

NATIONAL TRANSPORTATIONS SAFETY BOARD
Office of Aviation Safety
Washington, DC 20594

SUMMARY OF ENGINE EXAMINATION

-- CEN21LA473

A. ACCIDENT

Aircraft: Beechcraft 35, N5ML

B. PARTICIPANTS

Craig Hatch
Aerospace Engineer
National Transportation Safety Board
Denver, Colorado

C. ACCIDENT SUMMARY

See factual report

D. DETAILS OF ENGINE EXAMINATION

A post-recovery engine run was conducted at Air Salvage of Dallas, Lancaster, Texas, on December 1, 2021.

E. SUMMARY OF ENGINE EXAMINATION

Airframe – Beech 35

Engine – Teledyne Continental Motors IO-520

Propeller – N/A

- A visual inspection of the engine did not reveal any obvious reason for a loss of engine power.
- The airplane's wings had been removed for transport: In order to conduct an engine run, the fuselage with engine was strapped down to a trailer.
- The airplane's propeller was damaged in the accident, so a replacement propeller was installed for the engine run.
- A fuel container was plumbed into the airplane fuel system, at the left wing root.

Summary of Engine Examination



Figure 1: fuselage strapped down to trailer for engine run



Figure 2: Fuel container – being plumbed into airplane's fuel system

Summary of Engine Examination



Figure 3: 2 bladed – constant-speed replacement propeller installed

- The fuel boost pump switch was activated: the pump operated
- The starter was engaged, and the engine started without issue
- After a slight delay to warm the engine, the throttle was advanced, and the engine responded without issue.
- The propeller control was also exercised, and the propeller rpm responded accordingly.
- The magnetos were checked, left and right: The right magneto produced about a 50 rpm drop, while no rpm drop was noted for the left magneto.
- After the engine run was completed, a timing light was used to check magneto timing
- A reason for the airplane engine's loss of engine power was not identified.

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