

Kodiak

Supercharged LSA Marine Engine

Critical Fuel System Installation Instructions For the Builder/Installer

We at KEM Equipment Inc. would like to congratulate you on your decision to recommend the Supercharged LSA Marine engine to your valued customer.

The Kodiak 6.2L LSA Supercharged Marine fuel system, once properly set up, will give your customer many years of trouble free service.

The Fuel System Installation Instructions need to be read and followed prior to start up and operation of the 6.2L Supercharged Marine Engine. Failure to follow these instructions during set up of the Fuel System may result in a catastrophic failure of the Engine and may also **VOID** the Engine warranty.

Below are some specific installation procedures and guide lines that need to be followed very closely to complete the installation of the fuel system for the 6.2L Supercharged LSA Marine engine.

If you are unsure of, or need assistance with these instructions, feel free to call KEM Equipment at 503-692-5012.

Plumbing: The fuel supply pick up tube, fuel lines, and fittings shall be no smaller than ½” inside diameter between the fuel tank and Aero Motive high-pressure fuel pump. The fuel pump must also have the supplied 100 Micron filter installed on the inlet side of the fuel pump.

When using an auxiliary engine such as an outboard motor, never plumb or tee into the main engine fuel system. The auxiliary engine shall have its own fuel pick up tube and fuel filter/water separator from the fuel tank. Plumbing into the main engine fuel supply will cause damage to the engine and fuel pump system.

Fuel pump placement: The Aero Motive fuel pump must be placed as close to the fuel tank as possible. A **30" Maximum** distance from the fuel tank outlet to the fuel pump inlet shall not be exceeded.

The fuel pump must also be placed as low to the bottom of the fuel tank as possible. Using the lowest point on the bottom of the fuel tank, mount the fuel pump a **Maximum vertical distance of 12"** from the bottom of the fuel tank. Check for any laws and/or restrictions that may apply.

The Racor fuel /water separator should **NEVER** be placed on the outlet side of the high-pressure fuel pump. The fuel filter/water separator shall also be mounted within a **Maximum distance of 12"** vertical from the bottom of the fuel tank.

Hoses: Use only **USCG Approved** fuel lines. Check for any laws and/or restrictions that may apply. Check when routing the fuel lines that they are not laying over, or rubbing against any sharp edges.

Fittings: When choosing fittings, the use of a 90° full flow design is preferable over the restricted tight 90° fittings.

Setting the fuel pressure: After all the fuel plumbing is complete, set the Initial fuel pressure by cycling the ignition switch (key on/engine off) and adjust the **setscrew** on the regulator until you are in the 65-psi range. This may take a few cycles of the key switch for the fuel to fill the fuel lines, filter, and fuel rail. Check to make sure there are no fuel leaks at all of the connections, tighten as necessary.

Once the vessel is in the water with the engine running at idle, you can now fine-tune the fuel pressure to the target **65-psi Minimum, 67-psi Maximum pressure**. After the fuel pressure has been set, tighten the lock nut down on the fuel pressure regulator, and double check for any fuel leaks in the fuel system.

Once the fuel pressure has been confirmed under a sea trials situation and the fuel pressure is within the **Minimum/Maximum** setting described above, tamper proof the fuel regulator adjustment screw. Tamper proof by using a small amount of tamper proof compound, or an oil-based paint marker on the setscrew, locknut, and body of the regulator.

You have now completed the installation of the fuel system and plumbing.