

TO: SERVICE MANAGER TECHNICIANS
PARTS MANAGER

No. 84-22

Gasoline (Containing Alcohol) and Gasohol

It is not generally known to the public that much of today's gasoline contains large amounts of alcohol, although it is not sold as gasohol.

Alcohol in gasoline can have a deteriorating effect on certain fuel system components and cause engines to "vapor lock" easier. Floats (other than metal) can swell or shrink. Seals on accelerator pumps can swell and cause "bog" on acceleration. Fuel pump check valves can swell or diaphragms distort, causing a loss of fuel pump pressure. Other rubber or neoprene composition parts in the fuel system can be affected also.

In approximately 1980, Mercury Marine started using materials that resist alcohol content in gasoline, but there are limits to the amount of alcohol which can be used.

Alcohol-containing fuels have a tendency to absorb moisture slowly from the air. At first this moisture will remain in solution, but once the water content of the fuel has built up to somewhere around 1%, it will separate out, bringing the alcohol with it. This alcohol-water mixture settles at the bottom of the fuel tank and the engine will not run on it. In cars, alcohol blend fuels normally are burned before they can absorb enough moisture to cause trouble, but boats often sit idle long enough for separation to take place. To operate marine engines on gasolines containing alcohol, storage of this type of gasoline in fuel tank for periods of more than a few days must be avoided in high humidity climate.

In view of the preceding information, your customers should be advised to inquire at the gasoline stations as to the alcohol content of the fuel. They should use gasoline which contains the least alcohol.