



DOES EVERYTHING.
FOR LESS

DO-IT-YOURSELF SERVICING YOUR REAR DRUM BRAKE

Most cars manufactured after the early 70's have disc brakes on the front. These are much more reliable than the previous brake drum systems. Accessing the brake assembly is easy -- simply jack up the car and remove the tire and wheel. At this point, you can see the disc or rotor, as well as the caliper. The operation of the brake is simple: the caliper is basically a hydraulic clamp that causes friction on the rotor and stops the wheel from turning.

When brakes are squealing, it's generally caused by a worn down brake pad, which comes into direct contact with the rotor. The brake pad wear indicator, which protrudes from the side of the pad and is set below the minimum thickness for the pad, rubs against the rotor and causes the squeal. If brakes make a grinding sound, they must be checked immediately.



PROCEDURE

- 1. Buy the Service Manual.**
It contains essential information for doing the job right the first time.
- 2. Jack up your car and remove the rear wheel and tire.**
Do not take apart the brake assemblies on both sides at the same time. You may need to use the other side as a reference when reassembling.
- 3. Remove the drum, which attaches directly to the wheel.**
Wash it in soap and water.
- 4. Inspect the brake linings on the outside of the backing plate to make sure they are not cracked or glazed over.**
Look at the hydraulic wheel cylinder mounted on the backing plate and make sure that it is not leaking hydraulic fluid. Also, make sure that all moving parts are free of rust.
- 5. Measure the drum to make sure that it is not larger than the manufacturer's maximum specifications.**
To do this, take your micrometer and measure the inside of the drum in several places. Compare this number with the maximum measurement printed on the side of the drum. If the diameter is less than the maximum specification, the drum can be machined by a service technician. If not, it must be replaced.
- 6. Measure the brake lining with your depth gauge.**
Make sure that it is above the minimum thickness requirement listed in your service manual. If it isn't, the lining must be replaced.
- 7. Look at the brake shoes to see if they are worn down.**
These should be replaced when the lining is below the manufacturer's specifications. If they need to be replaced, take your brake pliers and remove the brake shoe return springs. Then, take a brake spring tool and remove the hold-down springs and pins. The entire assembly should come off at this point. This will include the springs, the star wheel and both shoes. The rear shoe will still be attached to the parking brake cable. Use a screwdriver to remove this cable. Clean the star wheel, which keeps the brake shoes adjusted and re-lubricate it.
- 8. Check the wheel cylinder to make sure there are no hydraulic leaks.**
If there are, it needs to be replaced. This can be done by first loosening the brake line coming from the car, and then loosening the bolts on the back of the cylinder. This can be a somewhat awkward procedure, because the bolts are hard to access.
- 9. Put the new cylinder on.**
Always attach the brake fitting first, before the bolts, to avoid cross-threading. After it bolting into place, reattach the brake line.



If you are replacing the shoes and the wheel cylinder, replace the cylinder first. Make sure you put the primary shoe on the front of the backing plate. The primary shoe is normally shorter. Replace the back shoe first. You will need to re-attach the parking brake cable to the new shoe. You will then replace the hold-down springs and pins. It is a good idea to put new ones on at this point. Next, replace your cleaned and lubricated star-wheel. Then put in the primary shoe and replace its hold-down springs and pins. Finally, take your brake pliers and attach your brake springs. If you become confused about how the assembly should look, refer to the brake on the other side of your car or your service manual. Rock the brake shoes back and forth to make sure that they will stay in place.

- 10. Clean off any grease from your hands that got on the shoes.**
Do not use a brake cleaner, as it contains a petroleum distillate, which tends to destroy the material in the shoes.
- 11. Replace the drum.**
It should fit easily onto the front of the backing plate. Then, take your brake spoon and turn the star wheel in the back until you can turn the wheel and feel light contact from the brake shoes.
- 12. Take a turkey baster and remove the old brake fluid from the master cylinder under the hood of the car.**
Then, pour the new fluid in. Next, bleed the old fluid out by attaching a bleeder hose to the bleeder nut located on the back of the brake assembly. Have someone pump up the brakes, and at the same time, open the bleeder nut and drain the old fluid and bubbles remaining in the line into your metal pan.
- 13. Replace the tire and wheel assembly and repeat the same procedure for the other side.**

Doing brake inspection and maintenance is a relatively simple task. However, brakes are essential to driving safety. Exercise the proper care in doing these procedures and don't forget to refer to your vehicle's manual as much as possible. If you don't feel comfortable doing any of the procedures above, don't hesitate to seek the assistance of a trained professional.