

ENGINE LOG BOOK





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

Engine Log & Maintenance Record

LOG #: 1

RECORD OF MOONEY M20J 24-3393
(MAKE) (MODEL) (SERIAL)

AIRCRAFT REGISTRATION NUMBER: N1083L

FROM JULY 20 TO 20

DETAILING TIME FROM (HOURS) TO (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-RT9479
Serial Number RL-39581-51E
Engine Model IO-360-A3B6
Work Order HP805311
Total Time 0

Low name 2/22/22
Authorized Representative Date

Production Certificate #3

Form 2481 Rev 05/13

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

Serial

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.



Record of Accessories and Major Parts Shipped with Engine

Model No: **IO-360-A3B6**Serial No: **RL-39581-51E**ENPL: **RENPL-RT9479**Order No: **HP805311**TC No: **1E10**Date: **22-FEB-2023**

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	11B20161-1SL		BB17372	
Crankshaft Serial No	13B47221-85		V537956169	
Cylinder 1	16A30160-01	Lycoming	41228567-062	
Cylinder 2	16A30160-01	Lycoming	41228567-084	
Cylinder 3	16A30160-01	Lycoming	41228567-070	
Cylinder 4	16A30160-01	Lycoming	41228567-082	
Fuel Pump	LW-15473	Lycoming	5122L0110	
Ignition Harness - Left	67P20413	SLICK		
Ignition Harness - Right	67P20412	SLICK		
Injector	61J26426	Avstar	AV56366877	AV2524054-11
Magneto - Left	66GC15SFNN	SLICK	22020381	Slick pn 4372
Magneto - Right	66GP-0SANN	SLICK	22070084	Slick pn 4370
Manifold Assy	63B26724		AV56366755	
Spark Plug	1182-E7	Champion		



Airworthiness Directive Compliance List



652 Oliver Street Williamsport, PA 17701 U.S.A.

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

Engine Model No: **IO-360-A3B6**Engine SN: **RL-39581-51E****22-FEB-23**

AD No. / Rev	SB / Rev	Description	Method of Compliance	Next Due	Code
71-05-02	327/C	Inspection of Crankcase Main Bearings	Serviceable or unaffected unit installed	N/A	1
75-08-09	381/385/B/C	Oil Pump Drive Shaft	Serviceable or unaffected unit installed	N/A-Once	1
92-12-05	501/B	LW-14077 Piston Pin	Serviceable or unaffected unit installed	N/A	1
96-09-10	524	Oil Pump Impeller replacement	Serviceable or unaffected unit installed	N/A	1
96-23-03	525/A	High Pressure fuel pump installed	Serviceable or unaffected unit installed	N/A	1
97-15-11	527/C	Recall of Piston Pin P/N LW-14077	Serviceable or unaffected unit installed	N/A	1
98-02-08	530/B	Crankshaft ID Corrosion MPI, Urethabond 104	Serviceable or unaffected unit installed	N/A	1
2003-14-03	529/B	Rotary Fuel Pump torque	Serviceable or unaffected unit installed	N/A	1
2005-19-11	566	Crankshaft replacement	Serviceable or unaffected unit installed	N/A	1
2006-06-16	566 sup 1	Replace crankshaft	Serviceable or unaffected unit installed	N/A	1
2009-02-03	581	Inspection of Precision Airmotive Hex Plug in regulator cover	Serviceable or unaffected unit installed	N/A	1
2012-03-06	596	Avstar Fuel System fuel servo diaphragm	Serviceable or unaffected unit installed	N/A	1
2012-19-01	569/A	CRANKSHAFT REPLACEMENT	Serviceable or unaffected unit installed	N/A	1
2015-19-07	342/G	FUEL LINE AND SUPPORT CLAMP INSPECTION & INSTALL.	Fuel lines routed and clamped per AD requirements	100 HOURS	1
87-10-06/R1	477/A	Inspection & rework of LW-18790 Rocker Arm Assembly	LW-18790 rocker arms not installed	N/A	2
66-20-04	307	Oil Filter Adapter Gasket	AC oil filter not used	N/A	3
67-01-04		STC - Superior Flow Oil Filters	Used genuine Lycoming Parts		3
75-09-15	382	Bendix Fuel Injector RS-43 Inspect/replace Flow Divider gasket	Serviceable or unaffected unit installed	N/A	3
78-23-10	428,29,30	Bendix Injector RS52, RS 53 RS 54 all Rev 2	Serviceable or unaffected unit installed	N/A	3
79-04-05	433/A	Bendix Fuel Injector Bulletin RS-57	Serviceable or unaffected unit installed	N/A	3
93-11-11		Fuel Pump Aero Accessories, Inc. Mandatory Service Bulletin No. 001	Serviceable or unaffected unit installed	N/A-Once	3
95-26-02	398	Engine operated with Low Octane Fuel	Engine is new or rebuilt at Manufacturer	N/A	3
2004-10-14	475/C	Crankshaft Gear Modification and Assembly procedures	Serviceable or unaffected unit installed	N/A	3

Codes: 1 = AD Applicable to Model

2 = AD Not Applicable to Model

3 = Field Compliance where applicable

Std Run-in Data Sheet

Engine #: RL-39581-51E	Model #: 10-360-A3B6	Order #: HP805311	Preservation: LPS 486
Operator 1: P. FISHER	Accept/Date: <u>Per SW</u>	Test Mode: Final	Part 3.2 Test
Operator 2:	Accept/Date: <u>02-20-23</u>	BOM: RENPL-RT9479	Sign: <u>[Signature]</u>
Fuel Serial #: AV56366877	Ignition Left: 22020381	Ignition Right: 22070084	
Fuel Slave: NO	Ignit_L Slave: NO	Ignit_R Slave: NO	SW Rev: LSW20001-A LCY
Fuel Curve: C-12906-F360	Float Bowl Connected to Fuel Pump Inlet: YES		Barometer: 29.6
Pre-Oil Temp: 165	Pre-Oil Pres: 85	Setting #: AV2524054-11	Read Time: 2/20/23 13:25
ETS #: 632	ETS Rev: ECO-26873	Date/Time: 2/20/23 12:44	Test Status: Pass

Comments

Variations

	<p>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.</p> <p>1) FF LIMITS @ AF-500 1.45 PPH RICH</p> <p>2) FF LIMITS @ AF-900 1.33 PPH RICH</p> <p>3) FF LIMITS @ AF-1000 1.15 PPH RICH</p> <p>4)</p> <p>Engr. <u>ACB</u> Q.C. <u>JRC</u> Date <u>2/21/23</u></p>
--	---

When / Test	Low Limit	Value	High Limit	Status
2 Runin @ 1500 for 5 min				
Allowable Speed Variation (RPM)	-75	3.1	75	Pass
Cylinder Head Temperature (DegF)		245.8	475	Pass
Inlet Air Temp (DegF)	0	64.7	110	Pass
5 Runin @ 1800 for 10 min				
Allowable Speed Variation (RPM)	-75	14.8	75	Pass
Cylinder Head Temperature (DegF)		267	475	Pass
Inlet Air Temp (DegF)	0	65.1	110	Pass
8 Runin @ 2200 for 10 min				
Allowable Speed Variation (RPM)	-75	2.5	75	Pass
Cylinder Head Temperature (DegF)		296.2	475	Pass
Inlet Air Temp (DegF)	0	65	110	Pass
11 MagChk @ 2200 for 1 min				
Magneto Dropoff - Each Mag (RPM)		137.9	150	Pass
Magneto Dropoff - Difference (RPM)		34.3	35	Pass
Cylinder Head Temperature (DegF)		295.5	475	Pass
Inlet Air Temp (DegF)	0	64.9	110	Pass
15 Idle @ 0 for 4 min				
Idle Speed (RPM)	600	695.4	700	Pass
Cylinder Head Temperature (DegF)		276.6	475	Pass
Oil Pressure @ Idle (PSI)	25	48.2		Pass
Inlet Air Temp (DegF)	0	67.1	110	Pass

Std Airflow Data Sheet

Engine # : RL-39581-51E	Model # : I0-360-A3B6	Order # : HP805311
Operator 1: P. FISHER	Accept/Date : <u>Feb 20</u>	Test Mode : Final
Operator 2:	Accept/Date : <u>02-20-23</u>	BOM : RENPL-RT9479
Fuel Serial # : AV56366877	Ignition Left : 22020381	Ignition Right : 22070084
Fuel Slave : NO	Ignit_L Slave : NO	Ignit_R Slave : NO
Fuel Curve: C-12906-F360	Float Bowl Connected to Fuel Pump Inlet : YES	SW Rev : LSW20001-A LCY
Pre-Oil Temp : 165	Pre-Oil Pres : 85	Barometer : 29.6
ETS # : 632	ETS Rev : EC0-26873	Setting # : AV2524054-11
	Date/Time : 2/20/23 13:54	Read Time : 2/20/23 14:26
		Test Status : Review

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)	46.3	53.85	52.4 @ AF-503	Review
Fuel Nozzle Limits ("HG)	N/A	5.16	N/A	Pass
Cylinder Head Temperature (DegF)		287	475	Pass
Inlet Air Temp (DegF)	0	67.1	110	Pass
4 Airflow @ AF-900 for 4 min				
Fuel Flow Limits (PPH)	76.6	86.93	85.6 @ AF-895	Review
Fuel Nozzle Limits ("HG)	N/A	12.25	N/A	Pass
Cylinder Head Temperature (DegF)		319.9	475	Pass
Inlet Air Temp (DegF)	0	66.3	110	Pass
6 Airflow @ AF-1000 for 4 min				
Fuel Flow Limits (PPH)	86	96.15	95.0 @ AF-1000	Review
Fuel Nozzle Limits ("HG)	13.5	14.94	16.2 @ AF-1000	Pass
Cylinder Head Temperature (DegF)		338	475	Pass
Inlet Air Temp (DegF)	0	66.4	110	Pass
8 Rated @ Rated for 15 min				
Rated Speed (RPM)	2650	2749.6	2750	Pass
Manifold Pressure @ Rated ("HG)	26.5	27.72	28.5	Pass
Fuel Pressure @ Rated (PSI)	18	20.1	28	Pass
Oil Pressure @ Rated (PSI)	75	78.5	85	Pass
Air Flow Limits (PPH)	1090.1	1134.5		Pass
Cylinder Head Temperature (DegF)		350.3	475	Pass
Oil Gallery Temp @ Rated (DegF)	165	185.7	215	Pass
Inlet Air Temp (DegF)	0	66.4	110	Pass
11 Final_Idle @ 0 for 4 min				
Idle Speed (RPM)	600	659.4	700	Pass
Cylinder Head Temperature (DegF)		284.8	475	Pass
Oil Gallery Temp @ Final_Idle (DegF)	140	180.6	215	Pass
Oil Pressure @ Idle (PSI)	35	47		Pass
Manifold Pressure @ Final Idle (In Hg)	8	14	17	Pass
Inlet Air Temp (DegF)	0	68.8	110	Pass
13 Manual @ N/A for 0 min				
Acceleration Check (sec)	2	4	5	Pass
Idle Cut-off Time (sec)	0	3	5	Pass