

# Service Bulletin

**Bulletin No. 2009-12** 

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# New Service Tool: Alcohol in Fuel Tester P/N 879172T28

### Situation

Mercury Marine has released a new service tool to determine the alcohol content in gasoline. This new tool has been added to the required tool list.

If the gasoline in your area contains either ethanol (ethyl alcohol) or methanol (methyl alcohol), you should be aware of certain adverse effects that can occur. Increasing the percentage of alcohol in the gasoline can also worsen these effects. The alcohol in the gasoline can absorb moisture from the air, resulting in a separation of the water and alcohol from the gasoline in the fuel tank.

## Testing for Alcohol in Fuel

The new tool P/N 879172T28 has convenient instructions printed on the side of the tool. Follow the instructions to determine the alcohol content in the fuel sample.

**NOTE:** This tester is to be used on gasoline only. Premixed fuel with two-cycle oil will not give a true reading of the alcohol content. The use of this tool on gasoline that has aftermarket additives may not give a true reading of the alcohol content. Certain additives may also increase the alcohol content of the fuel. If the fuel has phase separation, adding a fuel additive to absorb the water is not recommended.

When diagnosing fuel related problems, obtain samples of the fuel from the carburetor, VST, or fuel filter on the engine. If samples from the fuel tank are being analyzed, make sure the sample comes from the bottom of the tank closest to the fuel pickup.

Boat fuel systems must be free of water and excessive alcohol levels before further engine running quality issues can be addressed.

Refer to Service Bulletin 2006-10R1 for more information on alcohol fuels, testing for water in the fuel system, and how to handle the issue of gasoline with phase separation.

#### **Customer Notification**

Inform the customer if excessive alcohol, more than 10%, has been found in the boat fuel system or if the fuel has already phase separated. Mercury Marine is not responsible for any damage caused by these fuel conditions.

The manner in which the boat fuel system has been filled or stored and where the fuel has been purchased may have an effect on fuel quality. The source of the water or excess alcohol and how it is being introduced to the system should be determined to make sure the issue does not repeat.

# Warranty

The fuel system components on late model Mercury Marine engines are warrantied for up to 10% alcohol content in the gasoline. With any fuel containing alcohol, phase separation can occur. Engine damage resulting from the use of improper gasoline, including phase separation, is considered misuse and will not be covered under the limited warranty.

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