



RECORD of CONVERSATION

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Eastern Region Aviation

Date: October 3, 2018
Person Contacted: Tim McQuain- FAA Inspector

This investigator interviewed Mr. McQuain by telephone and email, he stated he and another inspector responded to the accident site. They spoke with the pilot and he stated the following:

- During the descent the engine began to decrease in RPM and stopped running. The pilot reported that he turned the electric fuel pump on and attempted to restart the engine without success.
- The aircraft landed in a cotton field and at the end of the ground roll the nose wheel dug into the soft soil and the aircraft came to rest inverted. One propeller blade was broken off and lying approximately 3 feet from the aircraft.
- Flight control continuity was confirmed. All cockpit instruments were intact. The engine crankshaft turned freely with no apparent binding or rough areas during rotation. The upper spark plugs were removed, and the engine spun by the starter motor, all 4 cylinders spark plugs operated normally.
- Fresh clean oil was observed in the remotely mounted oil tank.
- The fuel gage in this aircraft is a sight gage in the wing, with no marking to determine quantity. The first flight was reported to be approximately 15 to 20 minutes in duration and was considered uneventful. The second flight was approximately 35 to 40 minutes.
- During certification contaminants were discovered in the left fuel tank. The decision was made to cap the delivery line from contaminated tank that feeds the header tank so contaminants would not reach the engine. The pilot reported that the fuel level seemed to decrease more than normal for this type of aircraft and stated that, for the estimated amount of fuel on board, he should have made it to his destination with fuel to spare.
- No fuel was detected in the ground under the left tank. Fuel was detected in the ground under the right tank. Digging around the area under the filler determined that fuel was in the ground in a circle of approximately 1 ft in diameter, about 1 ft deep. The fuel on/off valve was in the OFF position. The valve was turned off for safety reasons after the accident. All fuel system components appeared to be intact, except for the capped fuel tank.
- All fuel lines were intact. A test of the electric fuel pump proved operational. Very small amounts of contamination was found in the fuel bowls. Carburetor jets were removed and

were clear of any debris or blockages. The carburetor constant velocity slides were clean and operationally smooth and easy. The fuel line was disconnected at the header tank and submerged in the drained fuel. With the electric fuel pump on, fuel flowed freely to both fuel lines that feed the carburetor.

- A check valve was located in the fuel lines directly after the ON/OFF valve. The valve was easily overcome by simply blowing through the fuel lines. Although a small restriction to overcome the valve was noticed.
- During recovery some fuel spilled out of the wings, about 1/2 gallon of fuel was captured from the right wing tank.
- The only fuel vent for the tank was a modified fuel cap, with holes drilled to allow air in the tank during consumption. This type venting leads to lower pressures than normal because the caps are located at the highest velocity/lowest pressure portion of the wing cord. An almost identical aircraft (the Kitfox) provides a service letter (Kitfox Service Bulletin #7) that warns of this pressure issue and advises a forward-facing pitot tube type vent to correct these type venting issues.