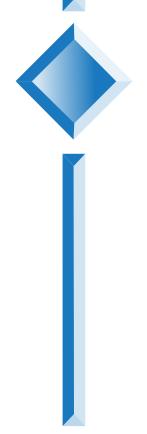
CONSUMER'S GUIDE TO BRAKE REPAIR SERVICE



hat's wrong with it? How long will it take? How much will it cost? Will they fix it right? These are some of the questions you may ask when you take your vehicle to a repair shop for work. Your concern may be even greater if the problem involves something as important as brakes.

The Michigan Department of State wants you to know your rights when it comes to vehicle repairs. The department licenses and regulates motor vehicle repair shops, informs consumers of their rights and investigates complaints.

This brochure gives you some important information about brake repairs and advises you what to do if you have a complaint against a repair shop.

Brake Systems

Parts found in most brake systems are: rotors or discs, calipers, pads, drums, shoes, wheel cylinders, hoses, lines, master cylinder, brake booster, a combination valve and attaching hardware.

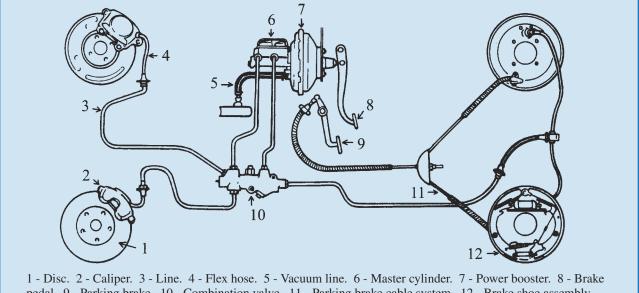
In addition, an anti-lock brake system also includes: wheel speed sensors, a hydraulic actuator, and an electronic control unit.

Normal Maintenance

Today's automotive brake systems require little maintenance. Periodically, the master cylinder should be checked to insure that the brake fluid is at the proper level. If brake fluid is needed, make sure the fluid used is right for your vehicle's brake system. Never add transmission fluid, oil or steering fluid to the master cylinder. This will severely damage rubber parts and cause the brakes to fail.

When you push on the brake pedal, the brake shoes and brake pads are pushed against the brake drums and brake rotors (also called discs), creating friction which is used to stop the vehicle. Because of the friction that occurs, brake shoes and brake pads wear. When the wear becomes extensive, replacement of the shoes and pads is necessary. When replacing shoes and pads, it may be necessary to have the brake drums and rotors machined to provide a smooth, fresh braking surface. If a brake drum or rotor is severely worn, replacement is required.

Unlike brake shoes and brake pads, wheel cylinders and calipers only require replacement if they no longer work properly or are leaking brake fluid. If a wheel cylinder or caliper requires replacement, it can be replaced individually. Replacing wheel cylinders and calipers in pairs is not required.



pedal. 9 - Parking brake. 10 - Combination valve. 11 - Parking brake cable system. 12 - Brake shoe assembly.

However, if a wheel cylinder or caliper is being repaired or replaced because it has failed, it may be recommended that you also have the other caliper or wheel cylinder repaired or replaced as well (on the same axle). This preventive maintenance recommendation would only be appropriate if both wheel cylinders or calipers had been in service for the same duration, since it may be nearing the end of its service life as well.

You may find your brake shop recommends installing new hardware kits (springs, clips, pins, and bushings used to attach brake shoes and brake pads to backing plates and calipers) when brake shoes and pads are replaced. They also may recommend flushing the system and replacing the brake fluid. Manufacturers seem to be mute on this issue. Before you allow a repair shop to replace the hardware or fluid, insist that they give you a thorough explanation in writing why new fluid or hardware is necessary.

Inspection

Some vehicles are equipped with wear indicators that produce a high pitched squeal or squeak when the brake pads require replacement. If you do not know whether your vehicle is equipped with brake wear indicators, an occasional inspection of the brake pads and shoes is advisable to prevent damage and costly replacement of other brake parts.

The law requires a repair shop to provide you with a written estimate if an inspection or recommended repairs will be \$20 or more. The written estimate allows you to compare prices with other repair shops and to verify that the repairs recommended are necessary.

When comparing prices, be sure to compare the price of parts as well as labor. Some shops offer low labor prices while charging a lot for parts. Ask the repair shop to explain all of the charges.

Advertised Specials

Some repair shops that specialize in brake work advertise free inspections and/or low cost brake repairs.

If you are interested in an advertised brake service:

- Find out exactly what is and is not included. Even though an ad says "Brakes \$98 and up," you may pay as much as \$1000 or more for a complete brake job.
- If the advertisement says that the "free inspection" or "low cost service" is "for most vehicles," ask whether your vehicle is covered before you have the inspection or work done.
- If your vehicle is not covered, ask why. If you cannot get a satisfactory answer, go elsewhere.

Choosing A Repair Shop

Your family, friends, neighbors and co-workers may be able to recommend a good shop that performs competent brake repairs. And they may tell you which ones to avoid.

Always get a written estimate of repairs before leaving your vehicle at a repair shop. This is your right under Michigan law. Getting a second opinion and comparing prices is wise, especially if the estimated costs are high.

■ When The Work Is Done

You have selected a repair shop and had repairs performed. What should you do next?

Under Michigan law you are entitled to inspect and receive parts that were removed from your vehicle and replaced. Be sure to take the replaced parts with you. For some parts, the shop may require you to pay a fee known as a "core charge." If the replaced parts are not needed to settle a complaint, returning them to the repair shop entitles you to a refund of the core charge.

Michigan law also entitles you to an itemized invoice (final bill) showing all charges for parts and labor.

Getting replaced parts and a final invoice can be very helpful if you have a complaint against the repair shop.

Warranties

All warranties for repairs must be given in writing and must state what is warranted and for how long; who will honor the warranty; obligations of the consumer, if any; and any conditions or exclusions. A warranty must specify whether it covers parts, labor, or both.

If You Have A Complaint

First, try to settle the dispute directly with the repair shop. If you are unable to settle it, you may file a complaint by contacting the Department of State at the number shown on this brochure.

If you believe you were charged for repairs that were not done or you were told you needed repairs which you later found were not needed (even if you did not have the repairs done), contact the Department of State immediately.

Additional brochures published by the Department of State:

Auto Repair Rights & Repair Tips

Consumer's Automotive Information & Complaint Kit

Consumer's Guide to Automatic Transmission Service

Consumer's Guide to Buying a Vehicle from a Dealership

Consumer's Guide to Collision Repairs

Consumer's Guide to Engine Replacement

Consumer's Guide to Vehicle Leasing

Bureau of Regulatory Services Michigan Department of State P.O. Box 30046 Lansing, MI 48909-7546

Consumer's Guide to Vehicle Restoration

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Click on "Owning a Vehicle"

