

N8024J Accident investigation

The investigation took place in Clarksville TX at approximately 1000 local time.

Jordan Paskevich, a representative for Rotax Engines was present to accomplish the investigation of the engine to determine, if possible, the cause of the engine failing to make power as reported by the operator of the aircraft.

Mr. William Kantz, owner of and person operating the aircraft, was present during the investigation.

The investigation consisted of removing and inspecting the spark plugs, removing the exhaust system to inspect the condition of the cylinders, checking for compression of the cylinders, and condition of the fuel system.

The fuel pump impulse line was severed near the attach point on the crankcase. The fuel line was very brittle. The line was a soft rubber hose and appeared to be "dry rotted" and was visibly deteriorating.

Inspection of the carburetor fuel bowl revealed the bowl to be bone dry with no evidence of fuel at all. Inspection of the rest of the fuel system did not reveal any discrepancies or concerns.

After the completion of the engine inspection the engine was "turned over" and there was no evidence of any engine seizure or problems with rotation. Prior to engine run the fuel line found disconnected was cut and re-installed in the fuel system. The engine was run for approximately 30 seconds to see if it would run. During the engine run RPM was limited due to the damaged propeller and concerns about vibration and further damage to personnel and equipment. After engine shut down the engine was inspected again. During the inspection the damaged and disconnect fuel line found during the preliminary inspection was once again found disconnected due to the hose breaking again.

A test was conducted to determine how long the fuel in the bowl would sustain engine operation. Per Rotax, the engine should run for approximately 1.00 minute before shutting down due to fuel starvation. During the engine run a stopwatch was used to time the engine run time. The engine ran for 1 minute 2 seconds before shutting down due to lack of fuel. Due to finding the line disconnected during the initial inspection and the lack of any fuel or even fuel residue in the carburetor bowl, the lack of any other suspected or probable cause, and the fact we were able to duplicate the failure mode during the second engine run, the most likely cause of the loss of engine power is a deteriorated fuel line leading to failure of the line in turn resulting in the loss of power.