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Eastern Region

Date: September 23, 2024
Subject: ERA24LA018 Pilot Communications
Contact: Martin Odendaal

Mr. Odendaal was contacted via email on December 13, 2023, regarding the accident of N246ML. The following is a summary of that email exchange.

Mr. Odendaal was asked for clarification and details of the engine examination for the accident airplane. He was asked if he had any photographs or copies of the maintenance logbooks from the past two years in addition to photographs of the disassembled engine. Mr. Odendaal replied:

"I attached some photos here for your review. The piston that seized is the forward cylinder, the cylinder to the right in the photos.

The FAA inspectors did not disassemble the engine completely. When they saw the seized piston they were satisfied that that was the reason for the engine stoppage. The cause of the seizure was not determined. I did ask their opinion about what may have caused the seizure but they did not have a definitive answer.

According to the previous owner's logbook the engine had 124 hours on it since new when I bought the aircraft. It was a project plane and it was in a horrible state after being left tied down outside in the weather without protection for more than a year besides not flown for over 10 years. All the tests I did added another 30 hours to the 124 hours. Total hours then came to 154. After I was satisfied with the engine's condition and performance I began flying the airplane and added 23 hours to the previous total when the engine seized, making the total hours 177. The time between overhauls for this engine, Rotax 582, is 300 hours, so still a good amount short of TBO.

I did not do any mechanical work on the engine, however, i did a lot of work on the engine's external parts, ie: ignition modules, trigger coils, plug wires, spark plugs, timing, carburetors, fuel pump, fuel filter, wiring, cooling system etc. as it had a misfire I could not solve, hence the 30 hours of testing before I flew it. I eventually found it was the exhaust causing the misfire which is an odd fault. I replaced the exhaust with a new unit which solved the misfire issue.

I logged all the work I did in 2 individual logbooks, 1 x engine and 1 x airframe. Unfortunately both log books were lost in the river during the water landing / recovery event. "

Additionally, Mr. Odendaal sent a second email on December 13, 2023, with a photograph of "previous owner's logbook final entry".