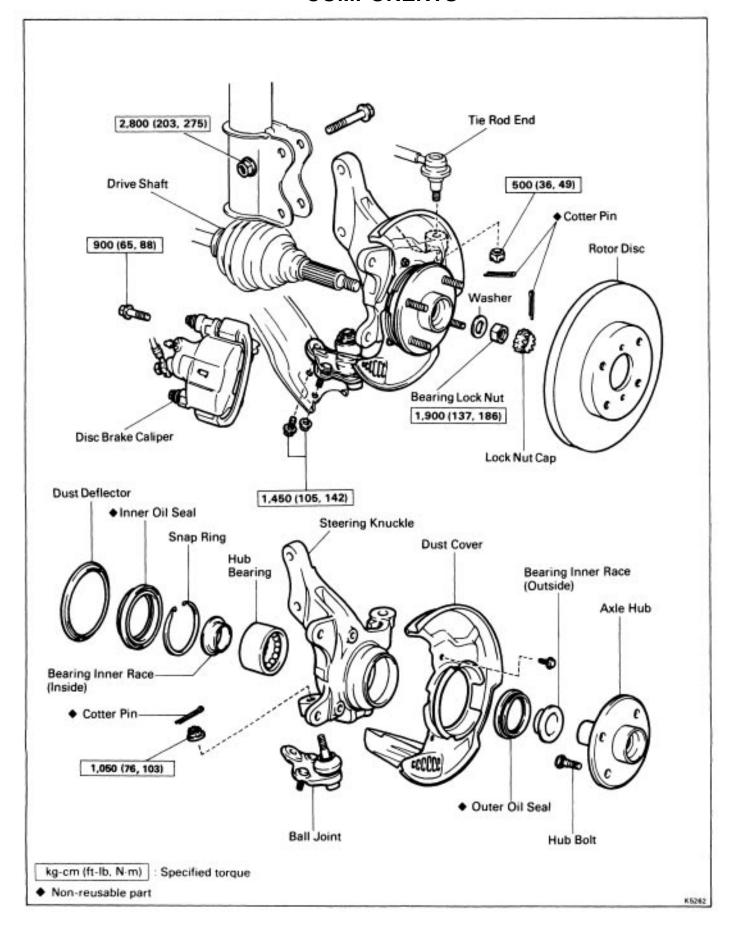
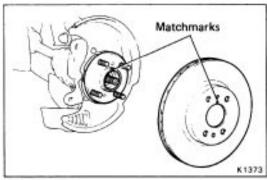
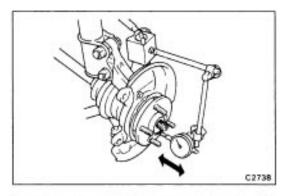
# FRONT AXLE HUB COMPONENTS











(See page SA-7)

#### 1. REMOVE BEARING LOCK NUT

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

#### 2. REMOVE BRAKE CALIPER AND ROTOR DISC

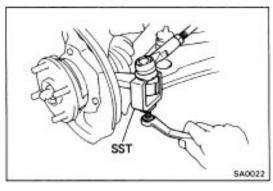
- (a) Remove the brake caliper from the steering knuckle and suspend it with wire.
- (b) Remove the rotor disc.

HINT: Before removing the rotor disc, place 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

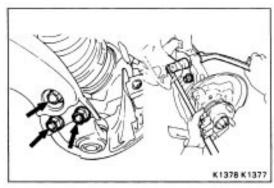
If the bearing play is greater than the maximum, replace the bearing.



#### 4. 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.

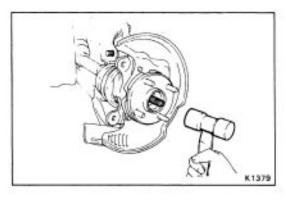
SST 09611-22012



#### 5. REMOVE AXLE HUB ASSEMBLY

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

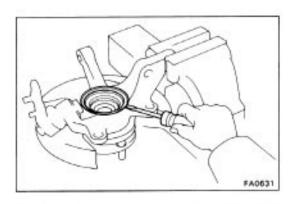
HINT: Leave the hub bolts not to drop the axle hub assembly.



(d) Using a plastic hammer, tap the drive shaft.

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

(e) Remove the two bolts and remove the axle hut assembly.



## **DISASSEMBLY OF FRONT AXLE HUB**

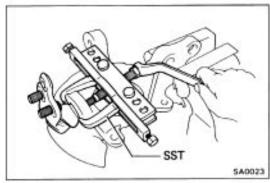
(See page SA-7)

#### 1. REMOVE DUST DEFLECTOR

(a) Clamp the steering knuckle in a vise.

HINT: Use a set of soft jaws in the vise to protect the steering knuckle.

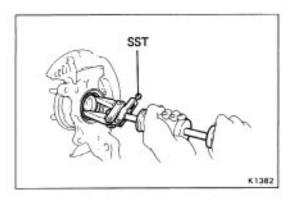
(b) Using a screwdriver, remove the dust deflector.



#### 2. REMOVE BALL JOINT FROM STEERING KNUCKLE

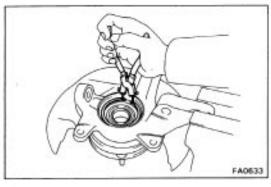
- (a) Remove the cotter pin.
- (b) Remove the nut holding the ball joint to the steering knuckle.
- (c) Using SST, remove the ball joint from the steering knuckle.

SST 09950-20017



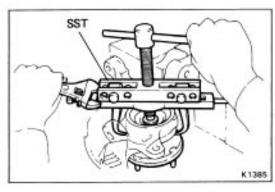
#### 3. REMOVE INNER OIL SEAL

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.



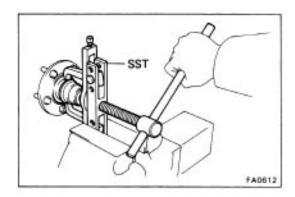
#### 5. REMOVE AXLE HUB FROM STEERING KNUCKLE

- (a) Remove the three bolts holding the dust cover to the steering knuckle.
- (b) Using SST, remove the axle hub from the steering knuckle.

SST 09950-20017

(c) Remove the dust cover.

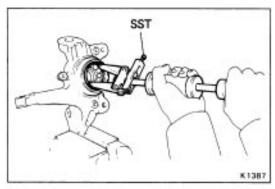
#### 6. REMOVE BEARING INNER RACE (INSIDE)



#### 7. REMOVE BEARING INNER RACE (OUTSIDE)

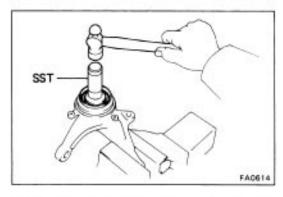
Using SST, remove the inner race (outside) from the axle hub.

SST 09950-20017



#### 8. REMOVE OUTER OIL SEAL

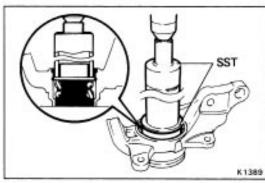
Using SST, remove the oil seal from the steering knuckle. SST 09308-00010



#### 9. REMOVE HUB BEARING

- (a) First, place the removed inner race (outside) in the bearing.
- (b) Using SST and a hammer, remove the bearing. SST 09605-60010

NOTICE: Always replace the bearing as an assembly.



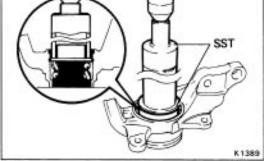
## **ASSEMBLY OF FRONT AXLE HUB**

(See page SA-7)

#### 1. INSTALL HUB BEARING

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

SST 09316-60010 (09316-00010, 09316-00020)



#### 2. INSTALL OUTER OIL SEAL

- (a) Place a new bearing inner race (outside) on the hub bearing.
- (b) Using SST and a hammer, drive the oil seal into the steering knuckle.

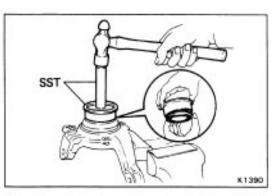
SST 09608-32010, 09710-14012 (09710-00050)

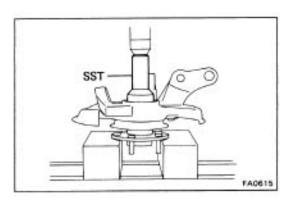
HINT: Insert the side lip of a new oil seal into the SST.

(c) Apply MP grease to the oil seal lip.

#### 3. INSTALL DISC BRAKE DUST COVER

Apply liquid sealant to the dust cover and steering knuckle connection before assembly.



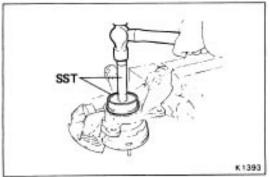


#### 4. INSTALL AXLE HUB

- (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

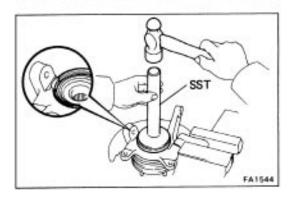
#### 5. INSTALL HOLE SNAP RING

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



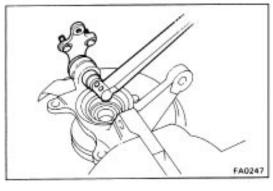
#### 6. INSTALL INNER OIL SEAL

- (a) Using SST, drive in a new oil seal to the steering knuckle surface as shown.
  - SST 09608-10010, 09710-14012 (09710-00050)
- (b) Apply MP grease to the contact surfaces of the oil seal lip and drive shaft.



#### 7. INSTALL DUST DEFLECTOR

Using SST, drive a new deflector into the steering knuckle. SST 09218–46010



#### 8. INSTALL BALL JOINT TO STEERING KNUCKLE

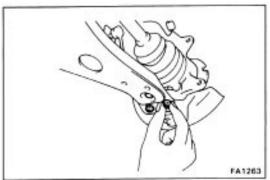
(a) Temporarily tighten the nut.

Torque: 200 kg-cm (14 ft-lb, 20 N-m)

- (b) Remove the nut.
- (c) Install and torque the nut.

Torque: 1,050 kg-cm (76 ft-lb, 103 N-m)

(d) Install a new cotter pin.

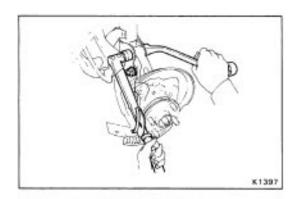


### INSTALLATION OF FRONT AXLE HUB

(See page SA-7)

1. INSTALL AXLE HUB ASSEMBLY TO LOWER ARM

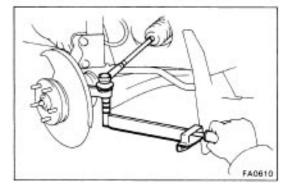
Temporarily install the axle hub assembly to the lower arm.



#### 2. INSTALL STEERING KNUCKLE TO SHOCK ABSORBER

- (a) Connect the steering knuckle to the shock absorber lower bracket.
- (b) Insert the bolts from the rear side and tighten the nuts.

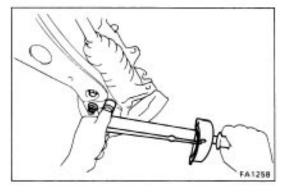
Torque: 2,800 kg-cm (203 ft-lb, 275 N-m)



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

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

Torque: 500 kg-cm (36 ft-lb, 49 N-m)

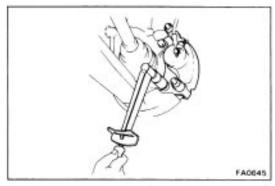


#### 4. TORQUE BALL JOINT TO LOWER ARM

Torque: 1,450 kg-cm (105 ft-lb, 142 N-m)

#### 5. INSTALL ROTOR DISC TO AXLE HUB

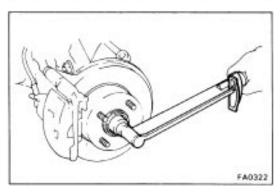
Align the matchmarks and install the rotor disc to the axle hub.



#### 6. INSTALL BRAKE CALIPER TO STEERING KNUCKLE

Torque the bolts.

Torque: 900 kg-cm (65 ft-lb, 88 N-m)



# 7. INSTALL BEARING LOCK NUT, LOCK NUT CAP AND COTTER PIN

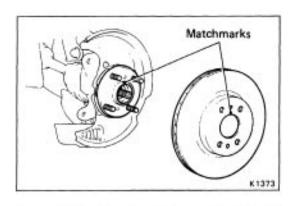
(a) Torque the bearing lock nut while depressing the brake pedal.

Torque: 1,900 kg-cm (137 ft-lb, 186 N-m)

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

### 8. CHECK FRONT WHEEL ALIGNMENT

(See page SA-3)



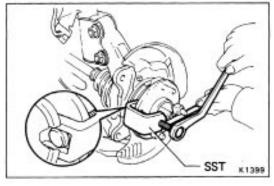
# REPLACEMENT OF FRONT AXLE HUB BOLT

#### 1. REMOVE DISC BRAKE CALIPER

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

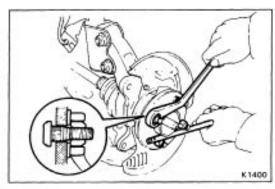
#### 2. REMOVE ROTOR DISC

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



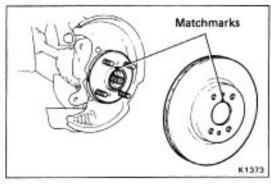
#### 3. REMOVE FRONT AXLE HUB BOLT

- (a) Align the disc brake dust cover cutting portion and axle hub bolt.
- (b) Using SST, remove the axle hub bolt. SST 09628-10011



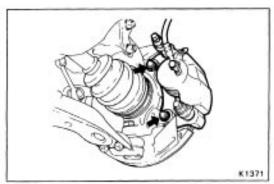
#### 4. INSTALL NEW AXLE HUB BOLT

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: 900 kg-cm (65 ft-lb, 88 N-m)