

Extend power equipment life with year-round maintenance

■ To extend the lifespan of your power equipment, you must treat the gasoline engines with tender loving care—both before bedding them down for the winter and during the busy season.

It's most important to change the oil before storing the equipment for the winter.

"Late fall is the best time to change the oil and check the spark plug to make sure that it will be ready to go in the spring," says James Garthe, instructor in ag and biological engineering at Penn State University. "Don't keep old oil in the engine. Solids, water and acids that have accumulated in the oil over the summer will corrode the engine.

"Change the oil while it's still warm. Contaminants are suspended in warm oil and will drain out. If you wait until it cools, these materials settle to the bottom of the crankcase and solidify into a thick gum."

If possible, remove gasoline from the tank before storing the mower, either by siphoning or by taking off the tank. Consult your owner's manual to determine the best method.

If you can't remove the gas, put a fuel stabilizer designed for small gas engines in the tank and run the mower for a few minutes before storing it. "A good fuel stabilizer can extend the storage life of the gas by up to six months," Garthe contends.

If you keep the equipment in a damp location, consider coating it with a silicon spray before storing it. The silicon will create a film that keeps moisture out and discourages rust.

Covering the equipment with a plastic tarp also helps keep moisture and rodents out. "Mice have been known to chew wires and other engine parts, and even to build nests in the mower," Garthe notes. A plastic tarp will discourage these pests more than cloth, which mice chew up for nesting material.

During the season—The lifespan of a small gasoline engine is also directly related to routine maintenance performed on it during the operating season. A few simple pro-



Late fall is the best time to change the oil one last time and check the spark plug.



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cedures that are easy to perform and take very little time can extend engine life, according to Briggs & Stratton.

Over time, component parts will wear out or need replacing. It is important to use genuine parts. They will help keep your engine in top performing condition.

All gasoline-powered engines require proper fuel and lubrication. They also need air for full power delivery and adequate ventilation to prevent over-heating.

Maintenance tips:

Lubrication—Change oil regularly after 25 hours of operation. Many professionals change oil as often as at the end of each working day. Use a high grade detergent automotive oil—30 weight is highly recommended when operating in temperatures

above 40 degrees.

Fill to the proper level indicated in the manufacturer's maintenance instructions, being careful not to overfill. Check oil level every time you add gasoline.

"The wrong oil shortens your engine's life by causing overheating and excessive wear on valve guides, seals and main bearings," warns Garthe. "Use high quality engine oils containing additives that buffer corrosive acids generated during fuel combustion."

Fuel—Use clean, fresh unleaded gasoline. Using lead-free gas slows combustion deposit build-up and contributes to a cleaner environment.

Air—Clean air is needed to mix with gas for optimum combustion and power; it is the lifeblood of engines.

Large capacity pleated paper air cleaners help keep the engine clean. Proven for years in automobiles, pleated paper air cleaners offer small engines unbeatable protection and convenience. And service is a snap: remove and replace just like an automobile air filter. Again, it is important to replace with genuine parts.

"If the air filter is dirty, minute particles of silicon eventually can get into the internal moving parts, wear-

ing them down and pitting them," Garthe notes. "A dirty air filter also keeps air from getting to the engine and affects the air-fuel ratio that governs combustion. The engine has to work harder, wasting energy and fouling the spark plug with deposits."

The oil foam air cleaner also offers good protection. Replace whenever it appears very dirty.

Blower housing—Dirt and debris can enter the engine's blower housing and clog the cooling fins, causing high engine temperatures. If the temperature rises too high, internal parts can be damaged. Prevent grass and debris build-up by removing blower housing and cleaning the area.