

Measuring automobile performance: Are you sanding your car instead of waxing? It's not just a matter of acceleration

It used to be that "performance" was measured in terms of straight-line acceleration. "Zero to sixty" and the "quarter mile" were the standard measures of performance.

Today, however, performance has come to mean much more. Now, it includes not only acceleration, but fuel economy and handling—how well a car handles in curves and corners.

Handling used to be determined by the roughness of the ride. "The harder the ride, the better the handling," was the common adage.

But, with the increasing demand for high performance cars, and the increasing competition of foreign vehicles that ran circles around U.S. car models, car companies shifted their attention toward developing suspensions which offered a smooth, comfortable ride without sacrificing handling or "control."

"People want the best of both worlds," says Dick Guldstrand, president of California-based Guldstrand Engineering, a suspension and ride control consulting firm which does development

work for the auto companies.

"The public is demanding cars from the U.S. automakers that handle like a Corvette or Porsche, but have the ride of a Cadillac," Guldstrand says.

"Even luxury car owners want this, which is one reason why they're buying BMWs and Mercedes in record numbers. In the new world of car suspensions, a car that wallows around is unacceptable."

As a result, shock absorber manufacturers have turned their attention toward developing high performance lines of shocks and struts both for the auto companies and for the multi-million dollar automotive aftermarket business.

Monroe Auto Equipment Co., for example, invested two years and several million dollars in the design and development of its Formula GP line of gas-charged shocks and struts.

The units were designed for day-to-day driving, yet project engineers say this product will outperform any comparable shock in high performance use.

With a wide range of applications for both domestic and foreign cars, Monroe

officials see this product as the one which will capture that performance segment of the automotive aftermarket for shocks and struts. It might even find some original equipment applications as well.

Guldstrand, who helped develop the Formula GP line, sees the units as the perfect product for those who want sports car handling without sacrificing large car comfort.

"Because of certain valving (adjustment) capabilities, you get real good ride quality without giving up handling," Guldstrand said.

As car companies increase the manufacturing of performance vehicles in the coming years, aftermarket companies will be battling to retain their portion of the market.

Products like the Formula GP line, which offer performance enthusiasts the handling capabilities they want, while retaining good ride control, are what are likely to keep a company such as Monroe competitive in the automotive aftermarket in the future.

Although you'd probably never use a sanding machine on your new car, you might slowly be grinding off your paint when you wax.

Many popular, over-the-counter car cleaner/wax preparations were developed for the person who waxes once a year or less. Twelve months of exposure to sun and weather causes paint surface destruction called oxidation.

Strong abrasives remove that damaged top layer of paint and prepare it to accept the remaining wax. Unfortunately, the abrasives leave tiny scratches that reduce the ability of the paint to reflect light. And that results in a less than perfect shine.

If you frequently use one of these products on your new car, you're removing paint unnecessarily. Wax often enough and eventually you'll wind up with areas of bare metal. Not a pretty sight for all your diligent work.

How do you prevent needless paint removal, yet keep your car looking new? Avoid waxes that contain any form of abrasive or polish. When you must use a polish, get one that has ultra-fine abrasives and doesn't include wax.

It's easy to determine if your wax contains abrasive. Apply some wax with a clean white cloth to any painted surface, not necessarily car paint.

Rub hard in one area for 30 seconds. Now look at the cloth. If you see any paint, the wax contains abrasives.

For protection, many newer model cars have a final clear coat over the color. Abrasive wax will also take this clear paint off, but it won't show up on the cloth.

Since most readily available car waxes contain abrasives, the consumer will have to look carefully for a pure wax product.

Years ago, the best waxes had imported Carnauba as the main ingredient. Carnauba is a waxy protective coating on the leaves of certain palm trees growing in Brazil.

As low cost synthetic waxes were developed, the use of real Carnauba dwindled. Today only a scarce few products contain real Carnauba. Of those, most have a very small percentage of this valuable wax.

One company that markets a blend of genuine Carnauba waxes is the Malm Chemical Corp. The wax reportedly has no abrasives, cleaners, polishes or anything that can scratch paint. And because it's mainly wax, a pint bottle of the liquid should cover at least 15 average cars.

The wax is sold by mail only (a pint is \$19.95 plus \$2.50 for shipping) and is backed by a rather unique guarantee. If you don't think it outshines anything you've ever used on your car, the company actually sends a UPS truck to your home to pick it up for a full refund. Write Malm Chem. Corp., 300 BX, ME-58, Pound Ridge, NY 10576.

Keep in mind...

Warranties on auto parts enhance value of a repair

☉The birds are chirping, the trees are budding, and the ice and snow are melting. The time is right to get your car ready for the spring and summer seasons.

Snow and ice can hide potential service problems, so be sure to inspect your car before starting that 1,000-mile vacation trip drive.

Obviously, a spring/summer service check should include charging the air conditioning if necessary, and flushing and refilling the radiator.

But what about the not-so-obvious? Winter's cold is hard on engine parts; a tune-up may be in order. Driving on snow and ice also make a check of your steering and suspension parts a must.

Whether your car needs a repair or you are just getting seasonal preventive maintenance service, you usually shop for the best place to have the work done.

And while you are shopping for the right service station, be sure also to shop for the best parts possible for your repairs.

It's unlikely that you can tell the difference between various automotive parts visually. But, one characteristic of a part that will give you a clue to its value is a warranty.

Check and see if the parts you need for a repair are covered by a warranty from the manufacturer. Find out how extensive that warranty is.

The representative of one automotive replacement parts manufacturer, Joseph McCloskey, vice president for Dana Corporation, says: "Our customers tell us they want the best service using the best parts. They want assurance that they are covered for as long as they own their car."

Dana, a supplier of Perfect Circle engine and chassis parts and Victor gaskets and oil seals, offers a lifetime limited warranty on all of their automotive replacement parts.

Their warranty ensures free replacement of a part which becomes defective or worn out at any time, for as long as you own your car.

Dana's warranty covers internal engine components such as Perfect Circle pistons, piston rings, valves, bearings, timing chains and oil pumps. External engine parts covered include motor mounts, and fuel and water pumps.

Also covered are Perfect Circle constant-velocity (C-V) joints, U-joints, springs, bushings, ball joints and other

chassis parts. This wide-reaching warranty even covers Victor gaskets and oil seals, unheard-of in this market before.

Another feature to be aware of when comparing part warranties is how easy is it to use. Most automotive replacement part warranties involve bringing the original sales receipt and the warranty certificate to a participating service dealer. Labor charges to install the new part are not commonly covered.

Dana's McCloskey continues: "We want our end-user customers to know that any Perfect Circle or Victor part he or she buys, anywhere in the country, will be the last he or she will ever have to purchase, no matter how many miles the car has been driven."

With the rising costs of automotive repairs today, due to the increased complexity of the work, it's a good feeling knowing that the parts used for your repairs are covered by a warranty. You'll never have to worry about paying for those parts again.

So, be sure to ask for parts with warranties and compare warranty coverage, whenever you have automotive service/repair work done, no matter what the season.

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