

# The Long Winter's Sleep

*Preparing your vehicles for the cold season*



A letter from a relatively new antique car owner in Wisconsin prompted this article. Inasmuch as we, and probably every other magazine in the world that deals with cars, have at least one article on winterizing a car, we figured that we could pass on covering that territory again. But it was not to be. For ease of discussion, although these instructions are meant both for gasoline engined trucks as well as cars, we will just refer to all vehicles as 'cars.'

Winterizing a car is primarily - not exclusively - for those who live in the cold Northern climes - those who experience a 'hard' freeze. But those of us who live in areas that never see ice, except perhaps in a cocktail, can also benefit from some of these pointers.



Properly preparing your car for winter is really a several day project. Give yourself a few days and get it done right. Not only will the car be better for it, but come springtime it will be easier to fire it up and get back on the road with a minimum of fuss.

Winterization can begin as early as the summer. Keep a pad and pencil in the car, and as you experience a problem or find something which you promise to 'fix in the future,' write it down. Maybe

it's a clutch adjustment, or soft brakes, or even a loose electrical connection. Write it down. You will have plenty of time to work on it after the car is put away for the cold season.

When the time does arrive, and you figure it's time, begin your preparations a couple of days before you turn off the key and walk away. Add a can of gas stabilizer; Eastwood has a good one, so does Bill Hirsch, or Sta-Bil is readily available. Do this when the gas tank is not completely full. Add a bit of Marvel Mystery Oil to the gasoline at the same time. Follow package instructions for a full tank of gas.



Add gas to the tank; the agitation of the new gas will help mix the additives with the existing gas. Drive the car for about twenty or thirty miles, enough to get the fuel mixture into the fuel line, through the fuel pump or vacuum tank and through the



carburetor into the cylinders. This will assure that all gas in the system is protected, not just the gas in the tank.

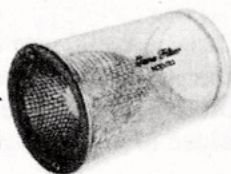
While the oil is hot from driving, drain it, and refill it with clean oil. Why? Excess gasoline gets into the oil during the season. Not a lot of it (unless there is some kind of more serious problem) but enough to dilute the oil and help negate its effectiveness. Also moisture and condensation permit water to get into the oil. If you've taken the car out for a few good runs, most of the moisture has evaporated, but some may remain. Drain it out, and replace the oil with clean, uncontaminated oil. If you are in the habit of changing the oil in the spring, before the driving season, use an inexpensive oil before winter shut-down. Even a 'cheap' oil will protect the engine while it is inactive. In the Spring you can replace it with a more expensive multi-weight or gasoline/diesel 'crossover' (multi-purpose) oil like Rotella or similar. (The multi-purpose oil is designed to be used in both diesel and gasoline engines and contains higher levels of ZDDP than gasoline-only oils.) Run the engine, even at an idle, just to distribute the clean oil through all of the galleries, around the valves and bearings and all of the other parts. The fresh oil will wash away contaminants and moisture from those vital parts.



The cooling system: well, if you are planning on putting the car up for the winter, then it's not called 'coolant'; it's called 'anti-freeze.' Same stuff, and it works both ways. We've been through this before, so let's just say that the additive alters the boiling point and the freezing point of water. But it does a lot more. It helps prevent rusting in the engine, prevents corrosion of the brass/copper in the cooling system and it lubricates the water pump. Miraculous stuff, but it does wear out. Over time, antifreeze/coolant does lose its efficacy, and the additives no longer do their job properly. And you cannot tell that it is no longer efficient just by looking at the color. Three years is generally the maximum time that regular antifreeze/coolant should be left in the system. Whether you use the old-fashioned ethylene-glycol or the newer propylene-glycol, which is environmentally-friendly, it has to be changed. First of all, the chemical additives wear out, and next, because with your antique car and its open cooling system, coolant overflows, and each time that you refill the system, you are diluting the antifreeze.

Drain the old water mixture into buckets and dispose of it at a hazardous material dump site. Please don't drain it into the sewer system or into a watershed drain system (drains into a lake, river or ocean). Clean up spills immediately. The stuff is sweet tasting and appealing to pets, but it is poison.

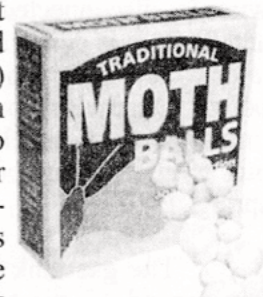
If the system hasn't been drained in three or more years, change the hoses. It will cost you a few dollars, but it is better (and in the long run, cheaper) than having an on-the-road problem with a burst or leaking hose. Check the area around the water pump and around the freeze plugs; look for signs of leaking - rust, signs of dried or wet antifreeze or excess corrosion. Fix it now. Don't wait for spring. Use a garden hose and, with the cooling-system hoses off, flush out the radiator and the block. If there were any indications of overheating or warm-running during the summer, pull the radiator, bring it to a good radiator shop for a chemical flushing. Reinstall the radiator, new hoses, think about installing a cooling system filter (see Gano's ad elsewhere in this issue) and, after making sure that the petcocks are all closed, refill with a fresh solution of antifreeze. The ratio of water-to-antifreeze depends on how cold it gets in your area. Use the chart on the back of the antifreeze container. And save yourself a lot of money. Buy the concentrated



antifreeze, and not the pre-diluted stuff. Why spend about \$5/gallon for plain water. By the way, it only takes a couple of gallons of water for the cooling system. Buy distilled water at the supermarket for about \$1/gallon. There are no minerals in distilled water which otherwise will precipitate out. Run the car to normal operating temperature to make sure that everything works and that nothing leaks.

A reader in the mid-west owns an antique fire engine, and he suggested that, in addition to the vehicle's cooling system, he drains the water storage tanks on his fire truck. That's a good idea, but so is draining any other water-storage system on your car. Don't have one? How about that windshield washer bottle under the hood? Or that jug of spare water in the trunk?

Next, give the car a really good cleaning: a wash, a polish and a waxing. Vacuum and clean the interior. Get under the seats, and remove anything that could rot and smell over the winter (like that half-eaten ham and cheese sandwich that someone dropped). Clean the trunk too. It's amazing what gets forgotten in there during the year. Wash the engine compartment. Cover the distributor and carburetor with plastic bags, spray the entire engine area with Oil Eater® and rinse it off. (Don't get the de-greaser on the paint. It can't do it any good and could remove the wax finish.) Spread camphor mothballs in the cabin and in the trunk to discourage mice and other rodents. (One reader suggested that laundry dryer sheets would discourage rodents. He also spread mothballs throughout the garage as double protection.)



Now you can move the car into the garage or storage area. On a 'newer' car - one with a down-draft carburetor - remove the air cleaner and slowly pour a little Marvel Mystery Oil into the carb as the car is running. You may have to increase the RPM as the oil mixes with the gasoline to keep the car running. When a cloud of smoke comes out of the exhaust and the engine stalls, that's enough. The oil has coated the valves and the combustion chamber to prevent rusting or corrosion. Remember, when you start the car in the spring that oil will have to burn off and it will make a smoky mess for a couple of minutes.

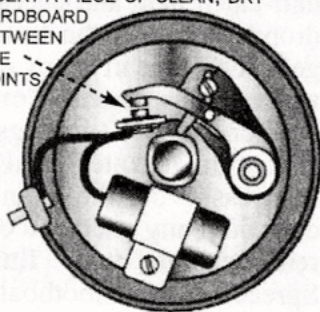


If the car or truck is of an older vintage, make sure that the vacuum tank is drained. The gasoline sitting in the tank could turn to gum, causing that vacuum tank's internal valves to stick, and the moisture which collects could cause internal rust leading to vacuum tank failure. (See the December 2013 issue of SK for more on vacuum tank care.)

Let the engine cool down, remove each of the spark plugs, and put about a tablespoon of Marvel Mystery Oil into each cylinder. Loosely replace the spark plugs or cover the holes with a rag or old towel. Disconnect the coil wire from the distributor cap (so that the engine won't fire over), and crank the engine just one or two revolutions to spread that oil in the cylinders. This is a good time to clean and re-gap the spark plugs.

Remove the distributor cap, and put a piece of clean cardboard between the points to keep them from corroding and sticking together. Write two notes - one for the engine compartment and one which can be taped to the steering wheel or the ignition switch - reminding you that 1) the distributor/coil wire is disconnected, and 2) there is an insulator between the points. Otherwise you might drive yourself nuts trying to figure out why the car won't start in the spring.

INSERT A PIECE OF CLEAN, DRY  
CARDBOARD  
BETWEEN  
THE  
POINTS



The gas tank is probably almost full (since you topped off the tank after you added the additives), but if you would like to, just add a bit more gas to completely fill the tank. A full tank does not allow room for condensation from air expansion in the gas tank. Make sure that the gas tank vent is clean and open, and that job's done.

Depending on how far you want to go, this is a good time to flush the hydraulic brake system and replace the brake fluid with fresh stuff. Brake fluid is hygroscopic, that is, it has the ability to absorb moisture from the air. As this moisture precipitates out of the fluid, it can rust the brake lines, master cylinder, valves and wheel cylinders. Changing the fluid at least every two or three years is a good idea.

Check the level of the transmission oil and the differential oil now. It's one less thing to do in the spring. (Drain just a little oil from each and check for metal filings. If you find any, it indicates an internal problem which must be fixed.)

We are almost there. Remove the battery, move it to an area where it is not likely to freeze, check the water level and connect a float charger (something like a Battery Tender). Don't get a cheap float charger. Make sure that it is U.L. rated. It is an electric appliance which is connected 24 hours a day. Be safe.



Check the battery cables and replace them if the corrosion extends up under the insulation. Wire brush the terminals to remove any corrosion - at the battery end, the ground, the starter switch, the starter, etc.



Jack the car up until the tires are off the ground, and install four jack stands under the car. One reader suggested topping off the tire pressure before storage, and one of my owner's manuals suggests that the air pressure be reduced during storage. I like the idea of letting out about 10 to 15 pounds of air pressure while the car is not in use. But make sure that you write yourself a note and tape it to the steering wheel that you have reduced the air pressure. It will be a reminder in several months.

While the car is elevated, pull the front wheels, check the brakes and repack the axle bearings. Check the rear-end fluid and refill, if necessary. Examine the tires for cracks, splits, bubbles or any other evident problem. Use the winter downtime to order and mount new tires.

Cover the car with a breathable (cotton or similar - never a plastic tarp) cover. Be sure that the edges of the cover do not touch the ground. It could provide access to the car for mice and rats.

Well, you are done! Any of the small jobs that you have noted during the year can be repaired now. Relax, and feel secure that the car will be very close to ready to go in the Spring.

S.K.