

Simple Steps Every Dealer Can Take to Minimize Fuel Contamination Issues

The varying percentages of ethanol to fuel mixtures is an inevitable problem facing the boating industry. Below are several techniques dealers can pass along to customers to help them avoid fuel contamination.

1. 10 Micron Fuel Water Separation System:

The most obvious step is the installation of a 10 Micron Fuel Water Separation System. These systems filter up to the size of 10 microns of debris and contaminants, suspending the contaminated particles in the fuel prior to introduction into the outboard's fuel system.

2. Properly Maintain the Fuel System:

Another way to prevent contamination is to properly maintain the outboard's fuel system, which includes ensuring that the fuel remains fresh, avoiding mixing of old fuel and fresh fuel. Also, it's important to make sure to prevent water from entering and mixing into the fuel tank.

3. Drain the Tank:

If it is possible, completely drain the fuel tank. The internal surfaces should be mechanically cleaned to remove rust or aluminum oxides. Fuel tank polishing companies may be able to provide

this specialized service. NOTE: If unable to drain and clean the fuel tank before adding the E10

fuel, add as much E10 fuel as possible to minimize the possibility of phase separation. Example: 16 oz of water may cause phase separation in 25 gals of E10, but 16 oz of water in 30 gals would be safe from phase separation.



4. Proper Fuel Tank Storage:

Store fuel tanks approximately 7/8 full, minimizing the amount of air space above the fuel tank. Storing completely full may cause some fuel to spill as the fuel expands during hot weather.

5. Don't Always Buy the Most Inexpensive Fuel:

This tip may seem obvious but, if not followed, it can lead to problems. It's also important to buy from the same source, if possible, and to pick a station that has newer, cleaner storage tanks.

6. Test Your Fuel:

Occasionally test your fuel to verify the amount of ethanol is not higher than 10 percent. Inexpensive test kits are available online.

Until there are more solutions available, fuel contamination is an issue that will continue to occur within the marine industry. Minimizing the risk and protecting customers through basic cautionary measures is key to keeping those customers on the water.

Why am I not having E10 issues with my car?

- Boat fuel system contamination from water is increased due to exposure to a high moisture environment.
- Typically boats sit unused for long periods during which the fuel degrades and adds more contamination to the fuel system.

Are Yamaha Outboards Compatible with E10 Fuel?

- All current models, as well as most motors built since the late 1980's, have been designed with fuel system components that are tolerant to fresh fuel containing ethanol up to 10% (E10).
- Outboard fuel systems can still be affected by: water, dissolved gum, varnish, corrosion particles and dissolved resins that E10 fuel has cleaned from the distribution system and from boats' fuel tanks.

Although total prevention of issues may not be possible, there are steps we can take to minimize the occurrence and severity of the negative effects of E10 fuel:

- If at all possible do not use E10 fuel and never use fuel with ethanol content higher than 10%.
- Ideally before switching to E10 fuel, have your fuel tank completely drained and cleaned to

remove any accumulated water, built-up varnish and corrosion.

- Install a Yamaha 10 Micron Fuel/Water Separating Filter between the boat's fuel tank and the engine.
- Change the 10 Micron filter every 25 hours of operation until there are no indications of excessive water and contaminants collecting in the filter.
- Normal filter changes are recommended every 50 hours of operation.
- Buy name brand fuel and if possible from the same station.
- Regularly add Yamaha Fuel Stabilizer to fresh fuel to retard fuel aging.
- Stabilize fresh fuel before storing.
- Consult local dealers concerning maintenance procedures and new market developments.

As we continue to work through the issues surrounding E10 fuel, we must remember that proper maintenance of fuel systems and filters is vital to the successful operation of our outboards. Taking these necessary steps is also critical role in keeping us safe on the water, enjoying our boating experiences.

The information above is available through the Yamaha Marine consumer web site, www.yamaha-outboards.com. Y

The Yamaha 10 Micron Fuel/Water Separating Filter

Yamaha's new, improved 10 Micron Filter provides superior filtration ahead of the engine's onboard filters and injectors, reducing the negative effects of E10 fuel on the engine. A large filtering and water capture area maximize filtration while maintaining an adequate flow rate. These filters are highly recommended for all two-stroke and four-stroke EFI outboards as well as two-stroke HPDI's. The 10 Micron Filter is also an excellent match for carbureted engines. For more information or to place an order for the Yamaha 10 Micron Filter, please call or visit your local Yamaha dealership. Y



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