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for do-it-yourself repairs

GAS-POWERED TOOL MAINTENANCE

Giving regular attention to tools with gasoline engines (snow blowers, weed trimmers, edgers, and lawn mowers) will prolong their lives and simplify yours – with lower repair and replacement costs. It's especially important to prepare these tools properly before using them each season, and to store them properly when the season for their use comes to a close.

BEFORE YOU USE A TOOL AT THE BEGINNING OF THE SEASON:

Make sure the tool is clean. For mowers, sharpen or replace any blade that is worn, bent or damaged, so the grass will be cut cleanly, not torn. Clean any old grass from under the mower deck, and coat the area with a rust-inhibiting spray lube (**WD-40™**, Teflon, or silicone spray), so you can easily clean the deck between cuttings to prevent rusting or pitting. Be sure to lubricate any moving parts (wheels, throttle control and cable, etc.)

If you didn't clean or replace the air filter before storing it at the end of last season, do so now. If it's a sponge-type filter, wash it with some liquid dish soap, then squeeze about a teaspoon of motor oil into it so it will collect dust effectively. Install a new spark plug (take the old one with you to the store, so you can buy the proper replacement) and, on four-stroke engines, change the oil – even if you changed it at the end of last season – to clean from the crankcase the acids and impurities caused by combustion, and moisture from condensation.

If the motor will not start, despite the above maintenance, here are a couple of things to check. First, ensure that there is "spark" (the voltage that arcs across the spark plug gap). One way to test is to remove the wire from the spark plug, remove the plug from the motor, and then replace the wire onto the end of the freed plug. With insulated pliers, hold the plug against the motor fins, and pull the starter cord several times. If there is no spark, ignition parts will need to be replaced (this will probably be a repair shop job). If there is a spark, then it's likely that the problem is in the fuel delivery.

If you didn't drain the gas tank before last winter's storage, or didn't use a fuel stabilizer (like **Stabil™**), the gas may have evaporated into a varnish-like coating – and clogged the carburetor. Before taking the mower to a repair shop, try the following routine:

Start by ensuring that the work area is well ventilated, with no flames or smoking items nearby. Gasoline and fuel additives are extremely flammable. Put down some cardboard and paper to absorb any gas and/or oil that gets slopped. Remove the air filter and the spark plug. Drain the old fuel, and pour a little fresh gas into the tank. Pour an ounce of carburetor cleaner additive (like **GumOut™**) into the tank and mix it with the gasoline. Also, pour some of the cleaner directly into the carburetor and brush it around. (An old toothbrush will do, so long as it's clean.) Pull the starter cord repeatedly, so that the fuel/cleaner mixture gets pulled through the carburetor. Drain the mixture from the tank, and then fill it with fresh fuel. Replace the spark plug and air filter, and start the mower.

DURING THE SEASON:

Inspect the air filter frequently, and clean or replace it when necessary. Check the oil level before each use, and change the oil when it becomes dirty. Before refueling the mower or any

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other tools, let the engine cool down to prevent an explosion or fire. Wipe off any fuel spillage and move the gas can well away from the motor before attempting to start the engine. Clean the tool before putting it away after each job, paying special attention to removing all grass from the area beneath the mower deck.

STORING THE TOOL AT THE END OF THE SEASON:

Clean the tool thoroughly before putting it away at the end of the season. On mowers, be sure to clean out all the old grass from under the deck, and coat the area with a rust-inhibiting lubricant (WD-40™, Teflon, or silicone spray).

A lot of people suggest running the engine out of gas before storing at the end of the season, but residual gasoline can turn into a varnish-like coating that can plug up the fuel system when you try to start it next season. Instead, you can add a fuel stabilization product (like Stabil™) to a full gas tank and run the motor for a few minutes to ensure that the mixture has made it into the carburetor. (The additive will prevent the varnish build-up during storage.) Then, clean or replace the air filter.

If you have a four-stroke engine, change the oil to clean out the acids and combustion by-products from the crankcase and prevent rusting and pitting of the engine internals. On both two-stroke and four-stroke engines, remove the spark plug and pour a small amount of oil into the cylinder. Leave the ignition off, pull the rope several times to circulate the oil, and replace the spark plug. The oil will keep the piston and cylinder from rusting together.

Several minutes of maintenance labor at the beginning and end of the season will help keep your gas engine tools running well for years to come – and save you from repair shop bills.