

National Transportation Safety Board

Office of Aviation Safety

Washington, DC 20594



CEN25LA231

INVESTIGATION SUMMARY

A. ACCIDENT

Location: Lockport, Louisiana
Date: July 1, 2025
Time: 1145 central daylight time
Airplane: Grumman G-164B, s/n 1B
Registration: N8834H

B. PARTICIPANTS

NTSB IIC: Joshua Lindberg
National Transportation Safety Board

FAA Inspector: Michael Hall
FAA Baton Rouge FSDO

C. SUMMARY

On July 1, 2025, about 1145 central daylight time, a Grumman G-164B airplane, N8834H, was substantially damaged when it was involved in an accident near Lockport, Louisiana. The pilot received minor injuries. The airplane was operated as a Title 14 *Code of Federal Regulations* Part 137 aerial application flight.

The pilot reported that on the morning of the accident he had flown two previous aerial application flights in the accident airplane without issue. The outside air temperature and humidity had increased since the first two flights and he estimated the temperature at the time of the accident was 93°. During the accident flight the airplane contained about 35 gallons (210 lbs) of fuel and about 160 gallons of liquid applicant in the hopper (1,334 lbs). The pilot descended into the target field and completed one spray pass. As he approached the end of the field he ascended and "noticed the plane not climbing as normal." The engine gauges all showed normal indications, but the airplane would not turn or climb as expected. The airplane descended as he approached a highway, and he did not want to dump the hopper over the highway or the adjacent bayou, so he continued forward. The airplane cleared a set of powerlines next to the highway and landed hard in a field, then nosed over. The pilot egressed the airplane without further incident.

The responding FAA inspector reported that the airplane came to rest inverted in a field. The engine and propeller were mostly separated from the firewall. The upper and lower wings remained attached to the fuselage and sustained leading edge damage.

The calculated density altitude for the accident flight was about 2,353 ft.



Picture 1 - Accident Site



Picture 2 - Airplane During Examination (left side)



Picture 3 - Airplane During Examination (right side)

DETAILS OF THE EXAMINATION

1.0 Airframe Examination

The wings were removed from the airframe during recovery. The fuselage remained intact and sustained impact damage and slight deformation in some areas due to the impact sequence. The throttle, mixture and propeller control levers remained in place and undamaged in the cockpit. The controls were positively traced from the cockpit, down the left side of the fuselage and through the firewall. The control ends were impact separated from their connection points on the carburetor and propeller governor. The control levers were actuated fore and aft and moved as expected. The propeller control was binding slightly due to impact damage and bends in the control cable.

2.0 Engine Examination

Make: Pratt & Whitney

Model: R-1340-S3H1G

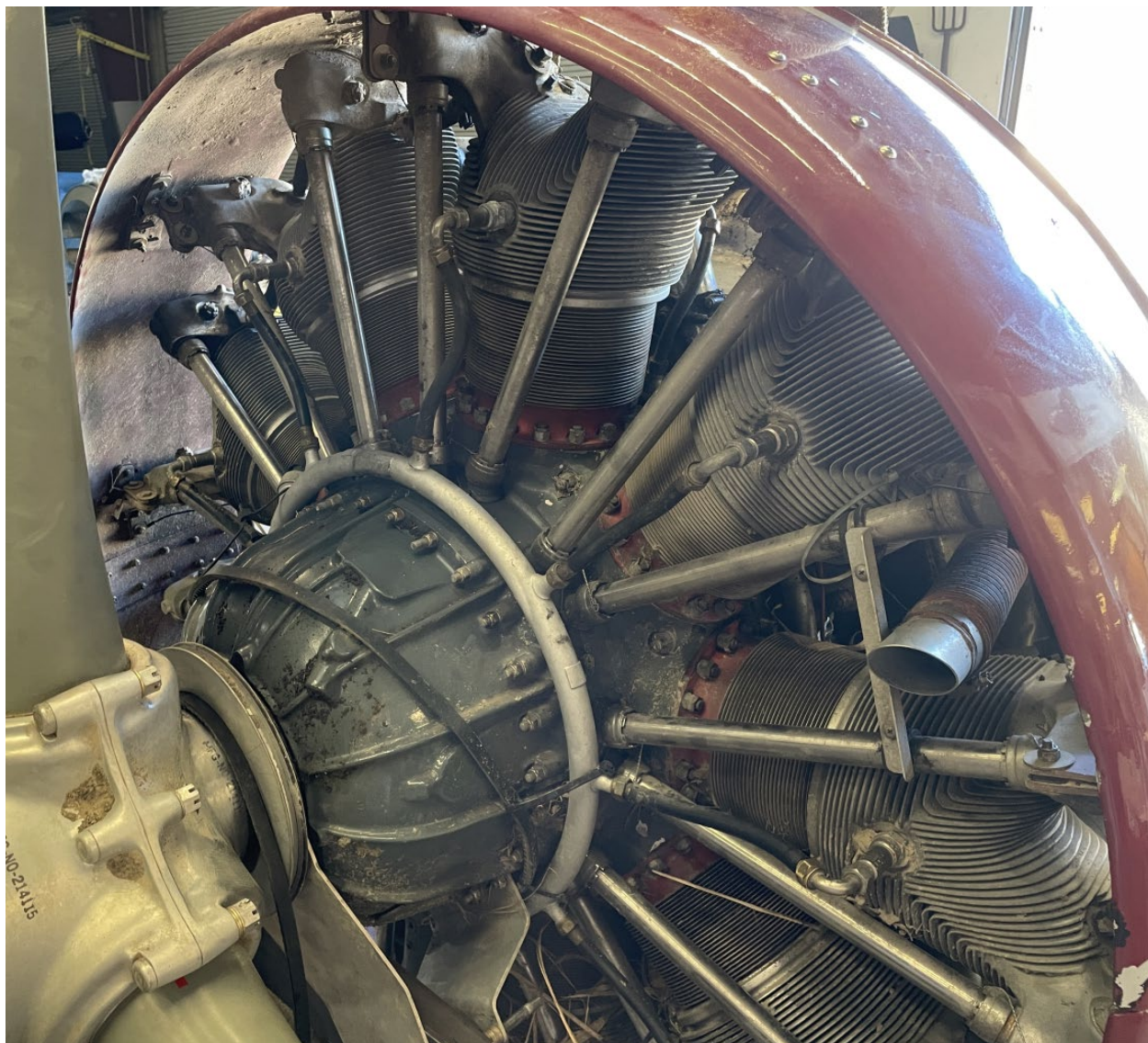
Serial Number: P-325878

SMOH: 484.4 hours (Last Maintenance Entry)

The engine and aircraft were recovered to a secure facility in Baton Rouge, LA. The examination was completed by the NTSB IIC. The engine exam was mounted to a metal frame and placed upright to facilitate the examination.



Picture 4 - Engine and Propeller



Picture 5 - Engine Cylinders (front left)



Picture 6 - Engine Cylinders (front right)



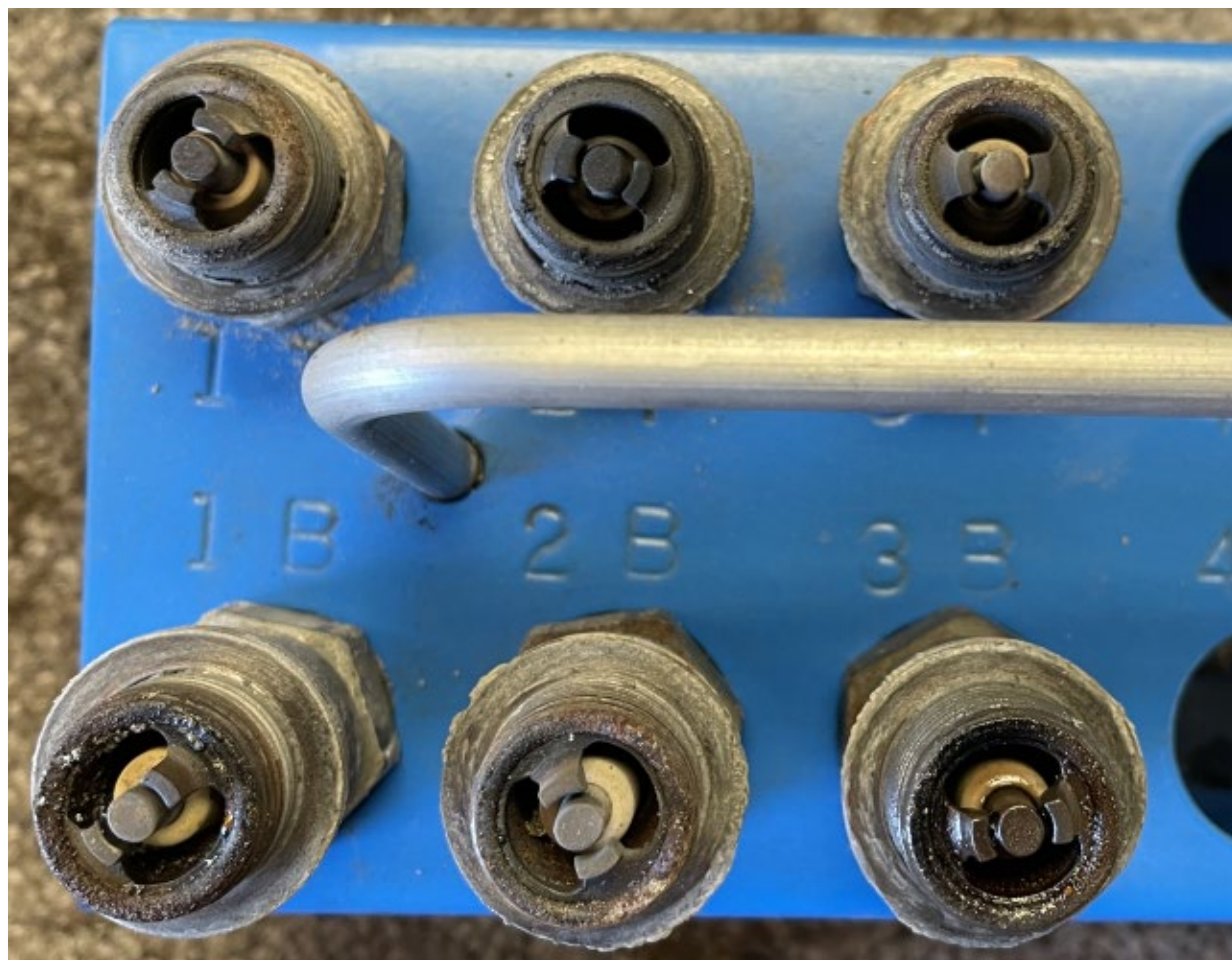
Picture 7 - Engine Rear, Accessories

2.1 Ignition

The front and back ignition harnesses were examined and found installed with no impact damage or anomalies noted. The spark plugs were removed and some were covered in oil due to the accident sequence and subsequent recovery. They were in normal condition when compared with the Champion Aerospace Check-A-Plug inspection chart.



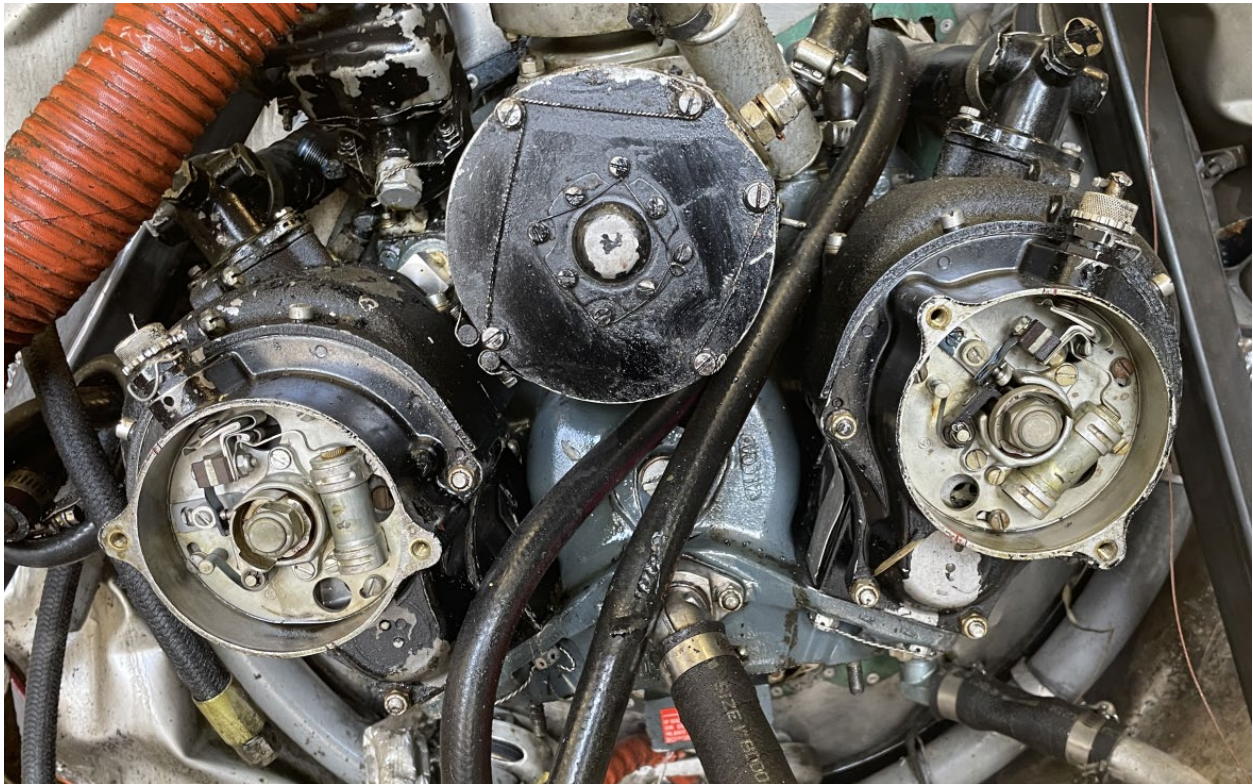
Picture 8 - Front and Back Spark Plugs Nos. 1-6



Picture 9 - Front and Back Spark Plugs Nos. 7-9

Left Magneto**Make:** American Bosch**Serial Number:** 11388**Type:** SB9RU-3**Right Magneto****Make:** American Bosch**Serial Number:** 2G00055**Type:** SB9RU-3

The magnetos were found secured to the engine and were both removed from their mounts to facilitate rotation and sparking. The ignition harnesses and spark plugs remained connected during this process. They were spark checked by spinning the drive nuts with a cordless drill; a spark was observed at each spark plug. The magnetos exhibited no issues that would prevent its normal operation.



Picture 10 - Magnetos (caps removed)

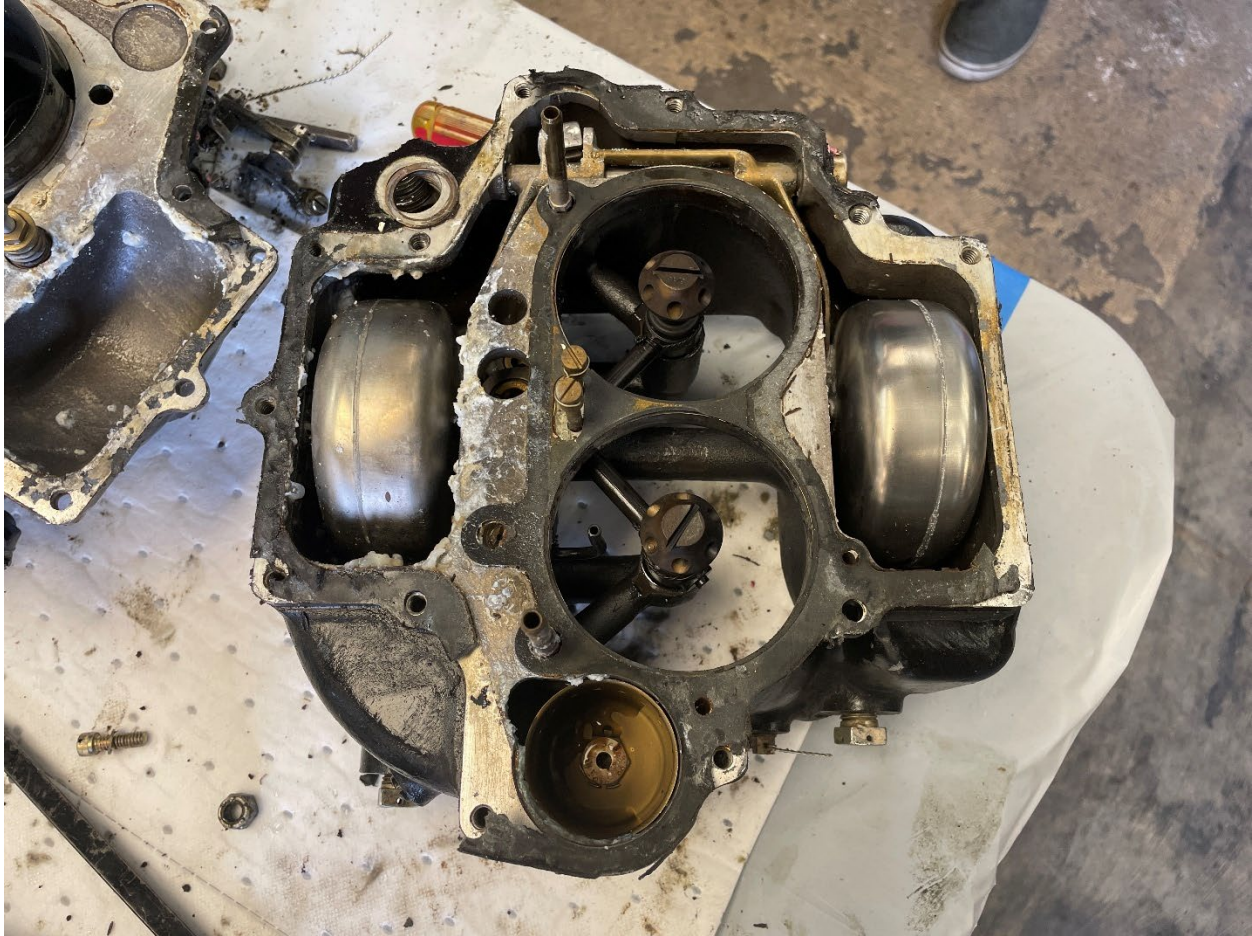
2.2 Fuel System

Float Type Gravity Carburetor**Make:** Bendix / Stromberg**Model:** NA-Y9E1**Parts List:** 18639-7**Serial Number:** 5937320 // Modified IAW STC SE966EA

The carburetor was found securely mounted to the engine. The engine controls were impacted damaged and separated. Continuity could not be confirmed because of separation of the engine from the airframe during the accident sequence. The metering jet was free of obstructions. The accelerating pump was in good condition with no anomalies noted. The floats were intact with minor deformation from the impact sequence. The bowl contained a thick white substance from rain water entering the system during the recovery process, then sitting stagnant for 2 months. About 34 ounces of murky liquid was drained from the carburetor, which was likely rain water. The carburetor examination revealed no anomalies that would have prevented normal operation. The fuel screen was removed and examined and was free of debris. The fuel screen was found to be in a serviceable condition.



Picture 11 - Carburetor and Fuel Screen



Picture 12 - Carburetor floats

2.3 Intake / Exhaust Systems

The exhaust system remained attached to the engine and exhibited several areas of crushing and deformation from the impact sequence. The intake remained intact but impact damaged near the bottom of the engine. The intake and exhaust systems exhibited no preaccident issues that would have prevented normal engine operation.

2.4 Cylinders

The cylinders were all examined externally. When the propeller was rotated manually, thumb compression and suction was obtained and were found to be adequate for the normal operation of all cylinders.

2.5 Case

The engine case was examined and no issues preventing normal operation were found. The crankshaft and all accessories rotated smoothly and freely when the propeller was rotated manually; the engine case was not split but the crankshaft and cam ring operated normally.

2.6 Crankshaft

The crankshaft was rotated during the engine exam and operated smoothly and with little effort. The continuity with the cam gears and accessory drives was confirmed.

2.7 Cam Ring / Valve Train

The operation of the cam ring, cam reduction gear cam drive gear, and valves was confirmed during propeller/crankshaft rotation. The removal and further examination of these components was determined to be unnecessary.

2.8 Lubrication

The oil level was not confirmed due to the separation of the engine from the airframe along with the oil tank and oil cooler. However, there was oil in the field at the accident site and was seen draining from the engine during the recovery. When the engine sump was drained, about 1-2 gallons of oil was captured. The oil was dark colored and mostly free of metallic debris.

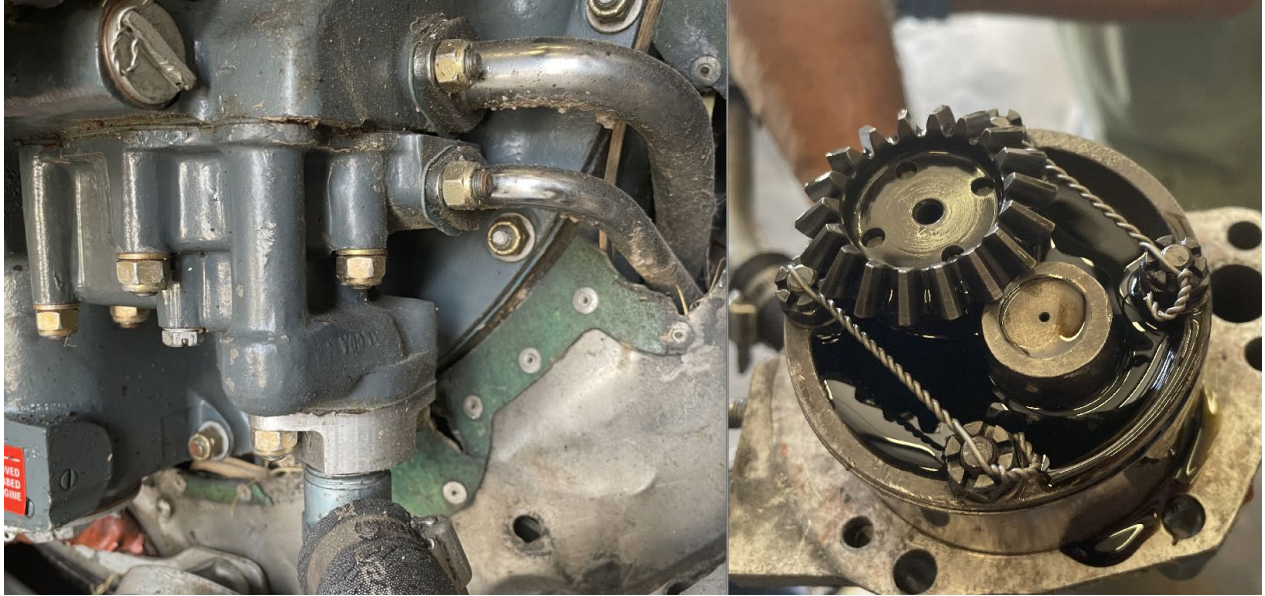


Picture 13 - Engine Oil Tank



Picture 14 - Engine Oil Cooler

The oil pump was removed from its mount and found to be in good condition with no issues noted. The oil screen was removed and no contaminants were found. Very small pieces of ferrous metal were found on the chip detector.



Picture 15/16 - Engine Oil Pump



Picture 17/18 - Engine Oil Screen

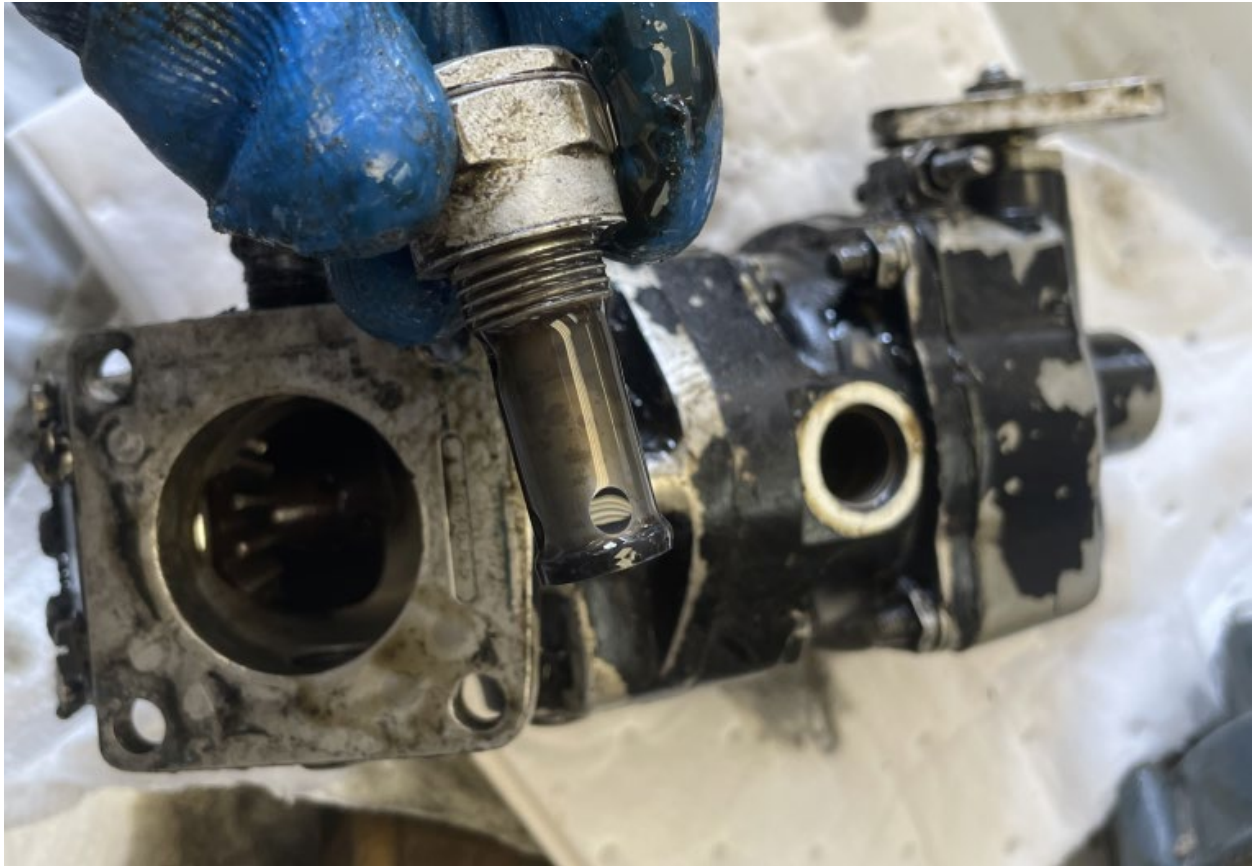


Picture 19 - Oil Sump Magnetic Chip Detector

2.9 Accessories

The starter and alternator remained attached to the accessory case and were not removed.

The propeller governor remained secure to the accessory case, but the control cable had been compromised from the accident sequence and was no longer attached. The damage appeared to be from impact with the ground. The governor was removed, and the screen was free of debris or foreign materials. No issues could be found with the propeller governor.



Picture 20 - Propeller Governor

Submitted by:
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