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Office of Aviation Safety

Date: March 21, 2023

Subject: Email Summary from the Federal Aviation Administration (FAA)

Contact: Benjamin J. Huffman - Aviation Safety Inspector

Mr. Huffman replied to an NTSB information request on March 21, 2023 via an email. That email is summarized below:

The pilot reported to the FAA Inspector during an interview that he spent the night at "Recklaw Fly-in" at 7TA7. In the morning, he flew to KCNI and topped off his 25 gallon fuel with 100LL. The pilot claims the fuel mix is about half 91 octane 10% ethanol mogas, and half 100LL. Pilot flew for 3 hours, 12 minutes back to Lago Vista (KRYW) at "a lower than normal power setting". The pilot did not plan for a specific power setting, but estimated 5 gallons an hour consumption. The pilot entered the left hand traffic pattern at Lago Vista on the base leg and made a left turn to join final. The aircraft engine "sputtered and quit". Attempts to restart the engine were unsuccessful. Airplane came to rest on the ground against trees northeast of the Lago Vista Airport, about a tenth of a mile from the treeline and a third of a mile from the beginning of runway 15.

The FAA Inspector stated that according to the Rotax manual, at the altitude the pilot was cruising at he would have burned somewhere between 4 and 5 gallons. The inspector knows from the transponder track of the pilot's plane that he flew for about 4.53 hours- give or take a few minutes. Assuming cruise power for the full flight, and ignoring those times when the engine was at full or reduced power, the pilot burned between 18.12 gallons (4 gph) and 22.65 gallons (5 gph). For the pilot to use all the usable fuel in the tank, the fuel burn would have had to have been 5.2 gph (this is assuming of course that the fuel tank was topped off, and ignores run-up, taxiing, and fuel burn for takeoff).

The fuel tank is non-standard and is very similar to an after-market fuel tank that some other searey owners have installed.

The airplane did have some fuel left in the tank when it landed. According to the fuel gauge the fuel tank had ~3 gallons remaining. The accuracy of the fuel gauge was never tested because the assumption was, we would be able to drain the fuel tanks ourselves after the plane was recovered to get an accurate measurement. The pilot was instructed to avoid draining the fuel tanks for this reason. A 0.23 gallon fuel sample was collected in the hopes of maybe doing a petrochemical analysis of the content and determining the octane rating. When I passed along that the cost of the tests was going to be the NTSB declined further testing.

When the Rotax rep and I met at the airfield to inspect the engine and look at the fuel we learned that the pilot had drained the fuel tanks to move the airplane from the woods, and the five gallon jug he drained the fuel into allegedly had a leak. This means that while some fuel had been recovered from the accident, the majority had leaked out of an allegedly leaky jug. The combination of circumstances means that the amount of fuel in the airplane could not be accurately known. When fresh 91 octane mogas fuel was added to the fuel tank the engine started normally.

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