

National Transportation Safety Board

Office of Aviation Safety

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WRECKAGE EXAMINATION SUMMARY

September 20, 2022

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A. ACCIDENT

Location: Hartwell, Georgia
Date: September 10, 2022
Time: 1237 EDT
Airplane: Beech BE55, N3670D

B. WRECKAGE EXAMINATION SUMMARY

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C. DETAILS OF THE INVESTIGATION

On September 10, 2022, about 1237 eastern daylight time, a Beech BE55, N84583, was substantially damaged when it was involved in an accident near Hartwell, Georgia. The pilot was fatally injured. The airplane was operated as a Title 14 Code of Federal Regulations Part 91 personal flight.

According to the Federal Aviation Administration (FAA) inspector who responded to the accident site, witnesses reported that the airplane departed Punta Gorda (PGD), Florida, and was inbound for Anderson (AND), South Carolina. The pilot executed a missed approach on the RNAV 5, he was given instructions for another RNAV approach. Unable to join the final approach course ATC asked if he needed assistance, he declined and said he needed to reset. He was given instructions to climb to 4,000 ft and turn to heading 090, however, he turned to a 270 heading. ATC asked if he was having autopilot or gyro issues and he stated he was having trouble with his gyros. ATC offered an ILS approach to runway 5, the pilot accepted, ATC issued vectors and the pilot complied. The controller issued the current weather and cleared them for the approach, however the pilot did not intercept the localizer. ATC instructed them to stop the turn and maintain 3,000 ft. there were no further communications received from the pilot.

At 1235 the airplane was at 3,975 ft, about 30 seconds later the airplane began a right turn. The airplane completed two right turns and descended to 1,900 ft. The airplane briefly climbed to 2,750 ft and began a left turn. The final target was observed at 1237 at 1,825 ft.

D. AIRFRAME EXAMINATION

1.0 Fuselage

The main fuselage was intact and had upward crushing on the bottom of the fuselage. The seats remained attached to the airframe at all attach points.

The instrument panel was intact. The tach indicated 3693.0 hrs. The left ignition switch was in the RIGHT position. The right ignition switch was in the LEFT position. The left fuel selector handle was in the LEFT position. The right fuel tank selector handle was out of position, pointed to the upper right. The throttle, mixtures, and propeller controls were mid-position. Flight control cable continuity was established from the flight controls in the cockpit to the flight control surfaces through multiple cuts made by recovery personnel.

The heading aid was on 174°. A Garmin G5 and King KFC 200 autopilot was installed, the autopilot select push switch labeled HDG/GPS was in the HDG position.

The left seat 3-point restraint was intact. A ground use only air conditioner was secured in the baggage compartment.



Figure 1 View of the instrument panel.



Figure 2. View of Fuselage.

2.0 Wings

The right and left wing was separated to facilitate recovery. The bottom of the wings had upward impact crushing, there was no crushing present on the leading edges. The right and left flap actuators were both in the retracted position, and the handle was in the UP position.

Aileron continuity from the dual control yokes to recovery cuts at the wing roots to the wing bellcranks. Elevator continuity was established from the control yoke to recovery cuts in the empennage to the rudder horn. The rudder interconnect push/pull tube was connected to the right rudder pedals.

The aileron, elevator, and elevator trim autopilot servos found with cables wrapped around them.



Figure 3 View of the left and right wings.

3.0 Landing Gear

The nose and main landing gear were all retracted.

4.0 Empennage

The empennage was cut from the fuselage to facilitate recovery. The elevator remained attached to the horizontal stabilizer. The elevator trim was between neutral and nose down. The vertical stabilizer remained attached to the empennage and the rudder remained attached to the vertical stabilizer.



Figure 4. View of Empennage

E. ENGINE EXAMINATION

The engines were partially separated from the airframe from impact, they were removed to facilitate recovery. The top spark plugs were removed and compression and suction were observed on all cylinders. Crankshaft and valvetrain continuity were confirmed by rotating the propeller by hand.

The cylinders were examined with a lighted boroscope and no anomalies were noted with the piston faces, cylinder walls, or valves.

The left and right engine-driven vacuum pumps were intact and expelled air when rotated, and the carbon vanes were intact.



Figure 5. Top View of Engine



Figure 6. View of the spark plugs from the right engine.



Figure 7. View of the left spark plugs.

All spark plugs were removed and were light grey in color and in normal condition when compared to the Champion Check-A-Plug Chart.

The throttle control cable remained attached to the carburetor and was cut to facilitate examination. The fuel screen was removed, was not obstructed, but contained a small amount of debris. The right and left boost pumps were OFF.

The intake air filter contained water and debris.

The oil sump pans were crushed upward. The oil filter was removed, the screen was removed and examined, it was free of debris and non-ferrous material.

The left and right magnetos remained attached to the engine, both produced spark at each p-lead.



Figure 8. View of the vacuum pump.

F. PROPELLER EXAMINATION

Both three-bladed propellers remained attached to the hub. The right propeller blades sustained minor damage to the tips. Blade A on the right propeller had trailing edge scrapping from recovery. The left propeller blades sustained minor damage. Blade A was bent forward, from damage sustained during recovery. The propellers were rotated through 360° of motion.



Figure 9. View of the right and left propellers attached to their respective engines.

Submitted by:

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Air Safety Investigator