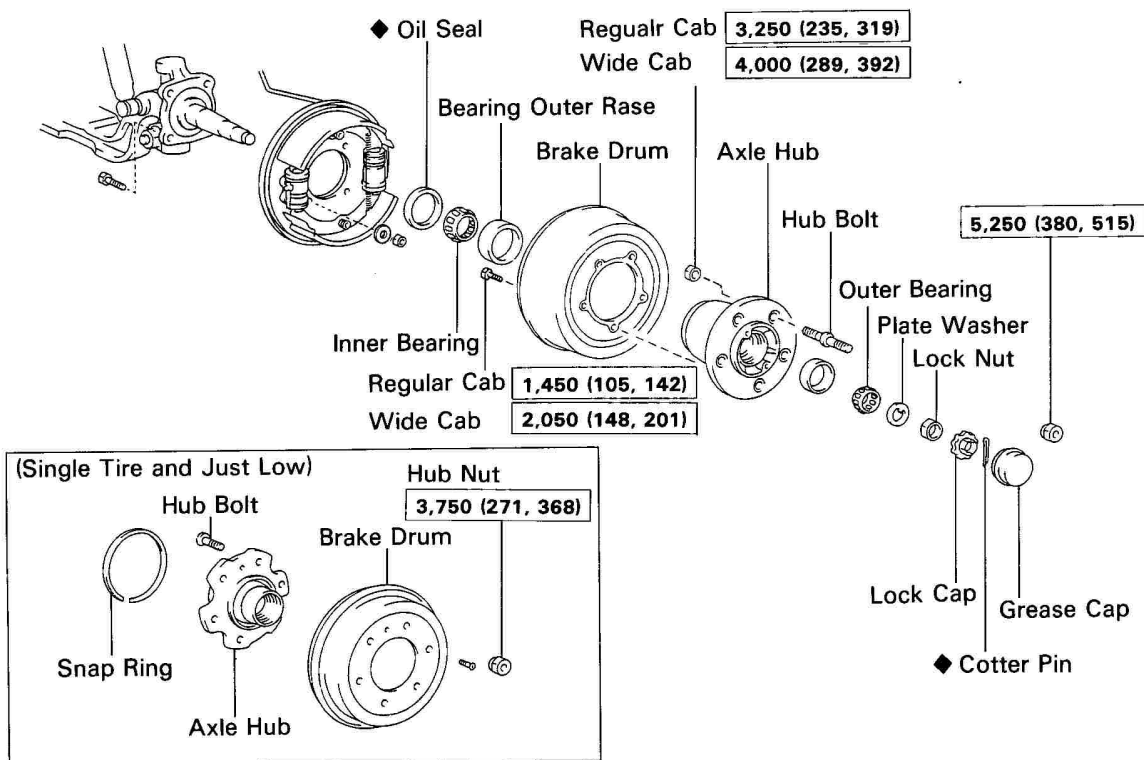


FRONT AXLE HUB (BU, YU, RU series)

COMPONENTS



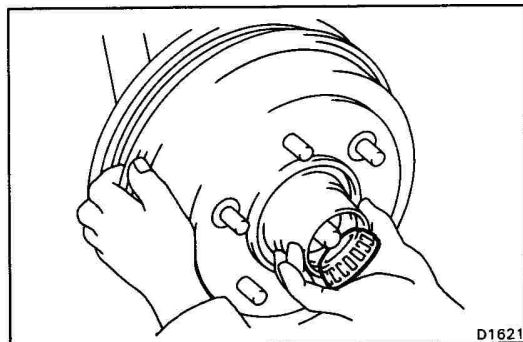
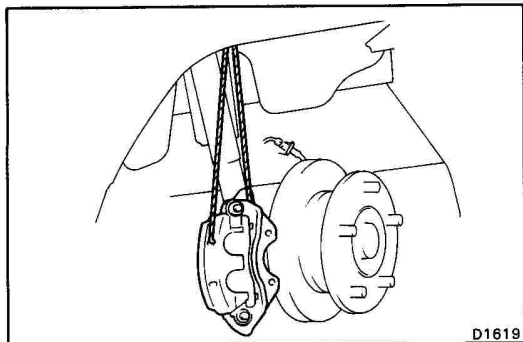
kg-cm (ft-lb, N·m) : Tightening torque

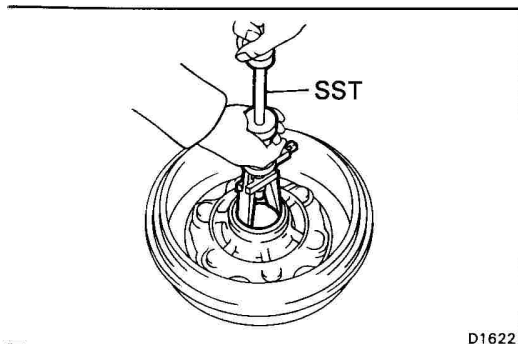
◆ : Non-reusable part

FA0461

DISASSEMBLY OF FRONT AXLE HUB

1. REMOVE FRONT WHEEL
2. (Disc Brake type)
REMOVE DISC BRAKE CALIPER
Remove the disc brake caliper and suspend it with wire.
NOTE: Do not disconnect the brake tube and hose.
3. (Single Tire and Just Low)
REMOVE BRAKE DRUM FROM AXLE HUB
4. REMOVE GREASE CAP
5. REMOVE COTTER PIN, LOCK CAP, LOCK NUT AND PLATE WASHER
6. REMOVE AXLE HUB FROM SPINDLE
 - (a) Pull the axle hub and remove the outer bearing.
 - (b) Remove the axle hub from the spindle.



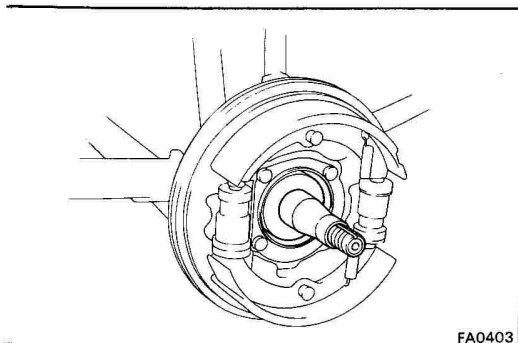


D1622

7. REMOVE OIL SEAL FROM AXLE HUB

Using SST, remove the oil seal from the axle hub.
SST 09308-00010

8. REMOVE INNER BEARING FROM AXLE HUB

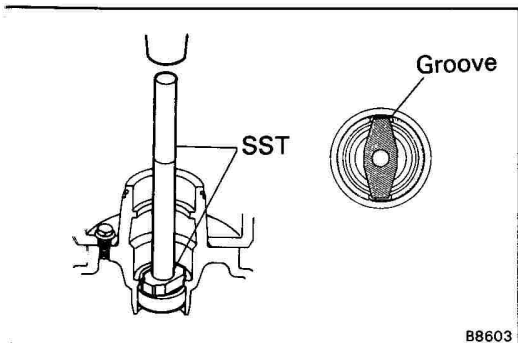


FA0403

INSPECTION AND REPAIR OF FRONT AXLE HUB

1. INSPECT SPINDLE

Using a magnetic flaw detector or flaw detecting penetrant, check for damage or cracks.



B8603

2. INSPECT BEARING

Clean the bearings and outer races and inspect them for wear or damage.

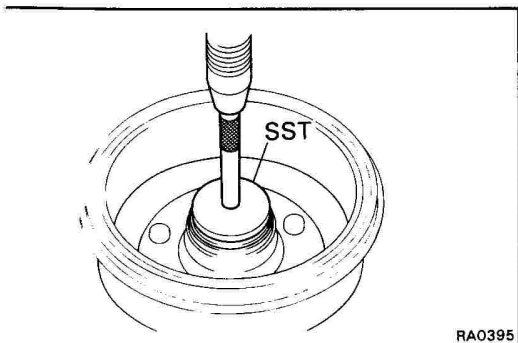
3. REPLACE BEARING OUTER RACE

(a) Using a brass bar and hammer, drive out the bearing outer race.

SST Inner side 09608-35013
Outer side 09608-30011

(b) Using SST, carefully press in a new bearing outer race.

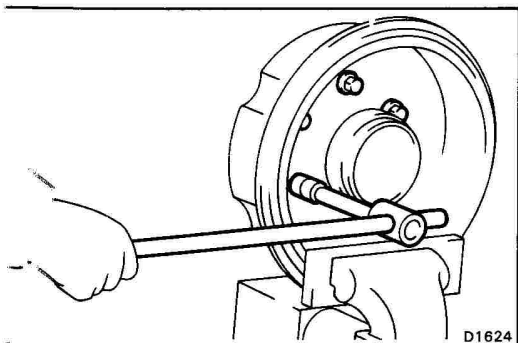
SST 09608-35013



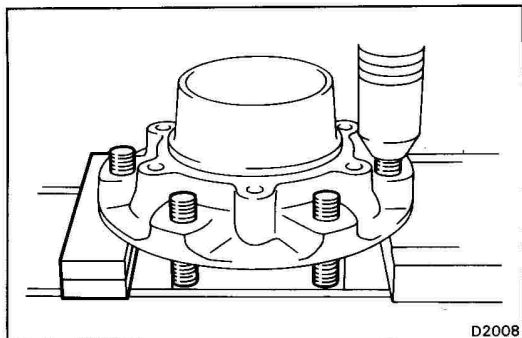
RA0395

**4.-1 (Double Tire)
REPLACE HUB BOLT**

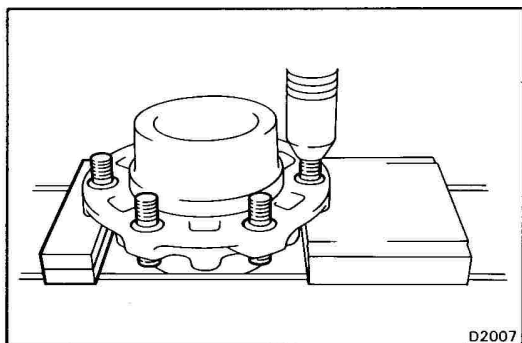
- (a) Place the matchmarks on the axle hub and the brake drum or disc.
- (b) Remove the set bolts and the brake drum or disc.
- (c) Unstake the bolt and remove the nut.



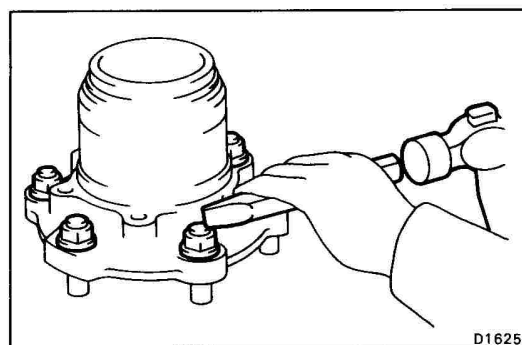
D1624



(d) Using a press, press out the hub bolt.



(e) Using a press, press in the hub bolt.



(f) Tighten the nut and stake the bolt.

Torque:

Regular cab 3,250 kg-cm (235 ft-lb, 319 N·m)

Wide cab 4,000 kg-cm (289 ft-lb, 392 N·m)

(g) Place the brake drum or disc to the axle hub and tighten the set bolts.

Torque:

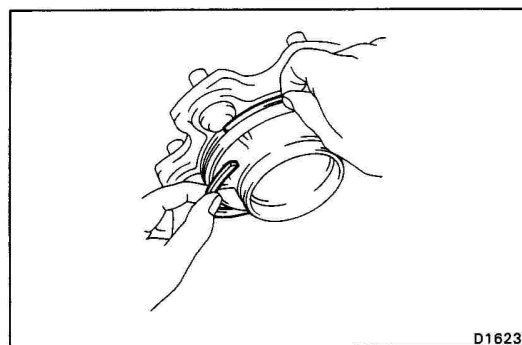
BU, YU, RU series 1,450 kg-cm
(105 ft-lb, 142 N·m)

WU series 2,050 kg-cm
(148 ft-lb, 201 N·m)

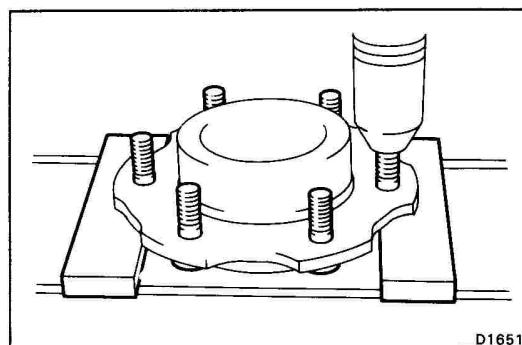
4.-2 (Single Tire and Just Low)

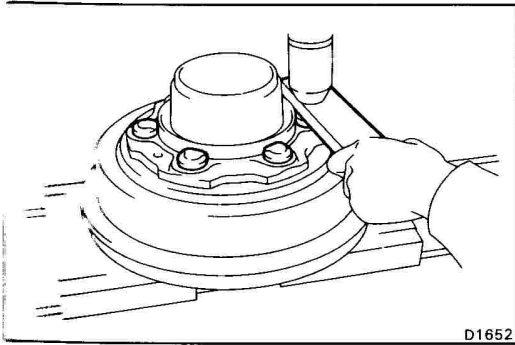
REPLACE HUB BOLT

(a) Remove the snap ring from the axle hub.



(b) Using a press, press out the hub bolt.

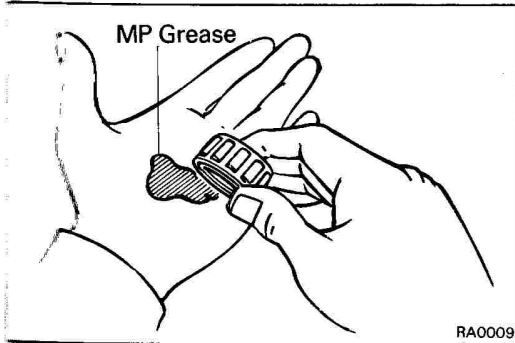




(c) Place the axle hub on the brake drum.

(d) Using a press, press in the hub bolt.

NOTE: By placing a board between the press and hub bolt, press in the hub bolt.



ASSEMBLY OF FRONT AXLE HUB

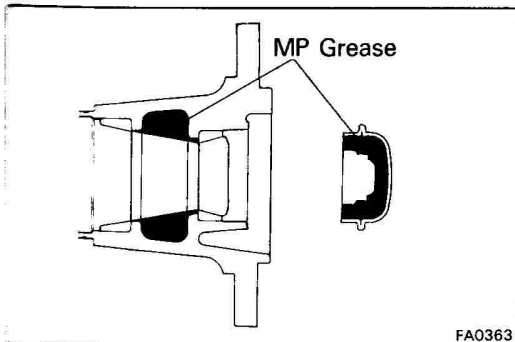
(See page FA-6)

1. PACK BEARINGS WITH MP GREASE

(a) Place MP grease in the palm of your hand.

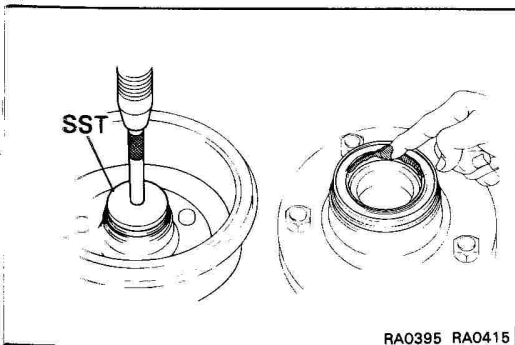
(b) Pack grease into the bearing, continuing until the grease oozes out from the other side.

(c) Do the same around the bearing circumference.



2. COAT INSIDE OF AXLE HUB AND CAP WITH MP GREASE

3. PLACE INNER BEARING INTO AXLE HUB



4. INSTALL OIL SEAL

(a) Using SST, press the oil seal into the axle hub until its surface is flush with the surface of the axle hub.

SST 09608-35013

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

5. INSTALL AXLE HUB ON SPINDLE

(a) Place the axle hub on the spindle.

(b) Install the outer bearing.

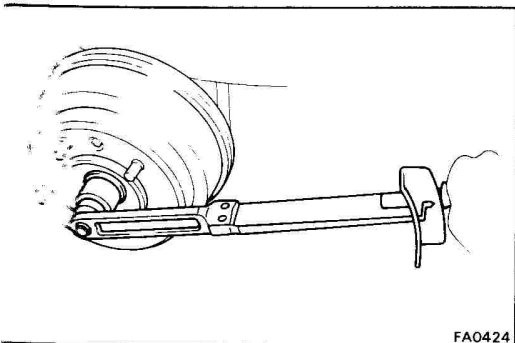
6. (Single Tire and Just Low) INSTALL BRAKE DRUM TO AXLE HUB

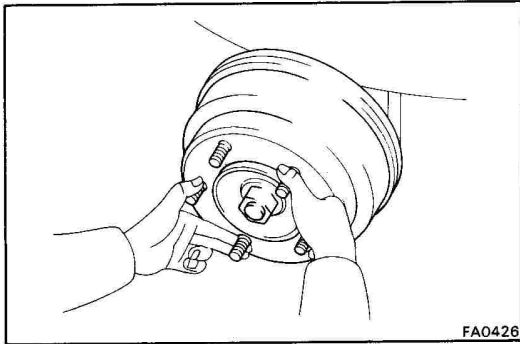
7. ADJUST PRELOAD

(a) Install the plate washer.

(b) Install and torque the lock nut.

Torque: 350 – 400 kg-cm
(26 – 28 ft-lb, 35 – 39 N·m)

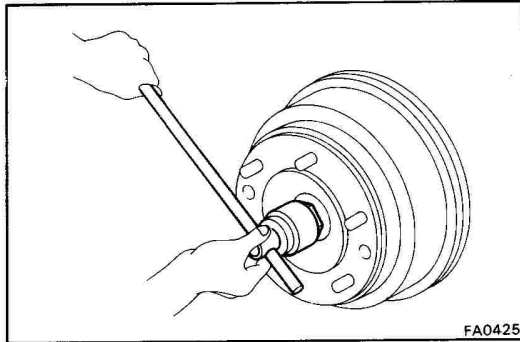




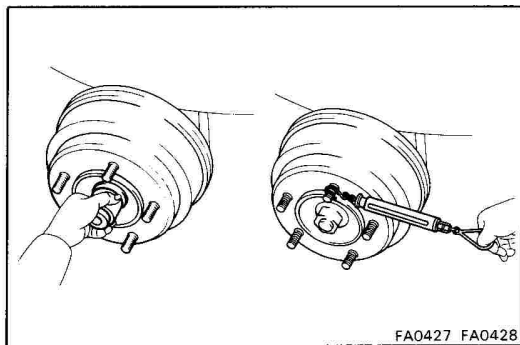
(c) Snug down the bearing by turning the axle hub several times.

(d) Retighten the lock nut.

**Torque: 350 – 400 kg-cm
(26 – 28 ft-lb, 35 – 39 N·m)**



(e) Loosen the lock nut.



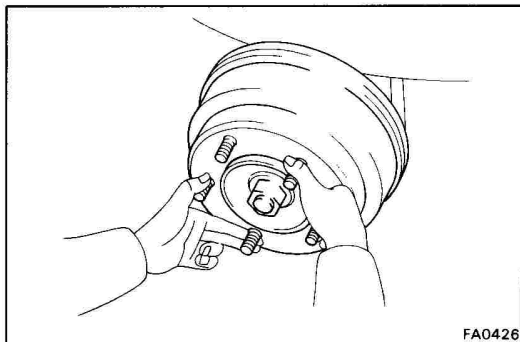
(f) Turn the lock clockwise by hand and measure the preload at the hub bolt.

Front wheel bearing preload (at starting):

Single tire and just low

0.5 – 2.1 kg (1.1 – 4.6 lb, 5 – 21 N)

Others 0.5 – 1.9 kg (1.1 – 4.2 lb, 5 – 19 N)



(g) Check the revolving condition of the drum.

Hub axial play: Less than 0.05 mm (0.0020 in.)

8. INSTALL LOCK CAP, COTTER PIN AND GREASE CAP

NOTE: If the cotter pin hole does not line up, correct it by tightening the nut the smallest amount possible.

9. (Disc Brake type) INSTALL DISC BRAKE CALIPER

Install the brake caliper to the steering knuckle. Torque the mounting bolts.

Torque: 1,300 kg-cm (94 ft-lb, 127 N·m)

10. INSTALL FRONT WHEEL

Torque:

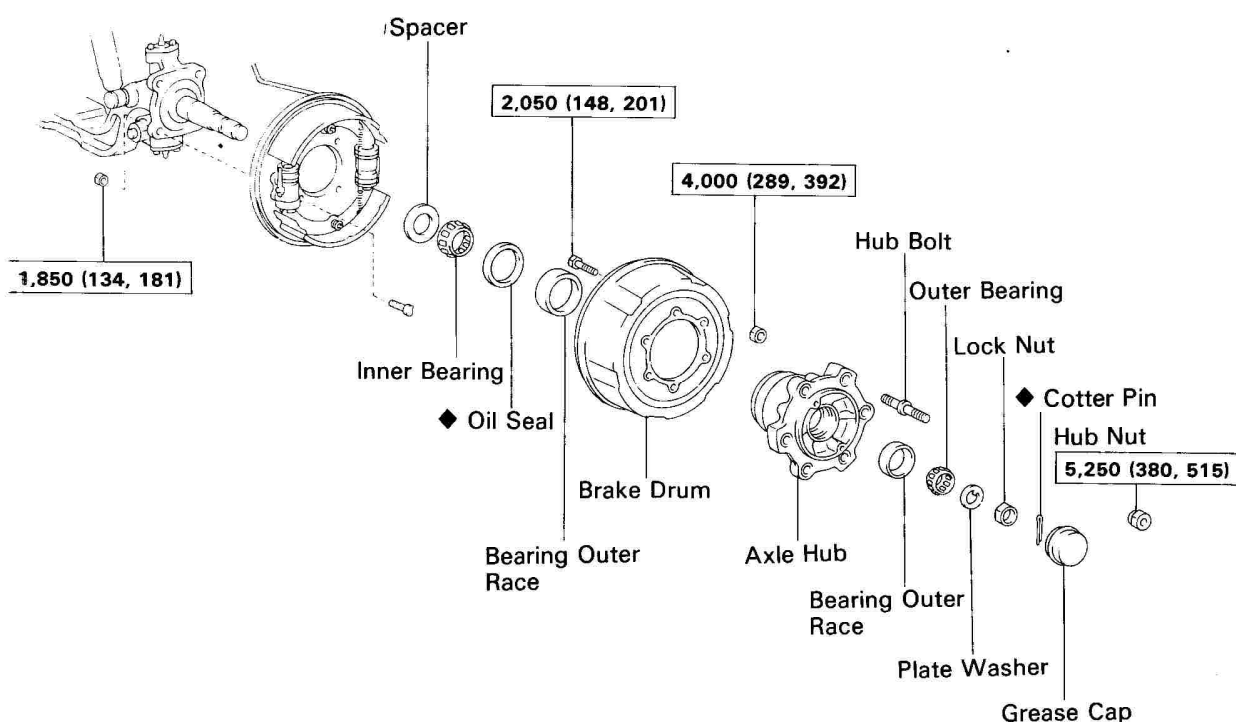
Single tire and just low

3,750 kg-cm (271 ft-lb, 368 N·m)

Others 5,250 kg-cm (380 ft-lb, 515 N·m)

11. ADJUST FRONT WHEEL ALIGNMENT (See page FA-3)

FRONT AXLE HUB (WU series) COMPONENTS



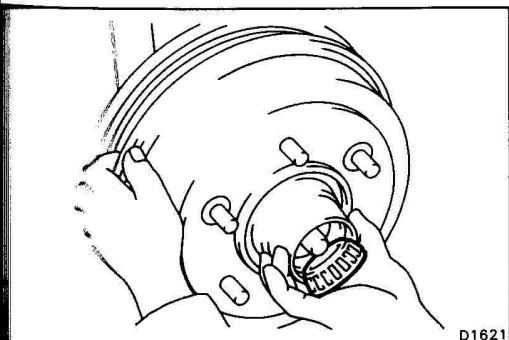
(ft-lb, N-m) : Tightening torque

: Reusable part

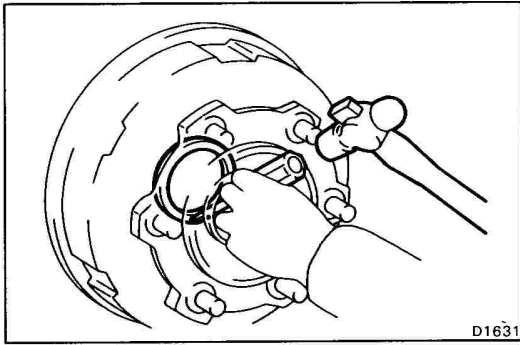
FA0462

DISASSEMBLY OF FRONT AXLE HUB

1. REMOVE FRONT WHEEL
2. REMOVE GREASE CAP
3. REMOVE COTTER PIN, LOCK NUT AND PLATE WASHER
4. REMOVE AXLE HUB FROM SPINDLE
 - (a) Pull the axle hub and remove the outer bearing.
 - (b) Remove the axle hub from the spindle.

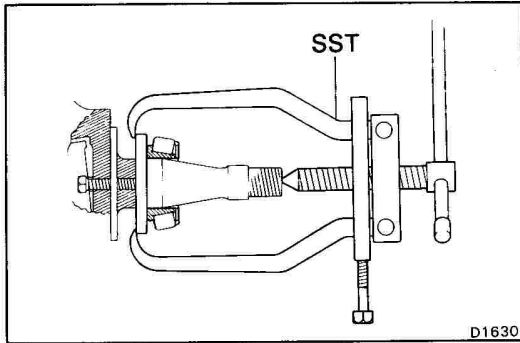


D1621



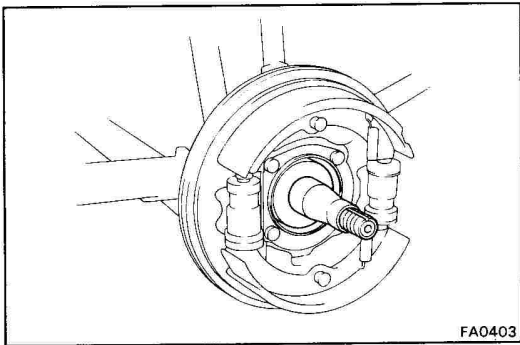
5. REMOVE OIL SEAL FROM AXLE HUB

Using a screwdriver, drive out the oil seal from the axle hub.



6. REMOVE INNER BEARING

- (a) Remove the backing plate.
 - (b) Remove the two bolts (Service hole bolt and steering knuckle stopper bolt) and screw in two 30 mm x 12 mm bolts to push the spacer.
 - (c) Using SST, remove the inner bearing and spacer.
- SST 09950-20015



INSPECTION AND REPAIR OF FRONT AXLE HUB

1. INSPECT SPINDLE

Using a magnetic flaw detector or flaw detecting penetrant, check for damage or cracks.

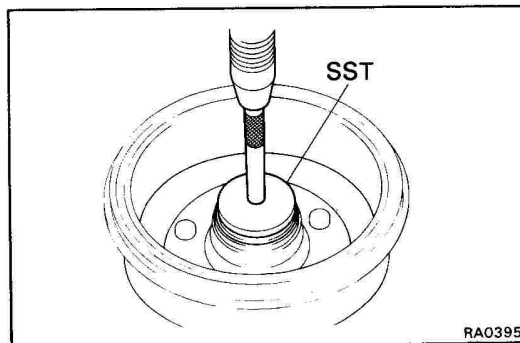
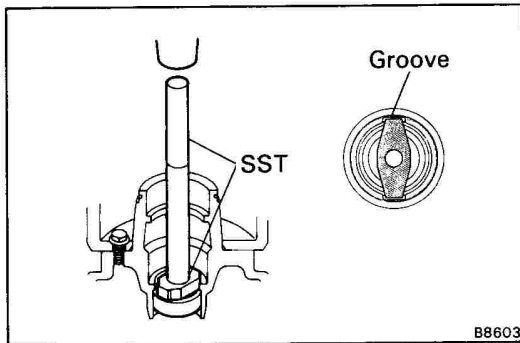
2. INSPECT BEARING

Clean the bearings and outer races and inspect them for wear or damage.

3. REPLACE BEARING OUTER RACE

- (a) Using a press and SST, drive out the bearing outer race.

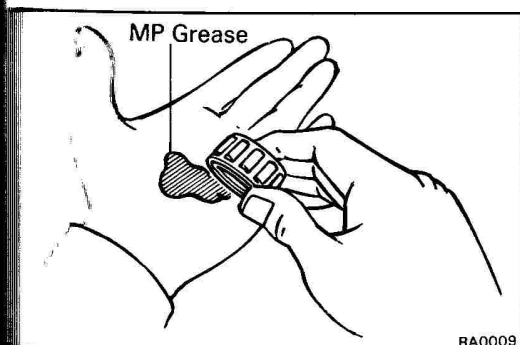
SST 09608-35013



- (b) Using a press and SST, carefully press in the new bearing outer race.

SST 09608-35013

4. REPLACE HUB BOLT
(See step 4.-1 on pages FA-7, 8)

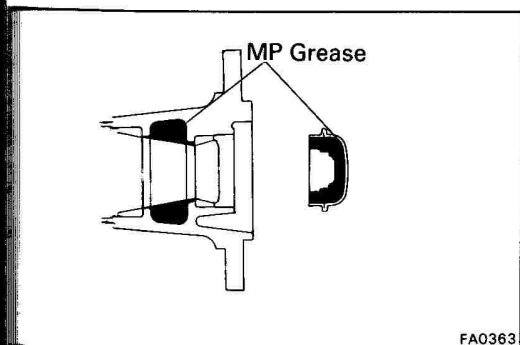


ASSEMBLY OF FRONT AXLE HUB

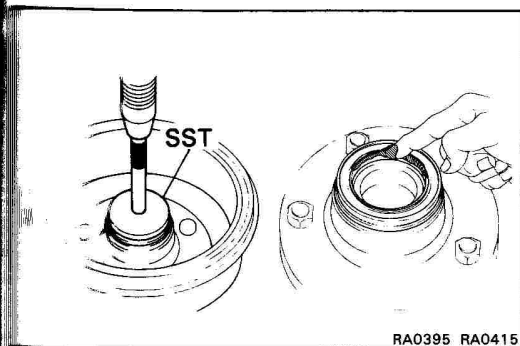
(See page FA-11)

1. PACK BEARINGS WITH MP GREASE

- (a) Place MP grease in the palm of your hand.
- (b) Pack grease into the bearing, continuing until the grease oozes out from the other side.
- (c) Do the same around the bearing circumference.



2. COAT INSIDE OF AXLE HUB AND CAP WITH MP GREASE

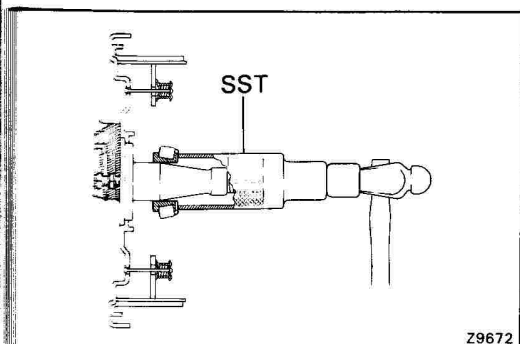


3. INSTALL OIL SEAL

- (a) Using SST, press in the oil seal into the hub until its surface is flush with the surface of hub.

SST 09608-35013

- (b) Apply MP grease to the oil seal lip.



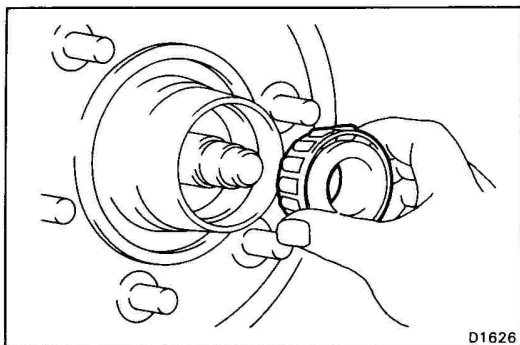
4. INSTALL PLATE AND INNER BEARING

- (a) Install the spacer with the two bolts (service hole bolt and steering knuckle stopper bolt).
- (b) Install the backing plate.

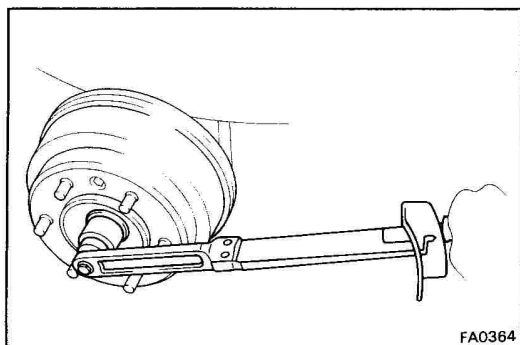
Torque: 1,850 kg-cm (134 ft-lb, 181 N·m)

- (c) Using SST, install the inner bearing and plate.

SST 09316-60010

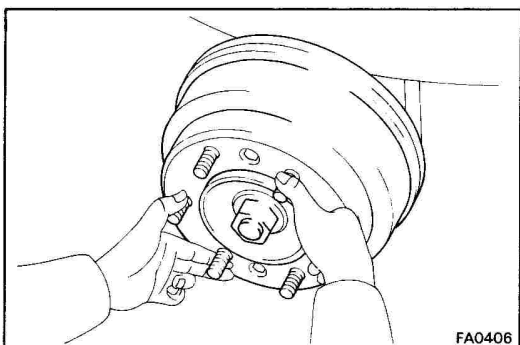
**5. INSTALL AXLE HUB ON SPINDLE**

- (a) Install the axle hub to the spindle.
- (b) Install the outer bearing.

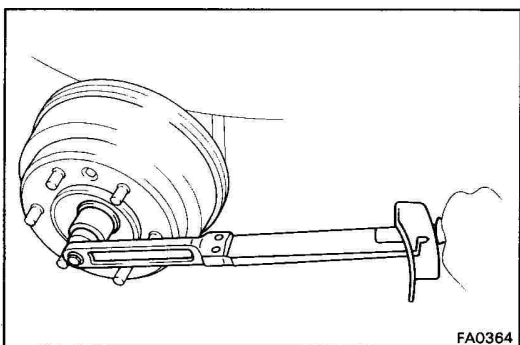
**6. ADJUST PRELOAD**

- (a) Install the plate washer.
- (b) Install and torque the lock nut.

Torque: 1,100 kg-cm (80 ft-lb, 108 N·m)

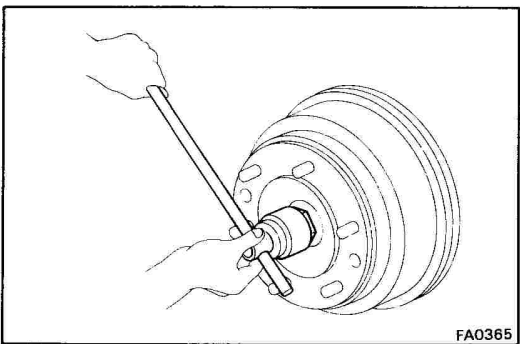


- (c) Snug down the bearing by turning the hub several times.

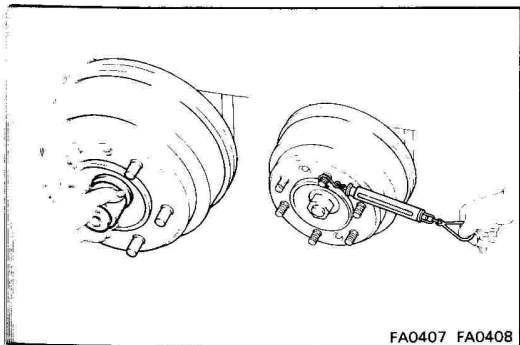


- (d) Retighten the lock nut.

Torque: 1,100 kg-cm (80 ft-lb, 108 N·m)

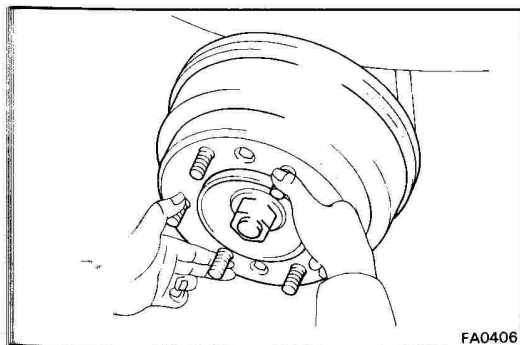


- (e) Loosen the lock nut.



- (f) Turn the lock nut clockwise by hand and measure the preload at the hub bolt.

Front wheel bearing preload (at starting):
1.8 – 4.5 kg (4.0 – 9.9 lb, 18 – 44 N)



- (g) Check the revolving condition of the drum.

Hub axial play: Less than 0.05 mm (0.0020 in.)

7. INSTALL COTTER PIN AND GREASE CAP

NOTE: If the cotter pin hole does not line up, correct it by tightening the nut the smallest amount possible.

8. INSTALL FRONT WHEEL

Torque: 5,250 kg-cm (380 ft-lb, 515 N·m)

9. ADJUST FRONT WHEEL ALIGNMENT
(See page FA-3)