

TO: SERVICE MANAGER MECHANICS
PARTS MANAGER

No. 86-4

REVISED
4-18-86

- A. The Use of Leaded Gasoline with .1 Grams Per Gallon
- B. The Use of Timing-Advance Lights with HEI Ignition
- C. Pressure Relief Valve Installation in Remote Oil Filter Adaptors

A. THE USE OF LEADED GASOLINE WITH .1 GRAMS PER GALLON

Starting January 1, 1986 the E.P.A. (Environmental Protection Agency) has ruled that leaded gasoline may contain a maximum of .1 gram of lead per gallon. Because of this, many questions have come up as to what is going to happen to stern drive and inboard engines using this fuel.

MerCruiser stern drive and inboard engines manufactured since 1975 have hardened valve seats and valves similar to those used in the automotive field in cars that burn unleaded fuel. These engines will accept fuel with .1 grams of lead per gallon with little adverse affect.

MerCruiser stern drive and inboard engines manufactured in 1974 or before may experience valve seat recession into the cylinder head using fuel with .1 gram of lead per gallon. To prolong valve life, MerCruiser recommends the following:

1. Make sure the propeller installed on the boat will allow the engine to reach the top of its RPM range at wide-open-throttle.

2. Avoid running engine at wide-open-throttle for long periods of time. Running engine at 75 to 80% (or less) of full throttle will greatly increase valve and seat life.

B. THE USE OF TIMING-ADVANCE LIGHTS WITH HEI IGNITION

Caution should be observed when using timing lights with a spark advance dial on any MCM/MIE engine.

MerCruiser test sites have found inaccuracies in the amount of advance indicated by this type of timing light.

This inaccurate advance indication can cause a mechanic to under or over advance the ignition timing resulting in loss of power or engine destruction.

If this type of light is to be used, its accuracy must be checked weekly with a timing tape applied to the engine's damper pulley.

C. PRESSURE RELIEF VALVE INSTALLATION IN REMOTE OIL FILTER ADAPTORS

Periodically the service department is asked which way to install the check valve in the adaptor for the remote oil filter kits. The check valve should be installed with the spring pointing up towards the engine. Future kits will have this check valve installed at the factory.