ETHANOL 101:
TIPS FOR GOOD ENGINE HEALTH

MORE THAN 90% of the fuel pumped in the US is now an ethanol blend, so there's a good chance that your outdoor power equipment might be suffering from the negative effects of ethanol-blended gas. Fuel with more than 10% ethanol, such as E15 is dangerous and in fact, illegal to use in small gasoline engines.

OPE users must equip themselves with a better understanding of how ethanol impacts the engine in order to take steps toward prevention. And then, owners need to understand the best products on the market to help them maintain good engine, and equipment, health.

Ethanol-blended fuel begins degrading 30 days after its pumped. This means, if fuel sits in a portable gas can for a few months, or even an entire season, the gas should be replaced with fresh fuel. If not, equipment owners can face real challenges, especially inside the engine, where the real issues unfold:

- Ethanol-based fuels attract moisture, which eventually separates from the fuel
- A layer of ethanol-enriched water forms at the bottom of the tank, which is highly corrosive for engine parts
- Gum and varnish forms as the fuel breaks down, resulting in stuck intake valves, clogged fuel lines and carburetor jets

The engine can experience issues such as poor starting, rough running, rust and corrosion, and in many cases, failure. And for equipment owners, repairs can be costly, especially since many warranties do not cover damage from fuel that isn't considered fresh.

Outdoor power equipment dealers are certainly on the frontlines in understanding the engine damage caused by ethanol-blended fuel. Over the past 3 years, we have heard our own Briggs & Stratton dealers speak more and more about the negative effects of ethanol-blended gasoline. In fact, according to an independent power equipment dealer survey, 93% of dealers said ethanol was a primary cause of engine problems in 2012.

If using fresh fuel is the first step to good engine health, the second is using a fuel stabilizer and treatment that combats the negative effects of ethanol.

Fuel treatments and stabilizers are a cost-effective, successful means for extending the life of equipment, and the equipment's engine.

However, equipment owners need to be careful when choosing the right fuel treatment and stabilizer. It's critical to look for products developed by companies that truly know engines, and that have the engineering expertise to understand how best to protect them. Additionally, owners should feel confident that the product they choose has been thoroughly tested, offers maximum protection, and stabilizes fuel for more than a year after opening.

The best options include several ingredients, including triple antioxidant formulas that protect the entire fuel system. Additional ingredients to look for include:

- Corrosion inhibitors that form a protective barrier on metal parts, to help prevent rust and corrosion
- Metal de-activators, to stop aggressive chemical reactions caused by dissolved metal ions in the fuel
- Detergent ingredients that help prevent gum and varnish build-up
- Water inhibitors, to protect against the harmful effects of water in fuel due to ethanol

And for equipment owners who want complete confidence that ethanol will not cause damage to their engines, they can use 100% ethanol-free canned fuel, now available at many outdoor power equipment dealers and repair centers, as well as major home improvement retailers.

Making proactive choices to protect your equipment from ethanol will protect the life of your equipment and save you time and money by eliminating the need for repair, returns and replacements-by Carissa Gingras, marketing director, consumer engine & service with Briggs & Stratton. ■

Image ©istockphoto.com/JamesBrey