



The National Transportation Safety Board

Office of Aviation Safety
Central Region
Memorandum for the Record
Engine and Fuel System
Examination Findings
CEN19LA326
Lancaster Texas

An inspection of the engine and fuel system was accomplished under the supervision of an FAA Inspector.
Reported findings:

- Inspection of the outside of the engine showed no obvious anomalies.
- A compression check was conducted of all 6 cylinders before the engine was removed from the airframe. The compression readings were normal and engine drive continuity was confirmed. A full teardown of the engine was accomplished. No anomalies or damage was found in any of the engine internal parts. All parts exhibited normal wear.
- The fuel system was inspected, and there was no signs of obstructions or leaks.
- The magnetos were bench tested. The right magneto tested normal throughout the complete RPM range and fired on all six terminals.
- The left magneto fired on 3 of the 6 terminals.
- The aircraft was equipped with a G3i electronic ignition system that is coupled to the magnetos. The electronic ignition system creates multiple sparks over a longer duration and synchronizes timing between the two magnetos. This synchronization is accomplished by using the left magneto as a trigger for the complete system. While the electronic ignition is operating; it relies solely on the left magneto points to fire left and right magnetos with an enhanced multi-spark. If the left magneto fails or deteriorates, then the complete ignition cycle is compromised. There is an option to turn off the electronic ignition and resort back to standard magnetos, however, in standard magneto mode, the magnetos are still operating through the G3i control module.

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