

CIRCULATE
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MECHANICS

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"Service Bulletins"
Binder

ANTI-SIPHON VALVES USED in CONJUNCTION with MERCURY OUTBOARDS

(Attach Service Bulletin Sticker to P. 5C-1 in Your Service Manual.)

There are many anti-siphon valves on the market today which have caused problems with Mercury Outboard Motors. Mercury Marine does not know of any governmental regulation which calls for the use of anti-siphon devices on outboard motors, whether with portable or built-in fuel tanks. The only non-governmental standard calling for the use of anti-siphon valves is the Boating Industry Association (BIA) Certification Program for boats with permanently installed fuel tanks.

While these devices may be helpful from a safety standpoint, they clog with debris; they may be too small; or they may have too heavy a spring. The simple fact is that the pressure drop across these valves can, and often does, create operational problems and/or powerhead damage. We have continually been plagued with these problems relative to anti-siphon devices used with Mercury Outboards.

Some symptoms of restricted (lean) fuel flow, which could be caused by use of an anti-siphon valve, are:

- 1. Loss of power**
- 2. Pre-ignition/detonation (piston dome erosion)**
- 3. Outboard cuts out or hesitates upon acceleration**
- 4. Outboard runs rough**
- 5. Outboard quits and cannot be restarted**
- 6. Outboard will not start**
- 7. Vapor lock**

Since any type of anti-siphon device must be located between the outboard fuel inlet and fuel tank outlet, a simple method of checking [if such a device (or bad fuel) is a problem source] is to operate the outboard with a separate fuel supply, such as a 6 gallon Mercury Outboard fuel tank.

If, after going thru this procedure, it is found that the anti-siphon valve is the cause of the problem, you have two choices, either 1) Remove the anti-siphon valve or 2) Replace it with a solenoid-operated fuel shutoff valve.

Resulting damages due to a restricted fuel flow could be:

- 1. Detonation**
- 2. Piston scoring**

Any damage, that is caused by a restricted fuel flow to the outboard, will not be covered by Mercury Marine's Warranty.