1978 T210 Gross Weight Increase

Do you have any information on STC SA1990CE gross weight increase of a T210?

I couldn't find anything on Eckstar Inc.

Thank you,

Robert V .

Robert,

The gross weight increase STC from Eckstar is a very simple modification. POH supplement and weight and balance change. The only real difference between your T210 with 3800 lbs. and the later T210s with 4000 lbs. gross weight that would affect a gross weight issue is the nose wheel tire. The later T210s use a 10 ply tire instead of the 8 ply tire installed on the 3800 lbs. airplanes. CPA was told several years back that the STC no longer requires the 10 ply tire to be installed but I would confirm that detail should you decide to purchase the STC.

From field experience having the 10 ply tire on the T210s is a better way to go, since the added side wall strength of that 10 ply tire helps prevent nose tire failure during one of those high crosswind landings should the airplane be allowed to wheel barrow on the nose.

Tom Carr, CPA Tech Staff-Retired

1958 172 Engine Out

I lost my engine a few days ago at 7500ft and want to do everything possible to not go through that experience again. So I thought I would ask to see if you had any advisement.

Here is the sequence of events:

- 1. Refuel (short taxi, weather 70F and clear)
- 2. Climb to 7500FT
- 3. Cruise lean carb heat off both tanks selected
- 4. 15 minutes at 7500FT
- 5. Noticed engine RPM reduction

- 6. Pulled on full carb heat RPM immediately increased substantially, no sputter
- 7. After about a minute tried carb heat off engine almost died
- 8. Full carb heat RPM dropping
- 9. Turn toward nearest airport standard 172 emergency engine out procedures (check mags, full rich, etc) - engine will only run with carb heat but still losing RPM and turning into a 'miss'
- 10. Dead stick, forced landing (on airport, thankfully) with virtually no engine power just a sputter
- 11. Engine fully revived for taxi immediately after touching down (totally unexpected)

Subsequent inspection by an A&P has found nothing. Good fuel flow. Good power during runups. No water in the fuel. Now I'm having the carb inspected/rebuilt to check for contamination.

Any suggestions other than flying on a single tank above 5K? Does this sound like vapor lock?

I'm finding a surprising number of people online with similar problems and it appears that tank venting (or lack thereof) is a common issue with similar symptoms. On the '58 should I have two vented caps, or just one?

I have one (right). I see where the AD states one but is there more current information that recommends two? I'm not sure how to track that down.

Best Regards,

Mike F.

Mike,

The cause for your engine stoppage may be that your airplane (and all 172, 172A, 172B, 172C, 172D, 172E, 172F, 172G, 172H, 172I, and 172K models) is subject to AD 72-07-02 (and Cessna Service Bulletin SE72-7) which says that in order to avoid power interruptions above 5,000 feet due to the formation of vapor in the fuel system, the fuel selector should be switched to single tank operation (either left or right) upon reaching cruise altitudes above 5,000 feet MSL. The AD goes on to say that new placards must be installed on the fuel selector in accordance with Cessna Service Letter SE72-7.

You can check to see if you already have this placard by looking at the aft part of the fuel selector plate. The placards says: SWITCH TO SINGLE TANK OPERATION IMMEDIATELY AFTER REACHING CRUISE ALTITUDES ABOVE 5000 FEET MSL.

There is also an Owner's Manual supplement that says if power interruptions are experienced while operating on a single tank, power can be immediately restored by switching to the other tank. In addition, if power interruptions are experienced while operating on both tanks, switch to one tank for 60 seconds, then switch to the other tank and continue single tank operation. The wording for the Owners Manual operating supplement is contained in Cessna Service Letter of SE72-7.

The single tank operation is old news since the AD and Cessna bulletin have been issued but there are still those early 172 operators that missed the information. I would advise making sure you have the placard on the fuel selector as required by the AD.

Having vented caps on both tanks is not a concern and no reason to make a change. Having both caps vented will not resolve the fuel flow above 5000 feet issue. Switching to single tank operation as mentioned in the AD and Cessna bulletin is the cure.

Tom Carr, CPA Tech Staff-Retired

1956 182 Wet Vacuum Pump

I have recently overhauled my engine after 30 year since TBO, low comp and oil consumption. I still have a very wet belly and noticeable oil loss. I fly IFR (under hood right now) and have what I believe is the original wet vacuum pump (1956?). The ID plate has fallen off and I don't know the mfg or model number. I do have erratic vacuum levels (3 to 5 in/mg swing) even though I have had the very simple vac regulator serviced and checked out by lic shop. I want to have my original pump overhauled or purchase a new wet pump.

Can you determine the MFG or model number from the attached picture? Where would you refer me to have the pump serviced?

Richard B.



Richard,

It is a Garwin, either a 450 or 455. The place below can overhaul it:

RICHARD POPPLEWELL AIRCRAFT ACCESSORIES

Good for you sticking with the wet pump.

John Frank, CPA Tech Staff

Ask the Techs

Letters From the Members

Fuel Vapor Lock

I am writing to comment on Tom Carr's response (June, pages 37 & 38) to the subject of fuel vapor lock in the Cessna 172. Tom gives the perfect textbook answer, and I would expect nothing less from a man of his esteemed talents.

However, I researched the issue of fuel vapor a few years back, and I discovered that the textbook (the FAA) actually got it slightly wrong. Despite what it says, operating the 172 on a single-side tank does <u>not prevent</u> power interruption due to fuel vapor. In fact, it actually makes an occurrence **MORE LIKELY**. However, what it does is offer the pilot a solution if/when vapor becomes a problem. The solution being to switch to the other side. This solution is not available when operating on **BOTH** sides.

It is the operation (flow of fuel) that creates the vapor. Operate on **BOTH** and you'll generate vapor in both systems. Operate on **LEFT** (for example) and you are more likely to generate a harmful amount of vapor on the left side, but you'll have pure liquid fuel waiting for you on the **RIGHT** side of the selector.

There is a good thread discussing this in greater detail on the forums. Look for the subject "Vapor lock?" in the Pilot Technique section in September of 2009 if this link doesn't work:

http://forums.cessna.org/showflat.php?Cat=0& Number=753355&an=0&page=63#753355

David Bunin



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210 Fuel Flow Issues

I have a 1978 T210M that I hope you can help me with or direct me to someone who can. A little history first, 3100 hrs. TT, about 450 SMOH on a TSIO-520R. I've had this plane about 3 1/2 years and the engine was newly overhauled when I bought it. I've had fuel flow issues since the start. Mostly not enough fuel flow, which was resolved fairly easy. It does have GAMIs, which I believe are balanced fairly good.

I run LOP almost always as I have read and agree with all your writings about LOP operations. When I run LOP, I cannot keep FF constant. I'll set it around 30"-32", 2450-2500rpm, and they all peak within 25-30* of each other. Depending on temps I'll settle FF about 13.5-14.5 gph. Problem is it will not stay put. It will slowly climb to way past peak then I'll turn it down, then it will drop to low 12s. When I turn it up back to about 13.5 then it will climb again like a roller coaster. It will vary 1-4 gph in a matter of minutes. And, of course, MP oscillates along with FF. My A&P has repaired fuel pump, bench tested the FCU, reset everything to spec, but still this problem.

Somedays its worse than others. One more thing, when mixture knob is pushed full rich, FF is about 2-3 gph less than when pulled out 1/4". I'm to the point now, if I can't find someone that can fix this, I'm just going to sell it and get something different. I like this plane though and really hope you can offer some assistance. I understand you offer maintenance consulting and would understand if I need to buy a plan to

> get some help. If you need any other info, please ask. I look forward to hearing from you.

Thanks,

Chris M.

-----Chris.

I think you may be looking at this problem backwards. I don't think you have a FF problem. I think you have a MAP problem.