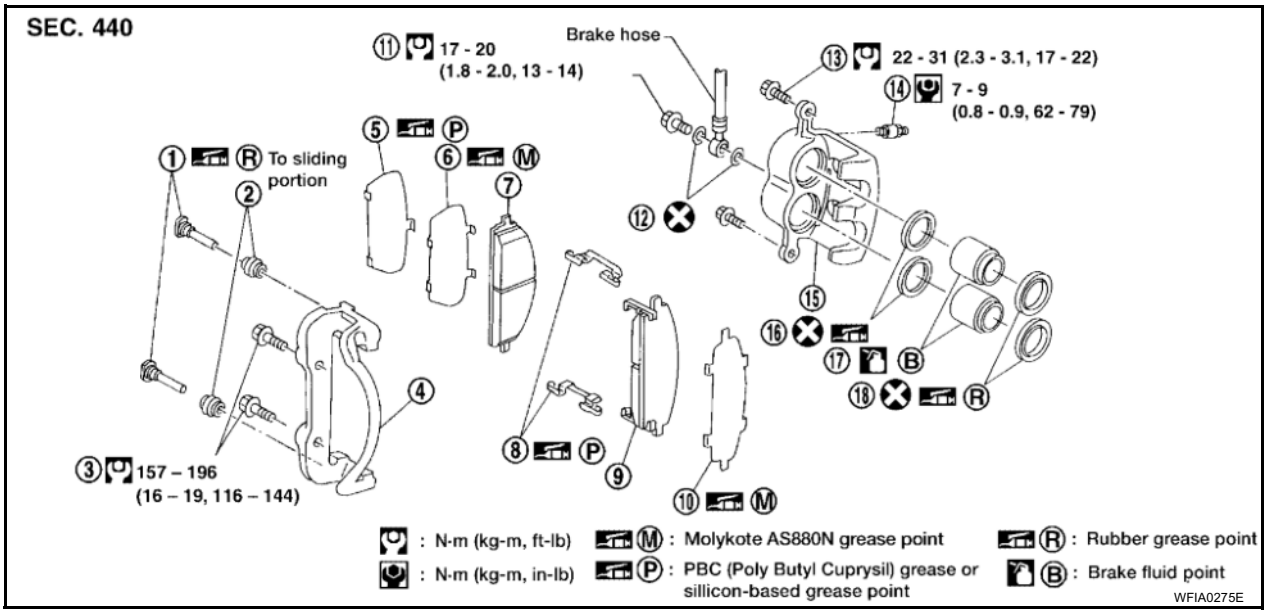
FRONT DISC BRAKE

PFP:41000

Components

EFS002NJ



1. Main pin
2. Pin boot
3. Torque member fixing bolt
4. Torque member
5. Shim cover (if equipped)
6. Inner shim
7. Inner pad
8. Pad retainer
9. Outer pad
10. Outer shim
11. Connecting bolt
12. Copper washer
13. Main pin bolt
14. Bleed valve
15. Cylinder body
16. Piston seal
17. Piston
18. Piston boot

Pad Replacement

EFS002NK

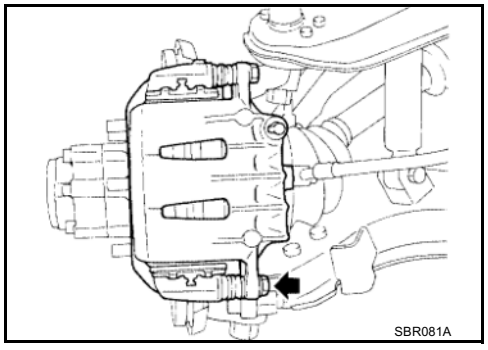
WARNING:

Clean brakes with a vacuum dust collector to minimize the hazard of airborne particles or other materials.

CAUTION:

- **When cylinder body is open, do not depress brake pedal, or piston will pop out.**
- **Be careful not to damage piston boot or get oil on rotor. Always replace shims when replacing pads.**
- **If shims are rusted or show peeling of the rubber coat, replace them with new shims.**
- **It is not necessary to remove connecting bolt except for disassembly or replacement of caliper assembly. In this case, suspend cylinder body with wire so as not to stretch brake hose.**
- **Burnish the brake contact surfaces after refinishing or replacing drums or rotors, after replacing pads or linings, or if a soft pedal occurs at very low mileage. Refer to BR-28, "Brake Burnishing Procedure" .**

1. Remove reservoir cap.
2. Remove lower main pin bolt.



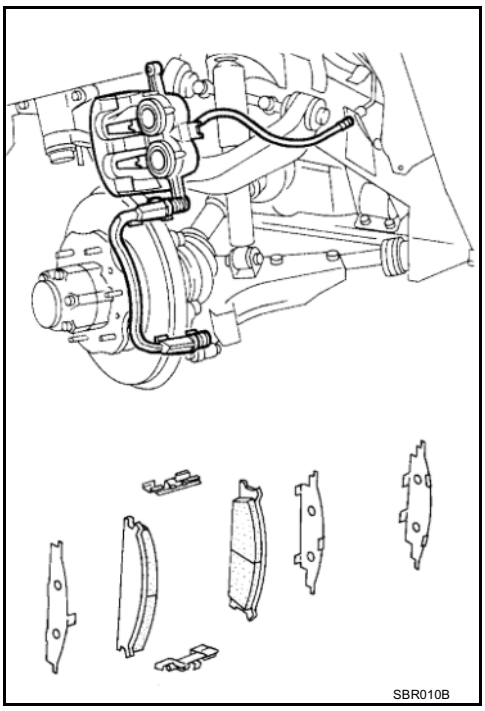
3. Rotate cylinder body upward. Remove pad retainers, inner and outer shims and shim cover (if equipped).

Standard pad thickness : 10 mm (0.39 in)

Pad wear limit : 2.0 mm (0.079 in)

CAUTION:

Carefully monitor brake fluid level because brake fluid will return to reservoir tank when pushing back pistons.



Caliper Removal and Installation

EFS002NL

REMOVAL

WARNING:

Clean brake pads with a vacuum dust collector to minimize the hazard of airborne particles or other materials.

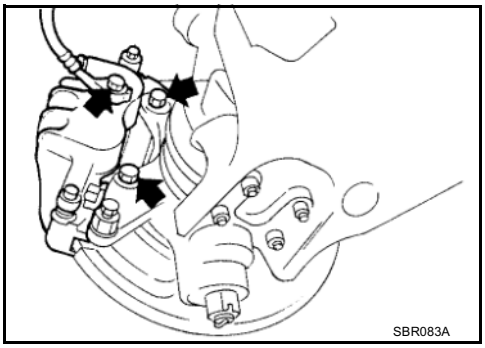
CAUTION:

Suspend caliper assembly with wire so as not to stretch brake hose.

Remove torque member fixing bolts and connecting bolt.

NOTE:

It is not necessary to remove connecting bolt except for disassembly or replacement of caliper assembly. In this case, suspend caliper assembly with wire so as not to stretch brake hose.



INSTALLATION

CAUTION:

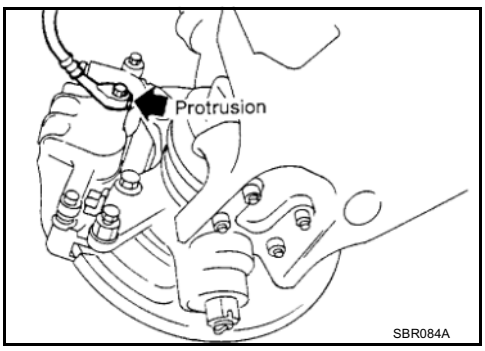
- **Refill with new brake fluid “DOT 3”.**
- **Never reuse drained brake fluid.**

1. Install caliper assembly and brake hose. Align protrusion on brake hose with slot on caliper assembly.

Torque member fixing bolts : 157 - 196 N·m (16 - 19 kg-m, 116 - 144 lb-ft)

Connecting bolt : 17 - 20 N·m (1.8 - 2.0 kg-m, 13 - 14 lb-ft)

2. Bleed air. Refer to BR-9, "Bleeding Brake System" .



Caliper Disassembly and Assembly

EFS002NM

DISASSEMBLY

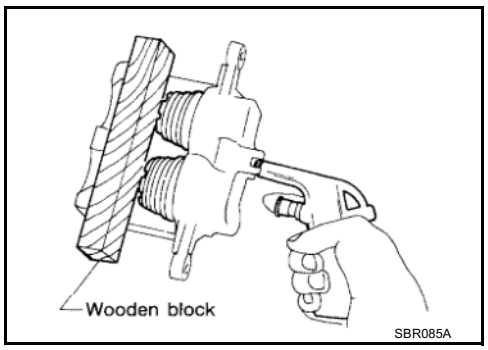
WARNING:

Do not place your fingers in front of piston.

CAUTION:

- **Do not scratch or score cylinder wall.**

1. Push out piston and dust covers with compressed air. Use a wooden block so that both pistons come out evenly.
2. Remove piston seal with a suitable tool.



INSPECTION AFTER DISASSEMBLY

Cylinder Body

- Check inside surface of cylinder for score, rust, wear, damage and presence of foreign objects. If any of the above conditions are observed, replace cylinder body.
- Minor damage from rust or foreign objects may be eliminated by polishing surface with a fine emery paper. Replace cylinder body if necessary.

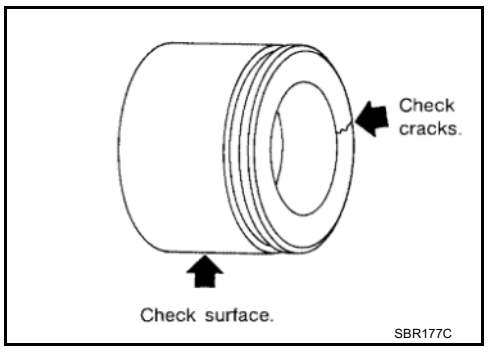
CAUTION:

Use brake fluid to clean. Never use mineral oil.

Piston

CAUTION:

Piston sliding surface is plated. Do not polish with emery paper even if rust or foreign objects are stuck to sliding surface.



Main Pin, Main Pin Bolt and Pin Boot

Check for wear, cracks, rust and other damage. Replace if any of the above conditions are observed.

DISC ROTOR INSPECTION

Runout

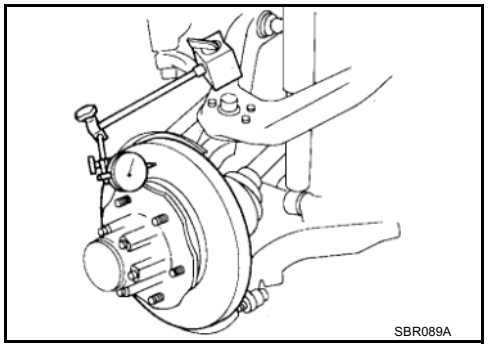
1. Check rotor runout using a dial indicator.

Make sure that wheel bearing axial end play is within the specifications before measuring. Refer to FAX-15, "WHEEL BEARINGS" .

Maximum rotor runout : 0.07 mm (0.0028 in)

2. If the rotor runout is out of specification, find minimum rotor runout position as follows:

a. Remove nuts and rotor from wheel hub.
b. Shift the rotor one hole and secure rotor to wheel hub with nuts.
c. Measure runout.
d. Repeat steps a. to c. so that minimum rotor runout position can be found.



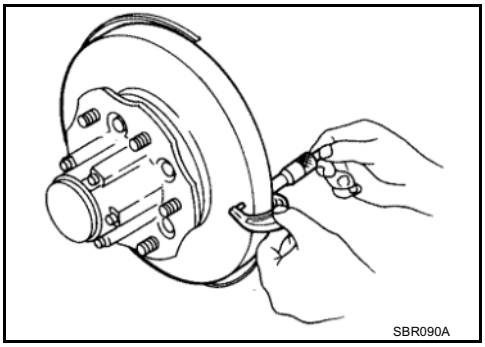
3. If the rotor runout is still out of specification, turn rotor with on-car brake lathe (“MAD, DL-8700”, “AMMCO 700 and 705” or equivalent).

Thickness

Thickness variation (At least 8 positions)	**: Maximum 0.02 mm (0.0008 in)**

If thickness variation exceeds the specification, turn rotor with on-car brake lathe.

Rotor repair limit : 26.0 mm (1.024 in)

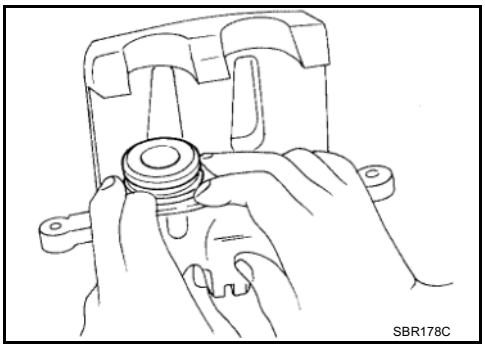

SBR090A

ASSEMBLY

1. Insert piston seal into groove on cylinder body.
2. With piston boot fitted to piston, insert piston boot into groove on cylinder body and install piston.
3. Properly secure piston boot.

CAUTION:

- **Secure dust seal properly.**
- **Lubricate with new brake fluid before installing pistons into cylinder body.**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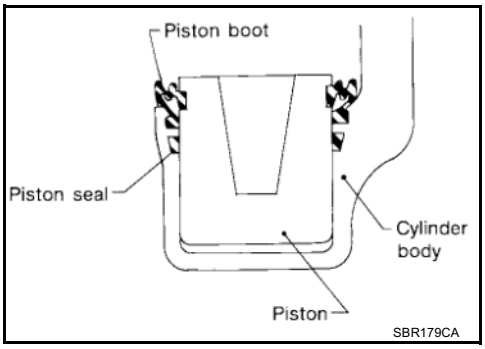

SBR179CA

Brake Burnishing Procedure

EFS002NN

Burnish the brake contact surfaces according to the following procedure after refinishing or replacing drums or rotors, after replacing pads or linings, or if a soft pedal occurs at very low mileage.

CAUTION:

Only perform this procedure under safe road and traffic conditions. Use extreme caution.

1. Drive the vehicle on a straight smooth road at 50 km/h (31 MPH).
2. Use medium brake pedal/foot effort to bring the vehicle to a complete stop from 50 km/h (31 MPH). Adjust brake pedal/foot pressure such that vehicle stopping time equals 3 to 5 seconds.
3. To cool the brake system, drive the vehicle at 50 km/h (31 MPH) for 1 minute without stopping.
4. Repeat steps 1 to 3, 10 times or more to complete the burnishing procedure.