

National Transportation Safety Board

Office of Aviation Safety

Washington, DC 20594



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WRECKAGE EXAMINATION SUMMARY

November 12, 2025

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A. ACCIDENT

Location: Attalla, Alabama
Date: November 27, 2023
Time: 1748 CST
2348 coordinated universal time (UTC)
Airplane: N4187Q, Piper PA-32R-301T

B. WRECKAGE EXAMINATION SUMMARY

IIC	Timothy W. Monville NTSB-OAS/ERA Washington, DC
Party Coordinator	Kevin Atkins FAA Flight Standards District Office Birmingham, Alabama
Party Coordinator	Kris Wetherell Piper Aircraft, Inc. Vero Beach, Florida
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C. SUMMARY

On November 27, 2023, about 1748 central standard time, a Piper PA-32R-301T, N4187Q, was destroyed when it was involved in an accident near Attalla, Alabama. The private 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. General Airplane Information

1.1 Airplane Description

The Saratoga II TC is a single engine, low wing, retractable landing gear airplane that was manufactured in 2001 and assigned registration N4187Q and serial number 3257214. It is all metal, seats up to six occupants, and has two separate one hundred pound capacity baggage compartments.

1.2 Airplane Airworthiness Information

On March 28, 2001, the aircraft logbook contained an entry indicating that the airplane met the requirements for the certification requested and a Standard Airworthiness Certificate was issued (Figure 1).

AIRCRAFT LOG				
Date	Aircraft Time		Recorder Reading	Maintenance
	This Date	Total		
MAR 28 2001	Brought Forward →	9.0	I find that the aircraft meets the requirements for the certification requested and have issued a Standard Airworthiness Certificate.	
			Dated MAR 28 2001	
			[REDACTED]	
			RICHARD L. MURDOCK	FAA DOA SO-1

Figure 1 Logbook Entry for Issuance of Standard Airworthiness Certificate

1.3 Previous Airplane Damage History

A previous owner of the airplane reported to NTSB experiencing collapse of the right main landing gear during takeoff. He reported that on July 24, 2015 after taxiing onto the runway and adding power something was not right with the right main landing gear adding that he felt drag. He climbed into ground effect and due to the airport location in a valley with trees, he aborted the takeoff. After touchdown because of drag from the right main landing gear he could not maintain directional control and the right main landing gear collapsed. He further stated that the nose and left main landing gears remained extended and there was no propeller strike¹.

¹ Refer to Record of NTSB Conversation contained in the NTSB public docket for the interview summary.

PARADISE VALLEY AVIATION
[REDACTED]
Clarksville, Arkansas
[REDACTED]

Date: Nov 2, 2015 Model: PA-32R-301T Serial Number: 3257214
Registration #: N4187Q hobbs: 1815.9 TT: 1815.9

Wings and horizontal stabilator were removed for transport. Performed repairs to right wing and right flap (see 337form this date for details and part numbers). Reinstalled both wings, horizontal stabilator, and interior. Performed rigging and check out of flap, aileron, stabilator, and trim system. Serviced and bled brake systems. Removed right main gear and disassembled. Removed right gear trunnion fittings from wing. Performed Dye Penetrant inspection of trunnion fittings and landing gear upper housing, no defects noted. Reassembled right gear with a serviceable lower strut assy P/N 67037-006, and seal kit P/N 06-03980. Disassembled right main wheel for inspection, no defects noted, reassembled with new Condor 6.00 X 6, 8 ply tire and tube. Installed new right main gear door P/N 67090-011 with new hinge half P/N 67093-005, hinge pin P/N 63744-011, and serviceable actuator rod P/N 37744-011. Installed new Right actuator link for right nose landing gear door P/N 38109-000. Performed rigging and check out of landing gear system. Spot painted right wing to match existing colors and scheme. All ground runs and leak checks good.

Signed [REDACTED]
Vernon Hampton A&P [REDACTED] IA

Figure 2 Entry From Airframe Logbook for Airframe Repair.

1.4 Recent Airframe Inspection

The airplane's last annual inspection was performed in accordance with the manufacturer's inspection procedures manual on May 3, 2023 (Figure 3).

Airframe Logbook Entry

Date: 05/03/2023 Hours: 1191.6 tach Tail: N48187Q
Make: Piper Model: PA-32R-301T S/N: 3257214
Name: Johnny Whitson Cert: A&P [REDACTED] IA
Co: LSA SERVICES Signed: [REDACTED]

Completed annual inspection in accordance with manufacturers inspection procedure. Checked extension/retraction test, normal and emergency. Lubed wheel bearings and all gear grease [REDACTED] P/N:066-06200. Serviced all tires. Rewired Tail strobe light. Replace intake air filter Tempst P/N:AA10-330F. Researched AD's see AD listing dated 05/03/2023 all AD's in compliance this date. Tested ELT in accordance with FAR 91.207(d) battery due June 2029. I certify that this Aircraft has been inspected in accordance with an annual inspection and was determined to be in an airworthy condition.

Figure 3 Airframe Logbook Entry

General Engine Information

1.5 Engine Description

The airplane was powered by a 300-horsepower Lycoming TIO-540-AH1A engine, serial number RL54659-61A.

1.6 Recent Engine Inspection

The engine maintenance records reflect that a "100 hour/annual inspection" of the engine was performed on May 3, 2023 (Figure 4).

Date: 05/03/2023	Hours: 1191.6 tach	Tail: N4187Q
Make: Lycoming	Model: TSIO-540 AH1A	S/N: RL-4659-61A
Name: Johnny Whitson	Cert: A	
Co: LSA SERVICES	Signed:	

Completed 100 hour/annual inspection in accordance with manufacturer's instructions. removed
cowl. Compression test #1 78/80 #2 79/80 #3 76/80 #4 79/80 #5 76/80 Drain engine
oil replace oil filter AA48110-2 Service engine with 11 quarts Phillips X-100 oil. Run engine to check for
leaks none found. cleaned engine. Replaced scatt line for alternator. I certify that this Engine
has been inspected in accordance with a 100 hour/annual inspection and was determined to be in an airworthy
condition.

Figure 4 Engine Logbook Entry for May 2023 Inspection

An entry dated October 17, 2023, specified in part that the oil and oil filter were changed and the old oil filter element was cut to check for particles and, "none found..." (Figure 5).

ANSON AVIATION		
Make: PIPER	Model: PA32R301T	Reg. No.: N4187Q
Date: 10/17/23	S/N: 3257214	Tach Time: 1258.50
Engine Log	Type: TIO540S1AD	
Changed oil and filter, cut old filter to check for particles - none found serviced with 12qrts of Phillips 20w50 XC and installed a new AA48110-2 oil filter, washed engine. This engine was repaired and inspected in accordance with the current Code of Federal Regulation and is approved for return to service with respect to work performed. Pertinent details [REDACTED] ZGR810K under W/O#2628 Authorized Sign [REDACTED]		

Figure 5 Oil and Oil Filter Change Entry

2.0. General Propeller Information

2.1 Propeller Description

The airplane was equipped with a three-bladed, constant speed, single acting, Hartzell HCI3YR-1RF propeller, serial number HK705B.

2.2 Recent Propeller Inspection

The propeller was last inspected in accordance with an annual inspection (Figure 6).

Date: 05/03/2023	Hours: 1191.6 tach	Tail: N4187Q
Make: Hartzell	Model: HC-I3YR-1RF	S/N: HK705B
Name: Johnny Whitson	Cert: A&R [REDACTED] IA	
Co: LSA SERVICES	Signed: [REDACTED]	
Completed annual inspection in accordance with manufacturers inspection. I inspected prop and checked proper Torque. I certify that this Propeller [REDACTED] spinner [REDACTED] with a 100 hour/annual inspection and was determined to be in an airworthy condition.		

Figure 6 Propeller Inspection Entry

3.0. On-Scene Airplane and Engine Documentation

3.1 Debris Field and Accident Wreckage Path Documentation

Examination of the accident site revealed the airplane impacted in heavy wooded mountainous terrain (Figure 7).



Figure 7 Drone Image Showing Wreckage and Accident Site

The post impact fire started a forest fire which burned several acres (Figure 8). Small fires remained burning throughout the on-site examination.



Figure 8 Drone Image Taken About 1 Hour After Accident Showing Fire

The first evidence of tree impact was located at 33.994817° north latitude and -86.159900° west longitude. The tree damage was estimated to be about 35 feet above ground level where the strikes occurred and was on approximate 10° upsloping terrain. The terrain elevation at the base of the impacted tree was about 928 feet per GPS. The main wreckage consisting of the fuselage, sections of both wings, cabin, and engine and propeller came to rest on a crop of rocks on a magnetic heading of 174° and was located at 33.994245° north latitude and -86.160084° west longitude. The energy path between the 1st impacted tree and the main wreckage was about 190° magnetic and a distance of 220 ft.² Located along the energy path was a 42 inch long outer section of the right wing. That wing section was located at 33.994483° north latitude and -86.160017° west longitude, or about 127 ft and 196° from the 1st impacted tree.

Further examination of the accident site from the 1st impacted tree to the resting position of the main wreckage revealed impacted damaged trees at decreasing heights of about a 10° slope. The damage was consistent with being wings level. One tree trunk exhibited a 45° slash mark (Figure 9).

² The distance and direction were based on plotting on Google Earth.



Figure 9 View of Tree with 45 Degree Slash

The accident site was located about 11 nautical miles and 083° from 20A.

3.2 Airframe

Examination of the wreckage revealed fire damage nearly consumed the cockpit, cabin, and empennage up to about 60 inches forward of the leading edge of the stabilator (Figure 10).



Figure 10 Left Side View of the Remains of the Cockpit, Cabin, and Engine Assembly with Attached Propeller.

3.3 Wings

Examination of the remaining section of left wing (Figure 11) revealed it was separated at the root and displayed downward bending on the top and bottom spar caps of the main spar. Major leading-edge impact was noted approximately 60 inches outboard of the main gear attachment. The left aileron consisted of 2 pieces. One piece, the outer section, measuring 15 inches in length was bent up and aft and was torn from the inboard portion and was not attached to the wing. About 40 inches of the outboard end of the left flap was not attached but recovered. The inboard end of the flap was not recovered. The pitot tube remained attached to the wing.



Figure 11 View of the Remains of the Left Wing

Examination of the remaining section of the right wing (Figure 12) revealed multiple semi-circular indentations on the leading edge consistent with tree strikes; the indentations were of varying diameters. One such tree strike was located 54 inches outboard of the wing root and directly in front of the main fuel tank which breached the fuel tank. The fuel tank outlet finger screen appeared clean.



Figure 12 Remaining Sections of Right Wing, Landing gear, and Sections of Flap and Aileron

3.4 Engine

The engine was upright and remained attached to the firewall by the engine mount. Examination of the heat damaged engine following recovery of the wreckage revealed crankshaft, camshaft and valve train continuity. Thumb suction and compression was noted in all cylinders during rotation of the crankshaft thru a minimum of 7 to 10 complete rotations. Borescope inspection of all cylinders revealed no anomalies.

Following removal of the heat damaged left magneto which was retained for further examination by the NTSB Materials Laboratory, the left gear retainer assembly, part number (P/N) LW-19096 was fractured (Figure 13), and the cushions were damaged. Also, the left crankshaft idler gear assembly, P/N 71668 and the fuel pump idler gear assembly, P/N 71664 exhibited damaged or missing teeth (Figure 14).

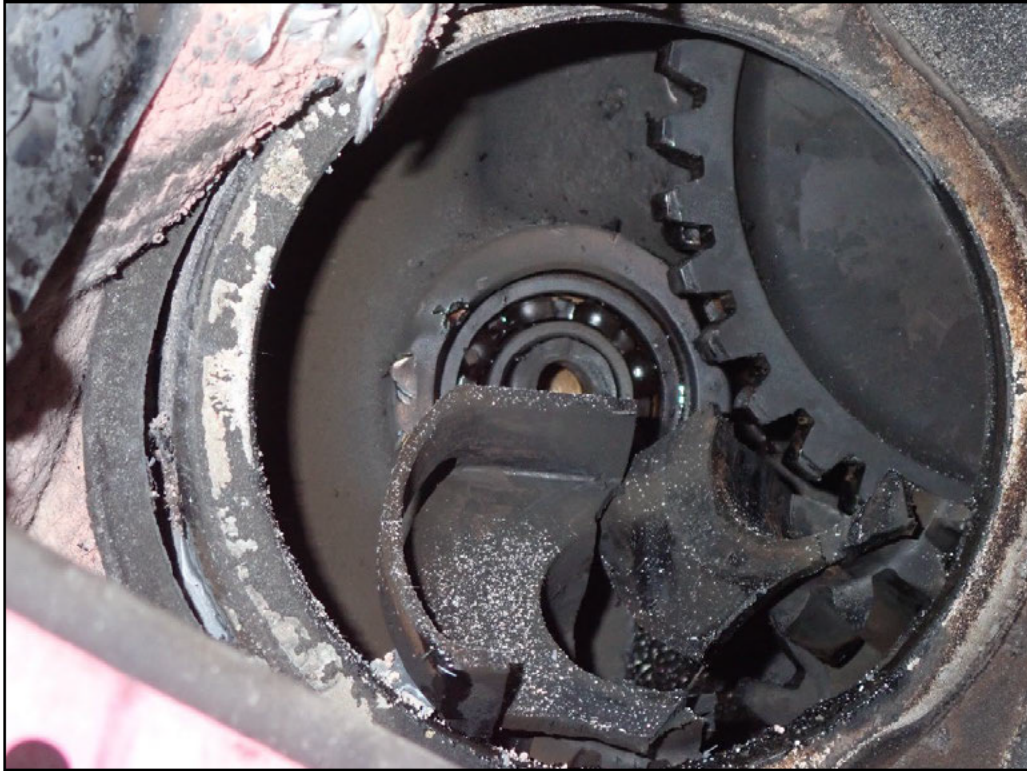


Figure 13 View Showing the Fractured Left Gear Retainer

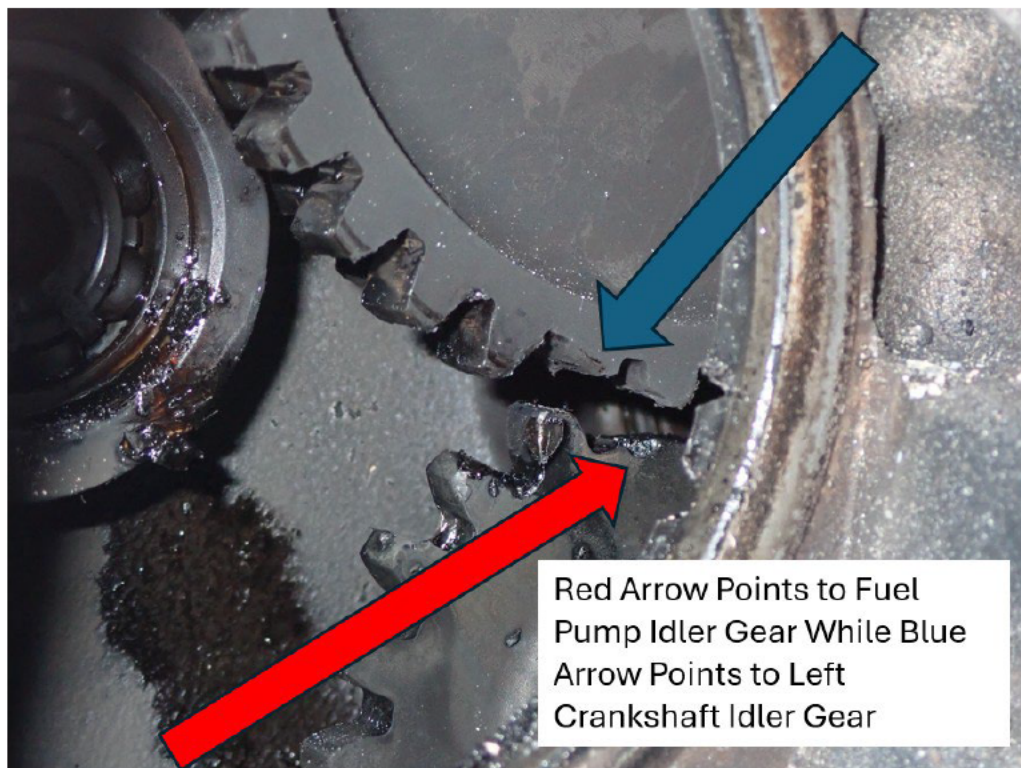


Figure 14 View of Damaged Teeth of Fuel Pump Idler Gear and Left Crankshaft Idler Gear

The right gear retainer assembly with the same P/N was in-place and intact. The upper cushion of the right gear retainer assembly was intact, but the lower cushion was fractured.

Following removal of the oil sump, debris was noted inside it including sections of the cushion from the left magneto (Figure 15). Debris that was ferrous was collected and retained for examination by the NTSB Materials Laboratory (Figure 16).

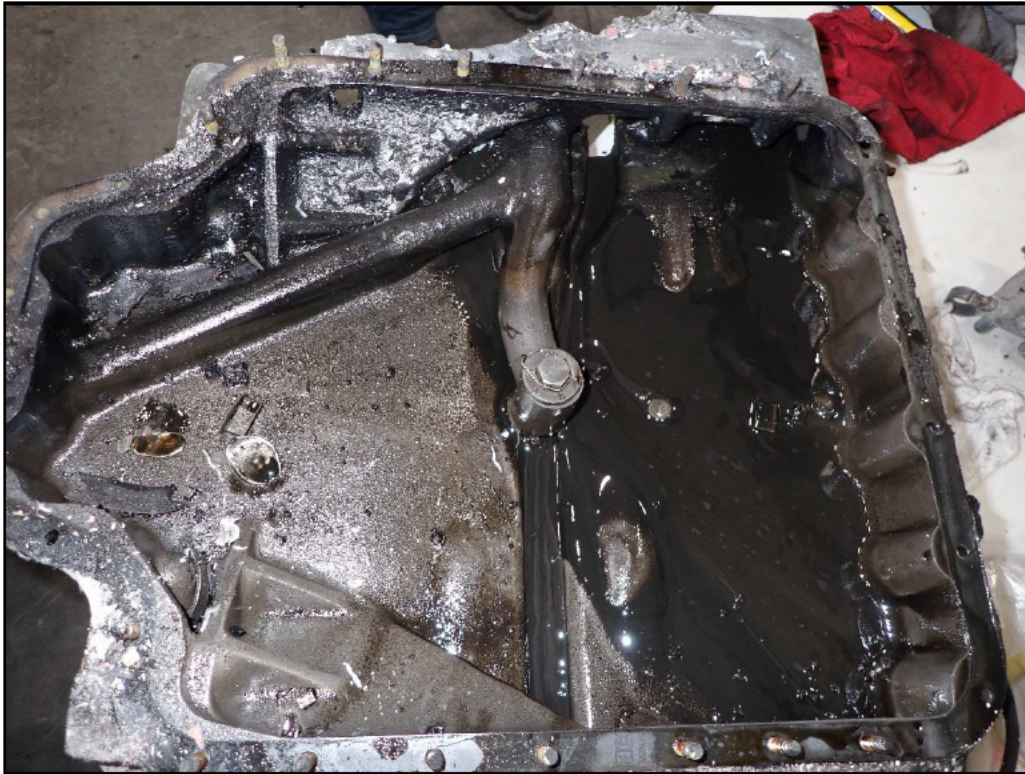


Figure 15 View of Debris Inside Oil Sump



Figure 16 Ferrous Debris Retained From Oil Sump

3.5 Oil Filter

Examination of the heat damaged oil filter revealed the filter element was charred but a small amount of ferrous material was noted on the filter element (Figure 17).



Figure 17 View of Debris on Oil Filter Element

3.6 Propeller

The propeller remained attached to the engine and all three blades remained secured inside the propeller hub (Figure 18).



Figure 18 Forward View of the Propeller and Engine Assemblies

3.7 Empennage

Examination of the aft empennage revealed the stabilator remained attached at the mounting hinges and the stabilator trim remained attached to the stabilator at the hinges. The stabilator trim control rod remained attached to the trim surface. The right side of the stabilator exhibited compression damage from a tree strike on the outboard 23 inches of the leading edge. The vertical stabilizer remained attached to the empennage and the rudder remained attached to the vertical stabilizer at the hinges.

3.8 Flight Controls and Flaps

Examination of the flight controls for roll, pitch, and yaw revealed no evidence of preimpact failure or malfunction. The stabilator trim actuator had one inch of threaded rod extension on the top of the drum, which equated to a slight nose up trim setting.

The flap torque tube was found in the zero degree, flaps retracted position, but the flap torque tube was not attached to any structure. The electrically driven flap actuator was found in the flaps 40° extended position.

3.9 Landing Gear

The left main landing gear appeared to be slightly extended while the right main landing gear appeared retracted.

3.10 Cockpit

No identifiable instruments, gauges or switches were located in the cockpit.

3.11 Fuel/Fuel System

The airframe fuel system was largely destroyed by impact forces and post impact fire. The fuel selector valve was heavily fire damaged. The bottom portion including the fuel screen was burned away. The valve was found in the right tank selected position but was free to move. The valve control rod from the torque tube to the valve was bent. The electric fuel pump was not located.

4.0. Part Retention and Return

Parts retained for examination by the NTSB Materials Laboratory will be returned to the salvage facility following examination³.

Submitted by:

Timothy W. Monville
Sr. Air Safety Investigator

³ Refer to NTSB Wreckage Release Form and NTSB Evidence Control Forms for a list of parts retained.