

Thunder Rolls in Georgia



CHASE'N RACE'N

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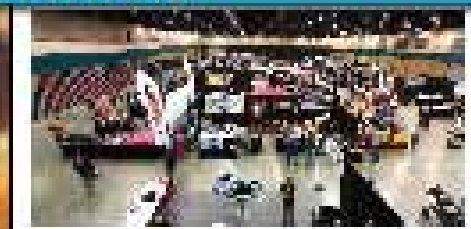
January '13

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King 'Bob' Retains Crown



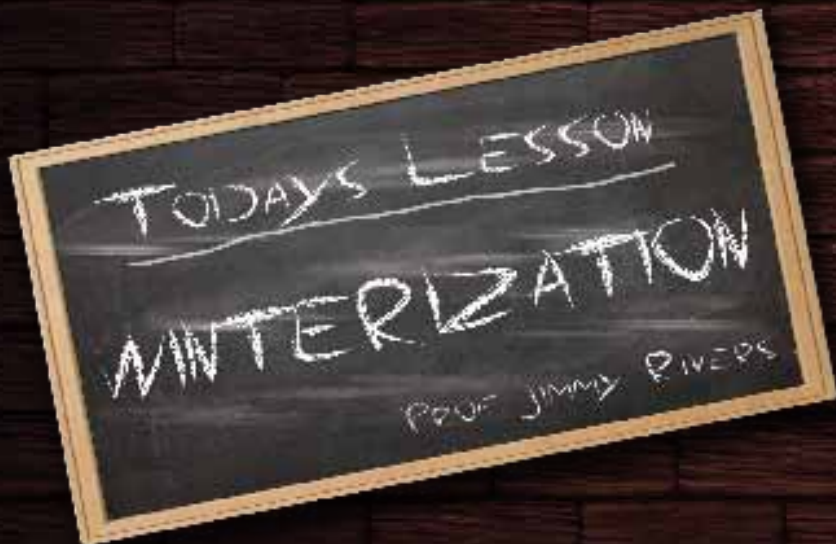
Returning a Lil' "Style" to Karting



Speed Shop Scholar
Beating the Winter Cold

Bonus Coverage!

MS Threading 2012-2013
Mazda National Championship 1-10-12
Plus More!!!



SPEED SHOP SCHOLAR

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 intro-



duction 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.

Just as cool damp weather can harm your engine, it can allow any unprotected metal to begin rusting. Not only is this visually unappealing, it also restricts the movement of critical components such as bearings and linkages. This is why winter preparation is of utmost importance.

Before any maintenance program can begin, we must start with a clean slate, or in this case, a clean kart. Once clean and dry, coat the entire chassis and running gear with a good coat of a spray lubricant. Be certain to spray and coat all areas, not just the ones you can readily



see. This includes the underside of the chassis. Pay extra attention to all uncoated surfaces as they will need additional oil to remain protected. Using a quality bearing oil,

lubricate all bearings and rod ends. Turn the steering shaft and spin the axle to allow the oil to circulate throughout.

One of my pet peeves is rust in the socket head of allen bolts. Most allen head bolts we use are uncoated, and the slightest bit of moisture turns into a rust spot in the socket head. To keep myself off the edge of the cliff, I wet the tip of a q-tip with spray lube and rub into the head of the bolts as an additional safeguard against rusting.

To protect your clutches for the winter, place into a zip-lock bag and store away. Use the same method to protect other important items such as your My-Chron.

Our tires must also be properly prepared for storage. Before I go any further, let me say this. Rarely, if ever, will tires used

one season perform as well in the following season, regardless of storage technique. However, they may be used in some capacity, and that is why we want to take the effort to prepare for hibernation.

Start by cleaning the tires thoroughly. Soap and water to start, then a couple hard wipes with a tire cleaner or similar product to open up the tread surface of the tire. Follow up with a couple good coats of WD-40 to add some oil back into the tire. Wrap the tires up with cellophane to protect from the air, and store by sets in heavy duty plastic bags. Cold weather does to your skin the same thing it does to your tires, it dries them out. For this reason, it is imperative to protect them from the cold air as much as we possibly can.

Storage location of your racing equipment dictates how well everything survives the winter. If you can move everything inside into a garage or other area with some sort of climate control, this is preferred. However, this is not always the case. I cautiously add this; if you can sneak any of these items into the house, this will definitely increase the level of protection, but, proceed at your own risk on this one. If your racing trailer is your storage location, seal off any obvious air leaks to keep out as much moisture as possible. I also recommend a product called Damp-Rid. This uses calcium chloride flakes in an elevated basket to draw moisture out of the air. This is a fantastic aid in the fight against moisture, anytime of the year. It works great in the trailer or the shop, anywhere you want to eliminate or reduce a moisture problem.

The time and effort you spend in preparation for a winter break will be rewarded in the coming months when you prepare for the new season. Spring prep will require less effort and your precious equipment will be in a much better mechanical and visually appealing condition. The new season starts here, today. Put your best foot forward. See you next month. Stay warm and dry!