

Prepare your Grasshopper for cold weather

Winterization tips provided by The Grasshopper Company



Every Grasshopper mower is designed to make routine maintenance and winterization simple. Here are some great tips to help you prepare your mower for the cold winter months ahead.

Battery – Prior to the onset of cold temperatures, clean and inspect the battery, cables, terminals, tray and hold-downs as well as check the battery case for leaks and cracks. Keep your battery fully charged through the winter with a Battery MINDer®, available from Grasshopper. It prevents damage that occurs due to self-discharging without risking overcharging when left on the battery for indefinite periods of time. By keeping your battery charged, your Grasshopper will be ready all year long.

Block Heater – If the ambient temperature drops below 20°F, it may be necessary to add supplemental heat to the engine. Block heaters are available for all Kubota engines used in Grasshopper power units.

Glow Plugs (Diesel Engines) – Check that all glow plugs are in good condition. One bad glow plug will prevent the engine from starting. *Caution:* Activate glow plugs for 5 to 10 seconds only. NEVER preheat for more than 20 seconds.

Engine Oil – It is critical that the correct oil for cold weather operation is used in all engines. The use of 30W oil in winter, for example, will often cause starting problems. Follow the engine manufacturer's oil recommendation for cold weather operation.

Starting Fluids – Do not use any type of starting fluid on any Kubota, Kohler or Briggs & Stratton engine. Starting fluids will cause severe piston ring or ring land damage on all engines.

Cold Weather Warm-Up – Never run a cold engine at full throttle. Run at low to medium throttle for several minutes until warm. This varies from the advice provided by modern automobile engine manufacturers. A working Grasshopper engine runs at much faster speeds than automobile engines and thus should be given a few minutes of warm-up time to ensure lubricant is flowing freely throughout the engine.

Carburetor Anti-Icing – Anti-Icing Kits are available for Briggs & Stratton and Kohler engines. *Caution:* Anti-Icing Kits must be removed for warm weather operation.

Fuel – Different grades of fuel are used for warm and cold weather operation. Be certain to use a good quality, fresh winter-grade fuel, as summer-grade fuel creates a hard starting situation in cold weather. A fuel stabilizer such as STA-BIL should be added to all of your bulk fuel purchases throughout the year, and it becomes even more critical during winter months when the power unit may sit for many weeks at a time without being used. If fuel stabilizer was not added to the bulk fuel, then it is a good idea to add the proper amount directly into the fuel tank. Any time stabilizer is added to the fuel tank, allow the engine to run in an open, ventilated area for about 10 minutes to ensure the treated fuel is circulated throughout the fuel system. *NOTE:* According to Kubota Engineering Bulletin KEI-144, use of **biodiesel** fuel in cold weather conditions can lead to fuel system plugging, hard starting and other possible unknown failures. Plugging can include both fuel filters and fuel lines. Contact the Grasshopper service department for additional recommendations on biodiesel fuel.



Winter Storage Tips

Deck — Always clean the underside of the mower deck frequently during the mowing season, and give it a thorough cleaning before winter storage to prevent rust. Spray the underside of the deck with water to clear any clippings or residue, then use a bristled brush to remove any stubborn deposits. Allow deck to thoroughly air dry before storage.

Spark plugs — Spark plugs typically require replacement every 100 hours of operation. If a plug is corroded, replace it before storing the mower for the winter. For plugs that are still in good condition, adding an ounce of motor oil to the cylinders and cranking the engine a few times will help keep cylinders lubricated during winter storage.

Blades — Sharpen your blades in preparation for the following spring, and replace any blades that are worn or damaged with new Grasshopper GrassMax™ replacement blades. Blades should always be sharpened when they become dull and no longer provide a clean cut.

Belts — It's a good idea to check all of your Grasshopper's drive belts and deck drive belts before winter storage. Replace any that are nicked, frayed, warped or have started to slip with genuine Grasshopper MaxLife™ OEM belts.

Air filter — A good rule of thumb is to replace the air filter either every year before winter storage or every spring before cutting commences. Refer to your owner's manual for specific instructions on the proper care and replacement of the filter. If a replacement is needed, always choose a genuine Grasshopper air filter to keep your mower running at peak efficiency.

Fuel filter — Refer to your owner's manual for specific instructions regarding the proper care and replacement of the filter. If a replacement is needed, always choose a genuine Grasshopper fuel filter to keep your mower running at peak efficiency.

Tires — Tire pressure can greatly affect the quality of cut your mower provides. Be sure to check the tires for leaks and extreme wear at the end of every mowing season, and repair or replace them as necessary, to prevent sidewall damage from sitting flat over the winter. Tire chains are available for 20-inch diameter and smaller turf tires to increase traction for winter usage.

Exterior Cleaning — Give your mower a good cleaning before winter storage, removing any dried grass and dirt from crevices, and use a solvent such as WD-40 to remove any oil or gas stains. If the mower is washed, allow it to thoroughly dry before placing in storage.

Storage — Finally, always store your mower indoors and out of the elements to prevent undue wear and tear on the mower and to make sure it's ready for its next use whether that is snow removal, debris cleanup or mowing.

Following these simple winterization tips will ensure that you'll be ready to make the most of your Grasshopper season after season, year after year.