



Memorandum of Record

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Central Region

Date: 12/17/2020
Subject: CEN21LA089, N55168, Wreckage Examination

Parties to the investigation, including inspectors from the Federal Aviation Administration (FAA) and Piper Aircraft inspected the airplane wreckage at the accident site and during recovery. The NTSB IIC did not respond to the accident site.

Summary of Findings - No anomalies that would have contributed to the accident were noted with the airframe or engine during the examination.

WRECKAGE/IMPACT INFORMATION

Initial Impact (from Barksdale AFB personnel):

Lat: 32.4947853977945 (32° 29.687'N)

Long: -93.5614094270118 (93° 33.685'W)

Fuselage (estimated):

Lat: 32° 29.618'N

Long: 93° 33.700'W

Fuselage

Observed during the on-scene examination of the wreckage, the fuselage was upright and resting on its belly. The windshield frame was separated from the forward fuselage near the glareshield and exhibited crumpling aft and upward. All of the cabin windows were fractured and separated from the fuselage. The lower portion of the cabin door remained attached to the fuselage. The upper portion of the cabin door was separated from the lower portion and located along the debris path. The aft baggage door remained attached to the fuselage. The front cockpit seats were located within the area of the cockpit but were separated from their respective seat rails. The lap belts for seat #1 and seat #2 were found with the buckles connected and both had the lap belt webbing separated from the blade side of the buckle. Shoulder harness were observed in the cockpit overhead but neither were connected to the post on the lap belt buckles. The cabin floor was impact damaged and torn.

The forward left side wall of the cockpit was torn free from the firewall and crumpled aft to the baggage compartment. The fuel selector handle was separated from the fuel selector valve and not observed in the wreckage. The fuel selector valve exhibited impact damage and the cover was not observed in the wreckage. Low air pressure was applied to the outlet port of the fuel selector valve and air was observed to pass freely from the right tank inlet port. The instrument panel was impact damaged and fragmented. Some of the avionics and flight instruments were separated from the instrument panel and located in the debris field. An electric gyro instrument was located in the debris field with the display separated from the case. The gyro was removed from the case and scoring was observed on the exterior of the gyro. The flap handle was observed in the stowed (flaps up) position. The forward aileron chain segment was displaced from the control column sprockets. The turnbuckle remained intact but the chain exhibited a separation consistent with impact damage. The aileron cables remained connected to the chain segment and were continuous to the bellcranks in the wings. The rudder cables were continuous from the cockpit to the rudder horn. The stabilator cables were continuous from the tee-bar in the cockpit to the stabilator balance tube in the tailcone. The ELT was intact in its mount located in the tailcone. The switch was found in the "ARMED" position. The ELT battery was due for replacement on 08/2021. The fuel strainer bowl was located in the debris field and separated from its mount. The bowl was empty and the filter screen was not observed. The tachometer was separated from the instrument panel and impact damaged. The display showed ~2,850 RPM and 3169.29 hours. The hourmeter showed 2744.7 hours. The ignition switch was impact damaged and the key was broken off in the switch which appeared to be at the "L" position. The electrical Master switch was impact damaged but appeared to have the Batt side of the switch in the Off position and the ALT side of the switch in the On position. The Fuel Pump, Landing Light, Anti Coll Light, and Pitot Heat switches were all observed in the "ON" position. The CARB HEAT lever was in an intermediate setting near the "ON" position.

Left Wing

Observed during the on-scene examination of the wreckage, the left wing was separated from the fuselage at the wing root and located at the base of a tree on the left side of the aircraft. Impact damage and tearing of the wing skins was observed along the leading edge consistent with tree impacts. The flap remained attached to the wing. The outer ~4' of the left wing tip was separated chordwise and located near the initial tree impacts at the start of the debris path. The aileron was separated from its hinges and located along the debris path. The aileron bellcrank was separated from its mounts and remained with the fuselage connected by the aileron and balance cable. The fuel tank was impact damaged. A small amount of liquid consistent with avgas was observed in a corner of the fuel tank. The fuel tank finger screen was observed and appeared free of blockage. The main landing gear was separated from its mount and located immediately behind the main portion of the wing.

Right Wing

Observed during the on-scene examination of the wreckage, the right wing remained partially attached to the fuselage. The right fuel tank was separated from the wing and located underneath the wing. The fuel tank exhibited impact damage and breeches. No fuel was observed in the fuel tank. The wing was crushed aft just outboard of the fuel tank

consistent with impacting trees. The flap and aileron remained attached to their hinges. The main landing gear was partially separated from its mount and displaced aft.

Empennage

Observed during the on-scene examination of the wreckage, the stabilator exhibited impact damage to the leading edges consistent with impacting trees and terrain. The stabilator trim tab remained attached to the stabilator. The stabilator trim jackscrew was extended above the drum with about 10 threads exposed which corresponds to a partial aircraft nose up trim setting. The vertical stabilizer remained attached to the tailcone and the rudder remained attached by its hinges. The stabilator and rudder stops were intact and unremarkable.

Engine

Observed during the on-scene examination of the wreckage, the engine exhibited impact damage throughout. Cylinders #2 and #4 were separated from the crankcase and located in the debris field. The carburetor was fracture separated from its mount. The left magneto was separated from its mount and remained attached by the spark plug leads. The magneto was rotated by hand and spark was observed at each of the spark plug leads. The right magneto remained attached to the accessory section of the engine and was not examined. The crankshaft propeller flange was fractured and separated from the crankshaft. The starter housing exhibited scoring consistent with impact by the rotating fly-wheel.

Propeller

The fixed pitch Sensenich propeller was separated from the engine and located in the debris field.