



MEMORANDUM FOR RECORD

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Air Safety Investigator
Eastern Region Aviation

January 21, 2021

Subject: ERA21LA104
Who: FAA Inspector – Randy Ryhal

In a telephone conversation, Inspector Ryhal stated the following:

- The flight instructor reported that they were 2000 ft over Treasure Island Beach when the engine stopped. The flight instructor did emergency checklist, switched tanks, turned on carb heat, etc.
- She attempted several starts, it sputtered some but it was unsuccessful.
- During the examination of the engine, he and a mechanic started with the fuel.
- He suspected the carburetor, so he checked linkages, everything looked good.
- Took carburetor off, it was dry.
- They moved the throttle by hand, and the accelerator pump didn't shoot any fuel.
- Backtracking, since the wings were off, there was no fuel in the airplane.
- Fuel selector forward only had fuel.
- Took gascolator off, it had fuel in it.
- Rigged up a little jar of fuel into the fuel selector and as soon as he turned the electric pump on, fuel started squirting out of a fitting where fuel goes from the electric fuel pump to engine driven fuel pump.
- The B nut was loose.
- That's also the suction side.
- Connected it back up, turned on the electric fuel pump again and fuel flowed all the way through the piping to the carburetor.
- The engine had been overhauled.
- Engine repaired last summer. It had a 100 hr inspection after the repair. It's been 92 hrs since its last 100 hr inspection.
- Since the engine was put on and that line tighten, it's been 192 hrs.
- To follow up, we took the carburetor off and checked it. There was no issue with the carburetor floats.
- Actuated throttle after fuel put into the bowl, fuel pumped normally.
- Checked screen on gascolator. No debris.
- Checked screen on inlet to carburetor and it was free of debris
- They could not start the engine because the airplane was sitting on boat trailer.

- Flight school rotated the propeller on scene to check continuity and they confirmed it.
- The flight instructor and pilot-rated student left airport and at 2000 ft - the student was an individual that wanted refresher training. Did some turns about a point. In cruise flight, engine just stopped.
- Engine had about 200 hrs since repaired and 1347 SMOH hrs. in 2018.
- It was on the input side, the engine driven pump would be trying to get it through, could have been sucking in air at the same time. Which gave her some fuel to carburetor, but not enough.
- Evidence of torque seal of the nut, both sides, but we could not find the matching seal on the fuel pump fittings.
- B-nut was loose.
- The fuel flows from fuel selector - to the gascolator - to electric fuel pump - to engine driven fuel pump - to the carburetor.
- It was the line from the electric fuel pump to the engine driven fuel pump at the engine driven fuel pump side where the B-nut was loose.
- All other fuel line connections were secured.