Here at the “Grassroots Tech Barn,” cold weather is rapidly approaching. This is the time of the year for racers with an off season to prepare their racing equipment for winter hibernation. Winter weather is not a friend of any of your racing equipment, and proper care is necessary to start a new racing season in the same mechanical condition as it finished the previous one.

The greatest enemy of any mechanical item is rust. We as racers spend hundreds and sometimes thousands of dollars to have our racing equipment in peak operating condition, the last thing we want to do is to allow the introduction of rust. This is true for the engine and the kart itself. We also need to take steps to preserve our tires as much as we possibly can if we want to try to squeeze more laps out of them in the coming year. This month, we will focus our attention on winterizing our engine.

It is important to begin with a clean engine. You don’t hang dirty clothes in the closet, don’t store away a dirty engine. Clean thoroughly using the guidelines we previously established.

Once the engine is clean and dry, start the engine and allow it to run long enough to get warm. This will displace any left behind moisture as well as warm the oil for draining. Flush the carburetor to get rid of any remaining fuel and drain the oil from the engine. Be certain to mark the engine to reflect the lack of oil, you don’t want to remember the hard way.

Once we have purged all the fluids, we want to prepare the engine for storage by lubricating the engine and blocking off the areas where moisture can enter. The areas of concern are the carburetor inlet, the exhaust port, the breather tube, and the fuel cap. First, I like to remove the spark plug, and spray WD-40 liberally down the cylinder, all over the valves and into the ports. Rotate the engine a few times by hand to make sure the lubricant reaches all areas. Once satisfied, rotate the engine to just before top dead center with both valves closed. Spray another shot of WD-40 into the cylinder. Leave a bit of the oil in the top of the cylinder during storage. When we leave the engine at top dead center with the valves closed, it relieves the pressure on the valve springs, and limits the chance of moisture entering the cylinder through the ports. Replace the spark plug, and tighten.

Next, spray a shot of lubricant into the breather tube, and seal it thoroughly, whether by taping off or plugging the hole. Remove the header assembly, lube the exhaust valve, and seal off the port. Good quality tape will work, or use a template cut from cardboard and bolt on using a gasket. While the header is in hand, spray some WD-40 in both ends and a coat on the outside; this will preserve it as well. Spray a good amount of the lubricant down the carburetor bore; this will keep the intake tract protected. Remove the
blower housing and lightly spray the flywheel and replace the cover. Spray the pto side of the crankshaft and the seal area to protect it from rust. Completely seal the carb inlet, G-Man makes a handy cap for all styles of engines. Tape off the vent on the fuel cap for a flathead engine, or the fuel inlet on the fuel pump on an Animal or Box Stock and the engine is prepared for a long winter’s nap. If you have a remote fuel tank, drain and dispose of any remaining fuel, we want to start fresh in the coming season.

Remember, any surface that is not painted or plated is subject to rust. Pay extra attention to any of these areas. A light coat of protectant all over the engine and components is an excellent idea. This will be an excellent safeguard for the appearance of your powerplant and components.

Storage location has a huge impact on the level of protection you receive. Race trailers are a wonderful thing, but usually are not the preferred storage for the wintertime. Temperature swings and damp air promote the introduction of rust. The best spot is indoors where the temperature remains more constant and free of moisture. If inside is not an option, store in a laundry room or in the garage. If one of these choices are not available, wrap the engine with plastic and seal thoroughly. Time invested here will be rewarded when the new season arrives.

Maintenance and care are critical to the performance of your engine. If you use the steps above, your engine will be in as good a condition as it was when you stored it, even months later.

Until next month, beware of the ‘Old Man! See you then.