

Eric Alleyne
Air Safety Investigator
OAS-Eastern Region Aviation

Date: 9/13/2024

Subject: ERA24LA369, Engine examination FAA oversight

Contact: Thomas Gilbert, FAA Inspector

The following is a detailed examination report of the engine and fuel system, outlining the inspection process, findings, and performance observations.

The fuel selector was found in the left position. The fuel system was inspected for integrity, from the left fuel tank vent through the fuel strainer (gascolator) to the electric fuel pump, with no anomalies noted. A fuel sample taken from the strainer/gascolator was clean and clear, confirming the presence of 100LL AvGas.

The engine was found intact, with only minimal damage to the propeller and spinner. The engine mount had been severed from the airframe to facilitate the removal of wreckage from the accident site. Overall, the engine condition appeared good, with no significant defects or omissions, aside from minor impact-related denting of exhaust system components.

The throttle control was found wide open, and the mixture control was set to full rich. These settings were verified by aligning the control cable sheath with the wire, where the cables were cut. Both the throttle and mixture controls on the fuel control were found to have full, unrestricted motion. No obstructions were found in the induction system.

The engine-driven fuel pump was removed and disassembled. A slight blue residue was found between the diaphragms, but no other anomalies were observed. The pump was reassembled and reinstalled.

The engine was mounted to a test stand with a field fuel supply and ground run. During the test, the magneto drops were found to be normal. However, the engine

stalled intermittently when the electric fuel boost pump was off. With the electric fuel boost pump running, the engine maintained normal idle speed and reached full RPM at maximum throttle. The engine-driven fuel pump and fuel control were removed for further examination. During the follow up examination of engine driven fuel pump and fuel servo no anomalies were noted.

END