

**Overhaul Parts List**

**SB/AD Compliance Sheet**

**Misc. 8130-3 Certificates**

**Overhaul Parts List**

HORIZON AIRCRAFT ENGINE SERVICES, INC. dba Bolduc Aviation  
 CUSTOMER: **TREE TOP AVIATION**  
 MODEL: MOONEY M20J SERIAL #: L-24731-51A  
 WORK ORDER # **35727**  
 DATE: 7-24-2024

QTY	PART #	DESCRIPTION
1	SL12944	GASKET SET
4	SL16711A	BEARING, CRANKSHAFT
2	SL13884A	BEARING, FRONT MAIN
8	SL13212A	BEARING, CONNECTING
8	SL75060	BOLT, ROD
8	SL12186	NUT-HEX
4	SL13923A	BUSHING, ROD
4	SL73810	BUSHING, CRANKSHAFT
8	SL71903A-A	BUSHING
8	SL71907A	WASHER, COUNTERWEIGHT
8	SL14820	SNAP RING
2	14W21696	ROLLER
2	SL72797	ROLLER
8	15B26588	BODY - HYDRAULIC TAPPET
8	SL78290	PLUNGER ASS'Y
4	LW14078	PISTON PINS
8	72198	PLUG-PISTON PIN
4	SL-STD-2180	HOSE
8	SL67114	BUSHING, ROCKER
1	SL61084	SPRING
1	AN8-14A	BOLT
4	05K21120	CYLINDER ASSEMBLY
1	SL-STD-1065	DOWEL, STEPPED
1	LW15473	FUEL PUMP
2	SL13641	CUSHION, MAG.
1	LW18840	CAMSHAFT
1	STD-2078	DOWEL
1	SL53E19600	VERNATHERM
1	06B23072	GASKET
1	76121	SHAFT, TACH. DRIVE ASS'Y
1	SL12098-0-140	TUBING
1	SL12098-0-210	TUBING
16	SL15H21201	SPRING
1	LW16266-10-38	CLAMP
1	SL1028-B	BALL

1. Approving National Aviation Authority/Country: FAA/United States		2. <b>AUTHORIZED RELEASE CERTIFICATE</b> FAA Form 8130-3, AIRWORTHINESS APPROVAL TAG			3. Form Tracking Number: Invoice # <b>32709-1</b>	
4. Organization Name and Address: D & G Supply #NK2R034L 1916 Industrial Drive Niles, MI 49120 Telephone: 800-446-8160				5. Work Order/Contract/Invoice Number: Work Order # <b>46280</b>		
6. Item:	7. Description:	8. Part Number:	9. Quantity:	10. Serial/Batch Number:	11. Status/Work:	
1	<b>Servo</b>	<b>2524054-11</b>	1	<b>8744/639</b>	<b>OVERHAULED</b>	
12. Remarks: Inspection Report # <b>67079</b> prescribing the actual work performed is attached. The prescribed work was performed in accordance with FAA approved data.						
13a. Certifies the items identified above were manufactured in conformity to: <input type="checkbox"/> Approved design data and are in condition for safe operation. <input type="checkbox"/> Non-approved design data specified in Block 13.				14a. <input checked="" type="checkbox"/> 14 CFR 43.9 Return to Service <input type="checkbox"/> Other regulation 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.:
				<b>Russell Romey</b>		NK2R034L
13d. Name (Typed or Printed):		13e. Date (dd/mmm/yyyy):		14d. Name (Typed or Printed):		14e. Date (dd/mmm/yyyy):
				<b>RUSSELL ROMEY</b>		<b>11 JUL 2024</b>
User/Installer Responsibilities						
<p>It is important to understand that the existence of this document alone does not automatically constitute authority to install the part/component/assembly.</p> <p>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 accepts parts/components/assemblies from the airworthiness authority of the country specified in Block 1.</p> <p>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.</p>						

1. Approving National Aviation Authority/Country: FAA/United States		2. <b>AUTHORIZED RELEASE CERTIFICATE</b> FAA Form 8130-3, AIRWORTHINESS APPROVAL TAG			3. Form Tracking Number: Invoice # <b>32709-2</b>	
4. Organization Name and Address: D & G Supply #NK2R034L 1916 Industrial Drive Niles, MI 49120 Telephone: 800-446-8160				5. Work Order/Contract/Invoice Number: Work Order # <b>46280</b>		
6. Item:	7. Description:	8. Part Number:	9. Quantity:	10. Serial/Batch Number:	11. Status/Work:	
<b>2</b>	<b>Flow divider</b>	<b>2524232-2</b>	<b>1</b>	<b>AL0793</b>	<b>OVERHAULED</b>	
12. Remarks: Inspection Report # <b>67080</b> prescribing the actual work performed is attached. The prescribed work was performed in accordance with FAA approved data.						
13a. Certifies the items identified above were manufactured in conformity to: <input type="checkbox"/> Approved design data and are in condition for safe operation. <input type="checkbox"/> Non-approved design data specified in Block 13.			14a. <input checked="" type="checkbox"/> 14 CFR 43.9 Return to Service <input type="checkbox"/> Other regulation 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.:
				<b>Russell Romey</b>		NK2R034L
13d. Name (Typed or Printed):		13e. Date (dd/mm/yyyy):		14d. Name (Typed or Printed):		14e. Date (dd/mm/yyyy):
				<b>RUSSELL ROMEY</b>		<b>11 JUL 2024</b>
<b>User/Installer Responsibilities</b>						
<p>It is important to understand that the existence of this document alone does not automatically constitute authority to install the part/component/assembly.</p> <p>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 accepts parts/components/assemblies from the airworthiness authority of the country specified in Block 1.</p> <p>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.</p>						

1. Approving National Aviation Authority/Country: FAA/United States		2. <b>AUTHORIZED RELEASE CERTIFICATE</b> FAA Form 8130-3, AIRWORTHINESS APPROVAL TAG			3. Form Tracking Number: Invoice # <b>32709-3</b>	
4. Organization Name and Address: D & G Supply #NK2R034L 1916 Industrial Drive Niles, MI 49120 Telephone: 800-446-8160				5. Work Order/Contract/Invoice Number: Work Order # <b>46280</b>		
6. Item:	7. Description:	8. Part Number:	9. Quantity:	10. Serial/Batch Number:	11. Status/Work:	
<b>3</b>	<b>NOZZLE</b>	<b>2524864-2</b>	<b>4</b>	<b>N/A</b>	<b>CLEANED+TESTED</b>	
12. Remarks: Inspection Report # <b>67081</b> prescribing the actual work performed is attached. The prescribed work was performed in accordance with FAA approved data.						
13a. Certifies the items identified above were manufactured in conformity to: <input type="checkbox"/> Approved design data and are in condition for safe operation. <input type="checkbox"/> Non-approved design data specified in Block 13.			14a. <input checked="" type="checkbox"/> 14 CFR 43.9 Return to Service <input type="checkbox"/> Other regulation 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: <b>Russell Romey</b>		14c. Approval/Certificate No.: NK2R034L	
13d. Name (Typed or Printed):		13e. Date (dd/mmm/yyyy):	14d. Name (Typed or Printed): <b>RUSSELL ROMEY</b>		14e. Date (dd/mmm/yyyy): <b>11 JUL 2024</b>	
<b>User/Installer Responsibilities</b>						
<p>It is important to understand that the existence of this document alone does not automatically constitute authority to install the part/component/assembly.</p> <p>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 accepts parts/components/assemblies from the airworthiness authority of the country specified in Block 1.</p> <p>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.</p>						

DATE: 7-23-24

W/O No: 35727

CUST: Tree Top AU.

MFG: LYC

Model IO-360

Serial No. L-24731-51A

S.L. Rated 200 H.P. @ 2700 R.P.M.

Fuel Octane

Fuel Pump Model AA

Fuel Pump Serial 134120

Starter Model SHOP

LOG OF AIRCRAFT ENGINE TEST  
HORIZON AIRCRAFT ENGINE SERVICES, DBA  
BOLDUC AVIATION.

8891 Airport Road, Box 8A, Blaine, MN 55449

FAA Approved Repair Station YZ8R163C

Engine Total Time:

Starter Serial -

Gen/Alt. Model -

Gen/Alt. Serial -

Carb. Model -

Carb. Serial -

Fuel Inj. Model RSA-SADI

Fuel Inj. Serial 87441639

Manifold Valve AL0793

Nozzle Ident

Mag. Model DYLN-3000

R.H. Mag Serial C038822G

L.H. Mag Serial

Ignit. Timing 25°

Spark Plugs SHOP RHM38E

TIME		POWER		OIL SYST		FUEL SYSTEM			ATMOSPHERE			CYLINDER HEAD TEMP						E.G.T.
Rding	Min.	RPM	MP	Press	Temp F	Flow lbs/hr	Nozzle Press.	Pump Press	Room F	Inlet F	Turbo Press	No 1	No 2	No 3	No 4	No 5	No 6	
	10	1200	12	55	100							225-250						
	10	1500	17	64	155							300-320						
	10	2000	18	67	155							310	335					
	10	2200	20	70	160							325-350						
	10	2300	21	75	165							345-360						
	10	2400	22.5	75	170							360-375						
		2700	27	80	170													
		750		52	150													

Compression Test

80	80	80	80	80	80
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Cylinder Type

Chrome	
Steel	
Nitride	X
Test Club	No

Engine Performance Test

Both Mags 1800 RPM

RH LH

Drop RH 75 LH 75

Test Operator

*Thomas Spaden*

Oil Filter/Screen Insp

OK TS

Fuel Cut Off 30

Accepted

# ENGINE BALANCING SPEC SHEET

Customer Name Tree Top Aviation W/O # 35727 Date 7-19-24

Engine Model IO-360-A3860 S/N # \_\_\_\_\_

Crankshaft P/N LW17222 S/N # V16502

## CRANKSHAFT ASSEMBLY:

<u>Rear Plane</u>	<u>Front Plane</u>	<u>Total Force</u>
<u>Start</u>	<u>Start</u>	<u>Gram-inches</u>
<u>1.78</u>	<u>4.85</u>	<u>5.8</u>
<u>1.63</u>	<u>1.61</u>	<u>3.0</u>

## CONNECTING ROD ASSEMBLY. TOTAL WEIGHT (GRAMS)

	<u>Start</u>	<u>Finish</u>	<u>WT Difference</u>
P/N <u>77450</u>	NO. 1 <u>1085</u>	<u>1085</u>	
Rod with bearing inserts	NO. 2 <u>1085</u>	<u>1083</u>	<u>2</u>
	NO. 3 <u>1083</u>	<u>1085</u>	
	NO. 4 <u>1088</u>	<u>1088</u>	<u>3</u>
	NO. 5 _____	_____	_____
	NO. 6 _____	_____	_____
	NO. 7 _____	_____	_____
	NO. 8 _____	_____	_____

## PISTON ASSEMBLY. TOTAL WEIGHT (GRAMS)

	<u>Start</u>	<u>Finish</u>	<u>WT Difference</u>
P/N <u>14023908</u>	NO. 1 <u>1852</u>	<u>1852</u>	
Piston with pin, Plugs, and Rings	NO. 2 <u>1852</u>	<u>1852</u>	<u>0</u>
	NO. 3 <u>1851</u>	<u>1852</u>	
	NO. 4 <u>1852</u>	<u>1851</u>	<u>1</u>
	NO. 5 _____	_____	_____
	NO. 6 _____	_____	_____
	NO. 7 _____	_____	_____
	NO. 8 _____	_____	_____

**HORIZON AIRCRAFT ENGINE SERVICES INC. DBA  
BOLDUC AVIATION  
REPAIR STATION # YZ8R163C**

Mechanics signature: Timothy J. Aick

## AD NOTES COMPLIANCE RECORD

Engine - Lycoming Engines - IO-360-A3B6D

L-24731-51A

Tree Top Aviation  
W/O # 35727

AD#	Applicable S.B. # & Subject	Date & Hours @ Comp.	Method of Compliance	One Time	Recurring	Next Comp. @ Hrs/Date	Authorized Signature & Number
66-20-04	Oil filter adaptor gasket	7-19-24	N/A by Part No.	X			Timothy J Hieb YZ8R163C
71-05-02 R4	Crankshaft main bearings		N/A by Serial No, crank case has high crush bearings		X		Timothy J Hieb YZ8R163C
71-11-02	Hydraulic tappet plunger		N/A by Serial NO. Has 78290 plungers installed.	X			Timothy J Hieb YZ8R163C
73-23-01	Piston pin failures		N/A by Serial No. and piston pin part No.	X			Timothy J Hieb YZ8R163C
75-08-09	Oil pump		N/A by Part No, has current gearset and shaft installed.	X			Timothy J Hieb YZ8R163C
75-09-15	Fuel flow divider gasket		N/A by Part No.	X			Timothy J Hieb YZ8R163C
78-23-10	Center body bellows seal assembly		N/A by F.F. Parts list No.	X			Timothy J Hieb YZ8R163C
79-04-05	Fuel diaphragm		N/A by F.F. Part No.	X			Timothy J Hieb YZ8R163C
81-18-04 R2	Oil pump		Superseded by 96-09-10	X			Timothy J Hieb YZ8R163C
90-04-06 R1	Prop governor oil line		Prop gov. oil line has steel fittings and proper support clamps	X			Timothy J Hieb YZ8R163C
91-14-22	Crankshaft gear retaining bolt		Superseded by 2004-10-14	X			Timothy J Hieb YZ8R163C
92-12-05	Piston pin failure		N/A, New LW 14078 pins installed.	X			Timothy J Hieb YZ8R163C
93-02-05	Fuel injection lines		Superseded by 2002-26-01		X		Timothy J Hieb YZ8R163C
93-05-21	AC, Textron, Rajay fuel pumps		Superseded by 93-11-11	X			Timothy J Hieb YZ8R163C
93-11-11	AC, Textron, Rajay fuel pumps		N/A, New Tempest Fuel pump installed.	X			Timothy J Hieb YZ8R163C
93-14-15	Operation placard		N/A, Not Modified Per STC# SE4757NM	X			Timothy J Hieb YZ8R163C
94-14-13	Low octane detonation		Superseded by 95-26-02	X			Timothy J Hieb YZ8R163C
95-07-01	Connecting rod bolts		N/A, New 5275060 Rod bolts installed.	X			Timothy J Hieb YZ8R163C
95-26-02	Low octane detonation		N/A, Engine in for Major overhaul	X			Timothy J Hieb YZ8R163C
96-09-10	Oil Pumps		PCW, has Hardened steel oil pump impellers installed	X			Timothy J Hieb YZ8R163C
96-23-03	High pressure fuel pumps		N/A, New Tempest Fuel Pump installed	X			Timothy J Hieb YZ8R163C
97-15-11	Piston pin		N/A, New LW-14078 piston pins installed.	X			Timothy J Hieb YZ8R163C
98-02-08	Crankshaft corrosion		N/A, has a constant speed prop installed.		X		Timothy J Hieb YZ8R163C
98-17-11	Crankshafts		N/A Nelson Balancing service	X			Timothy J Hieb YZ8R163C
98-18-12	Torque check inspection		Superseded by 2003-11-03		X		Timothy J Hieb YZ8R163C
PL2000-18-53	Loss of engine oil and subsequent seizing of the engine and possible fire		Superseded by 2002-12-07		X		Timothy J Hieb YZ8R163C
2002-12-07	Prevent complete loss of engine oil		Converter Plate gasket Replaced IAW 31453B and		X		Timothy J Hieb YZ8R163C

M3B 543C

7-19-2024

Timothy J. Hieb

Engine - Lycoming Engines - IO-360-A3B6D

L-24731-51A

Tree Top Aviation  
W/O # 35727

AD#	Applicable S.B. # & Subject	Date & Hours @ Comp.	Method of Compliance	One Time	Recurring	Next Comp. @ Hrs/Date	Authorized Signature & Number
2002-26-01	Prevent failure of the fuel injector fuel lines	7-19-24	Superseded by 2008-14-07		X		Timothy J Hieb YZ8R163C
2003-14-03	Prevent rotary fuel pump leaks		N/A, no rotary Fuel Pump installed		X		Timothy J Hieb YZ8R163C
2004-10-14	CORRECTION - Prevent loosening or failure of the crankshaft gear retaining bolt		Complied with MSB 475c and 475c sup. 1		X		Timothy J Hieb YZ8R163C
2005-19-11	Prevent failure of the crankshaft		N/A by Engine and crankshaft Serial No's		X		Timothy J Hieb YZ8R163C
2005-26-10	To prevent loss of engine power due to cracks in the cylinder assemblies		Superseded by 2006-12-07		X		Timothy J Hieb YZ8R163C
2006-06-16	To prevent failure of the crankshaft		N/A by Engine and Crankshaft Serial No's		X		Timothy J Hieb YZ8R163C
2006-20-09	To prevent failure of the crankshaft		Superseded by 2012-19-01		X		Timothy J Hieb YZ8R163C
PL2008-06-51	Fuel injection servo plugs that had loosened or completely backed out of the threaded plug hole on the regulator cover of the fuel injection servo		Superseded by 2008-08-14		X		Timothy J Hieb YZ8R163C
2008-08-14	To prevent a lean running engine		Superseded by 2009-02-03		X		Timothy J Hieb YZ8R163C
2008-14-07	To prevent failure of the fuel injector fuel lines that would allow fuel to spray into the engine compartment		Superseded by 2011-26-04		X		Timothy J Hieb YZ8R163C
2009-02-03	To prevent a lean running engine		PCW, has "G" on Servo plug		X		Timothy J Hieb YZ8R163C
2011-15-10	To remove certain fuel servos from service		Superseded by 2012-03-06		X		Timothy J Hieb YZ8R163C
2011-26-04	To prevent failure of the fuel injector lines		Superseded by 2015-19-07		X		Timothy J Hieb YZ8R163C
2012-03-06	To prevent an in-flight shutdown due to a failed fuel servo diaphragm		N/A, Servo overhauled by D & G supply		X		Timothy J Hieb YZ8R163C
2012-03-07	To address a "machined-from-billet" HA-6 carburetor having a loose mixture control sleeve that rotated in the carburetor body		N/A, no carburetor installed		X		Timothy J Hieb YZ8R163C
2012-19-01	To prevent failure of the crankshaft		N/A by Engine and crankshaft Serial No's		X		Timothy J Hieb YZ8R163C
2015-19-07	External Fuel Injector Lines		Complied with MSB 342G		X		Timothy J Hieb YZ8R163C
2017-16-11	Engine Connecting Rod Assemblies Integrity		N/A, New Superior connecting rod bushings installed.		X		Timothy J Hieb YZ8R163C
2023-17-04	STC F&M or Stratus Oil Filter Adapter Fiber Gasket Oil Loss		N/A no Stratus or F&M oil Filter adapter installed.		X		Timothy J Hieb YZ8R163C

7-19-2024

Timothy J. Hieb

1. Approving Civil Aviation Authority/Country: FAA/United States	<b>AUTHORIZED RELEASE CERTIFICATE</b> FAA Form 8130-3, AIRWORTHINESS APPROVAL TAG	3. Form Tracking Number:  77086-1
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4. Organization Name and Address:  LY-CON REBUILDING CO. 8231 W. DOE AVE. VISALIA, CA 93291 (559) 651-1070	5. Work Order/Contract/Invoice Number:  77086
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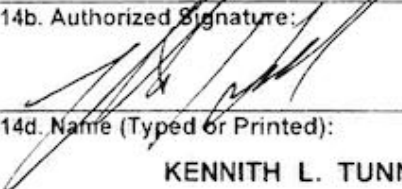
6. Item:	7. Description:	8. Part Number:	9. Quantity:	10. Serial Number:	11. Status/Work:
1	CYLINDER PISTON AND RING ASSEMBLY	05K21120	1	S/N 77086-1 S/N 04248564-090	REPAIRED

12. Remarks:  
 NEW LYCOMING CYLINDER ASSEMBLY P/N 30160-01 HAS A STANDARD NITRIDED BORE AND WAS DISASSEMBLED, INSPECTED AND CYLINDER HEAD WAS PORT FLOWED TO REMOVE CYLINDER HEAD CASTING IMPERFECTIONS, AND WAS ASSEMBLED WITH ALL NEW PARTS INCLUDING GUIDES, NEW INTAKE AND EXHAUST VALVES, NEW PISTON P/N 14D23908, NEW PISTON PIN AND NEW VALVE SPRINGS. RING WERE FIT, SEATS WERE CUT, VALVES WERE LAPPED AND CYLINDER WAS LEAK CHECKED.

DETAILS OF THIS WORK ARE ON FILE AT THIS REPAIR STATION FOR THE PERIOD REQUIRED BY REGULATION, UNDER THE WORK ORDER NUMBER IN BLOCK 5.

THE WORK INDICATED IN BLOCK 11 WAS COMPLETED ON 03/12/24 BY J.G. AND WITH RESPECT TO THAT WORK, THIS COMPONENT IS CONSIDERED AIRWORTHY AND READY FOR RETURN TO SERVICE.

13a. Certifies the items identified above were manufactured in conformity to: <input type="checkbox"/> Approved design data and are in condition for safe operation. <input type="checkbox"/> Non-approved design data specified in Block 12.	14a. <input checked="" type="checkbox"/> 14 CFR 43.9 Return to Service <input type="checkbox"/> Other regulation 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.
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13b. Authorized Signature:	13c. Approval/Authorization No.:	14b. Authorized Signature: 	14c. Approval/Certificate No.:  CT3R435L
13d. Name (Typed or Printed):	13e. Date (dd/mm/yyy):	14d. Name (Typed or Printed):  KENNITH L. TUNNELL	14e. Date (dd/mm/yyy):  12/MAR/2024

### User/Installer Responsibilities

It is important to understand that the existence of this document alone does not automatically constitute authority to install the aircraft engine/propeller/article.

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 13a and 14a 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.

1. Approving Civil Aviation Authority/Country: FAA/United States		2 <b>AUTHORIZED RELEASE CERTIFICATE</b> FAA Form 8130-3, AIRWORTHINESS APPROVAL TAG			3. Form Tracking Number:  77086-2	
4. Organization Name and Address:  LY-CON REBUILDING CO. 8231 W. DOE AVE. VISALIA, CA 93291 (559) 651-1070				5. Work Order/Contract/Invoice Number:  77086		
6. Item:	7. Description:	8. Part Number:	9. Quantity:	10. Serial Number:	11. Status/Work:	
1	CYLINDER PISTON AND RING ASSEMBLY	05K21120	1	S/N 77086-2 S/N 04248564-086	REPAIRED	
12. Remarks: NEW LYCOMING CYLINDER ASSEMBLY P/N 30160-01 HAS A STANDARD NITRIDED BORE AND WAS DISASSEMBLED. INSPECTED AND CYLINDER HEAD WAS PORT FLOWED TO REMOVE CYLINDER HEAD CASTING IMPERFECTIONS. AND WAS ASSEMBLED WITH ALL NEW PARTS INCLUDING GUIDES, NEW INTAKE AND EXHAUST VALVES, NEW PISTON P/N 14D23908, NEW PISTON PIN AND NEW VALVE SPRINGS. RING WERE FIT. SEATS WERE CUT, VALVES WERE LAPPED AND CYLINDER WAS LEAK CHECKED.  DETAILS OF THIS WORK ARE ON FILE AT THIS REPAIR STATION FOR THE PERIOD REQUIRED BY REGULATION. UNDER THE WORK ORDER NUMBER IN BLOCK 5.  THE WORK INDICATED IN BLOCK 11 WAS COMPLETED ON 03/12/24 BY J.G. AND WITH RESPECT TO THAT WORK, THIS COMPONENT IS CONSIDERED AIRWORTHY AND READY FOR RETURN TO SERVICE.						
13a. Certifies the items identified above were manufactured in conformity to:  <input type="checkbox"/> Approved design data and are in condition for safe operation. <input type="checkbox"/> Non-approved design data specified in Block 12			14a. <input checked="" type="checkbox"/> 14 CFR 43.9 Return to Service <input type="checkbox"/> Other regulation 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.:  CT3R435L	
13d. Name (Typed or Printed):		13e. Date (dd/mmm/yyyy):	14d. Name (Typed or Printed):  KENNITH L. TUNNELL		14e. Date (dd/mmm/yyyy):  12/MAR/2024	
<b>User/Installer Responsibilities</b>						
It is important to understand that the existence of this document alone does not automatically constitute authority to install the aircraft engine/propeller/article.  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 13a and 14a 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.						

1. Approving Civil Aviation Authority/Country: FAA/United States	2. <b>AUTHORIZED RELEASE CERTIFICATE</b> FAA Form 8130-3, AIRWORTHINESS APPROVAL TAG	3. Form Tracking Number:  77086-3
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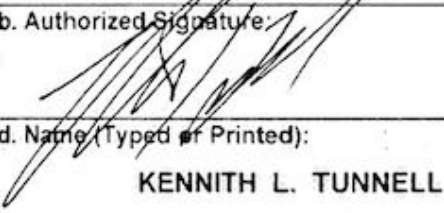
4. Organization Name and Address:  LY-CON REBUILDING CO. 8231 W. DOE AVE. VISALIA, CA 93291 (559) 651-1070	5. Work Order/Contract/Invoice Number:  77086
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6. Item:	7. Description:	8. Part Number:	9. Quantity:	10. Serial Number:	11. Status/Work:
1	CYLINDER PISTON AND RING ASSEMBLY	05K21120	1	S/N 77086-3 S/N 04248564-080	REPAIRED

12. Remarks:  
 NEW LYCOMING CYLINDER ASSEMBLY P/N 30160-01 HAS A STANDARD NITRIDED BORE AND WAS DISASSEMBLED, INSPECTED AND CYLINDER HEAD WAS PORT FLOWED TO REMOVE CYLINDER HEAD CASTING IMPERFECTIONS. AND WAS ASSEMBLED WITH ALL NEW PARTS INCLUDING GUIDES, NEW INTAKE AND EXHAUST VALVES, NEW PISTON P/N 14D23908, NEW PISTON PIN AND NEW VALVE SPRINGS. RING WERE FIT, SEATS WERE CUT, VALVES WERE LAPPED AND CYLINDER WAS LEAK CHECKED.

DETAILS OF THIS WORK ARE ON FILE AT THIS REPAIR STATION FOR THE PERIOD REQUIRED BY REGULATION, UNDER THE WORK ORDER NUMBER IN BLOCK 5

THE WORK INDICATED IN BLOCK 11 WAS COMPLETED ON 03/12/24 BY J.G. AND WITH RESPECT TO THAT WORK, THIS COMPONENT IS CONSIDERED AIRWORTHY AND READY FOR RETURN TO SERVICE.

13a. Certifies the items identified above were manufactured in conformity to:  <input type="checkbox"/> Approved design data and are in condition for safe operation. <input type="checkbox"/> Non-approved design data specified in Block 12.	14a. <input checked="" type="checkbox"/> 14 CFR 43.9 Return to Service <input type="checkbox"/> Other regulation 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.:  CT3R435L
13d. Name (Typed or Printed):	13e. Date (dd/mmm/yyyy):	14d. Name (Typed or Printed):  KENNITH L. TUNNELL	14e. Date (dd/mmm/yyyy):  12/MAR/2024

### User/Installer Responsibilities

It is important to understand that the existence of this document alone does not automatically constitute authority to install the aircraft engine/propeller/article.

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 13a and 14a 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.

1. Approving Civil Aviation Authority/Country: FAA/United States	2	<b>AUTHORIZED RELEASE CERTIFICATE</b> FAA Form 8130-3, AIRWORTHINESS APPROVAL TAG	3. Form Tracking Number:  77086-4
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4. Organization Name and Address:  LY-CON REBUILDING CO. 8231 W. DOE AVE. VISALIA, CA 93291 (559) 651-1070	5. Work Order/Contract/Invoice Number:  77086
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6. Item:	7. Description:	8. Part Number:	9. Quantity:	10. Serial Number:	11. Status/Work:
1	CYLINDER PISTON AND RING ASSEMBLY	05K21120	1	S/N 77086-4 S/N 04248564-092	REPAIRED

12. Remarks:  
 NEW LYCOMING CYLINDER ASSEMBLY P/N 30160-01 HAS A STANDARD NITRIDED BORE AND WAS DISASSEMBLED, INSPECTED AND CYLINDER HEAD WAS PORT FLOWED TO REMOVE CYLINDER HEAD CASTING IMPERFECTIONS AND WAS ASSEMBLED WITH ALL NEW PARTS INCLUDING GUIDES, NEW INTAKE AND EXHAUST VALVES, NEW PISTON P/N 14D23908, NEW PISTON PIN AND NEW VALVE SPRINGS. RING WERE FIT, SEATS WERE CUT, VALVES WERE LAPPED AND CYLINDER WAS LEAK CHECKED.

DETAILS OF THIS WORK ARE ON FILE AT THIS REPAIR STATION FOR THE PERIOD REQUIRED BY REGULATION, UNDER THE WORK ORDER NUMBER IN BLOCK 5.

THE WORK INDICATED IN BLOCK 11 WAS COMPLETED ON 03/12/24 BY J.G. AND WITH RESPECT TO THAT WORK, THIS COMPONENT IS CONSIDERED AIRWORTHY AND READY FOR RETURN TO SERVICE.

13a. Certifies the items identified above were manufactured in conformity to:  <input type="checkbox"/> Approved design data and are in condition for safe operation. <input type="checkbox"/> Non approved design data specified in Block 12.	14a. <input checked="" type="checkbox"/> 14 CFR 43.9 Return to Service <input type="checkbox"/> Other regulation 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.:  CT3R435L
13d. Name (Typed or Printed):	13e. Date (dd/mm/yy):	14d. Name (Typed or Printed):  KENNITH L. TUNNELL	14e. Date (dd/mm/yy):  12/MAR/2024

**User/Installer Responsibilities**

It is important to understand that the existence of this document alone does not automatically constitute authority to install the aircraft engine/propeller/article.

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Statements in Blocks 13a and 14a 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.

1. Approving Civil Aviation Authority/Country: FAA/UNITED STATES	<h2 style="margin:0;">AUTHORIZED RELEASE CERTIFICATE</h2> <p style="margin:0;">FAA Form 8130-3, AIRWORTHINESS APPROVAL TAG</p>	3. Form Tracking Number:  159257
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4. Organization Name and Address: <b>Aerotech of Louisville, Inc.    2209 Watterson Trail    Louisville, KY 40299</b>	5. Work Order, Contract, or Invoice Number: <b>W/O: 159257</b>
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6. Item	7. Description	8. Part Number	9. Quantity	10. Serial Number	11. Status/Work
1	PRESTOLITE ALTERNATOR	ALY-6520	1	S/N H063248	OVERHAULED

12. Remarks:                    **This item was OVERHAULED    by Aerotech of Louisville, Inc. on**  
**W/O # 159257                    Dated    09/JULY/2024**  
**FAA Approved repair station number PU4R453M.**  
**OVERHAULED                    unit per overhaul manual SGA-1000**

13a. Certifies the items identified above were manufactured in conformity to:  <input type="checkbox"/> Approved design data and are in a condition for safe operation <input type="checkbox"/> Non-approved design data specified in Block 12	14a. <input checked="" type="checkbox"/> 14 CFR 43.9 Return to Service <input type="checkbox"/> Other regulation 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.
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13b. Authorized Signature:	13c. Approval/Authorization No:	14b. Authorized Signature: 	14c. Approval/Certificate No: <b>PU4R453M</b>
13d. Name (Typed or Printed):	13e. Date (dd/mm/yyyy):	14d. Name (Typed or Printed): <b>MIKE EVANS</b>	14e. Date (dd/mm/yyyy): <b>09/JULY/2024</b>

**User/Installer Responsibilities**

It is important to understand that the existence of this document alone does not automatically constitute authority to install the aircraft engine/propeller/article..

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 13a and 14a 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.

1. Approving Civil Aviation  
Authority/Country:  
FAA / UNITED STATES

2.

# AUTHORIZED RELEASE CERTIFICATE

FAA Form 8130-3, AIRWORTHINESS APPROVAL TAG

3. Form Tracking Number:

079924

4. Organization Name and Address:

Aero Accessories, LLC - 2208 Air Park Drive - Burlington NC 27215  
FAA-PMA PQ1206CE  
YV4R688M

5. Work Order/Contract/Invoice Number:

P.O. # 215994-3875

Page 1 of 1

6. Item	7. Description	8. Part Number	9. Quantity	10. Serial Number	11. Status / Work
1	See Block 12	See Block 12	See Block 12	See Block 12	NEW

12. Remarks

AIRWORTHINESS APPROVAL - ARTICLE  
PARTS LISTED ARE NOT CRITICAL COMPONENTS.

Quantity	Description	Part Number	Serial # or Lot #
1	NEW FUEL PUMP	AF-15473	1B4114
1	NEW FUEL PUMP	AF-15473	1B4115
1	NEW FUEL PUMP	AF-15473	1B4116
1	NEW FUEL PUMP	AF-15473	1B4117
1	NEW FUEL PUMP	AF-15473	1B4118
1	NEW FUEL PUMP	AF-15473	1B4119
1	NEW FUEL PUMP	AF-15473	1B4120

13a. Certifies the items identified above were manufactured in conformity to:

Approved design data and are in condition for safe operation.

Non-approved design data specified in Block 12

13b. Authorized Signature:



13c. Approval / Authorization No. :

640347462

13d. Name (Typed or Printed)

Mark Keeney Jr.

13e. Date (dd/mmm/yyyy)

04/Apr/2024

It is important to understand that the existence of this document alone does not automatically constitute authority to install the aircraft engine/propeller/article.

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Statement in Blocks 13a and 14a 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.