FUEL TANKS (non bubbless)

Jett Aerotech – DubJett.com

So you are having problems getting your engine to run. Join the Club!!! Tank and carburetion problems are the most common of all. People often call asking for head shims because they are burning plugs. **You burn plugs because you are lean**, and very seldom do you need head shims. Heads are set at the factory and should be correct for almost all conditions.

Before I get into standard fuel tank problems, let me say that 99% of the racing community has switched to bubbless "Bubble-Jett" or "Tettra" tanks. These thanks will solve all your fuel tank problems instantly. The cost is slightly more, but the trouble savings more than pay for them. Contact Jett for more information.

Three things mostly likely cause the lean running: Bad needle setting, air bubbles in the fuel lines, or the tank is mounted too low. (See the engine instructions and our paper on setting R/C carburetors for the setting of needles valves)

When you are having engine problems, first look for the easy stuff:

1. **Tighten the head bolts**
2. **Rattle the muffler and see if anything is loose**
3. **Clean out all the tubing, tank and fuel fittings, and check for leaks**
4. **Look in the exhaust port for huge scratches in the piston and alignment of the cylinder with the case**

After you have looked for the easy stuff, get that engine out of the airplane and on to a test stand. If you have installed a new Jett, which was tested at the factory, then chances are the problem is in your airplane. Even if it was running OK with your former engine and you are certain all is OK, you must put it on to a test stand to eliminate all those variables.

If you send it back to me, I will just put it on the stand. And if it is OK, then I will probably charge you for the trouble. **CHECK IT OUT!!!!**

TANKS: We really can't cover this enough. Your tank must be perfectly isolated from the airplane. It cannot touch anything but foam, and lots of it. Wrap the tank on the top, bottom, sides, front and back with at least ½" (10mm) of good dense foam. Clean the tank thoroughly, replace the tubing inside and out and check for leaks. Use at least medium size tubing. Jett bubbleless tanks solve this problem without foam. See the web site for more information.

Tank location is critical. The centerline of the tank should be on the centerline of the needle valve or carburetor opening, not the center of the engine. The recommended way to mount an engine is sideways (90deg.) because it solves most of you tank height problems. If you mount the engine upright, then the tank will have to be raised somewhat. If you mount the engine inverted, then you will have to lower the tank correspondingly.

The tank should be as close to the back of the engine as possible to prevent draw problems during long vertical climbs and flooding problems during long vertical dives. The distance is not really the problem; the relative height of the tank vs. the carburetor is the problem.

When it is not possible to locate the tank in the preferred spot you may wish to try a "hopper" or booster tank. This is a small tank located at the correct height just behind the engine and connected to the larger main tank. The connections are simple. Connect the outlet (fuel) of the main tank to the inlet (pressure) of the small tank. Connect the pressure of the main tank to the muffler. Connect the outlet of the small tank to the engine. Fuel thru the engine and overflow thru the muffler, as you always do. This tank system tends to reduce the negative effects of an improperly located main tank.

PUMPS: pumps and regulators have the potential of solving many of the above described problems. However, they are added complexity and should be avoided if at all possible. Jett doesn't recommend any particular type because each application is unique. Some have had good results, but others have not. The best path is to avoid installation situations which require unusual solutions. If you do install a pump, please call the pump manufacturer for technical support.

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