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Use of Bu16 (Gasoline-Butanol Blend) in Mercury Marine Engines

Models Affected

All Mercury Marine gasoline-powered engines

Scope

Worldwide

Situation

After years of evaluation, the National Marine Manufacturers Association (NMMA®) has approved fuel containing up to 16 percent butanol for use in marine engines. As an industry leader, we at Mercury Marine have embraced the findings of the NMMA, and are now recommending 16% butanol fuel (Bu16) as an alternate fuel for use in all of our gasoline-powered marine engines.

Correction

The fuel requirements listed in all new or updated product literature will be updated to include this new fuel offering. A typical **Fuel Requirements** procedure is included in this service bulletin, for your convenience.

We additionally recommend reviewing the following service bulletins:

- 2010-13 (OEM 2010-09) - Use of E15 (Gasoline-Ethanol Blend) in Mercury Marine Engines
- 2009-12 - New Service Tool: Alcohol in Fuel Tester P/N 879172T28
- 2006-10R1 - Alcohol Fuel Recommendation Outboards

IMPORTANT: The following fuel rating example applies to most Mercury outboard models. For specific fuel requirements, refer to the owner's manual or service manual for the product.

IMPORTANT: A posted pump octane rating of 89 (R+M), 93 RON is the minimum requirement for Verado 350/400R models.

Fuel Requirements

IMPORTANT: Use of improper gasoline can damage your engine. Engine damage resulting from the use of improper gasoline is considered misuse of the engine and will not be covered under the limited warranty.

Fuel Ratings

Mercury outboard engines will operate satisfactorily with any major brand of unleaded gasoline that meets the following specifications:

USA and Canada - A posted pump octane rating of 87 (R+M)/2, minimum, for most models. Premium gasoline 91 (R+M)/2 octane is also acceptable for most models. **Do not** use leaded gasoline.

Outside USA and Canada - A posted pump octane rating of 91 RON, minimum, for most models. Premium gasoline (95 RON) is also acceptable for all models. **Do not** use leaded gasoline.

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Using Reformulated (Oxygenated) Gasoline (USA Only)

Reformulated gasoline is required in certain areas of the USA and is acceptable for use in your Mercury Marine engine. The only oxygenate currently in use in the USA is alcohol (ethanol, methanol, or butanol).

Gasoline Containing Alcohol

Bu16 Butanol Fuel Blends

Fuel blends of up to 16.1% butanol (Bu16) that meet the published Mercury Marine fuel rating requirements are an acceptable substitute for unleaded gasoline. Contact your boat manufacturer for specific recommendations on your boat's fuel system components (fuel tanks, fuel lines, and fittings).

Methanol and Ethanol Fuel Blends

IMPORTANT: The fuel system components on your Mercury Marine engine will withstand up to 10% alcohol (methanol or ethanol) content in the gasoline. Your boat's fuel system may not be capable of withstanding the same percentage of alcohol. Contact your boat manufacturer for specific recommendations on your boat's fuel system components (fuel tanks, fuel lines, and fittings).

Be aware that gasoline containing methanol or ethanol may cause increased:

- Corrosion of metal parts
- Deterioration of rubber or plastic parts
- Fuel permeation through the rubber fuel lines
- Likelihood of phase separation (water and alcohol separating from the gasoline in the fuel tank)

WARNING

Fuel leakage is a fire or explosion hazard, which can cause serious injury or death. Periodically inspect all fuel system components for leaks, softening, hardening, swelling, or corrosion, particularly after storage. Any sign of leakage or deterioration requires replacement before further engine operation.

IMPORTANT: If you use gasoline that contains or might contain methanol or ethanol, you must increase the frequency of inspection for leaks and abnormalities.

IMPORTANT: When operating a Mercury Marine engine on gasoline containing methanol or ethanol, do not store the gasoline in the fuel tank for long periods. Cars normally consume these blended fuels before they can absorb enough moisture to cause trouble; boats often sit idle long enough for phase separation to take place. Internal corrosion may occur during storage if alcohol has washed protective oil films from internal components.

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