

### Brake Shoes and Springs

The following information on Corvair brakes may be useful when you are involved in diagnosing a problem or simply doing maintenance. This article only address some “old age” and “new parts” issues. All aging brake components need to be inspected and updated as necessary.

Today’s shoes are manufactured with very hard material (no asbestos) to meet a warranty and in some cases manufactured very thick, also to meet warranty. Most brake shoes now offered are new manufacture (China & Mexico) and can come with defects:

- The primary and secondary shoes may be the same length and the same material. OEM shoes had a thicker and longer secondary shoe with different material since it does more work than the primary. The parts store shoes work but not as originally designed, so you should obtain replacements if yours are incorrect. So far, only early model car shoes have shown up with this problem, and the issue is that the secondary shoe wears out quicker.
- The holes for the adjuster pivot sleeve may be too small and would need to be drilled out.
- The parts store brakes may need the anchor pin areas and the adjuster star wheel areas of the shoe machined slightly so that the drum will fit over the shoes – front or rear. You can use your cut-off wheel to accomplish this.
- On early model rear shoes the hole for the parking brake lever pivot may be too small and would need to be drilled out.
- The two areas where the parking brake strut fits may be too shallow on early model rear shoes; this makes the shoes unable to contact the anchor pin or accept the drum. Again, use a cut-off wheel to deepen the slots in the shoes.

In the distant past new or rebuilt brake shoes were arced to match the diameter of the newly turned drum so that the mating circles were concentric and optimum braking occurred with a very short break-in period. I do not know of any shop offering this service in our area. Consequently, when you now turn drums and install shoes the wear (swept area) is initially confined to only two to three inches in the center of the shoe until enough of the shoe is worn down for the shoes to completely match the drum. This requires extra pedal effort as well as decreased stopping ability until the swept area increases. You may also experience pulling to either side, then stopping straight and then pulling again.

Dust build up can occur on some shoe material and squeaking or pulling brakes occur. Clean with coarse sandpaper and wash with water. Brake fluid and dust are soluble in water so washing shoes with soap and water may prove effective. Grease is difficult to get out even with Brakleen, so plan on replacing greasy shoes.

Spring sets from CCP come with the proper parts but I have seen other sets sold for a Corvair that contain nails that are too long and springs that were too heavy. Installing the wrong brake springs and especially the wrong brake nails can cause problems. If the nails are too long the shoes may pull away from the backing plate and rub on the side of the drum. The head of the nails can also come in contact with the drum when they are too long. Early shoes use all the same nails but late cars have longer nails in back than in front, since the shoes are wider in the rear.

Fifty year old parking brake cables can start to slowly seize inside of the casing. The parking brake feels fine when you pull it on but upon release it does not fully release one or both of the rear brake shoe sets. The shoes start dragging, get hot, and usually start pulling. The shoe material can crack and actually come apart from the heat. A check would include getting under the car and pulling the rear cable one side at a time to watch and feel the cable retraction when released.

A handy tool for diagnosing brake problems is an infra-red temperature gun. Unusual temperature readings taken from the same areas near the brakes can give you a starting place; compare from side to side.