ENGINE LOG BOOK





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Visit us Online: www.lycoming.com

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Engine Log & Maintenance Record

LOG #: 1

RECORD OF MOONEY (MAKE)	M20J (MODEL)	24-3393 (SERIAL)
AIRCRAFT REGISTRATION NUMBER: _	N1083L	
FROM <u>JULY</u> 20	то	20
DETAILING TIME FROM (HOURS)	TO(HOURS)	
If used on a multi-engine aircraft:	RightLeft _	FrontRear

Rebuilt Engine Certificate of Conformance

RENPL-RT9479

RL-39581-51E

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 Serial Number Engine Model

IO-360-A3B6 Work Order HP805311 Total Time

Authorized Representative

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

	(Hours)	Total Time Since Overhaul	Repairs, Adjustments,	Service, Remarks	Signature	Licence
ROUGH	ſ	5100			CONTRACTOR OF THE PARTY OF THE	
	T ENGINE MODEL	1	Fop Gun Aviation, Inc.		DATE 7/6/2023 A/C TSN 2938.7	
	IC-360-A3B6 ENGINE S/N		100 5 Lindbergh St		ENG TT 0	
	RL-39581-51A		itockton, CA 95206 USA		TACH 2938 7	
	REG NO 1083L WORK ORDER	MOONIT F	hoпе. 209-983-8082			
	8069-03-2023					
	Engine Entri	es				
	(9) Removed Ly	coming IO-360-A3B6 er	ngine s/n RL-23316-51A and installed factor	y rebuilt Lycoming IO-360-A3B6	6 s/n	
	RL-39581-51E.	Reinstalled Sky-Tec st	arter m/n 149-NL/ec s/n FNE-270903. Repla	aced engine Lord mounts. Repla	aced all tuel and	
	break in IAW I	s with new. Serviced eng	ine with 8 quarts of Aeroshell 100 mineral o ted idle mixture and prop governor. After bro	ni. Replaced all CHT probes. Pe	eriormea engine et nute	
	Compression of	neck #1 78/80. #2 78/80.	#3 78/80, #4 78/80 (12) CW AD 15-19-0	07 Fuel injector line inspection, c	heck OK (45)	
			o/n ALU-6521RS s/n H-T053751 (60) Cor			
	I certify that this El	NGINE is airworthy with respe	ect to the work performed			2
		Tantonia.	1hn 1/2/1	500 072 L		
	DATE: 7/6/2023	SIGNE		Work Ord	ler: 8069-03-2023	
		Mark T, I	Youch, License 566531421 IA	Printed by EBis 3 (datcomedia.com)	
					1	*
		60K				•
	ENGINE MODEL	, A.	Top Gun Aviation, Inc.		DATE 10/31/2023	
	IO-360-A3B6 ENGINE S/N		6100 S Lindbergh St		A/C TSN 2961 9	-
	RL-39581-51A	A.A.	Stockton, CA 95206 USA		ENG TT 23.2 TACH 2961.9	
	- REG NO 1083L	MOONEY	Phone 209-983-8082			-
	WORK ORDER 8205-10-2023					
	CONSTRUCTOR MARKAGE					W
	Engine Entr	ies				
						(e)
	(1) Changed of	l and filter, serviced eng	ine with 7 quarts of AS15W50, inspected oil	filter no debris found.		-
	(1) Changed of	il and filter, serviced eng	ine with 7 quarts of AS15W50, inspected oil	filter no debris found.	*	
	- 100	il and filter, serviced engi		filter no debris found.		
	I certify that this E	NGINE is airworthy with resp	eact to the young performed		342	
	- 100	NGINE is airworthy with resp	eact to the young performed		der: 8205-10-2023	
	I certify that this E	2023 SIGNE	eact to the young performed	Work Ore	der: 8205-10-2023 (datcomedia.com)	
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M 33 2			- 63.53
Brought Forw	vard:	262	

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

Total to Date:



Model No: IO-360-A3B6 Order No: HP805311

Serial No: RL-39581-51E

TC No: 1E10

ENPL: RENPL-RT9479

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

Part Name	Part Number	<u>Manufacture</u>	Serial#	Setting
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	128
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	428,29,3 0	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

Production Automated Engine Test Log

Form# T-001

Std Run-in Data Sheet

Engine #: RL-39581-51E

Operator 1: P. FISHER

Fuel Serial #: AV56366877

Fuel Slave: NO

Fuel Curve: C-12906-F360

Pre-Oil Temp: 165 ETS#: 632

Operator 2:

Model #: 10-360-A3B6

Accept/Date: Fee &

Accept/Date: 02-20-23

Ignition Left: 22020381

Ignit_L Slave: NO

Float Bowl Connected to Fuel Pump Inlet: YES

Pre-Oil Pres: 85

ETS Rev: EC0-26873

Order #: HP805311

Test Mode: Final

BOM: RENPL-RT9479

Ignition Right: 22070084 Ignit_R Slave: NO

Setting #: AV2524054-11

Date/Time: 2/20/23 12:44

Preservation: LPS 486

Part 3.2 Test Sign:

SW Rev : LSW20001-A LCY

Barometer: 29.6

Read Time: 2/20/23 13:25

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) FF LIMITS & AF-500 1.45 PPH RICH 2) FF LIMITS & AF-900 1.33 PPH RICH 3) FF LIMITS & AF-1000 1.15 PPH RICH

4)
Engr. fc Bue Q.C. 7/26 Date 2/21/23

When / Test	Low Limit	Value	High Limit	Status
2 Runin @ 1500 for 5 min	300000000000000000000000000000000000000			
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	<i>N</i>			
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

Production Automated Engine Test Log

Form# T-001

Std Airflow Data Sheet

Engine #: RL-39581-51E

Model #: I0-360-A3B6

Order #: HP805311 Test Mode: Final

Operator 2:

Operator 1: P. FISHER

Accept/Date: Face 30-Accept/Date: 02.20-23

BOM: RENPL-RT9479

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

Pre-Oil Temp: 165

Barometer: 29,6

Pre-Oil Pres: 85

Setting #: AV2524054-11

Read Time: 2/20/23 14:26

ETS#: 632

ETS Rev: EC0-26873

Date/Time: 2/20/23 13:54 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.

Q.C._ Engr._

Vhen / Test	Low Limit	Value	High Limit	Status
Airflow @ AF-500 for 4 min	# *****	The same of the Till	regreem (Anneagons linear)	
uel Flow Limits (PPH)	46.3	53.85	52.4 @ AF-503	Review
uel Nozzle Limits ("HG)	N/A	5.16	N/A	Pass
Cylinder Head Temperature (DegF)		287	475	Pass
nlet Air Temp (DegF)	0	67.1	110	Pass
Airflow @ AF-900 for 4 min				
uel Flow Limits (PPH)	76.6	86.93	85.6 @ AF-895	Review
uel Nozzle Limits ("HG)	N/A	12.25	N/A	Pass
Cylinder Head Temperature (DegF)		319.9	475	Pass
nlet Air Temp (DegF)	0	66.3	110	Pass
Airflow @ AF-1000 for 4 min				
uel Flow Limits (PPH)	86	96.15	95.0 @ AF-1000	Review
uel Nozzle Limits ("HG)	13.5	14.94	16.2 @ AF-1000	Pass
Cylinder Head Temperature (DegF)	*	338	475	Pass
nlet Air Temp (DegF)	0	66.4	110	Pass
Rated @ Rated for 15 min				
Rated Speed (RPM)	2650	2749.6	2750	Pass
Manifold Pressure @ Rated ("HG)	26.5	27.72	28.5	Pass
uel 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
Dil Gallery Temp @ Rated (DegF)	165	185.7	215	Pass
nlet Air Temp (DegF)	0	66.4	110	Pass
1 Final_Idle @ 0 for 4 min				
dle 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
nlet Air Temp (DegF)	0	68.8	110	Pass
3 Manual @ N/A for 0 min				
Acceleration Check (sec)	2	4	5	Pass
dle Cut-off Time (sec)	0	3	5	Pass