## Avoiding Fuel-Related Problems

Your Honda GCV/GSV premium residential engine is designed and manufactured to precise specifications to ensure years of trouble-free operation. This includes the fuel system. However, the properties of gasoline can quickly lead to stale fuel causing starting or running problems and, in some cases, damage to the fuel system if precautions are not followed. The good news is most fuel-related problems can be avoided by following a few simple steps.

## Follow These Five Steps to Prevent Most Fuel-Related Problems

## Step

1. Do not use gasoline containing more than $10 \%$ ethanol in your Honda powered equipment.


#### Abstract

Reason Gasoline containing higher levels of ethanol is corrosive and attracts water, which can cause starting or running problems or, in some cases, damage to your engine's fuel system.


2. Store your gasoline in a clean, plastic, sealed container approved for fuel storage. Close the vent (if equipped) when not in use and store the container away from direct sunlight. If it takes more than 3 months to consume the fuel in the container, we suggest adding a fuel stabilizer to the fuel when you fill the container.

A clean, plastic container approved for fuel storage will help prevent rust and metallic contaminants from entering the fuel system. Gasoline will deteriorate faster when exposed to air and sunlight.
3. Keep your engine's air filter properly serviced. Check it before each use.


A properly maintained air filter will help prevent dirt from entering your engine's carburetor. Dirt entering the carburetor can be drawn into small passages in the carburetor and cause premature engine wear. These small passages can become blocked, causing starting or running problems. Always use an air filter specified for your engine to ensure it seals and performs as designed.
4. When you're finished using your equipment, turn the fuel valve OFF and leave it OFF until you're ready to use your equipment again. Fill the fuel tank to minimize air in the tank. If you do not intend to use your equipment for 3 to 4 weeks, start the engine with the fuel valve OFF, and allow it to run until the engine runs out of gas.


The small amount of gasoline in your engine's carburetor will deteriorate faster than the fuel in the fuel tank due to its small volume and proximity to residual engine heat. The fuel valve allows you to stop the fuel flow from the fuel tank to the carburetor for storing and transporting.

Fill the fuel tank after each use (instead of before each use). If the fuel tank is partially filled, air in the tank will promote fuel deterioration.
5. If you don't plan to use your Honda powered equipment for more than 30 days, follow the storage guidelines on the following page.

Untreated gasoline (without a fuel stabilizer) left in the engine's fuel system will deteriorate, causing starting or running problems and, in some cases, damage to the fuel system.

## Storing Your Honda Powered Equipment for More Than 30 Days

If you don't plan to use your Honda powered equipment for more than 30 days, follow these steps to reduce fuel-related problems.

## Storage Time: $\mathbf{3 0}$ to 90 days

1. Add gasoline stabilizer to the fuel tank following the manufacturer's instructions. When adding a gasoline stabilizer, fill the fuel tank with fresh gasoline. If only partially filled, air in the tank will promote fuel deterioration during storage.

Note:

- All stabilizers have a shelf life and their performance will deteriorate over time.
- Fuel stabilizers will not reconstitute stale fuel.


Honda Fuel Stabilizer, 8 oz. PN 08732-0001
2. After adding a gasoline stabilizer, run the engine outdoors for 10 minutes to be sure the treated gasoline has replaced the untreated gasoline throughout the fuel system.
3. Stop the engine and turn the fuel valve to the OFF position.
4. Restart the engine and allow it to run until it runs out of gas. Running time should be less than 3 minutes.


## Storage Time: More than 90 days (long term or seasonal storage)

Start the engine and allow it to run long enough to empty all the gasoline from the entire fuel system (including the fuel tank). Do not allow gasoline to remain in the fuel system for more than 90 days of inactivity.

## Stale Fuel in Your Fuel Container

If you have some fuel left in your storage container at the end of the season, the Environmental Protection Agency (EPA) recommends adding the gasoline to your car's gas tank (http://epa.gov/reg5oair/mobile/winter.html), provided your car's fuel tank is fairly full.

