, see DISPOSAL on page SA-33.



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

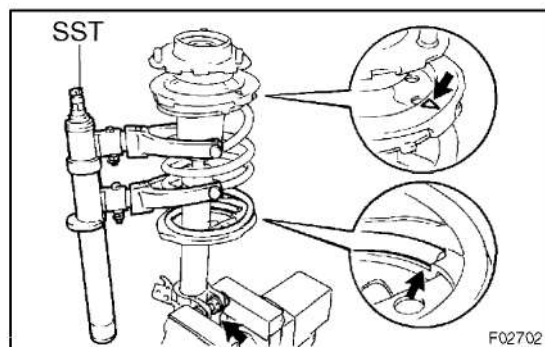
REASSEMBLY

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.



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

HINT:

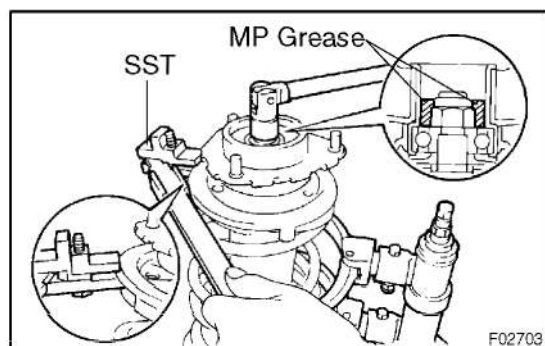
Fit the lower end of the coil spring into the gap of the spring lower seat.

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

- (a) Install the upper insulator.
- (b) Install the spring upper seat to the shock absorber with the mark facing to the outside of the vehicle.
- (c) Install the dust seal and suspension support.
- (d) Using SST to hold the spring upper seat, install a new nut.
SST 09729-22031

Torque: 47 N·m (475 kgf·cm, 34 ft·lbf)

- (e) Remove the SST from the coil spring.
SST 09727-30021
- (f) Pack MP grease into the suspension support.
- (g) Install the cap.



INSTALLATION

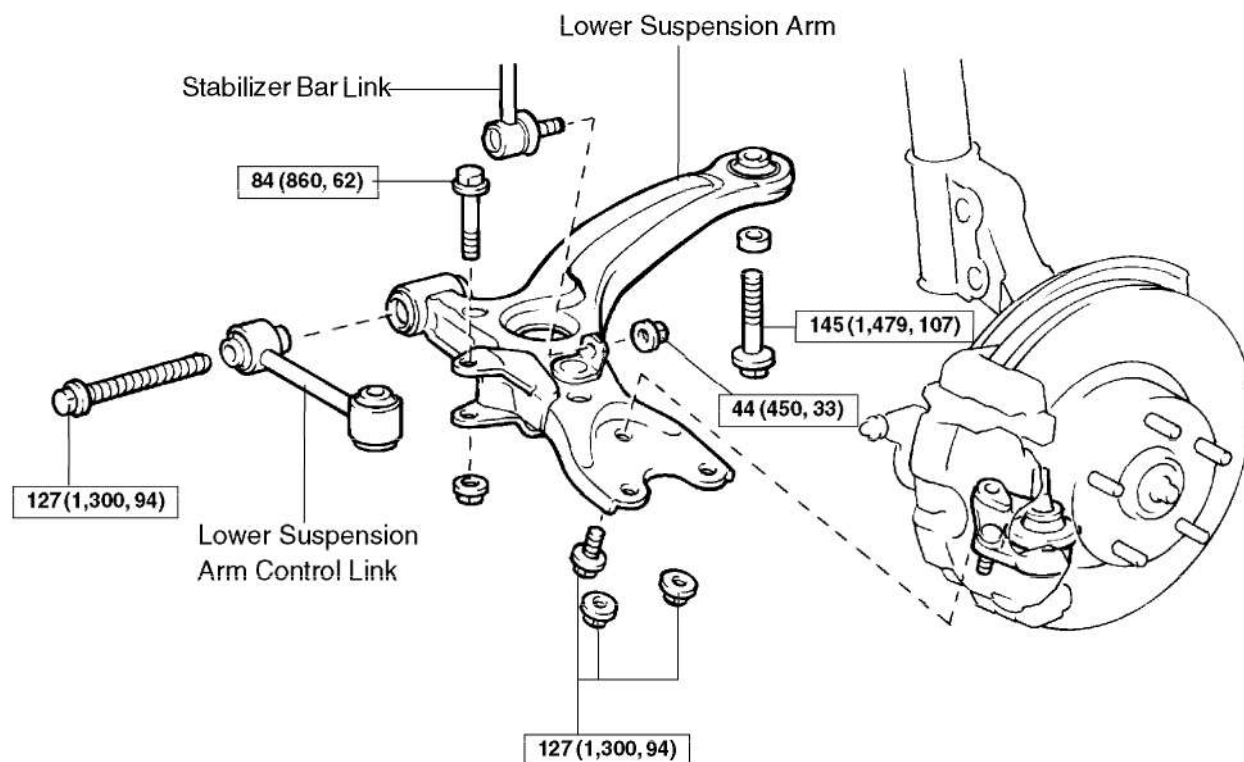
Installation is in the reverse order of removal (See page SA-30).

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

FRONT LOWER SUSPENSION ARM COMPONENTS

SA04K-02

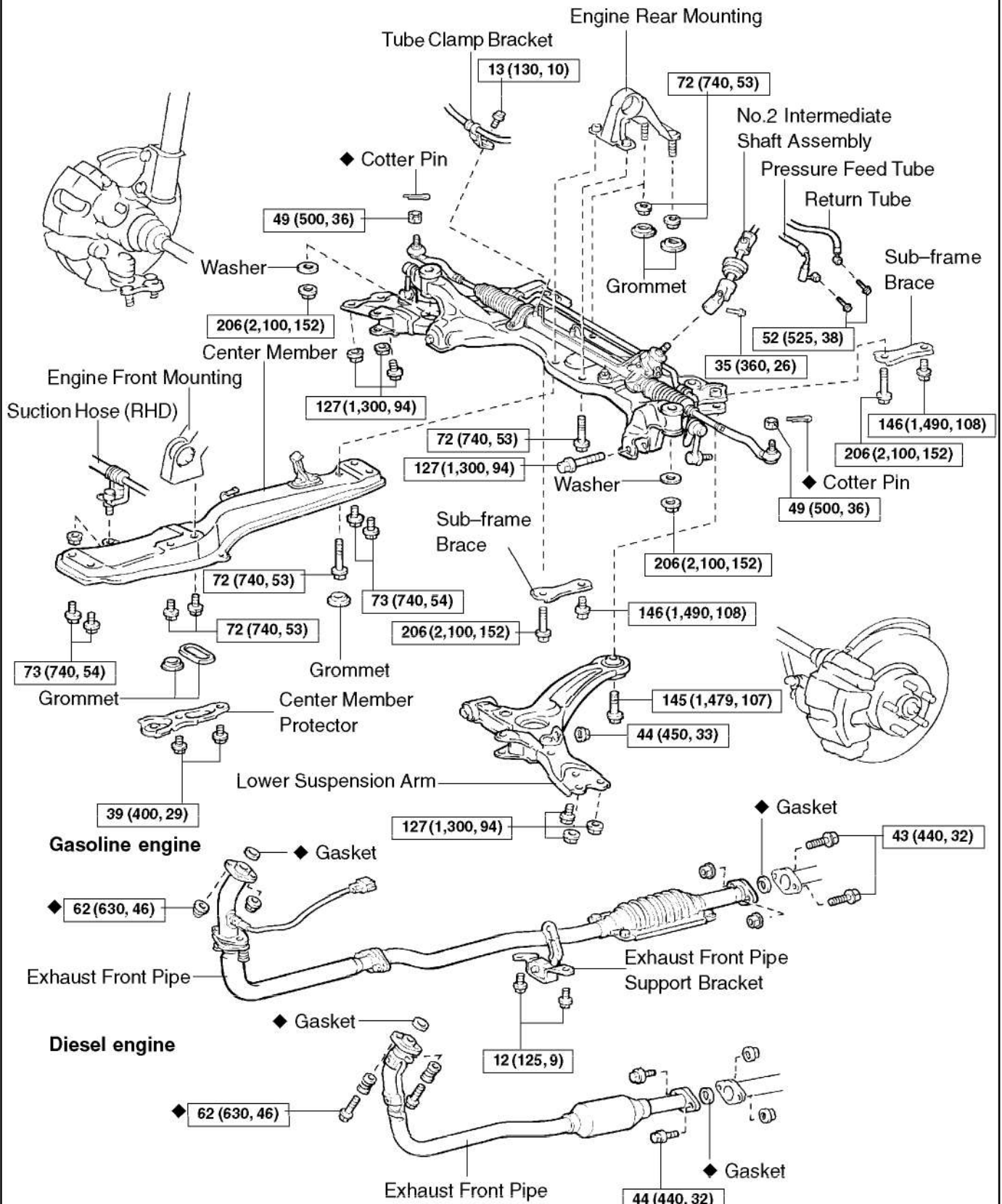
M/T and A/T RH Side



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

F02686

A/T LH Side



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

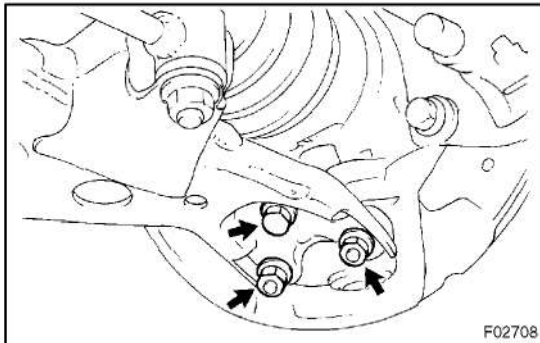
◆ Non-reusable part

REMOVAL

1. M/T and A/T RH Side:

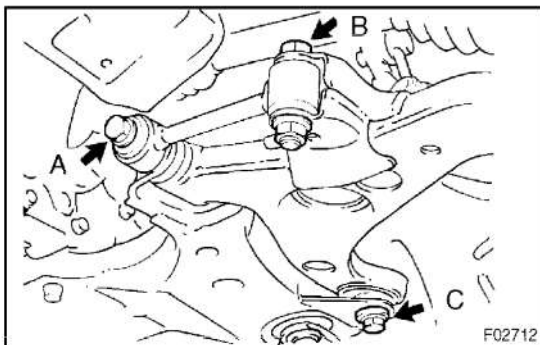
REMOVE LOWER SUSPENSION ARM

- (a) Remove the front wheel.
Torque: 103 N·m (1,050 kgf·cm, 76 ft·lbf)
- (b) Disconnect the stabilizer bar link from the lower suspension arm (See page SA-47).



- (c) Remove the bolt and 2 nuts, and disconnect the lower ball joint.

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



- (d) Remove the lower suspension arm control link and lower suspension arm.

- (1) Remove the 2 bolts, nut and lower suspension arm control link from the lower suspension arm.

Torque:

A: 127 N·m (1,300 kgf·cm, 94 ft·lbf)

B: 84 N·m (860 kgf·cm, 62 ft·lbf)

- (2) Remove the bolt and lower suspension arm.

Torque:

C: 145 N·m (1,479 kgf·cm, 107 ft·lbf)

2. A/T LH Side:

REMOVE LOWER SUSPENSION ARM

- (a) Remove the front wheels.
Torque: 103 N·m (1,050 kgf·cm, 76 ft·lbf)
- (b) Remove the engine under cover.
- (c) Remove the exhaust front pipe.

Torque:

Gasoline engine:

Exhaust front pipe x Exhaust manifold:

62 N·m (630 kgf·cm, 46 ft·lbf)

Exhaust front pipe support bracket x Suspension member:

12 N·m (125 kgf·cm, 9 ft·lbf)

Exhaust front pipe x Exhaust center pipe:

43 N·m (440 kgf·cm, 32 ft·lbf)

Diesel engine:

Exhaust front pipe x Exhaust manifold:

62 N·m (630 kgf·cm, 46 ft·lbf)

Exhaust front pipe x Exhaust center pipe:

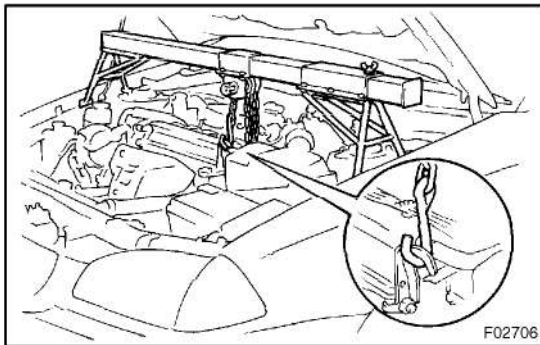
44 N·m (440 kgf·cm, 32 ft·lbf)

- (d) Disconnect the left and right tie rod ends from the steering knuckles (See page SA-11).
- (e) Disconnect the stabilizer bar link from the lower suspension arm (See page SA-47).
- (f) Disconnect the left and right lower suspension arms from the lower ball joints.

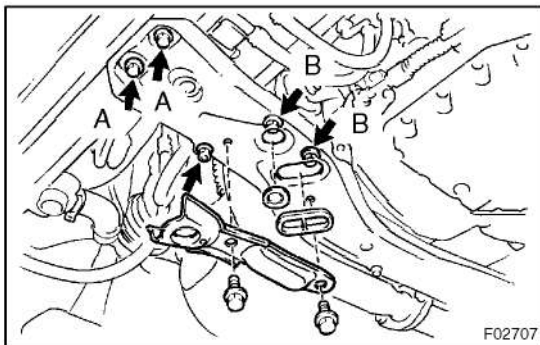
Remove the bolt and 2 nuts, and disconnect the lower ball joints.

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

- (g) Disconnect these parts: (See page SR-38)
 - No.2 intermediate shaft assembly
 - Pressure feed tube
 - Return tube
 - Tube clamp bracket



- (h) Support the engine.
Using an engine support fixture, support the engine.
- (i) Remove the center member and front suspension member.



- (1) Remove the 2 bolts and center member protector.

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

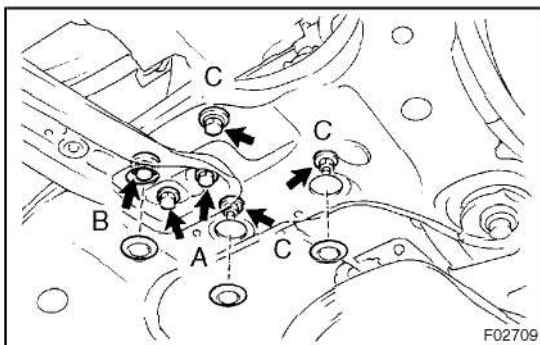
- (2) Remove the 2 grommets.
- (3) Remove the 4 bolts.

Torque:

A: 73 N·m (740 kgf·cm, 54 ft·lbf)

B: 72 N·m (740 kgf·cm, 53 ft·lbf)

- (4) RHD model:
Remove the nut.



- (5) Remove the grommet, 3 bolts and center member.

Torque:

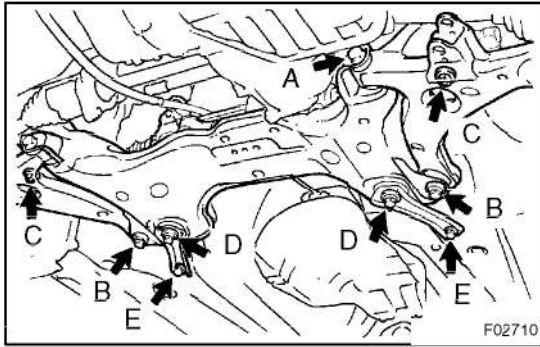
A: 73 N·m (740 kgf·cm, 54 ft·lbf)

B: 72 N·m (740 kgf·cm, 53 ft·lbf)

- (6) Remove the 2 grommets, bolt and 2 nuts.

Torque:

C: 72 N·m (740 kgf·cm, 53 ft·lbf)



- (7) Loosen the bolt on front side of lower suspension arm.

Torque:

A: 127 N·m (1,300 kgf·cm, 94 ft·lbf)

HINT:

- Do not remove the bolt.
- At the time of installation, after stabilizing the suspension, torque the bolt.

- (8) Loosen the bolt of the lower suspension arm.

Torque:

B: 145 N·m (1,479 kgf·cm, 107 ft·lbf)

HINT:

- Do not remove the bolt.
- At the time of installation, after stabilizing the suspension, torque the bolt.

- (9) Support the front suspension member.

- (10) Remove the 2 nuts and washers.

Torque:

C: 206 N·m (2,100 kgf·cm, 152 ft·lbf)

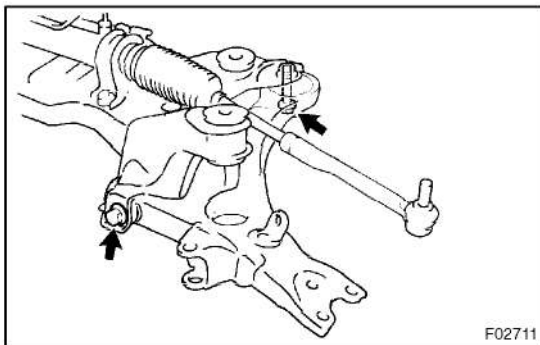
- (11) Remove the 4 bolts and 2 sub-frame braces.

Torque:

D: 206 N·m (2,100 kgf·cm, 152 ft·lbf)

E: 146 N·m (1,490 kgf·cm, 108 ft·lbf)

- (12) Lower the jack.



- (13) Remove the 2 bolts and lower suspension arm.

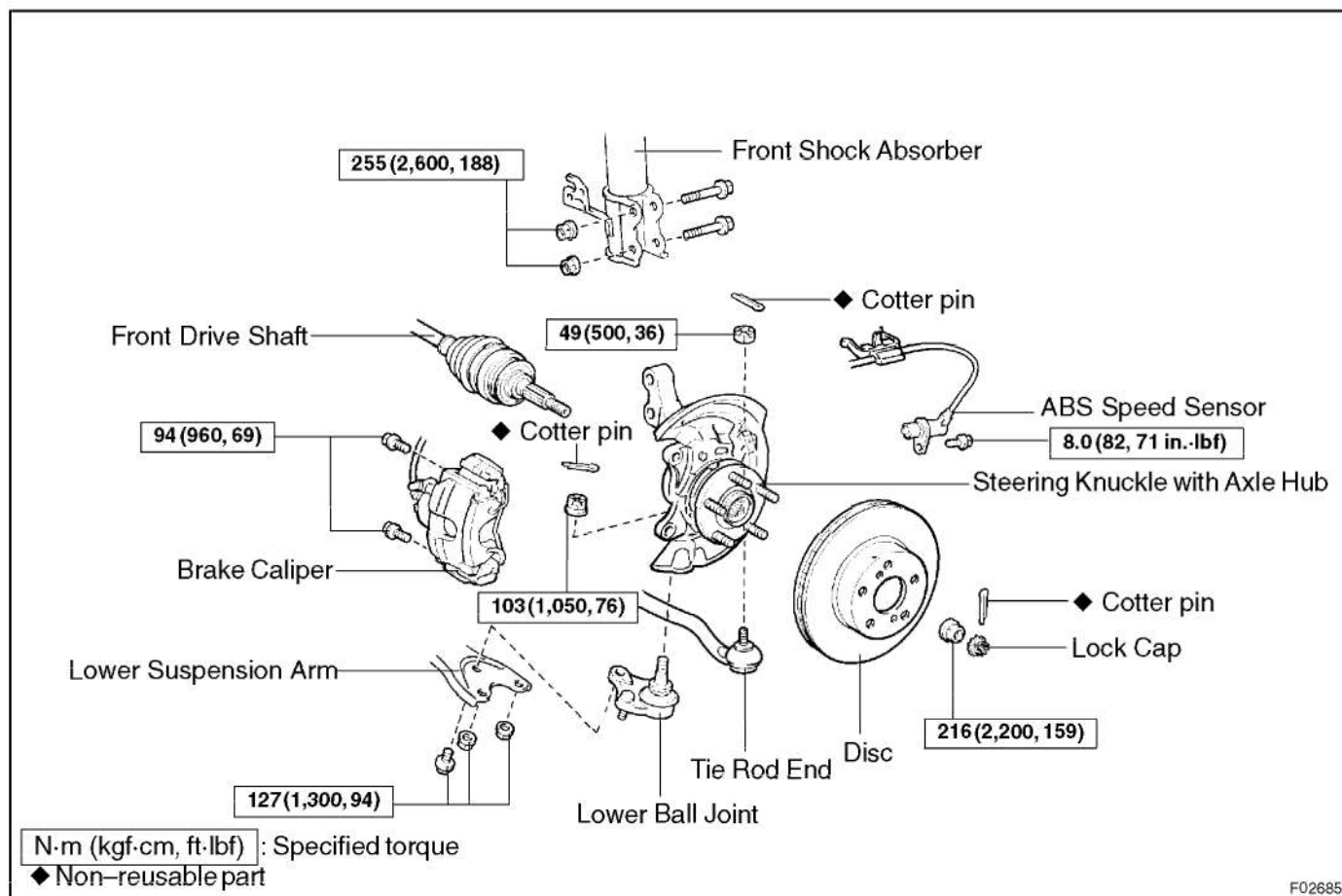
INSTALLATION

Installation is in the reverse order of removal (See page SA-38).

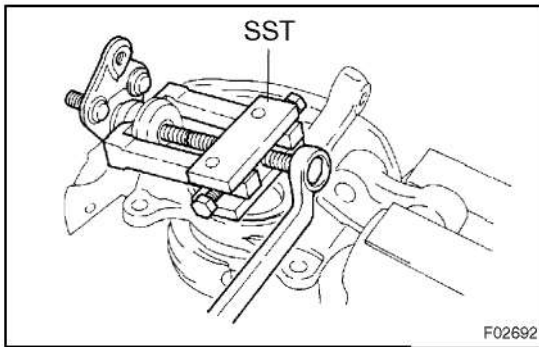
AFTER INSTALLATION, CHECK FRONT WHEEL ALIGNMENT (See page SA-4)

FRONT LOWER BALL JOINT COMPONENTS

SA07X-03

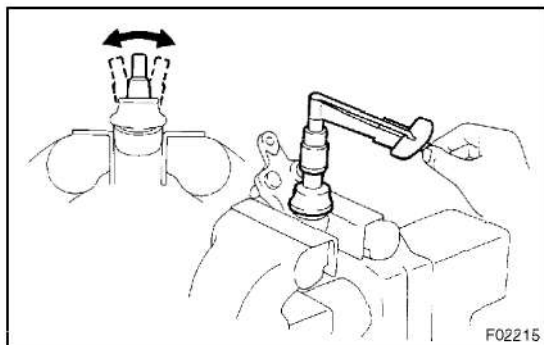


F02685



REMOVAL

1. **REMOVE STEERING KNUCKLE WITH AXLE HUB**
(See page SA-11)
2. **REMOVE LOWER BALL JOINT**
 - (a) Remove the cotter pin and nut.
 - (b) Using SST, remove the lower ball joint.
SST 09628-62011



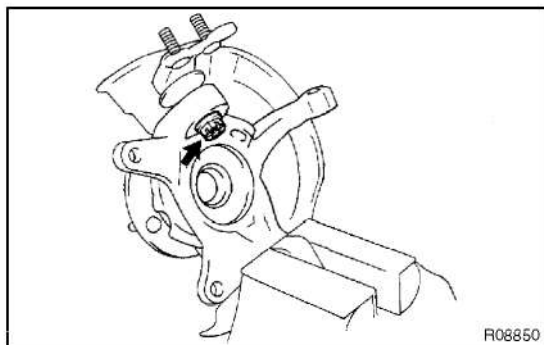
INSPECTION

INSPECT LOWER 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:

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

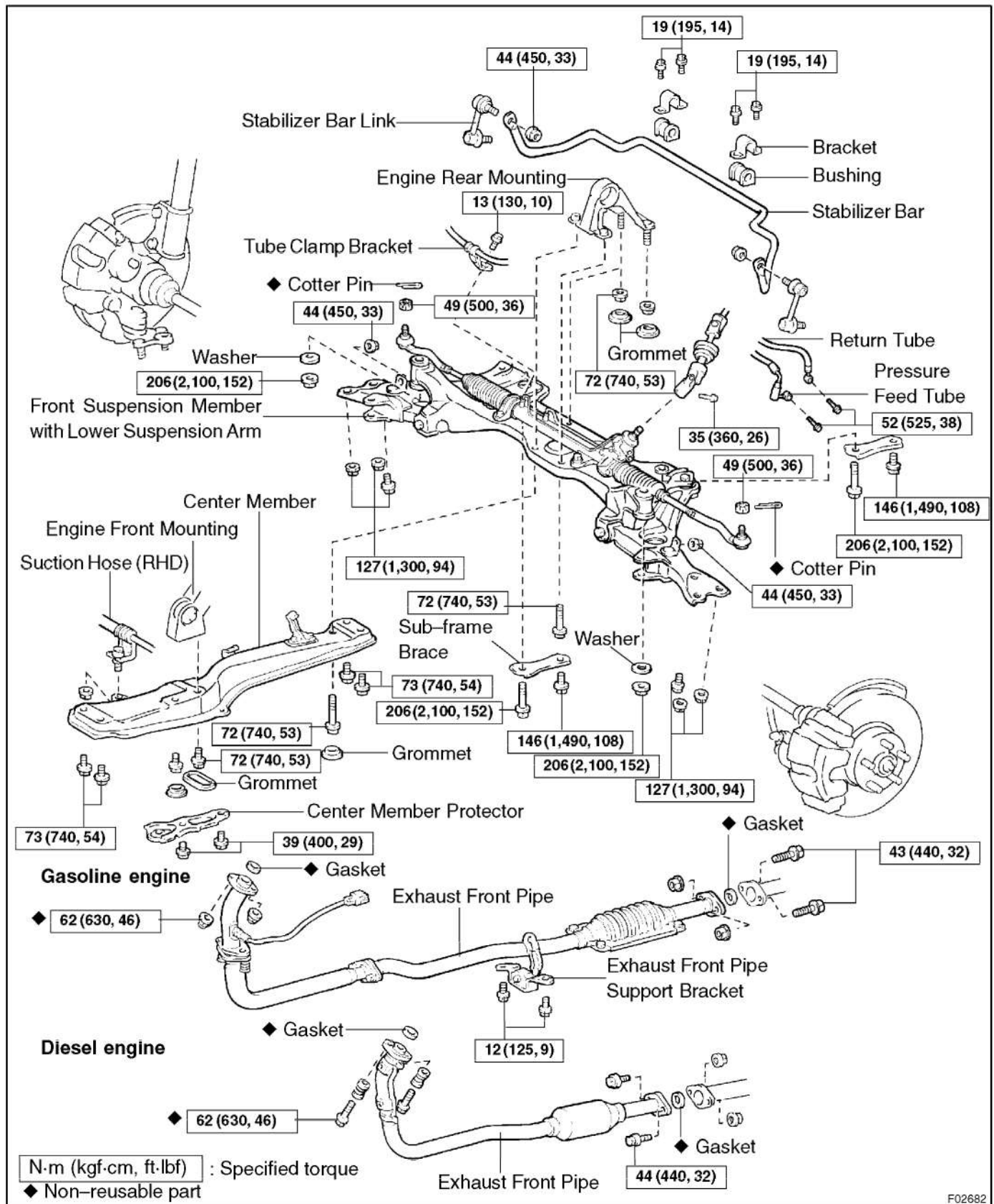


INSTALLATION

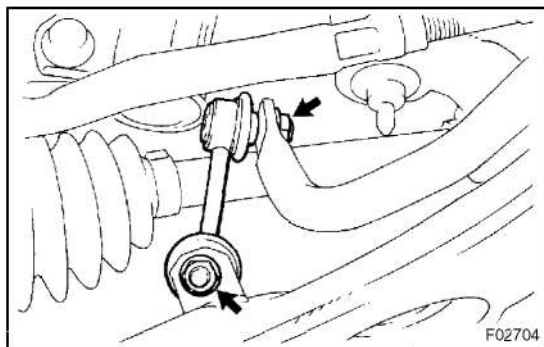
1. **INSTALL LOWER BALL JOINT**
 - (a) Install the lower ball joint and tighten the nut.
Torque: 103 N·m (1,050 kgf·cm, 76 ft·lbf)
 - (b) Install a new cotter pin.
2. **INSTALL STEERING KNUCKLE WITH AXLE HUB**
(See page SA-15)
3. **CHECK ABS SPEED SENSOR SIGNAL**
(See page DI-115)
4. **CHECK FRONT WHEEL ALIGNMENT**
(See page SA-4)

FRONT STABILIZER BAR COMPONENTS

SA10H-01



F02682



REMOVAL

1. REMOVE STABILIZER BAR LINKS

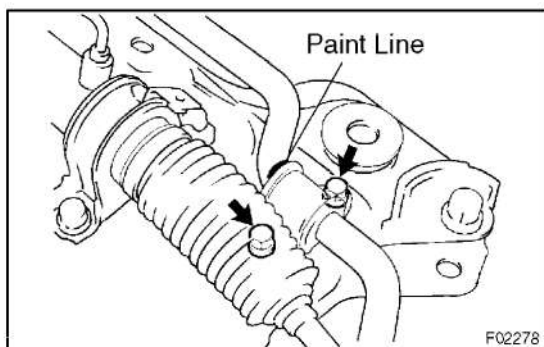
Remove the 4 nuts and 2 stabilizer bar links.

Torque: 44 N·m (450 kgf·cm, 33 ft·lbf)

HINT:

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

2. REMOVE FRONT SUSPENSION MEMBER WITH LOWER SUSPENSION ARM (See page SA-38)



3. REMOVE STABILIZER BAR

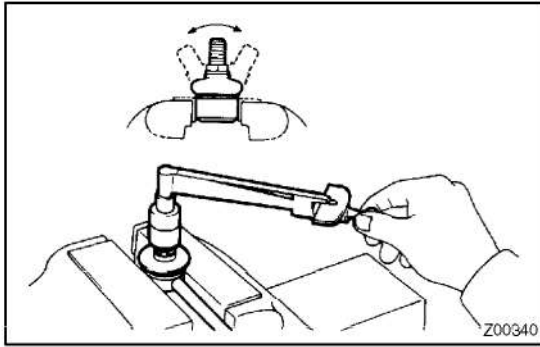
(a) Remove the 4 bolts, 2 brackets and bushings.

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

HINT:

At the time of installation, install the bushing to the outside of the paint line.

(b) Remove the stabilizer bar from the left hand side.



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)

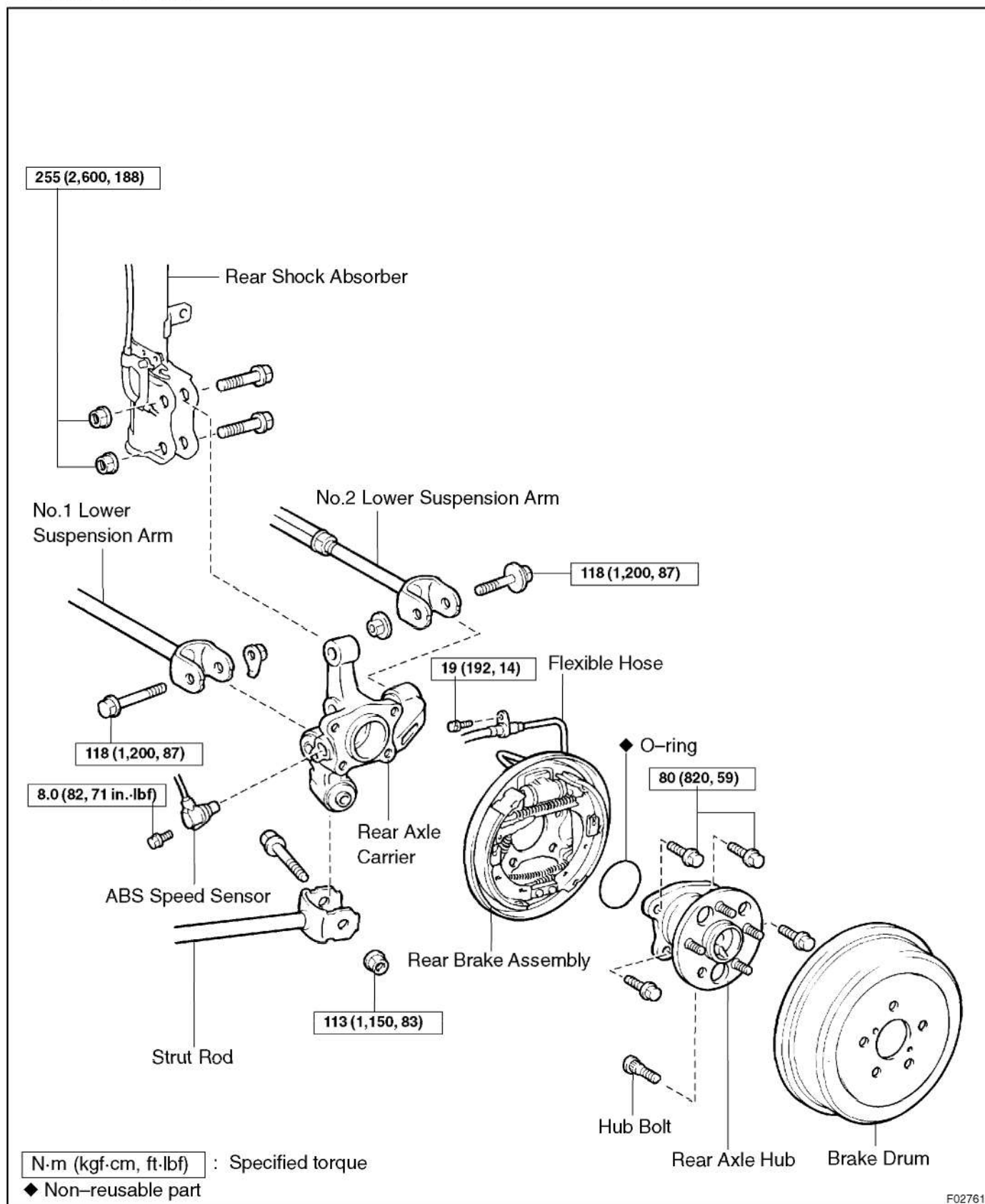
INSTALLATION

Installation is in the reverse order of removal (See page SA-47).

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

REAR AXLE HUB COMPONENTS

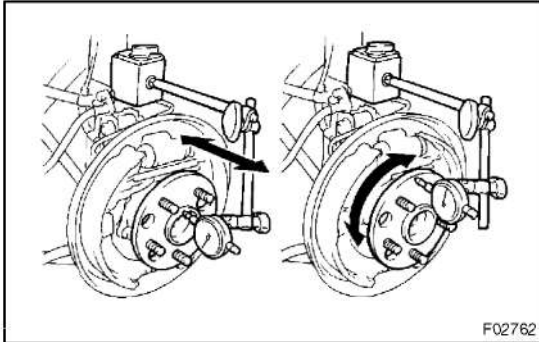
SA03B-02



F02761

REMOVAL

1. **REMOVE REAR WHEEL**
Torque: 103 N·m (1,050 kgf·cm, 76 ft·lbf)
2. **REMOVE BRAKE DRUM**



3. CHECK BEARING BACKLASH AND AXLE HUB DEVIATION

- (a) Using a dial indicator, check the backlash near the center of the axle hub.

Maximum: 0 mm (0 in.)

If the backlash exceeds the maximum, replace the axle hub with a 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.)

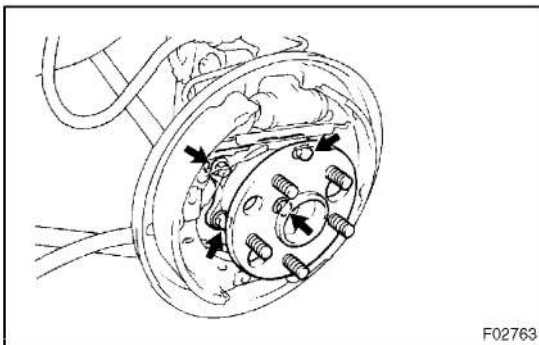
If the deviation exceeds the maximum, replace the axle hub with a bearing.

4. w/ ABS:

REMOVE ABS SPEED SENSOR

Remove the bolt and speed sensor.

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



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 the O-ring with MP grease.

6. DISCONNECT FLEXIBLE HOSE FROM SHOCK ABSORBER

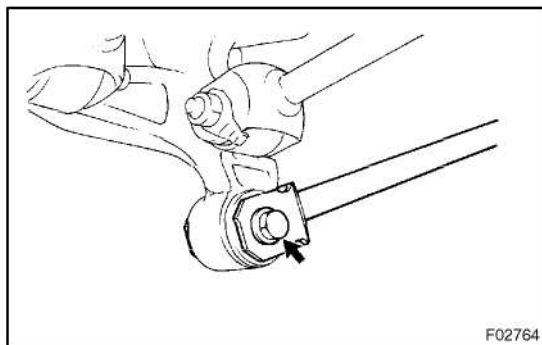
Remove the bolt, and disconnect the flexible hose from the shock absorber bracket.

Torque: 19 N·m (192 kgf·cm, 14 ft·lbf)

7. REMOVE REAR BRAKE ASSEMBLY FROM REAR AXLE CARRIER

HINT:

Support the rear brake assembly securely.

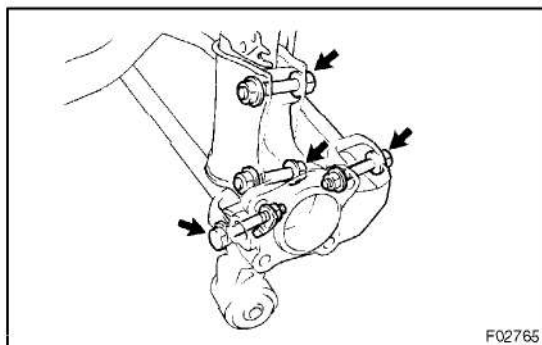
**8. REMOVE REAR AXLE CARRIER**

- (a) Remove the bolt and nut, and disconnect the strut rod.

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

HINT:

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



- (b) Loosen the 2 nuts on the lower side of the shock absorber.

HINT:

Do not remove the 2 nuts and bolts.

Torque: 255 N·m (2,600 kgf·cm, 188 ft·lbf)

- (c) Remove the 2 bolts and nuts, and disconnect the No.1 and No.2 lower suspension arms.

Torque: 118 N·m (1,200 kgf·cm, 87 ft·lbf)

HINT:

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

- (d) Remove the 2 nuts and bolts on the lower side of the shock absorber.

- (e) Remove the rear axle carrier.

INSTALLATION

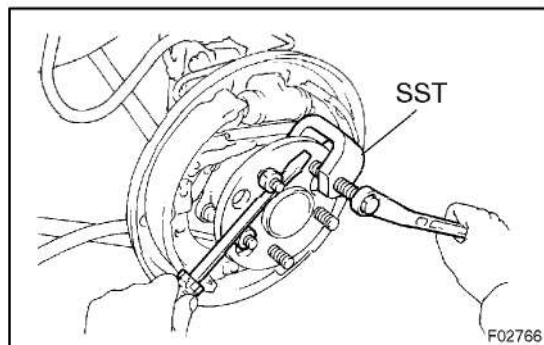
Installation is in the reverse order of removal (See page SA-51).

AFTER INSTALLATION, CHECK ABS SPEED SENSOR SIGNAL (See page DI-115) AND REAR WHEEL ALIGNMENT (See page SA-8)

REAR WHEEL HUB BOLT REPLACEMENT

SA03J-02

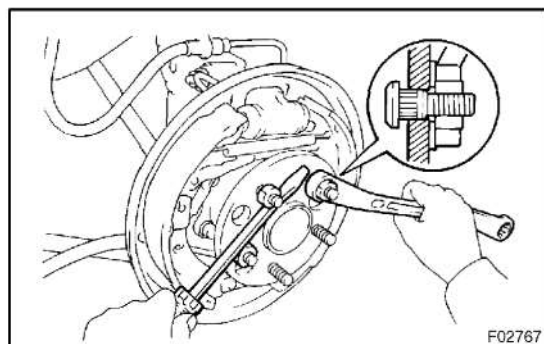
1. REMOVE REAR WHEEL
2. REMOVE REAR BRAKE DRUM



3. REMOVE HUB BOLT

Using SST, remove the hub bolt.

SST 09628-10011



4. INSTALL HUB BOLT

- (a) Install a washer and nut to the hub bolt, as shown in the illustration.
- (b) Install the hub bolt by torquing the nut.

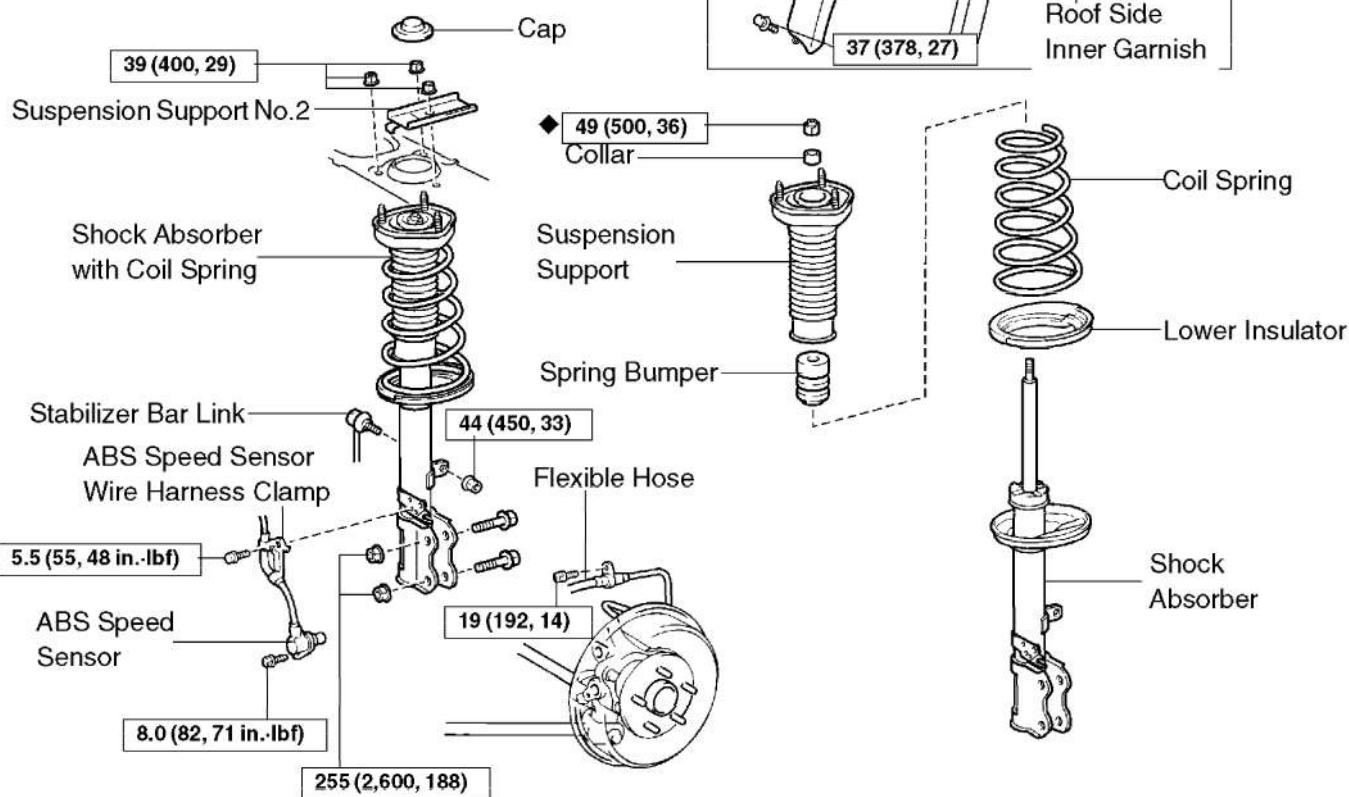
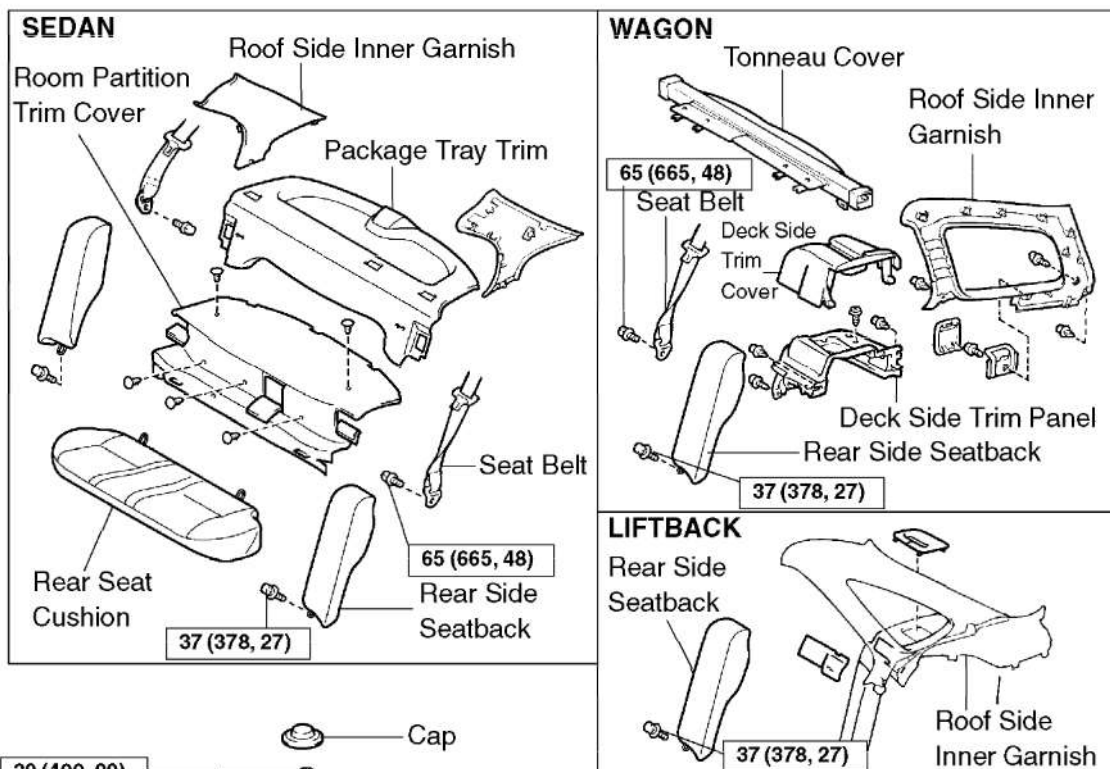
5. INSTALL REAR BRAKE DRUM

6. INSTALL REAR WHEEL

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

REAR SHOCK ABSORBER COMPONENTS

SA03Y-02



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

◆ Non-reusable part

F02768

REMOVAL

1. REMOVE THESE PARTS:

(a) Sedan:

- Rear seat cushion
- Room partition trim cover
- Package tray trim
- 2 roof side inner garnishes
- 2 rear side seatbacks

Torque: 37 N·m (378 kgf·cm, 27 ft·lbf)

- 2 seat belts

Torque: 65 N·m (665 kgf·cm, 48 ft·lbf)

(b) Wagon:

- Tonneau cover
- Roof side inner garnish
- Deck side trim cover
- Deck side trim panel
- Rear side seatback

Torque: 37 N·m (378 kgf·cm, 27 ft·lbf)

- Seat belt

Torque: 65 N·m (665 kgf·cm, 48 ft·lbf)

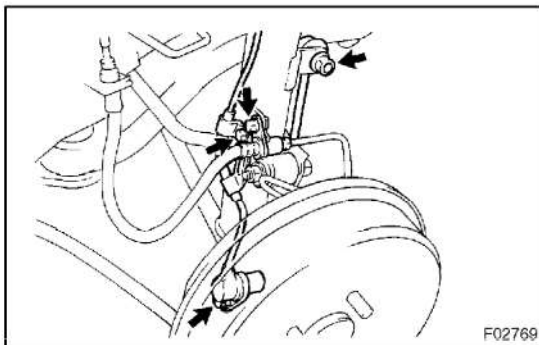
(c) Liftback:

- Roof side inner garnish
- Rear side seatback

Torque: 37 N·m (378 kgf·cm, 27 ft·lbf)

2. REMOVE REAR WHEEL

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



3. w/ ABS:

DISCONNECT ABS SPEED SENSOR AND HARNESS CLAMP

Remove the 2 bolts and ABS speed sensor from the axle carrier and shock absorber.

Torque:

ABS speed sensor set bolt:

8.0 N·m (82 kgf·cm, 71 in·lbf)

ABS speed sensor wire harness clamp set bolt:

5.5 N·m (55 kgf·cm, 48 in·lbf)

4. REMOVE FLEXIBLE HOSE FROM SHOCK ABSORBER

Remove the bolt, and disconnect the flexible hose from the shock absorber bracket.

Torque: 19 N·m (192 kgf·cm, 14 ft·lbf)

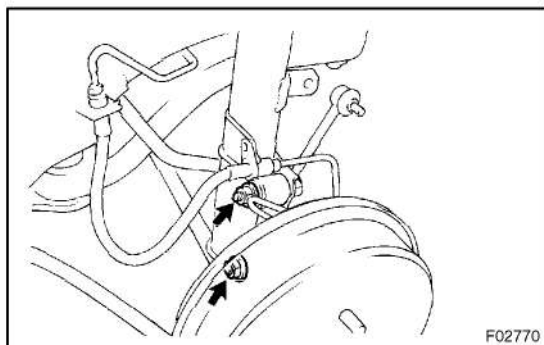
5. DISCONNECT STABILIZER BAR LINK FROM SHOCK ABSORBER

Remove the nut and disconnect the stabilizer bar link from the shock absorber.

Torque: 44 N·m (450 kgf·cm, 33 ft·lbf)

HINT:

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



6. REMOVE SHOCK ABSORBER WITH COIL SPRING

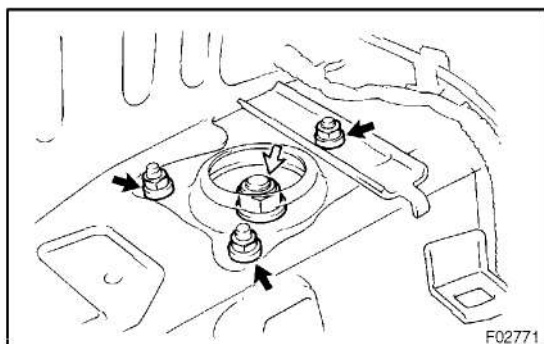
(a) Loosen the 2 nuts on the lower side of the shock absorber.

HINT:

Do not remove the 2 nuts.

Torque: 255 N·m (2,600 kgf·cm, 188 ft·lbf)

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



(c) Remove the cap from the suspension support.

(d) Loosen the suspension support center nut.

NOTICE:

Do not remove the nut.

HINT:

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

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)

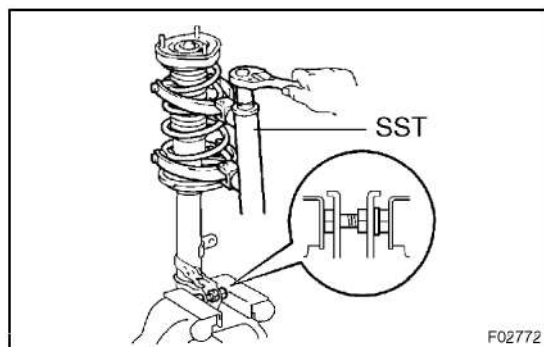
(f) Remove the suspension support No.2 from the suspension support.

(g) Lower the rear axle carrier and remove the 2 nuts and bolts on the lower side of the shock absorber.

HINT:

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

(h) Remove the shock absorber with the coil spring.



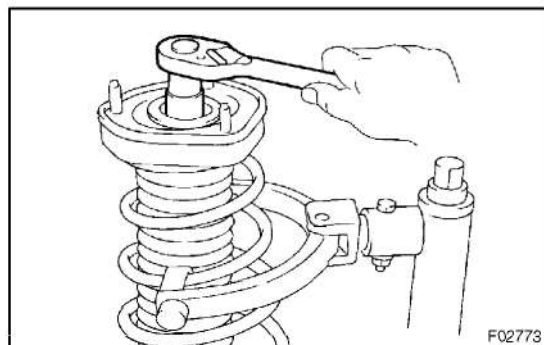
DISASSEMBLY

REMOVE COIL SPRING

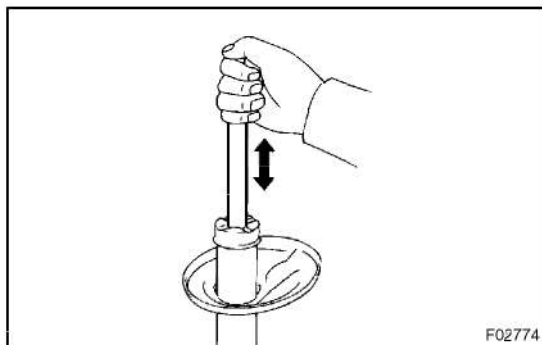
- (a) Install 2 nuts and a bolt to the bracket at the lower part of the shock absorber, and secure it in a vise.
- (b) Using SST, compress the coil spring.
SST 09727-30021

NOTICE:

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



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



F02774

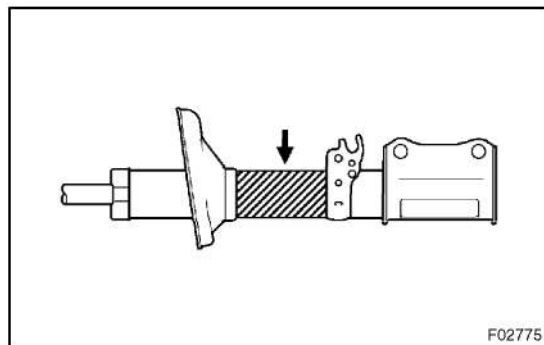
INSPECTION

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 disposing of the shock absorber, see DISPOSAL on page SA-60.



DISPOSAL

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

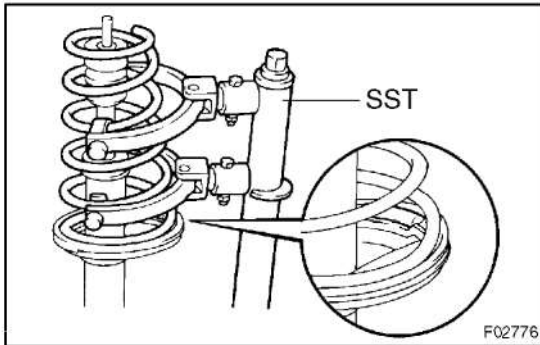
Using a drill, make a hole in the cylinder, as shown in the illustration to discharge the gas inside.

CAUTION:

The discharging 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

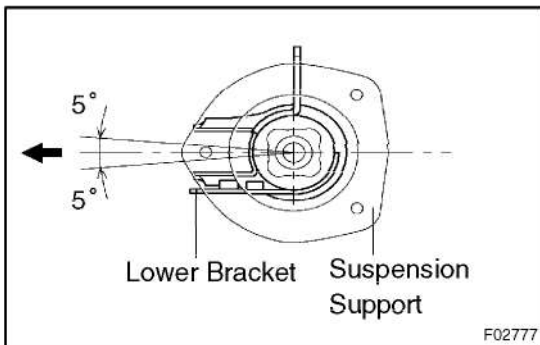
NOTICE:

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

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

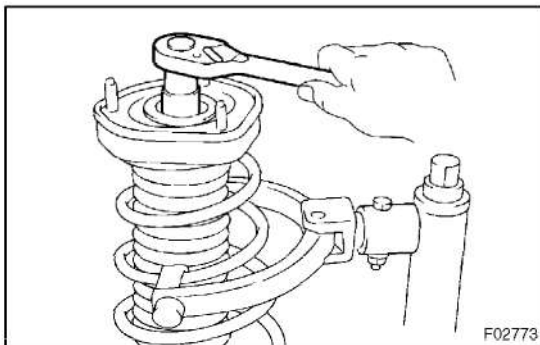
HINT:

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



4. INSTALL SUSPENSION SUPPORT

- (a) Align the suspension support with the shock absorber lower bracket, as shown in the illustration.



- (b) Install the collar to the piston rod.
- (c) Temporarily install a new nut.
- (d) Remove the SST.
SST 09727-30021

HINT:

After removing SST, recheck the direction of the suspension support.

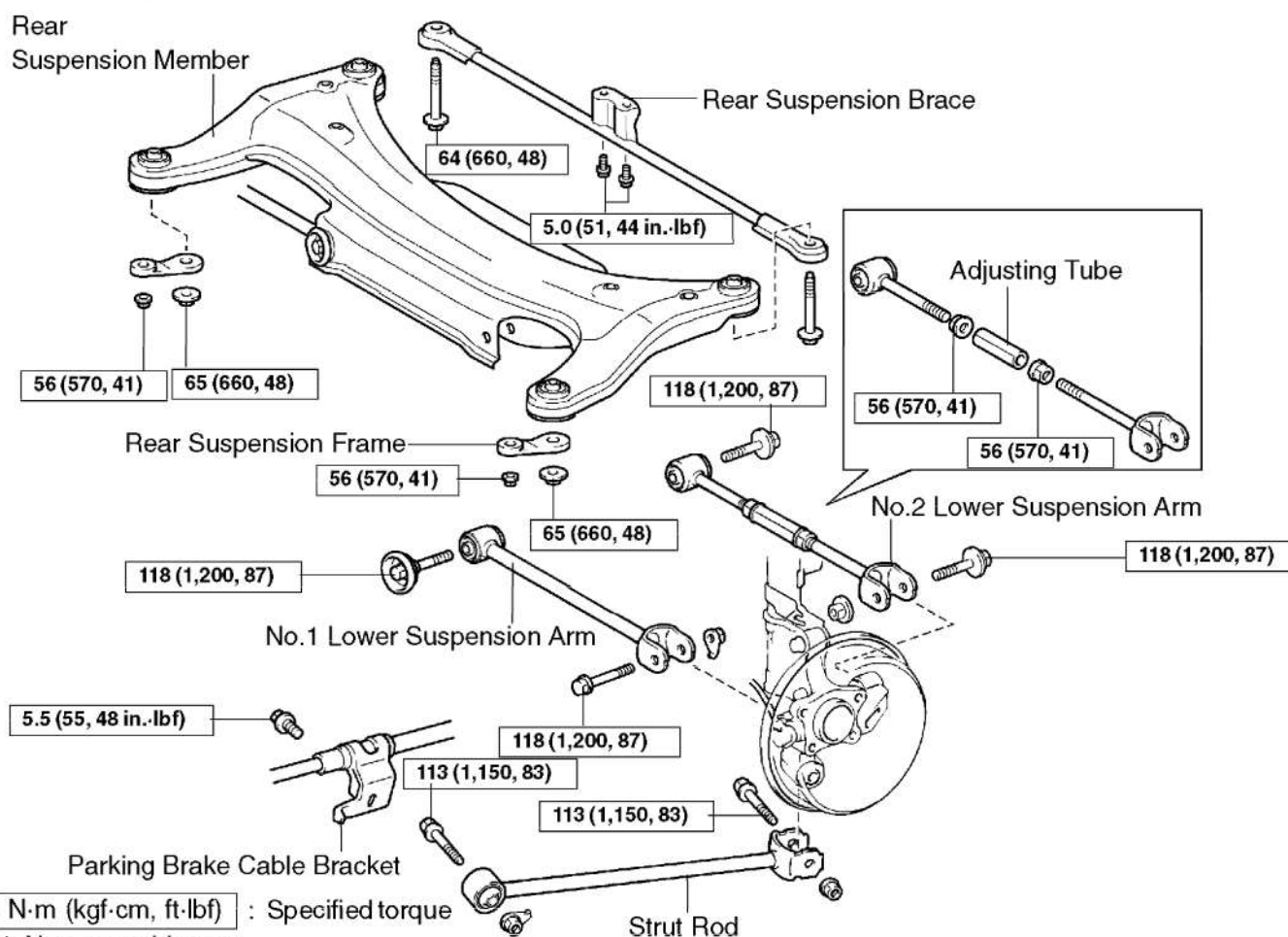
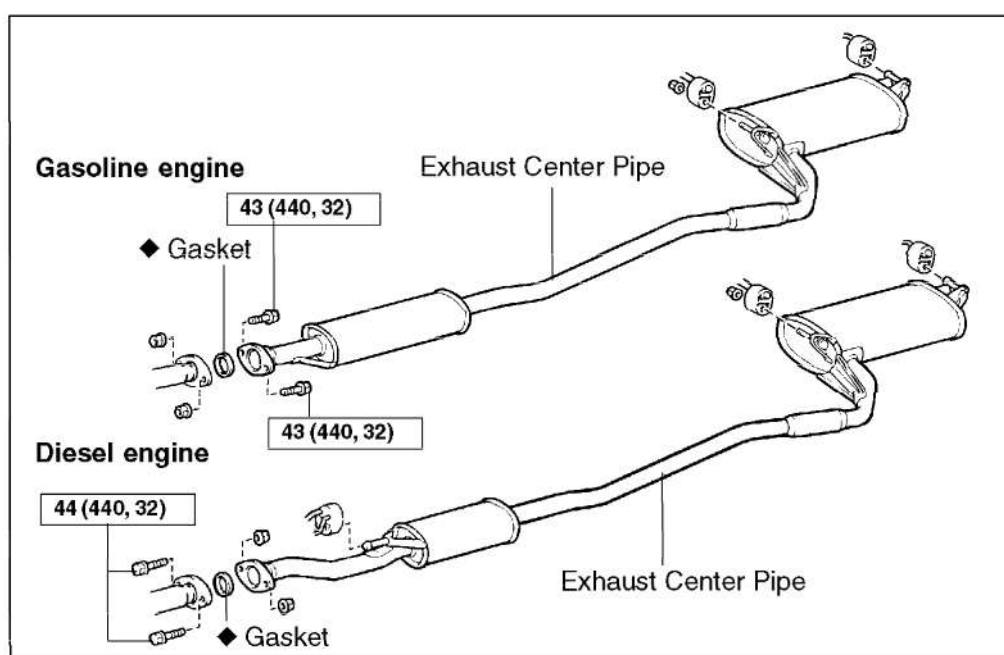
INSTALLATION

Installation is in the reverse order of removal (See page SA-56).

AFTER INSTALLATION, CHECK ABS SPEED SENSOR SIGNAL (See page DI-115) AND REAR WHEEL ALIGNMENT (See page SA-8)

REAR LOWER SUSPENSION ARM AND STRUT ROD COMPONENTS

SA042-02



F02778

REMOVAL

1. REMOVE REAR WHEEL

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

2. DISCONNECT EXHAUST CENTER PIPE

Torque:

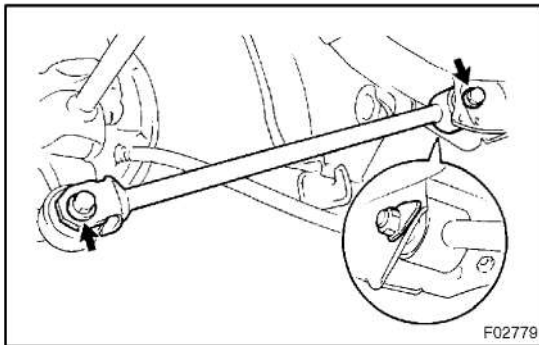
Gasoline Engine: 43 N·m (440 kgf·cm, 32 ft·lbf)

Diesel Engine: 44 N·m (440 kgf·cm, 32 ft·lbf)

3. DISCONNECT PARKING BRAKE CABLE BRACKET

Remove the bolt and disconnect the parking brake bracket.

Torque: 5.5 N·m (55 kgf·cm, 48 in·lbf)



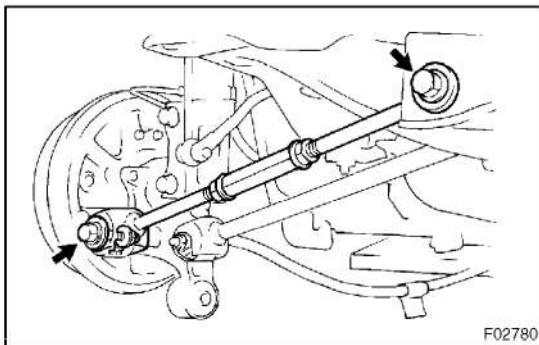
4. REMOVE STRUT ROD

Remove the 2 bolts, nuts and strut rod.

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

HINT:

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



5. REMOVE NO.2 LOWER SUSPENSION ARM

- (a) Remove the bolt and disconnect the No.2 lower suspension arm from the rear suspension member.

Torque: 118 N·m (1,200 kgf·cm, 87 ft·lbf)

HINT:

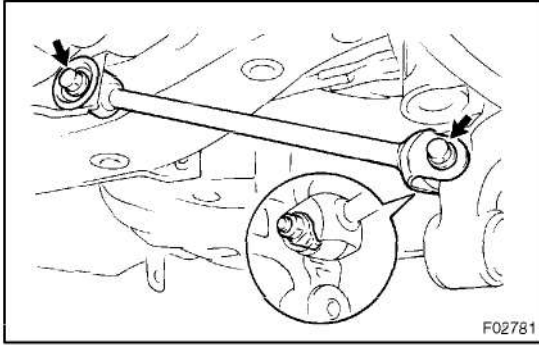
At the time of installation, after stabilizing the suspension, torque the bolt.

- (b) Remove the bolt, nut and No.2 lower suspension arm from the axle carrier.

Torque: 118 N·m (1,200 kgf·cm, 87 ft·lbf)

HINT:

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



6. REMOVE NO.1 LOWER SUSPENSION ARM

- (a) Remove the bolt and nut, and disconnect the No.1 lower suspension arm from the axle carrier.

Torque: 118 N·m (1,200 kgf·cm, 87 ft·lbf)

HINT:

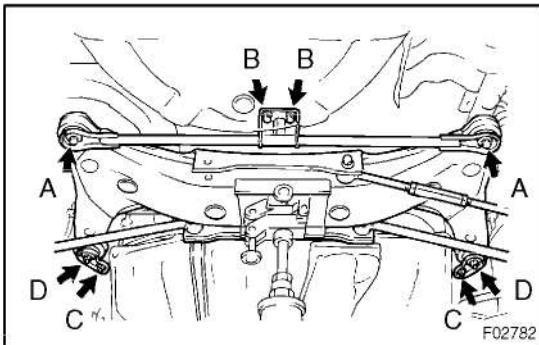
At the time of installation, after stabilizing the suspension, torque the bolt.

- (b) Loosen the bolt on the rear suspension member side of the No.1 lower suspension arm.

Torque: 118 N·m (1,200 kgf·cm, 87 ft·lbf)

HINT:

- Do not remove the bolt.
- At the time of installation, after stabilizing the suspension, torque the bolt.



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

- (d) Remove the 4 bolts and rear suspension brace.

Torque:

A: 64 N·m (660 kgf·cm, 48 ft·lbf)

B: 5.0 N·m (51 kgf·cm, 44 in·lbf)

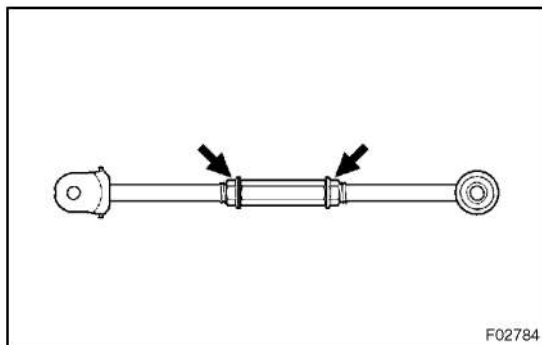
- (e) Remove the 4 nuts, 2 rear suspension frames and rear suspension member.

Torque:

C: 56 N·m (570 kgf·cm, 41 ft·lbf)

D: 65 N·m (660 kgf·cm, 48 ft·lbf)

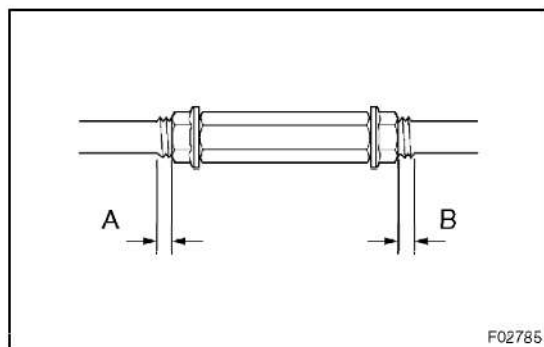
- (f) Lower the rear suspension member, remove the bolt and No.1 lower suspension arm.



DISASSEMBLY

DISASSEMBLE NO.2 LOWER SUSPENSION ARM

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



REASSEMBLY

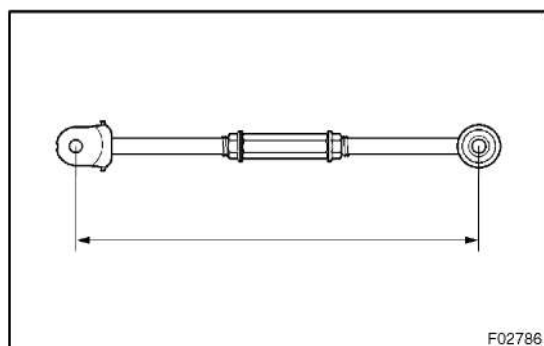
ASSEMBLE NO.2 LOWER SUSPENSION ARM

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

HINT:

When assembling the No.2 lower suspension arm, try to make sure that the lengths of A and B shown in the illustration are the same.

Maximum difference: 3 mm (0.12 in.)



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

Arm length: 420 ± 1.5 mm (16.535 ± 0.059 in.)

- Temporarily tighten the 2 lock nuts.

HINT:

After adjusting the rear wheel alignment, torque the lock nuts (See page SA-8).

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

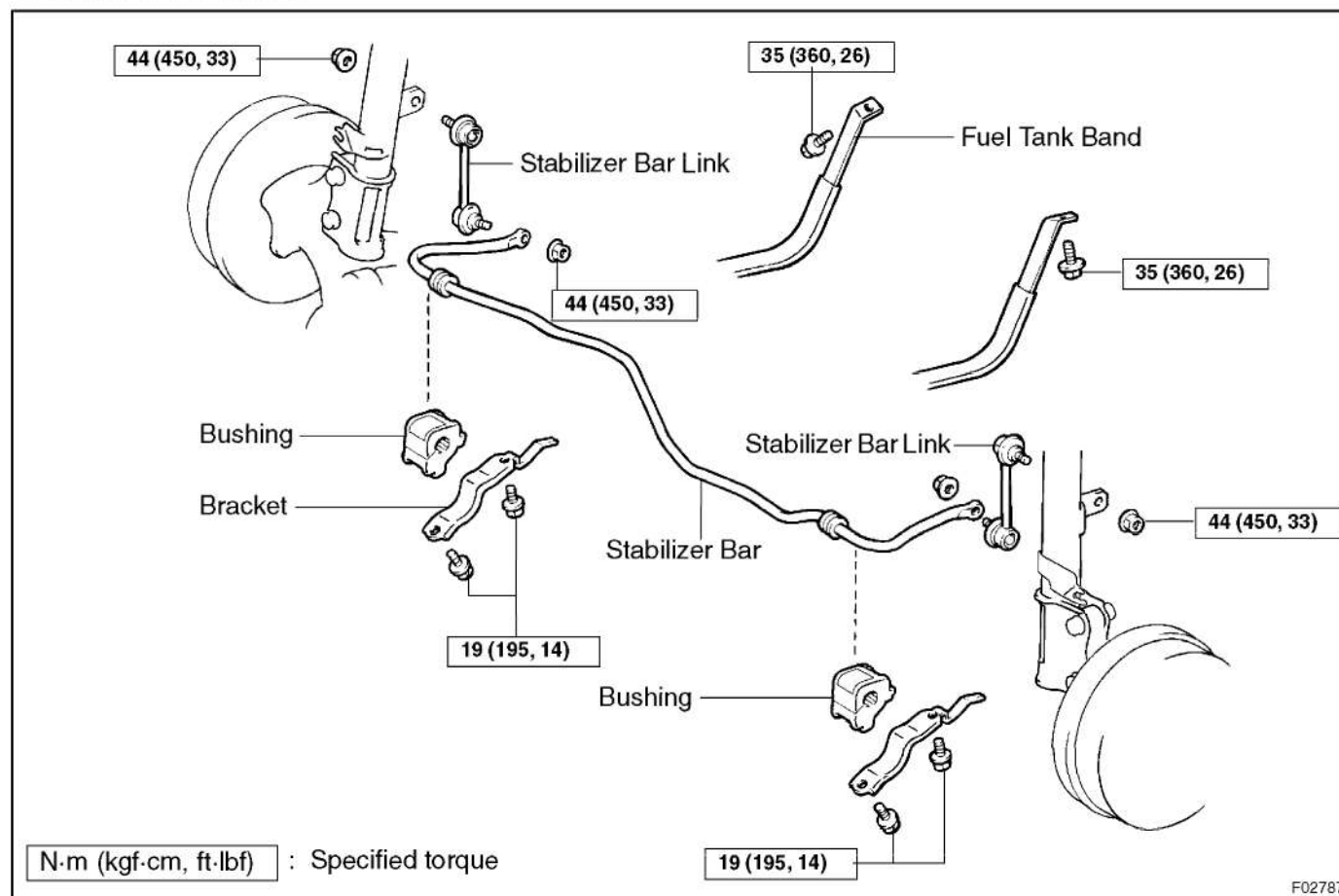
INSTALLATION

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

AFTER INSTALLATION, CHECK REAR WHEEL ALIGNMENT (See page SA-8)

REAR STABILIZER BAR COMPONENTS

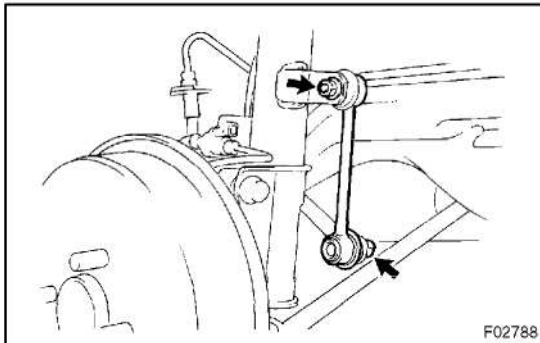
SA04A-02



REMOVAL

1. REMOVE REAR WHEELS

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



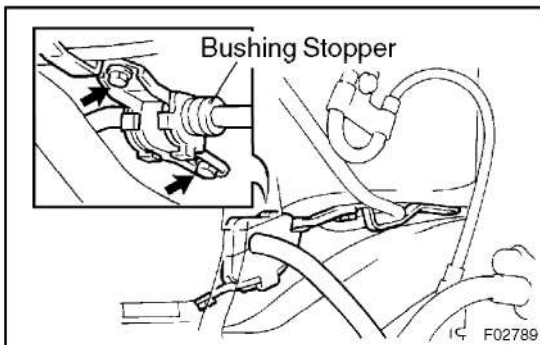
2. REMOVE LEFT AND RIGHT STABILIZER BAR LINKS

Remove the 4 nuts and 2 stabilizer bar links.

HINT:

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

Torque: 44 N·m (450 kgf·cm, 33 ft·lbf)



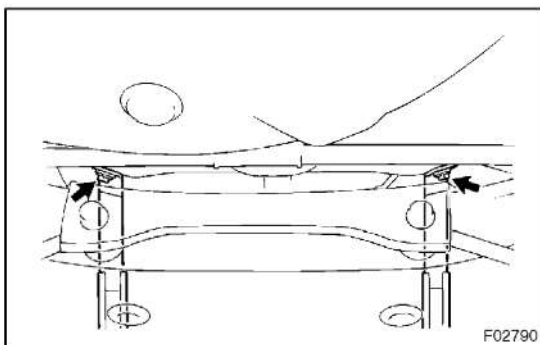
3. REMOVE LEFT AND RIGHT STABILIZER BAR BRACKETS AND BUSHINGS

Remove the 4 bolts, 2 brackets and bushings from the stabilizer bar.

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

HINT:

At the time of installation, install the bushing to the portion outside of the bushing stopper.



4. DISCONNECT FUEL TANK BAND FROM BODY

(a) Support the fuel tank with a jack.

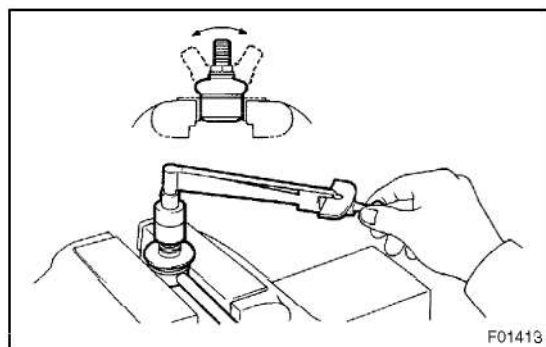
(b) Remove the 2 bolts and disconnect the LH and RH fuel tank bands.

Torque: 35 N·m (360 kgf·cm, 26 ft·lbf)

(c) Lower the jack.

5. REMOVE STABILIZER BAR

Remove the stabilizer bar from the LH side.



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 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)

INSTALLATION

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