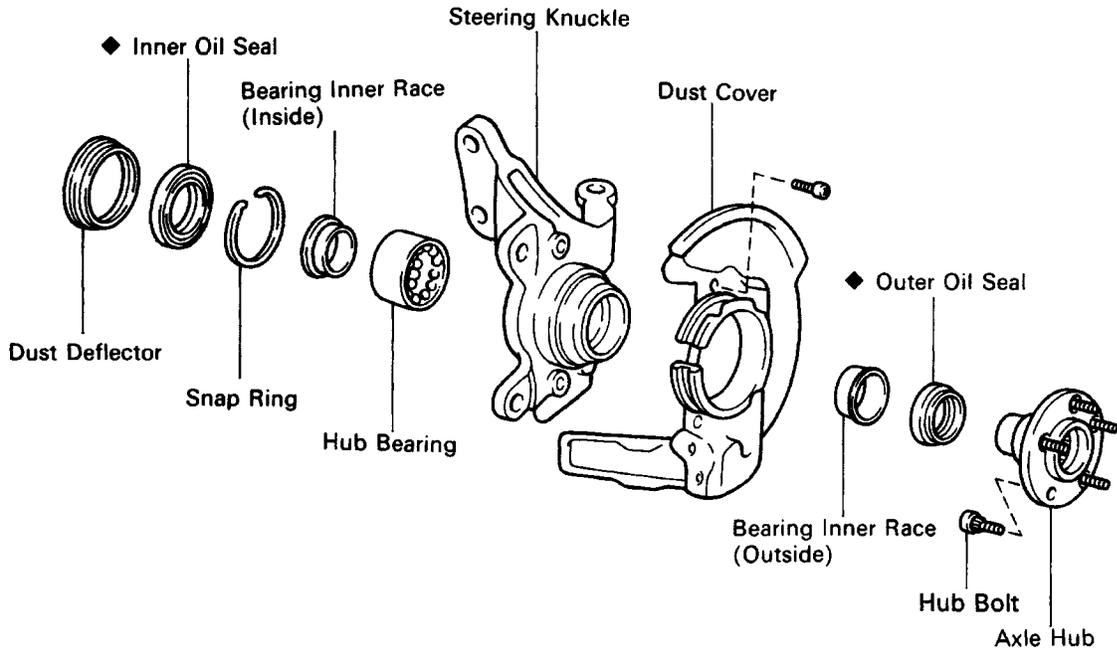
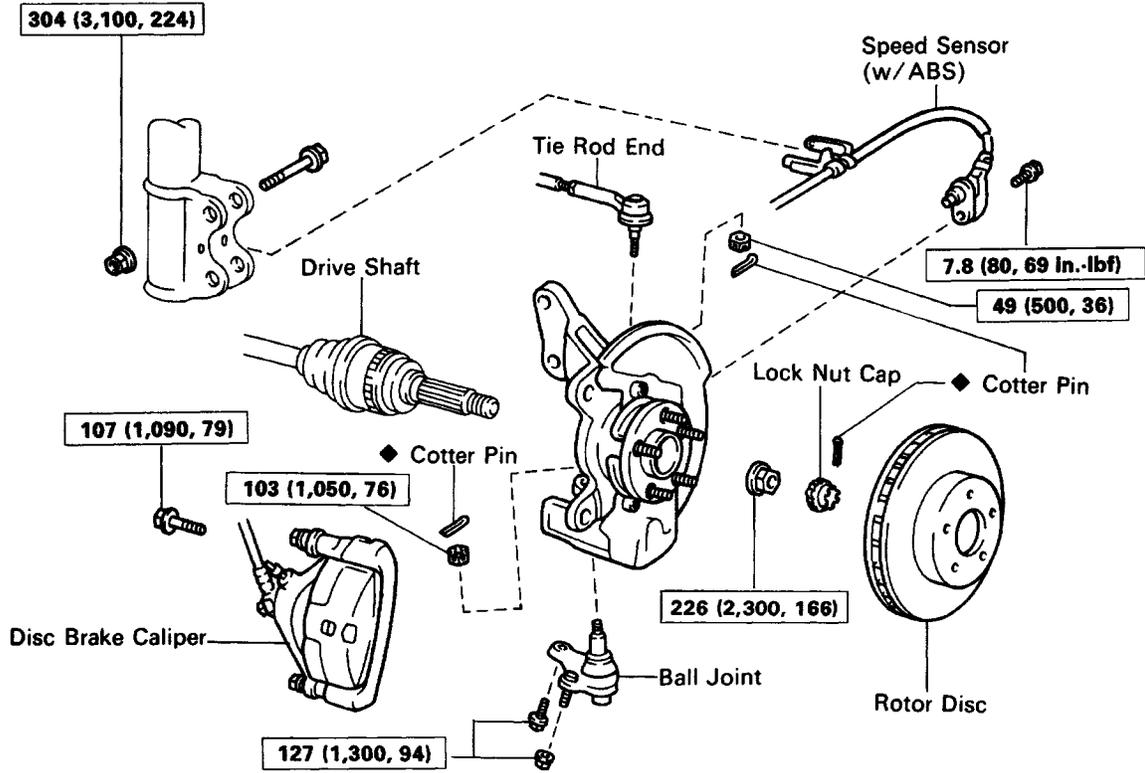
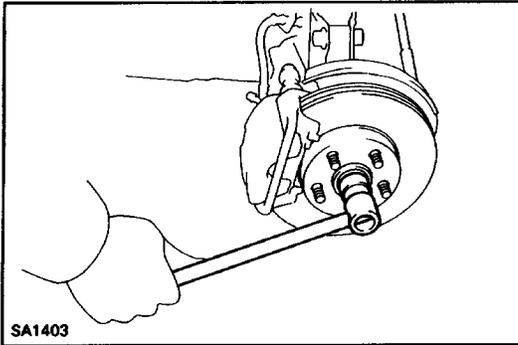


FRONT AXLE HUB COMPONENTS



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

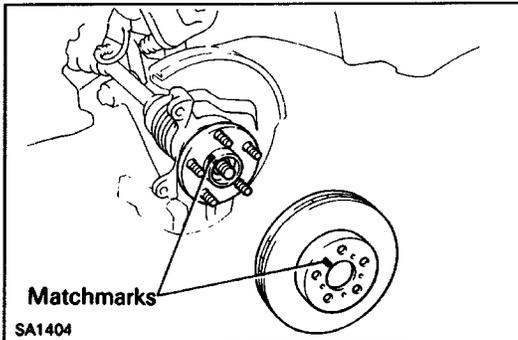
◆ Non-reusable part



REMOVAL OF FRONT AXLE HUB

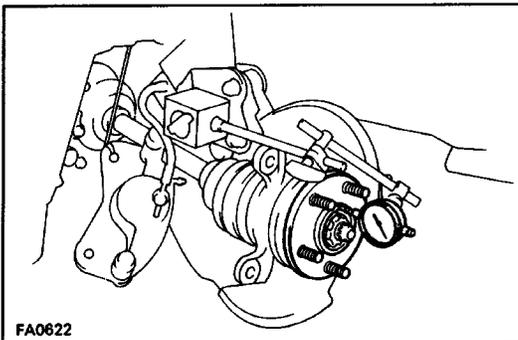
1. REMOVE COTTER PIN, LOCK NUT CAP AND BEARING LOCK NUT

- Remove the cotter pin and lock nut cap.
- Loosen the bearing lock nut while depressing the brake pedal, and remove it.



2. REMOVE BRAKE CALIPER AND ROTOR DISC

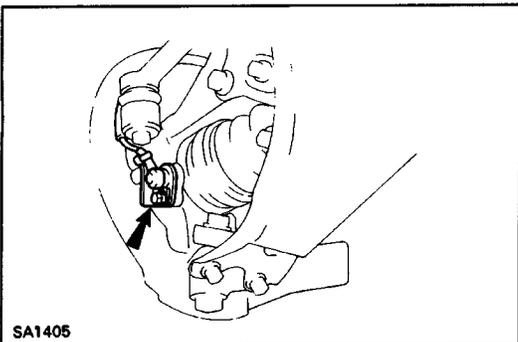
- Remove the brake caliper from the steering knuckle and suspend it with wire.
- Remove the rotor disc.
HINT: Before removing the rotor disc, place the matchmarks on the axle hub and rotor disc.



3. CHECK BEARING PLAY IN AXIAL DIRECTION

Bearing play: 0.05 mm (0.0020 in.) or less

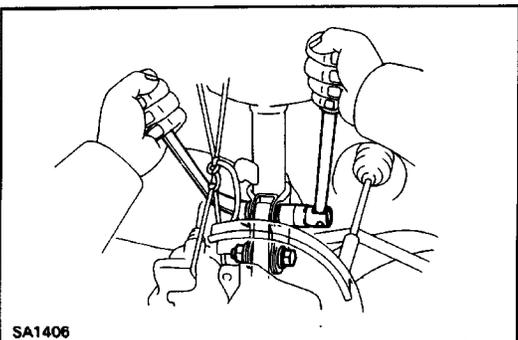
If the bearing play is greater than the maximum, replace the bearing.



4. (w/ ABS)

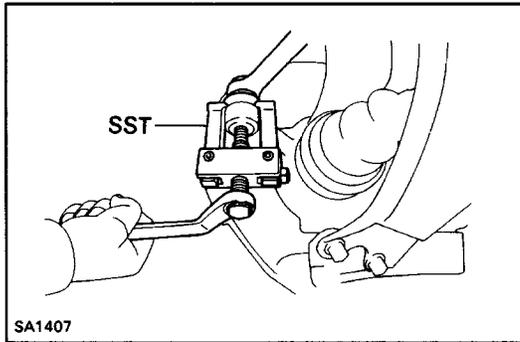
REMOVE SPEED SENSOR

Pull out the wire harness clamp from the steering knuckle with the screwdriver, then remove the bolt and pull out the speed sensor.



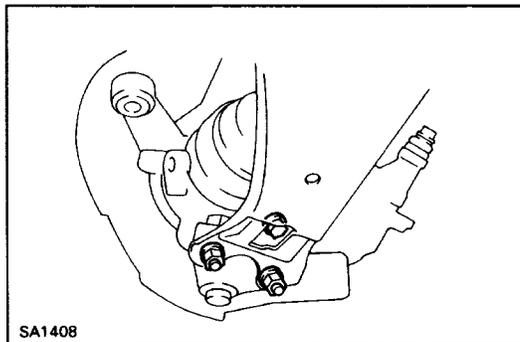
5. LOOSEN BOLTS AND NUTS OF SHOCK ABSORBER LOWER BRACKET

Loosen the bolts and nuts, and remove the nuts.
HINT: Leave the bolts not to drop the steering knuckle assembly.



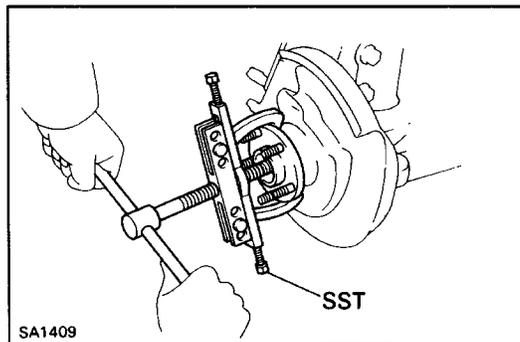
6. DISCONNECT TIE ROD END

- (a) Remove the cotter pin and nut from the tie rod end.
- (b) Using SST, disconnect the tie rod end from the steering knuckle.
SST 09628-62011



7. DISCONNECT STEERING KNUCKLE FROM LOWER SUSPENSION ARM

- (a) Remove the bolt and two nuts from the lower arm.
- (b) Disconnect lower arm from the steering knuckle.

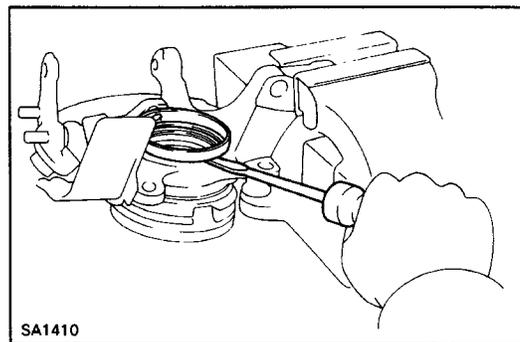


8. REMOVE STEERING KNUCKLE WITH AXLE HUB

- (a) Using SST, disconnect the steering knuckle from the drive shaft.
SST 09950-20017

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

- (b) Remove the two upper axle hub bolts and remove the steering knuckle assembly.

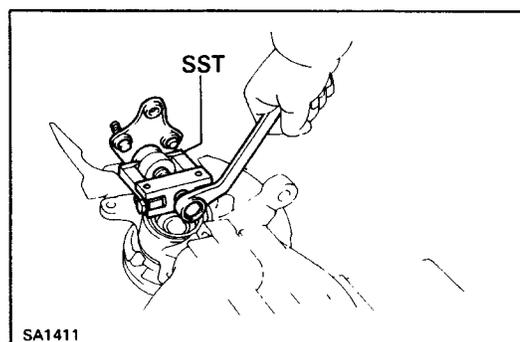


DISASSEMBLY OF FRONT AXLE HUB

(See page [SA-8](#))

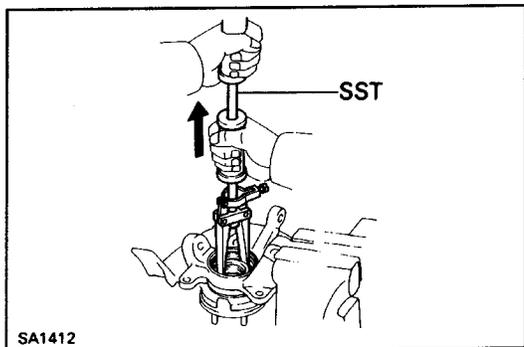
1. REMOVE DUST DEFLECTOR

- (a) Clamp the steering knuckle in a vise.
H I N T: Use a set of soft jaws in the vise to protect the steering knuckle.
- (b) Using a screwdriver, remove the dust deflector.



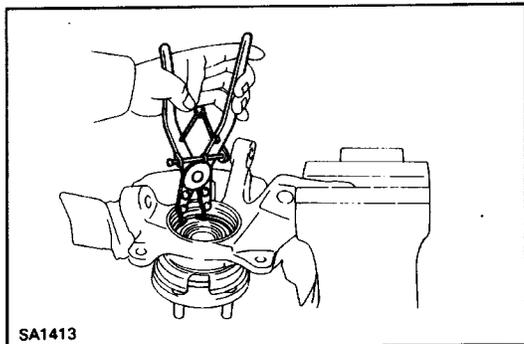
2. REMOVE BALL JOINT FROM STEERING KNUCKLE

- (a) Remove the cotter pin.
- (b) Remove the nut holding the ball joint to the steering knuckle.
- (c) Using SST, remove the ball joint from the steering knuckle.
SST 09628-62011



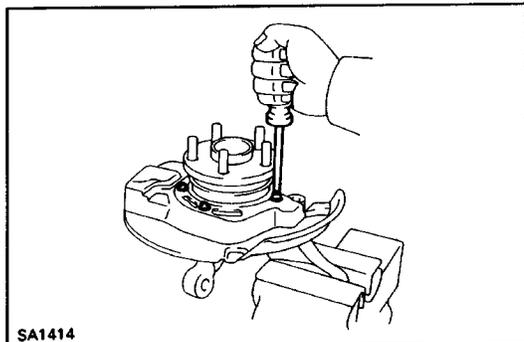
3. REMOVE INNER OIL SEAL

Using SST, remove the oil seal from the steering knuckle.
SST 09308-00010



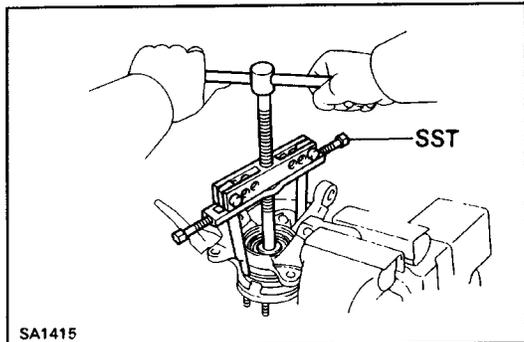
4. REMOVE HOLE SNAP RING

Using snap ring pliers, remove the hole snap ring.



5. REMOVE DUST COVER INSTALLATION BOLTS

Using a torx driver, remove the four bolts holding the dust cover to the steering knuckle.



6. REMOVE AXLE HUB FROM STEERING KNUCKLE

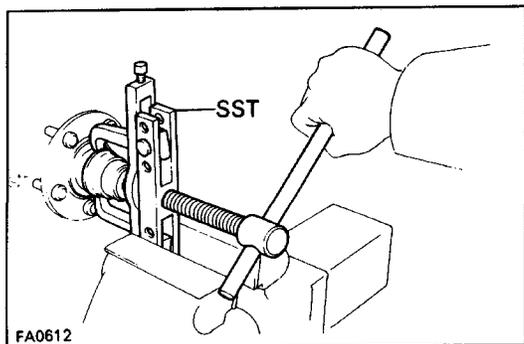
(a) Using SST, remove the axle hub from the steering knuckle.

SST 09950-20017

HINT: If the axle hub has been removed, be sure to replace the outer oil seal.

(b) Remove the dust cover.

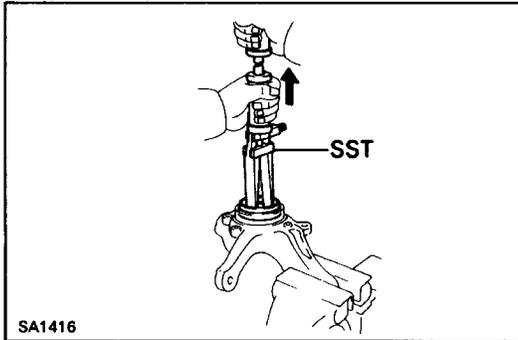
7. REMOVE BEARING INNER RACE (INSIDE)



8. REMOVE BEARING INNER RACE (OUTSIDE)

Using SST, remove the inner race (outside) from the axle hub.

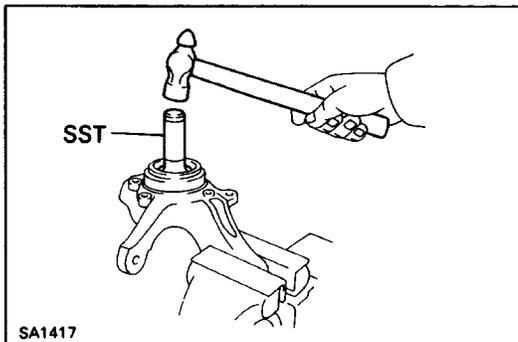
SST 09950-20017



SA1416

9. REMOVE OUTER OIL SEAL

Using SST, remove the oil seal from the steering knuckle.
SST 09308-00010



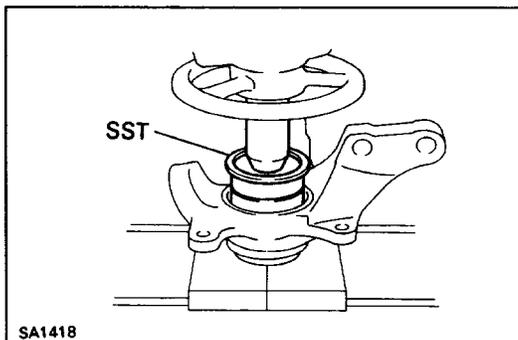
SA1417

10. REMOVE HUB BEARING

- First, place the removed inner race (outside) onto the bearing.
- Using SST and a hammer, tap out the bearing with the race.

SST 09605-60010

NOTICE: Always replace the bearing as an assembly.



SA1418

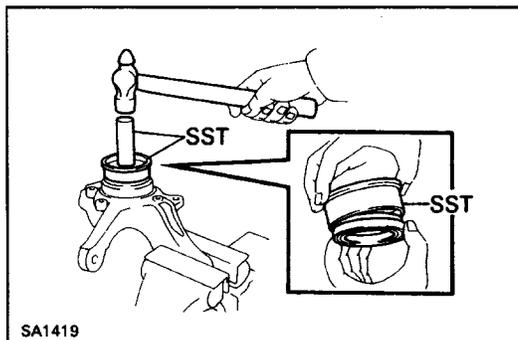
ASSEMBLY OF FRONT AXLE HUB

(See page [SA-8](#))

1. INSTALL HUB BEARING

Using SST and press, press a new bearing into the steering knuckle.

SST 09608-32010



SA1419

2. INSTALL OUTER OIL SEAL

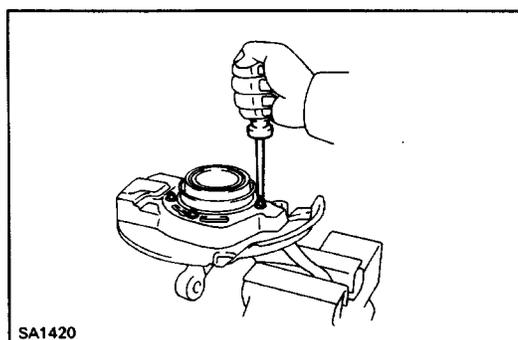
- Place a new bearing inner race (outside) on the hub bearing.

- Using SST and a hammer, drive the oil seal into the steering knuckle.

SST 09608-32010, 09710-14012 (09710-00050)

HINT: Insert the side lip of a new oil seal into the SST.

- Apply M P grease to the oil seal lip.



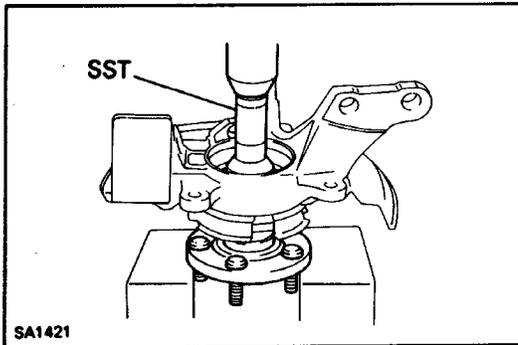
SA1420

3. INSTALL DISC BRAKE DUST COVER

HINT: Apply liquid sealant to the dust cover and steering knuckle connection before assemble.

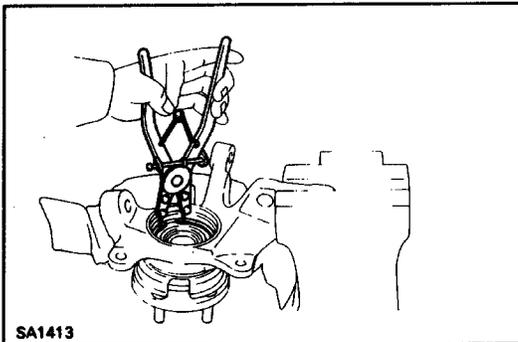
- Install the dust cover in place.

- Using a torx driver, install and torque the four bolts.



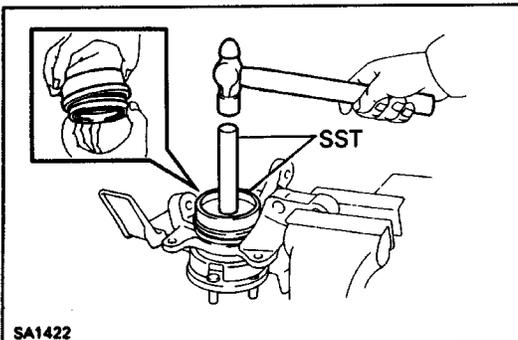
4. INSTALL AXLE HUB

- (a) Place a new bearing inner race (inside) on the hub bearing.
- (b) Using SST, press the hub into the steering knuckle.
SST 09310-35010



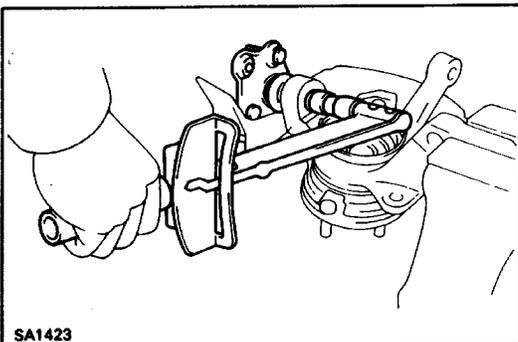
5. INSTALL HOLE SNAP RING

Using snap ring pliers, install the hole snap ring into the steering knuckle.



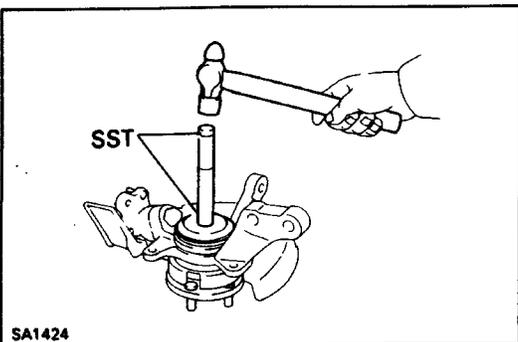
6. INSTALL INNER OIL SEAL

- (a) Using SST, drive in a new oil seal to the steering knuckle surface as shown.
SST 09608-32010, 09710-14012 (09710-00050)
- (b) Apply MP grease to the contact surfaces of the oil seal lip and drive shaft.



7. INSTALL BALL JOINT TO STEERING KNUCKLE

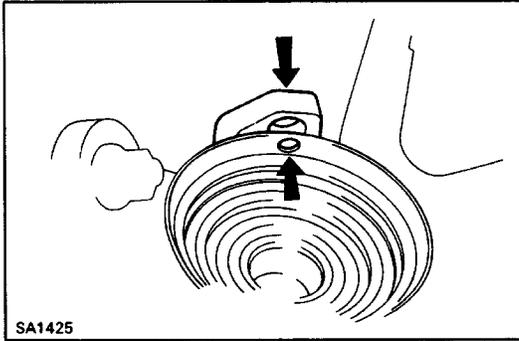
- (a) Temporarily tighten the conventional nut.
Torque: 20 N-m (200 kgf-cm, 14 ft-lbf)
- (b) Remove the nut.
- (c) Install and torque the new nut.
Torque: 703 N-m (1,050 kgf-cm, 76 ft-lbf)
- (d) Install a new cotter pin.



8. INSTALL DUST DEFLECTOR

Place the dust deflector on the steering knuckle as the cutting portion pointed the ball joint installation hole and, using SST, drive the deflector into the steering knuckle.

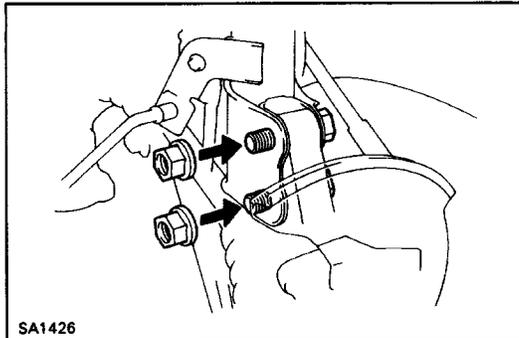
SST 09608-35014 (09608-06020, 09608-06180)



SA1425

HINT: (w/ ABS)

Before driving into the dust deflector, align the centers of the dust deflector hole and speed sensor installation hole of the steering knuckle as shown.



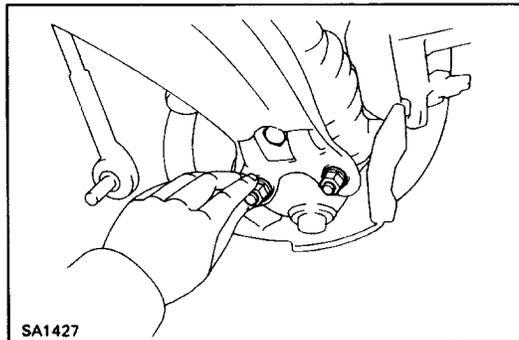
SA1426

INSTALLATION OF FRONT AXLE HUB

(See page SA-8)

1. TEMPORARILY INSTALL STEERING KNUCKLE WITH AXLE HUB TO SHOCK ABSORBER LOWER BRACKET

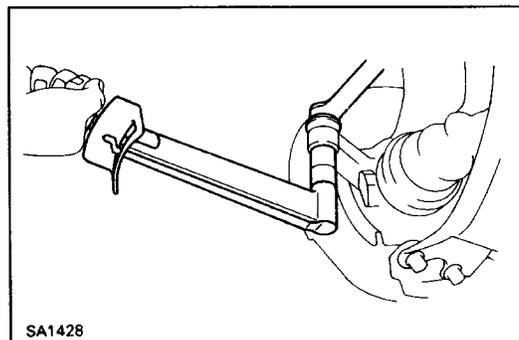
- (a) Connect the steering knuckle to the shock absorber lower bracket.
- (b) Install the two bolts from the rear side.
- (c) Temporarily install and torque the two nuts.



SA1427

2. INSTALL STEERING KNUCKLE TO LOWER SUSPENSION ARM

Temporarily install the steering knuckle to the lower suspension arm with the bolt and two nuts.

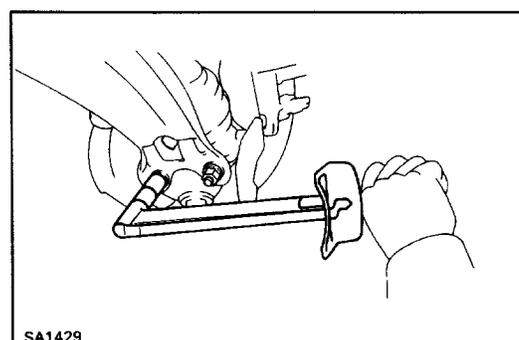


SA1428

3. CONNECT TIE ROD END TO STEERING KNUCKLE

Torque the castle nut and secure it with a new cotter pin.

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

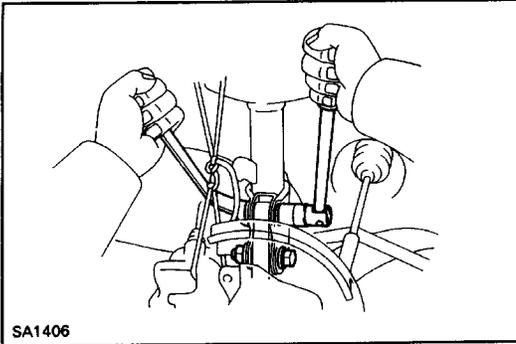


SA1429

4. TORQUE BALL JOINT TO LOWER ARM

Torque the bolt and two nuts.

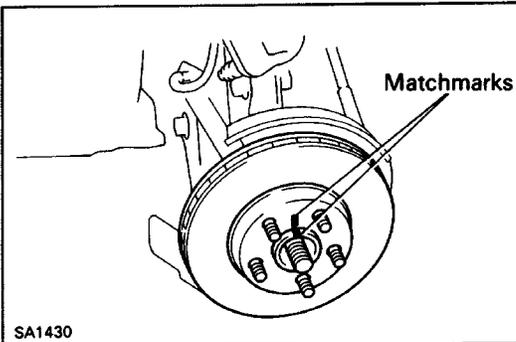
Torque: 127 N-m (1,300 kgf-cm, 94 ft-lbf)



5. TORQUE BOLTS AND NUTS

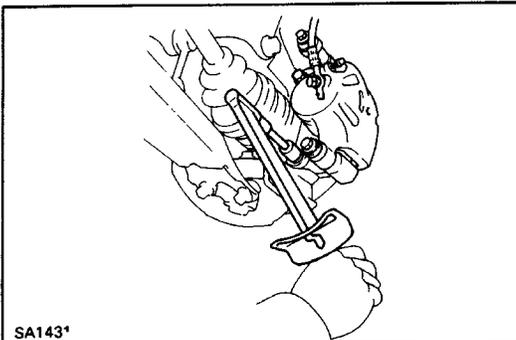
Torque the two bolts and nuts of the shock absorber lower bracket.

Torque: 304 N-m (3,100 kgf-cm, 224 ft-lbf)



6. INSTALL ROTOR DISC TO AXLE HUB

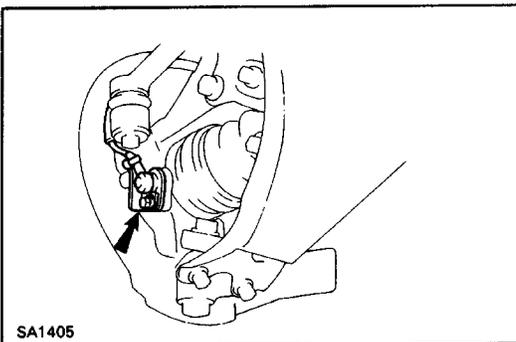
Align the matchmarks and install the rotor disc to the axle hub.



7. INSTALL BRAKE CALIPER TO STEERING KNUCKLE

Torque the two bolts.

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

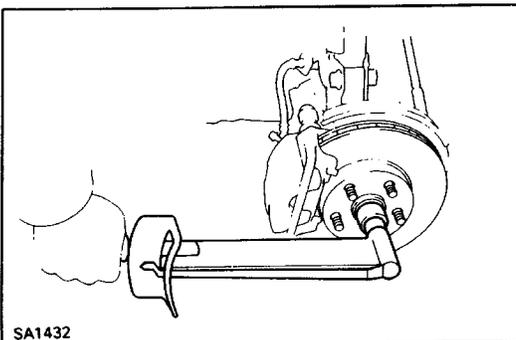


8. (w/ ABS)

INSTALL SPEED SENSOR

Install the speed sensor in place, then install and torque the bolt.

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



9. INSTALL BEARING LOCK NUT, LOCK NUT CAP AND COTTER PIN

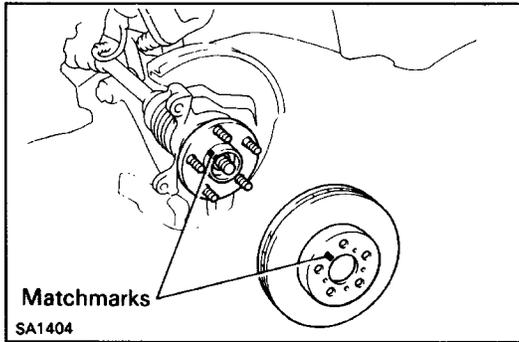
(a) Torque the bearing lock nut while depressing the brake pedal.

Torque: 226 N-m (2,300 kgf-cm, 166 ft-lbf)

(b) Install the lock nut cap and, using pliers, install a new cotter pin.

10. CHECK FRONT WHEEL ALIGNMENT

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



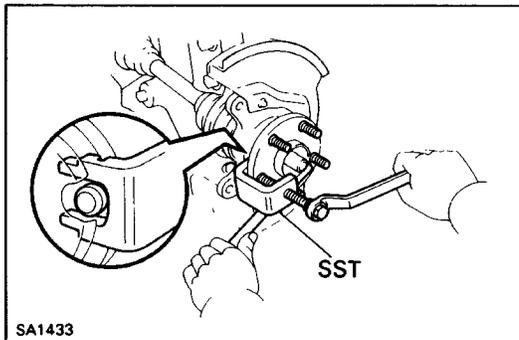
REPLACEMENT OF FRONT AXLE HUB BOLT

1. REMOVE BRAKE CALIPER

Remove the disc brake caliper from the steering knuckle and suspend it with wire.

2. REMOVE ROTOR DISC

HINT: Before removing the rotor disc, place the matchmarks on the axle hub and rotor disc.

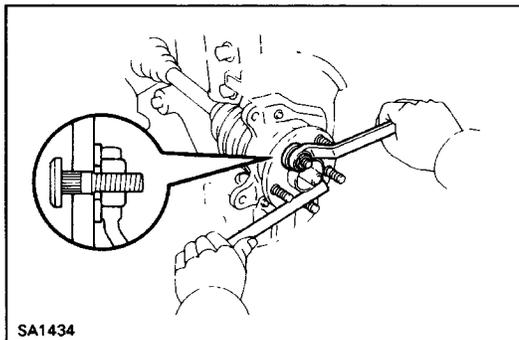


3. REMOVE FRONT AXLE HUB BOLT

(a) Align the disc brake dust cover cutting portion and axle hub bolt.

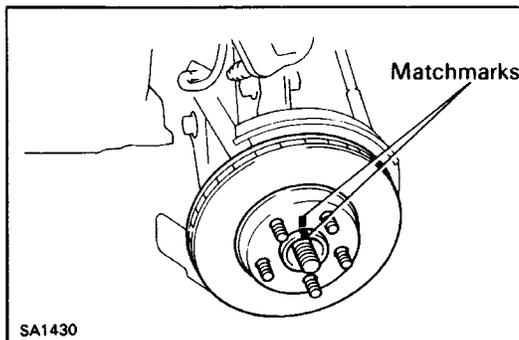
(b) Using SST, remove the axle hub bolt.

SST 09650-17011



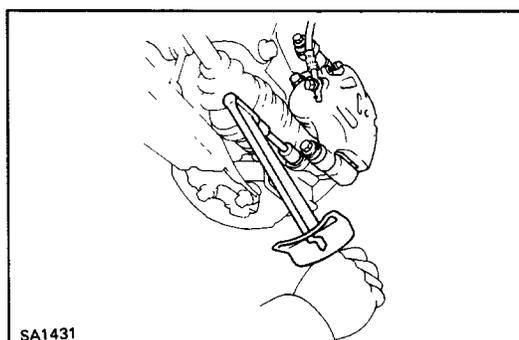
4. INSTALL NEW AXLE HUB BOLT

Hold the axle hub, and install a new axle hub bolt.



5. INSTALL ROTOR DISC

Align the matchmarks, and install the rotor disc to the axle hub.



6. INSTALL DISC BRAKE CALIPER TO STEERING KNUCKLE

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