

N7620A Inspector Statement, Dennis Mueller (DJM), Aug 27, 2020

August 26, 2020, inspectors DJM and KV traveled to D&L Towing of Valley Park, MO, for investigation of N7620A accident. The aircraft was previously repositioned to the lot of D&L Towing. DJM documented the aircraft as it sat by digital photographs. The aircraft sustained substantial damage.

Other members to this investigation: Textron Aviation, Air Safety Investigator, Casey Love.

Reports from the Chesterfield Police department indicate a witness saw the aircraft overhead and heard a loud pop then no engine noise after, immediately prior to the crash. Suspect a loss of engine power for unknown reasons. The part owner indicated that the pilot in command stated the same.

The prop displayed signs of no engine power at the time of impact. The prop separated from the engine at impact. All propeller studs pulled out of the propeller hub. The engine crankshaft flange was cracked between approximately 3 prop mounting studs.

The engine cowl was removed and aircraft lifted by D&L Towing for better viewing of the engine and its components.

The top set of spark plugs were removed and each appeared to be in a normal (expected) condition. Cylinders and pistons showed no sign of damage as viewed through the top engine spark plug holes with a small flashlight.

The valve covers were removed. No abnormal indications found.

A fuel sample was taken from the gascolator. The fuel was blue in color, smelled like AVGAS and did not show any signs of visual contamination.

The engine crankshaft was rotated by hand and all cylinders showed evidence of compression by placing a thumb over the spark plug holes.

Both magnetos appeared to be in proper working condition. Spark was verified at all top spark plug positions by hand rotating the crankshaft and visually verifying spark to engine cylinders from ignition leads.

No obvious visual abnormalities were found during this investigation. Further testing and inspection is required to determine the status of this engine.

The aircraft airworthiness file was reviewed through the FAA SPAS database. Items of possible concern to engine operation are:

1. Challenger Air Filter STC performed on Oct 18, 2018
2. Steve's Aircraft Gascolator STC performed on Jun 4, 2014
3. Recent (June/2020) occurrence investigation found involving this aircraft and a complete electrical failure. Result was incorrect alternator charging system wiring at the time of engine installation (after overhaul) dated June 1, 2020.

All DJM photographs are located in the CE03 Office Accident Workspace file under folder labeled "DJM".