



EXAMINATION SUMMARY

NTSB ACCIDENT NUMBER: CEN21FA198

AIRCRAFT REGISTRATION/AIRCRAFT TYPE: N461DK, Piper PA-46-310P
ACCIDENT LOCATION: Danville, Arkansas

WRECKAGE AND IMPACT INFORMATION

Wreckage Location

- The wreckage came to rest on an approximate 010° MH.
- Altitude was 929 ft.
- Coordinates N 34.967351 W 93.622185
- Came to rest inverted between several trees
- Scarring indicates the airplane slid along the trunk of an estimated 50' pine tree.

Right Wing

- The right wing had separated from the fuselage at the wing root and had fragmented into several pieces. Two sections of the main wing spar were identified, comprising WS 0 to about 100, and WS 100 to about 120. Additionally, an approximately 4 foot long section of upper wing skin was recovered.
- The wing fragment comprising WS 0-100 (approx.) was impact damaged and contained the wing spar, fragments of the wing leading edge, and the right main landing gear upper strut and associated components. The wing spar caps were separated from the web at the rivet line in several areas.
- The wing fragment comprising WS 100-120 (approx.) was impact damaged and contained fragments of the lower wing skin. The main wing spar fracture faces were uniformly matte and granular in appearance.

Left Wing

- Left wing remained attached to the fuselage at the wing root.
- Left wing was bent about 3" outboard of the STC'd spoiler
- Left wing was relatively free of leading edge impact damage
- Left wingtip separated from the wing, but was located during recovery near the main wreckage.
- The aft wing spar separated approximately 3 inches outboard of the attach point consistent with impact damage.
- Both fuel tank caps were in place and secured.
- Stall switch moved freely and free of impact damage.

Ailerons and Flaps

- The right flap was impact separated from the wing and was crushed. The right aileron, aileron control sector, and stops were not recovered. A fragment of aileron cable was found trapped in a fold of flap skin; it displayed broomstraw separations on both ends. The aileron control cable terminated in a broomstraw separation near the wing root.
- Left flap remained attached to the wing at the inboard attach point only.
- Left flap exhibited trailing edge impact damage.
- Left aileron remained attached to its respective hinge points.
- Left aileron movement was prevented by wreckage and impact damage.

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Rudder and Horizontal Stabilizer

- Left horizontal stabilizer, left elevator, the vertical stabilizer and rudder were located with the main wreckage
- Rudder remained attached to the vertical stabilizer at its respective attach points.
- Right horizontal stabilizer and elevator separated in flight and were not located.
- Rear nav light intact.

Fuselage

- The aft fuselage came to rest inverted and slightly on its left side against trees.
- The roof of the cabin was splayed open from the instrument panel aft to the window forward of the main cabin door.
- The upper hatch of the cabin door was opened with the forward door post fractured at the lower rivet line and pulled away from the lower door structure.
- Aft cabin remained mostly intact, although suffering impact damage.
- Luggage was noted secured behind a cargo net in the rear cargo compartment.
- 4 passenger seats were located within the cabin.
- Both outflow valves appeared unremarkable.

Engine

- The engine remained attached to the engine mount. The engine displayed areas of impact damage. Oil was seen leaking from the sump.
- The magnetos remained mounted to their respective pads. When rotated using a drill, both magnetos produced spark at each terminal. The fuel flow divider screen appeared free from blockages, and the diaphragm was intact.
- Safety wire not present on oil filter.
- Fuel distribution manifold was disassembled and found to be unremarkable with a clean screen
- Turbo controller disassembled with no defects noted.
- Internal gearing at the vacuum pump spun freely when rotated
- Internal continuity confirmed and borescope of cylinders revealed no abnormalities observed
- Fuel flow divider unremarkable
- Fuel control valve and diaphragm were unremarkable

Prop

- Equipped with MT 4-blade prop per STC
- 2 blades fractured near the hub
- 1 blade was free of impact damage
- Remaining blade contained damage to the trailing edge and face side
- Chord side remained free of damage.

Instruments

- Left attitude indicator case examination revealed circumferential scoring internally
- Left and right vacuum pumps were intact and not sheared
- Pitot heat and stall warning switch both heated when removed and connected to an external power source
- Left altimeter was set to 29.80 and the right was set to 29.91