

EXTENSION BULLETIN E-1450

## Cutting Costs of Transportation

*Of all the energy used annually in the United States, 25 percent is burned as transportation fuel. Of that 25 percent, more than half is burned in private automobiles.*

*Transportation costs for middle-class families in Michigan tend to be either the No. 2 or No. 3 item in the family budget. Housing is No. 1, and food alternates with transportation as No. 2 and No. 3. In the family energy budget, transportation is the biggest item, even bigger than home heating.*

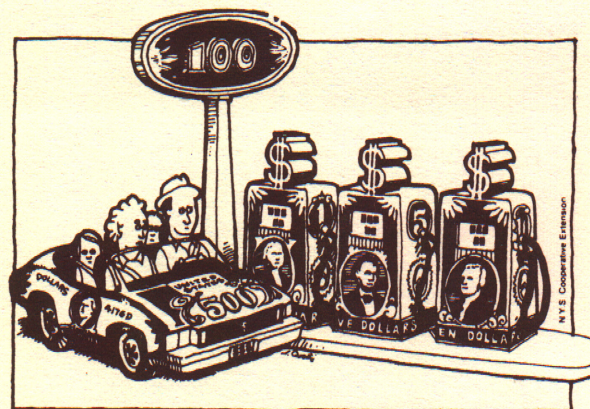
*In your battle to cut the cost of transportation, among the weapons in your arsenal are smart driving techniques and proper maintenance.*

### Smart driving saves gas!

According to the University of Florida, the careful driver can get 30 percent greater mileage than the average driver and 50 percent greater mileage than the careless one.

Save fuel and wear and tear on your car by following the good driving tips below:

- In cold weather, let your car warm up as you travel rather than warming it up in the driveway for 15-20 minutes. A cold engine is inefficient (it gets fewer miles per gallon of fuel than a warm engine) but an engine that's running while the car stands still, is getting no miles per gallon.
- Avoid short trips during which the car never gets warm enough to operate efficiently. Most cars get their worst mileage on trips of fewer than 10 miles. As a result of our habit of driving instead of walking, bicycling or riding the bus -- trips of 5 or fewer miles consume more than 30 percent of the nation's auto fuel.
- Turn the engine off if it will be idling for more than a minute. For every six minutes the engine is not idling, you save about 1 cup of gasoline. To look at it another



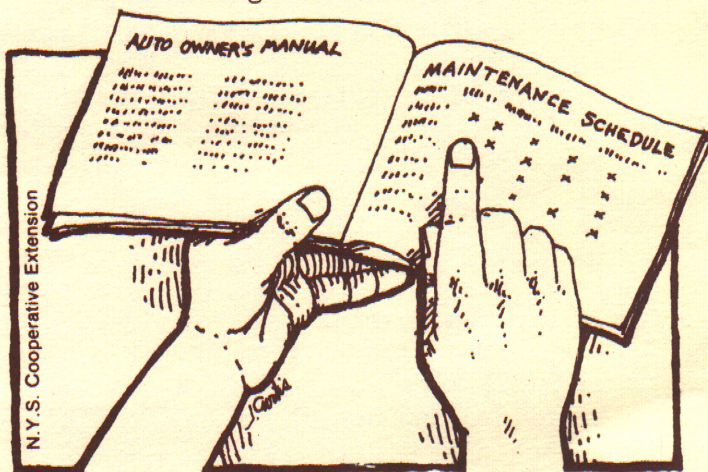
way, you can restart the engine up to four times for the amount of gasoline it takes to idle for 1 minute.

- Listen to traffic reports on the radio and drive around traffic tie-ups. Avoid congested areas, especially at rush hour if you can. Stop-and-go driving in traffic is rough on mileage and nerves.
- Watch traffic patterns and signals some distance ahead so you can avoid sudden braking. Slow down or stop gradually, if possible, by taking your foot off the gas rather than punching the brake. On hills, use the brake rather than the accelerator to prevent the car from rolling backwards.
- Accelerate gradually and evenly. Jack-rabbit starts and sudden, hard accelerations can cost up to 2 miles per gallon.

- Maintain a steady speed on the highway. Constantly varying your speed by as little as 5 miles per hour can reduce mileage by 1.3 miles per gallon. If you have cruise control, use it.
- Drive at moderate speeds. Increasing speed increases wind resistance and makes the engine work harder. Most cars get nearly 30 percent better mileage at 50 miles per hour than at 70, and 20 percent better mileage at 55 than at 70.
- Eliminate extra weight in the car. According to the American Automobile Association, every extra 100 pounds cuts gas mileage by 1 to 2 percent.
- Carry baggage in the trunk or passenger compartment rather than on a cartop luggage rack where it increases wind resistance and cuts fuel efficiency.

### Proper Maintenance saves gas!

- One spark plug that's not working properly can waste up to 1 gallon out of 10, so keep your engine tuned up and the carburetor adjusted. Even a minor tune-up can improve mileage by 10 percent. Your owner's manual tells how often major and minor tune-ups are needed.
- Change the oil at tune-up time or according to instructions in your owner's manual. Use the specified weight oil. Heavier oil will make the engine work harder. Oil that's too thin may not protect the engine. Increased engine wear may mean costly repairs.
- Change air, oil and gas filters regularly to improve mileage and minimize engine wear.



- Use radial tires. Steel-belted radial tires can improve gas mileage by 5 to 10 percent.
- Check tire pressure regularly and keep tires inflated as directed in your owner's manual. Underinflation increases rolling resistance against the road, and that eats into gas mileage. Both over- and underinflation makes tires wear faster. Overinflation also reduces tire contact with the road.
- Check wheel alignment at tune-up time. If wheels are out of alignment, tires will wear unevenly and mileage will suffer.
- Check your radiator thermostat occasionally. It regulates engine warm-up time. A faulty thermostat can waste gas.
- Buy the correct octane fuel for your car. The wrong fuel can foul plugs and cause engine knock, starting problems, engine run-on and other problems that can cut gas mileage. Buying higher octane fuel than you need is a waste of money.
- Make sure your gas tank cap fits tightly and, in hot weather, avoid filling the tank to the brim. As it gets warm and expands -- or if you park on a slope -- the fuel may overflow.

### The "no-surprises" law

When you take your car, truck, motorcycle or other vehicle in for repairs, you don't want any surprises -- you want the job done right and done when it was promised, and you want to pay what the mechanic said it would cost, and you don't want things done that you didn't agree to pay for.

The Michigan Motor Vehicle Service and Repair Act helps you get what you want. Under the law, places offering repair service must be registered and their mechanics licensed, and the consumer has a number of rights:

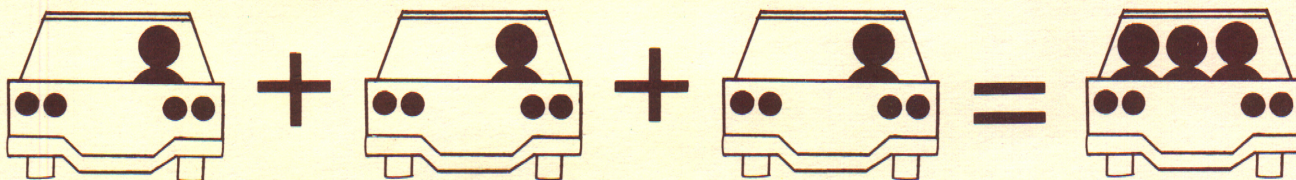
- You must receive a written estimate if repairs will cost \$20 or more. You may also request a written estimate on repairs costing less than \$20.
- The repair person must get your

permission to do any repairs that would push the cost over the written estimate by \$10 or 10 percent (whichever is less).

- After repairs are completed, you must receive a final bill that describes all work done and parts replaced and the charges for each item.
- You are entitled to inspect or receive any parts that were replaced.

If you feel you were treated unfairly or denied your rights, or if

you believe you didn't get what you paid for, it's your right to complain. Start with the owner or manager of the repair facility. Know your rights, state the problem accurately, courteously and calmly, and tell what you think would be a fair settlement. If this effort fails, you can file a formal complaint. For a form and more information, write to the Bureau of Automotive Regulation, Mutual Building, 208 N. Capitol, Lansing, MI 48918 and ask for the Auto Repair Complaint Kit.



## Share a ride and save!

Of the 73 million Americans who commute to work, about 5 million (slightly less than 7 percent) use public transit, and some 16 million (22 percent) take part in some sort of ride sharing arrangement. The other 52 million drive alone.

By riding two to a car rather than one, the loners could save 22.5 million gallons of gasoline every working day.

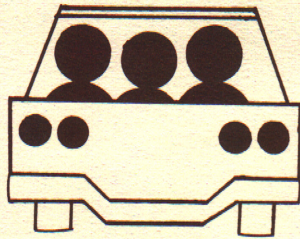
If you drive alone, you could save from \$250 to \$1,000 a year by ride sharing. For instance, if you drive a standard-sized car 20 miles round trip to work and back, switching to a two-person, shared-expense carpool would save \$480 a year in owning and operating expenses. A 16-person vanpool could save you \$760.\*

How does ride sharing save money? The big savings, of course, is in fuel. Every day your car sits at home helps put off the need to fill that tank. Less driving also means less wear and tear, and that may mean fewer big repair bills, fewer new tires and a longer life for your car. Leaving the car at home also means that you don't have to pay to park it. Fewer trips per

week to work may also entitle you to lower insurance premiums. Your insurance agent can tell you more.

Though dollars-and-cents savings may be your primary motive for ride sharing, there are some other benefits, too. In a carpool if everyone takes turns driving, you get to sit back and be a passenger some days. You can use commuting time to read, think, do needlework or simply relax. Sharing transportation gives you someone to talk to as you travel. And it may free your family car for use by other family members and so eliminate the need for a second car.

The potential problems of ride sharing can be minimized if participants discuss them and agree to some ground rules at the very beginning. Where riders are picked up, how often each person drives or whether one person drives all the time and the other chip in on expenses, how long the group will wait for a member who's running late, whether the radio will be on and what station it will be tuned to, whether smoking or eating in the car is permitted, how changes in the driving schedule will be made and other potentially hot issues need



to be brought out in the open and dealt with before conflicts develop.

If you know some people who work in the same area and during about the same hours that you work, you already have the makings of a carpool. If you don't consider placing an ad in your local paper. Or perhaps your employer would be willing to help bring people together for ride sharing.

The potential savings are worth the effort!

\*For a free copy of the booklet "Rideshare and Save: A Cost Comparison," write to the Federal Highway Administration, HHP-31, 400 7th Street, SW, Washington, D.C. 20590. The booklet includes a worksheet to help you figure your commuting costs and the savings to be gained by ride sharing.

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1P-5M-2:81-MP. Price 10 cents. Single copy free to Michigan residents.



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