

# FRONT DISC BRAKE ASSEMBLY

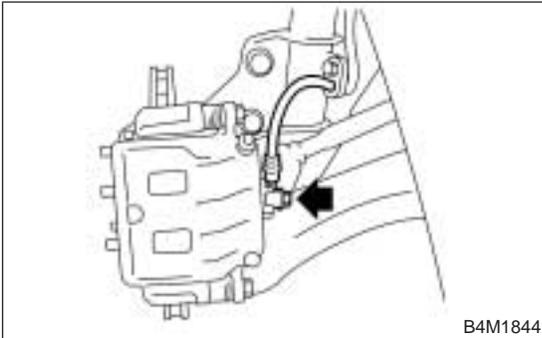
Brake

## 4. Front Disc Brake Assembly

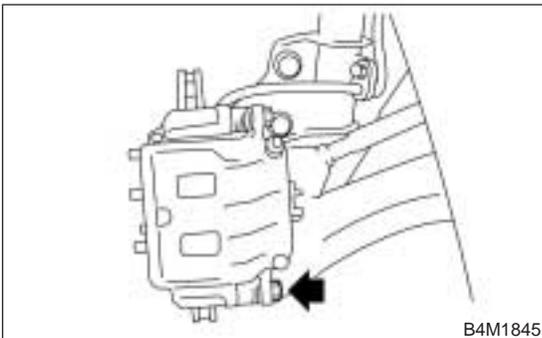
S405176

### A: REMOVAL S405176A18

- 1) Remove union bolt and disconnect brake hose from caliper body assembly.



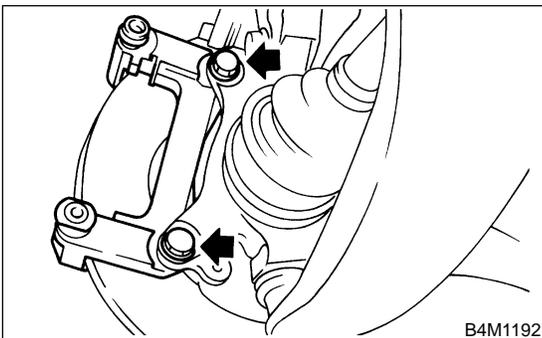
- 2) Remove bolt securing lock pin to caliper body.



- 3) Raise caliper body and move it toward vehicle center to separate it from support.
- 4) Remove support from housing.

#### NOTE:

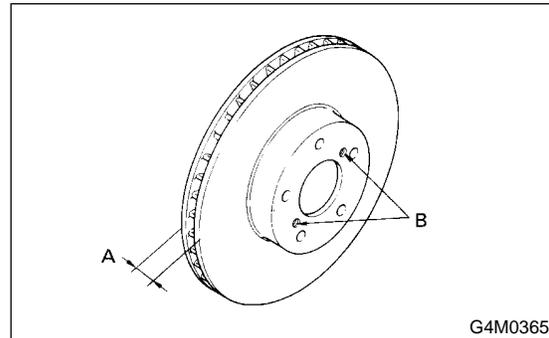
Remove support only when replacing it or the rotor. It need not be removed when servicing caliper body assembly.



- 5) Remove disc rotor from hub.

#### NOTE:

If disc rotor seizes up within hub, drive disc rotor out by installing an 8-mm bolt in holes B on the rotor.



- 6) Clean mud and foreign particles from caliper body assembly and support.

## B: INSTALLATION S405176A11

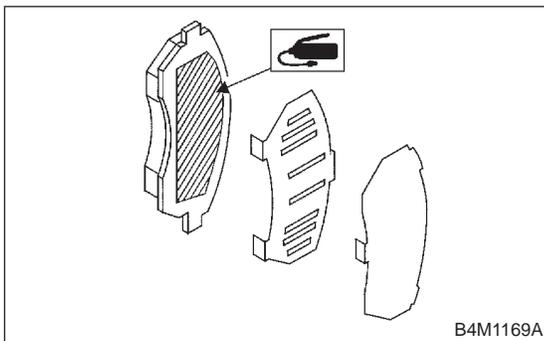
- 1) Install disc rotor on hub.
- 2) Install support on housing.

**Tightening torque:**  
**78 N·m (8 kgf·m, 58 ft·lb)**

**CAUTION:**

- Always replace the pads for both the left and right wheels at the same time. Also replace pad clips if they are twisted or worn.
- A wear indicator is provided on the inner disc brake pad. If the pad wears down to such an extent that the end of the wear indicator contacts the disc rotor, a squeaking sound is produced as the wheel rotates. If this sound is heard, replace the pad.
- When replacing the pads, replace pads of the right and left wheels at the same time.

- 3) Apply thin coat of Molykote AS880N (Part No. 26298AC000) to the frictional portion between pad and pad clip.
- 4) Apply thin coat of Molykote AS880N (Part No. 26298AC000) to the frictional portion between pad and inner shim.



- 5) Install pads on support.
- 6) Install caliper body on support.

**Tightening torque:**  
**14 inch type**  
**37 N·m (3.8 kgf·m, 27.5 ft·lb)**  
**Except 14 inch type**  
**39 N·m (4.0 kgf·m, 28.9 ft·lb)**

- 7) Connect brake hose.

**Tightening torque:**  
**18 N·m (1.8 kgf·m, 13.0 ft·lb)**

**CAUTION:**

Replace brake hose gaskets with new ones.

- 8) Bleed air from brake system.

## C: DISASSEMBLY S405176A06

### 1. 14 inch TYPE S405176A0602

- 1) Clean mud and foreign particles from caliper body assembly and support.

**CAUTION:**

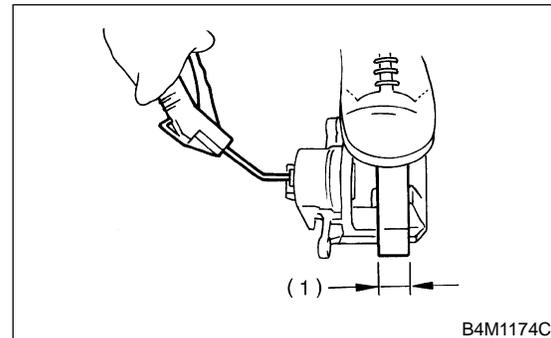
Be careful not to allow foreign particles to enter inlet (at brake hose connector).

- 2) Gradually supply compressed air via caliper body brake hose to force piston out.

**CAUTION:**

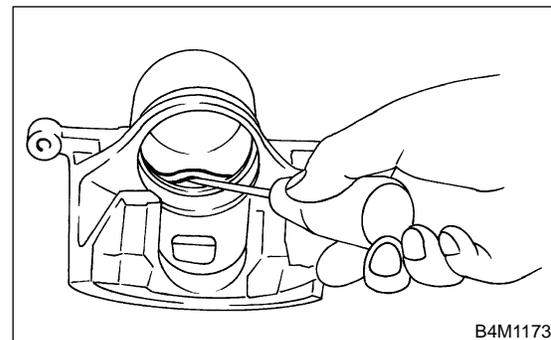
● Place a wooden block as shown in Figure to prevent damage to piston.

● Do not apply excessively high-pressure.



- (1) Place a 30 mm (1.18 in) wide wooden block here.

- 3) Remove piston boot.
- 4) Remove piston seal from caliper body cylinder.



- 5) Remove guide pin and boot from caliper body.

### 2. 15 inch AND 16 inch TYPE S405176A0603

- 1) Clean mud and foreign particles from caliper body assembly and support.

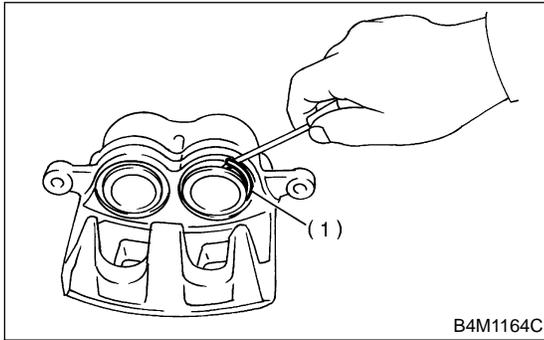
**CAUTION:**

Be careful not to allow foreign particles to enter inlet (at brake hose connector).

# FRONT DISC BRAKE ASSEMBLY

Brake

- Using a standard screwdriver, remove boot ring from piston.

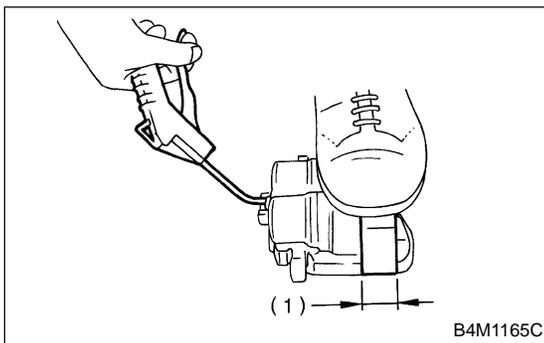


(1) Boot ring

- Remove boot from piston end.
- Gradually supply compressed air via caliper body brake hose to force piston out.

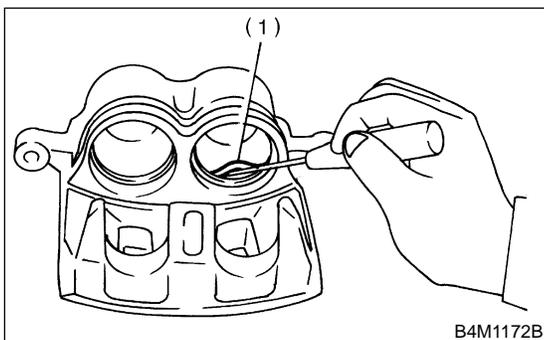
### CAUTION:

Place a wooden block as shown in Figure to prevent damage to piston.



(1) Place a 30 mm (1.18 in) wide wooden block here.

- Remove piston seal from caliper body cylinder.



(1) Piston pin

- Remove lock pin boot and guide pin boot.

## D: ASSEMBLY S405176A02

### 1. 14 inch TYPE S405176A0202

- Clean caliper body interior using brake fluid.
- Apply a coat of brake fluid to piston seal and fit piston seal in groove on caliper body.
- Apply a coat of brake fluid to the entire inner surface of cylinder and outer surface of piston.
- Apply a coat of specified grease to boot and fit in groove on ends of cylinder and install piston boot onto cylinder.

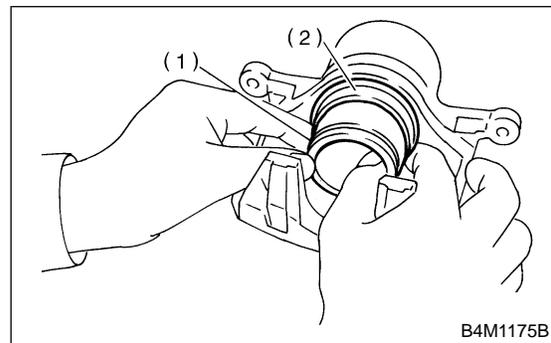
### Grease:

**NIGLUBE RX-2 (Part No. 003606000)**

- Insert piston into cylinder.

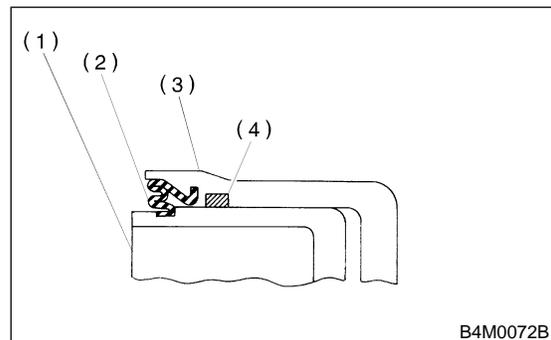
### CAUTION:

Do not force piston into cylinder.



(1) Piston  
(2) Piston boot

- Position boot in grooves on cylinder and piston.



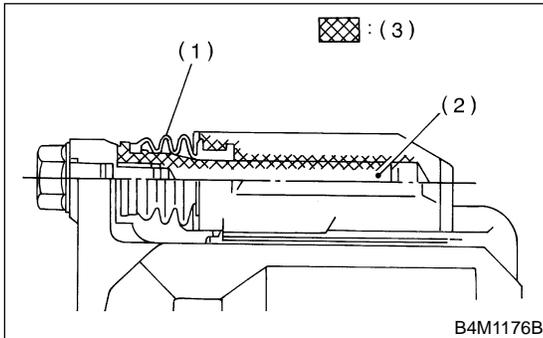
(1) Piston  
(2) Piston boot  
(3) Caliper body  
(4) Piston seal

7) Apply a coat of specified grease to lock pin and guide pin outer surface, cylinder inner surface, and boot grooves.

**Grease:**

**NIGLUBE RX-2 (Part No. 003606000)**

8) Install lock and guide pin boot on support.



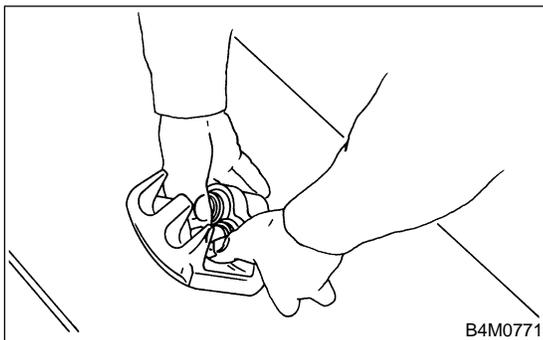
- (1) Pin boot
- (2) Lock pin or guide pin
- (3) Apply grease.

**2. 15 inch AND 16 inch TYPE** S405176A0203

- 1) Clean caliper body interior using brake fluid.
- 2) Apply a coat of brake fluid to piston seal and fit piston seal in groove on caliper body.
- 3) Apply a coat of brake fluid to the entire inner surface of cylinder and outer surface of piston.
- 4) Insert piston into cylinder.

**CAUTION:**

**Do not force piston into cylinder.**

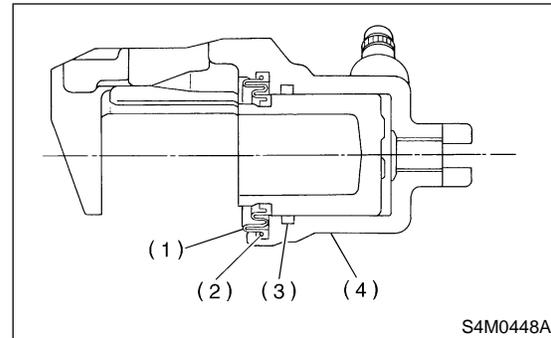


5) Apply a coat of specified grease to boot and fit in groove on ends of cylinder and piston.

**Grease:**

**NIGLUBE RX-2 (Part No. 003606000)**

To facilitate installation, fit boot starting with piston end.

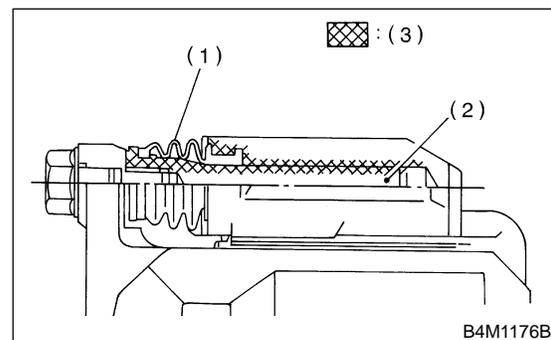


- (1) Piston boot
- (2) Boot ring
- (3) Piston seal
- (4) Caliper body

- 6) Position boot in grooves on cylinder and piston.
- 7) Install boot ring. Be careful not scratch boot.
- 8) Apply a coat of specified grease to lock pin and guide pin, outer surface, cylinder inner surface, and boot grooves.

**Grease:**

**NIGLUBE RX-2 (Part No. 003606000)**



- (1) Pin boot
- (2) Lock pin or guide pin
- (3) Apply grease.

9) Install lock pin boot and guide pin boot on support.

# FRONT DISC BRAKE ASSEMBLY

Brake

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## **E: INSPECTION** S405176A10

- 1) Repair or replace faulty parts.
- 2) Check caliper body and piston for uneven wear, damage or rust.
- 3) Check rubber parts for damage or deterioration.