

MIDSTATES AIRCRAFT  
ENGINES, INC.

*The Standard*

 ENGINE LOG

DATE	RECORDING TACH TIME	TODAYS FLIGHT	TOTAL TIME IN SERVICE	DESCRIPTION OF INSPECTIONS, TESTS, REPAIRS AND ALTERATIONS ENTRIES MUST BE ENDORSED WITH NAME, RATING AND CERTIFICATE NUMBER OF MECHANIC OR REPAIR FACILITY. (SEE BACK PAGES FOR OTHER SPECIFIC ENTRIES.)
2022				
7/2/22	109,4			PERFORMED OIL CHANGE & SERVICED THE ENGINE W 8 QTS OF AEROSHELL 100W + 12.8 OZS OF CAMGUARD AND NEW AIR FILTER P/N CH48110-1. CUT OPEN & INSPECTED THE FILTER FOR FOD. NONE FOUND. RAN THE ENGINE & CHECKED FOR LEAKS. Todd Samsad. 3043400

ENGINE MODEL: IO-360-A1A  
ENGINE S/N: L-41383-51A  
REG. NO: 3490N  
WORK ORDER: 20640-11-2022

**West Air Aircraft Inc.**  
311 West Jack London Blvd #5  
Livermore, CA 94551  
Phone: (925)245-0544

DATE: 2/17/2023  
A/C TSN: 3934 8  
ENG TT: 3925 1  
TSMOH: 877 6  
TACH: 146 2

**Engine Entries**

Completed Annual inspection per FAR's 43 Appendix D and Mooney checklist.... Compression as follows: 1-77, 2-78, 3-78, 4-77, /80 psi.... Changed oil & filter. Filter inspected ;ok. Serviced with 8 Qrts Aeroshell 100w oil. Installed oil filter AA48110-2 and safety.... C/W AD 2015-19-07 Injector Lines by inspection of injector lines and clamps for defects IAW SB 342G; no discrepancies found. Next Due 100 hrs.

The component(s) and/or discrepancy (ies) identified on this work order were repaired and inspected in accordance with current Federal Air Regulations and were found airworthy for return to service.

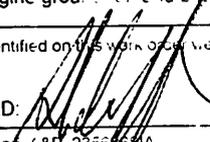
DATE: 2/17/2023

SIGNED:

West Air Aircraft Inc.  
Abdi Anvari A&P 23563681A

Work Order: 20640-11-2022

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DATE	RECORDING TACH TIME	TODAYS FLIGHT	TOTAL TIME IN SERVICE	DESCRIPTION OF INSPECTIONS, TESTS, REPAIRS AND ALTERATIONS ENTRIES MUST BE ENDORSED WITH NAME, RATING AND CERTIFICATE NUMBER OF MECHANIC OR REPAIR FACILITY. (SEE BACK PAGES FOR OTHER SPECIFIC ENTRIES.)
19__				
				ENGINE MODEL IO-360-A1A ENGINE S/N L-41383-51A REG NO 3490N WORK ORDER 20667-02-2023
				West Air Aircraft Inc. 311 West Jack London Blvd #5 Livermore, CA 94551 Phone: (925)245-0544
				DATE: 2/21/2023 A/C TSN: 3934 8 ENG TT: 3925 1 TSMOH: 877 6 TACH: 146 2
				<b>Engine Entries</b>
				Removed and replaced left magneto condenser with new P/N 10-400615. Re-timed left magneto to the engine. cleaned all spark plugs and test ran engine. Performed engine ground run and both Magnetos operational checked good.
				The component(s) and/or discrepancy (ies) identified on this work order were repaired and inspected in accordance with current Federal Air Regulations and were found airworthy for return to service
				DATE: 2/21/2023
				SIGNED: 
				Abdi Anvari A&P 23563681A
				Work Order: 20667-02-2023
				Printed by EBIS 3 (datcomedia.com)
				01070 (08-20-2024)
				MAKE: MOONEY MODEL: M20F S/N: 68-0071 REG. NO: N3490N ENGINE MAKE: LYCOMING ENGINE MODEL: IO-360-A1A ENGINE S/N: L-4138-51A
				LASAR, INC. 4439 SW Airport Way Prineville, Oregon 97754
				W/O #: 01070 DATE: 08-20-2024 A/C Tach: 181.2 Landings: ENG TT: 3960.1
				<b>Entries</b>
				(2) Complied with 100hour engine inspection IAW LASAR checklist and FAR 43 Appendix D. Cut open oil filter and inspected for metal. Took oil analysis. Installed new oil filter P/N CH48110-1 and serviced with 8qts of Aeroshell 100W oil.... (9) C/W AD 15-19-07 Inspection of Injector Fuel Lines and clamps. No defects noted. Next due After lines or clamps are moved or disconnected. Or ACTT:4079.8... (12) Installed new EGT probe in #2 cylinder P/N P-110-R. Ops check good.... (31) Installed new engine oil temp sensor P/N MS28034-1 and new canon plug P/N MS3106A12S-3S. Ops check good.
				I certify that this ENGINE has been inspected in accordance with a 100 HR/ANNUAL inspection and has been determined to be in an AIRWORTHY condition. The aircraft, airframe, aircraft engine, appliance identified above was repaired and inspected in accordance with current maintenance rules of the Federal Aviation Regulations and is approved for return to service as airworthy regarding the work performed. "Pertinent details of the repair are on file at this Repair Station under Work Order No. 01070, Dated 08-20-2024.
				DATE: 08-20-2024
				SIGNED: 
				CRS # 61SR208D
				WORK ORDER: 01070
				Printed by EBIS (EBIScloud.com)

DATE	RECORDING TACH TIME	TODAYS FLIGHT	TOTAL TIME IN SERVICE	DESCRIPTION OF INSPECTIONS, TESTS, REPAIRS AND ALTERATIONS ENTRIES MUST BE ENDORSED WITH NAME, RATING AND CERTIFICATE NUMBER OF MECHANIC OR REPAIR FACILITY. (SEE BACK PAGES FOR OTHER SPECIFIC ENTRIES.)
2/21				
2/6/2021	49.0			PERFORMED OIL CHANGE AND SERVICED THE ENGINE WITH 8 QTS OF AEROSHELL WOOD & NEW OIL FILTER PIN CH48110-1. CUT OPEN & INSPECTED THE FILTER FOR FOD. RAN THE ENGINE & CHECKED FOR LEAKS. Todd Sams had 3043400

ENGINE MODEL:  
ENGINE S/N:  
REG. NO: 3490N  
WORK ORDER: 20435-03-2021

**West Air Aircraft Inc.**  
311 West Jack London Blvd #5  
Livermore, CA 94551  
Phone: (925)245-0544

DATE: 4/9/2021  
A/C TSN:  
ENG TT:  
TSMOH:  
TACH:

49.3

**Engine Entries**

Replaced governor with overhauled governor Hartzell H-1 S/N 327V. Installed new gasket and new hardware. Rigged governor control cable and ops checked good.... Removed and replaced oil filter with new AA48110-2 and safety.

The component(s) and/or discrepancy (ies) identified on this work order were repaired and inspected in accordance with current Federal Air Regulations and were found airworthy for return to service.

DATE: 4/9/2021

SIGNED:

Abdi Anvari A&P23563681A

Work Order: 20435-03-2021

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DATE	RECORDING TACH TIME	TODAYS FLIGHT	TOTAL TIME IN SERVICE	DESCRIPTION OF INSPECTIONS, TESTS, REPAIRS AND ALTERATIONS ENTRIES MUST BE ENDORSED WITH NAME, RATING AND CERTIFICATE NUMBER OF MECHANIC OR REPAIR FACILITY. (SEE BACK PAGES FOR OTHER SPECIFIC ENTRIES.)
2/21				

ENGINE MODEL: IO-360-A1A  
ENGINE S/N: L-41383-51A  
REG NO: 3490N  
WORK ORDER: 20497-08-2021

**West Air Aircraft Inc.**  
311 West Jack London Blvd #5  
Livermore, CA 94551  
Phone: (925)245-0544

DATE: 10/27/2021  
A/C TSN: 3859.6  
ENG TT: 3849.9  
TSMOH: 802.4  
TACH: 71

**Engine Entries**

Completed Annual inspection per FAR's 43 Appendix D and Mooney checklist.... Compression as follows: 1-78, 2-78, 3-77, 4-78, /80 psi.... Changed oil & filter. Filter inspected ok. Serviced with 8 Qrts Aeroshell 100w oil. Installed oil filter AA48110-2 and safety.... Inspected Idle at post maintenance inspection. Checked good.... C/W AD 2015-19-07 Injector Lines by inspection of injector lines and clamps for defects IAW SB 3426; no discrepancies found. Next Due 100 hrs.

The component(s) and/or discrepancy (ies) identified on this work order were repaired and inspected in accordance with current Federal Air Regulations and were found airworthy for return to service.

DATE: 10/27/2021

SIGNED:

West Air Aircraft Inc  
Abdi Anvari A&P23563681A

Work Order: 20497-08-2021

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Continued from the previous page.

**Airworthiness Directives**

Engine	AD Note	Amend #	Dated	R	Subject	Compliance
	90-04-06	39-6915	28 May 1991	N	Governor oil line	Inspected. Installed a new line and clamps. The correct fittings were previously installed.
	92-12-05	39-8265	10 Jul 1992	N	Piston pin	Inspected. Not applicable by piston pin part number.
	95-07-01	39-9183	12 Apr 1995	N	Connecting rod bolts	Inspected. Not applicable by rod bolt manufacturer.
	95-26-02	39-9460	24 Jan 1996	N	Detonation	Inspected. Not applicable by aircraft registration number.
	96-09-10	39-9586	15 Jul 1996	N	Oil pump gears	Inspected. Gears marked with an N & C are installed.
	97-15-11	39-10085	12 Aug 1997	N	Piston pins	Inspected. Not applicable by piston pin part number.
	98-02-08	39-10291	30 Mar 1998	Y	Crankshaft corrosion	Inspected. Not applicable. Constant speed operation.
	98-17-11	39-10713	19 Oct 1998	N	Nelson crankshafts	<b>No further action required by this AD Note.</b> Inspected in accordance with paragraph (a) (1) & (2). Nelson did not repair this crankshaft.
	2004-10-14	39-13644	25 Jun 2004	Y	Crank & gear	Inspected and completed all applicable actions in accordance with paragraphs (c) through (l), inclusive. Torqued new bolt to 204 inch pounds and secured with a new lock tab. <b>Compliance with this AD is required before further flight if the engine experiences a propeller strike after the effective date of this AD, as defined in paragraphs (i) and (j) of this AD Note.</b>
	2005-19-11	39-14276	21 Oct 2005	N	Crankshaft failure	Inspected in accordance with paragraphs (c) & (h) - (i). Not applicable by crankshaft serial number.
	2006-06-16	39-14525	27 Apr 2006	N	Crankshaft failure	Inspected in accordance with paragraph (c) & (e) - (k). Not applicable by crankshaft serial number.
	2012-19-01	39-17196	24 Oct 2012	N	Crankshaft failure	Inspected in accordance with paragraphs (c), (f) & (g). Not applicable by crankshaft serial number.
	2015-02-07	39-18074	11 Mar 2015	N	Set screw security	Inspected in accordance with paragraph (c). Not applicable. No front mounted governor.
	2017-16-11	39-18988	15 Aug 2017	N	Connecting rod bushings	Inspected. Bushings in this engine are not affected by date.

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**Airworthiness Directives**

**Fuel Injection**

AD Note	Amend #	Dated	R	Subject
2009-02-03	39-15793	09 Feb 2009	Y	Fuel servo plug
2015-19-07	39-18269	03 Nov 2015	Y	Fuel lines and clamps

**Compliance**

Inspected the housing and plug, stamped the letter G and installed a 2477258 gasket in accordance with PRS-107R4.

**No further action required by this AD Note.**

Inspected lines and clamps. Routed and clamped in accordance with Lycoming Mandatory Service Bulletin MSB342, Revision G, dated 16 Jul 2013; MSB342G, Supplement 1, dated 29 Aug 2013; and MSB342, Supplement 2, dated 23 Jan 2014, as specified in paragraph (e) (1) (i) & (ii).

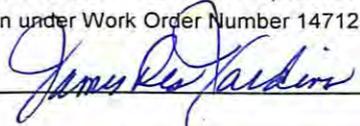
**Re-inspect after any maintenance is done on the engine where any clamp on a fuel injector fuel line was disconnected, moved, or loosened, and within every 110 hours TIS and after each engine overhaul. Use Lycoming Engines MSB No. 342G, dated July 16, 2013; Supplement No. 1 to MSB No. 342G, dated August 29, 2013; and Supplement No. 2 to MSB No. 342G, dated January 23, 2014 to perform the inspection. Use the Fuel Line Inspection and Installation Checklist in MSB No. 342G to perform the re-inspection.**

**Magneto**

74-26-09	39-2050	24 Dec 1974	N	Solid steel drive bushing
82-20-01	39-4658	14 Jun 1983	N	Impulse flyweights
94-01-03	39-9271	28 Jun 1995	N	Coil and rotating magnet
94-06-09	39-8895	20 May 1994	N	Capacitors

Inspected. Not applicable by magneto serial numbers.  
Inspected. Not applicable. No impulse couplings.  
Inspected. Not applicable by magneto serial numbers.  
Inspected. Not applicable by magneto serial numbers.

The work described in this maintenance record was accomplished on the article(s) identified in this maintenance record in accordance with Title 14, Code of Federal Regulations, Part 43, and in respect to that work the article(s) are approved for return to service. Pertinent details are on file at this Repair Station under Work Order Number 14712.

Date: 25 Feb 2020 Signed  Inspector for Premier Aircraft RS JZYR537L.

DATE 19__	RECORDING TACH TIME	TODAYS FLIGHT	TOTAL TIME IN SERVICE	DESCRIPTION OF INSPECTIONS, TESTS, REPAIRS AND ALTERATIONS ENTRIES MUST BE ENDORSED WITH NAME, RATING AND CERTIFICATE NUMBER OF MECHANIC OR REPAIR FACILITY. (SEE BACK PAGES FOR OTHER SPECIFIC ENTRIES.)
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Advanced Aircraft Services, LLC. 1590 NW Perimeter Way, Troutdale, OR 97060 503-465-2298

N3490N Date 10/17/2018  
 Mooney Tach 3292.50  
 Model: M20F Serial: 680071 ETT  
 Lycoming IO-360-A1A Serial: L-4184-51A TSMO

Accomplished the following work:

The following work was performed at the request of the owner or operator. Replaced valve cover gaskets on cylinders #2 and 4 due to incorrect orientation. Tightened oil drain back tube hose clamps and clamp on oil return from air oil separator. Cleaned engine with solvent, ran to check for oil leaks. None noted at this time. No other work, inspection or determination of airworthiness was performed at this time.

Accomplished the following Airworthiness Directives:

No engine AD's due for compliance at this time

*C. P. P.*

A&P 2491728

DATE	TACH	FLIGHT	TOTAL TIME IN SERVICE	DESCRIPTION
8/7/2019	Tach	3327.1	HRS. TSMOH = 731.2 HRS. Engine TT: 3779.2 HRS.	Removed engine S/N L-4184-51A due to oil leak at main journal thru stud and sent to Premier Aircraft for evaluation and repair.
				<i>C. P. P.</i> 2491728 A&P Advanced Aircraft Services, LLC

DATE 19__	RECORDING TACH TIME	TODAYS FLIGHT	TOTAL TIME IN SERVICE	DESCRIPTION OF INSPECTIONS, TESTS, REPAIRS AND ALTERATIONS ENTRIES MUST BE ENDORSED WITH NAME, RATING AND CERTIFICATE NUMBER OF MECHANIC OR REPAIR FACILITY. (SEE BACK PAGES FOR OTHER SPECIFIC ENTRIES.)
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Premier Aircraft, 1000 NW Perimeter Way, Troutdale, OR 97060-9524 503-661-4184

Manufacturer Lycoming Total Time 3779.2 Date 25 Feb 2020  
 Model IO-360-A1A TSMO 731.2 WO Number 14712  
 Serial Number L-4188-51A Tach Time 33271

Disassembled engine due to oil leaks. The crankcase was repaired by Divco, RS DB2R762K, on Work Order WDC125348. The external hardware was cadmium plated by Precision Metal Finishing, RS P13R413N, on Work Orders 9197 and 9334. The crankshaft was cleaned, visually inspected, dimensionally inspected, and magnetic particle inspected - no defects noted. Connecting rods were cleaned and dimensionally inspected - no defects noted. Installed a new camshaft, lifter bodies, hydraulic lifters, and pushrod cups. See following list of parts installed. Assembled engine. Work was done in accordance with Lycoming Manual 60294-7, Revision 14, dated July 2011; and Table of Limits SSP-1776-4, dated 10 Apr 2018. Engine was run on a test stand - no defects noted. Installed 8 new customer furnished UREM38E spark plugs.

Accessories

Description	Model Number	Part Number	Serial Number	Condition
Left Magneto	S4LSC-200	BL-600614-2	E20AA249R	Rebuilt by the manufacturer Continental Motors.
Right Magneto	S4LSC-204	BL-600644-1	E19GA054R	Rebuilt by the manufacturer Continental Motors.
Fuel Servo	RSA-5AD1	2524054-10	14220	Complied with AD 2009-02-03 only.

Service Information

Document	Rev	Dated	Subject	Compliance
SB240	W	23 Feb 2012	Replacement parts	Parts were replaced in accordance with this Service Bulletin.
SI1141	A	09 May 2014	Ring Gear	Correctly installed a new starter ring gear.
SI1168	B	17 Mar 1978	Sump Inserts	Installed 78550 inserts in all four locations.
SI1267	C	26 Feb 1999	Piston pin plugs	Installed new 72198 aluminum bronze piston pin plugs.
SI1325	A	14 May 1976	Timing change	Changed engine timing from 25° BTC to 20° BTC. Replaced the left magneto with the correct part number, timed both magnetos to 20° BTC, and replaced the data plate with a new one furnished by Lycoming.

Continued on the next page.

DATE	TACH	FLIGHT	TOTAL TIME IN SERVICE	DESCRIPTION





DATE 19__	RECORDING TACH TIME	TODAYS FLIGHT	TOTAL TIME IN SERVICE	DESCRIPTION OF INSPECTIONS, TESTS, REPAIRS AND ALTERATIONS ENTRIES MUST BE ENDORSED WITH NAME, RATING AND CERTIFICATE NUMBER OF MECHANIC OR REPAIR FACILITY. (SEE BACK PAGES FOR OTHER SPECIFIC ENTRIES.)
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Make: LYCOMING  
Model: IO-360-A1A  
Serial No.: L-4188-51A  
TACH: 3150  
SMOH: 554.1  
TOTAL: 3601.6



Reg. No.: N3490N  
Date: January 7, 2012

41 AIRPARK RD  
PRINCETON NJ 08540  
(609) 921-3100

**Summary of work accomplished**

PERFORMED ANNUAL INSPECTION IAW FAR 43 APPENDIX D. COMPRESSION TEST RESULTS: #1 74/80, #2 75/80, #3 75/80, #4 76/80. CLEANED GAPPED AND TESTED SPARK PLUGS. CHANGED OIL AND OIL FILTER. CUT AND INSPECTED FILTER- NO METAL FOUND. INSPECTED AND CLEANED OIL SUCTION SCREEN. SERVICED ENGINE WITH 8 QTS OF 15W50 ENGINE OIL AND AA48110-2 OIL FILTER. REPLACED AIR INTAKE FILTER. INSPECTED EXHAUST FOR LEAKS AND SECURITY. CHECKED AND LUBRICATED ENGINE CONTROLS. CHECKED MAGNETOS AND MAGNETO TIMING. CLEANED ALL FUEL SCREENS. RUN-UP CHECK GOOD.

C/W A.D. 2011-26-04 FUEL INJECTION LINE INSPECTION IAW MSB 342F. **NEXT DUE: 3250 TACH**

REFERENCE AD REPORT FOR COMPLETE COMPLIANCE.

I CERTIFY THAT THIS ENGINE HAS BEEN INSPECTED IAW AN ANNUAL INSPECTION AND HAS BEEN DETERMINED TO BE IN AIRWORTHY CONDITION.

JEFF VAMOS A&P1537654951A

DATE 19__	RECORDING TACH TIME	TODAYS FLIGHT	TOTAL TIME IN SERVICE	DESCRIPTION OF INSPECTIONS, TESTS, REPAIRS AND ALTERATIONS ENTRIES MUST BE ENDORSED WITH NAME, RATING AND CERTIFICATE NUMBER OF MECHANIC OR REPAIR FACILITY. (SEE BACK PAGES FOR OTHER SPECIFIC ENTRIES.)
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Make: LYCOMING  
Model: IO-360-A1A  
Serial No.: L-4188-51A  
TACH: 3151.6  
SMOH: 555.7  
TOTAL: 3603.6



Reg. No.: N3490N  
Date: 10/1/13

41 AIRPARK RD  
PRINCETON NJ 08540  
(609) 921-3100

**Summary of work accomplished**

PERFORMED ANNUAL INSPECTION IAW FAR 43 APPENDIX D. COMPRESSION TEST RESULTS: #1 72/80, #2 72/80, #3 73/80, #4 74/80. CLEANED GAPPED AND TESTED SPARK PLUGS. CHANGED OIL AND OIL FILTER. CUT AND INSPECTED FILTER- NO METAL FOUND. INSPECTED AND CLEANED OIL SUCTION SCREEN. SERVICED ENGINE WITH 8 QTS OF 15W50 ENGINE OIL AND AA48110-2 OIL FILTER. INSPECTED EXHAUST FOR LEAKS AND SECURITY. CHECKED AND LUBRICATED ENGINE CONTROLS. CHECKED MAGNETOS AND MAGNETO TIMING. CLEANED ALL FUEL SCREENS. REMOVED AND REPLACED AIR FILTER. ENGINE RUN-UP CHECK GOOD.

NO APPLICABLE A.D'S AT THIS TIME  
REFERENCE AD REPORT FOR COMPLETE COMPLIANCE.

I CERTIFY THAT THIS ENGINE HAS BEEN INSPECTED IAW AN ANNUAL INSPECTION AND HAS BEEN DETERMINED TO BE IN AIRWORTHY CONDITION.

JEFF VAMOS A&P1537654951A

DATE	RECORDING TACH TIME	TODAYS FLIGHT	TOTAL TIME IN SERVICE	DESCRIPTION OF INSPECTIONS, TESTS, REPAIRS AND ALTERATIONS ENTRIES MUST BE ENDORSED WITH NAME, RATING AND CERTIFICATE NUMBER OF MECHANIC OR REPAIR FACILITY. (SEE BACK PAGES FOR OTHER SPECIFIC ENTRIES.)
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Make: LYCOMING  
 Model: IO-360-A1A  
 Serial No.: L-4188-51A  
 TACH: 2070.5  
 SMOH: 508  
 TOTAL: 3555.5



Reg. No.: N3490N  
 Date: 10/20/2010  
 41 AIRPARK RD  
 PRINCETON NJ 08540  
 (609) 921-3100

**Summary of work accomplished**

PERFORMED ANNUAL INSPECTION IAW MOONEY M20F MAINTENANCE MANUAL. COMPRESSION TEST RESULTS: #1 75/80, #2 75/80, #3 76/80, #4 75/80. CLEANED GAPPED AND TESTED ALL SPARK PLUGS. CHANGED OIL AND FILTER. CUT AND INSPECTED FILTER- NO METAL FOUND. INSPECTED AND CLEANED OIL SUCTION SCREEN. SERVICED ENGINE WITH 8 QTS 15W50 AND CH48110-1 OIL FILTER. REMOVED AND REPLACED SEVERAL LOOSE FUEL INJECTOR LINE CLAMPS WITH NEW. REPLACED AIR INTAKE FILTER. INSPECTED EXHAUST AND ENGINE CONTROLS. CHECKED MAGNETO TIMING. CLEANED ALL FUEL SCREENS. RUN-UP CHECK GOOD.

**C/W A.D. 2008-14-07-FUEL INJECTOR LINES-BY INSPECTION IAW MSB 342E. NEXT DUE: 2170.5 TACH**

**REFERENCE AD REPORT FOR COMPLETE COMPLIANCE DETAILS.**

I CERTIFY THAT THIS ENGINE HAS BEEN INSPECTED IAW AN ANNUAL INSPECTION AND HAS BEEN DETERMINED TO BE IN AIRWORTHY CONDITION.

MILAN JOVANOVIC A&P31641171A  


DATE	RECORDING TACH TIME	TODAYS FLIGHT	TOTAL TIME IN SERVICE	DESCRIPTION OF INSPECTIONS, TESTS, REPAIRS AND ALTERATIONS ENTRIES MUST BE ENDORSED WITH NAME, RATING AND CERTIFICATE NUMBER OF MECHANIC OR REPAIR FACILITY. (SEE BACK PAGES FOR OTHER SPECIFIC ENTRIES.)
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Make: LYCOMING  
 Model: IO-360-A1A  
 Serial No.: L-4188-51A  
 TACH: 3125.2  
 SMOH: 529.3  
 TOTAL: 3576.8



Reg. No.: N3490N  
 Date: 11/21/11  
 41 AIRPARK RD  
 PRINCETON NJ 08540  
 (609) 921-3100

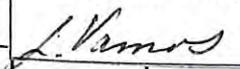
**Summary of work accomplished**

PERFORMED ANNUAL INSPECTION IAW MOONEY M20F MAINTENANCE MANUAL. COMPRESSION TEST RESULTS: #1 74/80, #2 75/80, #3 75/80, #4 76/80. CLEANED GAPPED AND TESTED SPARK PLUGS. CHANGED OIL AND OIL FILTER. CUT AND INSPECTED FILTER- NO METAL FOUND. INSPECTED AND CLEANED OIL SUCTION SCREEN. SERVICED ENGINE WITH 8 QTS OF 15W50 ENGINE OIL AND AA48110-2 OIL FILTER. REPLACED AIR INTAKE FILTER. INSPECTED EXHAUST FOR LEAKS AND SECURITY, REPLACED TAIL PIPE HANGER. CHECKED AND LUBRICATED ENGINE CONTROLS. CHECKED MAGNETOS AND MAGNETO TIMING. CLEANED ALL FUEL SCREENS. RUN-UP CHECK GOOD.

**C/W A.D. 2008-14-07-FUEL INJECTOR LINES BY INSPECTION IAW MSB 342E. REPLACED MISSING SUPPORT BRACKETS P/N 73136 FOR CYLINDERS #2 AND #4. NEXT DUE: 3225.2 TACH**

**REFERENCE AD REPORT FOR COMPLETE COMPLIANCE.**

I CERTIFY THAT THIS ENGINE HAS BEEN INSPECTED IAW AN ANNUAL INSPECTION AND HAS BEEN DETERMINED TO BE IN AIRWORTHY CONDITION.

JEFF VAMOS A&P1537654951A  


DATE 19__	RECORDING TACH TIME	TODAYS FLIGHT	TOTAL TIME IN SERVICE	DESCRIPTION OF INSPECTIONS, TESTS, REPAIRS AND ALTERATIONS ENTRIES MUST BE ENDORSED WITH NAME, RATING AND CERTIFICATE NUMBER OF MECHANIC OR REPAIR FACILITY. (SEE BACK PAGES FOR OTHER SPECIFIC ENTRIES.)
				12-7-05 TT = 1974.2 CKAD'S THROUGH THIS DATE. CHANGE OIL + FILTER COMP. CK ALL 71/80 OR BETTER. APPROVED FOR RETURN TO SERVICE. ANNUAL INSP. David Cannon 18548 5454 IA
				1-3-07 TT = 1997.9 CHANGE OIL + FILTER INSPECT IAW ANNUAL INSP. REQUIREMENTS APPROVED FOR RETURN TO SERVICE. David Cannon 18548 5454 IA

DATE 19__	RECORDING TACH TIME	TODAYS FLIGHT	TOTAL TIME IN SERVICE	DESCRIPTION OF INSPECTIONS, TESTS, REPAIRS AND ALTERATIONS ENTRIES MUST BE ENDORSED WITH NAME, RATING AND CERTIFICATE NUMBER OF MECHANIC OR REPAIR FACILITY. (SEE BACK PAGES FOR OTHER SPECIFIC ENTRIES.)
				2-6-08 TT = 2031.7 CHANGE OIL, CLEAN + CAP PLUGS, COMP. CK ALL 72/80 OR HIGHER APPROVED FOR RETURN TO SERVICE. David Cannon 18548 5454 IA
				3-2-09 TT = 2061.6 CHANGE OIL + FILTER. COMP CK 1.72/80 2.74/80 3.73/80 4.71/80 APPROVED FOR RETURN TO SERVICE David Cannon 18548 5454 IA

DATE 19__	RECORDING TACH TIME	TODAYS FLIGHT	TOTAL TIME IN SERVICE	DESCRIPTION OF INSPECTIONS, TESTS, REPAIRS AND ALTERATIONS ENTRIES MUST BE ENDORSED WITH NAME, RATING AND CERTIFICATE NUMBER OF MECHANIC OR REPAIR FACILITY. (SEE BACK PAGES FOR OTHER SPECIFIC ENTRIES.)
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10-4-03 TT = 1927.7  
 CHANGE OIL + CK FILTER.  
 COMP. CK 1 70/80 2 70/80  
 3 68/80 4 72/80 GROUND RUN  
 NORMAL

DATE..... TT.....  
 I HAVE INSPECTED THIS AIRCRAFT  
 IN ACCORDANCE WITH A 100/HR.  
 INSPECTION AND FOUND IT AIR-  
 WORTHY.

*David Cannavo*  
 DAVID P. CANNAGO  
 185-48-5454 I.A.

11-3-04 TT = 1943.2  
 CHANGE OIL + CK FILTER, COMP CK ALL 72/80  
 OR HIGHER. GROUND RUN NORMAL. APPROVED  
 FOR RETURN TO SERVICE.

*David Cannavo* 185 48 5454 IA.

DATE 19__	RECORDING TACH TIME	TODAYS FLIGHT	TOTAL TIME IN SERVICE	DESCRIPTION OF INSPECTIONS, TESTS, REPAIRS AND ALTERATIONS ENTRIES MUST BE ENDORSED WITH NAME, RATING AND CERTIFICATE NUMBER OF MECHANIC OR REPAIR FACILITY. (SEE BACK PAGES FOR OTHER SPECIFIC ENTRIES.)
				<p>DATE <u>7-6-00</u> TT <u>1745</u></p> <p>I CERTIFY THAT THIS AIRCRAFT ENGINE HAS BEEN INSPECTED IN ACCORDANCE WITH AN ANNUAL INSPECTION AND WAS DETERMINED TO BE IN AIRWORTHY CONDITION.</p> <p><u>David Cannavo</u> DAVID P. CANNAVO 185-48-5454 IA.</p>
				<p>8-3-01 TT=1826.7</p> <p>COMP CK ALL-1-7<sup>2</sup>/<sub>80</sub> 2 7<sup>2</sup>/<sub>80</sub> 3-7<sup>2</sup>/<sub>80</sub> 4-7<sup>2</sup>/<sub>80</sub> CH ANGE OIL + CK FILTER</p> <p>DATE <u>8-3-01</u> TT <u>1826.7</u></p> <p>I CERTIFY THAT THIS AIRCRAFT ENGINE HAS BEEN INSPECTED IN ACCORDANCE WITH AN ANNUAL INSPECTION AND WAS DETERMINED TO BE IN AIRWORTHY CONDITION.</p> <p><u>David Cannavo</u> DAVID P. CANNAVO 185-48-5454 IA.</p>

DATE 19__	RECORDING TACH TIME	TODAYS FLIGHT	TOTAL TIME IN SERVICE	DESCRIPTION OF INSPECTIONS, TESTS, REPAIRS AND ALTERATIONS ENTRIES MUST BE ENDORSED WITH NAME, RATING AND CERTIFICATE NUMBER OF MECHANIC OR REPAIR FACILITY. (SEE BACK PAGES FOR OTHER SPECIFIC ENTRIES.)
				<p>10-12-01 TACH = 1838.4</p> <p>TT 5 CH = 275.9</p> <p>REPLACE ALL 4 CYLINDERS WITH NEW USING NEW GASKETS, SEALS PISTONS AND RINGS. GROUND RUN NORMAL, APPROVED FOR RETURN TO SERVICE.</p> <p>David Cannavo 185485454IA.</p>
				<p>TACH 1889.0</p> <p>9-3-02 TT = 1912.6</p> <p>COMP. CK - NORMAL. CH ANGE OIL + FILTER. GROUND RUN OK.</p> <p>DATE <u>9-3-02</u> TT <u>1912.6</u></p> <p>I HAVE INSPECTED THIS AIRCRAFT IN ACCORDANCE WITH A 100/HR. INSPECTION AND FOUND IT AIRWORTHY.</p> <p><u>David Cannavo</u> DAVID P. CANNAVO 185-48-5454 IA.</p>



DATE 19__	RECORDING TACH TIME	TODAYS FLIGHT	TOTAL TIME IN SERVICE	DESCRIPTION OF INSPECTIONS, TESTS, REPAIRS AND ALTERATIONS ENTRIES MUST BE ENDORSED WITH NAME, RATING AND CERTIFICATE NUMBER OF MECHANIC OR REPAIR FACILITY. (SEE BACK PAGES FOR OTHER SPECIFIC ENTRIES.)
	Tach Time 1562.50			<p>AEROCOLOR 3950 W IMS LANE MADISON IN TT1562.50 Removed engine for overhaul engine case was sent to chuck ney interprises repaired all webs machined all cylinder decks surface and linehoned .All internal componets sent to aircraft specialties services this includes crankshaft camshaft rods rocker arms .All the following parts were replaced main bearings rod bearings rod bolts#75060&amp;12186 lifter bodies lifters rings crank gear #61155 oil pump housing #78513 impellor set #ALO5K-19423S all gaskets and seals new wiring harnes sparkplugs starter rebuilt by aerotech . Fuel servo rebuilt by Precision air inc aircraft test ran found ok Mark Wilkerson A&amp;P 404888567 1-25-98 Mark Cook A&amp;P 404888567 1-25-98</p>
	Total Time 3048			
	SMOOTH -			
7-20-98	Tach Time 1571.5			oil change by owner 15:50 Aeroshell
12-10-98	Tach Time 1573.1			oil & Filter change by owner 15:50 Aeroshell
2-1-99	Tach Time 1593.1			oil & Filter change by owner 15:50 Aeroshell
3-16-99	Tach Time 1611.3			oil & Filter change by owner
6-3-99	Tach Time 1641.3			oil & Filter change by owner

DATE 19__	RECORDING TACH TIME	TODAYS FLIGHT	TOTAL TIME IN SERVICE	DESCRIPTION OF INSPECTIONS, TESTS, REPAIRS AND ALTERATIONS ENTRIES MUST BE ENDORSED WITH NAME, RATING AND CERTIFICATE NUMBER OF MECHANIC OR REPAIR FACILITY. (SEE BACK PAGES FOR OTHER SPECIFIC ENTRIES.)
1998	TACH 1557.86			<p>Removed Plugs cleaned + Gaps checked Compression pulled oil screen added 8 qts 100W Aeroshell non detergent oil Recommended change to Petrox AT 1577. Tach Time lubricated all controls Test Ran found ok Mark Cook - 5-26-98 / A&amp;P 404888567</p>
10-9-99	Tach Time 1591.9			

DATE 19__	RECORDING TACH TIME	TODAYS FLIGHT	TOTAL TIME IN SERVICE	DESCRIPTION OF INSPECTIONS, TESTS, REPAIRS AND ALTERATIONS ENTRIES MUST BE ENDORSED WITH NAME, RATING AND CERTIFICATE NUMBER OF MECHANIC OR REPAIR FACILITY. (SEE BACK PAGES FOR OTHER SPECIFIC ENTRIES.)
2-26-96				
	Tach: 1561.04			Performed annual inspection using FAR 43 Appendix D for scope and detail. Compression Ch #1- 72/80 #2- 75/80 #3- 75/80 #4- 75/80. Changed oil filled with 15/50 Aeroshell cleared screen c/w SB 518C (thermostat bypass valve) by installation of new valve P/N 53E 22144 S/N-74128 "I certify that this engine has been inspected I/A/W an annual inspection and was determined to be in an Airworthy Condition" Jack R Olds 311485156 FA
	SM64 898.04			

DATE 19__	RECORDING TACH TIME	TODAYS FLIGHT	TOTAL TIME IN SERVICE	DESCRIPTION OF INSPECTIONS, TESTS, REPAIRS AND ALTERATIONS ENTRIES MUST BE ENDORSED WITH NAME, RATING AND CERTIFICATE NUMBER OF MECHANIC OR REPAIR FACILITY. (SEE BACK PAGES FOR OTHER SPECIFIC ENTRIES.)
8-11-97				
	TACH 1562.41			PERFORMED 100 HR INSPECTION IN CONJUNCTION WITH ANNUAL INSPECTION FAR APPENDIX D FOR SCOPE & DETAIL. COMPRESSION CHECK: #1 73/80 #2 73/80 #3 69/80 #4 73/80. CHANGED OIL INSTALL 15/50 AEROSHELL CLEANED SCREEN, CHECK A.D.'S NAME APPLICABLE. Shamp Hinton A&P 574-267913
	SM64 899.41			
8-11-97	Tach: 1562.41			"I certify that this engine has been inspected I/A/W an annual inspection and was determined to be in an Airworthy Condition" 311485156 FA Jack C Olds
	TT - 3047.0			

DATE 19 <u>91</u>	RECORDING TACH TIME	TODAYS FLIGHT	TOTAL TIME IN SERVICE	DESCRIPTION OF INSPECTIONS, TESTS, REPAIRS AND ALTERATIONS ENTRIES MUST BE ENDORSED WITH NAME, RATING AND CERTIFICATE NUMBER OF MECHANIC OR REPAIR FACILITY. (SEE BACK PAGES FOR OTHER SPECIFIC ENTRIES.)
5-4			1553.38	Inspected all systems and structure Retraction performed. Aircraft Lubricated as required. Inspected engine mount FAW AD 75-9-8. Compression checked. cleaned and gapped spark plugs. checked mag timing
		890 SMOH		

I Certify That This Aircraft Has Been  
Inspected in Accordance With an ANNUAL  
INSPECTION and was Determined to be  
Airworthy, and is Approved for Return  
to Service 1553.38 Hours  
STUART H. SPINDEL A&P 1624489 IA  
*Stuart Spindel*

DATE 19 <u>93</u>	RECORDING TACH TIME	TODAYS FLIGHT	TOTAL TIME IN SERVICE	DESCRIPTION OF INSPECTIONS, TESTS, REPAIRS AND ALTERATIONS ENTRIES MUST BE ENDORSED WITH NAME, RATING AND CERTIFICATE NUMBER OF MECHANIC OR REPAIR FACILITY. (SEE BACK PAGES FOR OTHER SPECIFIC ENTRIES.)
3-1-93	Tach: 1560.74 SMOH: 897.74			Performed annual inspection using FAR 43 Appendix D for scope & detail. Compression Ch. - #1-74/80, #2-72/80 #3-75/80, #4-76/80. Removed muffler shroud & inspected muffler - found no cracks. C/w AD 75-09-08 (Engine mount) by inspection. Changed oil filled with 50W Aeroshell mineral oil. Installed new REM 38 E Champion spark plugs. Jack R. Odek 311485156 A&P
3-1-93	Tach 1560.80 SMOH 897.80			"I certify that this engine has been inspected FAW an annual inspection and was determined to be in an Airworthy condition" Jack R. Odek 311485156 IA
1-17-95	Tach: 1560.92 SMOH 897.92			Performed annual inspection using FAR 43 App. D for scope & detail. Comp. Ch #1-77/80 #2-73/80 #3-74/80 #4-73/80 Removed muffler shroud and inspected muffler - no cracks found. Replaced Generator belt (72270) C/W AD 94-01-03 Engine ground run all gauges satisfactory. "I certify that this engine has been inspected I/A/w and annual inspection and was determined to be in a Airworthy Condition" Jack R. Odek IA 311485156

DATE	RECORDING TACH TIME	TODAYS FLIGHT	TOTAL TIME IN SERVICE	DESCRIPTION OF INSPECTIONS, TESTS, REPAIRS AND ALTERATIONS ENTRIES MUST BE ENDORSED WITH NAME, RATING AND CERTIFICATE NUMBER OF MECHANIC OR REPAIR FACILITY. (SEE BACK PAGES FOR OTHER SPECIFIC ENTRIES.)
Dec, 7, 1987	T.T.	1452.6 hrs		Checked screws, serviced oil system with phillips x/c 70ts. Shawn M. Catone ATP 304765758
2/8/89	AC Hobbs	1493.4 hrs		C/w Annual & 100hr Insp. per Mooney Insp. Form. Changed oil & oil filter serviced with Aeroshell 40W Mineral oil. Serviced magnetos, spark plugs, checked intake & exhaust system. Installed new points & oil seal in left magnetoe. Installed new oil sump gasket, installed new engine mount rubbers, installed new fuel pressure & fuel bendix lines, repaired engine baffles & rods. removed aft four cylinders, sent to Harrison Engine Service, Inc for Overhaul (See green tags) reinstalled cylinders, Operation & leak check ok. Checked eng cyl. Compression; ① 72/80 ② 74/80 ③ 72/80 ④ 74/80 Installed new Slick Mag lead harness kit P/N N2364.

I certify that this Engine has been inspected in accord with a Annual & 100hr inspection and was determined to be in Airworthy condition.  
Repair Station No. 201  
MAKE Lycoming SER. NO. L-4188-51A  
MODEL T0-360-41A REG. MARK N3490N  
The aircraft and/or component identified above was repaired and inspected in accordance with current Regulations of the Federal Aviation Agency and is approved for return to service.  
Pertinent details of the repair are on file at the Agency under  
Work Order No. 22350 Date 2/8/89  
Signed [Signature] for  
Muncie Aviation Co. Certified Repair Station #201  
Muncie, Indiana 47306  
Operation check, checked ok

DATE	RECORDING TACH TIME	TODAYS FLIGHT	TOTAL TIME IN SERVICE	DESCRIPTION OF INSPECTIONS, TESTS, REPAIRS AND ALTERATIONS ENTRIES MUST BE ENDORSED WITH NAME, RATING AND CERTIFICATE NUMBER OF MECHANIC OR REPAIR FACILITY. (SEE BACK PAGES FOR OTHER SPECIFIC ENTRIES.)
4-11-90	AC Hobbs	1517.2 hrs		C/w Annual & 100hr Inspection per Mooney Inspection Form. Changed oil & oil filter, serviced with Aeroshell 40W Non-Det. oil. Serviced magnetos, spark plugs, checked intake & exhaust systems. Removed & #3 & #4 cylinders, sent to Harrison Engine Service, Inc. for repairs, reinstalled #3 & #4 cylinders, operation & leak check, checked ok. Checked engine cylinder compression; ① 75/80 ② 75/80 ③ 72/80 ④ 75/80. C/w AD 90-04-06 Lycoming governor external oil line Modification by installing new oil line & fitting per AD and Lycoming S.B. 488

I certify that this Engine has been inspected in accord with a Annual & 100hr inspection and was determined to be in Airworthy condition.  
Repair Station No. 201  
MAKE Lycoming SER. NO. L-4188-51A  
MODEL T0-360-41A REG. MARK N3490N  
The aircraft and/or component identified above was repaired and inspected in accordance with current Regulations of the Federal Aviation Agency and is approved for return to service.  
Pertinent details of the repair are on file at the Agency under  
Work Order No. 4550 Date 4-11-90  
Signed [Signature] for  
Muncie Aviation Co. Certified Repair Station #201  
Muncie Airport Muncie, Indiana 47306

DATE 19__	RECORDING TACH TIME	TODAYS FLIGHT	TOTAL TIME IN SERVICE	DESCRIPTION OF INSPECTIONS, TESTS, REPAIRS AND ALTERATIONS ENTRIES MUST BE ENDORSED WITH NAME, RATING AND CERTIFICATE NUMBER OF MECHANIC OR REPAIR FACILITY. (SEE BACK PAGES FOR OTHER SPECIFIC ENTRIES.)
March 14, 1986	Yach 1414.91			Checked compression #1 79/80 #2 78/80 #3 79/80 #4 85/80 "Rings". Changed oil, cleaned screens serviced with Phillips 90W50XC, 7 qts. overhauled engine & ground screen.
				N.S. Wright A# 50176264
04-13-87			T.T. 1422.76	Installed overhauled muffler by Wall calomony, serviced oil system with 8qt's Newshell 100w, cleaned screens, ca all necessary ad's. I certify that this engine has been inspected I/AT/n on 100hr inspection and was determined to be in airworthy condition. End
7-31-87	Yach	1434		Spawn Abane A#P 904765758 Replaced Light Magneto Coils, Oil Seal and points. Operated Check OK. Del Paul A#314881310

DATE 1984	RECORDING TACH TIME	TODAYS FLIGHT	TOTAL TIME IN SERVICE	DESCRIPTION OF INSPECTIONS, TESTS, REPAIRS AND ALTERATIONS ENTRIES MUST BE ENDORSED WITH NAME, RATING AND CERTIFICATE NUMBER OF MECHANIC OR REPAIR FACILITY. (SEE BACK PAGES FOR OTHER SPECIFIC ENTRIES.)
12-6	1340			Changed oil & cleaned screen Serviced engine with 7qt Phillips Multi oil. Washed & Rev. engine No leaks.
				KENTUCKY FLYING SERVICE FAA APP. ) REPAIR STATION NO. 1526 MAINTENANCE RELEASE "The above work was done in accordance with current Regulations of the Federal Aviation Agency and is approved for return to service." "Pertinent details of the repair are on file at this repair station under Order No. 4454 Date 12-6-84 Signed <u>Josep A. Heneba</u> for Ky. Flying Serv., Inc. Bowman Field Louisville, Ky. 40205."

DATE 1985	RECORDING TACH TIME	TODAYS FLIGHT	TOTAL TIME IN SERVICE	DESCRIPTION OF INSPECTIONS, TESTS, REPAIRS AND ALTERATIONS ENTRIES MUST BE ENDORSED WITH NAME, RATING AND CERTIFICATE NUMBER OF MECHANIC OR REPAIR FACILITY. (SEE BACK PAGES FOR OTHER SPECIFIC ENTRIES.)
2-8	1362			Installed VR-300-1450 Voltage Regulator & Overhauled Generator S/N 25973 OH by Aero-Tech work Order 1609 Dated 2-05-85. Operational check of engine satisfactory. Josep A Heneba - 402661020
				Compression ① 78/80 ② 78/80 ③ 76/80 ④ 78/80
				TOTAL HOUR 1400 THIS ENGINE HAS BEEN INSPECTED IN ACCORDANCE WITH ANNUAL INSPECTION, IN ACCORDANCE WITH CURRENT FEDERAL AVIATION REGULATIONS AND IS APPROVED FOR RETURN TO SERVICE DETAILS OF WORK ACCOMPLISHED ON FILE AT THIS STATION UNDER WORK ORDER NO. 4075 DATE 9-6-85 INSPECTOR <u>Josep A Heneba</u> KENTUCKY FLYING SERVICE, INC. BOWMAN FIELD, LOUISVILLE, KENTUCKY F.A.A. APPROVED REPAIR STATION # 1526

DATE 19__	RECORDING TACH TIME	TODAYS FLIGHT	TOTAL TIME IN SERVICE	DESCRIPTION OF INSPECTIONS, TESTS, REPAIRS AND ALTERATIONS ENTRIES MUST BE ENDORSED WITH NAME, RATING AND CERTIFICATE NUMBER OF MECHANIC OR REPAIR FACILITY. (SEE BACK PAGES FOR OTHER SPECIFIC ENTRIES.)
		TACH	1224	Removed #3 cyl. installed new Piston Rings 1 valve guide, 1 valve all new Replaced gaskets & Seals installed new all work performed per manufactures instructions. Change oil cleaned Screen serviced eng with 8 qts Aero shell 40 W non det oil. Washed & run eng. No leaks at this time
KENTUCKY FLYING SERVICE FAA APPROVED REPAIR STATION NO. 1526 MAINTENANCE RELEASE "The above work was done in accordance with current Regulations of the Federal Aviation Agency and is approved for return to service." "Pertinent details of the repair are on file at this repair station under Order No. 3537 Date 12-15-83 Signed <u>[Signature]</u> for Ky. Flying Serv., Inc. Bowman Field Louisville, Ky. 40205."				

DATE 19__	RECORDING TACH TIME	TODAYS FLIGHT	TOTAL TIME IN SERVICE	DESCRIPTION OF INSPECTIONS, TESTS, REPAIRS AND ALTERATIONS ENTRIES MUST BE ENDORSED WITH NAME, RATING AND CERTIFICATE NUMBER OF MECHANIC OR REPAIR FACILITY. (SEE BACK PAGES FOR OTHER SPECIFIC ENTRIES.)
1984				
6-27	1784			Changed oil & cleaned screen Washed & Run eng. No leaks Serviced eng with 7qt Aero shell 50 W non det. oil. [Signature]
				ENGINE - Drained oil, cleaned screens, checked & cleaned spark plugs, checked compression, checked fuel system, drained sumps, checked starter and generator brushes, checked mags and timed properly, checked prop for leaks and grease. Functionally checked engine.
				I CERTIFY THAT THIS AIRCRAFT HAS BEEN INSPECTED IN ACCORDANCE WITH A <u>ANNUAL</u> INSPECTION IS DETERMINED TO BE IN AIRWORTHY CONDITION AND IS APPROVED FOR RETURN TO SERVICE. PERTINENT DETAIL OF THIS INSPECTION ARE ON FILE AT THIS FACILITY UNDER REPAIR ORDER # <u>7837</u> TOTAL TIME <u>1300 h</u> S.M.O.H. <u>642</u> SIGNED <u>[Signature]</u> DATE <u>9/24/84</u> WEISS AERO SERVICE/CRS. #362-39



DATE 19__	RECORDING TACH TIME	TODAYS FLIGHT	TOTAL TIME IN SERVICE	DESCRIPTION OF INSPECTIONS, TESTS, REPAIRS AND ALTERATIONS ENTRIES MUST BE ENDORSED WITH NAME, RATING AND CERTIFICATE NUMBER OF MECHANIC OR REPAIR FACILITY. (SEE BACK PAGES FOR OTHER SPECIFIC ENTRIES.)
				REMOVED OIC COOLER DUE TO LEAKAGE
APRIL 13 1982				INSTALLED OVERHAULIED COOLER
AT 1036.78				OBTAINED FROM SOUTHWEST COOLER SERVICE
				SEE ATTACHED YELLOW TAG LEAK CHECK
				O.K.
				Mark Phillips
				AT P 403942856

DATE 19__	RECORDING TACH TIME	TODAYS FLIGHT	TOTAL TIME IN SERVICE	DESCRIPTION OF INSPECTIONS, TESTS, REPAIRS AND ALTERATIONS ENTRIES MUST BE ENDORSED WITH NAME, RATING AND CERTIFICATE NUMBER OF MECHANIC OR REPAIR FACILITY. (SEE BACK PAGES FOR OTHER SPECIFIC ENTRIES.)
				Tach. 1092.
				TOTAL HOUR <u>434</u>
				THIS <u>Eng</u> HAS BEEN INSPECTED IN ACCORDANCE
				WITH <u>Annual</u> INSPECTION, IN ACCORDANCE WITH
				CURRENT FEDERAL AVIATION REGULATIONS AND IS
				APPROVED FOR RETURN TO SERVICE DETAILS OF WORK
				ACCOMPLISHED ON FILE AT THIS STATION UNDER WORK
				ORDER NO. <u>2488</u> DATE <u>8-25-82</u>
				INSPECTOR <u>Michael K. O'Neil</u>
				KENTUCKY FLYING SERVICE, INC
				BOWMAN FIELD, LOUISVILLE, KENTUCKY
				F.A.A. APPROVED REPAIR STATION # 1526

78/80  
78/80  
72/80  
78/80



DATE	RECORDING TACH TIME	TODAYS FLIGHT	TOTAL TIME IN SERVICE	DESCRIPTION OF INSPECTIONS, TESTS, REPAIRS AND ALTERATIONS ENTRIES MUST BE ENDORSED WITH NAME, RATING AND CERTIFICATE NUMBER OF MECHANIC OR REPAIR FACILITY. (SEE BACK PAGES FOR OTHER SPECIFIC ENTRIES.)
June 25, 1979				
LYC: IO-360-A1A				
				W/O: 79284
				S/N: L-4188-51A
<p>Engine major overhauled in accordance with Lycoming overhaul manual 60294-7. Crankcase repaired by Chuck Ney Ent. Repair Station # 212-29. All steel parts magnafluxed. Installed new chrome cylinders. Installed new LW-10207 pistons, 72877 camfollowers, 78290 lifters, 65819 connecting rod bushing, 73111 exhaust valves, 73129 intake valves, LW-11754 camshaft. All new bearings, rings, gaskets, seals, and harness. AD 71-05-02 AMDT. 39-1589 PCW. AD 71-11-02 AMDT. 39-1403 PCW AD 73-23-01 AMDT. 39-2804 c/w S/B 367F by magnetic particle inspection. AD 75-08-09 AMDT. 39-3013 PCW. Engine was not test ran.</p>				
TOTAL TIME:			MECHANIC: <u>See H. Kupt</u>	
TIME SCMOH: 0.0			A&P <u>2213875</u>	

DATE	RECORDING TACH TIME	TODAYS FLIGHT	TOTAL TIME IN SERVICE	DESCRIPTION OF INSPECTIONS, TESTS, REPAIRS AND ALTERATIONS ENTRIES MUST BE ENDORSED WITH NAME, RATING AND CERTIFICATE NUMBER OF MECHANIC OR REPAIR FACILITY. (SEE BACK PAGES FOR OTHER SPECIFIC ENTRIES.)
7-2-79	eng			<del>This engine has been inspected in</del> <u>3490 W.</u>
	663			accordance with <u>eng</u> inspection details of work accomplished on file at this station under work order No. <u>4190</u>
<p>Cardinal Aviation Bowman Field, Louisville, Ky. 40205 FAA Approved Repair Station #4271</p> <p><u>Mark</u> Inspector <u>7-2-79</u> Date</p>				

NOTES

~~80~~ SUBTRACT 1562.5 HRS FROM TACH FOR O/H TIME

ENGINE RECORD — GENERAL INFORMATION

MANUFACTURER Lycoming MODEL JO 360 A1A

SERIAL L-4188-51A TYPE CERTIFICATE \_\_\_\_\_

THIS ENGINE IS CURRENTLY INSTALLED IN AIRCRAFT \_\_\_\_\_

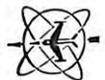
MINIMUM OCTANE FUEL \_\_\_\_\_ OIL GRADE SUMMER \_\_\_\_\_ WINTER \_\_\_\_\_

MAGNETO TIME \_\_\_\_\_ POINT SETTING \_\_\_\_\_ FIRING ORDER \_\_\_\_\_

SPARK PLUG GAP \_\_\_\_\_

MFG. RECOMMENDED OVERHAUL AT \_\_\_\_\_ HOURS.

*The Standard*



**ENGINE LOG**

MIDSTATES AIRCRAFT  
ENGINES, INC.

*The Standard*



ENGINE LOG





DATE 19__	RECORDING TACH TIME	TODAYS FLIGHT	TOTAL TIME IN SERVICE	DESCRIPTION OF INSPECTIONS, TESTS, REPAIRS AND ALTERATIONS ENTRIES MUST BE ENDORSED WITH NAME, RATING AND CERTIFICATE NUMBER OF MECHANIC OR REPAIR FACILITY. (SEE BACK PAGES FOR OTHER SPECIFIC ENTRIES.)
				This <u>engine</u> has been inspected in accordance with <u>annual</u> inspection details of work accomplished on file at this station under work order No. <u>2936</u>
				Date <u>6-6-74</u> Inspector <u>Jim Davis</u> Cardinal Aviation Bowman Field Louisville, Ky. 40205 FAA Approved Repair Station #4271
				<u>Jim Davis</u> Inspector <u>6-6-74</u> Date
				TAC 1483 S.M.P.H 99

DATE 19__	RECORDING TACH TIME	TODAYS FLIGHT	TOTAL TIME IN SERVICE	DESCRIPTION OF INSPECTIONS, TESTS, REPAIRS AND ALTERATIONS ENTRIES MUST BE ENDORSED WITH NAME, RATING AND CERTIFICATE NUMBER OF MECHANIC OR REPAIR FACILITY. (SEE BACK PAGES FOR OTHER SPECIFIC ENTRIES.)
				Installed new "0" trim tachometer, old tach reading 1485 Cardinal Aviation Bowman Field Louisville, Ky. 40205 FAA Approved Repair Station #4271
				<u>Jim Davis</u> Inspector <u>6-14-74</u> Date
				Removed prop, had repaired and re-installed TAC 64 Cardinal Aviation Bowman Field Louisville, Ky. 40205 FAA Approved Repair Station #4271
				<u>Jim Davis</u> Inspector <u>12-6-74</u> Date
				This <u>engine</u> has been inspected in accordance with <u>annual</u> inspection details of work accomplished on file at this station under work order No. <u>3128</u>
				Date <u>7-19-75</u> Inspector <u>Jim Davis</u>
				TAC 133



ENGINE RECORD — GENERAL INFORMATION

MANUFACTURER Lycoming MODEL IO-360-A1A

SERIAL L-4188-S1A TYPE CERTIFICATE \_\_\_\_\_

THIS ENGINE IS CURRENTLY INSTALLED IN AIRCRAFT \_\_\_\_\_

MINIMUM OCTANE FUEL \_\_\_\_\_ OIL GRADE SUMMER \_\_\_\_\_ WINTER \_\_\_\_\_

MAGNETO TIME \_\_\_\_\_ POINT SETTING \_\_\_\_\_ FIRING ORDER \_\_\_\_\_

SPARK PLUG GAP \_\_\_\_\_

MFG. RECOMMENDED OVERHAUL AT \_\_\_\_\_ HOURS.

*The Standard*



**ENGINE LOG**

OLD

ENGINE

ENGINE LOG

LOGBOOK

MOONEY AIRCRAFT, INC.

### ENGINE LOG

DATE	R. P. M.		TIME ON GROUND		TIME IN AIR		TOTAL TIME		REPAIRS — ADJUSTMENTS	SIGNATURE	LICENSE NUMBER
	Ground	Air	Hours	Min.	Hours	Min.	Hours	Min.			
8-14-71	TACH 1017										
A.P. 71-11-2 COMPLETED WITH BT INSTALLING TAPPIT ASSEMBLY # 78290. OIL CHANGE, CLEAN SCREEN, CLEAN LEAD PLUGS. COMPRESSION CHECK 1 80 2 80 3 80 4 80											
CHECK ENGINE & ACCESSORIES FOR CONDITION & SECURITY. WASH DOWN & RUN UP ON GRD. O.K.											
COMPLETED WITH A.P. 71-5-2 <span style="float: right;">W. O. Doeppe A-1135687</span>											
AS PER UPCOMING S.B. 327.											
3-20-72											
A.P. 71-5-2 - checked out for [unclear]											
BROUGHT FORWARD											
TOTALS <span style="float: right;">327</span>											

George L. Cord  
A-1135687

### PROPELLER INSPECTION AND REPAIRS

INSPECTION			REPAIRS		
DATE	INSPECTED BY	CONDITION	DATE	REPAIRED BY	REPAIRS MADE
I certify that this <del>aircraft</del> <sup>engine</sup> has been inspected in accordance with a <u>ANNUAL</u> inspection and was determined to be in airworthy condition.					
Date	8-14-71		Mechanic's Signature <u>W. O. Doeppe</u>		
Certificate No.		A-1135687	Total Hours <u>1017</u>		
AUTHORIZED INSPECTOR A. & E. 1135687 WILLIAM O. DOEPPE					







# ENGINE LOG

DATE	R. P. M.		TIME ON GROUND		TIME IN AIR		TOTAL TIME		REPAIRS — ADJUSTMENTS	SIGNATURE	LICENSE NUMBER
	Ground	Air	Hours	Min.	Hours	Min.	Hours	Min.			
1970	7-11-70								Fuel Injector RSA5-ADI, S/N 18766/39, Bendix S/B # 27 Rev # 2 c/w By Airwork Corp. 7-9-70 Millville N.J. and reinstalled on aircraft.		
<p style="color: blue; font-weight: bold;">I certify that this (<del>aircraft</del>) (engine) has been inspected in accordance with                      AC 43.1 inspection and was determined to be in airworthy                      condition. Date 7-11-70 Total time 766 : 58                      A/C Test flown &amp; Released for flt.                      Glen W Butler A.I. 1330135</p>											
BROUGHT FORWARD											
TOTALS											

### ENGINE LOG

DATE	R. P. M.		TIME ON GROUND		TIME IN AIR		TOTAL TIME		REPAIRS — ADJUSTMENTS	SIGNATURE	LICENSE NUMBER
	Ground	Air	Hours	Min.	Hours	Min.	Hours	Min.			
12/13/69									CLEANED & CHECKED ALL AIR, OIL, & FUEL SCREENS, CLEANED & GAPED SPARK PLUGS REPL ALL ROCKER BOX COVER GASKETS, SERVICED WITH 5 QTS E-80 OIL  I CERTIFY THIS ENG. HAS BEEN INSP E/A/W A 100 HR. INSP & WAS FOUND TO BE IN AN AIR WORTHY CONDITION TACK TIME 611 HRS  W. A. Weller AWP 1960020  ALL AD NOTES THRU 69-24 CHIEF & COMPLIED WITH 69-24-3 C/W I certify that this (aircraft) (engine) has been inspected in accordance with AN ANNUAL inspection and was determined to be in airworthy condition. Date 12-13-69  Total time 611 & 0  Edm W Butler A.I. 1330135		
BROUGHT FORWARD											
TOTALS											

### ENGINE LOG

DATE	R. P. M.		TIME ON GROUND		TIME IN AIR		TOTAL TIME		REPAIRS — ADJUSTMENTS	SIGNATURE	LICENSE NUMBER
	Ground	Air	Hours	Min.	Hours	Min.	Hours	Min.			
7/170		100							HR inspection completed this date per Mooney Service Manual Compression as follows #1 #2 #3 #4 Repaired rocker cover leaks lube Throttle & prop controls Replace spark plugs Change oil E-80 Dress prop TT 700-38 I certify that this AIRCRAFT engine has been inspected in accordance with A 100HR inspection and was determined to be in airworthy condition  Westley C Kret AWP 1305582		
BROUGHT FORWARD											
TOTALS											









## ENGINE LOG

DATE	R. P. M.		TIME ON GROUND		TIME IN AIR		TOTAL TIME		REPAIRS — ADJUSTMENTS	SIGNATURE	LICENSE NUMBER
	Ground	Air	Hours	Min.	Hours	Min.	Hours	Min.			
									4/15/68 at 146.39 hrs. T.T.		
									Changed oil checked oil over got 12.80 Esso oil added		
									Charles L. Halls AEP 1475185.		
BROUGHT FORWARD											
TOTALS											

## ENGINE LOG

DATE	R. P. M.		TIME ON GROUND		TIME IN AIR		TOTAL TIME		REPAIRS — ADJUSTMENTS	SIGNATURE	LICENSE NUMBER
	Ground	Air	Hours	Min.	Hours	Min.	Hours	Min.			
									6/21/68 at 199:00 hrs T.T. I certify that this powerplant has been inspected in accordance with a 100 HR insp & was determined to be in an airworthy cond.		
										Charles L. Halls AEP 1475185.	
BROUGHT FORWARD											
TOTALS											



### ENGINE DESCRIPTION

Mfg. <b>LYCOMING</b>	Place	Date <b>11-1-67</b>		
Type	Model <b>IO-360</b>	Serial No. <b>L-4188-51A</b>		
Rated H. P.	Maximum H. P.	Weight (Dry)		
Rated R. P. M.	Maximum R. P. M.	Oil Pressure		
Bore	Stroke	Displacement	Cu. In.	
Compression Ratio	Supercharger Ratio	Gear Ratio		
Propeller	Hub Design	Hub Serial No.		
Blade Design	Blade Serial No.	Blade Serial No.		
Maximum Hub H. P.	Maximum Blade H. P.			
Pitch	Diameter	Length		
Owners Name	City			
Address	State			

### ENGINE LOG

DATE	R. P. M.		TIME ON GROUND		TIME IN AIR		TOTAL TIME		REPAIRS — ADJUSTMENTS	SIGNATURE	LICENSE NUMBER
	Ground	Air	Hours	Min.	Hours	Min.	Hours	Min.			
<b>11-1-67</b>											
PRODUCTION FLIGHT TEST COMPLETED THIS DATE THIS AIRCRAFT INSPECTED NEW AT FACTORY AND FOUND TO BE AIRWORTHY.											
11-1								1 30		<i>[Signature]</i>	
Note: This engine installed in Mooney M-20F N3490N, Ser. No. 680071.											
BROUGHT FORWARD											
TOTALS											