

Nissan Rear Caliper Overhaul

If you're doing a lot of brake work, sooner or later you're bound to run into a stuck or leaking rear brake caliper. Instead of replacing this expensive part, consider overhauling it. You can save your customer some money on the job and also make some extra money for yourself.

Nissan has been using a single-piston rear caliper on all its four-wheel disc cars since 1982. This in-

cludes the Maxima, 200 SX, 280 ZX, and 300 ZX. The only differences among the various models are the piston diameters. If you've done one caliper, you can do them all. When you encounter a low brake pedal on one of these Nissans, remember something. Experience has shown that the cause is just as likely to be in the rear brakes as it is in the front brakes!

—By Lou Reichardt



1

Don't condemn this caliper until you've inspected everything. Several things can cause the caliper to appear to be stuck or dragging. The biggest enemy of this brake system is water. Any place that water finds a way in, it's sure to cause trouble.



2

This system uses the hand brake to maintain proper pad-to-rotor clearance. The lever shown here joins the front and rear brake cables. If the lever's allowed to rust up, the rear brakes will drag each time the hand brake is released.



3

These rubber dust boots often tear and allow moisture to enter the cable casing. At first the cables will appear to work okay but they may keep the brakes slightly applied when you release the hand brake. When you apply the hand brake, severely rusted cables can lock the calipers solid.



4

The actuator lever on the caliper only has to move $\frac{1}{2}$ to 1 inch from full off to full on. Proper cable adjustment is super important. If the cable's too loose, the lever won't move far enough to lock the wheels. If the cable's too tight, the self-adjusters won't work properly.



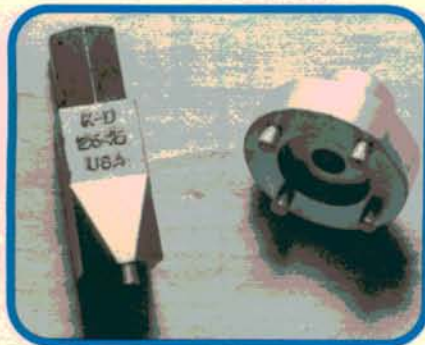
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During braking, the caliper should slide freely on these pins. As the pads wear, the caliper should be free to move laterally on these pins. I've seen them rusted solid to their bores! Clean off any rust and lube the pins with anti-seize compound.



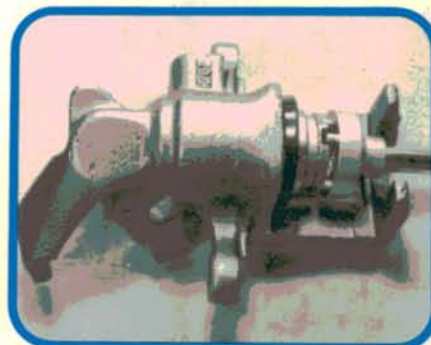
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Once you've taken the caliper off the car, take the time to clean it thoroughly. A little extra time spent here will make the job easier later. Look the caliper over carefully. Make sure it's a good candidate for an overhaul.



7

Here are just two examples of several available tools that make it easier to remove or install the piston. The K-D 2545 was made for Ford pistons, but I filed the pins slightly to fit Nissans. The Kent-Moore J-36355 was made for the job and works even better. Needle-nose pliers will also work.



8

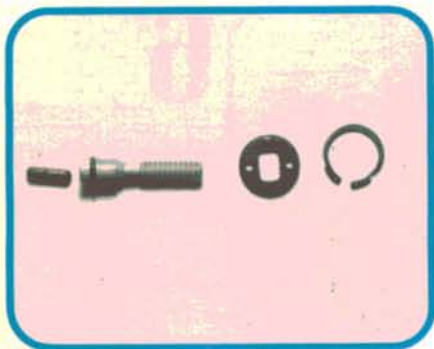
Start your disassembly by turning the piston counterclockwise to remove it. Take a good look at the piston and the caliper bore. If either one is pitted or badly scored, you're better off replacing the caliper.

**9**

Remove the retaining clip in the piston to get at the parts shown here. Replace the cup seal (arrow) on the adjusting nut. The seal lips should face toward the threaded, open end of the adjusting nut. Lube it with brake rubber grease and then reassemble the parts.

**10**

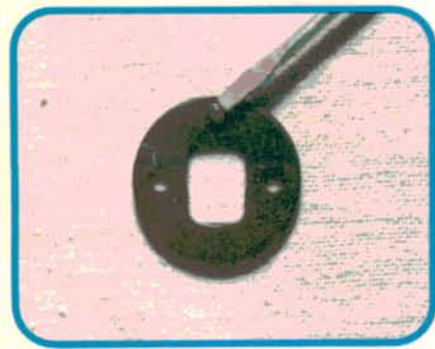
It takes a pretty thin pair of snap ring pliers to fit between the caliper and the spring cover. Note the position of the snap ring before removing it. This position will allow the most room for the pliers when you reassemble the caliper.

**11**

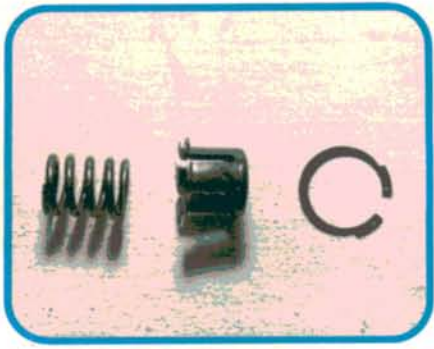
Once the spring cover and other parts are removed, you'll have a clear shot at the second snap ring. This ring holds these parts in place. Replace the o-ring on the pushrod, then put the parts aside for later.

**12**

The parking brake mechanism comes apart pretty easily. Now that all of the parts are out of the way, do your final cleanup before reassembly. Grease the actuator bearing, replace the adjusting cam boot, and then reassemble the actuator.

**13**

The key plate has a pin on one side. Make sure this pin engages the hole in the caliper body as you reassemble the pushrod. Put lithium grease on the little rod to hold it to the pushrod as you reassemble them. Reinstall the small snap ring.

**14**

Inspect these parts carefully before reassembly. Any bent or misaligned ears on the spring cover will make it hard to reinstall the snap ring. Make sure the rounded face of the snap ring faces up (faces the rotor) when reinstalled.



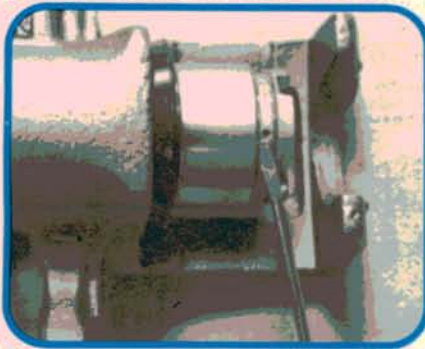
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The hardest part of the job is getting the snap ring that holds the spring and cover back into its groove. Nissan recommends using a press and a "suitable drift." I didn't have a press so I used a valve spring compressor and a socket as shown.



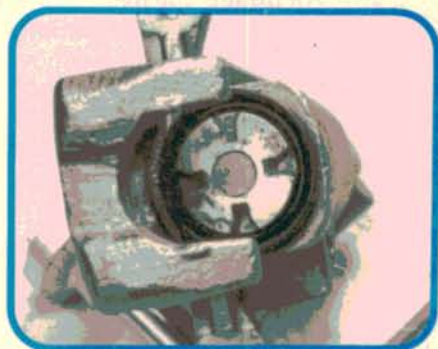
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Slide the piston boot over the back of the piston after you've lubed both of them. Install a new piston seal in the caliper bore. Fit the boot into its groove in the caliper. Then draw the piston in by turning it clockwise as you push it in.



17

This hole will allow brake fluid to escape if the seal on the adjusting nut is leaking. Use care when threading the adjusting nut/seal assembly into the caliper so you don't damage the seal.



18

Before reinstalling the caliper, make sure the slots in the piston are lined up as shown. A pin on the inner brake pad engages one slot when you reinstall the caliper. Remember this piston-indexing step when you thread the piston in during a routine pad replacement.



19

After reinstalling the caliper, bleed any air from the system. To dislodge all the air bubbles, sometimes you have to lightly tap the caliper. Once you've bled out the air, the piston should move out to meet the brake pad.



20

Complete the job by checking the hand brake adjustment. Ratcheting the lever—and/or pumping the pedal—will remove any remaining clearance between the pads and caliper. The lever should move smoothly and release completely if everything is working properly.