

## USA Gasoline Additive Causing Fuel System Component Problems

### Models

All gasoline engines.

### Situation

Since July 1997, the USA Environmental Protection Agency (EPA) has required an increase of a detergent (dispersant) to gasoline being used in the USA. This detergent is meant to help clean fuel injectors and intake valves on automotive engines in vehicles for cleaner exhaust emission. Several different companies supply this detergent to the oil companies.

Most brands of these gasoline detergent additives will not cause any problems in the fuel system. Certain brands of this additive however, have been found to leave a sticky, 'rusty' colored substance when the gasoline evaporates from the fuel system. The following fuel system problems have been caused by this sticky substance after the gasoline has evaporated from the system.

1. Carburetor float stuck to the bottom of the float bowl.
2. Carburetor fuel inlet needle stuck in their seat.
3. EFI or MPI fuel injector stuck closed or open.
4. Check valve in the electric fuel pump stuck closed not allowing the pump to pump fuel.

These problems occurred in as little as 3 to 4 weeks time after the boat was last operated. In automotive applications, the gasoline is used up quickly because the fuel tanks are smaller and the vehicle is driven more often. In boating applications, the fuel tanks can be larger and a boat is not operated as often. As the gasoline evaporates, these detergent additives can deposit themselves on fuel system components.

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## Recommendation

Listed below are some suggestions to reduce fuel system complaints in locations where this additive has caused problems. Not all areas of the country will experience these problems. If a 'rusty', sticky substance is found in the fuel system, then the fuel in your area may have the problem.

1. Install a fuel shut-off valve close to the fuel pump or fuel filter. Have the customer shut the valve off and run the engine's fuel system dry if the boat is not going to be used for 2 or more weeks.
2. Boat owners can add Quicksilver Gasoline Stabilizer for Marine Engines to the boat's fuel tank if the boat will not be used for 2 or more weeks. After adding the gasoline stabilizer, run the boat for 20 to 30 minutes, before docking, to properly mix it with the fuel in the tank and to get into the engine's fuel system.
3. If the customer's boat is stored at the dealership and they will not be using the boat for 2 or more weeks, the dealer can remove the engine's Water Separating Fuel Filter before storage. Fill it with Quicksilver Gasoline Stabilizer for Marine Engines. Reinstall fuel filter back on the engine. Run the engine for 1 minute and no more than 2 minutes. This will ensure that the engine's fuel system will be filled mostly with the stabilizer.