



MEMORANDUM OF RECORD

Shawn Etcher
Air Safety Investigator
Eastern Region Aviation

February 6, 2014

Subject: ERA14LA089 – Engine Examination and email excerpts from a representative of the engine manufacturer.

The representative from the engine manufacturer was asked to provide details of the examination that took place on February 6, 2014. He reported the following items:

- Overall examination of the engine, fuel and spark plugs appeared normal and that the spark plugs appeared normal in wear with no sooting noted.
- The fuel filter was removed and fuel was found in the float bowl, a very little bit of water was also present but would not have been enough to cause an engine issue
- The engine/airframe was not installed with carburetor heat and used radiant heat from the engine
- Fuel was present throughout the fuel system and the system appeared to be normal
- The electric fuel pump was operated and the standard noise could be heard while it was operating.
- Fuel was present in both float bowls
- The fuel vent was observed on the airframe and appeared free of debris or blockage
- The engine started without hesitation and the magneto check indicated a drop within the normal range.
- The engine operated at different power settings and no abnormalities were noted.
- The airframe was equipped with two (2) Dynon units which should be downloaded at the laboratory and those units should show the engine run of the day as well as the accident flight

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On February 24, 2014 a representative from the engine manufacturer sent an email to the investigator-in-charge and below is an excerpt from that email.

- The float chamber venting lines have to be routed into a ram-air and vacuum free zone or into the airbox per the Rotax installation manual
- The routing of the carburetor venting line to the air filters has influenced the fuel-air mixture of the engine and in a special flight condition the engine could run out of fuel, due to back pressure to the float bowl is too high.