

With Winter in the Air, Thoughts Turn to Prepping Turf Equipment, Especially Engines, for Winter Storage

By Larry Aylward

Mark Nelson once drove a Ford Bronco II for about 230,000 miles before the vehicle died and went to the big junkyard in the sky. You're correct if you assume that Nelson knows something about running 'em forever — or close to it.

So it's no surprise that Nelson is a technical service representative for the Briggs & Stratton Commercial Power, manufacturer of consumer and commercial engines. He not only knows what it takes to keep a motor running efficiently, but he loves to talk about it.

In the spirit of the season, we asked Nelson how superintendents and technicians should prepare their equipment for winter storage. (Even if you're in Florida or Arizona and there's no such thing as winter storage, he has much to say about preventative maintenance. It's even more critical in warmer climates to be organized to do the maintenance, he says.)

It starts with a good cleaning of the equipment and its surrounding areas. Then you'll be able to see if there are any areas with leaking fluids or damaged pieces that you can address before delving into engine maintenance.

Some of the maintenance tips Nelson offers aren't groundbreaking advice. Nevertheless, they're important tips that shouldn't be overlooked. Winter is a good time to perform many preventative maintenance tasks, he says.

Take changing the engine oil, for instance. It should be performed on mowers and other equipment before they're stored for the winter. Nelson points out that when an engine is running, part of the combustion process converts fuel into water. Hence, it seeps into the oil.

"You don't want condensation and moisture in the engine if it's in storage for a few months," he says. "That only promotes rust."

Particulates and contaminants, which also should not be left in an engine bound for storage, are also removed when the oil is changed. Be sure to bring the engine oil up to operating temperature before performing the oil change. This will assist in the flushing of the contaminants.

It's also wise to replace air filters, fuel filters, spark plugs, and adjust valves on engines, Nelson notes. "The cost of these parts is relatively low, and it's much more cost-effective to replace them vs. trying to clean them."

Nelson says cooling fins on air-cooled engines and the radiator on liquid-cooled engines should be blown out with



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compressed air to remove debris that has accumulated. "Never use water for this process," he adds. "Water will mix with the dirt and could form mud and harden like concrete if it's not removed completely."

But when winter is over and the equipment is taken out of storage, the cooling fins should be rechecked for more debris.

"Sometimes little critters, such as mice, like to make little nests in there during the winter," Nelson says, noting that a good way to prevent that is to set traps around the stored equipment.

In liquid-cooled engines, coolant should be changed annually. Nelson says it's important to make sure engines have the right amount of coolant (usually a 50-50 ratio with water). The solution needs to have the correct mixture so the engine blocks won't freeze and crack during the winter.

Checking and resetting an engine's top no-load speed is vital. "Some equipment, such as reel-type mowers, are dependent upon engine speed for a clean cut (frequency of clip)," he says.

A person checking engine speed should not check solely by ear. While the engine may sound fine, that doesn't mean it is.

If the speed is off several hundred rpm, the reel is spinning slower because the hydraulic pump is turning slower. And if a mower is moving at its normal speed, the frequency of clip will be off. Nelson suggests using a tachometer to measure the speed.

Equipment batteries should be serviced prior to storage. The inside of a battery should be filled with distilled water, its posts should be cleaned and corrosion removed. The electrical connectors on cables should also be cleaned and coated with Dielectric grease to help prevent corrosion.

"Also, use a trickle charger to bring the battery up to full power before storage," Nelson adds.

Finally, Nelson reminds the people prepping equipment for winter storage to use the proper tools and wear the proper attire when doing so. He also advises them to always use original equipment manufacturers parts.

About that Ford Bronco that Nelson kept alive for more than 230,000 ticks on the odometer: He says it was all because of preventive maintenance, which left him heavier in the wallet in the long run.

"I'd rather do preventive maintenance than make car payments," Nelson says. "My total annual maintenance costs were less than two months of car payments."