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**Fabricators & Designers of Tanks and Custom Steel, Stainless & Aluminum  
Accessories for Marine, Manufacturing, Government, and Construction Industries.**

## ***Best Fab Inc. - General Recommendations for Boat Owners***

### **Regarding: Boats with EPA-Compliant Gasoline Fuel Systems**

As many of you have noticed, there have been some major changes to marine fuel systems over the last few years. The biggest change is the introduction of EPA Diurnal-Emissions compliant fuel tanks and components. These systems are comprised of fuel tanks made from certified materials, a series of calibrated valves installed on the tanks, a valve to prevent well-back while filling, and some method to treat or contain gasoline vapor emissions coming from the fuel tank(s). This may include Carbon Canisters (a Passive Purge system) or a specialized, sealed Deck Fill (Vapor-Relief or Pressure-Relief system) that opens at 1 psig of positive pressure build-up, to prevent pressurization of the fuel tank(s) and lines. No matter which system is installed on your boat, here are some basic tips to ensure safe efficient operation of your boat for years to come:

- **NEVER fill your tank(s) past their EPA-compliant, nominal (or fill-able) capacity!** NEVER "top off" your boat's fuel tank(s)! If your boat's tank (or tanks) have a capacity of "XXX Gallons Actual / XXX Gallons EPA Nominal" (ie: 200 Gallons Actual / 187 Gallons EPA Nominal) - then you should **NEVER attempt to fill past 187 Gallons!** This can cause over-pressurization, which can force pressurized fuel back up the lines and out through your deck fill and/or overboard vent fittings! This is a safety and environmental hazard, but also easily avoided.
- **NEVER store your boat with more than 80% fuel capacity on-board!** This is especially important for long-term storage. Let's take a boat with a 187 Gallon, EPA Nominal fuel capacity. You would want to make sure that you are down to 149.6 Gallons (80% - or  $187 \times 0.80$ ) fuel remaining in the boat, or less. Diurnal temperature swings may cause over-pressurization in stored boats, causing not only a safety and environmental hazard, but a big mess to clean up, as well!
- **ALWAYS use Ethanol-Free (E0) Gasoline when and where it is available!** Ethanol is caustic and can also cause various "phase-separation" -related issues, especially when your boat is stored with untreated, Ethanol-blended gasoline in the fuel tank(s).
- **NEVER use Ethanol-Gasoline Blends over 10% Ethanol (E10) in your boat - Ever!** Marine fuel tanks, engines, and components, generally, are Not Certified for use with High-Ethanol Blends, and may even void your warranty! **NEVER fill up at any pump Labeled E15, E20, E25, E30, E85, etc.!** E0 (Ethanol-Free) and E10 (10% Ethanol) gasoline blends are the Only Fuels certified for use in most gas-engine boats!

In summary, **NEVER overfill your fuel tank(s), NEVER store your boat with over 80% fuel on-board, ALWAYS use E0 (Ethanol-Free) gasoline in your boat, when possible, and NEVER use any Ethanol-Gasoline blend higher than 10% Ethanol (E10)!** Following these guidelines, along with any and all safety and maintenance guidelines from your Boat Manufacturer, Engine Manufacturer, and Dealer, should ensure Many Years of good, safe fun on the water for you and your family!

Thank you for taking your time to read this - now fill 'er up and get out on the water!

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