

CALIPER REBUILD

How to make your calipers work as good as new

Wilwood calipers have a very long service life, so it will take a many years before a caliper will require rebuilding. The calipers are made out of forged billet aluminum and the pistons are made out of high-grade stainless steel, so there is absolutely no chance of rust occurring on the pistons or in the bore. The only problem that may occur after years of service is the normal wear of the specially formulated rubber bore seals. Wilwood offers a Square Ring Kit for every caliper the company makes and that includes a different part number for every caliper and bore configuration. It's always a good idea to inspect your brake system on a normal basis to make sure the pads are in good condition and that there is no seepage around the caliper pistons.

If you are replacing your brake pads, or just doing an inspection to see how the pads are wearing and see a small amount of seepage around the pistons bores, it's definitely time to rebuild the caliper. From a mechanical standpoint the calipers are very straightforward, because the only moving parts are the stainless steel pistons. The only parts that will need replacement are the bore seals. Unlike other calipers that use round seals, the Wilwood calipers use square seals and that makes them much easier to remove and replace. If you need new replacement seals for your calipers, you will need to know the kind of calipers your car is equipped with and the size of the piston bores, because different bore sizes will require different seal sizes. Obviously seals for a caliper with 1-inch pistons will not work in a caliper equipped with 1.75-inch pistons. The easy way to find out what caliper your car is equipped with and the bore sizes used is to find the small caliper part number stamped on the side of the caliper body. Using that number the Wilwood dealer can cross reference the Square Ring Kit you will require. We also recommend changing the seals in both calipers even if only one is seeping, because that way both will be as good as new and your car will only be down once.

When you get the correct Wilwood Square Ring Kit for your calipers, you will be able to rebuild them.

them. This is an easy process for anyone with even the smallest amount of mechanical knowledge. The rebuild is started by removing the brake fluid feed line to the caliper and then removing the bolts that secure the caliper to the caliper bracket making sure the correct amount of shims used are recorded for reassembly. The brake fluid line should be capped to keep the brake fluid from pouring out. The brake fluid should be drained out of the calipers and then the disassembly can begin. Remember after the calipers have been rebuilt and reinstalled on the car, the system will have to be bled to remove the air from the system. You will quickly find that the caliper removal and replacement is the difficult part of the rebuild. We would like to give you the Square Seal Part numbers for every caliper, but there are so many and the space is limited in this story. Contact your Wilwood dealer and he or she should be able to get the parts you need. We will show you a basic Forged Billet Dynalite caliper rebuild and that will provide you with the information you need to see if you can do it yourself or if it would be a better idea to have a professional do it for you.



There is a Square Ring Kit for every caliper Wilwood manufactures like this DynaPro radial mount caliper. In order to get the kit you require you will have to know the type of caliper you have and the piston bore sizes. The easy way to do that is look for the small caliper part number stamped on the side of the caliper body.



2

The caliper we are going to rebuild is a Forged Dynalite, which is one of the most popular calipers Wilwood offers. We looked for the Caliper part number, which is 120-6814 and cross-referenced the 130-2655 Square Ring Kit part number.



3

A block of aluminum was installed inside of the caliper to limit the outward movement of the pistons when we applied a little air pressure to the caliper inlet. Here you can see the caliper part number stamped on the side that enabled us to find the correct part number for the Square Ring Kit. If you don't have aluminum, a block of wood will also work.



4

Looking from the top, you can see the two pistons that popped out when air pressure was applied. The aluminum block kept them from popping all the way out and the damage that could have happened if they did. Air pressure can shoot them out like a bullet.



5

The two pistons were carefully removed from the Caliper. This same process will also have to be done to the pistons on the other side. The pistons were in good condition so they are fine for the rebuild.



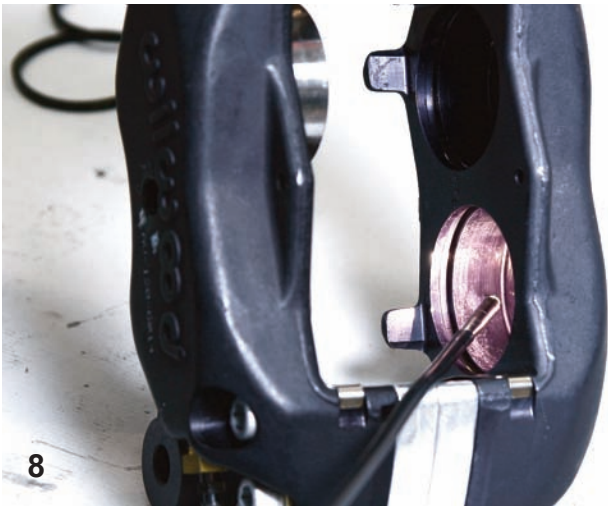
6

Using a small screwdriver the rubber seals can be removed from the piston bores. This should be done carefully so you don't scratch the bores. In this case we had a small dentist pick that worked great.



7

The pistons were in good condition so they were cleaned off with a mild abrasive scratch pad. If you don't want to clean them that way, lacquer thinner on a clean, lint-free rag will do the trick.



8
Using a small light, the inside of each bore was examined to make sure they were in good condition. In this case the bores were in excellent condition. Here you can also see the recess where the seals will be placed.



9
Using a very fine grit scratch pad, the inside of the bores can be smoothed out. If they appear to be in good condition just wipe them with lacquer thinner on a clean, lint-free rag.



10
The seals were coated with a light layer of Wilwood Assembly Lube. Apply a few drops and then spread the lubrication around with your fingers.



11
The pistons were also coated with Wilwood Assembly Lube. Apply a few drops and spread the lube on the sides and rear of the piston.



12
A close look at the piston shows the small bevel on the end. This bevel allows the piston to enter the bore easily and without damage to the seals.



13
The rubber bore seals were inserted into the bore and then they were lowered until the seal popped into the seal retainer ring. Make sure the seal doesn't get twisted when this is done.



14
After the seals were in place, the pistons were slowly and carefully inserted in the bores. Use plenty of Wilwood Assembly Lube to make them slide in easily. After all of the pistons are installed, the calipers can be reinstalled on the caliper brackets making sure the correct number of shims are used. The old pads can be reinstalled but we recommend installing new pads if the old ones are glazed or half used.

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