

M4593K

Book



The Standard

ENGINE LOG

ASA-SE-1

Engine Record General Information

Manufacturer Lycoming Model O-320-E2D

Serial L-37297-27A Type Certificate _____

This engine is currently installed in aircraft N4393R

Minimum Octane Fuel _____ Oil Grade: Summer _____ Winter _____

Magneto Time _____ Point Setting _____ Firing Order _____

Spark Plug Gap _____

Manufacturer recommended overhaul at _____ hours

Propeller: McCaughey Hub Design: IC160/DTM
Pitch: 53" Diameter: 75" Hub Serial no 723945

4-09-01 Tach 2118.3 TSMOH -0-

Removed engine from N4393R for major overhaul. Engine was disassembled and inspected. Sent the following components out for overhaul:

Crankshaft S/N 89716
Crankcase S/N 6228
Camshaft P/N 76097
Tappet Bodies P/N 72877
Connecting Rods P/N 78030
Crankshaft Gear P/N 61155
Rocker Arms P/N 74636/69444
Cylinder Assemblies P10

continued

Installed the following new parts:

8 each SL69763 Main Bearings Lot 184707/560555
8 each SL61662 Rod Bearings Lot 554164
8 each AL78027 Rod Bolts
8 each SL12186 Rod Nut
8 each SL12892 Thrust Buttons
1 each STD2213 Crank Bolt
4 each SL13790A Rocker Arm Shafts
1 each 4371 Slick Mag LH
1 each 4370 Slick Mag RH
1 each Slick Mag Harness P/N M4001
1 each Air Maze oil filter adapter
1 each Vernatherm Valve P/N SL53E19600
4 Each Exhaust guides
4 Each SL19001 Exhaust Valve
4 Each SL75413AP10 Piston
4 Each SL13445 Piston Pin
8 Each 60828 Plug
4 Each MS 13998-3 Roto Cap

continued

YEAR: _____ 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.)
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4-17-01 Tach 2121.4 Hobbs 0000.0

Removed carb and installed overhaul quick kit and new one peice venturi. Replaced carb air box to cowling seal.

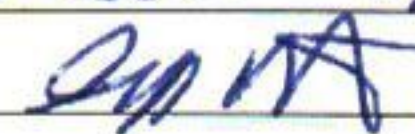
Jeffrey C. Voigt
AP502901577

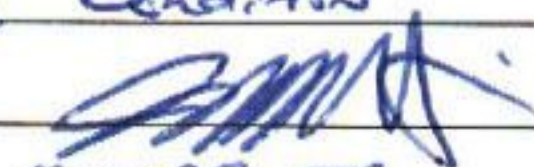
4-27-01 TACH 2130.0

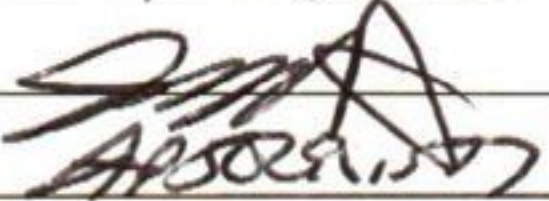
CHANGED OIL & Filter Serviced with Phillips 20W50 7qt.

JCV
AP502901577


YEAR: _____ 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.)
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5-15-01		Hobbs	833	Change Oil & Filter Services w/ A/S 100W 79TS.  A502941577
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6-8-01		TACT 216.9		Checked Compression #1 76/80 #2 77/80 #3 77/80 #4 74/80 Inspected all Exhaust & Intake Systems. Checked All engine Controls for Free & Proper movement. I Certify that this engine has been inspected in accordance with the maintenance inspection & was determined to be in airworthy condition.  A502941577
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YEAR: _____ 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.)
6/12/01		Hobbs	136.0	
		CHANGED OIL & FILTER.		SERVICED W/ A/S 100W TETS.
				

YEAR: _____ 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.)
8-28-01	2459.2			Checked Compressions All were $\frac{76}{80}$ or better. Inspected engine controls for Free AND Proper Movement. Inspected Exhaust AND intake Systems. I Certify This engine HAS BEEN INSPECTED IN ACCORDANCE WITH a 100 hour inspection AND determined TO be in Airworthy Condition. Robert Sopotowich AP 472563958
9-3-01	Tach 2474.6			Changed oil and filter. Serviced with Phillips 20W50 7 Qts.


 Jeffrey C. Voigt
 AP502901577

1-21-02

Tach 2573.0

Hobbs 496.4

Checked compressions #1 77/80 #2 76/80 #3 78/80 #4 77/80. Changed oil and filter. Serviced with Phillips 20W50 7qts. Inspected exhaust and intake systems. Checked all engine controls for free and proper movement. I certify that this ENGINE has been inspected in accordance with an ANNUAL INSPECTION and was determined to be in airworthy condition.



AP5029010722A

4-15-02 TACH 2661.7
 Checked compressions
 #1 72/80 #2 74/80 #3 78/80
 #4 73/80. Changed oil & filter
 Serviced w/ Phillips 20W50.

I certify that this ~~aircraft~~ engine has been inspected in accordance with an ~~annual~~ 100 hr. inspection and was determined to be in airworthy condition.



Jeff C. Voigt
 AP502901577

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.)

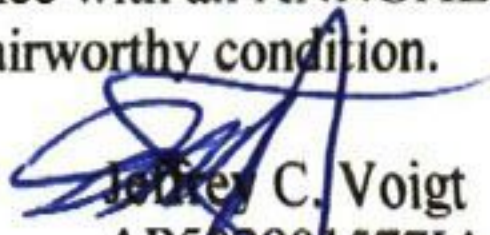
YEAR: DATE	RECORDING TACH TIME	TODAY'S FLIGHT	TOTAL TIME IN SERVICE	Description of Inspections, Tests, Repairs and Alterations Entries must be endorsed with Name, Rating and Certificate Number of Technician or Repair Facility. (See back pages for other specific entries.)
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5/25/03	3078.5			CHG OIL & FILTER SERVICE w/sgt 20w50 Phillips. CH48110 Filter.
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PARK RAPIDS AVIATION, INC.
301 AIRPORT ROAD
PARK RAPIDS, MN 56470
218-237-8528

5-21-03 **N4393R** Tach 3151.3 Engine

Checked compressions #1 78/80 #2 76/80 #3 74/80 #4 75/80.
 Changed oil and filter. Serviced with Phillips 20W50 7qts.
 Cleaned gapped and tested spark plugs. Checked all engine
 controls for free and proper movement. I certify that this
 ENGINE has been inspected in accordance with an ANNUAL
 INSPECTION was determined to be in airworthy condition.


 Jeffrey C. Voigt
 AP5029015771A

YEAR: <u>03</u> 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 Facility. (See back pages for other specific entries.)
	T.W.			Garlock
7-25-03	3204.9			Installed new vacuum pump Drive Coupling oil seal P/N STA208. Installed O.H. Vacuum Pump P/N 211CC this date ops check ok. <small>SER#</small> 106352 James Wenzel AR 2663573
7-25-03	3204.9			Changed oil & Filter Service w/ 7qt 20W50 Phillips & Champion CH 48110 Filter owner Greg A Cooper 2794262 Per 172 Service Manual

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.)
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3228.8

Removed vacuum pump P/N# 211CC Ser.# 106352.
 Installed O.H. vacuum pump P/N# 211CC Ser.# 108457
 this date ops check ok.
 James Wentheff A&P 2663573

32.7

Removed vacuum pump P/N 211CC ser.# 108457.
 Installed O.H. vacuum pump P/N 211CC ser.# 108765.
 Installed New vacuum hose from vacuum pump
 to regulator with P/N MILDTL 6000C58 this date
 ops check ok.
 James Wentheff A&P 2663573

FAA FORM 8130-3
Airworthiness Approval Tag
User/Installer Responsibilities

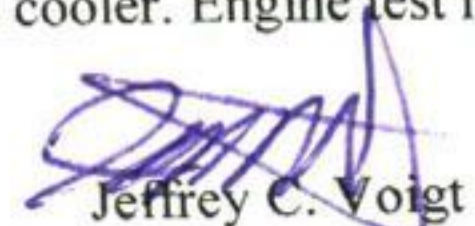
and that the existence
 actually

PARK RAPIDS AVIATION, INC.
301 AIRPORT ROAD
PARK RAPIDS, MN 56470
218-237-8528

air

11-10-03 N4393R Tach 3259.0 TSMOH 1140.7 Engine

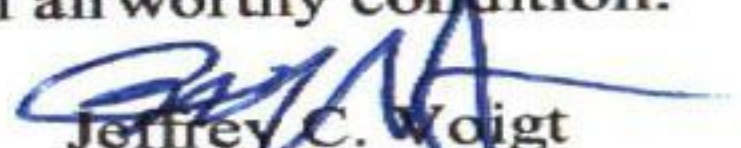
Removed engine from aircraft due to loose accessory gear idler shaft. Disassembled engine and sent left case half to Crankcase Services, see attached white tag. Crankshaft sent to Bolduc Aviation for polish. All engine accessory gears inspected by Bolduc Aviation. Installed the following new parts on engine assembly. (4) ST203P10 ring sets. (1) SL69371-1 Major overhaul gasket set. (8) SL68763 Main Bearings. (8) SL61662 Rod Bearings. (8) SL78027 Rod Bolts. (8) SL12186 Rod Nuts. All cylinders were disassembled and inspected. Cylinder bores and Valve to guide clearances still in new limits. Honed cylinders and lapped valves. Disassembled left magneto to inspect and adjust point gap. Test ran magneto on magneto test stand - Normal. Installed new drive coupling in vacuum pump. Installed used Tanis preheat system. Changed oil and filter. Serviced with Phillips 20W50 7 Qts. Cleaned, gapped, tested and rotated spark plugs. Installed 4 new REM40E spark plugs. Reinstalled engine on N4393R. Inspected mag timing. Flushed all engine oil lines and oil cooler. Engine test ran no leaks observed.


Jeffrey C. Voigt
AP502901577

**PARK RAPIDS AVIATION, INC.
301 AIRPORT ROAD
PARK RAPIDS, MN 56470
218-237-8528**

5-27-04 N4393R Tach 3309.9 TSMOH 1186.6 Engine

Checked compressions, #1 77/80 #2 76/80 #3 78/80 #4 74/80.
Changed oil and filter. Serviced with Phillips 20W50 8Qts.
Cleaned, gapped, tested and rotated spark plugs. Inspected mag
timing and condition and security of mags. Installed new BA 6108
Intake Air filter. Engine test ran no leaks observed. I certify that
this engine has been inspected in accordance with an ANNUAL
INSPECTION and was determined to be in airworthy condition.


Jeffrey C. Woigt
AP502901571A

of Inspections, Tests, Repairs and Alterations
e endorsed with Name, Rating and Certificate Number of Technician or Repair
ack pages for other specific entries.)

Vertical lines for additional entries.

YEAR: 2004
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.) *Per ITZ Service Manual*

10/3 3347.9
 Changed oil and Filter, Phillips 20W50 XC
 7 Qts, Champion 48110-1 Filter #2794262
 Ops Check OK, *Suz A Boyer OWNER*

~~12/4 3359.6~~

06-14-2005 Tach 3387.9 TSMOH 1265.6 Engine

Checked compression #1 76/80 #2 76/80 #3 78/80 #4 72/80
 Changed oil and Filter 48110 and Phillips 20W50 8 Qts. Cut old
 filter - no contaminates. Removed lower engine screen-clean-
 retorqued. Drained carb bowl-removed fuel strainer-cleaned-
 reinstalled and safetied. Carb Linkage OK. Prop spinner
 bulkheads checked OK. Prop blades inspected for condition OK.
 Cleaned plugs and checked gap. Muffler checked for stains and
 inner liner condition OK. I certify that this engine was inspected
 in accordance with an ANNUAL INSPECTION and was
 determined to be in an airworthy condition.

250W

Filter

Roy Erickson

Roy Erickson
 IA1436537

YEAR: 2006 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.)
6-17	3443.8	1325.5	5mott	Performed Annual Insp IAW Cessna Service Manual and 43.13. Compression checks are as follows 1.69 2.69 3.72 4.70
			Cold	
				<p style="text-align: center;">"I certify that this aircraft has been inspected in accordance with 100 hr/annual inspection and was determined to be in airworthy condition."</p> <p style="text-align: center;"><i>[Signature]</i> AP 397829094 DA</p>
6-17	3443.8	1325.5		Changed oil Squarts Philip 20W50XC Changed oil Filter Champion 48110-1 2794262 Cleaned oil screen ops checked OK Greg A Cooper Per 172 Service Manual owner

YEAR: 2007 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.)
2-17	3475.8			Changed oil 7 quarts Phillips 20W50XC Changed oil Filter champion 48110-1 Cleaned 4 Lower Spark Plugs. 2794262 OPS checked OK Greg A Kooper owner Per 172 Service Manual
3/30	3478.6			Due to hard starts removed Left Mag 4371 Ser. 98101859, Right Mag 4370 Ser. 01011748. Magnetos serviced by Bolduc Aviation Specialized Services, Inc., repaired and tested mags, 500 hr Inspection Completed. Parts installed (2) m3081 Points Kit, (2) m3827 Gears, (2) K 3215 Brushes, (1) m3062 Seal, (1) m3163 Impulse Coupling used. Removed, and Installed, and Timed Mags to eng. Per Model 172 Service Manual Sec. 11 Par. 54-59. ops OK good. James Wayt AP 2663573

YEAR: <i>2007</i> 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.)
<i>6-29</i>	<i>3490.9</i>		<i>1372.6</i> <i>SMOH</i>	<p><i>"I certify that this ^{entry} aircraft has been inspected in accordance with 100 hr <u>annual</u> inspection and was determined to be in airworthy condition.</i></p> <p><i>AL397829049 TA</i></p>
			<p><i>Engine Compressions</i></p> <p><i>#1 75 #3 75</i></p> <p><i>#2 73 #4 73</i></p> <p><i>all over 80</i></p>	
<i>11/26</i>	<i>3516.1</i>			<p><i>Oil Change 7 Quarts Phillips 20x50XC</i></p> <p><i>Filter Change Champion 48110-1, Cleaned</i></p> <p><i>Engine Screen. Cleaned and Rotated Spark</i></p> <p><i>Plugs REM 40E. James W. Hoff A&P 2663573</i></p>

YEAR: 2008 DATE	RECORDING TACH TIME	TODAY'S FLIGHT	TOTAL TIME IN SERVICE	Description of Inspections, Tests, Repairs and Alterations <small>Entries must be endorsed with Name, Rating and Certificate Number of Technician or Repair Facility. (See back pages for other specific entries.)</small>
6-21	3539.4		1421.1 SMO H	<p>"I certify that this aircraft has been inspected in accordance with 100 hr/annual inspection and was determined to be in airworthy condition."</p> <p>SEAN STRAD AP 3978290941A END</p>
#1	75	#2	77	
#3	75	#4	60	
6-21	3539.4		1421.1	<p>Replaced Spark Plugs Top #1,2 and Bottom #2,4 with Champion REM 40E, Cleaned Remaining Plugs. Drained and Cleaned fuel Strainer, reinstalled and Safetied. Timed Magns to engine I.A.W. Model 172 Service Manual Sec. 11 Par. 54-59.</p> <p>Ops CK and leak CK good. James W. Hoff AP 2663573</p>

Engine Compressions

#1 75 #2 77
#3 75 #4 60

"I certify that this aircraft has been inspected in accordance with 100 hr/annual inspection and was determined to be in airworthy condition."

~~SEAN STRAD~~ AP 3978290941A
END

Replaced Spark Plugs Top #1,2 and Bottom #2,4 with Champion REM 40E, Cleaned Remaining Plugs. Drained and Cleaned fuel Strainer, reinstalled and Safetied. Timed Magns to engine I.A.W. Model 172 Service Manual Sec. 11 Par. 54-59.

Ops CK and leak CK good. James W. Hoff AP 2663573

YEAR: <u>2008</u> 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.)
8/8/08	3545.6		1426.7	Removed Marvel-Schebler MA4SPA Carburetor P/N 10-5009N, Ser. No. BL-20-10532. Bolduc Aviation Specialized Service, Inc Serviced carb by replacing Nozzle #47-828, Float #30-864, Shaft #32-32, Float Valve 233-615 and Various Gaskets. Installed same Carburetor I.A.W. Model 172 Service Manual and new Air Filter P/N BA-6108. Ran Engine, Checked Static RPM, Idle RPM and leak checked, ops checked good, ok for service. James Wayteff A&P 2663573

YEAR: 2009
RECORDING TACH TIME: 3564.7
DATE:
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.)

2/12 ~~3564.7~~
 oil changed 7 quarts Phillips 20x50XC
 Filter changed Champion 48110-1
 Per 172 Service Manual ops checked OK
 By A. Kopen Owner 2794262

7-1 3580.2
 Performed Annual Inspection all AD's c/w
 cleaned and Gapped plugs, checked timing.
 Set Idle and Mixture. Engine OK for service.

Compression As follows. ↓

	1.74	3.71
	2.74	4.70

I certify that this aircraft has been inspected in accordance with 100 hr/annual inspection and was determined to be in airworthy condition." Scott Shuck AP 3978290947A

YEAR: 2011/12 DATE	RECORDING TACH TIME	TODAY'S FLIGHT	TOTAL TIME IN SERVICE 5mow	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.)
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8-20	3657.5		1539.8	<p>"I certify that this aircraft has been inspected in accordance with 100 hr/annual inspection and was determined to be in airworthy condition."</p> <p>Scott AD 2748179 IA</p>
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			Cold	<p>Eng Comp. # 1-72 # 2-70 # 3-65 # 4-65</p>
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2-4-12	3,660.7			<p>oil changed 7 quarts Phillips 20x50XC Filter changed Champion 48110-1 cleaned oil screen Per 172 Service Manual, OPS checked OK Gregg A Rosen OWNER #2794262</p>
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YEAR: 2012 DATE	RECORDING TACH TIME	TODAY'S FLIGHT	TOTAL TIME IN SERVICE Smolt	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.)
8-26	3674.0		1556.3	<p>Performed Annual Insp. IAW Service Manual. Comp. are as follows 1. 78 2. 77 3. 78 4. 56.</p> <p>"I certify that this ^{engine} aircraft has been inspected in accordance with 100 hr/annual inspection and was determined to be in airworthy condition."</p> <p><i>Scott</i> 2748179JA</p>
6-10	3684.2			<p>Oil Changed 7 Quarts PHillips 20X 50XC Filter Changed Champion 48110-1 Cleaned Oil Screen Replaced 4 Plugs cleaned & Gapped all 8 Per 172 Service Manual. OPS Checked OK</p> <p><i>Greg A Koopen</i> OWNER 2794262</p>

YEAR: _____ 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.)
10-15-14	Tach		3706.0	Performed Annual Insp IAW Hobbs 1790.5 Service Manual comp as follows SMOH 1588.3 1. 78 2. 74 3. 75 4. 75. All AD's clw to date. I certify this Engine has been Inspected IAW Annual Insp and found in Airworthy Condition. A 2748179 IA <i>[Signature]</i>
10-15-14			3706.0	oil changed 7 quarts Phillips 20W-50XC Filter changed Champion 48110-1 cleaned oil screen cleaned + Gapped All 8 Plugs, per 172 Service Manual OPS checked OK <i>[Signature]</i> <i>[Signature]</i> Owner # 2794262

YEAR: 2015 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.)
8-2	3706.2	TACH		<p>"I certify that this aircraft has been inspected in accordance with 100 hr/annual inspection and was determined to be in airworthy condition."</p> <p>See A AP 2748179 IA</p>
	1790.5	Holds		
	1.78	3	75	
	2.74	4	75	
5-22-16				<p>oil changed 7 quarts Phillips 20W-50AG Filter changed Champion 48110-1, cleaned oil Screen, cleaned + Gapped All 8 Plugs Per Service Manual, OPS checked OK. Gregg A Boepen OWNER #2794262</p>

YEAR: <u>2014</u> 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.)
<u>10-1</u>	3726.0			Compression Check as follows
	1814.1			#1 - 75 #2 75 #3 75 #4 68
				Replaced air filter BA-6108, cleaned and
				gapped plugs. All AD's chg to date
				I certify this engine has been
				inspected in accordance with Annual
				Inspection and was determined to
				be in Airworthy condition.
				John <i>[Signature]</i> AP 2748179 IA

YEAR: 2021 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.)
3/23				Performed Annual Inspection: Compression
	3727.1			are as follows: #1-74, #2-75, #3-76
	1815.7			#4-70. Replaced Air filter BA-6108,
SMOH	11009.4			Replaced oil 7qt 20W-50. I certify
				this Aircraft has been Inspected in
				accordance with Annual Inspection and
				was determined to be in Airworthy condition
				All AD's o/w to date  AP 2748179 IA