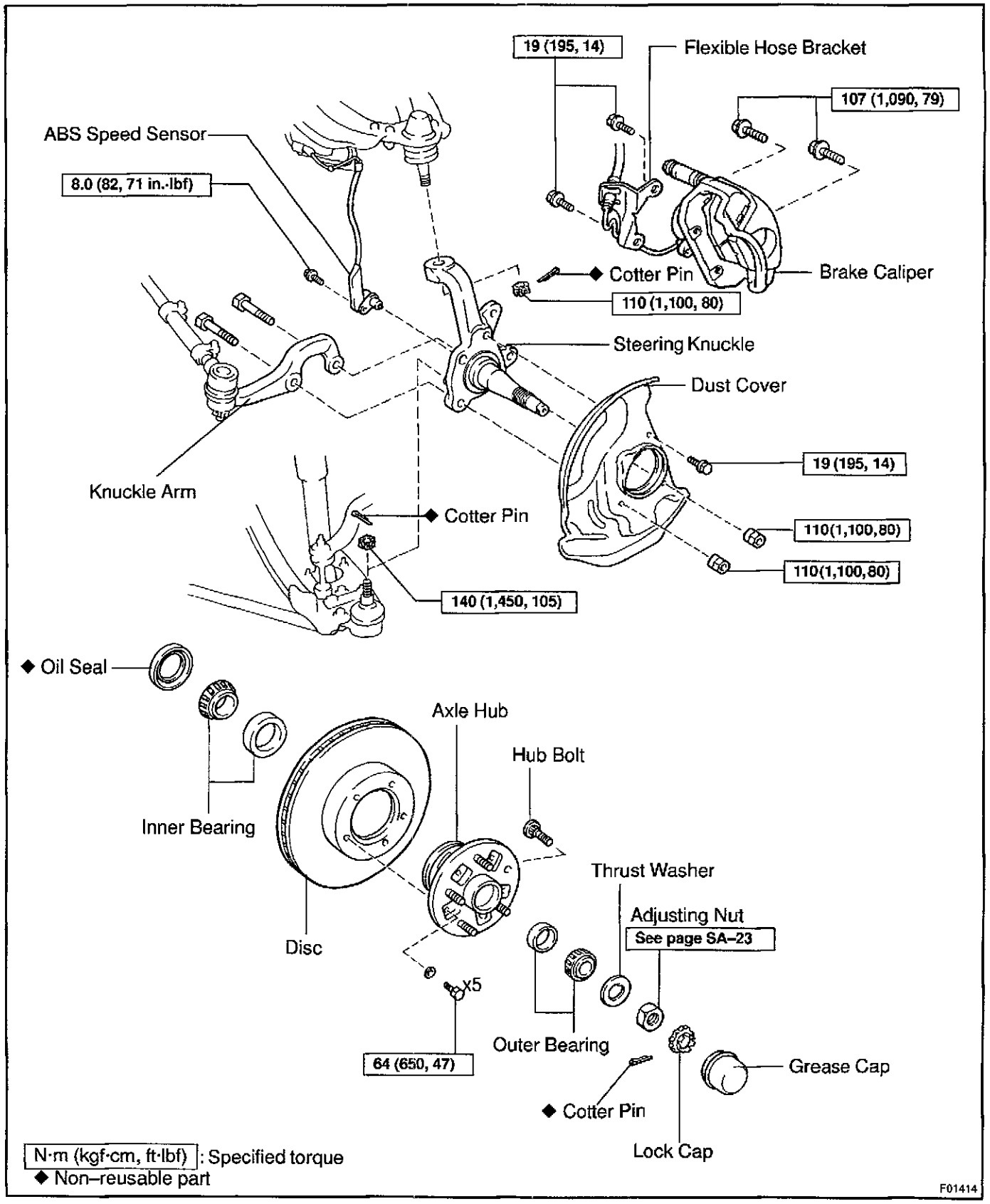
FRONT AXLE HUB (2WD)

COMPONENTS

SADLD-01



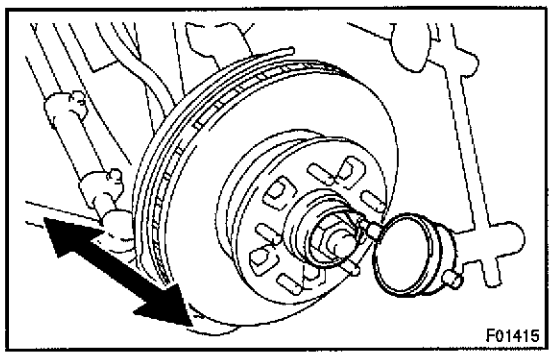
SA0LE-01

REMOVAL

1. REMOVE FRONT WHEEL

2. REMOVE FLEXIBLE HOSE BRACKET

Remove the 2 bolts and flexible hose bracket.



3. CHECK AXLE HUB BEARING BACKLASH

(a) Remove the 2 bolts and brake caliper.

(b) Support the brake caliper securely.

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

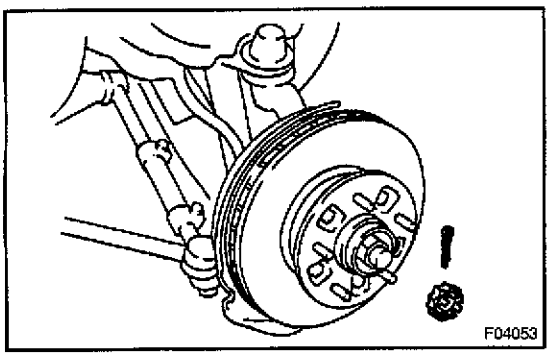
(d) Using a dial indicator near the center of the axle hub and check the backlash in the bearing shaft direction.
Maximum: 0.05 mm (0.0020 in.)

If the backlash exceeds the maximum, replace the bearing.

(e) Install the brake caliper and 2 bolts.
Torque: 107 N·m (1,090 kgf·cm, 79 ft·lbf)

4. w/ ABS:
REMOVE ABS SPEED SENSOR FROM STEERING KNUCKLE

Remove the bolt and ABS speed sensor.



5. REMOVE AXLE HUB WITH DISC

(a) Remove the cotter pin and lock cap.

(b) With applying the brakes, remove the nut.

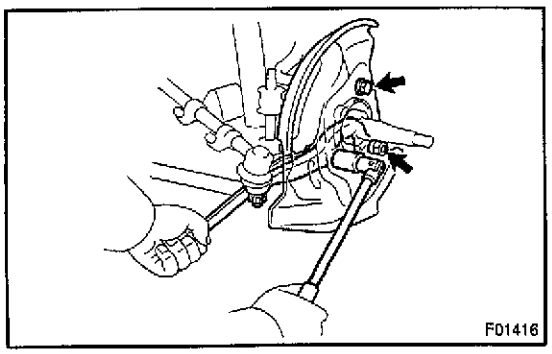
(c) Remove the 2 bolts and brake caliper.

(d) Support the brake caliper securely.

(e) Remove the axle hub with the disc, thrust washer and outer bearing.

NOTICE:

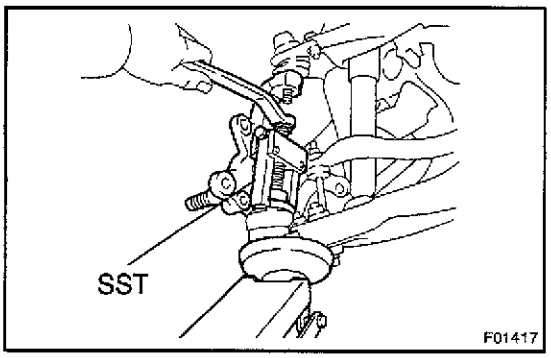
Be careful not to drop the outer bearing.



6. REMOVE DUST COVER

(a) Remove the 2 nuts, 3 bolts and dust cover.

(b) Disconnect the knuckle arm from the steering knuckle.



7. REMOVE STEERING KNUCKLE

(a) Support the lower suspension arm with a jack.

(b) Remove the 2 cotter pins and nuts from the upper and lower ball joints.

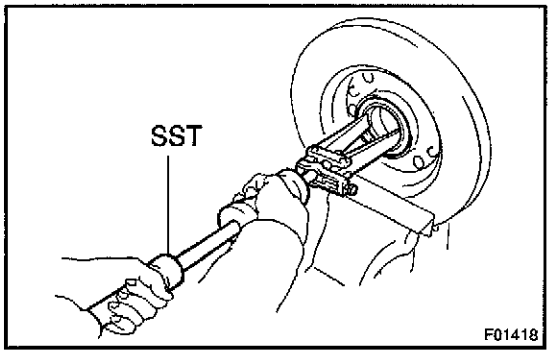
(c) Using SST, disconnect the steering knuckle from the upper and lower ball joints.

SST 09628–62011

(d) Remove the steering knuckle.

SA0LF-01

DISASSEMBLY



1. REMOVE OIL SEAL AND INNER BEARING

(a) Mount the axle hub with the disc in a vise.

NOTICE:

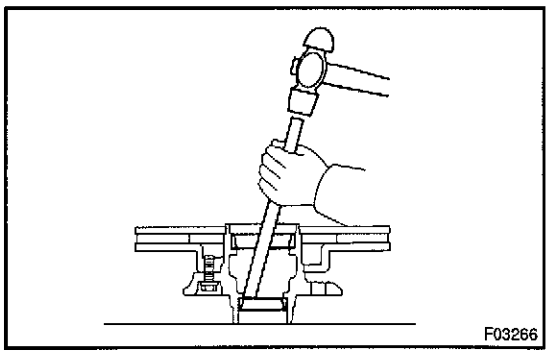
Use a set of soft jaws in the vise to protect the axle carrier.

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

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

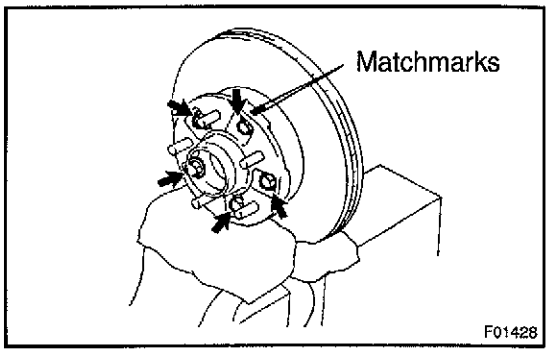
2. INSPECT BEARINGS

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.



4. REMOVE DISC

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

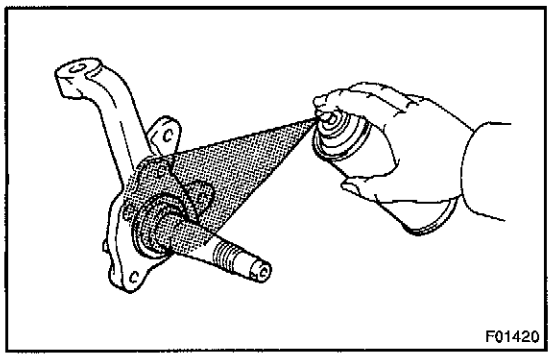
NOTICE:

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

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

(c) Remove the 5 bolts, washers and separate the axle hub from disc.

SA0LG–01



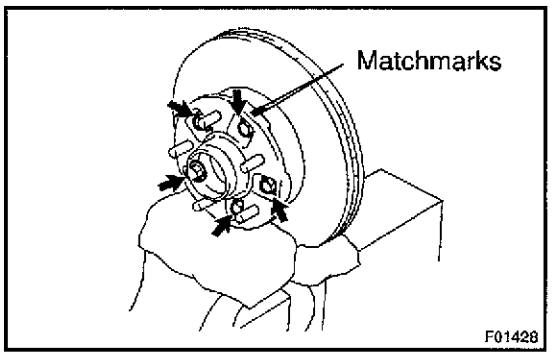
INSPECTION

INSPECT STEERING KNUCKLE

Using a dye penetrant, check the steering knuckle for cracks.

SA0LH-01

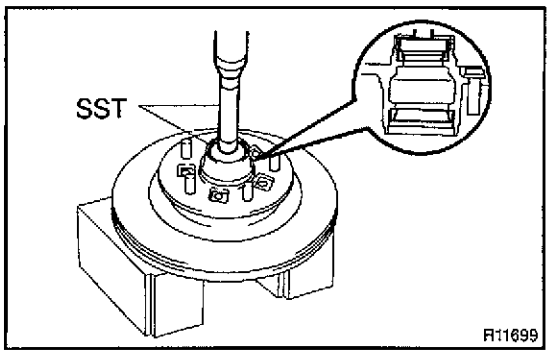
REASSEMBLY



1. INSTALL DISC

Align the matchmarks and install the axle hub to the disc, and install the 5 bolts and washers.

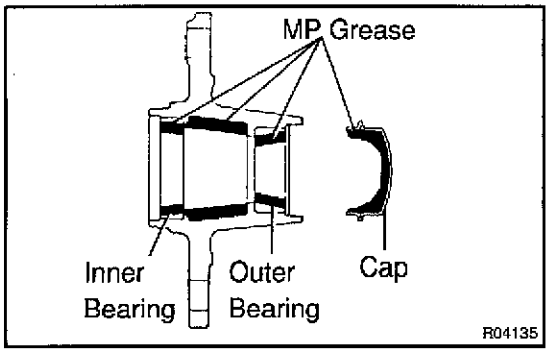
Torque: 64 N·m (650 kgf·cm, 47 ft·lbf)



2. INSTALL BEARING OUTER RACES

(a) Using SST and a press, install new outside bearing outer race.
SST 09950–60010 (09951–00480),
09950–70010 (09951–07150)

(b) Using SST and a press, install new inside bearing outer race.
SST 09950–60010 (09951–00620),
09950–70010 (09951–07150)



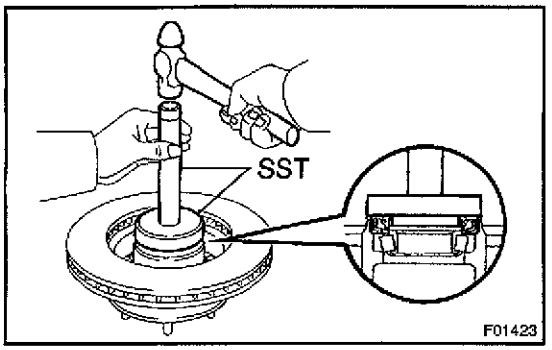
3. INSTALL INNER BEARING AND NEW OIL SEAL

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

(b) Pack grease into the bearing, and continue until the grease oozes out from the outside.

(c) Employ the same manner around the bearing circumference.

(d) Coat the inside of the axle hub and grease cap with MP grease.
Grease capacity:
Axle hub side: 80 – 90 g (2.82 – 3.17 oz.)
Grease cap side: 11 g (0.39 oz) or more



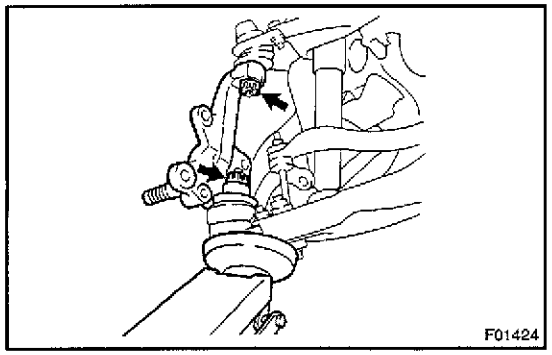
(e) Install the inner bearing.

(f) Using SST and a hammer, install a new oil seal into the axle hub.
SST 09950–60020 (09951–00710),
09950–70010 (09951–00150)

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

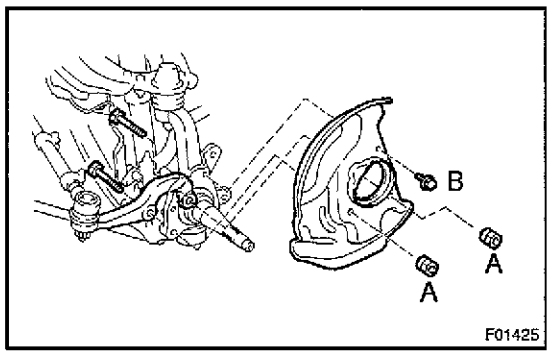
SA0LI–01

INSTALLATION



1. INSTALL STEERING KNUCKLE

(a) Support the lower suspension arm with a jack.
(b) Temporarily connect the steering knuckle to the upper ball joint with nut.
(c) Temporarily install the steering knuckle to the lower ball joint with the nut.
(d) Tighten the nuts.
Torque:
Upper side: 110 N·m (1,100 kgf·cm, 80 ft·lbf)
Lower side: 140 N·m (1,450 kgf·cm, 105 ft·lbf)
(e) Install 2 new cotter pins.

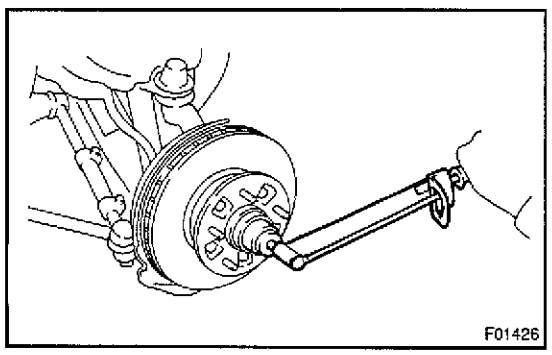


2. INSTALL KNUCKLE ARM AND DUST COVER

(a) Connect the knuckle arm and install the dust cover to the steering knuckle.
(b) Install the 3 bolts and 2 nuts.
Torque:
A: 110 N·m (1,100 kgf·cm, 80 ft·lbf)
B: 19 N·m (195 kgf·cm, 14 ft·lbf)
(c) Install 2 new cotter pins.

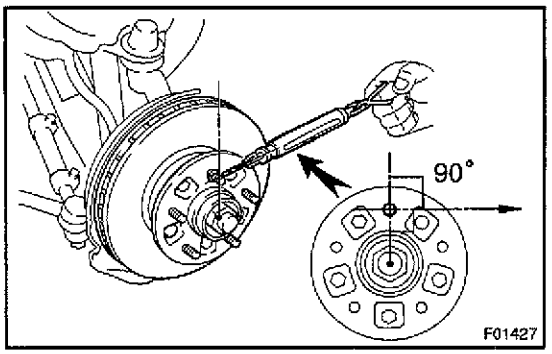
3. INSTALL AXLE HUB ON SPINDLE

(a) Place the axle hub on the spindle.
(b) Install the outer bearing and thrust washer.



4. ADJUST PRELOAD

(a) Install and tighten the nut.
Torque: 34 N·m (350 kgf·cm, 25 ft·lbf)
(b) Turn the hub right and left 2 or 3 times to settle the bearings down.
(c) Loosen the nut until it can be turned by hand.

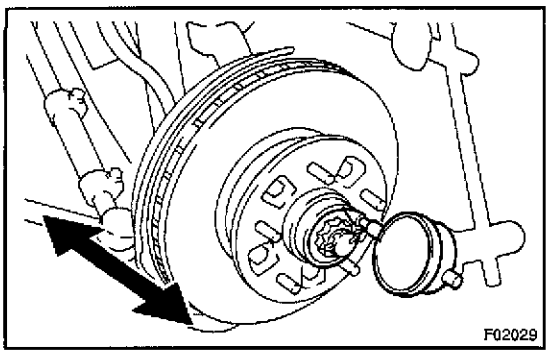


(d) Using a spring tension gauge, measure and make a note down of the frictional force of the oil seal (A).

(e) Tighten the nut until the preload is within the specification.

Preload: (at starting)
Oil seal frictional force (A) plus
5.9 – 17.7 N (0.6 – 1.8 kgf, 1.3 – 4.0 lbf)

If the bearing preload is not within the specification, adjust the preload by tightening the nut.



(f) Check the axle hub bearing backlash.

Maximum: 0.05 mm (0.0020 in.)

5. INSTALL LOCK CAP, NEW COTTER PIN AND GREASE CAP

6. INSTALL BRAKE CALIPER

Install the brake caliper and 2 bolts.

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

7. INSTALL FLEXIBLE HOSE BRACKET

Install the flexible hose bracket and 2 bolts.

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

8. w/ ABS:
INSTALL ABS SPEED SENSOR TO STEERING KNUCKLE

Install the ABS speed sensor and bolt.

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

9. INSTALL FRONT WHEEL

Torque:
Australia Gasoline Engine:
150 N·m (1,500 kgf·cm, 108 ft·lbf)
Others:
140 N·m (1,400 kgf·cm, 101 ft·lbf)

10. CHECK ABS SPEED SENSOR SIGNAL (See page DI–52) AND FRONT WHEEL ALIGNMENT (See page SA–8)