



Family Weekly Auto Show

Service Tips for the Car Owner

Give today's auto proper care, and it will give you years of economical performance and safety—plus a big trade-in bonus

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THE NEW CARS are born—long live the new cars! And they will, for many years and miles, if they are cared for properly and professionally.

How can you get the most out of your new automobile in service, safety, longevity, and bonus trade-in value without racking up big maintenance bills? Well, start now to learn what your auto needs and how to satisfy it.

Here is a practical check list:

Gasoline



Gasoline is by far your most important purchase, in terms of both dollars and frequency; yet it is a widely misunderstood commodity. What do octane, TCP, MCP, 5D, Boron, Super Premium, and the like mean—more to the point, what do they really do for your car?

The most important feature of a gasoline is its octane number. Yet octane is not an ingredient; it is simply a measure of the gasoline's ability to resist pinging and, therefore, it's wasteful to use more octane than you need. High octane also is the basic feature that distinguishes premium from the less costly regular grades of fuel.

Determining the requirement of your car is easy: when the tank is nearly empty, buy a small quantity of less costly gasoline, and floorboard the throttle, preferably on a hill, at 20 mph in high

gear or drive range. If you hear more than a trace of ping or knock, switch to a higher grade or try another brand of gasoline.

The causes of ping (the audible indication of explosive burning of the gasoline) can seriously damage valves and pistons in a short period of time. Ping is usually caused by carbon accumulation or a too advanced spark setting, and it is cheaper in the long run to correct these than to rely on higher grades of gasoline.

Of the additives, tetraethyl lead or "Ethyl" is the most common. It boosts the octane number. TCP and MCP are both phosphorus-based ingredients that soften up engine deposits and prolong spark-plug life. They are a definite plus, especially when used regularly. Boron also modifies combustion-chamber deposits and increases the octane rating.

Other additives, found mostly in premium gasoline, include a touch of oil that helps lubricate the engine during cold starts; some form of alcohol to prevent carburetor icing in the winter; and an antirust additive. The new "super premiums" usually contain all of these features, and, in addition, are "tailored" to climate and geography.

Lubricating Oils

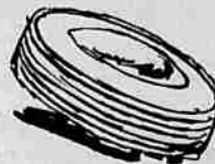


Here is a case where the best is not good enough, regardless of the make or year of your car. In a

sense, oil does wear out, although the "wear" comes mostly from deterioration of the additives needed to prevent damage by acid. The engine in your car is literally a chemical factory; it produces great quantities of water vapor that combine with the sulfur and other substances in oil and gasoline to form acids. Fresh oil is needed at all times to curb this accumulation. To determine how often to change oil, rely on the car maker's recommendation. This will be found in the owner's handbook and varies widely.

Rather than try to determine whether your type of driving is ML, MM, or MS, ignore these meaningless initials and buy the highest price variety of any reputable brand. The right viscosity for the climate is printed on the can. If you need more oil before your regular change, avoid mixing brands. Also, an oil is no better than its filter; change this faithfully at the recommended interval.

Tires



Tires, too, are surrounded by a trade jargon that can be confusing. When you buy a new car, it comes equipped with so-called "100-level" tires. These tires, representing most major brands, are redesigned every year to meet the exacting tests of auto makers. Nowadays they are made from "superstrength" rayon which is sometimes referred

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