

Can you trust your brakes?

Lack of agreement among automobile manufacturers for properly maintaining one of the most important car safety systems—the brakes—may leave motorists in doubt and behind the wheels of potentially unsafe cars.

Unlike standard recommendations for changing engine oil, changing brake fluid is viewed differently by individual car makers. Generally, brake system maintenance is de-emphasized by North American Manufacturers in the effort to promote how simple and inexpensive their cars are to maintain.

Most foreign manufacturers, on the other hand, take a more positive approach to brake system safety by providing car owners with

better maintenance guidelines.

The Hamilton Automobile Club warns that without periodic maintenance, a car's brake system may be subject to a vapor lock which is similar to what happens to a fuel system. Just as a gas line may get so hot that the gasoline in it is vaporized, depriving the engine of fuel, heat can cause brake fluid to vaporize, blocking braking action. The vapor lock will disappear without a trace after the brakes have cooled, and the brakes will operate normally.

The lifeblood of brake systems, brake fluid, is chemically formulated with a high boiling point to resist vapor problems. However, brake fluids are also hygroscopic, which means they absorb water out of the

atmosphere. As the moisture builds up in the fluid over a year or more, the physical characteristics of the fluid change and the boiling point is lowered. When the moisture buildup and boiling point loss are sufficient, vapor lock is possible.

The danger is that the driver cannot detect an imminent problem in advance, because the brakes will operate normally until the right combination of heat and water contamination cause the vaporization of the fluid.

Water contamination in brake fluid also hastens corrosion, which may mean early replacement of brake system parts damaged beyond repair.

The best way to prevent vapor lock is to treat brake fluid like engine oil. Flush out and change the fluid every 12 to 18 months as a preventive measure, especially on a new car. Debris and sludge may be present in the system of older car with no previous history of fluid changes. In this case, a complete disassembly and cleaning is recommended before the first brake fluid change. Not unlike, again, the procedure for an engine in which oil changes have been neglected.

There are no uniform moisture standards, as yet, for in-use brake fluid, so the onus is on the owner to make this routine brake system maintenance a part of their personal auto safety program.

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CAR CARE

Your Guide to Safe Spring/Summer Driving



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Preventing rust is easier than trying to cure it

Once rust becomes entrenched, it is difficult to eradicate completely. Despite great strides by automakers in the use of more rust-resistant materials in constructing cars, many car owners want increased rust protection.

Here are some tips from the Hamilton Automobile Club to help select the type of rust proofing most desirable to you:

Rustproofing is the application of supplementary sealing materials to hidden metal surfaces that are exposed to water, snow and salt. Often, the rustproofer has to drill holes to reach hollow areas inside places such as doors and rocker panels.

A rustproofing job is most effective if done before rust has a chance to start. Contrary to popular belief, undercoating does little to stop rust. Since it is simply sprayed on the exposed surfaces under the car, it cannot protect hollow areas. Its primary purpose is to dampen noise and protect against stone chipping.

Rustproofing can be done by car dealers, auto body shops and full-time rustproofing specialists whose primary business is only that service.

Auto dealers these days often use rustproofing to increase their profits on a new-car sale by charging specialty-shop prices for a less comprehensive service.

In shopping for rustproofing, be leery of services that claim to do the job quickly. Properly done, the car must be left all day for preparation, application and cleanup.

Be suspicious of shops that claim holes need not be drilled to reach hidden areas.

The H.A.C. suggests you inspect the work yourself afterward. Look for the plugs, where holes were drilled, and remove some of them. Probe gently in the hole with a screwdriver. If no sealant adheres to the tip, chances are coverage is skimpy.

Warranties should be compared while shopping for a rustproofer. Check for who stands behind the work. Is it the parent company or only the local agent? What happens if the local shop changes owners? Are certain parts excluded? What happens if the rustproofer misses an area that later rusts? Watch for exclusions that only properly treated areas are warranted, or rust due to neglected maintenance is not

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Check tires periodically

Sometimes it's easy to spot car problems such as an oil leak or a weak battery.

However, tire problems are different, report the engineers of a well known tire company.

"These days you can't kick a tire to see if the air pressure is right, and it's impossible to check inflation just by looking at a tire," says N.E. Hess, manager of passenger tire project engineering.

The reason for this, according to Hess, is because today's tires, especially radials, often look as though they are under-inflated, when they are not.

Improperly inflated tires can be hazardous because it is the air pressure in a tire that carries the load of the vehicle.

To be sure the air pressure in your tires is correct, consult the car owner's manual and check the inflation every few weeks.

Spring conditioning important for cars

Spring is here! If you haven't made an appointment to have your car prepared, DO, today.

Many of the spring conditioning procedures are important for the proper functioning of your car. Not to do them, could cause damage to the vital running parts.

The Hamilton Automobile Club offers these suggestions for getting the job done:

—Have the anti-freeze solution checked. Have radiator drained and flushed, if not done for 2 years.

—Have the oil changed and a new oil filter installed.

—Check the car's transmission and differential. These are among the car's vital organs.

—Clean or replace the car's spark plugs. Faulty plugs, or those corroded with carbon waste gasoline, make starting difficult and cause inefficient operation of your car.

—Check the battery and charging system for proper operation. Repair or replace if they are not providing the necessary power. Winter driving takes a heavy toll on batteries and charging system.

—Check the fluid in the master brake cylinder. You might also have the car's brakes checked for wear and adjustment.

—Have the tires checked for proper tread depth, cuts, breaks or bruises. The safety of you and your passengers rides on the condition of your car's tires.

—Have the underneath portion of your car checked. Rain, sleet, snowdrifts, mud and water can break or bend mufflers and tailpipes and corrode or damage springs and shock absorbers.

—Run your car through the car wash. Then inspect the paint and chrome for chips and rust. Small paint chips can be spot painted but large rust spots should be repaired.

Look at safety features when buying a car

Safety belts, head restraints, padded dashboards, side-door reinforcements, and collapsible steering columns are crashworthiness features that improve the ability of an automobile's occupants to survive a crash.

Yet, other safety equipment items, known as crash avoidance features, are used more frequently in everyday driving. The better the crash avoidance features of a car, the fewer opportunities the driver will have to assess the crashworthiness features.

Tires rated "A" for traction and "A" for temperature resistance can provide an extra safety margin, even in ordinary driving. The ratings have been molded in the rubber on the tire's sidewall to guide consumers.

Halogen headlights are a must. Their improved performance, especially on the high-beam setting, make a difference in safety and comfort during night driving.

A headlight-flasher control, located on the turn-signal stalk, allows the driver to flash the headlights' high beams quickly during

daylight driving. The conspicuous alternative to the horn should make other drivers notice your car.

Cars with amber turn-signal lenses at the rear of the car usually have their four-way hazard flashers wired separately from the brakes. Drivers can simultaneously brake for unexpected highway traffic backups ahead, while using their flashers to warn traffic approaching from behind at high speed.

Check the differences in windshield wipers and washers when shopping for a new car. Is each front fender visible through the portion of the windshield cleared by the wipers? Do the washers flood the windshield with solvent or do they make a couple of wet spots on the windshield? Do the wipers come on automatically with the washers?

The driving mirrors contribute much to a driver's ability to maintain a cushion of space around the vehicle. A tall driver should look for an inside mirror that can be

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