

Aircraft Damage Summary

From: Curtis W. Anthony, Jr.

Date: 02/09/2018

Re: N61024 Accident 02/03/2018

On February 03, 2018 at approximately 19:06 local time, aircraft N61024, a Cessna CE-150 Serial Number 15070742, piloted by Muhamad Amir Mansour, holder of Private Pilot Certificate number [REDACTED] and carrying one passenger, was involved in an accident while enroute to Westport Airport (71K) from Lawrence Municipal Airport (LWC). The aircraft engine lost power and quit operating. The pilot attempted an off-airport emergency landing due to the engine power loss. The aircraft landed in a southwest direction and came to a stop upside down in a cultivated field located approximately 15 nautical miles northeast of El Dorado/Captain Jack Thomas Memorial Airport (EQA). Both pilot and passenger exited the aircraft uninjured. The aircraft is owned by Earl V Long III and rented to Mr. Mansour.

On February 5, 2018, Inspectors Bobby Warren and Curtis Anthony were dispatched to the accident scene. Prior to departure, Wichita FSDO received a call from Kansas City Center that an ELT was operating in the area of the accident. We were instructed to verify and turn off the ELT upon arrival to the site if it was operating. Inspectors Warren and Anthony arrived at the scene at approximately 1100 local time. Inspector Anthony took photographs of the aircraft and created a diagram of the accident site. Inspector Warren located the ELT and turned it off.

The aircraft appeared to have landed at the edge of a grassy area that turned into cultivated ground. There were three tire marks in the cultivated ground that started just past the grassy area and continued for approximately 19 feet in a southwest direction. The tire marks disappeared for approximately 66 feet before the left and right main tires marks returned and continued for approximately 24 feet. The nose tire track returned and continued for approximately 40 feet to the point where the aircraft came to rest upside down. The nose wheel was broken from the aircraft nose gear and was located approximately 30 feet east of the aircraft.

The propeller had one blade that was bent aft approximately 20 degrees from about half way from the center to the tip of the blade and the other blade had no signs of damage. The propeller was in a vertical position with the bent blade pointing to the top of the aircraft. The spinner was separated from the propeller and laid under the left side of the engine on the ground. The front section of the lower engine cowling was torn exposing portions of the carburetor and intake filter. The nose gear was bent aft and the wheel and fork assembly was separated from the nose strut. The empennage was damaged just aft of the fuselage. The upper portions of the vertical stabilizer and rudder were damaged from apparent ground impact when aircraft flipped.

Inspector Warren and Anthony verified control surface continuity on ailerons, elevators, and rudder. Inspector Warren and Anthony removed the lower engine cowling to access the engine compartment to verify engine control continuity. Engine control continuity was verified on the throttle, mixture, and carb heat levers. It was also verified that there was fuel in the line from the gascolator to the carburetor. No fuel odor was noticed upon arrival to the accident site. Further fuel verification not possible until aircraft is placed upright. The carburetor was separated from the engine at the intake manifold most likely from the ground impact. Temporary restart of the engine will not be possible. Engine continuity will be determined after aircraft is removed from the site to a hanger.

Inside the aircraft, the throttle lever was pulled out completely, and the carburetor heat lever and mixture lever was pushed in completely. The flaps were set to 0 degrees and the trim wheel was indicating a slight nose up setting. The strobe, navigation, beacon, taxi, and landing light switches were in the “ON” positions. The start switch and master power switch were in the “OFF” positions. The fuel selector was in the “OFF” position. It was noted that the fuel selector was turned off by the pilot before exiting the aircraft after the accident.

On February 8, 2018, Inspectors Warren and Anthony returned to the accident site with the owner to recover the aircraft. Photographs were taken of the aircraft being up righted. After the aircraft was up righted, the left and right fuel tanks were checked. The left wing fuel tank was drained and had approximately 8 to 12 ounces of fuel. The right wing fuel tank was drained and had approximately $\frac{3}{4}$ of a gallon of fuel. There was no evidence of fuel leakage around the fuel caps or on the ground. The owner proceeded with the aircraft recovery and transported the aircraft to the owner’s hanger at Westport Airport (71K).

On February 9, 2018, Inspectors Warren and Anthony went to Westport Airport (71K) and had the owner assist in verifying engine operational integrity. Inspection found the engine had approximately 5 $\frac{1}{2}$ quarts of oil as indicated on the oil dipstick. Removed upper spark plugs from all cylinders and inspected. Spark plugs were photographed appeared to be in good condition with little to no carbon build up. Spark plugs from the number 1 and 3 cylinders were slightly oily and spark plugs from cylinders 2 and 4 were dry. Removed number 4 cylinder valve cover. Rotated crankshaft and verified cylinder compression produced on all cylinders and validated engine drive continuity as evidenced by the magnetos were operational, compression available, and valve train operation visually verified with number 4 valve cover removed. Verified spark from both magnetos during crankshaft rotation. Spark was verified at all leads except for the upper ignition lead on the #3 cylinder did not spark. The failure of this upper number 3 lead was not investigated, as the lower plug firing would provide for ample ignition source for engine operation on the number 3 cylinder. One failed lead would not have resulted in engine failure.

Adequate engine lubrication, cylinder compression and ignition source were available to result in a very high likelihood that the engine would be operational if an adequate fuel source were available. The engine could not be run due to a fractured intake manifold just above the carburetor base flange. The fracture damage to the intake manifold was consistent with impact overload failure.