

MUST KNOW INFORMATION!!

-EVERYBODY READ!!-

WATER FLOW – WATER FLOW – WATER FLOW

As of May 2002, Mercury Racing issued a service bulletin (attached to instructions) regarding engine water block pressure. In this bulletin, it's clear that Mercury Racing requires a minimum of 20-30lbs. of engine water pressure at wide-open throttle (WOT). If this pressure is not achieved or not maintained, you can have catastrophic engine failure of many types.

This leads us to your new supercharged engine. You're no longer running a thermostat in the engine, which was the largest water restriction in the stock system. Now, the largest restriction is the engine itself, this means pressure is only increased by flow in this given application. Because you are taking your stock engine and increasing the cylinder pressure for more peak power, to insure reliability, you need **more** water to keep the engine cool and at the same time, you need **more** water pressure to keep steam pockets from developing in your engine. With this in mind, you want a minimum of 25lpsi of block pressure @ WOT, maximum 40psi @ WOT. If you do not have this pressure, you may hurt your engine.

Whipple Superchargers has provided a stainless restrictor for the thermostat housing that will restrict the flow like a thermostat, but pressure still must be checked, as this may be too much restriction (ideally) or not enough (means you need more). With this information in mind, you must understand, you must have more flow as well as pressure, if you restrict the outlet water too much and don't have proper flow, you will heat the engine up, still develop steam pockets and it could lead to engine failure.

- Ideally, the intercooler should be fed from a separate source. The intercooler does not need constant water flow at slow speeds. This means a separate pickup can be installed solely for the intercooler.
- You can run the intercooler off the drive side draft inlets, but never the engine.
- Mercury dual style water pickups do not let more water in, in fact, they have less water flow. Always block off the side draft inlets if your boat uses them on this dual style drives.
- Never run the engine off side draft inlets in the drive, never!
- If you have a stepped bottom or high "X" dimension, water flow may be very low at high speeds and caution must be taken.
- Test block pressure at various trim angles and in turns.
- Lower boost and or timing does not mean you're safer with less water, if steam develops, the engine will fail regardless, it needs pressure to push the steam out.