



MEMORANDUM FOR RECORD

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Date: 05/31/2023
Subject: Wreckage Examination
NTSB Case Number: ERA23LA245

On May 31, 2023, the wreckage of N454AB was examined at North Perry Airport (HWO), Hollywood, Florida.

The following information was gathered during the examination:

Cockpit

Examination of the cockpit indicated that both magneto switches were in the "ON" position, The electric boost pump was "ON," the throttle was full forward, the mixture was full rich, and the carburetor heat control knob was in the "OFF" position. The vertical speed indicator needle indicated about 300 feet per minute down.

Propeller

Examination of the propeller revealed that the propeller had separated from the engine. The fracture surface signatures were consistent with torsional overload. One blade of the two-blade propeller displayed, S-bending, leading-edge gouging, and chordwise scratching. The other blade displayed curling on the outer portion and about 4-inches of the tip had separated from the rest of the blade.

Engine

Examination of the engine revealed that there was oil in the rocker boxes, galleries, and sump. Continuity was established from the front of the engine to the rear gears. Both magnetos were functional and fired when tested. Thumb compression and suction were present on all cylinders. The carburetor jets were clear, the carburetor floats were devoid of fuel, and the float valve assembly was functional.

The carburetor bowl contained trace amounts of fuel. Testing of the fuel in the carburetor bowl revealed no evidence of contamination. Examination of the fuel strainer revealed that it was full of fuel, had some debris (in the bottom of the strainer bowl outside the screen), and when the fuel was tested, it also revealed no evidence of contamination. The screens for the electric boost pump, fuel strainer, and carburetor were clean.

Flight Controls

Examination of the pitch control system revealed that continuity could be established from the control stick in the cockpit, through the breaks in the system to the elevator. Examination of the roll control system also revealed that continuity could be established from the control stick in the cockpit, through the breaks in the system to the ailerons. Examination of the yaw control system revealed that continuity could be established from the rudder pedals in the cockpit, to the left rudder control horn, but could not be established to the right rudder control horn.