

ENGINE LOG BOOK



LYCOMING**Record of Accessories and Major Parts Shipped with Engine**

Model No: IO-390-A1A6

Order No: KM694251

Serial No: RL-643-80E

TC No: E00006NY

ENPL: RENPL-RT10592

Date: 17-OCT-11 Inspector: 

All accessories listed are 0 (zero) time since New or 0 (zero) time since Overhaul. All accessories are new unless part number is succeeded by -85 or -70

<u>Part Name</u>	<u>Part Number</u>	<u>Manufacture</u>	<u>Serial#</u>	<u>Setting</u>
Crankcase Match No	11U20391-1S		BB9579	
Crankshaft Serial No	13C47317-85		V537969729	
Fuel Pump	62B26931	Lycoming	RC51165345	
Ignition Harness - Left	67P20413	SLICK		
Ignition Harness - Right	67P20412	SLICK		
Injector	61J26426	Avstar	AV24733983	AV2524054-11
Magneto - Left	66GR15SANN	SLICK	17070418	
Magneto - Right	66GP-0SANN	SLICK	17070318	
Spark Plug	1182-G7	Champion		

LYCOMING

652 Oliver Street

Williamsport, PA 17701 U.S.A.

Airworthiness Directive Compliance List



Engine Model No: **IO-390-A1A6**

Sign for AD's Coded 1 (Applicable to engine Model)

Engine SN: **RL-643-80E**

17-OCT-11

AD No. / Rev	SB / Rev	Description	Method of Compliance	Next Due	Code
2012-03-06	596	Avstar Fuel System fuel servo diaphragm	New configuration diaphragm installed	N/A	1

Cell No. 2-3

LYCOMINGProduction Automated Engine Test Log
Std Run-in Data Sheet

Form# T-001

Engine # : RL-643-80E
Operator 1: TIM BROWNELL
Operator 2:
Fuel Serial # : AV24733983
Fuel Slave : NO
Fuel Curve: C-13581
Pre-Oil Temp : 168
ETS # : 789

Model # : IO-390-A1A6

Accept/Date :

Accept/Date :

Ignition Left : 17070418

Ignit_L Slave : NO

Float Bowl Connected to Fuel Pump Inlet : YES

Pre-Oil Pres : 80

ETS Rev : EC0-27337

Order # : KM694251

Test Mode : Final

BOM : RENPL-RT10592

Ignition Right : 17070318

Ignit_R Slave : NO

Setting # : AV2524054-11

Date/Time : 10/9/17 13:01

Preservation : LPS 486

Part 3.2 Test

Sign : 

SW Rev : LSW2001-A LCY

Barometer : 29.25

Read Time : 10/9/17 13:40

Test Status : Pass

Comments

Variations

The following minor variations to the applicable engine test specification were observed during this test and determined to be acceptable 'as is'. The acceptance of these variations will not affect air worthiness or performance.

1)

2)

3)

4)

Engr. _____ Q.C. _____ Date _____

When / Test

Low Limit

Value

High Limit

Status

2 Runin @ 1500 for 5 min

Allowable Speed Variation (RPM)

Cylinder Head Temperature (DegF)

Inlet Air Temp (DegF)

5 Runin @ 1800 for 10 min

Allowable Speed Variation (RPM)

Cylinder Head Temperature (DegF)

Inlet Air Temp (DegF)

8 Runin @ 2200 for 10 min

Allowable Speed Variation (RPM)

Cylinder Head Temperature (DegF)

Inlet Air Temp (DegF)

11 MagChk @ 2200 for 1 min

Magnetto Dropoff - Each Mag (RPM)

Magnetto Dropoff - Difference (RPM)

Cylinder Head Temperature (DegF)

Inlet Air Temp (DegF)

15 Idle @ 0 for 4 min

Idle Speed (RPM)

Cylinder Head Temperature (DegF)

Oil Pressure @ Idle (PSI)

9.3

258.8

72.6

0.5

288

73.4

1

302.5

74

80.9

7

301.9

74

679.1

281

49

75.4

75

475

110

75

475

110

75

475

110

150

35

475

110

700

475

110

Pass

Pass

Pass

Pass

Pass

Pass

Pass

Pass

Pass

Pass

Pass

Pass

Pass

Pass

Pass

Pass

Pass

Engine # : RL-643-80E	Model # : 10-390-A1A6	Order # : KM694251
Operator 1: TIM BROWNELL	Accept/Date : <u> </u>	Test Mode : Final
Operator 2:	Accept/Date : <u>08-17</u>	BOM : RENPL-RT10592
Fuel Serial # : AV24733983	Ignition Left : 17070418	Ignition Right : 17070318
Fuel Slave : NO	Ignit_L Slave : NO	Ignit_R Slave : NO
Fuel Curve: C-13581	Float Bowl Connected to Fuel Pump Inlet : YES	SW Rev : LSW20001-A LCY
Pre-Oil Temp : 168	Pre-Oil Pres : 80	Barometer : 29.26
ETS # : 789	ETS Rev : ECO-27337	Read Time : 10/9/17 14:32
	Date/Time : 10/9/17 13:42	Test Status : Pass

Comments

Variations

The following minor variations to the applicable engine test specification were observed during this test and determined to be acceptable 'as is'. The acceptance of these variations will not affect air worthiness or performance.

1) _____
2) _____
3) _____
4) _____

Engr. _____ Q.C. _____ Date _____

When / Test	Low Limit	Value	High Limit	Status
2 Airflow @ AF-500 for 4 min				
Fuel Flow Limits (PPH)	46.2	48.84	52.2 @ AF-502	Pass
Fuel Nozzle Limits ("HG)	N/A	3.7	N/A	Pass
Cylinder Head Temperature (DegF)		296.1	475	Pass
Inlet Air Temp (DegF)	0	73.9	110	Pass
4 Airflow @ AF-900 for 4 min				
Fuel Flow Limits (PPH)	77.4	82.64	86.5 @ AF-905	Pass
Fuel Nozzle Limits ("HG)	N/A	10.64	N/A	Pass
Cylinder Head Temperature (DegF)		337.6	475	Pass
Inlet Air Temp (DegF)	0	73.1	110	Pass
6 Airflow @ AF-1100 for 4 min				
Fuel Flow Limits (PPH)	94.1	103.04	104.1 @ AF-1102	Pass
Fuel Nozzle Limits ("HG)	15.3	16.86	18.1 @ AF-1102	Pass
Cylinder Head Temperature (DegF)		355.6	475	Pass
Inlet Air Temp (DegF)	0	73.5	110	Pass
11 Rated @ Rated for 15 min				
Rated Speed (RPM)	2650	2729.8	2750	Pass
Manifold Pressure @ Rated ("HG)	26.5	27.58	28.5	Pass
Fuel Pressure @ Rated (PSI)	18	26.3	28	Pass
Oil Pressure @ Rated (PSI)	75	77.5	85	Pass
Air Flow Limits (PPH)	1152.7	1164		Pass
Cylinder Head Temperature (DegF)		348.2	475	Pass
Oil Gallery Temp @ Rated (DegF)	165	183.1	215	Pass
Inlet Air Temp (DegF)	0	72.5	110	Pass
14 Final Idle @ 0 for 4 min				
Idle Speed (RPM)	600	681.3	700	Pass
Cylinder Head Temperature (DegF)		286.3	475	Pass
Oil Gallery Temp @ Final Idle (DegF)	140	179.8	215	Pass
Oil Pressure @ Idle (PSI)	25	49		Pass
Manifold Pressure @ Final Idle (In Hg)	8	12.7	17	Pass
Inlet Air Temp (DegF)	0	76.9	110	Pass
16 Manual @ N/A for 0 min				
Acceleration Check (sec)	2	4	5	Pass
Idle Cut-off Time (sec)	0	4	5	Pass

Engine Log & Maintenance Record

LOG #: _____

RECORD OF _____
(MAKE) (MODEL) (SERIAL)

AIRCRAFT REGISTRATION NUMBER: _____

FROM _____ 20____ TO _____ 20____

DETAILING TIME FROM _____ TO _____
(HOURS) (HOURS)

If used on a multi-engine aircraft: _____ Right _____ Left _____ Front _____ Rear

Rebuilt Engine Certificate of Conformance

LYCOMING

This is to certify that the engine as described hereinafter has been REBUILT in accordance with the applicable Lycoming specifications. It has been determined airworthy to return to service and is in a condition for safe operation. All applicable Federal Aviation Administration Airworthiness Directives and Lycoming Service Publications have been complied with. All accessories as part of the type certificate are new or newly rebuilt. Refer to enclosed Form ET001 for applicable accessory part numbers and serial numbers.

Part Number RENPL-RT10592
Serial Number RL-643-80E
Engine Model IO-390-A1A6
Work Order KM694251
Total Time 0

[Signature] 10/11/12
Authorized Representative Date

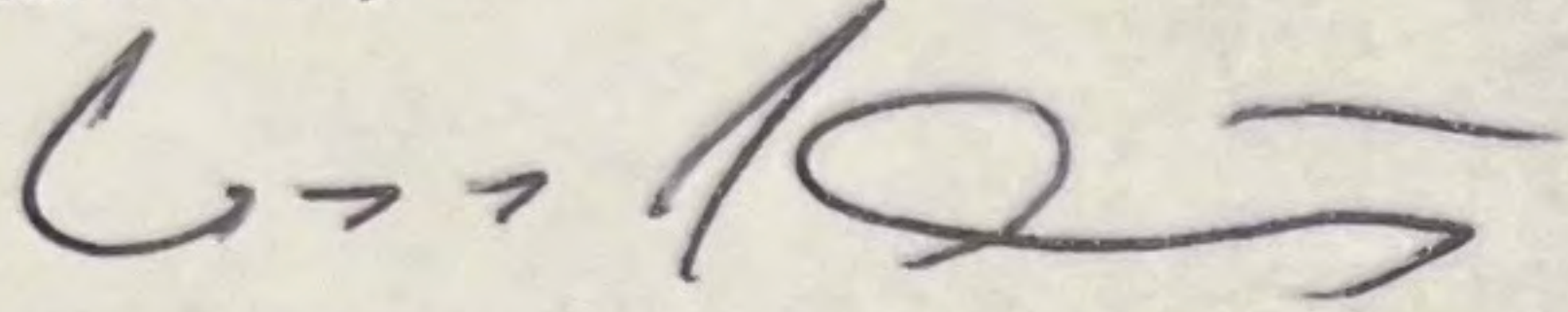
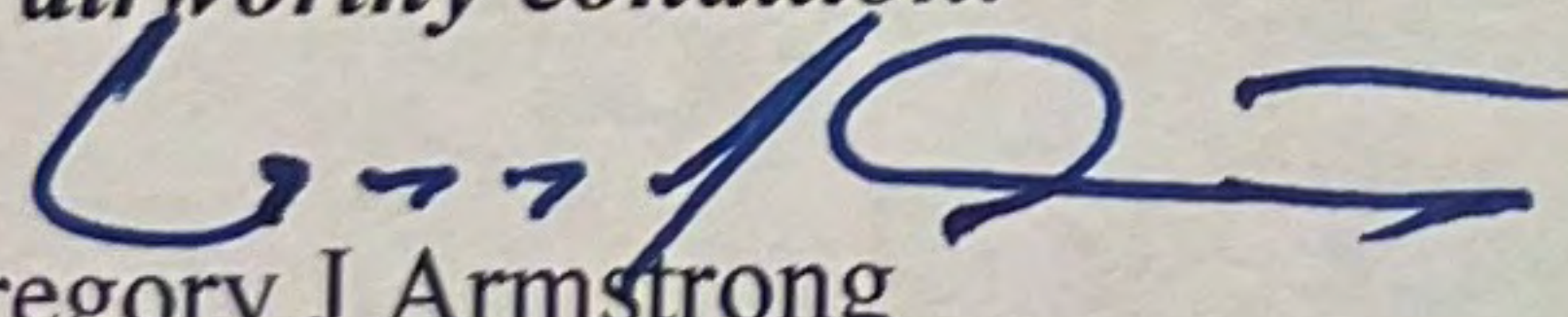
Production Certificate #3

652 Oliver Street Williamsport, PA 17701 U.S.A.
Lycoming Engines is a division of Avco Corporation

Form 2481 Rev 05/13

Engine Log

Serial # _____

Date	Time Run (Hours)	Total Time Since Overhaul	Repairs, Adjustments, Service, Remarks	Signature	Licence #
BROUGHT FORWARD BY: Cavalier Aviation, LLC 335 Industrial Drive Louisa, VA 23093 (540) 967-1695			N#: 7702V Model: IO-390-A1A6 S/N: RL-643-80E TTENG: 0.0 Tach: 0.0 Date: 12/01/2017		
Installed this engine on N7702V, a Cessna 177RG SN 177RG0905 according to Lycoming installation instructions Part no. SSP-113 dated August 2013 and STC SA10944SC referencing Cessna 177RG Service Manual. Serviced engine with 8 quarts Phillips 20W-50 X/C oil. Performed ground run and leak check. No defects found.					
<i>I certify that this engine has been inspected in accordance with a 100 hour inspection and was determined to be in airworthy condition.</i>					
 Gregory J Armstrong AP 3743119					
Cavalier Aviation, LLC 335 Industrial Drive Louisa, VA 23093 (540) 967-1695			N#: 7702V Model: IO-390-A1A6 S/N: RL-693-80E TTENG: 19.4 Tach: 19.4 Date: 01/25/2019		
Completed an Annual Inspection. Compression: 1) 72/80 2) 72/80 3) 75/80 4) 74/80. Drained oil, removed oil filter and inspected, no metal found, installed a new AA48110-2 oil filter, serviced engine with 7 quarts Phillips 20W-50 X/C oil. Cleaned, gapped, tested and rotated spark plugs. Checked mag to engine timing. Cleaned engine, checked and lubed controls. Ground run and leak check satisfactory.					
<i>I certify that this engine has been inspected in accordance with a 100 hour inspection and was determined to be in airworthy condition.</i>					
 Gregory J Armstrong AP 3743119					

Page Total: _____

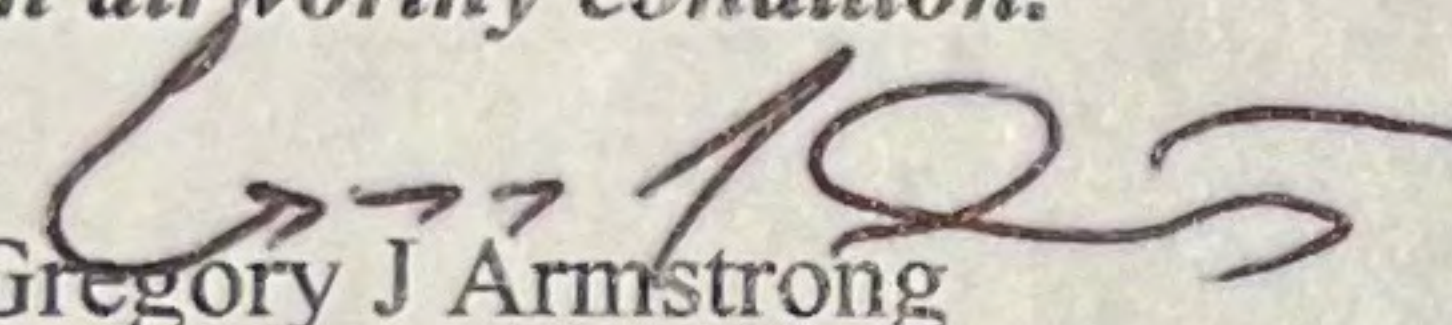
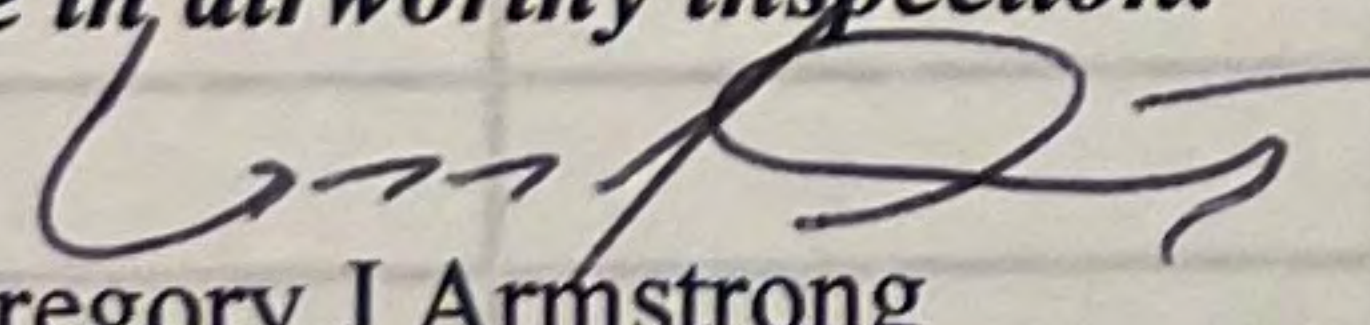
Brought Forward: _____

Total to Date: _____

All repair data must bear the endorsement of a certified mechanic, and his/her rating and certificate number MUST be shown.

Engine Log

Serial # _____

Date	Time Run (Hours)	Total Time Since Overhaul	Repairs, Adjustments, Service, Remarks	Signature	Licence #
BROUGHT FORWARD BY: Cavalier Aviation, LLC					
335 Industrial Drive Louisa, VA 23093 (540) 967-1695			N#: 7702V Model: IO-390-A1A6 S/N: RL-643-80E TTE: 28.8 Tach: 28.8 Date: 02/01/2020		
Completed an Annual Inspection. Compression: 1) 72/80 2) 74/80 3) 74/80 4) 72/80. Drained oil, removed oil filter and inspected, no metal found, installed a new AA48110-2 oil filter, serviced engine with 7 quarts Phillips 20W-50 X/C oil. Cleaned, gapped, tested and rotated spark plugs. Checked mag to engine timing. Checked and lubed controls. Ground run and leak check satisfactory.					
<i>I certify that this engine has been inspected in accordance with a 100-hour inspection and was determined to be in airworthy condition.</i>					
 Gregory J Armstrong AP 3743119					
BROUGHT FORWARD BY: Cavalier Aviation, LLC					
335 Industrial Drive Louisa, VA 23093 (540) 967-1695			N#: 7702V Model: IO-390-A1A6 S/N: RL-643-80E TTE: 28.8 Tach: 47.6 Date: 03/20/2021		
Completed an Annual Inspection. Compression: 1) 72/80 2) 74/80 3) 76/80 4) 75/80. Drained oil, removed oil filter and inspected, no metal found, installed a new AA48110-2 oil filter, inspected oil suction screen, no metal found. Cleaned, gapped, tested and rotates spark plugs, checked mag to engine timing, cleaned engine, checked and lubed controls. Ground run and leak check satisfactory.					
<i>I certify that this aircraft has been inspected in accordance with an 100-hour inspection and was determined to be in airworthy inspection.</i>					
 Gregory J Armstrong AP 3743119					

Page Total: _____

Brought Forward: _____

Total to Date: _____

All repair data must bear the endorsement of a certified mechanic, and his/her rating and certificate number MUST be shown.

Engine Log

Serial # _____

Date	Time Run (Hours)	Total Time Since Overhaul	Repairs, Adjustments, Service, Remarks	Signature	Licence #
BROUGHT FORWARD					

N7702V
S/N: RL-643-80E
MODEL: IO-390-A1A6
TACH TIME: 199.5
HOBBS TIME:



2980 AIRWAY AVE, COSTA MESA, CA 92626
TEL: 714-433-2275, WWW.JAYS AIRCRAFT.COM
FAA APPROVED REPAIR STATION # JVYR016L

ENGINE LOG

THE AIRCRAFT AND/OR COMPONENT IDENTIFIED ABOVE WAS REPAIRED AND INSPECTED IN ACCORDANCE WITH CURRENT FEDERAL AVIATION REGULATIONS AND WAS FOUND AIRWORTHY FOR RETURN TO SERVICE. PERTINENT DETAILS OF THE REPAIR / REPLACEMENT ARE ON FILE AT THIS AGENCY

SIGNED: _____

C/W ANNUAL INSPECTION IAW CESSNA 177RG MAINTENANCE MANUAL.

COMPRESSION VALUES:

1. 76/80, 2. 76/80, 3. 78/80, 4. 72/80

MASTER ORIFICE VALUE: 42

SERVICED WITH 8 QTS OF PHILLIPS 20W-50 X/C AND AA48110-2 OIL FILTER. AOA TAKEN. ENGINE WASHED, RUN UP AND INSPECTED. OPERATIONAL CHECK SATISFACTORY.

R&R INDUCTION AIR FILTER WITH NEW P/N BA-5705 IAW CESSNA 177RG SERVICE MANUAL. OPERATIONAL AND LEAK CHECK FOUND SATISFACTORY.

MAGNETOS INSPECTED IAW CESSNA 177RG, LYCOMING IO-390, AND SLICK 4300 SERIES SERVICE MANUALS IAW ANNUAL INSPECTION GUIDELINES. MAGNETOS RE-TIMED AS REQUIRED. OPERATIONAL AND LEAK CHECK FOUND SATISFACTORY. 500 HOUR MAGNETO INSPECTION DUE @ 500.0 TACH HOURS (300.5 HOURS REMAINING)

SPARK PLUGS ROTATED AND CLEANED, REPLACED GASKETS WITH NEW P/N M674 (8) IAW LYCOMING IO-390 SERVICE MANUAL IAW ANNUAL INSPECTION GUIDELINES.

REPAIRED FUEL PUMP DRAIN IAW AC43.13-1B. OPERATIONAL AND LEAK CHECK FOUND SATISFACTORY.

INSPECTED JPI MANIFOLD PRESSURE TRANSDUCER AND FOUND CONNECTION LOOSE AND DIRTY. CLEANED AND RE-SECURED CONNECTION AND MANIFOLD PRESSURE TRANSDUCER. OPERATIONAL CHECK FOUND SATISFACTORY.

SOME SBs THAT APPLY TO THIS AIRCRAFT MAY NOT HAVE BEEN PERFORMED PER OWNER'S DECISION.

C/W ALL APPLICABLE ADS THROUGHOUT THIS DATE.

DATE: 4/19/2022
W.O.#: 24646
TSMOH:
TOTAL TIME: 199.5

N7702V
S/N: RL-643-80E
MODEL: IO-390-A1A6
TACH TIME: 199.5
HOBBS TIME:

THE AIRCRAFT AND WAS

SIGNED: _____

C/W AND COMPRE

1. 76/80,

MASTER

SERVIC

INSPEC

R&R IN

FOUND

MAGNE

INSPEC

HOUR M

R&R SE

CHECK

SOME

C/W A

Page Total: _____

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Total to Date: _____

All repair data must bear the endorsement of a certified mechanic, and his/her rating and certificate number MUST be shown.

Page

Bro

Tot

Serial # _____

DATE: 5/15/2023
W.O.#: 25066
TSMOH:
TOTAL TIME: 267.5



ENGINE LOG

THE AIRCRAFT AND/OR COMPONENT IDENTIFIED ABOVE WAS REPAIRED AND INSPECTED IN ACCORDANCE WITH CURRENT FEDERAL AVIATION REGULATIONS AND WAS FOUND AIRWORTHY FOR RETURN TO SERVICE. I CERTIFY THIS AIRCRAFT HAS BEEN INSPECTED IAW WITH AN ANNUAL/100 HR. INSPECTION AND IS DETERMINED TO BE IN AIRWORTHY CONDITION. PERTINENT DETAILS OF THE REPAIR / REPLACEMENT ARE ON FILE AT THIS AGENCY

SIGNED: 

SOME SBs THAT APPLY TO THIS AIRCRAFT MAY NOT HAVE BEEN PERFORMED PER OWNER'S DECISION.
C/W ALL APPLICABLE ADS THROUGHOUT THIS DATE.

[illegible]

Total to Date: _____

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Engine Log

Serial # _____

Date	Time Run (Hours)	Total Time Since Overhaul	Repairs, Adjustments, Service, Remarks	Signature	Licence #
BROUGHT FORWARD					
6/25/21	84.7		OIL CHANGE STICKER IN AIRFRAME LOG	AR	
		(46.7 HRS)			
11/20/21	131.4		OIL CHANGE		

N7702V
S/N: 177RG00905
MODEL: 177RG
TACH TIME: 131.4
HOBBS TIME:



2980 AIRWAY AVE, COSTA MESA, CA 92626
TEL: 714-433-2275, WWW.JAYS AIRCRAFT.COM
FAA APPROVED REPAIR STATION # JVYR016L

ENGINE LOG

THE AIRCRAFT AND / OR COMPONENT IDENTIFIED ABOVE WAS REPAIRED AND INSPECTED IN ACCORDANCE WITH CURRENT FEDERAL AVIATION REGULATIONS AND WAS FOUND AIRWORTHY FOR RETURN TO SERVICE. PERTINENT DETAILS OF THE REPAIR / REPLACEMENT ARE ON FILE AT THIS AGENCY
SIGNED: *[Signature]*

SERVICED WITH 8 QTS OF PHILLIPS 20W-50 X/C AND AA48110-2 OIL FILTER. NO AOA TAKEN. ENGINE WASHED, RUN UP AND INSPECTED. OPERATIONAL CHECK SATISFACTORY.

DATE: 11/17/2021
W.O.#: 24480
TSMOH:
TOTAL TIME:

N7702V
S/N: RL-643-80E
MODEL: IO-390-A1A6
TACH TIME: 200.8
HOBBS TIME:



2980 AIRWAY AVE, COSTA MESA, CA 92626
TEL: 714-433-2275, WWW.JAYS AIRCRAFT.COM
FAA APPROVED REPAIR STATION # JVYR016L

ENGINE LOG

THE AIRCRAFT AND / OR COMPONENT IDENTIFIED ABOVE WAS REPAIRED AND INSPECTED IN ACCORDANCE WITH CURRENT FEDERAL AVIATION REGULATIONS AND WAS FOUND AIRWORTHY FOR RETURN TO SERVICE. I CERTIFY THIS AIRCRAFT HAS BEEN INSPECTED IAW WITH AN ANNUAL/100 HR. INSPECTION AND IS DETERMINED TO BE IN AIRWORTHY CONDITION. PERTINENT DETAILS OF THE REPAIR / REPLACEMENT ARE ON FILE AT THIS AGENCY
SIGNED: *[Signature]*

SERVICED WITH 8 QTS OF PHILLIPS 20W-50 X/C AND AA48110-2 OIL FILTER. AOA TAKEN. ENGINE WASHED, RUN UP AND INSPECTED. OPERATIONAL CHECK SATISFACTORY.

DATE: 9/12/2022
W.O.#: 24843
TSMOH:
TOTAL TIME: 200.8

Page Total: _____

Brought Forward: _____

Total to Date: _____

All repair data must bear the endorsement of a certified mechanic, and his/her rating and certificate number MUST be shown.

Serial # _____

DATE: 5/6/2024
W.O.#: 25426
TSMOH:
TOTAL TIME: 371.0



ENGINE LOG

SIGNED:

SOME SBs THAT APPLY TO THIS AIRCRAFT MAY NOT HAVE BEEN PERFORMED PER OWNER'S DECISION.
C/W ALL APPLICABLE ADs THROUGHOUT THIS DATE.

[illegible]

Total to Date: _____

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Engine Log

Serial # _____

[illegible]

Page Total: _____

Brought Forward: _____

Total to Date: _____

All repair data must bear the endorsement of a certified mechanic, and his/her rating and certificate number **MUST** be shown.

Service Bulletins, Letters, Instructions & A.D. Notes

Date: _____



Contact Us:

Mailing Address:

Lycoming Engines
652 Oliver Street
Williamsport, PA 17701

Phone:

U.S. and Canada Toll Free: +1-800-258-3279

International Customers: +1-570-323-6181

Lycoming's regular business hours are Monday through Friday from 8:00AM through 5:00PM Eastern Time (-5 GMT).

Visit us Online: www.lycoming.com