

National Transportation Safety Board

Office of Aviation Safety
Central Region



CEN25LA054

RECORD OF CONVERSATION

Stephen Horacek, FAA Airworthiness Inspector
David Harsanyi, Lycoming Air Safety Investigator

December 13, 2024

Interviewee: Stephen Horacek, FAA Airworthiness Inspector
Interviewee: David Harsanyi, Lycoming Air Safety Investigator
Date/Time: December 13, 2024 / 1500 CST
Location: Telephone Call
Investigator: Andrew Todd Fox, NTSB Air Safety Investigator

On December 13, 2024, at 1500 central standard time, NTSB Investigator Fox, FAA Inspector Horacek, and Lycoming Air Safety Investigator Harsanyi discussed the wreckage examination of American Aviation AA-1B airplane, N6242L, that was involved in a forced landing accident that occurred on December 1, 2024, shortly after takeoff from runway 34 at Brenham Municipal Airport (11R), Brenham, Texas:

Investigator Fox stated that the pilot reported the airplane had a partial loss of engine power shortly after takeoff from runway 34 at Brenham Municipal Airport (11R), Brenham, Texas. The partial loss of engine power occurred about 500 ft above the ground as the airplane crossed over the departure end of the runway. The pilot noted that the engine, which appeared to be running at idle power, was unable to sustain level flight and a forced landing was made in a grass field north of the airport. The airplane's nose landing gear separated during the forced landing.

Inspector Horacek stated that the airplane's left wing leading edge was substantially damaged during the forced landing, as shown in figure 1. The left wing exhibited a large semicircular impact likely due to a collision with the separated nose gear and/or with an anthill in the grass field, as shown in figure 2. However, the leading-edge damage did not exhibit evidence of tire rubber transfer or scratching, nor did it contain anything resembling dirt/sand.

With the approval of the NTSB and FAA, the airplane was partially disassembled and trailered to a hangar located in Brookshire, Texas, where it was examined by Inspector Horacek and Mr. Harsanyi on December 13, 2024.

Mr. Harsanyi stated that his examination of the engine did not reveal any evidence of a mechanical failure that would prevent normal operation. Visual examination of the engine's exterior revealed that all four engine cylinders had evidence of mud dauber nests within their respective cooling fins. Additionally, a roughly 1.5-inch diameter mud dauber nest was found in the airbox between the air filter and the throat of the carburetor, as shown in figure 3. Additionally, dirt with the same color as the mud dauber nest was observed within the carburetor throat and on the clean side of the air filter. The recovered mud dauber nest exhibited impressions consistent with the spacing of the wire coil that supported the flexible ducting associated with the

carburetor heat system. The flexible ducting also contained various-sized fragments of mud dauber nest debris.

As first viewed during the examination, the Lycoming O-235-C2C engine, s/n L-11150-15, remained attached to the airframe with both wings detached. The engine exhibited minor impact damage, mainly to the lower side of the exhaust system and throttle and mixture controls. All airframe baffling was removed along with top spark plugs to provide a better visual examination of the engine. Mud dauber nests were noted throughout all cylinders cooling fins along with corrosion of various engine components, engine mounts, and spark plugs.

A lighted borescope inspection of each cylinder was unremarkable. Compression was noted on all cylinders as the engine's propeller was rotated in the normal direction of rotation. Engine timing was verified to be about 25° before top dead center.

Air was blown through each fuel line in the wing to confirm proper function of the fuel selector. No anomalies were noted with the fuel selector, fuel lines, or fuel vents in the wings.

The Marvel Schebler 10-31036-1 carburetor, s/n Y403413, was found intact and tightly installed to the lower side of the engine. Both the mixture and throttle cables exhibited minor impact damage which restricted their movement when actuated from their respective cockpit control. Dirt was observed within the carburetor venturi that was consistent with the color of the mud dauber nest found within the airbox between the air filter element and venturi intake. The fuel inlet screen was free of any debris. The carburetor fuel bowl contained fuel with no evidence of water. The floats were black foam/plastic and were undamaged. With air pressure applied to the inlet fitting, movement of the floats confirmed proper needle function.

The engine driven fuel pump tightly installed to the rear of the engine with all fuel lines secure. The pump was removed, disassembled, and all diaphragms were free of debris or tears. Fuel was observed at all points of the fuel system and all samples tested negative for water.

Both magnetos were found tightly installed to the rear of the engine. Before the magnetos were removed, timing was confirmed to be about 25° before top dead center. Both magneto bodies exhibited various amounts of corrosion with flaking black paint. Both magnetos were tested using an electric drill and produced spark at all points.

The spark plugs exhibited a dark, rich, and carbon fouled appearance. No damage was noted to any electrode, and wear was normal to worn out normal. The outside shell of the plugs exhibited corrosion with plating material missing and flaking. The ignition harness appeared in good shape with normal wear from operation. The harness was not tested and was cut from the back of the magneto.

Engine oil was present within the engine at the time of the exam. The oil was drained to facilitate suction screen removal. Oil was found dark in appearance, but no metal or debris was found within the screen.

The McCalley 1A106/NCM-7157 propeller, s/n G18726, exhibited evidence consistent with limited rotation at the time of impact. Both tips were bent rearwards with minor leading-edge polishing to each tip. Neither propeller exhibited S-shaped bending. The spinner was crushed rearwards with no observed twisting to the aluminum.

The recording tachometer indicated 1,651.72 hours. The HOBBS meter indicated 2,549.3.

The accident occurred about 4.7 hours since the last annual inspection completed on November 17, 2024, during which the air filter was replaced. Based on maintenance logbook documentation, the engine had accumulated 531.7 hours since the last major overhaul that was completed on May 1, 1999.



Figure 1. Airplane at accident site. (Photo courtesy of Brenham Fire Department)

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Figure 2. Left wing damage. (Photo courtesy of FAA)

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Figure 3. Mud dauber nest found in the airbox between the air filter and the throat of the carburetor. Red arrows point to the mud dauber nest. (Photos courtesy of Lycoming Engines and edited by NTSB)