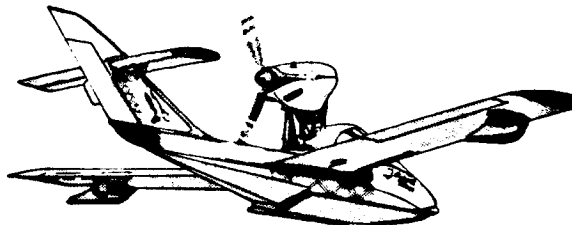


I don't know if anyone else has had this problem but here is my fix. The problem has been during take off or climb at full power. Testing has proven the fuel pump, when static on the ground, with the electric pump putting out 21.9 gal per hour at off flow without the engine pump to augment it. The engine at full power continually acts as though it were fuel starved. However at cruise, 2500 rpm, it's smooth as a kitten.

The apparent problems are as follows: Apparently there is a buffeting of air at the carburetor inlet to the engine cowl coming off of the moveable canopy. The fix that worked for part of the trouble is shown on the enclosed drawings 43(9) and 43(10). The second and more critical part of the fix is the fuel tank vent and cap system. (Note that I have the 35 gal tank in the body) My original tank vent was thru the side of the body about 6 inches aft of the trailing edge at the wing. The new vent location is mounted on the right hand vertical engine mount tube with the 1/2 inch dia. tube picking up ram air. The rest of the fix was to eliminate the "vented" gas cap and go to a "pressure" cap. Apparently I was picking up negative pressure thru the door, closing the gas cap filler location, which is over the center of the wing and canopy.

After 43 hours of flying I am finally getting full power from the engine. My rate of climb changed from 400 ft/minute to 900 ft/minute at full throttle.

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