

Careless Your Car Through Harsh Winter Weather

Though technology has made substantial advancements since the dawn of the 21st century, those advancements have, in many ways, made life more complex. A telephone, for instance, is no longer just a phone, but rather a portable handheld device that allows us to check e-mail, text message friends and family and, of course, make and receive phone calls.

The auto industry has not been immune to this ever-changing and increasingly complex landscape. Auto manufacturers continue to develop hybrid automobiles and have even altered their long-standing guidelines on vehicle maintenance. However, with winter quickly creeping up, it's important for drivers to combine both the new industry standards while maintaining some of the traditional methods to ensure their vehicles stay strong throughout the coming season.

Monitor Motor Oil

Vehicle maintenance often begins with motor oil. Simply put, without lubrication, friction between engine parts results in engine wear. That highlights the need for routine monitoring of motor oil levels and changing the motor oil per the vehicle manufacturer guidelines.

However, the type of motor oil drivers use is also important. Synthetic motor oils, for example, provide significant performance benefits over their conventional counterparts, particularly in colder weather when conventional motor oil thickens as the temperature drops. As a result, conventional



Avoid the need for a helping hand this winter by making vehicle maintenance a priority.

motor oils slow starting rpm, restrict oil flow to critical engine parts and increase wear on bearings and rings. Each of these decreases engine life. Conversely, synthetic motor oils still flow or pump at temperatures up to 60 and 70 below zero, allowing cars and trucks to start with greater ease.

Fight the Freeze

Those who aren't necessarily fond of winter weather no doubt recall the harsh temperatures of the 2007-08 winter. To combat the long winter, people tend to bundle up.

What many vehicle owners might not know is that cars need to be protected from harsh winter weather as well, most notably with antifreeze. An inadequate antifreeze can result in serious damage to a vehicle, including water pump failure and a cracked engine block. That said, it's important for drivers to maintain antifreeze levels

throughout winter while also using an antifreeze that can protect an engine against freezing.

But traditional ethylene glycol (EG) antifreezes have grown less appealing in recent years as the nation has grown increasingly eco-friendly. EG antifreeze boasts a sweet smell and taste that's attractive to both animals and children. Propylene glycol-based antifreezes are safer than ethylene glycol antifreezes because they are safe if accidentally ingested by animals, and don't smell or taste sweet, reducing the likelihood that pets or children will be drawn to them. What's more, adjusting the propylene glycol antifreeze doesn't require much effort, as AMSOIL Propylene Glycol Antifreeze is compatible with all other antifreeze products and does not require a complete system flush before usage.

An In-Depth Look at Fuel Efficiency Tips

How important are vehicle gas caps?

17 percent of the vehicles on U.S. highways have either misused or missing gas caps, causing 147,000,000 gallons of gas per year to vaporize into the atmosphere. A loose gas cap can allow fuel to evaporate, up to two miles per gallon.

Vehicle conditions that cost consumers millions of dollars in wasted fuel:

- Loose or missing gas caps
- Underinflated tires
- Faulty thermostats
- Worn spark plugs
- Malfunctioning engine controls

Poor wheel alignment
How do underinflated tires affect fuel efficiency?

Underinflated tires and incorrect wheel alignment can lead to conditions which increase rolling resistance. This is like driving with the parking brake not fully released, it can cost a mile or two per gallon on a car that normally delivers 20 miles per gallon. Correct tire inflation pressure is critical for good fuel economy, safety, maximum tire life and proper vehicle handling performance.

Keep your car in tune:

Keeping up with regular vehicle maintenance can improve gas mileage by an average of 4.1 percent. Results may vary depending on the kind of repair and how well it is performed. Fixing a serious maintenance problem, such as a faulty oxygen sensor, can improve your mileage by as much as 40 percent.

How do dirty air filters affect fuel efficiency?

An air filter clogged with dirt, dust and bugs chokes off the air and creates what is called a "rich" mixture - too much gas being burned for the amount of air, which

both wastes gas and causes the engine to lose power. Replacing a clogged air filter can improve gas mileage by as much as 10 percent.

Why should spark plugs be replaced regularly?

A vehicle can have either four, six or eight spark plugs, which fire as many as 3 million times every 1,000 miles, resulting in a lot of heat, electrical and chemical erosion. A dirty spark plug causes misfiring and that wastes fuel, up to two miles per gallon. They need to be replaced as recommended by the manufacturer.

Other gas guzzlers include:

- Dirty or substandard oil = 1 mile per gallon
- Slipping automatic transmission = 1 mile per gallon
- Cooling system thermostat that causes the engine to run too cold = 2 miles per gallon
- Worn O2 sensor = 3 miles per gallon
- Combining all of these discrepancies into one vehicle and the cost of wasted fuel easily could exceed recent increases in pump prices.

Driving Habits to Improve Fuel Efficiency:

- Avoid quick or 'jackrabbit' starts and stops.
- Aggressive driving wastes gas. It can lower your gas mileage by 33 percent on the highway and 5 percent in the city.
- Observe the speed limit. Gas mileage decreases rapidly above 60 miles per hour.
- Avoid excessive idling. Idling gets 0 miles per gallon.
- Use cruise control because it helps you maintain a constant speed limit.
- Use overdrive gears

because the engine speed goes down saving gas and reducing engine wear.

Avoid carrying unneeded heavy items in your trunk. An extra 100 pounds in the trunk reduces a typical car's fuel economy by 1-2 percent.

Use air vents to circulate air instead of air conditioning.

Combine errands into one trip and get good directions before you head out to minimize driving unnecessary miles. Several short trips taken from a cold start can use twice as much fuel as a longer multi-purpose trip covering the same distance.

Preventative Maintenance Tips:

Simple preventative maintenance steps that you can do to conserve energy, protect your investment, improve highway safety and benefit the environment include:

- Regularly changing your oil
- Inflating your tires properly
- Taking your vehicle for annual brake inspections
- Changing the windshield wipers
- Whether you do it yourself or visit a professional technician, the Car Care Council recommends regular inspections of the following systems:
 - Brakes
 - Electrical and ignition
 - Emission control
 - Fuel
 - Heating and cooling
 - Steering and suspension
 - The service technician can also evaluate:
 - Engine performance
 - Tires
 - Gauges
 - Windshield wipers
 - Horn
 - Lights
 - Mirrors
 - Seat belts
 - Vehicle's body

Tips to see fall foliage in a whole new way

Every fall, many families pack up the car to travel to see fall foliage. Cooler temperatures and vivid colors make fall the perfect time to get outside and enjoy nature. Most regions have an area known for a vivid display of fall foliage, so families don't have to travel too far to enjoy autumn colors.

This fall, keep these tips in mind to get the most enjoyment from your fall foliage excursion:

* Research specific regions.

Many private and public parks offer trails for visitors, as well as camping accommodations and the opportunity to rent off-road vehicles or other recreational products. Be sure to ask for trail maps of the area to get the lay of the land and determine the appropriate trails for your family's experience level.

While flexibility is key to seeing the best colors, if you plan to camp or are visiting an area popular for fall foliage viewing, it is always best to check camping or hotel availability.

* Prepare for the weather.

Be sure to stay tuned to local news weather forecasts, Internet sites or

contact the local tourism bureau to help predict the best time to plan your trip. Most foliage starts to change colors from mid-to late September and can last through the first part of November.

* Be part of the action.

Why stay stuck in the car or on foot to experience fall foliage? Riding down trails on an all terrain vehicle can give your family a whole new perspective on fall colors. The new two-passenger machines, like the Polaris Sportsman Touring and Polaris X2, give you the opportunity to share the views with the family.

As part of preparing for your trip, it is also important that your ATVs are in good working order so you can fully enjoy your trip without unforeseen pit stops. Have your machine serviced at a local dealership or change the oil, clean the air filter, check

tire air pressure, and examine the brakes, all electrical wiring and bodywork to ensure nothing has come loose. It is also a good idea to carry a tire patch kit in case of a puncture from a rock or stump, and extra gas so you can fill up on the go.

Also be sure to pack all appropriate ATV safety gear including helmets, goggles, gloves, long-sleeved shirts, pants and boots for all members of the family to ensure a fun and safe adventure to experience the wonders of nature.

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Did You Know?

If you're planning on owning the most expensive street legal vehicle available, you might want to start getting your finances in order. The most expensive car available on the market in 2007-08 is the Bugatti Veyron, which will set you back \$1,192,057. The fastest accelerating legal automobile, the Bugatti Veyron can go from 0-60 miles per hour (MPH) in 2.5 seconds. If the Bugatti Veyron is a little out of your price range, the good news is the second most expensive car is significantly

less expensive. The Pagani Zonda C12 will cost you a little more than half of the Bugatti Veyron at \$667,321. Of course, the Pagani will likely run you quite a bit in shipping costs. Made by a small independent manufacturer in Italy, the Pagani Zonda C12 can hit speeds as high as 215 MPH. For speed enthusiasts, however, the real bargain rests in the third spot. While it's only the third most expensive car in the world, with a price tag of \$654,400, the SSC Ultimate Aero tops

out at 257MPH and can go from 0-60 in 2.7 seconds. However, if the SSC Ultimate Aero truly tickles your fancy, you'd be best to act as fast as the car drives, as industry insiders estimate that only 25 of these vehicles were ever manufactured. For those who only buy American, the Saleen S7 Twin Turbo could be the speed car for you. The fifth most expensive street legal vehicle, the Saleen S7 Twin Turbo checks in at \$555,000 and boasts a top speed of 248 MPH.

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