



MEMORANDUM for RECORD

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Date: April 21, 2017
Wreckage Examination
NTSB Accident Number: ERA17FA156 – East Windsor, CT

The wreckage was examined at Anglin Aircraft Recovery, Clayton, Delaware, on April 21, 2017. The following observations were noted:

Airframe Exam:

- ELT: Armed and activated. Disabled by NTSB IIC. Ameri-King AK-450, TSO 91a, Battery exp. Feb 2019.
- Flight control continuity was established from the ailerons to the cockpit controls (sticks).
- Flight control continuity was established from the elevator to the cockpit controls (sticks).
- Flight control continuity was established from the rudder to the cockpit controls (rudder pedals).
- The elevator trim tab was in place on the elevator; however, the trim cable was slack and the tab freely moved from stop to stop.
- Seat belts with shoulder harnesses (3-point) were installed. The belt webbing was cut by emergency responders.
- The left main landing gear was broken free from the fuselage by impact forces. The right main landing gear remained attached to the fuselage. The tail wheel remained attached to the empennage.
- Both wing fuel tank filler caps were found adjacent to the wreckage. The rubber seals inside the caps were dried, cracked, and chipped. The vent tubes on the caps were unobstructed.
- The left tank fuel tank selector was in the OFF position. The right tank fuel selector was in the ON position; however, the handle was installed incorrectly (backwards, or 180 degrees off).

- No fuel was observed in the left fuel tank. Some residual fuel was observed in the right tank; however, there was not enough to quantify. The left and right fuel tanks were clean and free of obstructions.
- The tachometer time reading was 353.21 hours. There was no Hobbs meter found.
- Left wing: The left wing remained intact and attached to the fuselage. The wing struts were bent/broken in several places. There was general deformation/impact damage to the wing structure due to impact forces. There was general leading edge crushing in the aft direction. The left aileron remained attached to the wing by its hinges; there was crush damage/tearing mid-span due to tree impact.
- Right wing: The right wing remained intact and attached to the fuselage. The wing struts were bent/broken in several places. There was general deformation/impact damage to the wing structure due to impact forces. There was general leading edge crushing in the aft direction. The left aileron was intact and remained attached to the wing by its hinges. There was impact damage and wing rupture about 12.0 feet outboard and 6.0 feet outboard of the wing root.
- Empennage: The vertical stabilizer remained attached to the fuselage and the rudder remained attached to the vertical stabilizer. Minor bending was noted on both surfaces. The left horizontal stabilizer had leading edge crushing signatures about 3 feet outboard of the root. The right horizontal stabilizer was intact except for minor bending and leading edge dents. The right elevator showed a wave-shaped bend of the trailing edge mid-span. Tree limbs were lodged in the damaged areas. The left elevator was intact and showed minor bending.
- Fuselage: General bending/buckling of the fuselage throughout its length.

Engine Exam:

- Engine was removed from airframe to facilitate the examination.
- The carburetor was broken off due to impact; the intake system remained attached to the carburetor. The foam intake element was covered in organic debris from impact.
- The 4 top spark plugs were removed for inspection. The electrodes were normal in wear and color when compared to a Champion Check-A-Plug chart.
- The cylinder rocker covers were removed for the examination. The engine was rotated by hand-turning the propeller. Compression and suction was observed on all cylinders and valve action was correct.
- The ignition harness leads were damaged and/or severed by impact forces. The magnetos were removed and installed on a test stand. Both magnetos produced spark on all leads when the magnetos were rotated.
- The oil tank was crushed from impact; some oil leakage occurred after the accident.
- The number 1 cylinder exhaust tube was cracked from impact and there was corrosion/rust in the area. The cylinder cooling fins in the area near the exhaust port was discolored. The number 1 cylinder was removed and inspected; there

were deposits on the exhaust and intake valves. The valves were intact and showed no signs of excessive wear or burning.

- The carburetor was partially disassembled. The carburetor bowl was clean and dry; there was no fuel residue evident. The brass float was intact and operable. The inlet fuel screen was clean and free of debris. There was a small amount of lead solder on the screen surface. The venturi was in place and the intake was unobstructed. There was no soot observed on the venturi.
- The fuel strainer/gascolator was broken free and the bowl was missing; no fuel residue was found.