



The Standard

ENGINE LOG

RT ENG 09 TO PRESENT

ASA-SE-1

N 886301
RT ENG
#2 Log
8

Engine Record General Information

Manufacturer Textron Lycoming

Model LEO-320-B1A

Serial RL-3466-66A

Type Certificate

This engine is currently installed in aircraft N88WW Piper PA39CR

Minimum Octane Fuel _____ Oil Grade: Summer _____ Winter _____

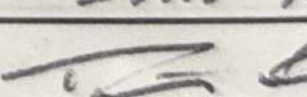
Magneto Time _____ Point Setting _____ Firing Order _____

Spark Plug Gap _____

Manufacturer recommended overhaul at _____ hours

ests, 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.)

DATE				
6/17	204.2			Propeller dynamically balanced using Micro-Vise system IAW published directives. Installed 14.8 @ 120° and 46.3 @ 60° AN hardware. result: .059 IPS Wm Carl ACP 3106061
6/18/10	204.2	SMITH	1355.2	TTE B55.2 Comp r #1 72 #2 66 #3 76 #4 68 CW AD 2008-14-07 IAW MSB 342E DRAINED oil, changed filter, Replenished with 76 ACROSSELL 15W50. changed Air filter. CLEANED & GAPPED Spark Plugs. Lubed All controls. REPLACED Front CRANKSHAFT SEAL with NEW PV LW 13792. I certify this ^{Engine} Engine has been inspected IAW An Annual Inspection & was in Airworthy Condition.  AP 27409712

1. Approving National Aviation Authority / Country: FAA/UNITED STATES		2. AUTHORIZED RELEASE CERTIFICATE FAA FORM 8130-3, AIRWORTHINESS APPROVAL TAG		3. Form Tracking Number: 2765414	
4. Organization Name and Address: Cessna Aircraft Company (PC4) Cessna Parts Distribution Dept. 702 5800 E Pawnee, Wichita, KS 67218				5. Work Order/Contract/Invoice Number: 1020842	
6. Item: 10 SEAL	7. Description: LW13792	8. Part Number: N/A	9. Eligibility: N/A	10. Quantity: 1	11. Serial/Batch Number: 3009
12. Status/Work: New				13. Remarks: AIRWORTHINESS APPROVAL - PARTS. THIS FORM IS NOT AN EXPORT APPROVAL.	
14. Certifies the items identified above were manufactured in conformity to: ☒ Approved design data and are in a condition for safe operation. ☐ Non-approved design data specified in Block 13.				19. ☐ 14 CFR 43.9 Return to Service ☐ Other regulation specified in block 13 Certifies that unless otherwise specified in Block 13, the work identified in Block 12 and described in Block 13 was accomplished in accordance with Title 14, Code of Federal Regulations, part 43 and in respect to that work, the items are approved for return to service.	
15. Authorized Signature: <i>Kenneth E. Wysocki Sr.</i>		16. Approval/Authorization No.: OPA-100129-CE		20. Authorized Signature:	
17. Name (Typed or Printed): KENNETH E. WYSOCKI SR.		18. Date (m/d/y): JUN/07/2010		21. Approval/Certificate No.: #1 72 #266 #376 #468	
22. Name (Typed or Printed):		23. Date (m/d/y):		24. Name (Typed or Printed):	
User / Installer Responsibilities It is important to understand that the existence of this document alone does not automatically constitute authority to install the part/component/assembly. Where the user/installer performs work in accordance with the national regulations of an airworthiness authority different than the airworthiness authority of the country specified in Block 1, it is essential that the user/installer ensures that his/her airworthiness authority accepts parts/components/assemblies from the airworthiness authority of the country specified in Block 1. Statements in Blocks 14 and 19 do not constitute installation certification. In all cases, aircraft maintenance records must contain an installation certification issued in accordance with the national regulations by the user/installer before the aircraft may be flown.					

AA Form 8130-3 (6-01)

* Installer must cross-check eligibility with applicable technical data.

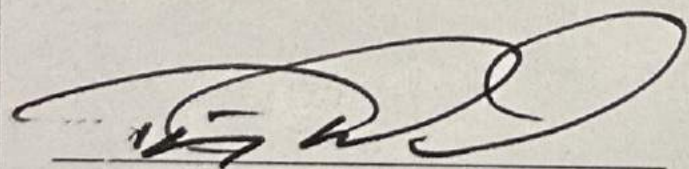
NSN: 0052-00-012-9005

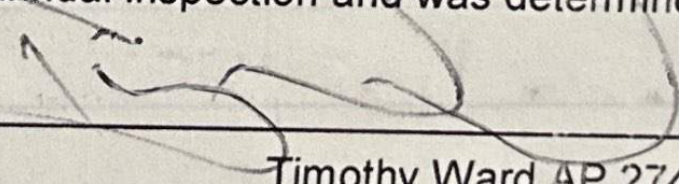
Tests, Repairs and Alterations

3. Rating and Certificate Number of Technician or Repair specific entries.)

balanced using Micro-Vise
and directives. Installed 14.8g
AN hardware. result: .059 IPS
AP 3106061

#1 72 #266 #376 #468
d. Oiler, Replenished with 70s
ged Air Filter - CLEANED & GAPPED
All controls. REPLACED Front
with NEW PV LW 13792.
has been inspected IAW An Annual
Inspection & was in Airworthy Condition. *[Signature]* AP 2740971A

YEAR:	RECORDING TACH TIME	TODAY'S DATE	TOTAL TIME IN	Description of Inspections, Tests, Repairs and Alterations
				Right Date: 3/17/11 Tach: 224.0 ETT: 1375.0 SMOH: 1375.0 Drained oil and added <u>7</u> quarts of <u>AS15250</u>. Filter cartridge was/was not (replaced) with P/N <u>AA48110-2</u>. Filter was cut and inspected. Leak check completed and was Satisfactory/Unsatisfactory.  Signature <u>AP2740971</u> Certificate#/Type

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.)
	07/01/11	N88VW		Lycoming LIO-320-B1A Engine 2 Logbook W.O. 1069-3028 Right Engine Tach Time:234.9 TTE:1385.9 Smoh:1385.9 Completed 100 Hour inspection in accordance with manufacturers inspection procedures manual. 1. Cold Compression Check #1 74 #2 64 #3 72 #4 74 2. Cw ad 2008-14-07 IAW Lycoming SB 342E. Next Due @ Tach, annual inspection or anytime work is accomplished on lines. 3. Oil and filter not completed due to recently completed. 4. CW Lycoming 400 hour valve inspection. Next due tach 634.9 5. CW 500 Mag inspection on both Mags, replaces points, dist cap and gear. I certify this engine has been inspected IAW an annual inspection and was determined to be in airworthy condition Signed  Timothy Ward AP 2740971 IA

YEAR:

08/16/11

N88WW

Lycoming LIO-320-B1A

Engine 2 Logbook

Right Engine TTE 1410.6 SMOH 1410.6

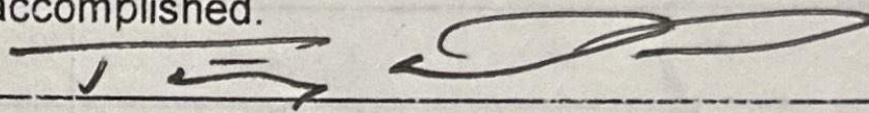
ian or Repair

DATE

Performed oil and filter change in accordance with the manufacturers maintenance manual. Installed 8 quarts of Aeroshell 15W50 Oil and AA48110 oil filter. Washed engine, run up and checked for leaks.

The above work was completed in accordance with current regulations of the Federal Aviation Administration and is approved for return to service for the work accomplished.

Signed



Timothy Ward A&P 2740971 IA

Morgan Enterprises

4119B Elaine DR

Los Lunas, NM 87031

(505) 565-4081

N # - N88WW

Make - Piper

Model - PA-39

Serial # - 39-125

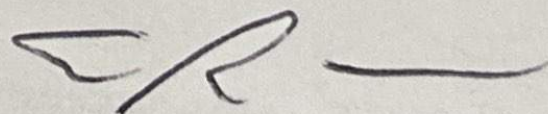
Date-9/28/11

Hobbs- 1303.1

Tach - 284.2

Right Engine

Drained oil and replaced with 8 qts Aeroshell 15W50 oil. Changed 48110 oil filter. Cleaned. Ran and leak checked. No leaks found.



Eugene R. Morgan

A&P 2006621

[illegible]

DATE: 06/01/2013
TOTAL TIME: 1485

TACH 334
SMOH: _____

I CERTIFY THAT THIS ENGINE HAS BEEN INSPECTED IN
ACCORDANCE WITH AN ANNUAL INSPECTION AND WAS
DETERMINED TO BE IN AIRWORTHY CONDITION AND
APPROVED FOR RETURN TO SERVICE, W.O. # 6450

SIGNED WR Kyle CHIEF INSP.

FOR CHARLES CITY AERONAUTICS, CHARLES CITY, IA
FAA APPROVED REPAIR STATION #CQVR964C

Tests, Repairs and Alterations

(Time, Rating and Certificate Number of Technician or Repair
for specific entries.)

06/01/2013 Tach: 334 Total Time: 1485 Differential Compression Test: Cyl. #1 72/80; #2 70/80;
#3 68/80; #4 70/80 Clean and regap 8 spark plugs. Change oil-fill sump with 8 qt. Aeroshell
15W50 Change oil filter and clean screen-cut apart old filter and check for metal-found none. C/W
AD 2011-26-04, amndt. 39-16894 buy inspection of fuel injector lines-OK-next inspection per this
AD due at next Annual, 100-hr. or fuel injector maintenance. Test run and check for leaks and
proper operation-OK
Chief Inspector for Charles City Aeronautics, Inc, Charles City, Iowa, FAA Approved Repair
Station #CQVR964C

William R. Kyle,

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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N88WW

Hobbs: 1439.5

ETT: 1561.2



(R)Engine Log

9/07/2017

LIO-320-B1A

s/n RL-366-66A

Cascade Aircraft Management Inc.

3901 Aviation Way Caldwell, Idaho 83605 (208) 649-5106

Complied with compression checks R/H #2 engine. #1 78/80 #2 75/80 #3 78/80 #4 78/80.

Brian Lubinsky

3559189 A&P IA

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.)
3/15/18	1442.30	HOBBS		SEE AIRFRAME LOGBOOK ENTRY - REPLACED ENGINE MOUNT ISOLATORS & ENGINE ROCKER COVER GASKETS



515-965-1020
3700 SE Convenience Blvd
Ankeny, Iowa 50021
W/O 18-9269

Right Engine Logbook Entry

7/31/2018 N88WW Hobbs-1491.1, Drained Oil and replaced with 8 qts 20W50X/C. Removed inspected and replaced oil filter CH48110-1. No contamination found. Run up and leak checked okay.

Michael D. Callison
A&P 3622569

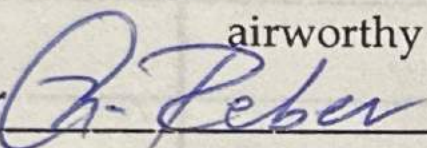
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Right Engine Log Entry

N88WW Tach 1523.0 TSN 1675.9 April 1, 2019

Completed a 100 hr. Inspection this date IAW Piper Twin Comanche Series Service Manual Inspection Guide for 50, 100, 200 hr inspections as required. Drained oil and serviced with 7 qt XC20W50. Removed & inspected filter with no abnormal findings. Installed a new AA48110-2 filter. Checked A.D. Notes thru Issue 2019-06. Removed, cleaned gapped and inspected plugs. Completed a differential compression check #1-75/80, #2-72/80, #3-72/80, #4-74/80. Post maintenance engine runs and leak checks OK. I certify this engine has been inspected in accordance with a 100hr inspection and was determined to be in airworthy condition for return to service at this time.

Chris Reber



A&P 3064194IA

The engine identified above was inspected and repaired in accordance with current maintenance rules of the Federal Aviation Regulations and is approved for return to service with respect to the work performed

7-19-19	TACH			Removed STARNER. Installed Light Weight
	529.5			Skytec STARNER P/N 149NLR S/N H-5121771
				In Reference to HARTZEL Drawing ST25601. Completed
				Weight And Balance Revision. In with N2751361 FA

YEAR:

DATE

ENGINE MODEL:
ENGINE S/N:
REG. NO: N88WW
WORK ORDER:
0954-08-2019

JETSTREAM

Jetstream Aviation

4700 W Aeronca St.
Boise, ID 83705
Phone: 208-345-3730

DATE: 8/21/2019
A/C TSN: 4933.1
ENG TT: 1725.4
TSMOH: 1725.4
HOBBS: 1572.5

or Repair

Engine Entries

Drained oil, removed and inspected oil filter. No findings. Installed CH49110-1 filter and replenished 8qts of Phillips 20-50X/C.
Ground ran engine no leaks noted

Maintenance Release

The aircraft and/or component(s) on N88WW was repaired and inspected in accordance with current FARs rules of the Federal Aviation Regulations and was found Airworthy for return to service.

DATE: 8/21/2019

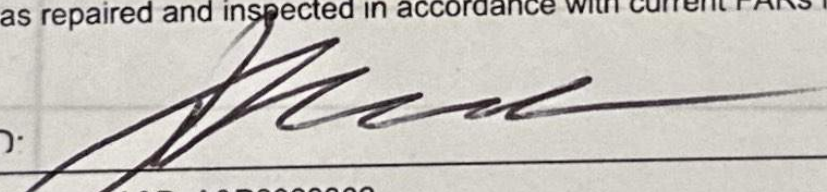
SIGNED:

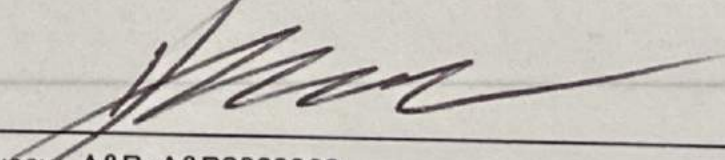
Kevin Laddusaw, A&P: A&P2823302

Work Order: 0954-08-2019

Printed by EBis 3 (datcomedia.com)

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YEAR:	RECORDING	TODAY'S	TOTAL	Description of Inspections, Tests, Repairs and Alterations	Technician or Repair
DATE	ENGINE MODEL: L10-320-B1A ENGINE S/N (R): RL-366-66A REG. NO: N88WW WORK ORDER: 0985-11-2019	FLIGHT TIME	TIME IN JETSTREAM EQUATION	Entries must be endorsed with Name, Rating and Certificate Number of Technician (see pages for other specific entries.) Jetstream Aviation 4700 W Aeronca St. Boise, ID 83705 Phone: 208-345-3730	DATE: 11/15/2019 A/C TSN: 4981.4 ENG TT (R): 1741.8 TSMOH (R): 1741.8 HOBBS: 1620.8
	Right Engine Entries			Performed a 100 Hour inspection using a checklist meeting the requirements of FAR 43 appendix D. Compressions as follows #1. 78/80, #2. 78/80, #3. 78/80, #4 65/80. Serviced with 8 quarts of Phillips 20W50 X/C. Cut and inspected oil filter, no contaminants noted. Cleaned, gapped, inspected and tested spark plugs. Checked and adjusted magneto timing as necessary. I certify that this engine was inspected in accordance with a 100 hour inspection and was determined to be in an air worthy condition.... Complied with AD 2015-19-07 by inspection... Removed engine rocker covers and performed internal rocker cover inspection. Reinstalled covers.... Installed Reiff Preheat System HotStrip oil sump heaters and thermostat in ref to Reiff installation instructions... Removed right prop governor. Ref Precision Propeller service WO 32898 for reseal. Reinstalled governor in ref to AMM 8-14	
	Maintenance Release				
	The aircraft and/or component(s) on N88WW was repaired and inspected in accordance with current FARs rules of the Federal Aviation Regulations and was found Airworthy for return to service.				
	DATE: 11/15/2019			SIGNED:  Kevin Laddusaw, A&P: A&P2823302	Work Order: 0985-11-2019 Printed by EBis 3 (datcomedia.com)

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.)	Repair
ENGINE MODEL: LIO-320-B1A ENGINE S/N (R): RL-366-66A REG. NO: N88WW WORK ORDER: 1058-04-2020			JETSTREAM Jetstream Aviation 4700 W Aeronca St. Boise, ID 83705 Phone: 208-345-3730	DATE: 4/29/2020 A/C TSN: 5029.9 ENG TT (R): 1779.4 TSMOH (R): 1776.4 HOBBS: 1669.3
Right Engine Entries				
Drained oil replaced oil filter with CH48110-1. Cut open filter with no findings. Replenished oil with 8 qts of Phillips 25-50 X/C. Ground ran no leaks noted				
Maintenance Release				
The aircraft and/or component(s) on N88WW was repaired and inspected in accordance with current FARs rules of the Federal Aviation Regulations and was found Airworthy for return to service.				
DATE: 4/29/2020		SIGNED:  Kevin Laddusaw, A&P: A&P2823302		Work Order: 1058-04-2020 Printed by EBis 3 (datcomedia.com)

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.)									
				 1276A East 4100 North Buhl, Idaho 83316 1-208-543-8999 <table border="1" style="width: 100%;"> <tr> <td>Date: 01/14/21</td> <td>N88WW</td> <td>Lycoming</td> <td>M/N: LIO-320-B1A</td> <td>S/N: RL-366-66A</td> <td>Hobbs: 1746.0</td> <td>TT: 5163.4</td> <td>TSMOH: 1779.4</td> <td>TSTOH:</td> </tr> </table> Right engine's 100 Hour Inspection at aircraft annual completed this date in accordance with FAR 43, Appendix D and applicable Lycoming Service manual. Removed the top spark plugs and ran a compression test: #1 79/80, #2 71/80, #3 78/80, #4 78/80. Removed the bottom plugs, cleaned, inspected, gapped, and installed the spark plugs with new M674 gaskets, torqued spark plugs to 28 foot pounds. Cleaned the spark plug lead ends with acetone, applied dielectric grease to them and installed the leads. Checked the mag timing and found it to be at 25° BTC. Replaced the fuel injector line clamps on #1 & #3 cylinders with new clamps and hardware. Drained engine oil, half way through the drain took an oil sample. Removed the oil filter, installed a new AA48110-2 Tempest oil filter and safety wired it. Cut open the old filter, some carbon was present but no metal. Removed the suction screen, found some foreign debris, no metal, cleaned the screen, installed, and safety wired it. Serviced the engine with 7 quarts of 20-50 X-C Phillips oil and 1 pint of CamGuard. Checked the fuel controller inlet screen, cleaned with solvent, some debris was present, installed the screen and safety wired it. Tightened the leaking hose coupling clamps on #1 & #3 oil drain tubes. Replaced the mechanical fuel pump with a rebuilt AF-15473 Tempest pump. Made up a new fuel line from the firewall to the pump using 303-5 Aeroquip hose, and covered it with 2650-6 Stratoflex firesleeve, using two 10781-4-22CR Stratoflex clamps to secure the ends of the firesleeve to the hose. Installed	Date: 01/14/21	N88WW	Lycoming	M/N: LIO-320-B1A	S/N: RL-366-66A	Hobbs: 1746.0	TT: 5163.4	TSMOH: 1779.4	TSTOH:
Date: 01/14/21	N88WW	Lycoming	M/N: LIO-320-B1A	S/N: RL-366-66A	Hobbs: 1746.0	TT: 5163.4	TSMOH: 1779.4	TSTOH:					

[illegible]

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.)
02 MAR 71	TACH	5230.8		DRAINED OIL, REPLACED FILTER w/ CH48110-1 FILTER. ADDED 7 QUARTS PHILLIPS XC20W-50 OIL. RAN A/C & INSPECTED FOR LEAKS. NO ANOMALIES. CLAYTON WHALEY 2861105 OPERATOR
	HOBBS	1805.3		
18 OCT 71	TACH	5281.7		DRAINED OIL, REPLACED FILTER w/ CH48110-1 FILTER. ADDED 7 QTS PHILLIPS XC20W-50 OIL. RAN A/C & INSPECTED FOR LEAKS. NO ANOMALIES. CLAYTON WHALEY 2861105 OPERATOR
	HOBBS	1819.6		
	ACTT	5295.3		

5367.5 ~~T~~ 1156.5 1925.2

Date: 02/21/2022 Hours: AC: ~~5295.3~~ TT: EngTT: ~~1084.3~~ L/H ~~1853.0~~ R/H
Tail#: N88WW PropTT: 467.2 L/H 467.2 R/H Hobbs: 1819.6 Misc:

Make: Piper

Model: PA-39

S/N:

Drain oil remove filter and Inspect, no contamination found. Remove spark plugs clean and Inspect. Compression check as follows: All cylinders 70/80 or better. Reinstalled (4) spark plugs same engine with new gaskets (4) P/N: U674. Installed (4) new spark plugs P/N: UREM38E. Serviced sump with (8) Qts. Phillips XC20W50 oil. Installed new oil filter P/N: CH48110-1. Checked Engine timing IAW engine data tag. Engine ground run all temps/pressures normal, no leaks noted at this time.

I certify that this R/H engine has been Inspected IAW FAR 43.(D) 100Hr. Inspection and has been found to be airworthy at this time.

Name: John H. Sanders Jr.

Cert: 3527277A&P/IA

Co: JH Sanders Aviation Services Llc

Sign:

ns
of Technician or Repair

[illegible]

YEAR:

Date: ~~06/05/2023~~

Hours:

AC: 6399.5 TT: EngTT: 1116.3 L/H, 1885.0 R/H

ations

nber of Technician or Repair

DATE

Tail#: N88VWV

PropTT: 499.2L/H, 499.2 R/H Hobbs: 1851.6 Misc:

Make: Piper

Model: PA-39

S/N:

Drain oil remove filter and Inspect, no contamination found. Remove spark plugs clean and Inspect Compression check as follows: all cylinders 68/80 or better. Reinstalled spark plugs same engine with new gaskets (8) P/N: U674. Service sump with (8) Qts Phillips XC20W50 oil. Installed new oil filter P/N: CH48110-1 Engine timings checked IAW Engine data tag. Aircraft ground run all temps/pressures normal, no leaks noted at this time.

I certify that this R/H Engine has been inspected IAW Far 43(D) 100Hr. inspection and has been found to be airworthy at this time.

Name: John H. Sanders Jr.

Cert: 3527277 A&P

Co: JH Sanders Aviation Services Llc

Sign:

YEAR: RE
TA
TI

DATE



2-29-2024 Lycoming LIO-320-B1A S/N RL-366-66A Tach:59.9
N88WW

Removed cowling on right engine. Replaced #3 cylinder with overhauled
cylinder/piston/ring assembly as supplied by certified engines unlimited on work order
62768-000 P/N LIO-320-B1A cyl S/N RL-366-66A. Installed new superior wrist pin
P/N SL13444-1 gasket kit P/N SL12032-SC and wrist pin thrust button P/N LW12892.
Drained crankcase and refilled with 8QTS of 20W50 Type M. Installed new oil filter
P/N CH4B110-1, Test run satisfactory. Replaced cowling returned to service

Richard W. Clagg A&P4801450

Authorized Cirrus Service Center

Richard W. Clagg

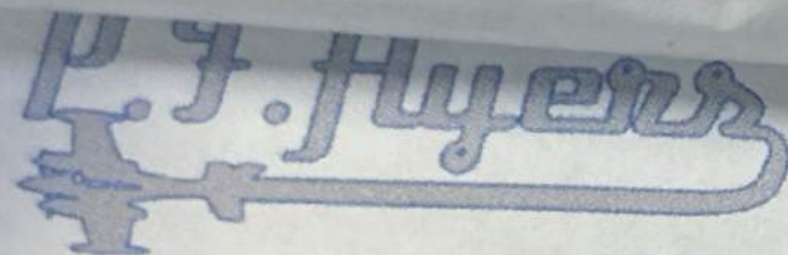
n or Repair

order

t pin

12892.

filter



2-29-2024 Lycoming LIO-320-B1A S/N RL-366-66A Tach:59.9
N88WW

Removed cowling on right engine. Replaced #3 cylinder with overhauled cylinder/piston/ring assembly as supplied by certified engines unlimited on work order 62768-000 P/N LIO-320-B1A cyl S/N RL-366-66A. Installed new superior wrist pin P/N SL13444-1 gasket kit P/N SL12032-SC and wrist pin thrust button P/N LW12892. Drained crankcase and refilled with 8QTS of 20W50 Type M. Installed new oil filter P/N CH48110-1, Test run satisfactory. Replaced cowling returned to service

Richard W. Clagg A&P4801450

Authorized Cirrus Service Center

Richard W Clagg

YEAR: RECORDING TODAY'S TOTAL

Description of Inspections, Tests, Repairs and Alterations

wo: WO_883

Engine R - page 1 of 1

DATE



PF Flyers Inc - 300 Eagle Mountain Rd - Charleston, WV 25311 - 3046332601

N88WW

TACH: 5483.8

LYCOMING, IO-320 SERIES, S/N: RL-336-66A

September 26, 2024

Inspected and serviced this engine in accordance with FAR 43 Appendix D and applicable maintenance and service manuals. Cleaned and gapped plugs. Re-timed both magnetos to engine. Compression results as follows: 1)75/80. 2)70/80. 3)79/80. 4)75/80. All AD's pertinent to this model complied with, see AD compliance list. Drained crankcase and removed filter. Cut filter, no contaminants found. Installed, torqued and saftied new CH48110-1 filter. Refilled with 8 Qts Aero shell 15w50 oil. Test run, ops check ok. I certify that this engine has been inspected in accordance with annual inspection procedures and was found to be in an airworthy condition.

Jarrold Golice A&P/IA 3584329

Repair

