

National Transportation Safety Board

Office of Aviation Safety

Washington, DC 20594



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WRECKAGE EXAMINATION

July 29, 2025

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A. ACCIDENT

Location: Murfreesboro, Tennessee
Date: June 10, 2025
Time: 11:24 CDT
16:24 UTC
Airplane: N15PM Beech A36, SN E-1016

B. WRECKAGE EXAMINATION

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C. SUMMARY

On June 10, 2025, about 1124 central daylight time, a Beech A36, N15PM, was substantially damaged when it was involved in an accident near Murfreesboro, Tennessee. The private pilot and a passenger were not injured. A second passenger was seriously injured. The airplane was operated as a Title 14 Code of Federal Regulations Part 91 personal flight.

According to the pilot, the flight departed from Douglas Municipal Airport (DQH), Douglas, Florida and was enroute to Murfreesboro Municipal Airport (MBT), Murfreesboro, Tennessee when a partial loss of engine power occurred. Based on the "stumble" of the engine, he switched from the left fuel tank to the right fuel tank and pushed the mixture control in, which initially "cleared up" the problem. Shortly after, the engine lost power again and the pilot declared an emergency. He quickly assessed that he would not be able to make it to MBT and as a result, he attempted to make a forced landing in a field. He then realized that the field was out of reach and attempted to turn towards a cemetery where he lowered the landing gear, pitched the nose up, and attempted to clear trees. The airplane contacted the trees prior to the cemetery and came to rest nose down, suspended in vegetation.

A postaccident examination of the wreckage by a Federal Aviation Administration inspector revealed that the left fuel tank contained a small amount of fuel with no evidence of that tank being breached by impact. The right fuel tank was breached and contained about 10 gallons of fuel. The fuel selector was observed to be on the right fuel tank position. The ignition key was observed on "both"; the mixture control, propeller control, and throttle were observed full forward.

The wreckage was retained for further examination.

During the postaccident wreckage examination of the engine and airplane, nothing was found that would have precluded normal operation. A test run of the engine mounted in the airplane utilizing the airplane fuel system was successful. The engine started and idled. Throttle was increased to 1700 RPM with no discrepancies observed. Engine data was field downloaded from a CGR-30P with the accident flight and engine test run. The accident flight showed that at 1123:35, fuel flow was recorded at 16.4 gph at 2200 RPM consistent with the previous 2 minutes of flight. At 1123:36, fuel flow began to decrease, before going to 0 gph at 1123:47. Subsequent drops in engine RPM, oil pressure, and EGT's followed the drop in fuel flow. Fuel flow was not regained for the duration of the data.

D. DETAILS OF THE EXAMINATION

1.0 Airframe Examination

An examination of the wreckage was conducted in Springfield, Tennessee with the NTSB, FAA, and Textron Aviation present.

The pilot did not report any control problems with the airplane. Nothing was found during the examination that would have precluded normal operation.

1.1 Fuselage

The fuselage remained intact but received substantial damage to the lower forward structure on the left and right-side skins. The wings were removed at the accident location for recovery purposes. The empennage remained attached to the fuselage.



Figure 1: Left Side Fuselage



Figure 2: Right Side Fuselage

1.2 Empennage

The empennage remained attached to the fuselage. The vertical stabilizer was undamaged and the rudder had evidence of minor wrinkling. The horizontal stabilizer and elevator surface were undamaged. The right horizontal stabilizer and elevator were separated from the fuselage and were substantially damaged. The airplane's ELT remained installed in the empennage and was found in the "armed" position. The battery expiration was dated November 15, 2029.



Figure 3: Empennage Overview



Figure 4: Damage to Right Horizontal Stabilizer

1.3 Wings

Both wings displayed leading edge damage consist with tree impact from the accident sequence. The outboard portion of the right aileron was damaged from the collision with trees. The flaps were in the up position. The landing gear was extended but stowed by recovery personnel to transport the airplane.



Figure 5: Damage to Right Wing



Figure 6: Damage to Left Wing

1.4 Cockpit

The navigational radios were removed from the airplane for storage. The airplane was equipped with a CGR-30P and CGR-30C engine monitors. The monitors were undamaged and the accident flight data, along with flight data from the engine test runs were recovered in the field from the units. The accident flight showed that at 11:23:35, fuel flow was recorded at 16.4 gph at 2200 RPM consistent with the previous 2 minutes of flight. At 11:23:36, fuel flow began to decrease, before going to 0 gph at 11:23:47. Subsequent drops in engine RPM, oil pressure, and EGT's followed the drop in fuel flow. Fuel flow was not regained for the duration of the data. During the engine test run, the engine idled satisfactorily. The engine was operated to 1700 RPM but could not be run higher due to safety concerns from vibrations from the damaged propeller.

All the circuit breakers were in, with the exception of the "TRIM" circuit breaker which was popped. The landing gear handle was in the down position. The flap handle was in the up position. The throttle, mixture, and propeller levers were in their full positions. The auxiliary fuel pump was in the "off" position.

The airspeed indicator read "0". The altimeter read 600 ft and had a barometric setting of 30.0. The vertical speed gauge read "0". The fuel selector was in the "right" position.



Figure 7: Cockpit Instrumentation During Engine Run

1.5 Fuel/Fuel System

The left fuel tank bladder remained intact. The FAA reported that 3 gallons of fuel was recovered from the left fuel tank at the accident site. The right fuel tank bladder remained intact. Tree impact damage just outboard of the fuel tank appeared to fracture the fuel vent line. The FAA reported there was blue fuel staining on the wing skin. The FAA reported approximately 10 gallons of fuel was recovered from the right fuel tank at the accident site.

The engine was test run utilizing the airplane's fuel system from the fuselage, through the fuel selector valve and out to the engine. The engine was started the first time on the "right tank" position and operated with no discrepancies. The engine was then operated on the "left tank" position and operated with no discrepancies.



Figure 8: Aux Fuel Switch



Figure 9: Fuel Selector in Right Tank Position

2.0 Engine Examination

The engine is a 6-cylinder, air-cooled, direct drive, horizontally opposed, fuel injected, naturally aspirated powerplant with a rating of 285 HP @ 2700rpm.

The engine remained attached to the engine mount. The propeller remained attached to the engine crankshaft flange. The engine did not appear to be damaged, with the exception of minor scuffing on the number 6 engine rocker box cover. The top spark plugs were removed, and the cylinders were borescope inspected prior to the engine test run. The top spark plugs electrodes had normal wear and coloration consistent with lean engine operation. The cylinder combustion chambers, and valve sets were unremarkable. The sparkplugs were reinstalled to facilitate the engine test run.

The engine ran successfully with no abnormalities observed.



Figure 10: Left Side of the Engine



Figure 11: Right Side of the Engine



Figure 12: Fueling Location Example and Setup for Test Run

3.0 Propeller Examination

The airplane was equipped with a three-bladed metal McCauley propeller that remained attached to the engine crankshaft flange. Two of the propeller blades were undamaged. The third propeller blade was bent aft about 10 degrees mid span. There were no rotational signatures or rotational bending observed.



Figure 13: Propeller Overview



Figure 14: Damage to Propeller Blade

4.0 Aircraft Information

The airframe and engine times listed above were obtained from the last annual inspection maintenance logbook entries dated 05-15-25. Based on the digital tachometer time of 181.9 at the accident site, the aircraft was flown for 5.7 hours since the last annual. Thus, the total airframe time at the time of the accident was 3,748.5 hours. The engine had 854.9 hours TSMO.

Submitted by:

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