

# National Transportation Safety Board

Office of Aviation Safety

Washington, DC 20594



WPR25LA175

## **WRECKAGE EXAMINATION**

July 8, 2025

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## **A. ACCIDENT**

Location: Hyampom, California  
Date: June 13, 2025  
Time: 10:30 Pacific daylight time  
Airplane: Cessna 182P, N78720

## **B. WRECKAGE EXAMINATION**

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## **C. SUMMARY**

On June 13, 2025, about 1030 Pacific daylight time, a Cessna 182P, N78720, was substantially damaged when it was involved in an accident near Hyampom, California. The pilot was not injured. The airplane was operated as a Title 14 Code of Federal Regulations Part 91 personal flight.

The pilot reported that during cruise flight about 8,500 ft mean sea level (msl), as he approached his destination, he could not descend until he was clear of a temporary flight restriction (TFR). Once he was clear of the TFR, he reduced engine power significantly, decreased airspeed and applied 10° of flaps before he began a descent to Hyampom Airport (H47), Hyampom, California. During the descent, the pilot conducted the prelanding checklist, verified the fuel selector lever was on both, advanced the propeller control lever to full forward and incrementally advanced the fuel mixture to the full rich. He said that the entire descent was conducted at a low power setting and that he kept the cowl flaps closed to prevent shock cooling the engine.

The pilot entered the airport traffic pattern for runway 32, and while on the base leg, he advanced the throttle, with no response from the engine. He then applied full throttle and verified that the mixture and propeller control levers were full forward. Unable to maintain altitude, the pilot initiated a forced landing to a gravel sand bar, about 900 ft short of the runway 32 threshold. The pilot stated that he landed hard and that the nosewheel and nosewheel strut separated after impacting large gravel rocks. The airplane came to rest upright about 150 ft from the initial touchdown point. Postaccident examination of the airplane revealed that the forward fuselage was substantially damaged.

## **D. DETAILS OF THE EXAMINATION**

### **1.0 Airframe Examination**

Examination of the recovered wreckage revealed that recovery personnel had removed both wings, vertical stabilizer, horizontal stabilizer, both elevators and rudder for transport. The engine, engine mount, firewall, main landing gear, instrument panel and flight controls remained attached. The nose landing gear had impact separated. Damage to the lower engine cowling was observed.



**Figure 1: View of accident airplane during examination.**

The observed tachometer time was 4788.2 hours. The fuel selector lever was observed in the off position. The flap selector lever was observed in the 20° position. The cowl flap selector lever was observed in the closed position.

The left wing was separated from the fuselage at the wing root. No visible damage was observed to the left wing. The left wing aileron and flap remained attached to its respective attachment points. The wing tank was examined internally using a lighted borescope, no obstructions or debris were observed. No anomalies were observed to the fuel cap or filler port.



**Figure 2: View of left wing during the examination.**

The right wing was separated from the fuselage at the wing root. No visible damage was observed to the right wing. The right wing aileron and flap remained attached to its respective attachment points. The wing tank was examined internally using a lighted borescope, no obstructions or debris were observed. No anomalies were observed to the fuel cap or filler port.



**Figure 3: View of right wing during examination.**

The vertical stabilizer, horizontal stabilizer, both elevators and rudder were all separated from the fuselage and no visible damage was observed.

Throttle and mixture control continuity was established from the cockpit controls to the carburetor. When actuated by hand, both controls moved freely from stop to stop.

A visual inspection was conducted of the fuel system. Continuity was established from the wings to the airframe fuel strainer assembly. The throttle was actuated by hand and blue liquid consistent with 100 Low Lead fuel was observed coming from the carburetor. The airframe fuel strainer was removed, the screen was clear and no debris was observed in the bowl. Blue liquid consistent with 100 Low Lead fuel was

collected from the airframe fuel strainer and tested for water using SAR-GEL water finding paste, with negative results.

A visual inspection was conducted of the induction system. The induction system remained attached to the cowling and damage was observed at the carburetor attached point. Debris was noted on the air filter consistent with impact with terrain.

## **2.0 Engine Examination**

Engine Manufacturer: Continental  
Engine Model Number: O-470-R (25)  
Engine Serial Number: 822013-R

Examination of the recovered engine revealed that the engine remained attached to the airframe via the engine mounts. The lower left and right engine mount brackets were impact damaged. All six cylinders and all engine accessories remained attached. All fuel and oil lines that were removed were tight. No damage to the engine crankcase or cylinder was observed.



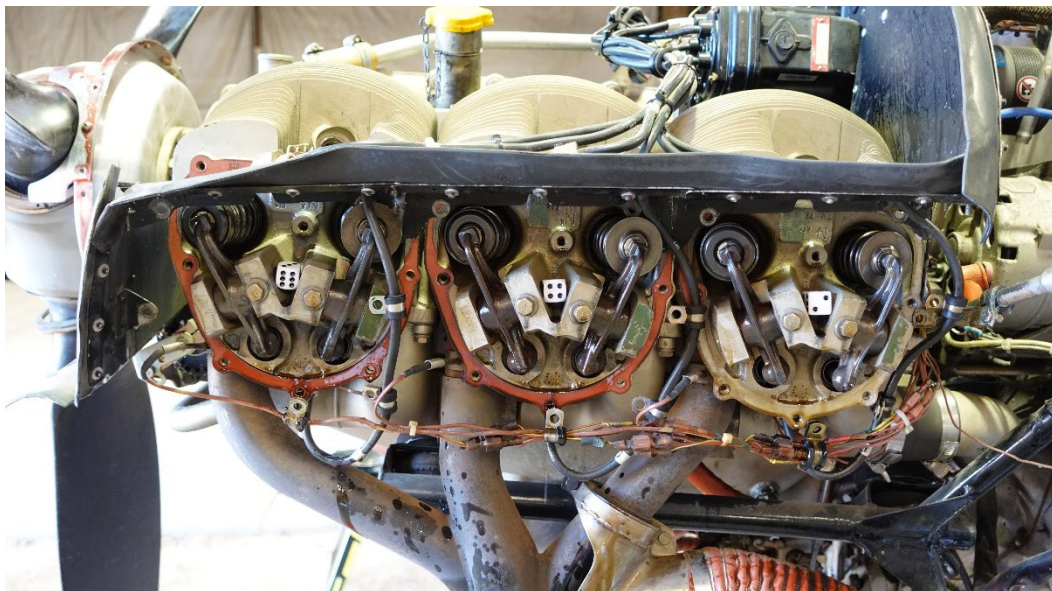
**Figure 4: View of engine during examination.**

The rocker box covers were removed. The intake and exhaust rocker arms were intact, and oil coated on all cylinders. All intake and exhaust valve springs were in place and visually appeared to be undamaged. The upper spark plugs were removed, and all six cylinders were examined internally using a lighted borescope. A normal amount of combustion deposits was observed within the combustion dome of each cylinder and piston face. All of the intake and exhaust valves were unremarkable. The crankshaft was rotated by hand using the propeller hub.

Rotational continuity was established throughout the engine and valve train. Thumb compression and suction was obtained on all six cylinders.

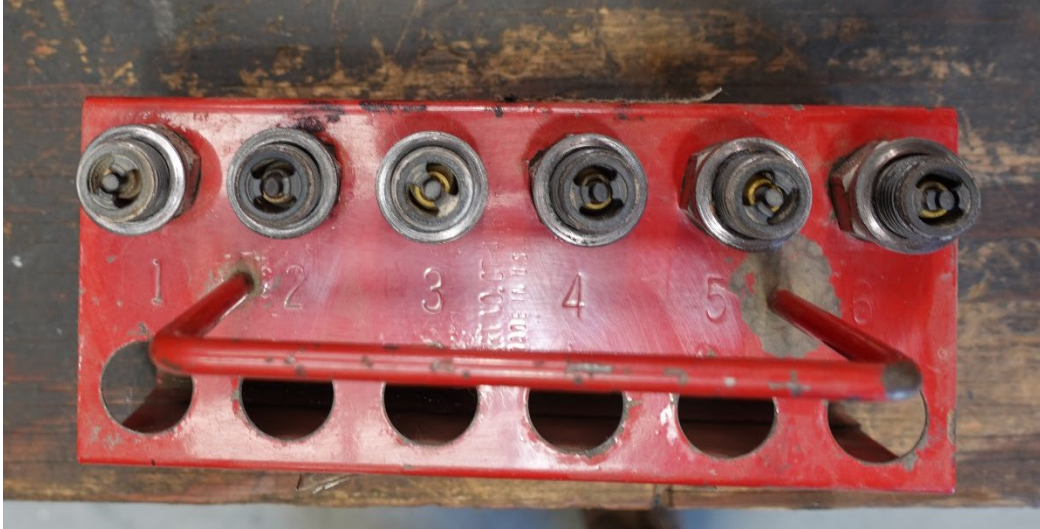


**Figure 5: View of right side engine cylinders.**



**Figure 6: View of left side engine cylinders.**

The top engine spark plugs were removed from the engine, and they were the fine-wire electrode type. All the spark plug exhibited light gray deposits within the electrode area. The spark plugs exhibited signatures consistent with WORN NORMAL when compared to the Champion Check-A-Plug comparison chart.



**Figure 7: View of top engine spark plugs.**

The left and right magnetos remained attached to the engine accessory case with no external damage noted. When the engine crankshaft was rotated by hand using the propeller, spark was produced on all six ignition leads and the impulse coupling engagement was heard.

The exhaust system remained secure to the cylinders. Crushing and bending was observed throughout, consistent with impact damage. No evidence of any exhaust leaks around the cylinder attach points were observed. The exhaust system was removed and visually examined, was free of obstructions.

### **3.0 Propeller Examination**

Propeller Manufacturer: McCauley  
Propeller Model: D3A36C435-A\A-80VEA-O  
Propeller Serial Number: 190398

The airplane was equipped with a three blade Hertzell propeller; for the purposes of this report the propeller blades were labeled A, B, and C. All blades remained attached to the propeller hub. All the propeller blades exhibited aft bending about mid span, consistent with impact damage.



**Figure 8: Front view of propeller during examination.**

#### **4.0 Aircraft Information**

A review of the airplane logbooks revealed that, the most recent annual inspection was conducted on June 1, 2024. At the time of the exam the aircraft total time was 4714.7 hours. According to the engine logbook, the engine was overhauled to manufacture's new parts limits on October 16, 2019.

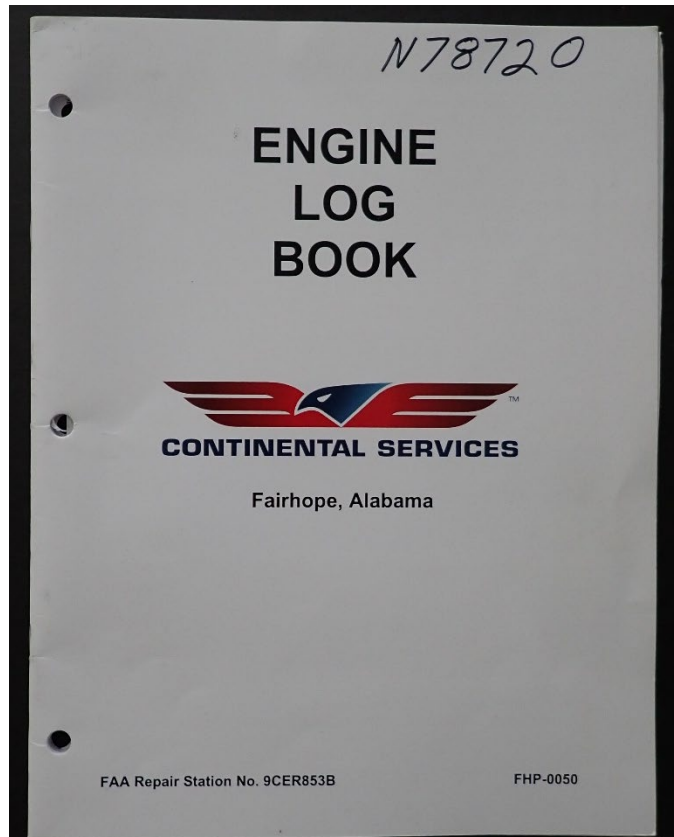


Figure 9: View of front cover of engine logbook.

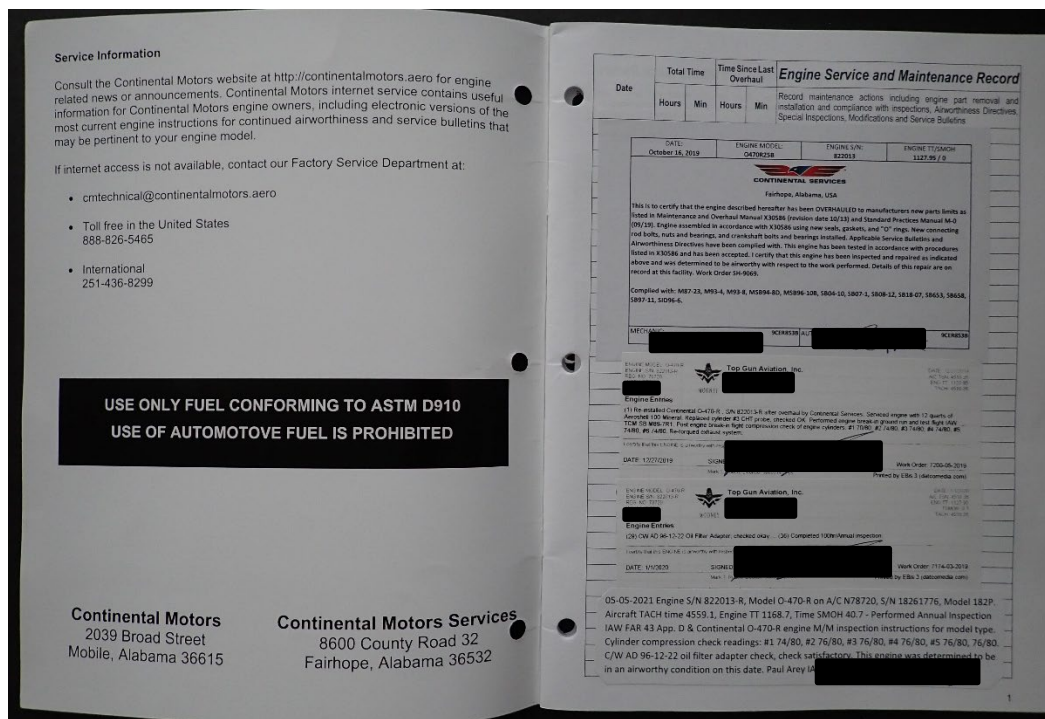


Figure 10: View of engine overhaul.

| Date                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Total Time                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |     | Time Since Last Overhaul |     | Engine Service and Maintenance Record |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|--------------------------|-----|---------------------------------------|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Hours                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Min | Hours                    | Min |                                       |
| Carried forward →                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |     |                          |     |                                       |
| 06-01-2022                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Engine S/N 822013-R, Model O-470-R on A/C N78720, S/N 18261776, Model 182P. Aircraft TACH time 4606.2, Engine TT 1215.8, Time SMOH 87.95 - Performed Annual Inspection IAW FAR 43 App. D & Continental O-470-R engine M/M inspection instructions for model type. Cylinder compression check readings: #1 74/80, #2 75/80, #3 76/80, #4 75/80, #5 76/80, 76/80. C/W AD 96-12-22 oil filter adapter check, check satisfactory. This engine was determined to be in an airworthy condition on this date. Paul Arey IA   |     |                          |     |                                       |
| 07-05-2023                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Engine S/N 822013-R, Model O-470-R on A/C N78720, S/N 18261776, Model 182P. Aircraft TACH time 4659.4, Engine TT 11269.0, Time SMOH 141.3) - Performed Annual Inspection IAW FAR 43 App. D & Continental O-470-R engine M/M inspection instructions for model type. Cylinder compression check readings: #1 74/80, #2 74/80, #3 75/80, #4 75/80, #5 76/80, 75/80. C/W AD 96-12-22 oil filter adapter check, check satisfactory. This engine was determined to be in an airworthy condition on this date. Paul Arey IA |     |                          |     |                                       |
| <div style="text-align: center;">  <b>IA Aviation</b><br/> Hanford Municipal Airport, Hanford CA, 93230 </div> <p> Date: 06-01-2024    Hobbs: 4714.7    <u>ENGINE</u> TSMOH: 196.6<br/> Reg# N78720    Model: O-470-R    S/N: 822013-R<br/> Performed annual inspection IAW Continental service manual checklist &amp; FAR 43 Appendix D. Compressions #1/67 #2/48 #3/60 #4/ #5/77 #6/62. Adjusted mag timing to 22°. No new or recurring Ads due at this time, see AD compliance report for details. I certify that this Engine has been inspected I.A.W. and <u>Annual Inspection</u> and was determined to be in airworthy condition.<br/> Isaac Archuleta </p> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |     |                          |     |                                       |

**Figure 11: View of most recent annual inspection.**

## 5.0 Miscellaneous information

According to recovery personnel, about 60 gallons of fuel was recovered from the airplane's fuel tanks.

Submitted by:

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Air Safety Investigator