FRONT AXLE HUB (4WD and PRERUNNER)

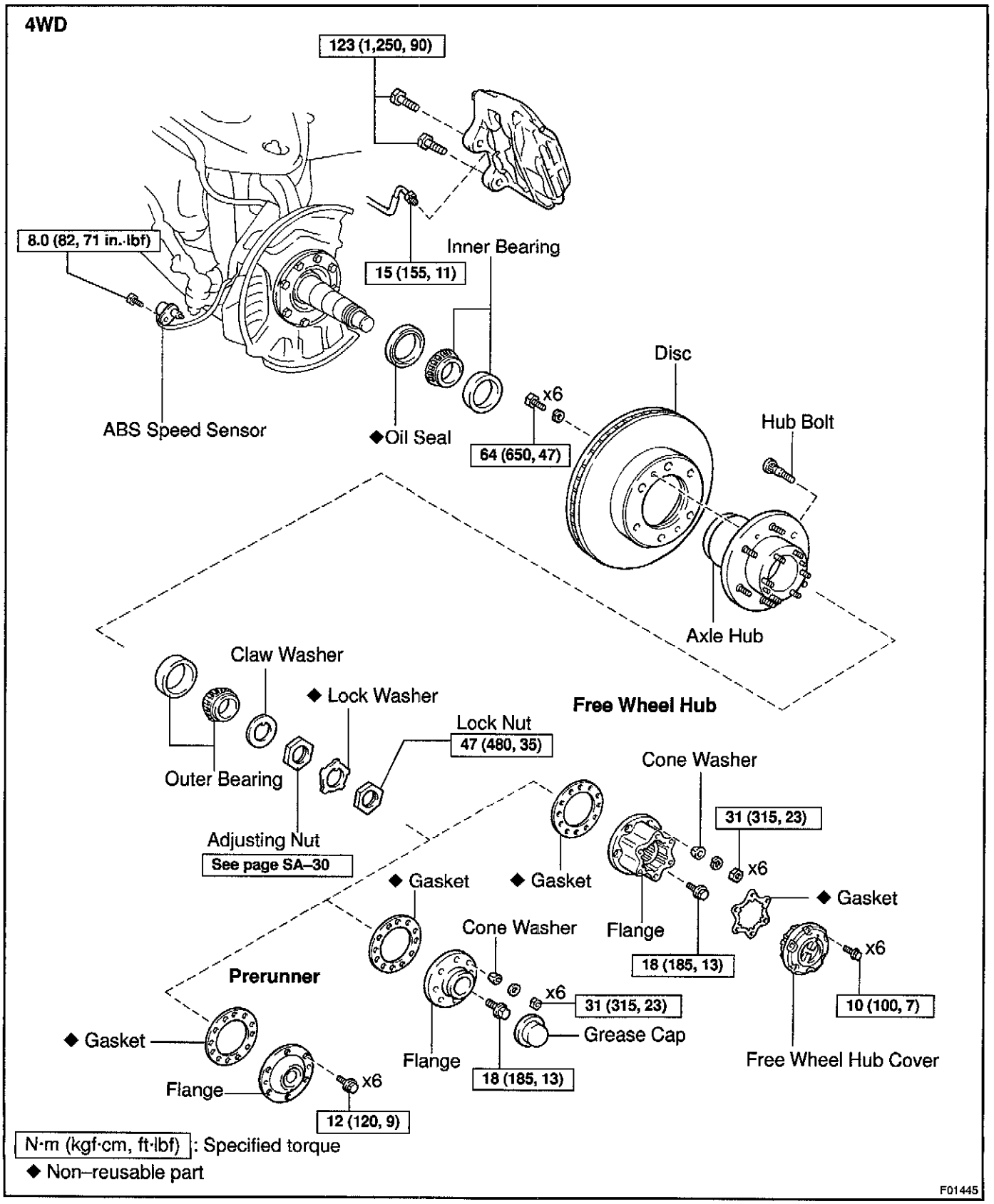
SA0LJ-01

COMPONENTS

HINT:

Prerunner is the model described below.

RZN193L–PRMDK, LN191L–PRMDS

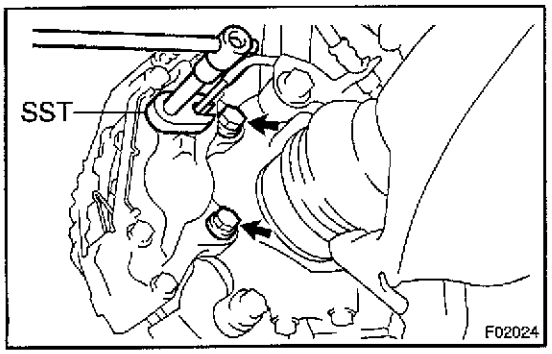


SAGLK-01

REMOVAL

1. **REMOVE FRONT WHEEL**
2. **w/ ABS:**
   DISCONNECT ABS SPEED SENSOR FROM STEERING KNUCKLE

Remove the bolt and ABS speed sensor.



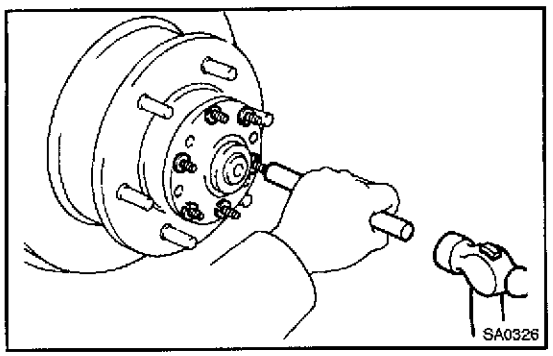
3. **REMOVE BRAKE CALIPER**

(a) Using SST, disconnect the brake line from the brake caliper.
SST 09023–00100

(b) Drain the brake fluid to a container.

(c) Remove the 2 bolts and brake caliper from the steering knuckle.

4. **w/ Free Wheel Hub:**
   REMOVE FREE WHEEL HUB (See page SA–34)



5. **w/o Free Wheel Hub (Except Prerunner):**
   REMOVE FLANGE

(a) Using a screwdriver and hammer, remove the grease cap from the flange.

(b) Remove the bolt.

(c) Remove the 6 mounting nuts and washers.

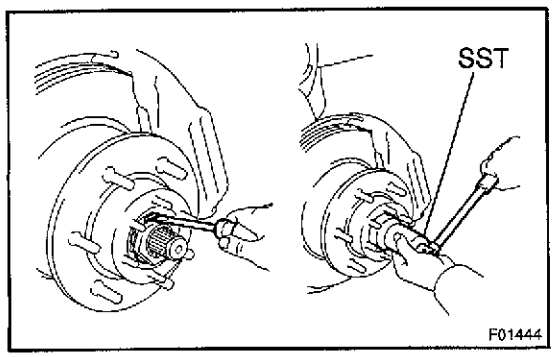
(d) Using a brass bar and hammer, tap on the bolts head and remove the 6 cone washers.

(e) Install and tighten the 2 bolts and remove the flange.

(f) Remove the gasket.

6. **Prerunner:**
   REMOVE FLANGE

Remove the 6 bolts, flange and gasket.



7. **REMOVE AXLE HUB WITH DISC**

(a) Using a screwdriver, release the lock washer.

(b) Using SST, remove the lock nut.
SST 09607–60020

(c) Remove the lock washer and adjusting nut.

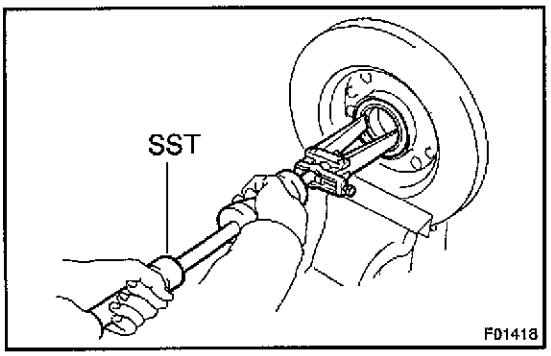
(d) Remove the claw washer.

(e) Remove the axle hub with the disc together with the outer bearing.

NOTICE:

- **Be careful not to damage the ABS speed sensor rotor and oil seal.**
- **Be careful not to drop the outer bearing.**

SA0LL-01



DISASSEMBLY

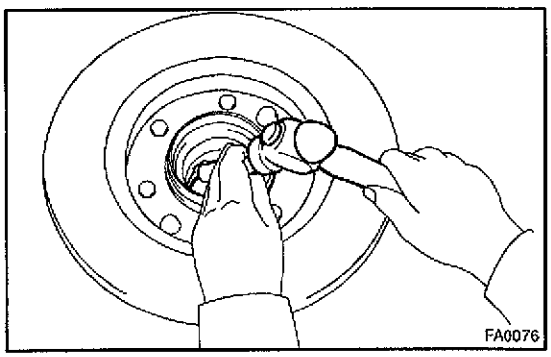
1. REMOVE OIL SEAL AND INNER BEARING

(a) Using SST, remove the oil seal.
SST 09308–00010

(b) Remove the inner bearing from the axle hub.

2. INSPECT BEARINGS

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



3. REMOVE BEARING OUTER RACES

Using a brass bar and hammer, remove the 2 bearing outer races.

NOTICE:

Be careful not to damage the ABS speed sensor rotor.

4. REMOVE DISC

(a) Mount the axle hub with the disc in a soft jaws vice.

NOTICE:

Close vice until it holds disc rotor, do not tighten further.

(b) Place matchmarks on the axle hub and disc.

(c) Remove the 6 bolts, washers and separate the axle hub and disc.

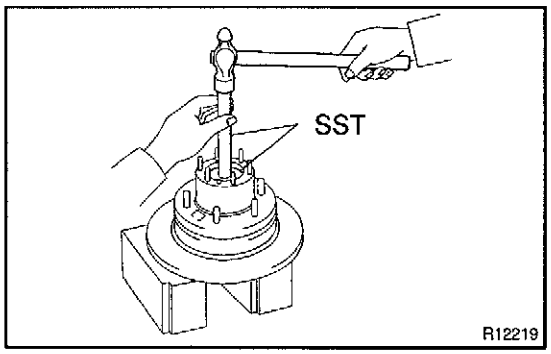
SA0LM-01

REASSEMBLY

1. INSTALL DISC

Align the matchmarks and install the axle hub to the disc, and install the 6 bolts and washers.

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



2. INSTALL BEARING OUTER RACES

(a) Using SST and a hammer, carefully install new outside bearing outer race.

SST 09950–60020 (09951–00720),
09950–70010 (09951–07100)

(b) Using SST and a hammer, carefully install new inside bearing outer race.

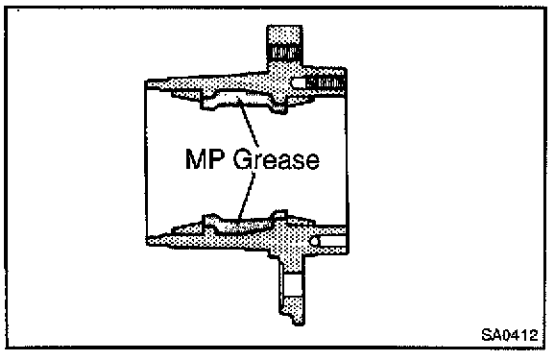
SST 09950–60020 (09951–00810),
09950–70010 (09951–07150)

NOTICE:

Be careful not to damage the ABS speed sensor rotor.

SA0LN-01

INSTALLATION



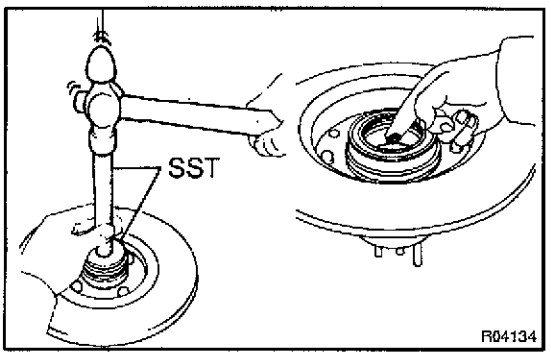
1. PACK BEARING WITH MP GREASE

(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) Employ the same manner around the bearing circumference.

2. COAT INSIDE OF AXLE HUB WITH MP GREASE



3. INSTALL INNER BEARING AND OIL SEAL

(a) Place the inner bearing into the axle hub.

(b) Using SST a hammer, install a new oil seal into the axle hub.

SST 09950–60020 (09951–00910),
09950–70010 (09951–07100)

NOTICE:

Be careful not to damage the ABS speed sensor rotor.

(c) Coat the lip of the oil seal with MP grease.

4. INSTALL AXLE HUB TO STEERING KNUCKLE

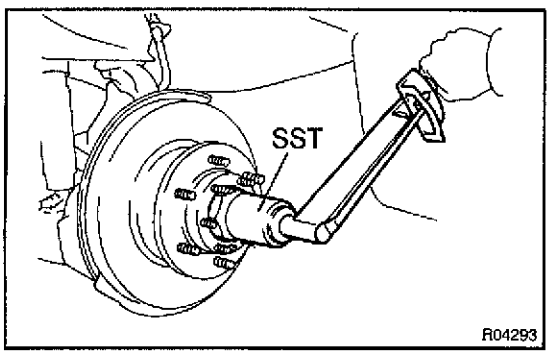
(a) Place the axle hub to the steering knuckle.

NOTICE:

Be careful not to damage the ABS speed sensor rotor.

(b) Install the outer bearing.

(c) Install the claw washer.



5. ADJUST PRELOAD

(a) Install the adjusting nut and tighten it using SST.

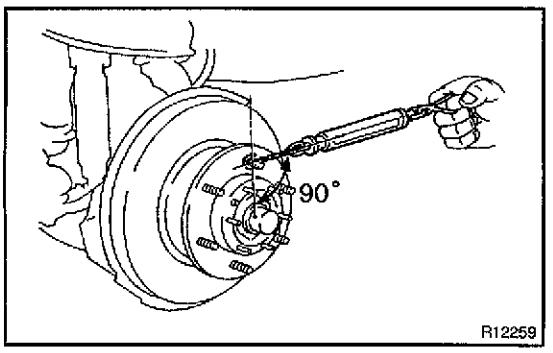
SST 09607–60020

Torque: 59 N·m (600 kgf·cm, 43 ft·lbf)

(b) Turn the axle hub several times to settle down the bearing.

(c) Using SST, loosen the nut to 1/6 of one turn.

SST 09607–60020



(d) Using spring tension gauge, measure the frictional force of oil seal and specify this value A kgf (at starting).

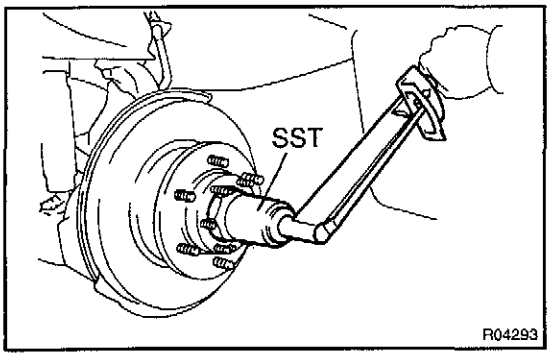
(e) Using SST, retighten the adjusting nut.

SST 09607–60020

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

HINT:

Check that there is no looseness on the bearing.

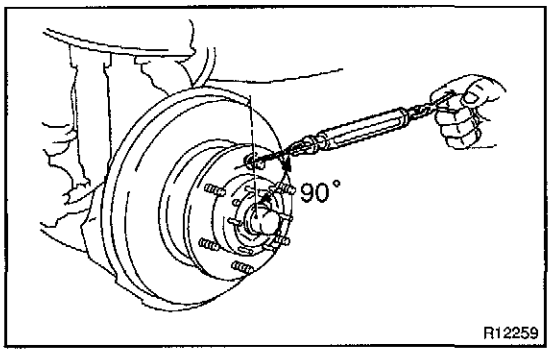


6. INSTALL LOCK WASHER AND LOCK NUT

(a) Install a new lock washer and the lock nut.

(b) Using SST, torque the lock nut.
SST 09607–60020
Torque: 47 N·m (480 kgf·cm, 35 ft·lbf)

(c) Check that the axle hub rotates smoothly and there is no looseness on the bearing.



(d) Using a spring tension gauge, measure the preload.
Preload (at starting):
Oil seal frictional force (A) plus
10 – 38 N (1.0 – 3.9 kgf, 2.2 – 8.6 lbf)

HINT:
Make sure to check preload in the direction of rotation.
If the preload is not within the specification, adjust it again with the adjusting nut.

(e) Secure the lock nut by bending one of the lock washer teeth inward and the other lock washer teeth outward.

7. w/ Free Wheel Hub:
INSTALL FREE WHEEL HUB (See page SA–36)

8. w/o Free Wheel Hub (Except Prerunner):
INSTALL FLANGE

(a) Place a new gasket in position on the axle hub.

(b) Install the flange to the axle hub.

(c) Install 6 cone washers, plate washers and nuts.

(d) Torque the 6 nuts.
Torque: 31 N·m (315 kgf·cm, 23 ft·lbf)

(e) Install the bolt and grease cap.
Torque: 18 N·m (185 kgf·cm, 13 ft·lbf)

9. Prerunner:
INSTALL FLANGE

(a) Place a new gasket in position on the axle hub.

(b) Install the flange to the axle hub.
Torque: 12 N·m (120 kgf·cm, 9 ft·lbf)

10. INSTALL BRAKE CALIPER

(a) Install the brake caliper with 2 bolts.

(b) Torque the 2 bolts.
Torque: 123 N·m (1,250 kgf·cm, 90 ft·lbf)

(c) Using SST, connect the brake line to the brake caliper.
SST 09023–00100
Torque: 15 N·m (155 kgf·cm, 11 ft·lbf)

11. w/ ABS:
CONNECT ABS SPEED SENSOR TO STEERING KNUCKLE
Torque: 8.0 N·m (82 kgf·cm, 71 in.·lbf)

12. INSTALL FRONT WHEEL
Torque: 105 N·m (1,050 kgf·cm, 76 ft·lbf)

13. **CHECK BLEED BRAKE SYSTEM (See page BR–4) AND ABS SPEED SENSOR SIGNAL (See page DI–52)**