

XC90 Front Brakes

Usual disclaimer applies here, I am not responsible for any of your work. This procedure is done at your own risk, and my write-up is merely a guide to help you do it (as model years and options vary).



Use appropriate Jack stands and make sure car is stable!!

TOOLS LIST:

- Torque Wrench
- Red Threadlock
- Large C-Clamp
- 18mm Socket
- 10mm Socket
- 7mm Hex Socket
- Flat screw Driver
- Brake Cleaner
- Brake Lube-Sylube or similar

I did one side at a time here. The vehicle is heavy so make sure you use appropriate equipment. I turned the wheel to show me the front of the caliper.



Here are some views of the fairly large Volvo Caliper.



View from the inside.



Caliper Dampening Springs

The first step was to remove the caliper dampening spring. This thing is kind of a pain. Just slide in a medium flat screwdriver and gently twist until it releases. This thing can fly!! Be careful.



Clip removed



Caliper Removal

This is a bit different than the usual caliper removal. You must compress the piston in before the caliper can be removed. **VERY IMPORTANT!!** Loosen the brake fluid reservoir and check your fluid is not too full. Pushing in the caliper will cause major spillage if the brake fluid level is too high. Use a clean syringe or similar to remove fluid if needed. Now...Using your large C-clamp, compress the pads against the caliper. It should move easily.



7mm Hex Pins

Remove the 2 rubber dust boots from the back of the caliper and loosen the 7mm allen or hex pins. Once loose, pull them out. ****Pay attention to where they came from as one is longer than the other.**



Remove old pads, finish compressing piston and suspend caliper safely with wire.



Rotor Removal

This part was harder than I thought. Volvo uses some serious thread lock on the 18mm bolts that hold the caliper bracket to the hub assembly. It took MAJOR torque to get these loose. A torch may not be a bad option here.



Carrier removed.



Now simply remove the small 10mm bolt and give the old rotor a whack with a mallet or piece of wood and it should come right off.



****Carefully clean the face of the hub to make sure it is free of any debris and the new rotor will sit true.**

Install new rotor. I used a lugnut to hold it in place until I reinstalled the small bolt. Torque the small bolt to 10 Nm (~7 lbft).



Reinstall the Caliper Carrier

This step has some weird torque instructions from the manual, but anyway - clean off as much of the old thread lock as you can. I did use a torch here to burn the debris off. Apply new Red Threadlock to the bolts and reinstall. The manual states 1st stage 105 Nm (~77 lbft), 2nd stage turn bolt an additional 60 degrees. This is tough even with a 1/2" drive breaker bar, but it sure gets it tight!! Place new Pads into the caliper. There is a difference between the inboard and outboard pads.



Pad orientation in caliper.

Slide the assembly over the Rotor. Apply the brake lubricant to the 7mm Pins and then reinstall. The longer pin is towards the top of the caliper. Torque to 30 Nm (~22 lbft) and reinstall the dust caps. Reinstall dampening spring, one edge at a time, then all the way in the middle. Make sure everything is clean. Spray rotor again with Brake Cleaner and reinstall the Wheel and torque to 140 Nm (~103 lbft).



Repeat for the other side and enjoy!! Make sure to check your brake fluid before you are done. I bought my parts from Brentwood Volvo and Pads and rotors were ~\$160.00. I did "bed" the new pads with several repeated stops from about 50mph with time inbetween to cool.