

National Transportation Safety Board

Office of Aviation Safety

Washington, DC 20594



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WRECKAGE EXAMINATION SUMMARY

TABLE OF CONTENTS

A. ACCIDENT	3
B. WRECKAGE EXAMINATION SUMMARY	3
C. SUMMARY	3
D. DETAILS OF THE INVESTIGATION	3
1.0 Accident Site	3
2.0 Airframe Examination	3
3.0 Engine Examination	4

A. ACCIDENT

Location: Hampton, VA

Date: April 24, 2025

Time: 1135 EDT

1535 UTC

Airplane: MXS

B. WRECKAGE EXAMINATION SUMMARY

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C. SUMMARY

On April 24, 2025, about 1135 eastern daylight time, an MX Aircraft Tech PTY LTD, MXS , N530RH, was substantially damaged when it was involved in accident near Hampton Virginia. The pilot was fatally injured. The airplane was operated as a Title 14 *Code of Federal Regulations* Part 91 personal flight.

D. DETAILS OF THE INVESTIGATION

1.0 Accident Site

The wreckage was located about 100' to the left side of runway 08 and down from the threshold about 500'. The wreckage came to rest on a heading of 150° in a grass ditch. The accident site was compact, and all major components of the airplane were accounted for. The airplane impacted the ground in a nose down attitude. The engine was buried in about 2 ft into the mud. Two of the three composite propeller blades were fractured off. The left elevator counterweight plug was located about 10 ft behind the wreckage in the grass.

2.0 Airframe Examination

The left wing remained attached to the fuselage. The left fuel tank was empty. The left aileron was intact; however, the outer section of the aileron at the hinge point was fractured. The empennage was intact. The tail section was intact; however, the left elevator was fractured off the outer hinge and at the upper bracket that connects to the fuselage. The elevator trim tab was found in the full up position (nose down). The

right elevator was intact. The right elevator plug was installed and torqued. The plug was removed and the O-ring was missing. The right fuel tank was empty. The center fuel tank was breached. The rudder was intact; however, the bottom of the rudder was crushed by impact forces. The cockpit was fractured into several pieces. The instrument panel was fractured in many pieces and instruments were located around the cockpit. The throttle grip was fractured off the side of the cockpit. The control grip was fractured off the bottom hinge point. The canopy was fractured into several pieces and located around the main wreckage. Flight control continuity was established to all flight controls and to the right aileron through a fractured torque tube due to impact forces.

NOTE: The left elevator counterweight plug had impression marks on the side from the stainless-steel washer that holds the elevator tip cap in place. The washer was dented on the side from the plug, and paint scrapes were present on the elevator from the plug. I placed the plug back in the elevator hole and loosened it up, the elevator jammed when moved.

Dirt consistent with that found in the vicinity of the accident site was identified on the elevator, as well as in the counterbore and threaded area where the left elevator counterweight plug would have been installed. The counterweight plug threads were intact and also contained similar dirt contamination consistent with that found on the elevator. About half the circumference of the left elevator counterweight plug displayed gouging, and an area showed evidence of paint transfer. No O-ring associated with the left elevator plug was found. The right elevator counterweight plug remained installed and was tight. It was removed and found to contain no O-ring.

The horizontal stabilizer structure adjacent to the elevator position where the counterweight plug would have been installed displayed dents and paint scrapes that appeared visually consistent with contact with the counterweight plug. A washer beneath a stainless-steel screw secured to the horizontal stabilizer structure (near where the paint scrapes were observed) was also dented.

The counterweight plug, washer, and screw were sent to the NTSB Materials Laboratory for further examination.



Figure. Left elevator counterweight installation hole (left) and recovered counterweight plug (right). Gouging and paint transfer are visible on the counterweight plug.

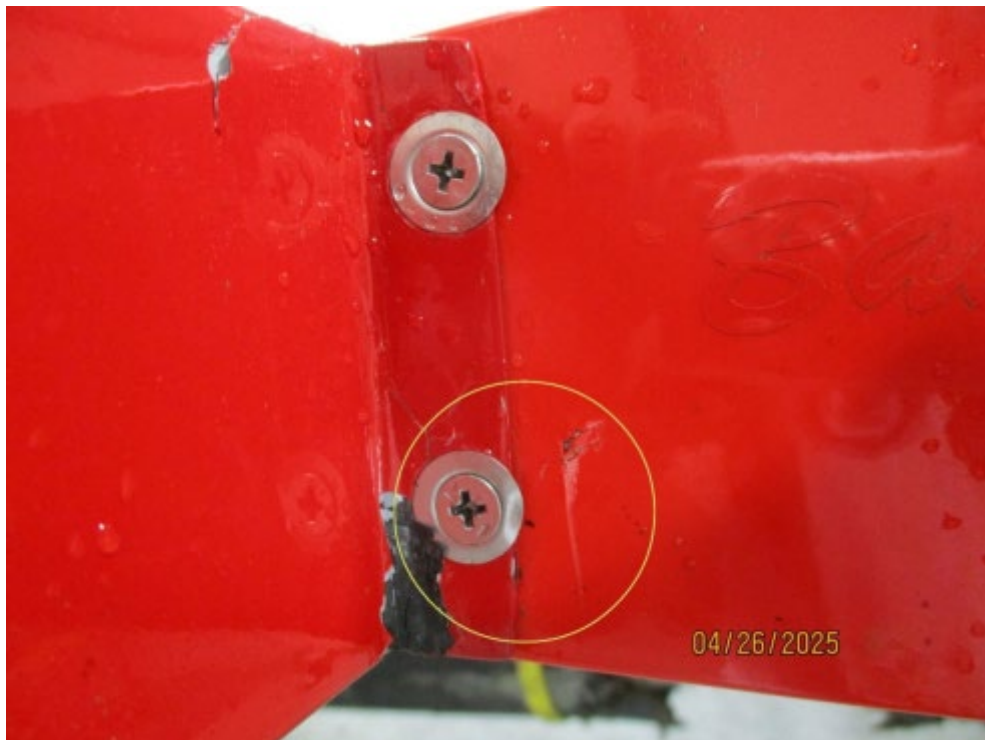


Figure. Horizontal stabilizer structure adjacent to the left elevator counterweight plug, showing paint scrapes and a dented washer (circled in yellow).

3.0 Engine Examination

The propeller hub remained attached to the crankshaft. Two of the three propeller blades were broken off at the hub. The remaining blade exhibited minor scarring. The rear part of the oil sump/air plenum was found broken apart. The exhaust and intake tubes were crushed upwards. The top two engine mounts were found

separated from the engine case. The top sparkplugs were removed and appeared normal as compared to the Champion Aviation chart AV-27. The engine was rotated by hand, and thumb compression was felt at all the cylinders. Engine drive train continuity was confirmed throughout. The magnetos also produced sparks at each of their leads. The fuel servo was found partially cracked at its flange. Both the mixture and throttle cables were found separated just after their rod ends. The fuel flow divider was disassembled, and no debris was noted, and the diaphragm was found intact. The two-piece fuel injectors were found clear of debris. The flywheel was found with windows machined into it. It was also broken apart with the ring gear separated from it. The airframe gascolator was found free of debris and the bowl was full of fuel. The cylinders number 5 and 6 push rods and shrouds were crushed downward. The oil pressure regulator was broken free from impact damage.

No anomalies were noted with the engine that would have precluded normal operation.

Submitted by:

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