

Joshua Lindberg
Senior Aviation Accident Investigator
Office of Aviation Safety - Central Region

Date: May 23, 2023

Subject: CEN23LA194

Contact: Bradley MacNealy, accident pilot and airplane owner

On May 18, 2023, at 0817 central daylight time, a Beech 35-C33A, N63B, was substantially damaged when it was involved in an accident at Indianola Municipal Airport (IDL), Indianola, Mississippi. The pilot was not injured. The airplane was operated as a Title 14 *Code of Federal Regulations* Part 91 personal flight.

In a phone conversation with the pilot, he stated that airplane's registration was pending with the FAA, but he had already filed the application paperwork. Had not flown the airplane in several months because of the pending registration. It flew the airplane on Saturday (May 13) for 3 hours with no issues and completed about 3 to 4 landings. Flew it again on Sunday (May 14) for several hours with no issues. He had an IFR flight plan filed on the day of the accident. Preflight engine run up and takeoff were normal. After takeoff he smelled a burning plastic smell, so he turned back to airport then saw smoke coming from the right side of the cockpit. He looked over on the right side and saw flame the size of a softball on the right side of the firewall. He shut off the electrical switches and cut off the fuel. At this point he was on the base leg in the traffic pattern and knew he had the runway made but he couldn't get the gear down because he had turned off the electrical system. The cockpit filled with black smoke, and he had opened the vents. After landing, he couldn't see the door handle on the right side because the smoke was so thick, but he felt around and found the handle. He exited the airplane and recorded a video of the airplane smoking on the runway. The airplane was burned worse on the left side even though the fire had started on the right side. He remembered that during the flight he saw flames coming through the firewall under the battery box area. He tried to kick it out but realized the fire seemed to be coming from the engine side of the firewall. The only maintenance that was done lately was a replacement of the mixture control cable because it was

slipping. He thinks that this was electrical fire. After the accident, they moved the airplane off the runway and into hangar. The mechanic who replaced the mixture also completed the last annual and has worked on this airplane for a while.

End of conversation.



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Contact: Jimmy Chrestensen, airplane mechanic

On May 18, 2023, at 0817 central daylight time, a Beech 35-C33A, N63B, was substantially damaged when it was involved in an accident at Indianola Municipal Airport (IDL), Indianola, Mississippi. The pilot was not injured. The airplane was operated as a Title 14 *Code of Federal Regulations* Part 91 personal flight.

In a phone conversation with the mechanic, he stated that he had completed the last annual inspection on this airplane. During the inspection, he replaced a fuel pump and completed other usual annual inspection things. The owner flew it to a 50 hour interval, then they did an oil change and replaced the tires. A few flight hours later they replaced the mixture and throttle control cables. Then the owner flew another 15 to 23 flight hours. The owner told him it was coming up on 50 hour oil change interval. After the accident, he helped move the airplane off the runway. He did not know what caused the fire but stated that there was a heated area in the upper right corner of the firewall after the accident. The pilot had described to him that there was a flame in the upper right area of the firewall.

End of conversation.

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Date: May 23, 2023 and May 26, 2023

Subject: CEN23LA194

Contact: Michael Jones, FAA Inspector

On May 18, 2023, at 0817 central daylight time, a Beech 35-C33A, N63B, was substantially damaged when it was involved in an accident at Indianola Municipal Airport (IDL), Indianola, Mississippi. The pilot was not injured. The airplane was operated as a Title 14 *Code of Federal Regulations* Part 91 personal flight.

In a phone conversation with the inspector on May 23, he stated that he had briefly examined the airplane after the accident. He had opened the top cowling on both sides. On the left side there were no fuel lines separated, damaged, or loose - nothing appeared compromised. On the right side the fuel line to the manifold was intact. It appeared that the fire had started below the battery box on the right side. He could not tell if it originated on the engine side or the cabin side of the firewall.

The follow is a summary of email correspondence with the inspector on May 26.

He went to Indianola, MS (IDL) on May 26 and met with the mechanic, Jimmy Chrestensen. During the examination, he removed the end cap from the starter, everything looked normal. He could not find the source of the electrical failure, as all of the wiring in the cabin area was burned to bare copper wire.

However, he might have found the fuel source that fed the fire. There were no fuel lines compromised on the engine side of the firewall. But, on the cabin side of the firewall there was a fuel line that was melted open. There was an electrical wire from the avionics solenoid that had some melted aluminum transfer on it. He thought that maybe during the electrical melt down, that this heavy gage wire came in contact with the aluminum fuel line and burned a hole in the fuel line. The fuel selector and

gascolator are located under the pilot seat and provide fuel to the engine through that same compromised fuel line.

End of correspondence.