

National Transportation Safety Board

Office of Aviation Safety

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AIRFRAME AND ENGINE EXAMINATION REPORT

June 10, 2024

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A. ACCIDENT

Location: Heber, Utah
Date: April 21, 2024
Time: 1530 mountain daylight time
Motor-glider: Schleicher Alexander GMBH & CO ASH 26 / N644CC

B. AIRFRAME AND ENGINE EXAMINATION REPORT

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C. SUMMARY

On April 21, 2024, about 15:30 mountain daylight time, a Schleicher Alexander GMBH & Co, Ash 26E motor-glider, N644CC, was substantially damaged when it was involved in an accident near Heber, Utah. The pilot was not injured. The motor glider was operated as a Title 14, *Code of Federal Regulations* Part 91 personal flight.

The IIC travelled to the owner's hangar, located at Heber Valley Airport (HCR), Heber, Utah, on three occasions. The first occasion, which occurred on May 20, 2024, consisted of an interview with the pilot and did not result in an examination of the airframe and engine. The second trip to the hangar occurred on May 24th and resulted in a visual inspection of the airframe and engine. The third trip occurred on June 10, 2024, and consisted of an examination of the airframe and engine. Post examination revealed no mechanical malfunctions or failures with the motor glider that would have precluded normal operation; however, the engine would not start despite multiple attempts.

D. DETAILS OF THE EXAMINATION

1.0 Airframe Examination.



Figure 1. Exemplar ASH 26. Photo courtesy of the manufacturer.

1.1 Fuselage

The composite fuselage exhibited multiple fractures just aft of the cockpit. The nose exhibited a fracture. The fuselage was fractured aft of the cockpit area which resulted in the tail cone and empennage partially separating from the fuselage.



Figure 2. Substantial fuselage and wing damage. Photo courtesy of the pilot.

1.2 Empennage

The T-tail remained attached to the top of the vertical stabilizer. The left side horizontal stabilizer exhibited a downward bend about mid-span. The right side exhibited an upward bend about midspan. The vertical stabilizer remained attached to the end of the tail cone and exhibited minor damage. The rudder remained attached to the vertical stabilizer and exhibited minor damage.



Figure 3. Empennage damage. Photo courtesy of the pilot.

1.3 Wings

The wings remained attached to the fuselage but were removed during the recovery. The wing retention pins did not allow for the wings to be removed in the conventional method. The wings were cut near the roots.

The right wing remained whole and exhibited substantial damage. The right-wing spoiler was extended. According to the pilot, he extended the spoilers after landing. The aileron and flap remained attached to the right wing. The control tubes were cut during the recovery.

The left wing fractured. The winglet and about 3 ft of the wing tip separated from the wing. The aileron and flap remained attached to the left wing. The control tubes were cut during recovery.



Figure 4. Left and right wing, top view.



Figure 5. Left wing tip.

1.4 Landing Gear

The landing gear consisted of a retractable main landing wheel and a tail wheel. The main landing wheel was partially extended and exhibited damage. The tail wheel was not damaged.

1.5 Cockpit

The acrylic canopy remained secured to the fuselage and exhibited a large crack on the right-hand side.



Figure 6. Instrument panel.

The instrument panel remained secured in the cockpit. All instruments were secured in the instrument panel. There was no non-volatile memory available for download. The flap handle, spoiler handle and landing gear handle were present; however, the motor glider was recovered, and the handle positions could not be verified to be in the same position as immediately after the accident.

1.6 Fuel/Fuel System

The motor glider instruments indicated 7 liters of fuel when power was applied. A check of a sample of fuel revealed blue fluid with the smell and consistency of 100 low lead aviation fuel. No contaminants were visible. There was no evidence of fuel leaking from the tank. A blue stain was observed on the fuel pump diaphragm housing; however, the stain was immediately underneath the small antifreeze tank and the tank held a blue antifreeze liquid. The pilot reported an antifreeze leak that occurred in the recent past.

1.7 Other Systems

The motor-glider was equipped with air brakes, also known as spoilers. When deployed, the air brakes appear around mid-span on the top side of the wings. The air brakes were painted orange and were easily seen when deployed. The video did not show orange above the wings during the takeoff.

The flaps were capable of negative flaps position.

2.0 Engine Examination

The motor-glider was equipped with an Austro Engines AE50RAB (Wankel) rotary engine, serial number: R1 0427. According to Merriam-Webster dictionary, a Wankel engine is an internal combustion rotary engine that has a rounded triangular rotor functioning as a piston and rotating in a space in the engine and that has only two major moving parts.

The engine remained secured in the engine bay. The motor mount was damaged at the front-right attachment point.

One of the two spark plugs was removed and exhibited a dry, tan appearance. The spark plug was attached to the lead wire. The engine starter was activated, and the spark plug produced a strong spark, consistent with a functioning magneto, good electrical leads, and a functioning sparkplug.

The fuel line consisted of a clear plastic material and appeared full of fuel. The line was disconnected, and electrical power was applied to the fuel pump. The fuel pump activated and pushed fuel through the line, consistent with a functioning fuel pump.

According to a mechanic, who was trained on, and familiar with the Austro engine, attempting to determine thumb-force compression would not produce useable evidence, therefore thumb-force compression was not attempted.

According to the owner/pilot, the engine normally started easily when cold. Multiple attempts to start the engine were attempted with negative results.

The engine was removed from the fuselage. A visual examination revealed no visible damage to the engine.



Figure 7. Engine installed in the fuselage.

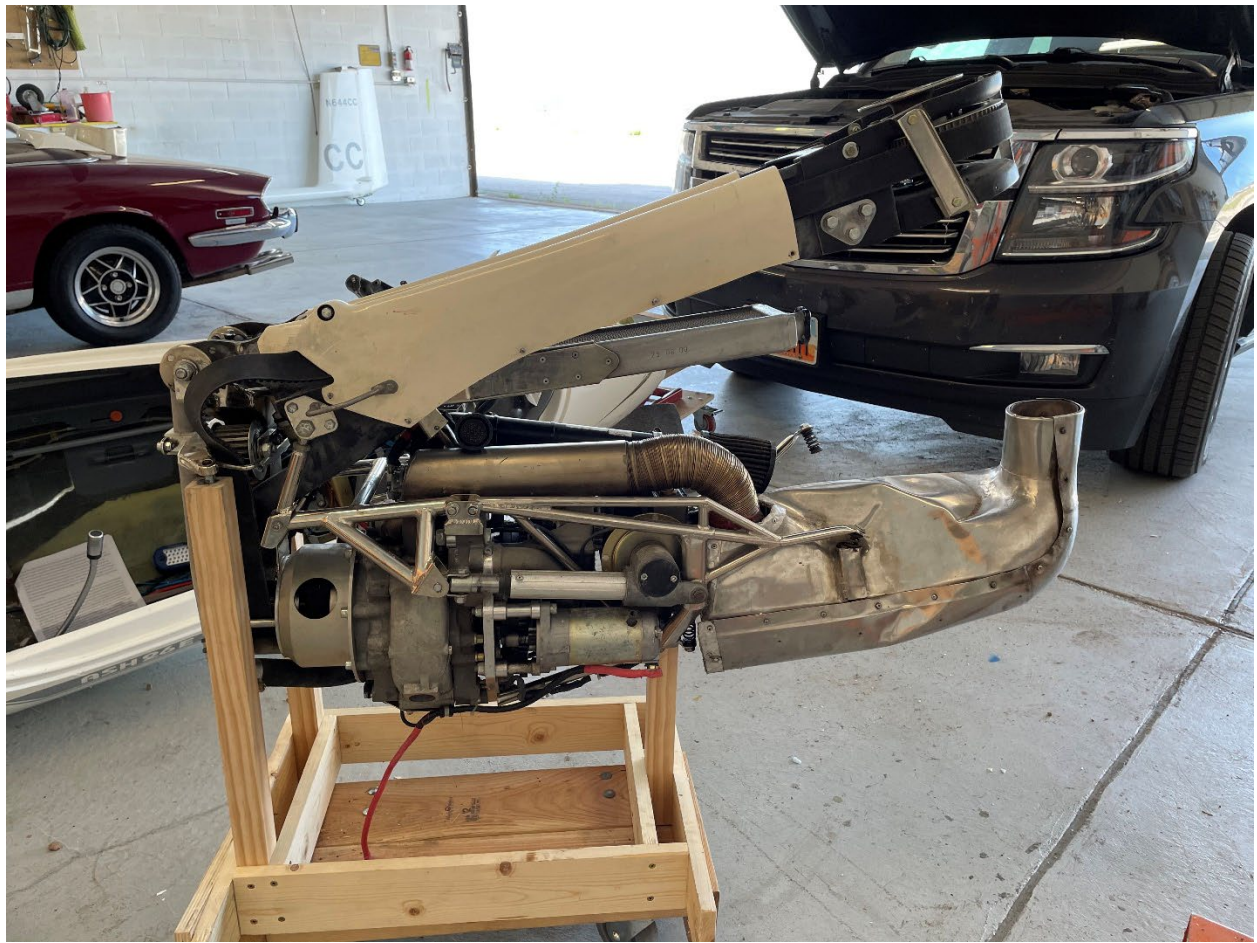


Figure 8. Engine left side.



Figure 9. Engine, right side.

3.0 Propeller Examination

The composite, two-bladed, fixed-pitch propeller remained attached to the mast and exhibited no damage. The drive belt remained in place and exhibited no damage.



Figure 10. Propeller and propeller mast.

4.0 Maintenance Records

According to maintenance records, the engine was removed for inspection on May 8, 2015, and reinstalled, at a total time of about 654.11 hours. The last annual inspection occurred on April 13, 2024, at 879.6 hours airframe time and 76.2 hours engine time.

5.0 Aircraft Information

According to the manufacturer's website, the ASH 26 E was a self-launching powered sailplane with 18-meter wingspan.

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