

LYCOMING

A Textron Company

ENGINE LOG

SSP-1872-1

ENGINE MODEL T10-540-AF1B

ENGINE SERIAL NUMBER L-12079-61A

AIRCRAFT MODEL Mooney M20M

AIRCRAFT SERIAL NUMBER 27-0345

AIRCRAFT REGISTRATION NUMBER N381KH

LYCOMING

A Textron Company

652 Oliver Street
Williamsport, PA 17701 U.S.A.
570/323-6181

27-0345
M20M
N381 KH

ENGINE LOG AND MAINTENANCE RECORD

RECORD OF LYCOMING

	MAKE	MODEL	SERIAL
FROM	<u>8/28</u>	<u>20 05</u>	<u>TO</u>
DETAILING TIME FROM	<u>6.5</u>	<u>TO</u>	
	HOURS		HOURS

SSP-1872-1

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October 1994

NEW RECIPROCATING ENGINE CERTIFICATE

This is to certify that the engine as described hereinafter has been manufactured run-in and tested as prescribed by **LYCOMING** specifications and Federal Aviation Regulations. No further run-in is required. All applicable Federal Aviation Airworthiness Directives and Lycoming Service Bulletins have been complied with at time of Manufacture.

MODEL TIO-540-AF1B

SERIAL NO. L-12079-61A

DATE

6/14/05

Blenley
(AUTHORIZED REPRESENTATIVE)

LYCOMING

A Textron Company

LYCOMING ENGINES

652 Oliver Street

Williamsport, PA 17701 U.S.A.

Form No. 777-B (Rev. 3/03)

ENGINE DESCRIPTION

Mfgr.	LYCOMING	Place	Williamsport, PA 17701	Date	
Type		Model		Serial No.	
Rated H.P.		Max. H.P.		Weight (Dry)	
Rated R.P.M.		Max. R.P.M.		Oil Pressure	
Bore		Stroke		Displacement	Cu. In.
Compression Ratio		Supercharger Ratio			
Reduction Gear Ratio					
Propeller		Hub Design		Hub Serial No.	
Blade Design		Blade Serial No.		Blade Serial No.	
Max. Hub H.P.		Max. Blade H.P.			
Pitch		Diameter		Length	
Name					
Address					

ENGINE LOG

Serial No. L-12079-61A

Date	Time		REPAIRS - ADJUSTMENTS - SERVICE - REMARKS	Signature	License Number
	Hrs	Min			

ENGINE MODEL
TIO-540-AF1B
ENGINE S/N L-12079-61A
REG. NO. N381KH
WORK ORDER
804-08-2005



Mooney Airplane Company, Inc.

Repair Station No. CRS# MPYR456X
165 Al Mooney Road North
Kerrville, TX 78028
Phone: 830-792-2924

DATE: 8/30/2005
A/C TSN: 13.9
ENG TT: 13.9
HOBS: 13.9

Engine Entries

(1) Drained oil and removed filter. Filter inspection **passed**. Installed 10 quarts Aeroshell 15W50 oil and new CH48110-1 oil filter.

The aircraft or components identified above on N381KH was repaired and inspected in accordance with current rules of the Federal Aviation Regulations and was found Airworthy for return to service. Pertinent details of the repair are on file at this repair station under Ebis 3 Work Order No. 804-08-2005.

DATE: 8/30/2005

SIGNED:

Work Order: 804-08-2005

Brian Kendrick

Printed by EBis 3 (datcomedia.com)

Certified Repair Station No. CRS# MPYR456X

			Page Total	All Repair Data Must Bear the Endorsement of a Certificated Mechanic, and his Rating and Certificate Number MUST be Shown.
			Brought Forward	
			Total to Date	

ENGINE LOG

Serial No. _____

Date	Time		REPAIRS - ADJUSTMENTS - SERVICE - REMARKS	Signature	License Number
	Hrs	Min			
8/30/20			Monthly Factory; changed oil + Filter	KTH	
			Page Total	All Repair Data Must Bear the Endorsement of a Certificated Mechanic, and his Rating and Certificate Number MUST be Shown.	
			Brought Forward		
			Total to Date		

ENGINE LOG

Serial No. _____

AvDyne AeroServices, LLC

MAKE:Mooney

MODEL:M20M

SERIAL NO.:27-0345

REGISTRATION NO.:N231KH

DATE:11/22/05

WORKORDER:05-11-025

TOTAL TIME: 52.4

TAC TIME: 52.4

1. Ran engine to normal operating temperature and drained oil.
2. Removed and inspected filter for contaminants. None found.
3. Replenished engine with 10 quarts Aeroshell 15W50.
4. Washed down and ran engine for leak check. None noted.

This aircraft an/or component identified above was repaired and inspected in accordance with current Federal Aviation Regulations and was found airworthy for return to service. Date: 11/22/05
Signed: , A&P#: 355463474

License
Number

Page Total

Brought Forward

Total to Date

All Repair Data Must Bear the Endorsement of a
Certificated Mechanic, and his Rating and
Certificate Number MUST be Shown.

ENGINE LOG

Serial No. _____

ENGINE LOG

License
Number

DATE: 04-10-2006
TIO540

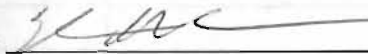
Mooney M20M
A/C S/N: 27-0345

N381KH
HOBBS: 065.2

Maintenance Release: This aircraft, airframe, aircraft engine, propeller or appliance identified below was repaired and inspected in accordance with current regulations of the Federal Aviation Administration and was approved to return for service. All work was performed in accordance with applicable aircraft, engine and/or appliance maintenance manuals and instructions.

Engine oil drained, filter removed and disassembled. No abnormal contaminants observed. Engine serviced with 10qts AeroShell 15w50 and new CH48110 oil filter. Ground run and leak check acceptable. Copies of this work are filed under Shop Order #06-1760.

Signature



CRS #P39R561I

Paris Air, Inc, 3300 Airport West Dr., Vero Beach, Florida 32960 (772) 770-2708

Page Total

Brought Forward

Total to Date

All Repair Data Must Bear the Endorsement of a
Certificated Mechanic, and his Rating and
Certificate Number MUST be Shown.

Henry Weber Aircraft Distributors, Inc.

Maintenance Release

N381KH

27-0345



Date

July 28, 2006

Engine Logbook

Hobbs: 87.1

Tightened all rocker box drain tube hoses. Adjusted left magneto timing to specs. Safetied all wastegate clamps. Replaced prop control cable clamp assy. Changed oil and filter. Checked filter okay. Added 10 quarts Aeroshell 15W50 oil. Engine test run and checked for leaks. —END—

The component identified above was repaired and inspected in accordance with current regulations of the Federal Aviation Administration and is approved for return to service. Pertinent details of the repair are on file at this repair station under

Order No: 14189

Certified Repair Station No: DY1R103K

Inspector:

Date: July 28, 2006

David A. Cox

500-B Airport Road, Lancaster Airport, Lititz, PA 17543

License
Number

t of a

**All Repair Data Must Bear the Endorsement of a
Certificated Mechanic, and his Rating and
Certificate Number MUST be Shown.**

ENGINE LOG

Serial No. _____

[illegible]

ENGINE LOG

Serial No. _____

Time _____

License _____

SPECTRUM
AVIATION

4029 Airport Road, Suite 300 Lexington, KY 40510 859-255-1902

Airframe Log Book

Date: 04/27/07

Reg No: N381KH

AF Total Time: 172.1

Aircraft: M20M

Work Order: 2457

Serial No: 27-0345

Changed engine oil with 10 Quarts Aeroshell 15W50 Oil. Replaced oil filter with new CH48110-1 Oil Filter. Cut open old filter and no particles were found. Oil Sample was taken.

Leak checked good on Engine run

The aircraft, airframe, engine, propeller, or appliance identified was repaired and/or inspected in accordance with the current regulations of the Federal Aviation Administration and is approved for return to service for the work performed.

Date: 04/27/07

Signed

Ronald W. Barnett

AP 2781459

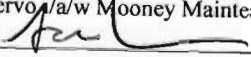
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Total to Date

All Repair Data Must Bear the Endorsement of a
Certificated Mechanic, and his Rating and
Certificate Number MUST be Shown.

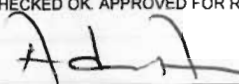
ENGINE LOG

Serial No.

Date	Time		REPAIRS - ADJUSTMENTS - SERVICE - REMARKS	Signature	License Number
	Hrs	Min			
			N#: 381KH WO#: M07-200009 DATE: 10/19/2007 HOBBS: 312.6 215.4 VA Virginia Aviation FAA REPAIR STA. #RSUR804H VARS-115 Performed compression test #1 74/80, #2 75/80, #3 76/80, #4 73/80, 7#5 76/80, #6 75/80. Removed fuel injector servo- had overhauled by Ametek B&S Aircraft Parts & Accessories, Inc. WO# R07-06645. Reinstalled and adjusted fuel servo /a/w Mooney Maintenance Manual. End. Signature:  Please affix to your aircraft/engine logbook.		
			Page Total Brought Forward Total to Date	All Repair Data Must Bear the Endorsement of a Certificated Mechanic, and his Rating and Certificate Number MUST be Shown.	

ENGINE LOG

Serial No. _____

Date	Time		REPAIRS - ADJUSTMENTS - SERVICE - REMARKS	Signature	License Number
	Hrs	Min			
			ENGINE MODEL: 110-540-AF16 ENGINE S/N: L12079-61A REG. NO: 381KH WORK ORDER: 1683-12-2007  Premier Aircraft Service, Inc. 5540 NW 23rd Avenue Hanger 14 Fort Lauderdale, FL 33309 Phone: (954) 334-2393 DATE: 12/18/2007 A/C TSN: 332.3 ENG TT: 332.3 TACH: <u>332.3</u> <i>T.T. → Engine → 240</i> Engine Entries PERFORMED COMPRESSION TEST 1/74 2/74 3/74 4/74 5/74 6/74... REPLACED #5 BAFFEL AND BAFFEL SEAL WITH NEW... CLEANED AND Gaped SPARK PLUGS... CHANGED OIL AND FILTER. SERVICED WITH 10 QTS OF AEROSHELL 15W50 AND NEW CH48110-1 FILTER. OIL FILTER WAS CUT OPEN AND INSPECTED FOR CONTAMINATION. ENGINE WAS GROUND RUN AND LEAK CHECKED OK THIS ENGINE WAS GROUND RUN AND LEAK CHECKED OK. APPROVED FOR RETURN TO SERVICE ON THIS DATE. THIS RELEASE IN NO WAY CERTIFIES FUTURE AIRWORTHINESS DATE: 12/18/2007 SIGNED:  Adrian Arias, A&P: 2761974 Work Order: 1683-12-2007 Printed by EBis 3 (datcomedia.com)		
			Brought Forward		
			Total to Date		

All repair work must be done by a
Certificated Mechanic, and his Rating and
Certificate Number MUST be Shown.

ENGINE LOG

Serial No. _____

Date	Time		REPAIRS - ADJUSTMENTS - SERVICE - REMARKS	Signature	License Number
	Hrs	Min			
			12/19/2007 3308 240 = Eng. Time		
			INSTALLED NEW SLICK MAG L/H 6361 SN 06080955		
			USED NEW HARDWARE : GASKETS, LEAK CK : RUN UP OK		

ENGINE MODEL:
110-540-AF16
ENGINE S/N: L12079-61A
REG. NO: 381KH
WORK ORDER:
1707-12-2007



Premier Aircraft Service, Inc.

5540 NW 23rd Avenue Hanger 14
Fort Lauderdale, FL 33309
Phone: (954) 334-2393

DATE: 12/20/2007
A/C TSN: 332-3
ENG TT: 332-3
TACH: 332-3

240

Engine Entries

REPLACED LEFT MAG AND TIME TO ENGINE. FUNCTIONAL AND LEAK CHECKED OK

This aircraft/engine is approved for return to service with reference to work performed on this W/O on this date. THIS RELEASE IN NO WAY CERTIFIES FUTURE AIRWORTHINESS.

DATE: 12/20/2007

SIGNED:

Adrian Arias

Adrian Arias, A&P: 2761974

Work Order: 1707-12-2007

Printed by EBis 3 (datcomedia.com)

Serial No. _____

Date	Time		REPAIRS - ADJUSTMENTS - SERVICE - REMARKS	Signature	License Number
	Hrs	Min			
3/27/08			Tach 266-8 Installed new RH mag P/N 6360 and timed. Ops checked good M+L R#9357729859		
			Page Total	All Repair Data Must Bear the Endorsement of a Certificated Mechanic, and his Rating and Certificate Number MUST be Shown.	
			Brought Forward		
			Total to Date		

ENGINE LOG

Serial No. _____

Date	Time		REPAIRS - ADJUSTMENTS - SERVICE - REMARKS	Signature	License Number
	Hrs	Min			
			N381KH Date 09-05-08 TSN: 313.3 Tach: 313.3 Performed Annual Inspection. Changed oil and oil filter PN CH48110-1. Serviced sump with 10 qts of 15w50 oil. Installed 12 new spark plugs PN RHB37E. Complied with AD 08-08-17 does not apply per PN installed. AD 08-07-14 by inspection next due 413.3. Complied with AD 08-08-14 by inspection next due 363.3. AD's complied with through 2008-16. I certify this engine has been inspected in accordance with FAR 43 App D annual inspection and found airworthy. <i>MM L AWP 357729185 JA</i> LUHTECH INC		
9-5-08	313	3	Compressions 1) 72 2) 71 3) 72 4) 73 5) 70 6) 72	<i>MM L AWP 357729185 JA</i>	
			Page Total	All Repair Data Must Bear the Endorsement of a Certificated Mechanic, and his Rating and Certificate Number MUST be Shown.	
			Brought Forward		
			Total to Date		

N381KH

Date: 2/18/2009 Hour Meter: 535.5

Changed oil and oil filter P/N CH48110-1. Serviced sump with
10qts 15W 50 Aeroshell. Ran up and leak checked good.

al No. _____

Date	Time	
	Hrs	Min

LUHTECH INC.

Signature

License
Number

N381KH

Date: 4/19/09

Tach: 362.9

Installed new Sun Visor P/N 130355-002. Installed
new Fuel Lanyard P/N 452-16-6. Complied with AD
2009-02-03 by installation of New Servo Gasket P/N
2577258.

M. J. L. A+P351729889
LUHTECH Inc.

Page Total

Brought Forward

Total to Date

All Repair Data Must Bear the Endorsement of a
Certificated Mechanic, and his Rating and
Certificate Number MUST be Shown.

ENGINE LOG

Serial No. _____

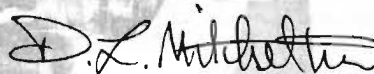
Date	Time		REPAIRS - ADJUSTMENTS - SERVICE - REMARKS	Signature	License Number
	Hrs	Min			
			N381KH Date 09-25-09 TSMOH: 396.9 Tach: 396.9		
			Performed Annual Inspection. Changed oil and oil filter P/N		
			CH48110-1. Serviced sump with 10 qts of W100 Aeroshell.		
			Compressions as follows 1) 78, 2) 79, 3) 79, 4) 78, 5) 80, 6) 78.		
			Complied with AD 08-14-07 by inspection next due 100hrs.		
			Complied with AD 08-19-05 Engine Components N/A no		
			ECI Cylinders. AD's complied with through 2009-19. I		
			certify this engine has been inspected in accordance with FAR		
			43 App D annual inspection and found airworthy.		
			<i>M. J. Lu</i> AIP35712989IA		
			LUHTECH INC		
			Page Total	All Repair Data Must Bear the Endorsement of a Certificated Mechanic, and his Rating and Certificate Number MUST be Shown.	
			Brought Forward		
			Total to Date		

LYCOMING

A Textron Company

652 Oliver Street
Williamsport, PA 17701

3/2/2010 Engine S/N L-12079-61A was returned to Lycoming with 423.9 TT for inspection/repair due to a prop strike. Engine was disassembled, cleaned, and inspected. Necessary parts zyglo and magnaflux inspected per SB533A. Cylinders # 2, 3, 4, 5 & 6 honed. Engine was reassembled replacing the left magneto with S/N 09120583, right magneto with S/N 10010920, cylinder #1 with kit P/N 05K22177, 1 idler gear, vacuum pump gear, camshaft, all piston pins, tappets, rings, bearings, hardware necessary for the repair, and all perishable items. Engine was tested in accordance with Lycoming specifications and is determined to be in an airworthy and safe operating condition. Additional service bulletins and instructions complied with 240U, 342E (2002-26-01), 475C (91-14-22), 533A (2004-10-14), 554 and SI 1424 and 1487. All pertinent data relating to this work is on file at Lycoming under work-order REP12079.



D. L. Mitcheltree Repairman # 3330483
Repair Station EJ1R115K

END

Serial No.

Brian Kendrick
Certified Repair Station No. CRS# MPYR456X

N381KH

1. U.S.A.		2. FAA Form 8130-3 AIRWORTHINESS APPROVAL TAG U.S. Department of Transportation Federal Aviation Administration		3. System Tracking Ref. No. mooney 3026468-1 Airplane	
4. Organization Navajo Accessories, Inc. 1442 Parkridge San Antonio, TX 78216				5. Work Order, Contract or Invoice Number 74875	
6. Item	7. Description	8. Part Number	9. Eligibility	10. Quantity	11. Serial/Batch Number
	Fuel Pump	RG179804/m	N/A	1	C6116
12. Status/Work Rep					
13. Remarks Repaired					
Limited Life parts must be accompanied by maintenance history including total time/total cycles since new.					
14. ☒ New ☐ Newly Overhauled Certifies that the new or newly overhauled part(s) identified above, except as otherwise specified in block 13, was (were) manufactured in accordance with FAA approved design data and airworthiness. NOT: In case of parts to be repaired, the requirements of the importing country have been met.			19. Return to Service in Accordance with FAR 43.9 Certifies that the work specified in Block 13 (or attached) above was carried out in accordance with FAA Airworthiness regulations and in respect to the work performed the part(s) is (are) approved for return to service.		
15. Signature:		16. FAA Authorization No.		20. Authorized Signature: Alvin Thompson	
17. Name (Typed or Printed):		18. Date (m/d/y):		21. Certificate Number BU2R729K	
				22. Name (Typed or Printed): Alvin Thompson	
				23. Date (m/d/y): 3-11-10	

SERVICEABLE PART

Manufacturer LYCOMING ENGINES
Part Name AIRCRAFT ENGINE
Model No. TIO-540-AF1B
Serial No. L - 12079-61A
Remarks _____

The aircraft engine or accessory identified above was:

Repaired

and inspected in accordance with current Regulations of the Federal Aviation Administration and is approved for return to service.

Pertinent details of the work performed are on file at
Lycoming Engines under order no: REP12079

Date 3/2/10
Signed Richard Reed

Signature of Authorized Person

FOR:

LYCOMING

A Traction Company

652 Oliver Street
Williamsport, PA 17701 USA

Repair Station #EJ1R115K

Form 302A (3/04-LM)

ENGINE LOG

Serial No. _____

License
Number

ENGINE MODEL:

110-540-AF16

ENGINE S/N: L12079-61A

REG. NO: 381KH

WORK ORDER:

3702-06-2010

Premier Aircraft Service, Inc.

Repair Station No. CRS # 9PRR402

5540 NW 23rd Avenue Hanger 14

Fort Lauderdale, FL 33309

Phone: (954) 334-2393

DATE: 6/9/2010

A/C TSN: 453

ENG TT: 453

TACH: 453

Engine Entries

(3) UNCOWLED ENGINE CHECKED MAG TIMING BOTH LEFT AND RIGHT. RAN UP ENGINE ON GROUND PERFORMED MAG CHECK AT IDLE AND HIGH RPM OPS CHECK GOOD.... (4) CLEANED CYL #5 FUEL INJECTOR AND SPARK PLUGS IAW MOONEY M20M M.M. ENGINE WAS GROUND RUN AND OPS.

MAINTENANCE RELEASE: IN REFERENCE TO THE WORK PERFORMED, THIS AIRCRAFT, AIRFRAME, AIRCRAFT ENGINE, PROPELLER, AND / OR APPLIANCE WAS REPAIRED AND INSPECTED I.A.W. CURRENT REGULATIONS OF THE FEDERAL AVIATION ADMINISTRATION AND IS APPROVED FOR RETURN TO SERVICE. ALL WORK WAS PERFORMED IAW CURRENT APPLICABLE AIRCRAFT, ENGINE, OR APPLIANCE MAINTENANCE MANUALS AND INSTRUCTIONS. PERTINENT DETAILS ARE ON FILE AT THIS REPAIR STATION OFFICE

DATE: 6/9/2010

SIGNED:

JONATHAN RANNEY

Certified Repair Station No. CRS # 9PRR402

Work Order: 3702-06-2010

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Total to Date

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Certificated Mechanic, and his Rating and
Certificate Number MUST be Shown.

ENGINE LOG

Serial No. _____

Date	Time		REPAIRS - ADJUSTMENTS - SERVICE - REMARKS	Signature	License Number
	Hrs	Min			
			N381KH		
			07/21/10		
			TACH: 464.3		
			Changed oil and oil filter P/N CH48110-1. Serviced		
			sump with 10 quarts of Aeroshell W100 Oil. Ran up and		
			leak checked good.		
			<i>M. J. [Signature]</i>		
			<i>AP 35772985</i>		
			LUHTECH JET		
			Page Total	All Repair Data Must Bear the Endorsement of a Certificated Mechanic, and his Rating and Certificate Number MUST be Shown.	
			Brought Forward		
			Total to Date		

ENGINE LOG

Serial No. _____

Date	Time		REPAIRS - ADJUSTMENTS - SERVICE - REMARKS	Signature	License Number
	Hrs	Min			
			N381KH Model: M20M S/N: 27-0345 ENGINE 1/25/11 TACH: 480.0 Changed oil and Oil Filter P/N CH48110-1. Serviced sump with 10 quarts of Aeroshell Oil 15W50. <i>MA LL ADP357129885</i> LUHTECH JET		
			Page Total	All Repair Data Must Bear the Endorsement of a Certificated Mechanic, and his Rating and Certificate Number MUST be Shown.	
			Brought Forward		
			Total to Date		

ENGINE LOG

Serial No. _____

Date	Time		REPAIRS - ADJUSTMENTS - SERVICE - REMARKS	Signature	License Number
	Hrs	Min			
			N381KH Model: M20M S/N: 27-0345 ENGINE 04-08-11 TSMOH: 511.6 Tach: 511.6 Performed Annual Inspection. Changed oil and oil filter P/N CH48110-1. Serviced sump with 10 qts of Aeroshell 15W50 oil. Compressions as follows 1) 76, 2) 77, 3) 75, 4) 77, 5) 78, 6) 76. Complied with AD 08-14-07 by inspection next due 100hrs. AD's complied with through 2011-07. I certify this engine has been inspected in accordance with FAR 43 App D annual inspection and found airworthy. <u>M. L. A. P. 35772985IA</u> LUHTECH JET		
			Page Total		
			Brought Forward		
			Total to Date		

All Repair Data Must Bear the Endorsement of a Certificated Mechanic, and his Rating and Certificate Number MUST be Shown.

ENGINE LOG

Serial No. _____

[illegible]

ENGINE LOG

Serial No.

[illegible]

ENGINE LOG

Serial No. _____

[illegible]

[illegible]

Bloomsburg, Pa 17815

Sudden Stoppage Inspection C/W TIO-540-A1FB Engine S/N L-12079-61A as per Lycoming MSB 533B. AD2004-10-14 C/W new bolt P/N STD-2247 Installed and Torqued and Safetied as per SB475C. Inspected Externally Mounted Fuel Injector Fuel Lines i.a.w. Lyc MSB 342F. Installed New Camshaft Kit O5K22755. Replaced 6ea Exhaust guides P/N 16R22021, Engine Test Cell Run and Found Satisfactory. Itemized Parts List and Yellow Tags in back of Log Book. Mdl. TIO-540-A1FB S/N L-12079-61A Engine has been Repaired in Accordance with Factory Overhaul Manual 60294-7-14. All parts have been Inspected & have been determined Airworthy for return to Service. Pertinent details of the repair are on file at this agency under work order No. 25076 completed 4 June 2014.

Signed Don L. Chase for Columbia Aircraft
Services, Inc. Bloomsburg, Pa 17815 FAA R.S. JM2R930K

Serial No. _____

[illegible]

**a Must Bear the Endorsement of a
Mechanic, and his Rating and
Number MUST be Shown.**



Royal Aircraft Services, LLC
18335 Airpark Rd.
Hagerstown, MD 21742
301-791-3642 - FAX: 301-791-7368
CRS JZRR651K

Date: 6/19/2014
N381KH

Tach: 808.2
Lycoming TIO-540-A1FB

TSMOH: 808.2
S/N: L-12079-61A

Performed engine piston ring break-in flight in accordance with Lycoming Service Instruction SI-1427(C). Pertinent details of the maintenance/check flight are on file with this repair station under work order #1311113. -END-

Thomas E. Young
Thomas E Young ATP 1919963

License
Number

ENGINE LOG

Serial No. _____

Date	Time		REPAIRS - ADJUSTMENTS - SERVICE - REMARKS	Signature	License Number
	Hrs	Min			
11 July 2014	808.2	Hobbs	Inspected engine assy IAW on fr's instructions & FAR Part 43 App "D". Cleaned & lubed all cables, controls & fittings. Checked mageto timing. Cleaned & gapped spark plugs. Performed compression leak/loss as follows: #1 76/80 #2 76/80 #3 77/80 #4 74/80 #5 78/80 #6 76/80 Run up & leak checks OK All AD's c/w through this date by inspection or review. See rear of this log. I certify this engine assy has been inspected IAW an annual insp & was determined to be in airworthy condition		
			Page Total	All Repair Data Must Bear the Endorsement of a Certificated Mechanic, and his Rating and Certificate Number MUST be Shown.	
			Brought Forward		
			Total to Date		

Clifford E. Ellis 11/27/192191A

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

DATE _____

N381KH 4/16/15 Hobbs 853.5

Drained oil, removed filter, serviced w/10 qts

Aeroshell 15/50 and EH48110 filter.

Brian Tuscher *Brian Tuscher* A&P 3411784

1 July 700.3 Tach Inspected engine assy IAW mfr's instructions &
2015 854.2 Hobbs FAR Part 43 App "D". Cleared & lubed all cables, controls,
700.3 SMOH & fittings. Cleared & gapped plugs. checked magnet timing
performed comp leak/loss as follows: #1 $78/80$ #2 $76/80$ #3 $78/80$ #4 $78/80$
#5 $78/80$ #6 $77/80$ All AD's c/w through this date by inspection or review. See rear
of this log. I certify this engine assy has been inspected IAW an annual insp
& was determined to be in airworthy condition.

Clifford E. Ellis A&P 2719219 IA

DATE

11-2-15

Service Bulletins, Letters, Instructions & A D Notes

In reference to airframe log squak list dated 9/10/15
all airworthy items have been addressed. installed new
spark plugs RHB 37E. adjusted idle mixture. Retimed right
mag. Removed #1, 3 & 5 exhaust stacks sent out for repair
at AWF Reinstalled repaired stacks. Run & ops good
Robert Bartoli Log 3487437IA

DATE _____

Service Bulletins, Letters, Instructions & A D Notes

*Air Mods and Repair, Inc.
Trenton-Robbinsville Airport (N87)
Factory Authorized Mooney Service Center*

Engine Log

N381KH 6-15-17 Hobbs: 903.7 Tach: 741.6 SNEW: 903.7

- C/W Annual inspection & servicing IAW *Mooney* inspection form and Requirements of FAR 43 Appendix D.
 - Compressions checked (@80 PSI): 1/78 2/76 3/78 4/78 5/77 6/78
 - Drained oil, inspected filter & screen. Installed new 48110 filter and 10qts. Aeroshell 15w-50.
 - Replaced TIT probe w/ New Alcor Type K probe P# 86240.
 - Replaced turbo transition pipe w/ serviceable unit.
 - Tightened and safetied all turbo V-band clamps as required.
 - Replaced 3 spark plugs w/ New RHB37E.
 - Replaced Cyl. #3 EGT probe w/ New Alcor Type K P# 86255.
 - Isolated Starter power lead from chaffing w/ spiral wrap & RTV.
 - Ground run, leak and operational checks satisfactory.
 - AD compliance checked thru bi-weekly 2017-12.
 - C/W AD 15-19-07 IAW SB-342(g) fuel inj. lines. Next Due @ Hobbs: 1013.7
- I certify that this Engine has been inspected in accordance with an Annual Inspection and was determined to be in airworthy condition.

David Mathiesen A/P 2777904 I/A

DA _____

ENGINE ~~AIRFRAME~~ LOGBOOK ENTRY

Manufacturer	MOONEY	Model	M20M
Registration	N381KH	Serial Number	27-0345
Aircraft Time	936.0	Tach	759.5

The following maintenance/inspection/repairs have been accomplished:

Replaced Engine Oil with new Aeroshell w15w-50 10 quarts and Champion filter PN: CH48110-1. Cut open old filter inspect ok. Engine run test ok work performed per Mooney M20M Aircraft Service Manual chapter 12-10-03.

The aircraft identified above was inspected and/or repaired in accordance with the current manufacturer specifications and current Federal Aviation Administration regulations and is returned to service with respect to the work performed.

Phonexay Laychaypha

04 AUG 2017

PHONEXAY LAYCHAYPHA

04AUG2017

A&P 3320896

Crownair Aviation
FAA Approved Repair Station #CWNR273K
3753 John J. Montgomery Dr.
San Diego, CA 92123

N381KH
08-11-17

Mooney M20M
Hobbs: 939.4 Hrs

S/N: 27-0345
Tach: 762.9 Hrs

Maintenance performed:

- Customer reports mixture too rich. Adjusted mixture setting to achieve a 60rpm rise at 1000rpm.
- Customer reports MAP too low. Adjusted MAP to reach 37.1" at full power on the ground, safety wired adjustment nut.
- Customer reports oil pressure low in cruise. Installed direct reading gage and verified oil pressure reading is correct. Adjusted oil pressure to read 79.1psi at full power. Removed direct reading gage, leak check is good.
- Removed all fuel injector nozzles at this time and cleaned. Reinstalled in same position as before, ground run leak check is good.
- Removed all spark plugs, inspected, cleaned and gapped. Reinstalled spark plugs in same position.
- Checked mag timing and adjusted from 21.5 degrees to 20 degrees per engine data plate. Performed ground run and mag checks were R 75rpm and L 100rpm. Checks good and reinstalled engine cowl.

I certify that with respect to the work performed this engine was repaired and inspected in accordance with current FAA regulations. Only those items specified in the work order have been inspected and found to be airworthy and returned to service. Pertinent details of this repair are on file at this agency under Work Order No. PA-17-08071.

[Signature]
Authorized Representative

SUB-TOTALS this page

DATE	TOTAL TIME IN SERVICE	TOTAL TIME SINCE OVERHAUL	TACH OR RECORDING METER TIME	DESCRIPTION OF WORK PERFORMED— SIGNATURE & CERTIFICATE NO. OF PERSON PERFORMING WORK												
				TOTALS brought forward from previous page												
				ENGINE LOGBOOK ENTRY												
				<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%;">Manufacturer</td> <td style="width: 33%;">MOONEY</td> <td style="width: 33%;">Model</td> <td style="width: 33%;">M20M</td> </tr> <tr> <td>Registration</td> <td>N381KH</td> <td>Serial Number</td> <td>27-0345</td> </tr> <tr> <td>Aircraft Time</td> <td>957.1</td> <td>Tach</td> <td>780.3</td> </tr> </table>	Manufacturer	MOONEY	Model	M20M	Registration	N381KH	Serial Number	27-0345	Aircraft Time	957.1	Tach	780.3
Manufacturer	MOONEY	Model	M20M													
Registration	N381KH	Serial Number	27-0345													
Aircraft Time	957.1	Tach	780.3													
				<i>The following maintenance/inspection/repairs have been accomplished:</i> Replaced Engine Oil with New Aeroshell W15-50 10 Quarts, and Tempest Oil Filter P/N 08-01270. Cut open Old Oil Filter inspection OK. Engine run test OK. Re-secured Engine Cowling Sent out Oil Sample for Analysis. Work performed per Mooney Aircraft Service Manual Chapter 12-10-03. The aircraft identified above was inspected and/or repaired in accordance with the current manufacturer specifications and current Federal Aviation Administration regulations and is returned to service with respect to the work performed. <i>Phonexay Laychaypha</i> PHONEXAY LAYCHAYPHA A&P 3320896 23-DEC-2017 23-DEC-2017												
12/23/17																

CROWNAIR

FAA Approved Repair Station #CWNR273K
3753 John J. Montgomery Dr.
San Diego, CA 92123

Lycoming Engine
N381KH
08-06-18

TIO-540-AFIB
Mooney M20M
Hobbs: 966.4 Hrs

S/N: L-12079-61A
S/N: 27-0345
TSN: 966.4 Hrs

Maintenance performed:

- Completed **Annual Inspection** using Crownair Aviation Annual/100 Hour Inspection Checklist, Form CA 105. Researched ADs through bi-weekly issue of this date, all ADs are in compliance at this time.
- Changed engine oil and filter. Serviced with 10qts Aershell 15W50 oil, installed new CH48110-1 oil filter and safety wired. Performed ground run and leak checks good.
- Cut open old oil filter and checked for metal contamination, none found at this time.
- Oil sample taken and sent for analysis.
- Compressions are as follows: #1. 78/80 #2. 75/80 #3. 77/80 #4. 76/80 #5. 78/80 #6. 72/80.
- Complied with **AD 84-26-02** by inspection only of paper induction air filter and no defects found. Due every 100 Hrs or annual inspection.
- Complied with **AD 2015-19-07** by inspection of fuel injector fuel lines and clamps I/A/W **Lycoming MSB 342G**) and no defects noted at this time.
- **AD 2017-16-11** N/A by engine S/N in Table 1 and no parts replaced in time frame of Table 2.
- Adjusted MAP to 37" and safety wired adjustment nut.

I certify that this **engine** has been inspected in accordance with an **Annual Inspection** and was determined to be in airworthy condition.

I certify that only the work requested by the owner/operator and listed above was repaired and inspected in accordance with current Federal Aviation Regulations and was found to be airworthy for return to service. Details of the repair are on file at this agency under Work Order No. PA-18-08319.

Authorized Representative

Discrepancies Noted:

- | | | |
|--|--|--|
| ☐ OUTERSHELL | ☐ BALL JOINT | ☐ BELLOWS |
| ☐ OVERBOARD | ☐ BELL JOINT | ☐ HEAT FINS |
| ☐ BAFFLE | ☐ INLAY | ☐ STRAIGHT TUBE |
| ☐ END PLATE | ☐ OVERLAY | ☐ BRACKET |
| ☐ SHROUD RING | ☐ INLET EXTENSION | ☐ BOLT FLANGE |
| ☐ BEADED END | ☒ RISER TUBE | ☐ TOP TUBE |
| ☐ TAB | ☐ FLANGE | ☐ CRACK WELD |
| ☐ SHAFT | ☐ TAILPIPE | ☒ SLIP JOINT |
| ☐ BUTTERFLY | ☐ FLOW DIVIDER | ☐ ELBOW |
| ☐ CLEAN & INSP. | ☐ BODY | ☐ SKIN |
| ☐ _____ | ☐ _____ | ☐ _____ |

INSPECTOR'S INITIALS TLK

Corrective Action: ITEMS REPLACED OR REPAIRED

- | | | |
|--|--|--|
| ☐ OUTERSHELL | ☐ BALL JOINT | ☐ BELLOWS |
| ☐ OVERBOARD | ☐ BELL JOINT | ☐ HEAT FINS |
| ☐ BAFFLE | ☐ INLAY | ☐ STRAIGHT TUBE |
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| ☐ TAB | ☐ FLANGE | ☐ CRACK WELD |
| ☐ SHAFT | ☐ TAILPIPE | ☒ SLIP JOINT |
| ☐ BUTTERFLY | ☐ FLOW DIVIDER | ☐ ELBOW |
| ☐ CLEAN & INSP. | ☐ BODY | ☐ SKIN |
| ☐ _____ | ☐ _____ | ☐ _____ |

INSPECTOR'S INITIALS TLK

Material Type

- ☒ 347 SS FILLER ROD
☒ 321 SS
☐ 4130 CHROMALLY
☐ 4130 ROD
☐ INCONEL
☐ INCONEL ROD
☐ _____
☐ _____

Approved Data

- ☒ 43.13-1B
☐ MANUFACTURER'S MANUAL
☐ AIR CARRIER'S MANUAL
☐ _____

AEROSPACE WELDING MINNEAPOLIS, INC.

1045 Gemini Road, Eagan, MN 55121 651-379-9888

FAA Repair Station #UWDR792L

Form 100

166529

NAME ADVANCED HELICOPTER CONCEPTS		S/N AWI N/A	Job: 84569
ADDRESS 330 AVIATION WAY-HGR 18		CITY FREDERICK MD 21701	INSPECTION Preliminary Date 10/19/2015 <u>TLK</u> Hidden Damage Date 10/21/2015 <u>TLK</u> In Progress Date 10/22/2015 <u>TLK</u> Final Date 10/23/2015 <u>TLK</u>
Make & Model MOONEY M20M TLS	Part Number LW12728		
Unit Description SEE BELOW			
Registration No.			

CUSTOMER SERVICES REQUESTED

DESCRIPTION: MOONEY M20M TLS BRAVO - ADAPTER CYL # 2 & 3

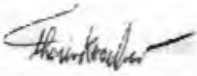
- | | | | |
|---|---|---|--------------------------------|
| ☒ REPAIRS | ☒ BOLT FLANGE | ☐ _____ | ☐ _____ |
| ☒ A.D. NOTES | ☐ DIE PENETRANT | ☐ CORROSION PROTECT NEW TUBE | ☐ _____ |
| ☒ PRESSURE TEST | ☐ DEMAGNETIZE | ☐ PRIMER COAT | ☐ _____ |

AUTHORIZED AND CONDITIONS AGREED TO AS STATED ABOVE

BY Handwritten Signature

DATE 10/23/2015

DATE 10/23/2015

1. Approving Civil Aviation Authority/Country FAA/United States		2. AUTHORIZED RELEASE CERTIFICATE FAA Form 8130-3, AIRWORTHINESS APPROVAL TAG				3. Form Tracking Number: 166530	
4. Organization Name and Address: Aerospace Welding Minneapolis, Inc. 1045 Gemini Road Eagan MN 55121 (UWDR792L)						5. Work Order/Contract/Invoice Number 166530	
6. Item:	7. Description:	8. Part Number:	9. Quantity:	10. Serial Number:	11. Status/Work:		
1	RISER	40B19822	1 each	166530	OVERHAULED		
12. Remarks: REF: WORK ORDER #166530.							
Aerospace Welding Minneapolis, Inc. certifies that the work specified in block 12/13 was carried out in accordance with EASA part 145 and in respect to that work, the component is considered ready for release to service under EASA part 145 Approval Number:EASA. 1456155. This form covers certification of the part identified in block 7/8 only and any additional EAS40B19822A requirements are the responsibility of the installer.							
13a. Certifies the items identified above were manufactured in conformity to:				14a. ☒ 14 CFR 43.9 Return to Service ☒ Other regulation specified in Block 12			
☐ Approved design data and are in a condition for safe operation. ☐ Non-approved design data specified in Block 12.				Certifies that unless otherwise specified in Block 12, the work identified in Block 11 and described in Block 12 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.			
13b. Authorized Signature		13c. Approval/Authorization No.:		14b. Authorized Signature:		14c. Approval/Certificate No.:	
						UWDR792L	
13d. Name (Typed or Printed):		13e. Date (dd/mm/yyyy):		14d. Name (Typed or Printed):		14e. Date (dd/mm/yyyy):	
				Tom Knaresboro		23 Oct 2015	
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 aircraft engine(s)/propeller(s)/article(s) 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.							

Discrepancies Noted:

- | | | |
|--|--|--|
| ☐ OUTERSHELL | ☐ BALL JOINT | ☐ BELLOWS |
| ☐ OVERBOARD | ☐ BELL JOINT | ☐ HEAT FINS |
| ☐ BAFFLE | ☐ INLAY | ☐ STRAIGHT TUBE |
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| ☐ TAB | ☐ FLANGE | ☐ CRACK WELD |
| ☐ SHAFT | ☐ TAILPIPE | ☒ SLIP JOINT |
| ☐ BUTTERFLY | ☐ FLOW DIVIDER | ☐ ELBOW |
| ☐ CLEAN & INSP. | ☐ BODY | ☐ SKIN |
| ☐ _____ | ☐ _____ | ☐ _____ |

INSPECTOR'S INITIALS TLK

Corrective Action: ITEMS REPLACED OR REPAIRED

- | | | |
|---|---|---|
| ☐ ☐ OUTERSHELL | ☐ ☐ BALL JOINT | ☐ ☐ BELLOWS |
| ☐ ☐ OVERBOARD | ☐ ☐ BELL JOINT | ☐ ☐ HEAT FINS |
| ☐ ☐ BAFFLE | ☐ ☐ INLAY | ☐ ☐ STRAIGHT TUBE |
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| ☐ ☐ BUTTERFLY | ☐ ☐ FLOW DIVIDER | ☐ ☐ ELBOW |
| ☐ ☐ CLEAN & INSP. | ☐ ☐ BODY | ☐ ☐ SKIN |
| ☐ ☐ _____ | ☐ ☐ _____ | ☐ ☐ _____ |

INSPECTOR'S INITIALS TLK

Material Type

- ☒ 347 SS FILLER ROD
☒ 321 SS
☐ 4130 CHROMALLY
☐ 4130 ROD
☐ INCONEL
☐ INCONEL ROD
☐ _____
☐ _____

Approved Data

- ☒ 43.13-1B
☐ MANUFACTURER'S MANUAL
☐ AIR CARRIER'S MANUAL
☐ _____

AEROSPACE WELDING MINNEAPOLIS, INC.

1045 Gemini Road, Eagan, MN 55121 651-379-9888

FAA Repair Station #UWDR792L

166531

Form 100

NAME ADVANCED HELICOPTER CONCEPTS		S/N AWI N/A	Job: 84569
ADDRESS 330 AVIATION WAY-HGR 18		CITY FREDERICK MD 21701	INSPECTION Preliminary Date 10/19/2015 <u>TLK</u> Hidden Damage Date 10/21/2015 <u>TLK</u> In Progress Date 10/22/2015 <u>TLK</u> Final Date 10/23/2015 <u>TLK</u>
Make & Model MOONEY M20M TLS	Part Number 40B19825		
Unit Description SEE BELOW			
Registration No.			

CUSTOMER SERVICES REQUESTED

DESCRIPTION: MOONEY M20M TLS BRAVO - CYL # 5 RISER

- | | | | |
|---|---|---|--------------------------------|
| ☒ REPAIRS | ☒ BOLT FLANGE | ☐ _____ | ☐ _____ |
| ☒ A.D. NOTES | ☐ DIE PENETRANT | ☐ CORROSION PROTECT NEW TUBE | ☐ _____ |
| ☒ PRESSURE TEST | ☐ DEMAGNETIZE | ☐ PRIMER COAT | ☐ _____ |

AUTHORIZED AND CONDITIONS AGREED TO AS STATED ABOVE

BY

Shirley K. K...

DATE 10/23/2015

AD Title :
 Make :
 Model :
 Serial Number :
 Tail Number :

Engine
 Lycoming
 TIO-540-AF1B
 L-12079-61A
 N381KH

Date : 11-Jul-14
 IA : Cliff Ellis
 Phone : 443-415-0565 (cell)
 Tach time : 808.2
 Date :

AD Note	Date	Name	One Time	Recurring	Next Due	Signature	Licence #
91-08-07	05/06/1991	Fuel Pump	X		N/A by Manufacture Date	↑	A&P 2719219 IA
92-12-05	07/10/1992	Piston Pins	X		N/A by Manufacture Date		A&P 2719219 IA
97-15-11	08/12/1997	Cylinder kits	X		N/A by Manufacture Date		A&P 2719219 IA
2003-14-03	08/14/2003	Rotary fuel pumps	X		N/A by Manufacture Date		A&P 2719219 IA
2004-05-24	03/30/2004	Zinc-plated Crankshaft Gear Retaining	X		N/A by Manufacture Date	AEP 2719219 IE Cliff Ellis	A&P 2719219 IA
2004-10-14	06/25/2004	Crankshaft gear	X		N/A by Manufacture Date		A&P 2719219 IA
2005-12-06	07/19/2005	Riveted-impulse coupling assemblies	X		C/W at teardown inspection 6/5/2014		A&P 2719219 IA
2005-19-11	10/21/2005	Crankshafts	X		N/A by type		A&P 2719219 IA
2006-10-21	06/22/2006	ECi connecting rods	X		N/A by parts installed		A&P 2719219 IA
2009-02-03	02/09/2009	Fuel injection servos	X		N/A by install date		A&P 2719219 IA
2011-13-03	07/13/2011	Turbocharger Turbine	X		PCW 6/5/2014		A&P 2719219 IA
2011-26-04	01/25/2012	Externally mounted fuel injector fuel lines		X	C/W by inspection; 100 hrs		A&P 2719219 IA
2012-03-06	02/24/2012	Fuel servo diaphragm	X		PCW 6/5/2014		A&P 2719219 IA
2012-19-01	10/24/2012	Crankshafts	X		C/W by inspection	↓	A&P 2719219 IA

AD Title : Magnetos
Make : Slick
Model : L:6361 R:6360
Serial Number : L:09120583 R:10010920
Tail Number : N381KH

Date : 11-Jul-14
IA : Cliff Ellis
Phone : 443-415-0565 (cell)
Tach time : 808.2
Date :

AD Note	Date	Name	OneTime Recurring		Next Due	Signature	Licence #
74-18-05	08/28/1974	Magnetos	X		N/A by type	<i>Cliff Ellis</i> <i>A&P 2719219 IA</i>	A&P 2719219 IA
80-06-05	03/28/1980	Magnetos	X		N/A by type		A&P 2719219 IA
81-16-05	08/06/1981	Magnetos	X		N/A by type		A&P 2719219 IA