

Inspector Statement for N1294E Accident in Maryville, TN

On May 30, 2022, at approximately 2100 local time, N1294E, a Aeronca, 7AC, serial number 7AC-4855 crashed at coordinates +035.756385° / -083.830545°. This area belongs to the University of Tennessee Agricultural Department for research. The pilot of the aircraft was Mr. Wayne Anthony Lequire, Private Pilot certificate number [REDACTED]. There was also a passenger in the aircraft, Mrs. [REDACTED]. Both occupants suffered minor injuries.

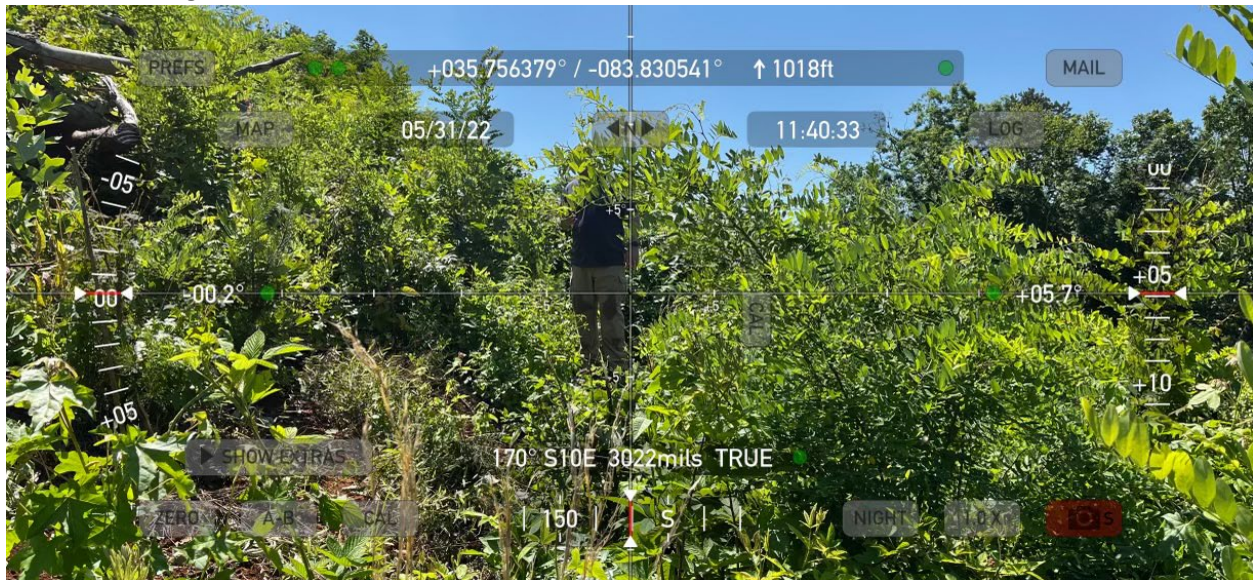
On May 31, 2022, Inspectors Aaron deVogel and David Lewis traveled to [REDACTED], Maryville, TN 37886 to meet with the University of Tennessee Agricultural Property Manager Mr. Tate Walker. The Inspectors arrived approximately 0930. Mr. Walker led Inspectors deVogel and Lewis to the closest ridge to the aircraft for a vehicle.

The following pictures and statements were taken either by Inspector deVogel or Inspector Lewis at the accident site.

Aircraft Final Rest.



Aircraft heading at final rest.



Initial impact point and approximate direction of flight.



The following pictures show broken vegetation indicating direction of flight.

Impact marks from right wing.





There was no indication of a fuel smell or fuel leak when approaching the aircraft. Inspector Lewis removed the fuel cap as soon as we arrived at the aircraft. The fuel cap and the fuel port showed excessive rust. A fuel sample was not taken due to inaccessibility to gascolator. A wooden stick was used to check fuel level.





Inspector deVogel opened the right engine cowl to inspect for damage.

A bird's nest was found on the aft cylinder.



Firewall damage.



The oil level indicated zero oil.



A wooden stick was used to check the bottom part of the tank. There was little indication of oil.



The aircraft data tag was mounted on the floor next to the door of the aircraft.



The airworthiness certificate, registration, weight and balance sheet and particle copies of the type certificate data sheet were in a pouch in the cargo area of the plane.

UNITED STATES OF AMERICA
DEPARTMENT OF TRANSPORTATION—FEDERAL AVIATION ADMINISTRATION
STANDARD AIRWORTHINESS CERTIFICATE

1. NATIONALITY AND REGISTRATION MARKS	2. MANUFACTURER AND MODEL	3. AIRCRAFT SERIAL NUMBER	4. CATEGORY
N-1294E	Aeronca 7AC	7AC-4855	Normal

5. AUTHORITY AND BASIS FOR ISSUANCE
This airworthiness certificate is issued pursuant to the Federal Aviation Act of 1958 and certifies that, as of the date of issuance, the aircraft to which issued has been inspected and found to conform to the type certificate therefor, to be in condition for safe operation, and has been shown to meet the requirements of the applicable comprehensive and detailed airworthiness code as provided by Annex 8 to the Convention on International Civil Aviation, except as noted herein.

Exceptions:

NONE

6. TERMS AND CONDITIONS

Unless sooner surrendered, suspended, revoked, or a termination date is otherwise established by the Administrator, this airworthiness certificate is effective as long as the maintenance, preventative maintenance, and alterations are performed in accordance with Parts 27, 43, and 91 of the Federal Aviation Regulations, as appropriate, and the aircraft is registered in the United States.

DATE OF ISSUANCE	BY REPRESENTATIVE	DESIGNATION NUMBER
3-25-57 11-5-73 replace	Frank C. Vitulj	AGL-GADO-8

Any alteration, reproduction, or misuse of this certificate may be punishable by a fine not exceeding \$1,000, or imprisonment not exceeding 3 years, or both. THIS CERTIFICATE MUST BE DISPLAYED IN THE AIRCRAFT IN ACCORDANCE WITH APPLICABLE FEDERAL AVIATION REGULATIONS.

FAA Form 8100-2 (7-67) FORMERLY FAA FORM 1362

GPO : 1967-O-270-931

REGISTRATION NOT TRANSFERABLE

UNITED STATES OF AMERICA DEPARTMENT OF TRANSPORTATION - FEDERAL AVIATION ADMINISTRATION CERTIFICATE OF AIRCRAFT REGISTRATION		This certificate must be in the aircraft when operated.
NATIONALITY AND REGISTRATION MARKS N 1294E		AIRCRAFT SERIAL NO. 7AC-4855
MANUFACTURER AND MANUFACTURER'S DESIGNATION OF AIRCRAFT AERONCA 7AC		
ICAO Aircraft Address Code: 50074012		
I S S U E D T O	SOUTHWIND AVIATION INC.  Corporation	
	This certificate is issued for registration purposes only and is not a certificate of title. The Federal Aviation Administration does not determine rights of ownership as between private persons.	
It is certified that the above described aircraft has been entered on the register of the Federal Aviation Administration, United States of America, in accordance with the Convention on International Civil Aviation dated December 7, 1944, and with Title 49, United States Code, and regulations issued thereunder.		
DATE OF ISSUE May 3, 2005 EXPIRATION DATE April 30, 2023		 ADMINISTRATOR

U.S. Department of Transportation
Federal Aviation Administration

AC Form 8050-3 (10/2019) Supersedes previous editions

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DATE OF ISSUE May 3, 2005 EXPIRATION DATE April 30, 2014		 ADMINISTRATOR

U.S. Department of Transportation
Federal Aviation Administration

AC Form 8050-3 (10/2019) Supersedes previous editions

Revision 65
American Champion (Bellanca)
(Champion) (Aerona)
7AC
August 1, 1991

AIRCRAFT SPECIFICATION NO. A-759

American Champion Aircraft Corp.
P.O. Box 37
Rochester, WI 53167

1 - Model 7AC, 1 PCLM (Normal Category), Approved October 18, 1945
(See NOTE 4 for optional engines and conversions to other models)

Engines
Continental A-65-8 (see item 115 for Lycoming O-235-C)

Fuel
73 minimum grade aviation gasoline

Engine Limits
For all operations, 2300 r.p.m. (65 hp.)

Airspeed Limits

Level flight or climb 95 m.p.h. (82 knots) TRUE Ind.
Glide or dive 129 m.p.h. (112 knots) TRUE Ind.

Propeller Limits (For fixed pitch wood propeller)

Static rpm at maximum permissible throttle setting:
Not over 2250, not under 1960. No additional tolerance permitted.
Diameter: not over 72 in., not under 70 in.

C.G. Range
(+10.9) to (+21.5)

Empty wt. C.G. Range
(+14.1) to (+17.9) standard arrangement
(+14.1) to (+15.0) when item 106(a) installed. When empty weight C.G. falls within the range given, it is not necessary to compute critical fore and aft C.G. positions. This range valid for standard arrangement only.

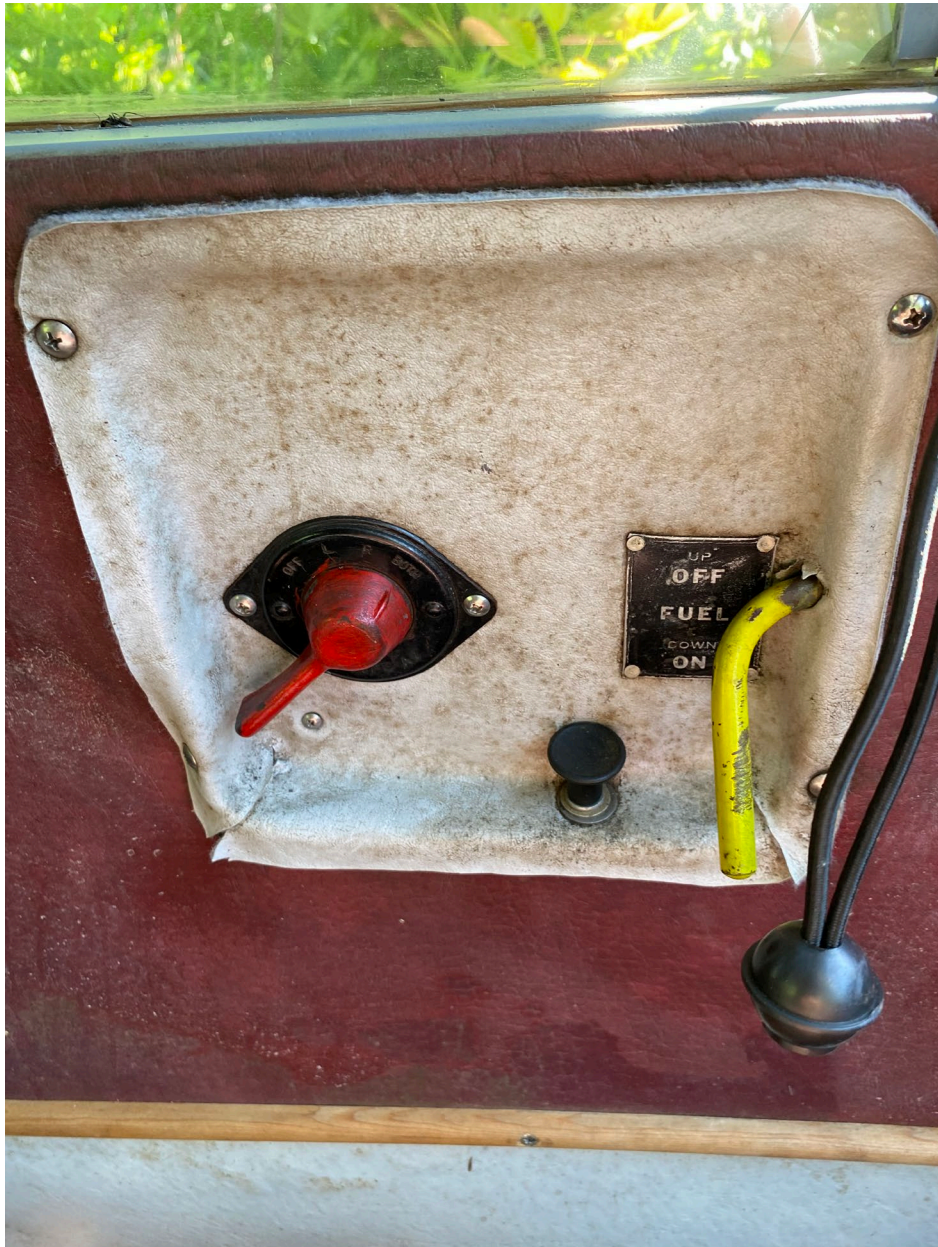
Maximum Weight
1220 lb.

No. of Seats
2 (1 at +11.5, 1 at +42)

Maximum Baggage
40 lbs. at +64. See NOTE 2 for baggage placard.

Tail Number: N1294E		Date: 06-14-02	
Prepared by: E.L. McCain		Work Order No: _____	
Aircraft Make: Aerona		Serial No: 7AC4855	Time: 11:05 am
Registered Owner:		Address:	
Maximum Weight: 1220	CG Range: FWD 10.9 AFT 21.5		
As Received, Date of Previous Weight and Balance: new	Useful Load: 399	EW: 821	EWCG: 15.90 Moment: 1335.8
Notes: All leading edge -25 -16.15 -15.90			
	Weight	Arm	Moment
Right wheel	383.00	0.00	0.00
Left wheel	369.00	0.00	0.00
Tail	69.00	0.00	0.00
		0.00	0.00
		0.00	0.00
		0.00	0.00
		0.00	0.00
		0.00	0.00
		0.00	0.00
		0.00	0.00
As Calculated	Moment: 0.00	New Empty Weight CG	New Useful Load
X As Weighed	Weight 821.00	0.00	399.00
Signature: [Redacted]			
Repair Agency: AB/P420584817 or License No:			

The magneto selector was on both and a fuel selector was down. The fuel lever feels disconnected.



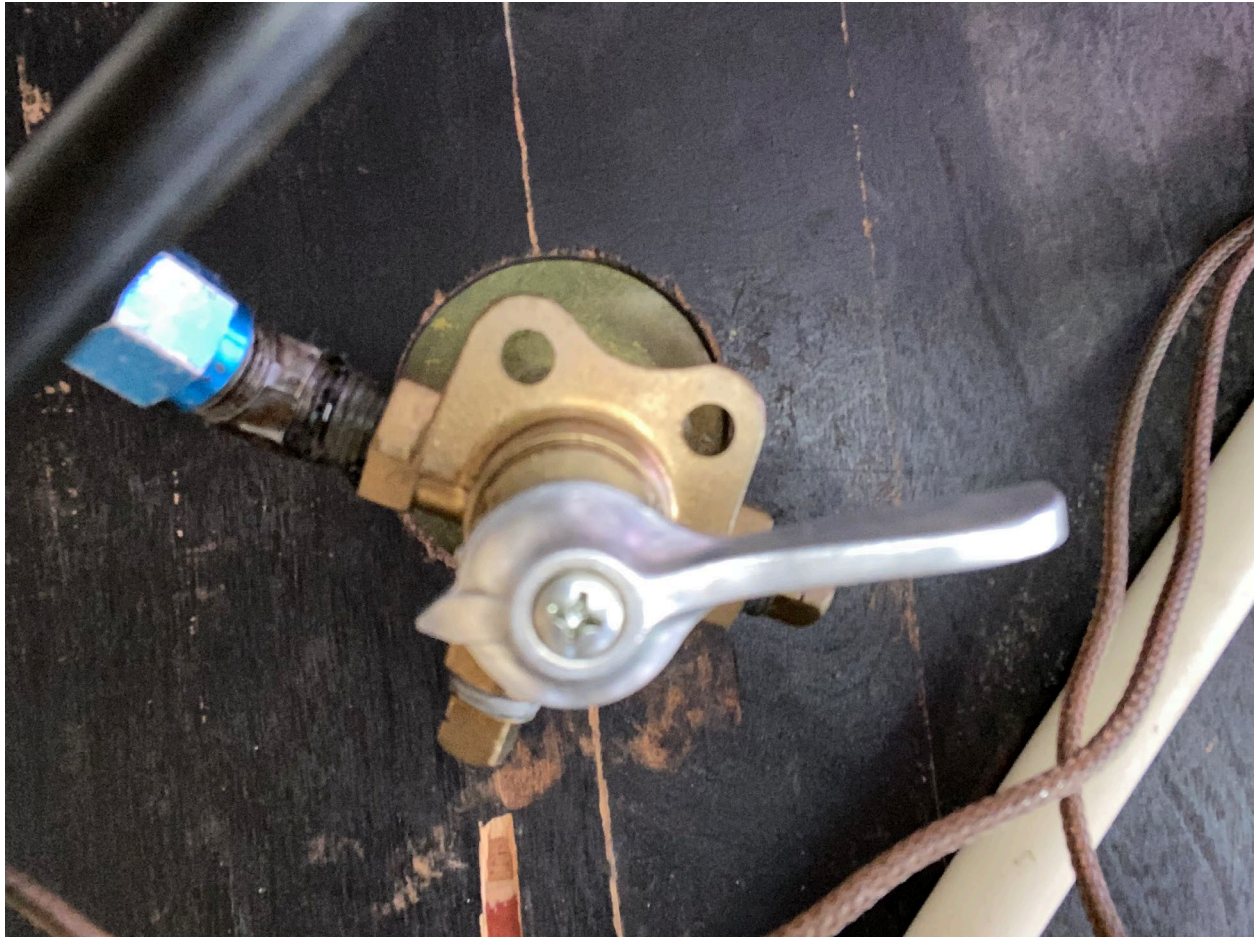
The aircraft did not have radios



The tachometer showed 0047.2 Hours



There is a fuel selector valve under the instrument panel by the pilot's knees. It is not labeled. The valve was able to be turned 360 degrees.



The bottom portion of the rudder contacted a piece of wood and was bent to the right.



The right wing tip forward and aft spar are damaged.





Both right and left landing gear were on the right side of the aircraft.





Inspector's deVogel and Lewis left the accident scene on May 31, 2022 at approximately 1122.

Inspector David Lewis contacted the pilot by phone to get an email address for him. Inspector Lewis emailed Mr. Lequire a Compliance Philosophy brochure, a Privacy Act Notice and a questionnaire. Mr. Lequire was requested to return the completed and signed documents. Inspector deVogel followed up the email with a request for the aircraft maintenance records and a plan for removing the aircraft from the accident scene. Inspector deVogel also released the aircraft to be moved from the accident scene for both the FAA and under instruction from the NTSB. The release was for removal only.

On June 7, 2022, the maintenance records for the aircraft were received by Inspector deVogel. According to the "Aircraft Log" this aircraft was grounded by the owner at the time due to cracked cylinders on October 9, 1977.

	DATE	RECORDING TACH TIME	TODAYS FLIGHT	TOTAL TIME IN SERVICE	DESCRIPTION OF INSPECTIONS, TESTS, REPAIRS AND ALTERATIONS ENTRIES MUST BE ENDORSED WITH NAME, RATING AND CERTIFICATE NUMBER OF MECHANIC OR REPAIR FACILITY. (SEE BACK PAGES FOR OTHER SPECIFIC ENTRIES.)	DATE
12	1977					200
13M	7 OCT	358.50	3.2	360.73	DUAL EWS TO TARPON SPRINGS - Hayden/Petty	
14M	9 OCT	360.73	2.23	362.96	AFTER BOATING IN THE GULF, DUAL WS TO ST AUG	04
14L				3608.71		
17L					BECAUSE OF PERSISTENT PROBLEMS E STUCK EXHAUST VALVE	
19M					(THANKS TO 100 LL GAS) THE CYLINDERS WERE PULLED FOR TOP OVERHAUL.	
20M					THIS WAS THE LAST BIT OF WORK DONE BY CARL AND SNOOP AND WS.	
21M					TOO BAD.	
21M					ALL FOUR CYLINDERS WERE FOUND TO BE CRACKED BEYOND	
27J					REPAIR, SO THE AIRCRAFT WAS DISMANTLED, TO AWAIT	
19J					PIECEMEAL REBUILDING UNTIL A SUITABLE PLACE TO WORK CAN BE	
19Ju					FOUND. I FEEL FREE TO WRITE THIS LOGBOOK AS MY OWN	
26Ju					RECORD AS WELL AS LITTLE CHAMP'S BECAUSE I CAN NEVER	
28J					ENVISION SELLING IT. IT HAS BEEN A GOOD TEACHER FOR	
2Ju					SEVERAL OF US. IT WILL BE THE BEST AERONCA AT BLAKESBURG	
4Ju					AT SOME TIME IN THE FUTURE.	
6Ju						
15Ju						

DATE 2002	RECORDING TACH TIME	TODAYS FLIGHT	TOTAL TIME IN SERVICE	DESCRIPTION OF INSPECTIONS, TESTS, REPAIRS AND ALTERATIONS ENTRIES MUST BE ENDORSED WITH NAME, RATING AND CERTIFICATE NUMBER OF MECHANIC OR REPAIR FACILITY. (SEE BACK PAGES FOR OTHER SPECIFIC ENTRIES.)
04-10-2002	3.6		260877	Aircraft disassembled and all parts cleaned and checked. Fuselage sanded and checked welds and tubing for cracks, no defects found. Fuselage primed, new wood fairings and stringers installed. Wings disassembled and inspected for cracks AD00-25 - 62 RI no defects found. Spars recoated and wings assembled using Cessna TAC Service Manual. A/C parts determined to be in airworthy condition. Entire A/C covered using Poly-Fiber P-103 I/A/W Poly Fiber Instruction Manual and S.T.C. SA1008WE. Aircraft assembled and rigged using Cessna TAC Service Manual. No change in operating limitations. All work done using Procedure Manuals and A.C. 43.13 & 1B/2A.
				Next Page →

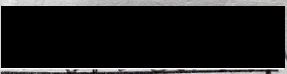
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DATE	RECORDING TACH TIME	TODAYS FLIGHT	TOTAL TIME IN SERVICE	DESCRIPTION OF INSPECTIONS, TESTS, REPAIRS AND ALTERATIONS ENTRIES MUST BE ENDORSED WITH NAME, RATING AND CERTIFICATE NUMBER OF MECHANIC OR REPAIR FACILITY. (SEE BACK PAGES FOR OTHER SPECIFIC ENTRIES.)
04-01-2002			Tach 3.6	T.T. 2608.71 A/C Weighted New Empty #821.0 Gross Wt #1220 Useful load #399 New CG is See list of AD's in back of log book See 237 dated 07-24-02 in A/C records [REDACTED]
07-23-02			Tach 3.6	T.T. 2608.71 Controls checked for proper operation. All placards installed. E.L.T. Checked new battery good till Aug 04. AD's checked to date and C/W.
A/C REG # TOTAL A/C TIME 2608.71				DATE 07-23-02 TACH TIME 3.6
I CERTIFY THAT THIS A/C HAS BEEN INSPECTED IN ACCORDANCE WITH AN (CIRCLE ONE) ANNUAL/100 HR INSPECTION AS PER 43 USC 2 AND WAS DE [REDACTED]				
SIGNATURE				CERTIFICATE TYPE

The aircraft received Annual Inspections on the following dates.

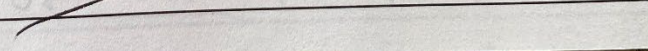
- October 10, 2003
- April 5, 2005
- December 15, 2008
- February 16, 2011
- November 16, 2012
- December 10, 2016
- November 2, 2021

The current Annual Inspection was completed on November 2, 2021. Aircraft total time, Tach time 45.5.

DATE	RECORDING TACH TIME	TODAYS FLIGHT	TOTAL TIME IN SERVICE	DESCRIPTION OF INSPECTIONS, TESTS, REPAIRS AND ALTERATIONS ENTRIES MUST BE ENDORSED WITH NAME, RATING AND CERTIFICATE NUMBER OF MECHANIC OR REPAIR FACILITY. (SEE BACK PAGES FOR OTHER SPECIFIC ENTRIES.)
11/02/21	45.5			Date: 11/02/2021 Hours: TT 2654.2 Tach 45.5 Tail#: N294E Make: American Champion Model: 7AC S/N: 7AC-4855 Removed inspection covers. Checked all attachment points. Lubed hinges, bellcranks, pulleys. Checked controls for proper operation. Checked wheels and brakes. Checked ELT Far 91.207 (D) ops check good battery on order .Recurring ADs AD47-20-01C/W by cleaning gascolater. due 100 hr/annual AD 47-30-05 exhaust stack "Y" C/W by inspection no defects noted. Due 100 hr/ Annual. AD 00-25-02-R1 wing strike N/A no wing strike ADs checked thr 11/02/2021 .See AD compliance list in A/C records. I certify that this A/C has been I/A/W with an Annual inspection as per FAR 43 (D) and was determined to be in an airworthy condition. Name: EL McClain Jr. Co: Boeing Aircraft Club Sign: 

The engine log book starts April 6, 2002. This entry documented the overhaul. The original log book is stated as lost. The engine total time is unknown. Time Since Overhaul is zero (0).

YEAR: 2002 DATE	RECORDING TACH TIME	TODAY'S FLIGHT	TOTAL TIME IN SERVICE	Description of Inspections, Tests, Repairs and Alterations Entries must be endorsed with Name, Rating and Certificate Number of Technician or Repair Facility. (See back pages for other specific entries.)
04-06-2002		Tach	3.6	T.T. Unknown T.S.H.O. 00 Total time unknown due to lost logs Engine disassembled, parts cleaned and checked. Crank magnaflux on defects found. Cylinders cleaned and checked OK. Cylinders are chrome. Valves removed and installed in cylinders using new springs. Leak check OK. Engine assembled using all new gaskets, bearings, rings pistons. New oil pump gears (3562)(29343) bearing set (46237-A1) rod bearings (35897) Checked (A.D.L.) 46-36-01 Pistons pins

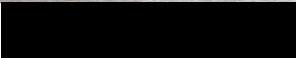
REF:	RECORDING TACH TIME	TODAY'S FLIGHT	TOTAL TIME IN SERVICE	Description of Inspections, Tests, Repairs and Alterations Entries must be endorsed with Name, Rating and Certificate Number of Technician or Repair Facility. (See back pages for other specific entries.)
E:				P/N A 25127 installed (P. 5945) - inside diameter
				(AD 81-07-06 N/A fuel pump not installed)
				(AD 95-21-15 Engine overhauled)
				(AD 96-12-22 N/A oil filter not installed)
				(AD 98-17-11 N/A No crankshaft work by Nelson Bal.)
				(AD 96-12-07 Mag. SHRN impulse coupling (MSB 645) check OK)
				Work done using #65 Maintenance and Overhaul Manual.
				
				
				

YEAR:	RECORDING
2021	TACH
DATE	TIME
11/02/2021	45.5

Date: 11/02/2021 Hours: 45.5 TT UN
 Tail#: _____
 Make: continental Model: A-65-8 S/N: 5709-0-8

Removed cowling. Wash down engine. Changed oil, clean oil screen, no metal found at this time. Add 4 qt. aeroshell 100AW oil. Clean gascolator AD 47-20-01 C/W. Exhaust stack inspection C/W AD 47-30-05 Due 100hr/ Annual. Checked engine controls, motor mounts, checked prop for nicks, cracks, dress, no defects noted. Compression test #178/80
 #2 78/80 #3 77/80 #4 78/80. Check timing 24%. Run up ops check good no oil leaks noted
 ADs checked thru 11/02/2021. See AD compliance list in A/C records.
 I certify that this engine has been inspected I/A/W with annual inspection as per FAR 43 (D) and was determined to be in an airworthy condition

Name: EL McClain Jr.
 Co: ~~East Tennessee State Univ~~

Sign: 

Inspector deVogel received a letter from Mr. Wayne Lequire in the mail. The letter was a printed copy of the questions Inspector David Lewis sent him via email with written answers. See attachment one (1).

The following facts were gathered on 6/21/2022 at the owner's farm, [REDACTED], Maryville, TN 37803. Inspector deVogel met Mr. Wayne Lequire by the aircraft. The next paragraph is a summary of an interview with Mr. Lequire.

The aircraft had been disassembled by the owner and removed from the accident site. He stated that he hired a farm hand to help him take it apart and used his Kabota utility vehicle to pull the aircraft down the hill and back up the other side. Mr. Lequire stated he pulled the aircraft from the tail wheel dragging the engine. Mr. Lequire stated that he added 11 gallons of gas to the aircraft prior to takeoff and believes there was 1 gallon in the tank prior. The ELT was not installed in the aircraft at the time of the accident and does not remember if it was ever installed. When Inspector deVogel asked for his pilot logbooks Mr. Lequire said that he does not know where they are. He believes he can find them though. He was informed that the FAA must be able to validate his endorsements and flight reviews and is required to provide them.

Inspector deVogel removed the front cowling. The propeller was previously removed by owner. Initial visual inspection noted the carburetor was broken at the neck and separated from the engine. It was attached to the airframe by the carb heat cable and fuel line from the gascolator. The intake box and fuel line was disconnected from the carburetor. No fuel noted in line.





Inspector deVogel disassembled the carburetor. The choke plate moved freely. The throttle cable was broken at the throttle arm on the carburetor.







The float bowl was disassembled. There was a little fuel in the float bowl. Unable to measure quantity. The float moved freely.



The fuel screen was removed from the carburetor. The screen was clean of any debris.



The oil tank had ruptured near the neck of the engine.



The gascolator bowl was missing from the aircraft.



The fuel shutoff on the left side of the cockpit was found disconnected.



There was a fuel shutoff on the bottom of the fuel tank. After disconnecting the fuel line from the shutoff valve Inspector deVogel was able to turn the valve. Fuel trickled out and stopped as he rotated the valve. The valve was able to be turned 360 with ease. The valve was not labeled with on and off locations. The fabric on the firewall where the fuel line connects to the gascolator was discolored. The fuel line was properly connected. No cracks were noted on the union between the fuel line and the gascolator.







The carb heat cable moved freely after it was disconnected from the intake.

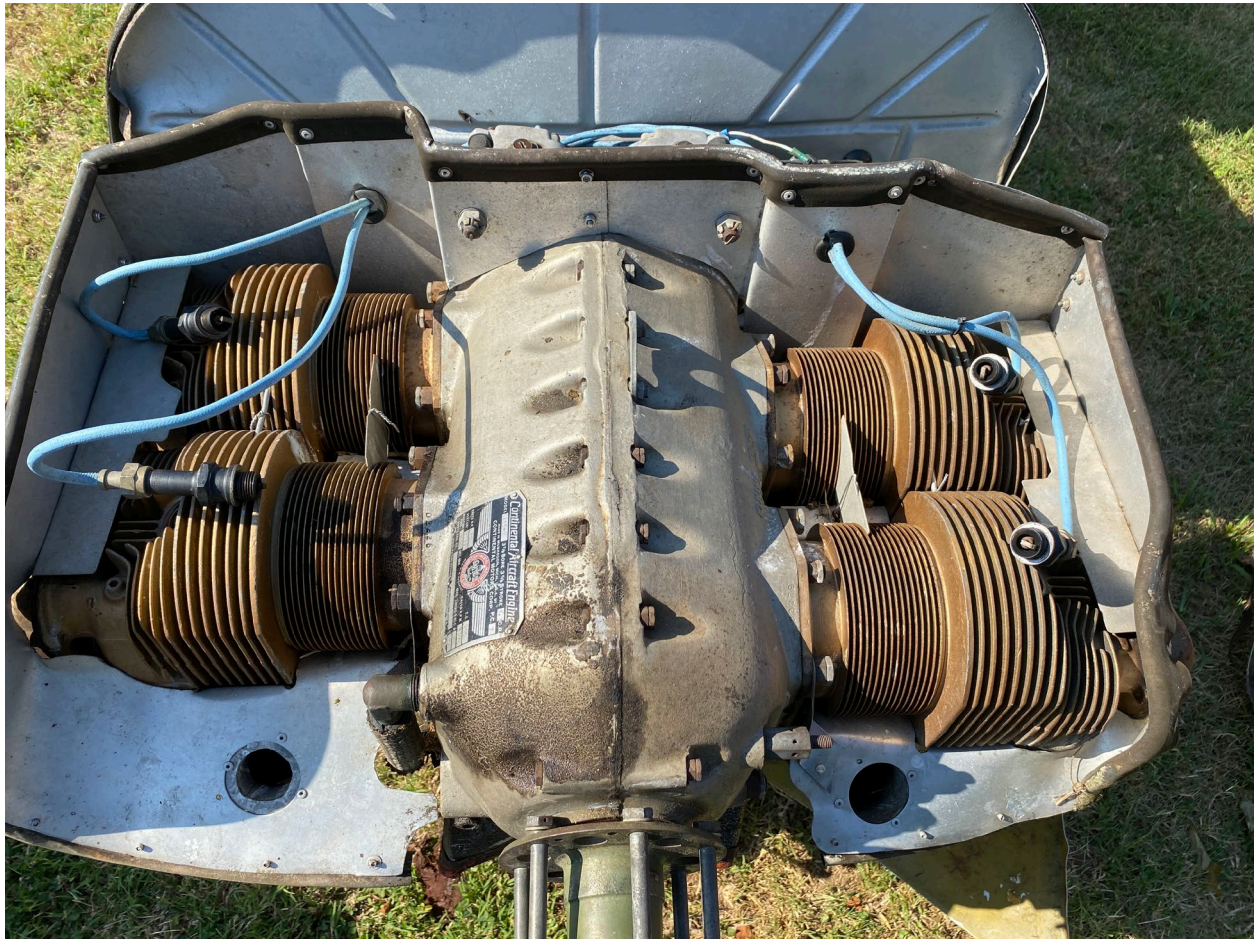




The top spark plugs were removed and inspected. No fouling was noted. Compression was checked by rotating the crankshaft and placing a thumb of the spark plug hole. Compression checked normal.

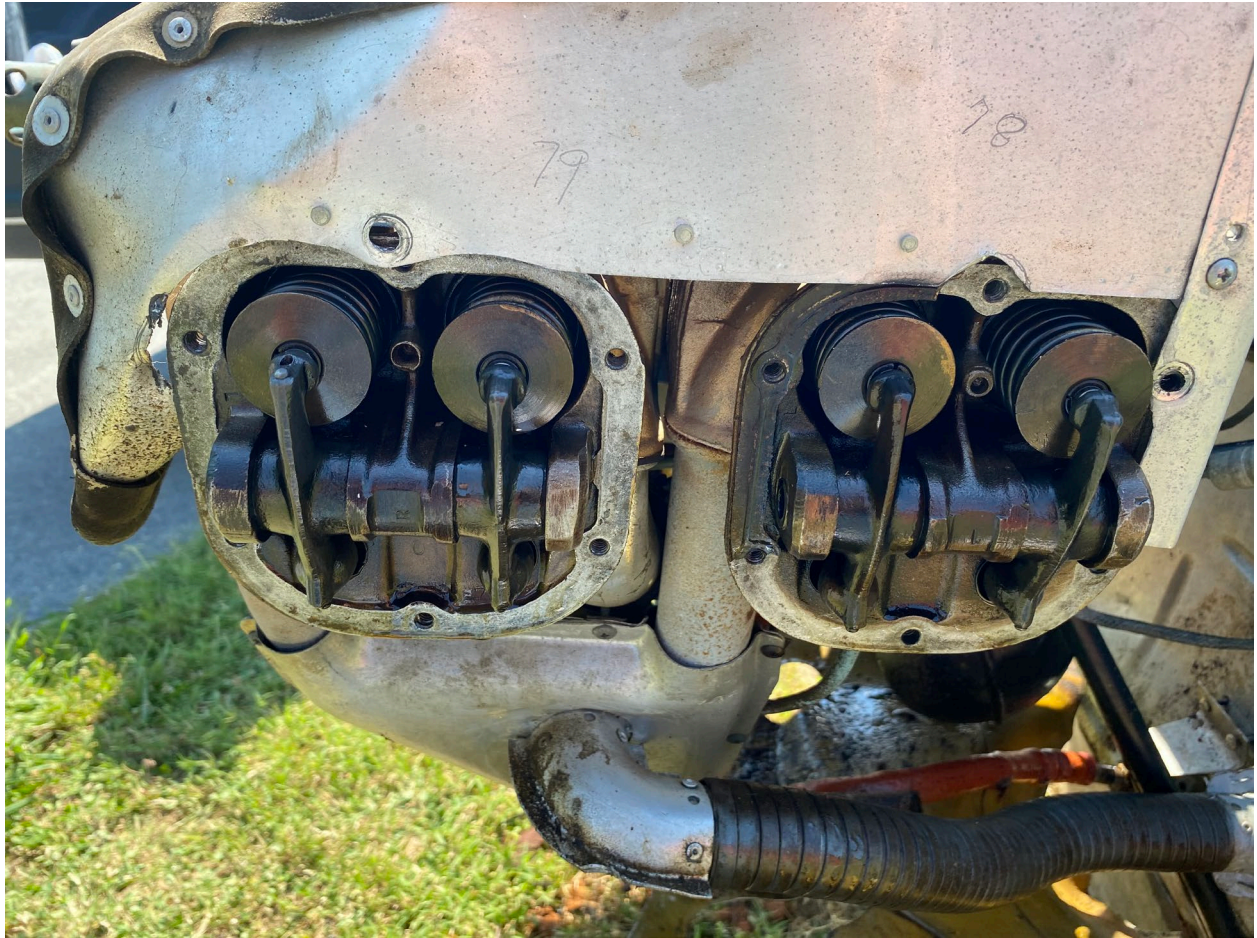


The "P" Leads on the magnetos were disconnected. The spark plugs leads were screwed back into the sparkplugs to their corresponding cylinders and placed on the engine. All spark plugs showed a spark as the crankshaft was rotated.



The rocker box covers were removed from all 4 cylinders. The crankshaft was rotated and all valves moved freely.





The above statements are from notes taken at each location by Inspector Aaron deVogel.