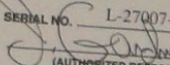


**ENGINE LOG**



**NEW RECIPROCATING ENGINE CERTIFICATE**

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

MODEL IO-540-K1G5 SERIAL NO. L-27007-48A  
DATE MAY 28 1999   
(AUTHORIZED REPRESENTATIVE)

**TEXTRON** Lycoming

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

FORM NO. 777-B (Rev. 3/94)







ENGINE LOG

Date	Engine Time		Recorder Reading	Maintenance
	This Date	Since Major		

NORTHERN AIR

LOG BOOK ENTRY  
Make: PIPER

Total Time: 290.5

Changed oil and filter and serviced with 12qts Aeroshell 15w-50 oil, filter checks normal no contamination noted, inspected oil screen per S.I. 1492B no defects noted run up ops and leak checks good.

The work identified above was performed in accordance with the current Federal Aviation Regulations and was found to be airworthy for return to service. Pertinent details are on file at this agency under:

W/O# 34886  
DATED: 03/05/01  
NORTHERN AIR INC., ORS# N81R812N, GERALD R. FORD INT'L AIRPORT, GRR, MI 49512

Dated: 03/05/01  
Model: PA32R-301

NR 4145Z  
SN 3246142

Hobbs Time: 290.5

Signed:   
for

Total  
Carry Fo

and Remarks	Signature	Certificate No.
TOTAL TIME 345.2		
HOBBS TIME 345.2		
CHANGED OIL & FILTER ADDED 12 QT W100 AEROSHELL + INSTALLED CH48110 OIL FILTER. <i>MSB</i> FOR L9PR971N		
8/29/01 364.6 OIL LEAK #2 CYL - REPLACED CYL BASE SEAL, AIR INTAKE, ROCKERS & EXHAUST GASKETS - TEST RUN NO OIL LEAKS.		
<i>AWJ [Signature]</i> FOR		
	LAPEER AVIATION, INC.	
	F.A.A. Approved Repair Station No. L9PR971N	
	DuPont Lapeer Airport, Lapeer, Michigan 49446	

ENGINE LOG

Date	Engine Time		Recorder Reading	Maintenance
	This Date	Since Major		
	Brought Forward →			

Date 10/11/01 Engine Time 389.7

Installed the TAS-100 preheater system S/N 33209 in accordance with Tanis Aircraft Services instructions and drawings No. 102

Name Art Country Mechanic# LAPEER AVIATION, INC. F.A.A. Approved Repair Station No. L99671 DuPont Lapeer Airport, Lapeer, Michigan 48844

Carry Forward

and Remarks	Signature	Certificate No.
<p><b>NORTHERN AIR</b></p> <p>Engine LOG BOOK ENTRY      Dated: 10/19/01      Nr 41452                      Model: PA32R-301      SN: 3246142                      Make: PIPER      Hobbs Time: 391.2                      Total Time: 391.2</p>		

Performed an annual inspection on this engine per Piper PA32R-301 maintenance manual. Compression checks cylinder #1 77/80, #2 76/80, #3 78/80, #4 74/80, #5 78/80, #6 76/80. Drained oil, and removed oil filter. Cut open oil filter, inspected element, and found no abnormal deposits. Installed a new oil filter. Complied with SI 1432B, inspected oil suction screen for contaminants, and no contaminants found. Filled crankcase with 8 qts. AeroShell 15W50. Ran up, and no leaks noted. Complied with AD93-02-05 by inspecting per Lycomings SB342C. The injection lines are correctly routed. Corrected the ignition harness routing next due at 491.2TT, 10/02, or next access. Complied with AD99-04-04 by inspecting the impulse coupling per Lycomings SB537, no defects noted next due at 641.2TT. Performed the 50 & 100 hour lubrication items. Complied with 400hr Lycomings SB 388B by measuring the valve guide clearances. All of the valve guide clearances are within limits. The results are as follows # 1 .017 #2 .016 #3 .017 #4 .016 #5 .017 #6 .015. Secured the sniffe valve drain line. Installed a new engine induction air filter part no. 638873.

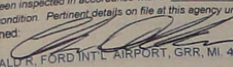
Continued on page#2

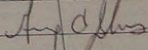
ENGINE LOG

Date	Engine Time		Recorder Reading	Maintenance
	This Date	Since Major		

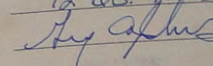
Page #2

Removed the fuel injectors and cleaned per the Lycoming SB1275B. Reinstalled and torqued the injectors. Installed a new screw and spring on to the #3 cylinder ignition lead. Installed a new right muffler.

I certify that this aircraft has been inspected in accordance with a PIPER PA32R-301 Annual Inspection & was determined to be in airworthy condition. Pertinent details on file at this agency under WIC# 35698 / 35703 Signed:  for Northern Air Inc., CRSE# NB1R812N, GERALD R. FORD INT'L AIRPORT, GRR, MI 49512 DATED: 10/18/01

and Remarks	Signature	Certificate No.
3-18-02 Tac 431.8 Changed oil & filter. added 12 qts Aeroshell 15W50 & CH48110 filter. Installed 12 new REM38E spark plugs 		

LAPEER AVIATION, INC.  
F.A.A. Approved Repair Station No. L9PR971N  
DuPont Lapeer Airport, Lapeer, Michigan 48446

7/22/02 TAC 495.9. Changed oil & filter. Added 12 qts. Aeroshell 15W50 & CH48110 filter. 		
--	--	--

LAPEER AVIATION, INC.  
F.A.A. Approved Repair Station No. L9PR971N  
DuPont Lapeer Airport, Lapeer, Michigan 48446



ENGINE LOG

Date	Engine Time		Recorder Reading	Maintenance
	This Date	Since Major		
10/08/02	Brought Forward →		523.1	ENGINE - Drained oil, cleaned screens, checked & cleaned spark plugs, checked compression, checked fuel system, drained sumps, checked starter and generator brushes, checked maps and timed properly, checked prep for leaks and grease. Functionally checked engine.
				Added 12 qts. Aeroshell 15W50. Installed new CAYENNE filter. Retorqued all rocker cover screws (w AD93-02-05 JAW byroming SB 342D, AD200-19-03 DNA & AD200-50-51 DNA.
				DATE 10/14/03 TOTAL AIRCRAFT TIME 599.0 I CERTIFY THIS ENGINE HAS BEEN INSPECTED IN ACCORDANCE WITH A PERMANENT INSPECTION AND WAS DETERMINED TO BE IN AIRWORTHY CONDITION.
				SIGNED <i>[Signature]</i> FOR REPAIR STATION LSPR971N

77/80 25/80  
77/80 72/80  
76/80 76/80

Total To Carry Forward

and Remarks	Signature	Certificate No.
6/12/03 HOBBS 547.0 CHANGED OIL ADDED 12 QT AEROSHELL 15W50. WSA FOR LSPR971N		
10/14/03 599.0 ENGINE - Drained oil, cleaned screens, checked & cleaned spark plugs, checked compression, checked fuel system, drained sumps, checked starter and generator brushes, checked maps and timed properly, checked prep for leaks and grease. Functionally checked engine. 12975 15W50 AERO-SHELL, HICKMAN OIL FILTER REPLACED EX7 AIR FILTER PIN 638873 Tighten muffler shroud clamps & SAFETY wire clamps.		
DATE 10/14/03 TOTAL AIRCRAFT TIME 599.0 I CERTIFY THIS ENGINE HAS BEEN INSPECTED IN ACCORDANCE WITH A PERMANENT INSPECTION AND WAS DETERMINED TO BE IN AIRWORTHY CONDITION.		
SIGNED <i>[Signature]</i> FOR REPAIR STATION LSPR971N		

68 2 1.76  
74 4 7.75  
75 6 5.75  
80

ENGINE LOG

Date	Engine Time		Recorder Reading	Maintenance
	This Date	Since Major		
11/17/04	Brought Forward →	6391		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.
12/30/04				Removed both magnetos and reinstalled after 500 hr. inspection by Millennium Magneto which includes impulse
1/6/05				inspection per AD 99-04-04. Replaced fuel nozzle on cyl #5.
1/6/05				Installed new CHAMPION CH48110-1 oil filter and 12 QTS.
1/6/05				Aeroshell 15W50. DATE 11-17-04 TOTAL AIRCRAFT TIME 6391
				I CERTIFY THIS ENGINE HAS BEEN INSPECTED IN ACCORDANCE WITH ALL FEDERAL REGULATIONS AND WAS DETERMINED TO BE IN AIRWORTHY CONDITION.
				SIGNED <i>[Signature]</i> FOR REPAIR STATION L9PR071N

Total To Carry Forward

LAPEER AVIATION, INC.  
 F.A.A. Approved Repair Station No. L9PR071N  
 DuPont Lapeer Airport, Lapeer, Michigan 48446

(LOG BOOK ENTRY)  
 MAINTENANCE RELEASE

MFG. Slick TYPE OF UNIT Magneto P/N 6250 SIN 97031383  
 MODEL 6250 The component above was repaired/overhauled 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 as follows:  
 MILLENNIUM MAGNETO & ACCESSORIES  
 5140 WILBUR RD. • MARTINSVILLE, IN 46151 • PHONE: 765-349-5606  
 UNDERWO # 1332 DATE 11/14/04  
 OVERHAUL  REPAIR  
 SIGNED *[Signature]*

ALL WORK AND/OR INSPECTION PERFORMED UNDER A & P # 2634793

(LOG BOOK ENTRY)  
 MAINTENANCE RELEASE

MFG. Slick TYPE OF UNIT Magneto P/N 6251 SIN 9901392  
 MODEL 6251 The component above was repaired/overhauled 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 as follows:  
 MILLENNIUM MAGNETO & ACCESSORIES  
 5140 WILBUR RD. • MARTINSVILLE, IN 46151 • PHONE: 765-349-5606  
 UNDERWO # 1331 DATE 11/14/04  
 OVERHAUL  REPAIR  
 SIGNED *[Signature]*

ALL WORK AND/OR INSPECTION PERFORMED UNDER A & P # 2634793

ENGINE LOG

Date	Engine Time		Recorder Reading	Maintenance
	This Date	Since Major		
1-20-05	Brought Forward →		671.2	Changed oil. Added 11 QTS Aeroshell 15W50. <i>My &amp; John</i> LAPEER AVIATION, INC. F.A.A. Approved Repair Station No. L9PR971N DuPont Lapeer Airport, Lapeer, Michigan 48446
4/19/05	707.9		1197.5	15W50 AERO-SHELL <i>Butt Scully</i> FOR L9PR971N
6/7/05	740.6			OIL & FILTER CHANGE - 12 QTS 15W50 AERO-SHELL OIL - R/R CH48110-1 FILTER <i>Butt Scully</i> FOR LAPEER AVIATION, INC. F.A.A. Approved Repair Station No. L9PR971N DuPont Lapeer Airport, Lapeer, Michigan 48446
8/31/05	778.2			OIL CHANGE - 11 QTS 15W50 AERO-SHELL <i>Butt Scully</i> FOR L9PR971N
Total To Carry Forward				

and Remarks	Signature	Certificate No.
8-2-05 820 Enr Time CHANGED OIL ADDED 11 QT OF AEROSHELL 15W50 <i>My &amp; John</i> FOR L9PR971N.		
8/19/05 TAC 839.7. Replaced all 12 spark plugs with new REM38E plugs. <i>My &amp; John</i> for LAPEER AVIATION, INC. F.A.A. Approved Repair Station No. L9PR971N DuPont Lapeer Airport, Lapeer, Michigan 48446		
8/31/05 TAC 860.0 Changed oil & filter. Added 12 QTS Aeroshell 15W50, & installed CH48110-1 oil filter <i>My &amp; John</i> for Lapeer Aviation Inc. L9PR971N.		

ENGINE LOG

Date	Engine Time		Recorder Reading	Maintenance
	This Date	Since Major		
9-7-05	Brought Forward →	874.4		Replaced impulse coupling P/N m3333 on left mag. IAW AD99-0404 and Slick SB1-98. Inspection due again at 1074.4 T.T. <i>My O'Neil</i>
				LAPEER AVIATION, INC. F.A.A. Approved Repair Station No. L9PR971N DuPont Lapeer Airport, Lapeer, Michigan 48446
10/25/05	897.7 T.T.			Changed oil. Added 11 qts. Aeroshell 15W50 <i>My O'Neil</i> LAPEER AVIATION, INC. F.A.A. Approved Repair Station No. L9PR971N DuPont Lapeer Airport, Lapeer, Michigan 48446
11/14/05	940.5 T.T.			Changed oil, added 12 qts. Aeroshell 15W50 <i>My O'Neil</i> Per Lapeer Aviation Inc. L9PR971N

and Remarks	Signature	Certificate No.
12-12-05 TAC 949.6		
ENGINE - Drained oil, cleaned screens, checked & cleaned spark plugs, checked compression, checked fuel system, drained pumps, checked starter and generator brushes, checked mags and timed properly, checked prop for leaks and grease. Functionally checked engine.		
Added 12 qts Aeroshell 15W50. Installed new C448110-1 oil filter. C/W AD2002-26-01 by inspection. AD 2005-19-11 DNR IPW by coming SB # 506. - 12/13/05 TOTAL AIRCRAFT TIME 949.6		
engine HAS BEEN INSPECTED IN ACCORDANCE WITH AD 2005-19-11 AND CERTIFIED THIS INSPECTION AND WAS DETERMINED TO BE IN AIRWORTHY CONDITION.		
SIGNED <i>My O'Neil</i> FOR REPAIR STATION L9PR971N		
	LAPEER AVIATION, INC. F.A.A. Approved Repair Station No. L9PR971N DuPont Lapeer Airport, Lapeer, Michigan 48446	

## ENGINE LOG

Date	Engine Time		Recorder Reading	Maintenance	and Remarks	Signature	Certificate No.
	This Date	Since Major					
4-3-06	Brought Forward →	#0565 947.0		CHANGED OIL ADDED 11 QT OF AEROSHELL 15W50. TIGHTENED LOWER CLAMP ON LEFT HEAT SHROUD. CLEANED ENG + COWLING FOR OIL LEAK T. DOUBLE SHOOTING			
		HOBBS 1028.0		FOUND FWD LOWER CASE HALF LEAKING - SEALED WITH SILICONE. CHANGED OIL ADDED 11 QTS OF AEROSHELL 15W50. <del>MADE</del> FOR L9PR97IN			
5-4-06		1067.4		CHANGED OIL AND FILTER. ADDED 12 QTS. AEROSHELL 15W50 & NEW CHRYSLER FILTER FOR L9PR97IN			
6/27/06		1105.8		CHANGED OIL + FILTER. ADDED 12 QT AEROSHELL 15W50 & NEW CHRYSLER 10-1-1 FILTER, C/W AD 97-44, 34-26-02, 2002-26-9. CLEANED FUEL NOZZLES. TIGHTENED ROCK COVER SCREWS. CLEANED SPARK PLUGS. <del>MADE</del> FOR L9PR97IN.			
8/25/06				CHANGED OIL ADDED 11 QT AEROSHELL 15W50 TO ALTERNATOR. <del>MADE</del> FOR L9PR97IN			
9-27-06				CHANGED SEAT TUBING FROM COWLING TO MUFFLER SHROUD + COWLING			

Carry Forward

ENGINE LOG

Date	Engine Time		Recorder Reading	Maintenance
	This Date	Since Major		
12/1/07	Brought Forward →	1178.4	1178.4	ENGINE - Drained oil, cleaned screens, checked & cleaned spark plugs, checked compression, checked fuel system, drained sump, checked starter and generator brushes, checked maps and timed propeller, checked prop for leaks and stress. Functionally checked engine.
70/70 75/75 75/70				LUBED ENGINE CONTROL CABLES. ADDED 12 QT AEROSHELL 15W50. INSTALLED CH48/110-1 OIL FILTER. RE-POSITIONED INTERNAL Baffle for #2 & 4 CYLS. REPLACED FUEL INJECTOR LINE CLAMPS ON CYLINDERS #4 & #6 (DOUBLE CLAMPS).
DATE 12/1/07 TOTAL AIRCRAFT TIME 1178.4 I CERTIFY THIS ENGINE HAS BEEN INSPECTED IN ACCORDANCE WITH AD AD-001. INSPECTION AND WAS DETERMINED TO BE IN AIRWORTHY CONDITION.				
SIGNED <i>[Signature]</i>			FOR REPAIR STATION LSPR971N	

Total Brought Forward

and Remarks	Signature	Certificate No.
TAC 1259.1 OIL CHANGE 11913 15W50 AERO-SHELL REPLACED VAC. PUMP PIN AA 3215CC SIN 37819 OLD PUMP 211CC SIN 79399 BUN Quantity AP2090126AT		
12/20/07 TAC 1294.6 Changed oil and filter. Added 12 qts Aeroshell 15W50. Installed CH48/110-1 filter. Replaced all 12 sparkplugs, REM 38E. Replaced clamps on cyl #2 fuel injector line and inspected all lines and clamps. Item AD2002-26-01. <i>[Signature]</i>		

LAPEER AVIATION, INC.  
F.A.A. Approved Repair Station No. LSPR971N  
DuPont Lapeer Airport, Lapeer, Michigan 48448



ENGINE LOG

Date	Engine Time		Recorder Reading	Maintenance
	This Date	Since Major		
5/21/08	Brought Forward →	1426.8	1426.8	OIL CHANGE - 11 QTS.
15W50 PERO-SHELL				
Lapeer County, MI Lapeer Aviation, Inc. FAA Approved Repair Station No. LSPR971N DuPont Lapeer Airport, Lapeer, Michigan 48446				
7/1/08	14860			Changed oil & filter. Added 12 QTS Aeroshell 15W50. Installed new CH481107 oil filter. Washed engine. By C. J. [Signature] Lapeer Aviation Inc LSPR971N
Total To Carry Forward				

and Remarks	Signature	Certificate No.
8-15-08 1526.3 Hobbs. Changed oil added 11 QTS. Aeroshell 15W50. By C. J. [Signature] Lapeer Aviation Inc		
10/21/08 1586.7 Hobbs. Changed oil. Added 11 QTS. Aeroshell 15W50. By C. J. [Signature]		
Lapeer Aviation, Inc. FAA Approved Repair Station No. LSPR971N DuPont Lapeer Airport, Lapeer, Michigan 48446		



ENGINE LOG

Date	Engine Time		Recorder Reading	Maintenance
	This Date	Since Major		
Feb. 9, 2009	Brought Forward →	1599.0		ENGINE - Drained oil, cleaned screens, checked & cleaned spark plugs, checked compression, checked fuel system, drained sumps, checked starter and generator brushes, checked mag and timed properly, checked prop for leaks and grease. Functionally checked engine.
				Added 12 oz Aeroshell 15W50. Installed new CH481107 oil filter. Replaced air filter, G308 73, with new per AD 2008-14-07. AD 2008-14-07 IAW Lya. MSB 542E. Cleaned and tightened oil temp sensor cannon plug. Removed cleaned and reinstalled fuel injectors.
	Compression Readings			DATE 2/9/09 TOTAL AIRCRAFT TIME 1599.0 CERTIFY THIS ENGINE HAS BEEN INSPECTED IN ACCORDANCE WITH AD 2008-14-07 INSPECTION AND WAS DETERMINED TO BE IN AIRWORTHY CONDITION.
	79/80 2-1 79/80			SIGNED <i>[Signature]</i> FOR REPAIR STATION L9PR071M
	79/80 4-3 79/80			Lapeer Aviation, Inc. F.A.A. Approved Repair Station No. L9PR071M DuPont Lapeer Airport, Lapeer, Michigan 48446
	78/80 4-5 79/80			
	Total To Carry Forward			

and Remarks	Signature	Certificate No.
Feb 11, 2010		
1667.5		
Complied with AD 97-04-04 on impulse coupling raw stick SBI-98. IAW AD 2008-14-07 IAW Lya. MSB 342E. Added 12 oz. Aeroshell 15W50. Installed new CH481107 oil filter.		
Compression Readings-		DATE 2/11/10 TOTAL AIRCRAFT TIME 1667.5 CERTIFY THIS ENGINE HAS BEEN INSPECTED IN ACCORDANCE WITH AD 2008-14-07 INSPECTION AND WAS DETERMINED TO BE IN AIRWORTHY CONDITION.
68/80 2-1 75/80		
78/80 4-3 76/80		
78/80 4-5 68/80		
	SIGNED <i>[Signature]</i> FOR REPAIR STATION L9PR071M	
	Lapeer Aviation, Inc. F.A.A. Approved Repair Station No. L9PR071M DuPont Lapeer Airport, Lapeer, Michigan 48446	

ENGINE LOG

Date	Engine Time		Recorder Reading	Maintenance
	This Date	Since Major		
8/27, 2010	Brought Forward → 179.7		1500.0	Changed oil. Added 11 qts Aeroshell 15W50. <i>By J. J. H.</i> for Lapeer Aviation (LAPR971N)
Feb 15, 2011	1730.5			ENGINE-Drained oil, cleaned screens, checked & cleaned spark plugs, checked compression, checked fuel system, drained sumps, checked starter and generator brushes, checked mag and timed properly, checked prop for leaks and crease. Functionally checked engine.
Comp. Readings		Added 8 qts. Aeroshell 15W50. Installed new Cylinders oil filter. <i>By J. J. H.</i> AD 2006-14-07 Insu Lycoming MSB2425		
18/80	21	79		DATE 2/15/11 TOTAL AIRCRAFT TIME 1703.5 I CERTIFY THIS
77/80	43	76		<i>By J. J. H.</i> HAS BEEN INSPECTED IN ACCORDANCE WITH AN AIRCRAFT
27/80	75	75		INSPECTION AND WAS DETERMINED TO BE IN AIRWORTHY CONDITION.
Total	150			SIGNED <i>By J. J. H.</i> FOR REPAIR STATION LSPR071N
Brought Forward				Note AD 2006-20-09 due by Aug 30, 2011

and Remarks	Signature	Certificate No.
7-29-2011 1750.4 Removed engine for overhaul. <i>By J. J. H.</i> for Lapeer Aviation (LAPR971N).		
<i>See log book #12 for Roll Over and Dies</i>		



The Standard  
**ENGINE LOG**

ASA-SE-2

POPLAR GROVE AIRMOTIVE, INC.  
CRS YYBR664L  
SUGGESTED BREAK-IN PROCEDURES

After starting the engine, ensure a normal warm up, but avoid prolonged ground running. Follow the airframe manufacturer's recommendations for takeoff power. When possible, reduce power to the climb power setting specified in the operator's manual. Establish a shallow climb angle to insure good air speed for proper cooling. Use more cowl flaps than normal or step climb to help in this process. Adjust mixture per aircraft operating handbook. Excessive heat is the primary cause of cylinder bore glazing. Make every effort to keep your operating temperature well into the green arc.

If the engine is normally aspirated (non-turbocharged) it will be necessary to cruise at a low altitude to obtain the required cruise power levels. We recommend a density altitude less than 5,000 feet to allow the engine to develop sufficient cruise power for a good break-in.

Do not run the engine above 75% power in a cruise setting or the probability of glazing cylinder bores is increased. Glazing cylinder bores requires cylinder removal, honing and installing new piston rings. **Poplar Grove Airmotive does not warranty this condition.** Your ability to keep the engine temperature well in the green arc and within a power range of 65% to 75% power will be the key to a successful break-in.

Descend at low cruise power while closely monitoring the engine instruments. Avoid long descents at low manifold pressure and rapid descents, as this will cause the engine to cool too rapidly.

There is only one object to be accomplished during the break-in - the stabilization of oil consumption. Record all oil additions and flight hours in such a manner that quart per hour of flight is known. During this portion of the break-in, which could range 25 to 100 hours, mineral oil **must be** used in the engine. Change oil and inspect filter after approximately 10 hours - then 35 hours - then per your normal schedule, however, do not use AD (airless dispensing) oil until consumption stabilizes.

Engine Oil Recommendation For Piston Ring Sealing

Aero Shell 100	SAE 50	Above 60 degrees F
Aero Shell 80	SAE 40	30 degrees - 90 degrees F
Aero Shell 65	SAE 30	0 degrees - 70 degrees F
Phillips 20W-50	Type M	Winter Months



Phone: 815.544.2300 800.397.8181

LIMITED AIRCRAFT ENGINE WARRANTY

FAX: 815.544.8900

**Poplar Grove Airmotive, Inc. (PGA)** limits its warranty on the listed engine overhauled by PGA to be free from defects in material and workmanship under normal use and service for a period of one year or twenty percent (20%) of the Manufacturer's Published T.B.O. in effect at the time of overhaul, whichever occurs first. All accessories overhauled by PGA are warranted for 240 hours of operation or six months, whichever event shall occur first.

The obligation of the Company under this warranty is limited to the repair or replacement, at the option of PGA, of any part, component or engine, which in the opinion of PGA is defective. The Company assumes no obligation for work accomplished at a facility other than PGA unless prior notification is given and the owner received authority from The Company to proceed. PGA additionally reserves the right to furnish any parts and/or components required. If requested by PGA, owner must return all warranted parts, transportation prepaid, to PGA for examination.

Pro-rata **PARTS WARRANTY** to T.B.O. is subject to a minimum accrual of 40 hours per month from date of delivery. Pro-rata adjustments will not be granted for removal and installation of engines, components or accessories, or for normal routine maintenance, inspections or adjustments. Replacement or repair of an engine, component or accessory will not be construed to extend the initial warranty period.

This warranty shall not apply to engines, their component parts or accessories which have been improperly installed, adjusted, stored, handled, repaired, altered or operated contrary to current manufacturer's recommendations of FAA Airworthiness Directives, or subjected to misuse, neglect, accident, pre-ignition, detonation, hydrostatic lock or corrosion. Pro-rata adjustments on engines, parts or component parts may be granted at the sole discretion of PGA during and up to T.B.O. Adjustments will be based on total pro-rata hours as a ratio to total current list price. The resultant cost per hour will be the basis for crediting unused hours.

PGA does not warrant accessories, such as factory-manufactured magnetos, carburetors, starters, etc. supplied by a vendor other than PGA when that vendor has its own warranty.

No express warranties and no implied warranties, whether of merchantability or fitness for any particular use, or otherwise (except to title) other than that expressly set forth above, which is made expressly in lieu of all other warranties, shall apply to products sold by PGA.

This warranty and this Company's obligation thereunder is in lieu of all other warranties, expressed or implied, including warranties of merchantability and fitness for a particular purpose, and all other obligations or liabilities, including consequential damages or contingent liabilities arising out of the failure of any engine or part to operate properly, and no person is authorized to give any other warranty or to assume any additional obligation on this Company's behalf unless made in writing and signed by an officer of this company.

Date 10/25/01 Model IO-540-R165 S/N L-27007-48A WO# 4298

The Standard Engine Log  
SE-2

© 1991-2007 Aviation Supplies & Academics, Inc.

**ASA-SE-2**  
ISBN 1-56027-326-7  
978-1-56027-326-4

All rights reserved.  
Reproduction or use, without express permission,  
in any manner, is prohibited.

Published by  
Aviation Supplies & Academics, Inc.  
7005 132nd Place SE  
Newcastle, WA 98059-3153  
Website: [www.asa2fly.com](http://www.asa2fly.com)  
Email: [asa@asa2fly.com](mailto:asa@asa2fly.com)

Printed in China



P N R A S A - S E - 2

ISBN 978-1-56027-326-4



5 1 2 9 5

9 7 8 1 5 6 0 2 7 3 2 6 4

#### Engine Record General Information

Manufacturer LYCOMING Model IO-540-K1G5  
Serial L-27007-48A 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 \_\_\_\_\_

Manufacturer's Recommended Overhaul at \_\_\_\_\_ hours

MANUFACTURER: Lycoming		ENGINE MOD: IO-540-K1G5	S/N: L-27007-48A	W.O. #	4298
COMPLIANCE STATUS					
AD #	DESCRIPTION	N/A by engine S/N			
63-14-03	oil pump drive shaft	N/A by gasket P/N			
66-20-04	oil filter adapter gasket	N/A by drive shaft with flats			
75-08-09 R3	oil pump drive shaft	N/A by P/N			
75-09-15	fuel flow divider	N/A by servo P/N			
78-23-10	fuel servo	N/A by servo P/N			
79-04-05	fuel servo	N/A by servo P/N			
83-22-04	fuel servo	N/A by pin P/N			
92-12-05	piston pin P/N LW-14077	N/A by bolt P/N			
95-07-01	connecting rod bolt	N/A by aircraft registration			
95-26-02	improper fuel	P/C/W IAW SB524			
96-09-10 C	oil pump	N/A by new pump installed			
96-23-03	fuel pump	N/A by pin P/N			
97-15-11	piston pin	N/A by new crankshaft kit installed			
98-17-11 C	crankshaft	N/A by new Slick Mags, insp. due in 250 hours			
99-04-04	magneto impulse coupling	N/A by crankshaft S/N			
02-19-03	crankshaft failure	N/A by diaphragm pump			
03-14-03	rotary fuel pump	C/W by installation of new bolt			
04-05-24	crankshaft bolt	C/W by installation of new gear			
04-10-14	crankshaft gear	N/A by crankshaft S/N			
05-19-11	crankshaft	N/A by crankshaft S/N			
06-20-09	crankshaft failure	N/A by cylinder manufacturer			
07-04-19 R1	Superior cylinders	C/W by inspection IAW 342E			
08-14-07	fuel injector lines	N/A by overhaul date			
09-02-03	Precision fuel servo	N/A by Precision overhaul			
11-15-10	AFS servo diaphragm				
Poplar Grove Airmotive, Inc. Repair Station YYBR664L		Date: 10/25/2011			

YEAR	RECORDING TACH TIME	TODAY'S FLIGHT	TOTAL TIME IN SERVICE	Description of Inspections, Tests, Repairs
20				Entries must be endorsed with Name, Rating and Certificate Number of the Technician or Repair Facility. (See back pages for other specifications.)
DATE				

MAKE	LYCOMING	MODEL	IO-540-K1G5	S/N	L-27007-48A
Total Time	1,760.40	Hours	Time Since Major Overhaul	ZERO	Hours

This engine was disassembled, cleaned, inspected and reassembled with necessary new parts in accordance with a major overhaul as per the manufacturer's current overhaul manual 60294-7. New tolerances and clearances were maintained. A detailed parts list is on file at this agency. The following accessories were overhauled or exchanged. See maintenance releases in this logbook.

Installed new crankshaft kit P/N 05K23617. Installed new Lycoming cylinders P/N 05K21120. Installed magnetos, left P/N 6351, S/N 11080320, and right P/N 6350, S/N 11060714, new from Champion. Installed new fuel pump P/N AF15473. Installed fuel servo P/N 2524273-12, S/N 70E50306, new from Precision. Installed flow divider P/N 2524232-2, S/N A0BP1744, rebuilt by Precision Airmotive. Installed new fuel nozzles P/N 2524864-2 from Precision. Supplied starter P/N 149-NL/ec, S/N FNE-231198, new from Sky-Tec. See A.D. Compliance Record and Parts List for more details. -----END-----

All applicable airworthiness directives and related factory publications have been checked for compliance at this date. See list in this log book. This engine was test run in an FAA approved test cell and meets specifications. The aircraft engine identified above was repaired and inspected in accordance with current regulations of the Federal Aviation Administration and is approved for return to service for the work performed. Pertinent details of repair are on file at this repair station under:

Work Order # 4298 Date 10/25/2011

Poplar Grove Airmotive, Inc.  
Poplar Grove Airport, Poplar Grove, IL  
FAA Approved Repair Station #YYBR664L

Michael A. Carey  
SIGNED FOR POPLAR GROVE AIRMOTIVE, INC.



YEAR 20 13 DATE	RECORDING TACH TIME	TODAY'S FLIGHT	TOTAL TIME IN SERVICE	Description of Inspections, Tests, Repairs and Alterations Entries must be endorsed with Name, Rating and Certificate Number of Technician or Repair Facility. (See back pages for other specific entries.)
-----------------------	---------------------------	-------------------	-----------------------------	---

01-23-13 1867.9 117.5 MOH

Compression Readings

78/60 21 78/60  
77/60 43 78/60  
78/60 65 78/60

Completed annual inspection in accordance with Piper Aircraft Inspection Report 230-1045. Replaced tension rod for left side hotelling. Replaced seals on cyl #2 & #4 intake ducts, 1/4" 72711 & 71973. C/W AD2011-21-01 In W h/c. MSB342F instructions. No discrepancy found. Installed new Donaldson air filter.

DATE 01-23-13 TOTAL AIRCRAFT TIME 1867.9 I CERTIFY THIS

ENGINE HAS BEEN INSPECTED IN ACCORDANCE WITH AN ANNUAL INSPECTION AND WAS DETERMINED TO BE IN AIRWORTHY CONDITION.

SIGNED *[Signature]* FOR REPAIR STATION L9PR971M

LAPEER AVIATION, INC.  
F.A.A. Approved Repair Station No. L9PR971M  
DuPont Lapeer Airport, Lapeer, Michigan 49448

YEAR 20 DATE	RECORDING TACH TIME	TODAY'S FLIGHT	TOTAL TIME IN SERVICE	Description of Inspections, Tests, Repairs and Alterations Entries must be endorsed with Name, Rating and Certificate Number of Technician or Repair Facility. (See back pages for other specific entries.)
--------------------	---------------------------	-------------------	-----------------------------	---

08-07-13 1880.9

Charged oil Filter CH48110-1  
Added 1qt 15W50 oil Run-up  
and leak check OK.  
*[Signature]*

LAPEER AVIATION, INC.  
F.A.A. Approved Repair Station No. L9PR971M  
DuPont Lapeer Airport, Lapeer, Michigan 49448

**Mustang Aviation** 4316 Hangar Drive Lexington, KY 40510 859-255-1902

Date: 8/28/2013 Reg No: N4145Z Hobbs: 1884.1  
Airframe/Engine Log Book Aircraft: PA32R-301 Shop Order: M-13-3133 Serial No. 3246142

1. Replaced L/H muffler assy P/N K26345-008. Ops normal.
2. Replaced altitude preselector. Removed P/N 0140P S/N 221. Installed P/N 01279-PX S/N 0448-2034AB. Ops check normal.

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: 8/28/13 Signed *[Signature]*  
Kenneth M. Harker A&P 36134831A





Date: 2/6/2014  
 Tach/Hobbs: 1934.2  
 Total Time: 1934.2  
 TSMOH: 183.9



**Blue Skies over Dubuque Inc.**  
**Airplane Maintenance**  
 10800 Airport Road  
 Dubuque, Iowa 52003  
 Repair Station #YQYR343B  
 563-582-1293

**Cylinder Compressions**

#1	#2	#3	#4	#5	#6
76/80	78/80	76/80	76/80	78/80	78/80

1. Inspected engine per FAR Part 43 appendix D checklist.
2. Changed oil & filter, inspected filter & screen for metal, check good, serviced engine with Shell 15W-50 oil.
3. Verified accuracy of dipstick during oil replenishing.
4. Replaced & repositioned crankcase breather hose to remove sharp bend.
5. Cleaned fuel servo inlet screen & replaced O-rings.
6. Cleaned & tested all spark plugs.
7. Removed left magneto, inspected impulse coupling, reset internal E-gap position, reinstalled with new gaskets. C/W AD 99-04-04.
8. C/W AD 2011-26-04 inspected fuel injection lines & clamps.
9. Inspected exhaust system for security & leaks, cleaned oil off of heat shrouds.
10. Replaced rod end bearing on throttle cable end, verified full cable travel.
11. Ground run engine, operational & leak check good.

I certify this engine has been inspected in accordance with a Annual Inspection and was determined to be in airworthy condition. See AD List in folder for compliance.  
 Work Order #78684

Name: Paul M. Kaune

Signed: Paul M. Kaune  
 Certified Repair Station # YQYR343B

**d Alterations**  
 (date Number of specific entries)

YEAR	RECORDING TACH	TODAY'S FLIGHT	TOTAL TIME IN SERVICE
20			
DATE	TIME		

**Description of Inspections, Tests, Repairs and Alterations**  
 Entries must be endorsed with Name, Rating and Certificate Number of Technician or Repair Facility. (See back pages for other specific entries.)

**Engine Logbook Entry**

**N4145Z**  
**Date 07/14/2014**  
**Hobbs 1978.4**

Change oil and filter, cut and inspect filter, check for leaks (Phillips 20W50XC, CH 48110, Cam-Guard) This engine is airworthy for return to service in regards to work performed.  
 James A. Goetsch 3469278AP

James A. Goetsch

YEAR	RECORDING TACH	TODAY'S FLIGHT	TOTAL TIME IN SERVICE
20			
DATE	TIME		

Date: 11/6/2014  
 Tach/Hobbs: 2025.2  
 Total Time: 2025.2  
 TSMOH: 274.9



**Blue Skies over Dubuque Inc.**  
**Airplane Maintenance**  
 10800 Airport Road  
 Dubuque, Iowa 52003  
 Repair Station #YQYR343B  
 563-582-1293

**Cylinder Compressions**

#1	#2	#3	#4	#5	#6
80/80	76/80	78/80	78/80	78/80	78/80

1. Inspected engine per FAR Part 43 appendix D checklist.
2. Changed oil & filter, inspected filter & screen for metal, serviced engine with Phillips 20W-50 oil.
3. Cleaned fuel servo inlet screen & replaced O-rings.
4. Cleaned & tested spark plugs.
5. Adjusted idle RPM & mixture as required.
6. C/W AD 2011-26-04 inspected fuel injection lines & clamps.
7. Retimed left magneto to engine.

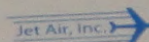
I certify this engine has been inspected in accordance with a Annual Inspection and was determined to be in airworthy condition. See AD List in folder for compliance.

Work Order #79164  
 Name: Paul M. Kaune

Signed: Paul M. Kaune  
 Certified Repair Station # YQYR343B

Alterations  
 (Indicate Number of  
 specific entries.)

YEAR	RECORDING	TODAY'S	TOTAL	Description of Work	Repairs and Alterations (Indicate Certificate Number of log and Certificate Number of log for other specific entries.)
20					
2014					

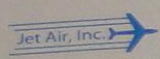


Jet Air, Inc. (903061)  
 1827 S. Riverside Dr.  
 Iowa City, IA 52242  
 Ph: (319) 249-1330

Date: 4/16/2015, Aircraft: N4145Z  
 HOBBS: 2058.1 LYCOMING IO-540-K1G5 S/N: C27037-48A ETT: 2058.1 WDM:  
 SH-15-10817  
**REMOVED LH MAG, INSPECTED AND REPLACED DISTRIBUTOR BLOCK AND GEAR ASSY  
 WITH NEW PN K3823 REPLACED CONTACT POINTS WITH NEW KIT PN M3081. SET  
 MAGNETO INTERNAL TIMING. REINSTALLED LH MAGNETO AND SET TIMING.  
 WORK PERFORMED REFERENCING UNISON MAGNETO MAINTENANCE MANUAL L-1363D**  
 I certify that this engine has been inspected with reference to the work identified above and was  
 determined to be in airworthy condition.

Date: 4-16-15 Signed: [Signature]  
 For Jet Air, Inc. -IOW FAA CRS 02JRO68B

YEAR 20 DATE	RECORDING TACH TIME	TODAY'S FLIGHT	TOTAL TIME IN SERVICE	Description of Inspections, Tests, Repairs and Alterations Entries must be endorsed with Name, Rating and Certificate Number of Technician or Repair Facility. (See back pages for other specific entries.)
--------------------	---------------------------	-------------------	-----------------------------	---

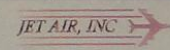


Jet Air Inc. (K10W)  
1801 S. Riverside Dr  
Iowa City, IA 52246  
Ph: (319) 248-1200

Date: 4/17/2015 Aircraft: N4145Z  
HOBBS 2058.1 LYCOMING IO-540-K1G5 S/N: C27007-48A ETT: 2058.1 W/O# SHI-15-10817  
REMOVED LH MAG, INSPECTED AND REPLACED DISTRIBUTOR BLOCK AND GEAR ASSY  
WITH NEW PN K3823 REPLACED CONTACT POINTS WITH NEW KIT PN M3081. SET  
MAGNETO INTERNAL TIMING. REINSTALLED LH MAGNETO AND SET TIMING.  
PERFORMED OPS AND LEAK CHECK WITH NO DEFECTS NOTED AT THIS TIME. ALL  
WORK PERFORMED REFERENCING UNISON MAGNETO MAINTENANCE MANUAL L-1363D  
I certify that this engine has been inspected with reference to the work identified above and was  
determined to be in airworthy condition.

Date: 4-17-15 Signed: [Signature]  
For Jet Air, Inc. - IOW FAA CRS 12JR068B

YEAR 20 DATE	RECORDING TACH TIME	TODAY'S FLIGHT	TOTAL TIME IN SERVICE	Description of Inspections, Tests, Repairs and Alterations Entries must be endorsed with Name, Rating and Certificate Number of Technician or Repair Facility. (See back pages for other specific entries.)
--------------------	---------------------------	-------------------	-----------------------------	---



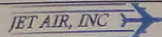
Date: 12/16/2015 Aircraft: N4145Z  
LYCOMING IO-540-K1G5 S/N: L-27007-48A Hobbs: 2129.3 TT: 2129.3 TSOH: 378.9 W/O: SPG-15-2098

Performed annual/100hr inspection. Checked engine mounts and cradle. Checked electrical components and harness. Checked engine accessories. Checked lines, tubing, and hoses. Checked induction system. Checked exhaust system. Checked and lubricated engine and propeller controls. Checked engine baffling and cowling. Drained oil, removed oil filter and cut open, no metal noted. Installed new CH48110-1 oil filter and serviced engine with 12 quarts of Phillips XIC 20W50 oil. Removed all spark plugs, cleaned, gapped, tested, rotated and reinstalled. Verified proper magneto timing.  
Performed compression check: #1 78/80, #2 76/80, #3 76/80, #4 78/80, #5 73/80, #6 77/80.  
Replaced LW18661 seals on cyl #6 push rods.  
C/W AD 2015-19-07 Fuel injector lines and clamps inspection. Due whenever engine maintenance is performed.  
C/W AD 99-04-04 Impulse coupling inspection. Due again Hobbs: 2379.3  
C/W AD 84-26-02 Replaced Induction air filter with new P617058. Due again Hobbs: 2629.3

I certify that this engine has been inspected in accordance with a 100 hr/Annual inspection and was determined to be in airworthy condition.

Date: 12/16/2015 Signed: [Signature]  
for Jet Air Inc. CRS # JAFR110F Galeburg, Illinois 61401

YEAR 20 DATE	RECORDING TACH TIME	TODAY'S FLIGHT	TOTAL TIME IN SERVICE	Description of Inspections, Tests, Repairs and Alterations Entries must be endorsed with Name, Rating and Certificate Number of Technician or Repair Facility. (See back pages for other specific entries.)
--------------------	---------------------------	-------------------	-----------------------------	---



Date: 2/13/2017; Aircraft: N4145Z  
 LYCOMING IO-540-K1G5 S/N: L-27007-48A Hobbs: 2189.6 TT: 2189.6 TSOH: 439.2  
 W/O: SPG-17-02395

Performed 100hr inspection. Checked engine mounts and cradle. Checked electrical components and harness. Checked engine accessories. Checked lines, tubing, and hoses. Checked induction system. Checked exhaust system. Checked and lubricated engine and propeller controls. Checked engine baffling and cowling. Drained oil, removed oil filter and cut open, no metal noted. Installed new CH48110-1 oil filter and serviced engine with 12 quarts of Phillips X/C 20W50 oil. Removed all spark plugs, cleaned, gapped, tested, rotated and reinstalled. Verified proper magneto timing.  
 Performed compression check: #1 76 /80, #2 78/80, #3 78/80, #4 76/80, #5 76/80, #6 76/80.  
 CAV AD 2015-19-07 Fuel injector lines and clamps inspection. Due whenever engine maintenance is performed.  
 AD 99-04-04 Impulse coupling inspection Due again Hobbs: 2379.3  
 AD 84-26-02 Replaced induction air filter with new P617058. Due again Hobbs: 2629.3  
 I certify that this engine has been inspected in accordance with a 100 HR inspection and was determined to be in airworthy condition.

Date: 2-13-2017 Signed Jim Dougherty  
 for Jet Air Inc. CRS # JAFR110FC Galesburg, Illinois 61401

YEAR 20 DATE	RECORDING TACH TIME	TODAY'S FLIGHT	TOTAL TIME IN SERVICE	Description of Inspections, Tests, Repairs and Alterations Entries must be endorsed with Name, Rating and Certificate Number of Technician or Repair Facility. (See back pages for other specific entries.)
--------------------	---------------------------	-------------------	-----------------------------	---



Engine logbook Entry

Aircraft Reg : N4145Z  
 Airframe Cessna PA32R-301

Aircraft Hobbs reading 2214.9

Removed and replaced all 12 spark plugs, installed new Champion spark plugs p/n REM38E Performed engine ground run and leak check.

I Certify that the work specified except as otherwise specified was carried out in accordance with FAA regulations and in respect to that work the engine is considered ready for release to service.

Joseph Dougherty AP 2662702 IA



Date: July 19, 2017  
 Aircraft s/n 3246142

YEAR  
20  
DATE



12730 SW 77<sup>TH</sup> STREET  
MIAMI, FL 33183  
305-978-3940

and Alterations  
Certificate Number of  
(or specific entries.)

Date: 1/05/2018 ENGINE LOGBOOK ENTRY WO#2153

A/C Reg: N4145Z Model: PA-32R-301 SN: 3246142 ACTT: 2321.3 HOBBS: 2321.3  
ENGINE TT: 2321.3 ENGINE SMOH: 570.9  
Removed and installed new oil 15W50 12 qts total, removed oil filter, check for metal none  
found at this time and installed new oil filter P/N CH48110-1, washed engine

Signature *[Signature]* A&P267717017

YEAR  
20  
DATE

RECORDING  
TACH  
TIME

TODAY'S  
FLIGHT

TOTAL  
TIME IN  
SERVICE

Description of Inspections, Tests, Repairs and Alterations  
Entries must be endorsed with Name, Rating and Certificate Number of  
Technician or Repair Facility. (See back pages for other specific entries.)



12730 SW 77<sup>TH</sup> STREET  
MIAMI, FL 33183  
305-978-3940

Date: 03/06/2018 ENGINE LOGBOOK ENTRY WO#2172

A/C Reg: N4145Z Model: PA-32R-301 SN: 3246142 ACTT: 2304.3 HOBBS: 2304.3  
ENGINE TT: 2304.3 ENGINE SMOH: 553.9  
Completed ANNUAL inspection (AW FAR 43 Appendix "D"). Removed and installed new oil  
15W50 12 qts total, removed oil filter, check for metal none found at this time and installed new  
oil filter P/N CH48110-1, PERFORM COMPRESSION CHECK #1 80/80, #2 76/80, #3  
80/80, #4 76/80, #5 78/80, #6 78/80, washed engine. REMOVED LEFT MAGNETO P/N  
6351, S/N 11060320. SEND OUT FOR 500 HR INSPECTION AND C/W AD NOTE 99-04-04  
DONE BY QAA UNDER W/O# 036142. RE-INSTALLED MAGNETO AFTER REPAIRED  
TIME TO ENGINE. LEFT STACK ASSY HAS EXHAUST LEAK ON SLIP JOINT. REMOVED  
AND REPLACED OVERHAUL LEFT SIDE ASSY DONE BY AWI UNDER W/O# 179316,  
179317, 179318. 1EA REAR RISER P/N 85233-08, 1EA FRONT RISER P/N 85233-06, 1EA  
LH CENTER STACK P/N 85233-04, CYLINDER #6 ROCKER SHAFT COVER GASKET AND  
PUSH ROD HOUSE SEAL LEAKING, REPLACED SEAL AND GASKET.  
I certify that this ENGINE has been inspected in accordance with an ANNUAL inspection and  
was found to be in airworthy condition.

Signature *[Signature]* A&P267717017-1A

YEAR 20 DATE	RECORDING TACH TIME	TODAY'S FLIGHT	TOTAL TIME IN SERVICE	Description of Inspections, Tests, Repairs and Alterations Entries must be endorsed with Name, Rating and Certificate Number of specific entries.)
--------------------	---------------------------	-------------------	-----------------------------	--



12730 SW 77<sup>TH</sup> STREET  
MIAMI, FL 33183  
305-978-3940

Date: 08/14/2017 **ENGINE LOGBOOK ENTRY** **WO#2072**

A/C Reg: N4145Z Model: PA-32R-301 SN: 3246142 ACTT: 2247.3 HOBBS: 2247.3  
ENGINE TT: 2247.3 ENGINE SMOH: 496.9  
Removed and installed new oil 15W50 12 qts total, removed oil filter, check for metal none  
found at this time and installed new oil filter P/N CH48110-1. Do compression check cyl. #1  
78/80, #2 76/80, #3 80/80, #4 78/80, #5 78/80, #6 78/80, washed engine

Signature: [Signature] A&P267717017



12730 SW 77<sup>TH</sup> STREET  
MIAMI, FL 33183  
305-978-3940

Date: 8/17/2018 **ENGINE LOGBOOK ENTRY** **WO#2263**

A/C Reg: N4145Z Model: PA-32R-301 SN: 3246142 ACTT: 2321.3 HOBBS: 2321.3  
ENGINE TT: 2321.3 ENGINE SMOH: 507.9  
Removed and installed new oil 15W50 12 qts total, removed oil filter, check for metal none  
found at this time and installed new oil filter P/N CH48110-1, washed engine

Signature: [Signature] A&P267717017

YEAR 20 DATE	RECORDING TACH TIME	TODAY'S FLIGHT	TOTAL TIME IN SERVICE	Description of Inspections, Tests, Repairs and Alterations Entries must be endorsed with Name, Rating and Certificate Number of Technician or Repair Facility. (See back pages for other specific entries.)
--------------------	---------------------------	-------------------	-----------------------------	---



12730 SW 77<sup>TH</sup> STREET  
MIAMI, FL 33183  
305-978-3940

Date: 10/17/2018 **ENGINE LOGBOOK ENTRY** **WO#2296**

A/C Reg: N4145Z Model: PA-32R-301 SN: 3246142 ACTT: 2354.2 HOBBS: 2354.2  
ENGINE TT: 2354.2 ENGINE SMOH: 603.8

ALTERNATOR BELT TORN OFF FROM ENGINE, REMOVED COWLING, REMOVED  
PROPELLER, REPLACED AIR CONDITION COMPRESSOR BELT 1EA P/N 37B19774-472 AND  
ALTERNATOR BELT 1EA P/N 37D22355, INSTALLED PROPELLER AND COWLING

Signature: [Signature] A&P267717017



12730 SW 77<sup>TH</sup> STREET  
MIAMI, FL 33183  
305-978-3940

Date: 11/12/2018 **ENGINE LOGBOOK ENTRY** **WO#2311**

A/C Reg: N4145Z Model: PA-32R-301 SN: 3246142 ACTT: 2358.9 HOBBS: 2358.9  
ENGINE TT: 2358.9 ENGINE TT: 608.5

ALTERNATOR BELT BROKE, REMOVED AND INSTALLED NEW ALTERNATOR  
BELT 1EA P/N 37D22355, REMOVED AND INSTALLED NEW ALTERNATOR P/N  
ES-4011LS, S/N H-S020428

Signature: [Signature] A&P267717017

YEAR 20 DATE	RECORDING TACH TIME	TODAY'S FLIGHT	TOTAL TIME IN SERVICE	Description of Inspections, Tests, Repairs and Alterations Entries must be endorsed with Name, Rating and Certificate Number of Technician or Repair Facility. (See back pages for other specific entries.)
--------------------	---------------------------	-------------------	-----------------------------	---



12730 SW 77<sup>th</sup> STREET  
MIAMI, FL 33183  
305-978-3940

Date: 12/18/2018

ENGINE LOGBOOK ENTRY WO#2340

A/C Reg: N4145Z Model: PA-32R-301 SN: 3246142 ACTT: 2,371.5 HOBBS: 2,371.5  
ENGINE TT: 2371.5 ENGINE TT: 621.1

Removed and installed new oil 15W50 12 qts total, removed oil filter, check for metal none found at this time and installed new oil filter P/N CH48110-1, PERFORM COMPRESSION CHECK #1 78/80, #2 76/80, #3 77/80, #4 75/80, #5 76/80, #6 76/80, washed engine

Signature

*Lazaro Mendoza*

A&P267717017

YEAR 20 DATE	RECORDING TACH TIME	TODAY'S FLIGHT	TOTAL TIME IN SERVICE	Description of Inspections, Tests, Repairs and Alterations Entries must be endorsed with Name, Rating and Certificate Number of Technician or Repair Facility. (See back pages for other specific entries.)
--------------------	---------------------------	-------------------	-----------------------------	---



Engine Logbook Entry

Registration #: N4145Z  
Aircraft Model: Piper PA-32R-301  
Aircraft Total Time: 2389.2 hours  
Engine Model: Lycoming IO-540-K1G5  
Engine Total Time: 2389.2 hours

Date: March 19, 2019  
Aircraft S/N: 3246142  
Aircraft Hobbs Reading: 2389.2 hours  
Engine S/N: L-27007-48A  
Engine TSO: 638.8 hours

Performed an Annual Inspection, in accordance with FAR Part 43 Appendix D Scope and Detail. Removed spark plugs, cleaned, re-gapped, tested, inspected and reinstalled with new gaskets, P/N: M674. Performed engine compression check; the findings were as follows: #1 76/80 #2 78/80 #3 75/80 #4 77/80 #5 80/80 #6 76/80. Drained engine oil and serviced with 12 quarts total of Aeroshell 15W50 engine oil; cut open oil filter to check for metal particles, no metal found at this time; installed new oil filter P/N CH48110-1. Removed oil screen to inspect for metal particles; none found at this time; reinstalled screen with new gasket P/N 06E19769-1.00. Replaced engine air filter element with new, P/N: BA-3. Performed engine ground runs and leak checks; no leaks noted.

I certify that the Annual Inspection and other work specified; except as otherwise specified, was carried out in accordance with FAA regulations, and in respect to that work performed, the engine is approved for return to service.

Lazaro Mendoza AP 26771707 - IA

*Lazaro Mendoza*



YEAR 20 DATE	RECORDING TACH TIME	TODAY'S FLIGHT	TOTAL TIME IN SERVICE
--------------------	---------------------------	-------------------	-----------------------------

**Description of Inspections, Tests, Repairs and Alterations**  
 Entries must be endorsed with Name, Rating and Certificate Number of Technician or Repair Facility. (See back pages for other specific entries.)



Engine Logbook Entry

Registration #: N4145Z  
 Aircraft Model: Piper PA-32R-301  
 Aircraft Total Time: 2438.5 hours  
 Engine Model: Lycoming IO-540-K1G5  
 Engine Total Time: 2438.5 hours

Date: July 2, 2019  
 Aircraft S/N: 3246142  
 Aircraft Hobbs Reading: 2438.5 hours  
 Engine S/N: L-27007-48A  
 Engine TSO: 688.1 hours

Removed spark plugs, cleaned, re-gapped, tested, inspected and reinstalled with new gaskets, P/N: M674. Performed engine compression check; the findings were as follows: #1 76/80 #2 70/80 #3 72/80 #4 72/80 #5 78/80 #6 70/80. Drained engine oil and serviced with 12 quarts total of Aeroshell 15W50 engine oil; cut open oil filter to check for metal particles, no metal found at this time; installed new oil filter P/N CH48110-1. Removed oil screen to inspect for metal particles; none found at this time; reinstalled screen with new gasket P/N D6E19769-1.00. Replaced LH tail pipe P/N: 24787-04 and RH tail pipe P/N: 24787-05. Replaced RH exhaust stack assembly with overhauled unit P/N: 85233R - front riser P/N: 85233-06 S/N: 186964, RH center stack P/N: 85233-10 S/N: 186966, rear riser P/N: 85233-08 S/N: 186965.

Performed engine functional check; no defects noted at this time.  
 I certify that the work specified; except as otherwise specified, was carried out in accordance with FAA regulations, and in respect to that work performed, the engine is approved for return to service.

Lazar Mendota AP 267747017  
*Lazar Mendota*

YEAR 20 DATE	RECORDING TACH TIME	TODAY'S FLIGHT	TOTAL TIME IN SERVICE
--------------------	---------------------------	-------------------	-----------------------------

**Description of Inspections, Tests, Repairs and Alterations**  
 Entries must be endorsed with Name, Rating and Certificate Number of Technician or Repair Facility. (See back pages for other specific entries.)

Date: 09-04-19 N4145Z TACH: 2443.7  
 T.S. gear warning light. Adjusted nose gear up switch. Sumped left and right fuel tanks, cleaned fuel strainer no contaminants found. Flow checked left and right fuel tanks at fuel strainer, approx. 1 quart in 15 seconds. Checked rigging and detents of fuel valve. Found 3 fuel injectors loose, tightened all fuel injectors and leak checked. Performed full engine run up on left and right tanks, performance good.  
 Signed *Lazar Mendota* A&P 3928975

12/18/19 N4145Z Piper PA32R-301 S/N 3246142 Hobbs 2445.7  
 "ENGINE LOG ENTRY"  
 Adjust idle speed and idle mixture. Ground run check. *Lazar Mendota*  
 A&P595248430

Belle Aircraft Maintenance 20 Lindbergh Ln. Fletcher, NC 28732 828-684-9191  
 7/13/20 N4145Z PA32R-301 S/N: 3246142 Hobbs: 2463.4  
 Removed the propeller, installed 37D22355 alternator belt, installed the propeller and set  
 belt tensions IAW Lycoming Service Instruction 1129D. Set the air conditioning belt  
 IAW Piper PA32R-301 MM. Ran the engine, and rechecked belt tensions after run up.

*Michael Everhart*  
 Michael Everhart A&P3038109

Aircraft Maintenance Specialist, Inc.



12/16/2020 N4145Z Lycoming IO-540-K1G5 S/N L-27007-48A Hobbs 2479.2  
 "ENGINE LOG ENTRY"

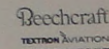
- Drained oil and replaced with 12Qts of 15W50 Aeroshell Oil.
- Took a Blackstone oil sample.
- Removed and replaced Oil Filter with a new CH48110-1.
- Cut open old filter, inspected with no debris found.
- Removed Oil Strainer, inspected for debris with none found. Cleaned strainer and reinstalled with a new gasket.
- Complied with Lycoming Service Instruction# 1129D for 25 hour belt inspection after installation.
- Ground ran engine with no leaks or faults found.

*R. Wallace*  
 R. Wallace A&P3082871

**Repairs and Alterations**  
 of Certificate Number of  
 or other specific entries.)



Engine Logbook Entry



Registration #: N4145Z  
 Aircraft Model: Piper PA-32R-301  
 Aircraft Total Time: 2454.5 hours  
 Engine Model: Lycoming IO-540-K1G5  
 Engine Total Time: 2454.5 hours

Date: March 19, 2019  
 Aircraft S/N: 3246142  
 Aircraft Hobbs Reading: 2454.5 hours  
 Engine S/N: L-27007-48A  
 Engine TSO: 704.1 hours

Performed an Engine Annual Inspection, in accordance with FAR Part 43 Appendix D Scope and Detail.  
 Complied with AD 2015-19-07 - Fuel Injector Fuel Lines and Clamps; no defects noted IAW Lycoming Service Bulletin 342G.  
 Performed engine compression check; the findings were as follows: #1 76/80 #2 75/80 #3 72/80 #4 76/80 #5 84/80 #6 74/80.  
 Removed spark plugs, cleaned, re-gapped, tested, inspected and reinstalled. Drained engine oil and serviced with 12 quarts  
 total of Aeroshell w15W50 engine oil; cut open oil filter to check for metal particles, no metal found at this time; installed new  
 oil filter P/N CH48110-1. Replaced right Muffler P/N: A26345. Removed fuel bowl to inspect for metal particles; none found at  
 this time; reinstalled.

I certify that the Annual Inspection and other work specified, except as otherwise specified, was carried out in accordance with  
 FAA regulations, and in respect to that work performed, the Engine is approved for return to service.

Lazaro Mendoza AP 267717017 - IA

*Lazaro Mendoza*

YEAR 20 DATE	RECORDING TACH TIME	TODAY'S FLIGHT	TOTAL TIME IN SERVICE	Description of Inspections, Tests, Repairs and Alterations Entries must be endorsed with Name, Rating and Certificate Number of Technician or Repair Facility. (See back pages for other specific entries.)
--------------------	---------------------------	-------------------	-----------------------------	---

Aircraft Maintenance Specialist, Inc.



07/21/21 N4145Z 10-540-K1G5 S/N L-27007-48A ACTT 2480.8 Hobbs 2480.8  
"ENGINE LOG ENTRY"

C/W AD15-19-07 Fuel Injector Lines by inspection in accordance with SB342G, next due ACTT 2580.8 or 7/2022. AD04-10-14C1 Crankshaft Gear and retaining bolt due at propeller strike, engine sudden stoppage or overhaul. C/W AD99-04-04 Magneto Impulse Coupling due each 250 hours, next due ACTT 2554.3. Compression: #1 7/8/80, #2 7/8/80, #3 7/8/80, #4 7/7/80, #5 7/8/80, #6 7/8/80. Replaced all spark plugs. Installed new bolt for throttle control at throttle body. Resecured left and right exhaust tailpipe support hardware. Replaced left exhaust muffler ball joint hardware. "I certify that this ENGINE has been inspected in accordance with an ANNUAL inspection per 14 CFR part 43, appendix D and was determined to be in airworthy condition this date 07/21/21, hobbs 2480.8. Engine TSMO 730.54, TT 2480.8."

*[Signature]*  
A&P2679142031A

YEAR 20 DATE	RECORDING TACH TIME	TODAY'S FLIGHT
--------------------	---------------------------	-------------------

Reg: N4145Z  
Date: 9/1/21

Removed Left Magneto, using new Magneto Gask next due 2733.10. Removed Left and Right Magneto Harness with new, P/N M6350, S/N 21021620 using P/N REM38E. Tightened normally with no fuel or manufacturer's instructions work performed.-END-

*[Signature]*  
Jose J. Cotto, 3118790 A&P, IA

1. Appro  
Auth  
FA

4. Orga

6. Item:

1

12. Ren

"T

is 1

has

11 Item 1 Qty 1 CofH 525981 Child 1

### WARNING

- When installing drive gear or driver onto magneto, torque nut provided to 120 to 180 inch lbs.
- Use only the installation hardware provided.
- Secure nut with appropriate cotter pin.

### FAA-PMA Approved

This magneto was manufactured from all new components in accordance with 14 CFR Part 21.303h and is airworthy. This magneto is FAA-PMA approved for applications listed in the Champion/Slick L-1318 Document in the F-1100 Master Service Manual. For LASAPP Magneto, see L-1500 Manual.

Enter magneto model, serial number, and date of installation, and attach this tag to engine logbook.

Magneto Model No. 6321  
Magneto Serial No. 21010013  
Date of Installation 9/1/21  
L-1543 March 30, 2009

13a. Certifies the items identified above are manufactured in conformity with approved design data and are in a condition for safe operation.

Approved design data and are in a condition for safe operation.  
 Non-approved design data specified in Block 12.

13b. Authorized Signature:

13c. Approval/Authorization No:

307231427

YEAR 20 DATE	RECORDING TACH TIME	TODAY'S FLIGHT	TOTAL TIME IN SERVICE	Description of Inspections, Tests, Repairs and Alterations Entries must be endorsed with Name, Rating and Certificate Number of Technician or Repair Facility. (See back pages for other specific entries.)
--------------------	---------------------------	-------------------	-----------------------------	---

Aircraft Maintenance Specialist, Inc.



07/21/21 N4145Z 10-540-K1G5 S/N L-27007-48A ACTT 2480.8 Hobbs 2480.8  
"ENGINE LOG ENTRY"

C/W AD15-19-07 Fuel Injector Lines by inspection in accordance with SB342G, next due ACTT 2580.8 or 7/2022. AD04-10-14C1 Crankshaft Gear and retaining bolt due at propeller strike, engine sudden stoppage or overhaul. C/W AD99-04-04 Magneto Impulse Coupling due each 250 hours, next due ACTT 2554.3. Compression: #1 78/80, #2 78/80, #3 78/80, #4 77/80, #5 78/80, #6 78/80. Replaced all spark plugs. Installed new bolt for throttle control at throttle body. Resecured left and right exhaust tailpipe support hardware. Replaced left exhaust muffler ball joint hardware. "I certify that this ENGINE has been inspected in accordance with an ANNUAL inspection per 14 CFR part 43, appendix D and was determined to be in airworthy condition this date 07/21/21, hobbs 2480.8, Engine TSMO 730.34, TI 2480.8."

*Jose J. Cotto*  
A&P2679142031A

YEAR 20 DATE	RECORDING TACH TIME	TODAY'S FLIGHT	TOTAL TIME IN SERVICE	Description of Inspections, Tests, Repairs and Alterations Entries must be endorsed with Name, Rating and Certificate Number of Technician or Repair Facility. (See back pages for other specific entries.)
--------------------	---------------------------	-------------------	-----------------------------	---

Supplemental Log Book Entry  
Engine

Reg: N4145Z Model: 10-540-K1G5 S/N: L-27007-48A  
Date: 9/1/21 Hobbs: 2483.1

Removed Left Magneto, P/N 6351, S/N 11080320 and Replaced with new Left Magneto, P/N 6351, S/N 21010013 using new Magneto Gasket, P/N LW12681. AD99-04-04, 250 Hour Left Magneto Impulse Coupling Inspection next due 2733.10. Removed Right Magneto, P/N 6350, S/N 11060714 and Replaced with new Right Magneto, P/N 6350, S/N 21021620 using new Magneto Gasket, P/N LW12681. Removed and Replaced Left and Right Magneto Harness with new, P/N M6001. Removed, Cleaned, Gapped and Tested all Engine Spark Plugs and found all Spark Plugs failed resistance testing. Removed and Replaced all Spark Plugs with new, P/N REM38E. Removed and Replaced Left and Right Magneto Harness with new, P/N M600. Removed and Replaced all Spark Plugs with new, P/N REM38E. Tightened and Safetied Alternator Attach Nut. Performed engine ground run and engine operated normally with no fuel or oil leaks found at this time. This maintenance was performed in accordance with the manufacturer's instructions and procedures and the aircraft is approved for return to service only with respect to the work performed.-END-

*Jose J. Cotto*  
Jose J. Cotto, 3118790 A&P, IA

Southern Cross Aviation www.scross.com

13d. Name (Typed or Printed):  
Patti Adcox

13e. Date (dd/mm/yyyy):  
09/Jan/2021

User/Title:

It is important to understand that the existence of this document does not automatically  
guarantee that the user will be able to use the aircraft. It is essential that the user  
reads the instructions carefully before the aircraft is flown.

When the operator performs work in accordance with the national regulations of an  
Approved Maintenance Organisation (AMO), the operator must ensure that the work is  
performed in accordance with the national regulations of an AMO.

Typed or Printed):  
 LISSA CANTRELL

13e. Date (dd/mm/yyyy):  
 16/Aug/2021

User/Installer

It is essential that the user/installer ensures that his/her airworthiness authority accepts aircraft Block 1.

Statements in Blocks 13a and 14a do not constitute certification. In all cases, aircraft maintenance regulations by the user/installer before the aircraft may be flown.

FAA Form 8130-3 (02-14)

Engine

Reg: N4145Z      Model: IO-540-K1G5      S/N: L-27007-48A  
 Date: 10/21/21      Hobbs: 2522.5

Changed Oil and Filter, refilled with 11 quarts of Aeroshell 15W50 Oil. Performed Oil Analysis and submitted to Aviation Laboratories for testing. Installed new Oil Filter P/N AA48110-2, inspected old Oil Filter for foreign matter and none found at this time. Removed, Cleaned, Inspected and Reinstalled Oil Suction Screen using new O-Ring, P/N MS35769-21 with no defects noted at this time. Performed engine ground run and no oil leaks found at this time. This maintenance was performed in accordance with the manufacturer's instructions and procedures and the aircraft is approved for return to service only with respect to the work performed.-END-

*Francisco O. Amarante*  
 Francisco O. Amarante, 2786079, A&P

Supplemental Log Book Entry  
 Engine

Reg: N4145Z      Model: IO-540-K1G5      S/N: L-27007-48A  
 Date: 1/4/22      Hobbs: 2544.5

Removed Left Magneto, P/N 6351, S/N 21010013 and Replaced with new Left Magneto, P/N 6351, S/N 21080515 using new Magneto Gasket, P/N LW12681. Performed Engine Ground Run and magnetos operated normally at this time. Changed Oil and Filter, refilled with 11 quarts of Aeroshell 15W50 Oil. Installed new Oil Filter P/N AA48110-2, inspected old Oil Filter for foreign matter and none found at this time. Performed engine ground run and no oil leaks found at this time. This maintenance was performed in accordance with the manufacturer's instructions and procedures and the aircraft is approved for return to service only with respect to the work performed.-END-

*Jose A. Cotto*  
 Jose A. Cotto, 3118790 A&P, IA

YEAR	RECORDING	TODAY'S	TOTAL	Description of Inspections, Tests, Repairs and Alterations <small>Entries must be endorsed with Name, Rating and Certificate Number of Technician or Repair Facility. (See back pages for other specific entries.)</small>
20	TACH	FLIGHT	TIME IN	
DATE	TIME		SERVICE	
Supplemental Log Book Entry - Annual Engine				
	Reg: N4145Z Date: 7/26/22	Model: IO-540-K1G5 Hobbs: 2577.0	S/N: L-27007-48A EngTT: 2577.0    TSOH: 826.6	<p>Performed an Annual Inspection with reference to FAR Part 43, Appendix "D". Checked applicable AD's thru 2022-14. AD04-10-14 C1, Crankshaft Gear and Gear Retaining Bolt. Due at Propeller Strike. Complied with AD15-19-07 External Fuel Injection Lines, by Visual Inspection with reference to SB#342G with no defects found. Next Due 2677.0. Left Magneto, P/N 6351 S/N 21080515 Installed @ 2544.5. Right Magneto P/N 6350, S/N 21021620 Installed @ 2483.1. AD99-04-04, 250 Hour Left Magneto Impulse Coupling Inspection Next Due @ 2794.5 Hobbs. Right Magneto 500 Hour Inspection Next Due @ 2983.1. Performed Compression test, results as follows: 1-78/80, 2-74/80, 3-75/80, 4-74/80, 5-76/80, 6-75/80. Removed, Inspected, Cleaned and Reinstalled Oil Suction/Finger Screen using new Crush Gasket, P/N MS35769-21 with no defects noted. Removed, Inspected, Cleaned and Reinstalled Engine Fuel Injector Servo Inlet Screen Filter using new O-Rings, P/N 951790 and 9511392 and saletted with no defects noted at this time. Changed Oil and Filter, refilled with 11 quarts of Aeroshell 15W50 Oil. Performed Oil Analysis and submitted to Aviation Laboratories for testing. Installed new Oil Filter P/N AA48110-2, inspected old Oil Filter for foreign matter and none found at this time. Performed engine ground run and no oil leaks found at this time. I certify that this Aircraft Engine has been inspected/repared in accordance with an Annual Inspection and has been determined to be in an airworthy condition and that work described above was accomplished and inspected in accordance with current FAA regulations and is approved for return to service.-END-</p> <p><i>Jose A. Cotto</i>            Jose A. Cotto, 3118790 A&amp;P, IA</p>





*The Standard*

**PROPELLER LOG**

ASA-SP-1

The Standard Propeller Log  
SP-L

© 1994-2000 Aviation Supplies & Academics, Inc.

ISBN 1-56027-418-2  
978-1-56027-418-6

**ASA-SP-L**

All rights reserved.  
Reproduction or use, without expressed permission,  
in any manner, is prohibited.

Published by  
Aviation Supplies & Academics, Inc.  
7005 132nd Place SE  
Newcastle, WA 98059-3153  
Website: [www.asa2fly.com](http://www.asa2fly.com)  
Email: [asa@asa2fly.com](mailto:asa@asa2fly.com)

Printed in the United States of America



P N R A S A - S P - L

ISBN 978-1-56027-418-6



5 0 4 9 5

9 7 8 1 5 6 0 1 2 7 4 1 8 6

**Propeller Record** General Information

Propeller Manufacturer Hartzell Type \_\_\_\_\_  
Model HC-139R-1R9  
Hub Series # # HK423A Blade # \_\_\_\_\_  
Date of Manufacture HK423A

Make/Model	Serial #
Aircraft Installed On: _____	_____
_____	_____
_____	_____
_____	_____



**HARTZELL PROPELLER INC**  
INSPECTION

Item Number: 8113R00110

Date: 3/30/1999

Work Order #: C253150

Model Number HC-13YR-1RF/F7663DR					
Ass'y Ser No. HK423A	Hydr Unit No. NA	Bulkhead No. NA	Valve No. NA		
Blade 1: J26545	Blade 2: J26541	Blade 3: J26542	Blade 4:	Blade 5:	Blade 6:
Clamp 1:	Clamp 2:	Clamp 3:	Clamp 4:	Clamp 5:	
Reverse	Start Lock	Low Pitch 12.4	High Pitch	Feather	
Ref Radius (inches) for angles: 30					
Comments: Deice Kit: NA IDS# 837 26-APR-83 PS50077-89					
Packing Certified By:			Date:		

The approved design data for this propeller incorporates all changes required by applicable Airworthiness Directives.

Year  
Date  
Next Due  
Year  
Date  
Next Due  
Year  
Date  
Next Due

*Installed on N4145Z @ 1700 hrs 1/18/2011*

1. Approving Technical Authority Agency / Country FAA/UNITED STATES		2. AUTHORIZED RELEASE CERTIFICATE FAA Form 8130-3, AIRWORTHINESS APPROVAL TAG			3. Form Tracking Number: S043263	
4. Organization Name and Address H & S PROPELLER SHOP, INC 8220 Old White Lake Rd - White Lake, Michigan 48386				5. Work Order/Contract/ Invoice Number: W43263		
6. Item	7. Description	8. Part Number	9. Eligibility *	10. Quantity	11. Serial / Batch Number	12. Status / Work:
ONE	PROPELLER	HC-13YR-1RF	N/A	ONE	HK423A	OVERHAUL
13. Remarks: OVERHAULED I/A/W CURRENT FAA APPROVED DATA - DETAILS FOUND UNDER WORK ORDER 43263. HUB S/N HK423A BLADE S/N J26545, J26542, J26541. NO APPLICABLE AD NOTES INSPECTED PER SB 61-118F R1, 61-136R1, 61-281, 61-299. COMPLIED WITH SL 61-244, 267, 278, 293R1 & S1152A.						

HUB & BLADE INSPECTIONS, REPAIRS AND ALTERATIONS

Year:	Total Time In Service	Description
Date:		
Next Inspection Due:	Time Since Overhaul	
		Mech. Cert. # or Repair Station #
Year:	Total Time In Service	Description
Date:		
Next Inspection Due:	Time Since Overhaul	
		Mech. Cert. # or Repair Station #
Year:	Total Time In Service	Description
Date:		
Next Inspection Due:	Time Since Overhaul	
		Mech. Cert. # or Repair Station #

JET AIR, INC

ATIONS

Year: Date: 12/16/2015; Aircraft: N4145Z  
 Hartzell HC-13YR-1RF S/N: HK423A Hobbs: 2129.3 T.T: 2129.3 TSOH: 378.9 W/O: SPG-15-2098  
 Date: \_\_\_\_\_  
 Next Ins Due: Cleaned, dressed, and painted blades. Checked Spinner and bulkhead, found propeller and spinner to be serviceable.

I certify that this propeller has been inspected in accordance with an annual inspection and was determined to be in airworthy condition.

Year: Date: 12/16/15 Signed: [Signature]  
 for Jet Air Inc. CRS # JAFR110F Galesburg, Illinois 61401

Next Inspection Due:	Time Since Overhaul	Mech. Cert. # or Repair Station #
Year:	Total Time In Service	Description
Date:		
Next Inspection Due:	Time Since Overhaul	Mech. Cert. # or Repair Station #

HUB & BLADE INSPECTIONS, REPAIRS AND ALTERATIONS



Year: \_\_\_\_\_ Total Time In Service \_\_\_\_\_  
 Date: \_\_\_\_\_  
 Next Inspection Due: \_\_\_\_\_ Time Since Overhaul \_\_\_\_\_

Date: 2/13/2017 Aircraft: N4145Z  
 Hartzell HC-13YR-1RF S/N: HK423A Hobbs: 2189.6 T.T: 2189.6 TSOH: 439.2 W/O  
 SPG-17-02596

Cleaned, dressed, and painted blades. Checked Spinner and bulkhead, found propeller and spinner to be serviceable

I certify that this propeller has been inspected in accordance with an 100 HR inspection and was determined to be in airworthy condition.

Year: \_\_\_\_\_ Total Time In Service \_\_\_\_\_  
 Date: \_\_\_\_\_  
 Next Inspection Due: \_\_\_\_\_ Time Since Overhaul \_\_\_\_\_

Date: 2-13-2017 Signed: [Signature]  
 for Jet Air Inc. CRS # JAFR110F, Galesburg, Illinois, 61401

Year: \_\_\_\_\_ Total Time In Service \_\_\_\_\_  
 Date: \_\_\_\_\_  
 Next Inspection Due: \_\_\_\_\_ Time Since Overhaul \_\_\_\_\_

HUB & BLADE INSPECTIONS, REPAIRS AND ALTERATIONS

Year: \_\_\_\_\_ Total Time In Service \_\_\_\_\_  
 Date: \_\_\_\_\_  
 Next Inspection Due: \_\_\_\_\_ Time Since Overhaul \_\_\_\_\_

**LM** AIRCRAFT REPAIR 12730 SW 77<sup>TH</sup> STREET  
 MIAMI, FL 33183  
 305-978-3940

Date: 03/06/2018 **PROPELLER LOGBOOK ENTRY** **WO#2172**  
 A/C Reg: N4145Z Model: PA-32R-301 SN: 3246142 ACTT: 2304.3 HOBBS: 2304.3  
 PROPELLER TT: 2304.3 PROPELLER SMOH: 553.9

Year: \_\_\_\_\_ Total Time In Service \_\_\_\_\_  
 Date: \_\_\_\_\_  
 Next Inspection Due: \_\_\_\_\_ Time Since Overhaul \_\_\_\_\_

Completed ANNUAL inspection IAW FAR 43 Appendix "D".  
 I certify that this PROPELLER has been inspected in accordance with an ANNUAL inspection and was found to be in airworthy condition.

Signature: [Signature] A&P267717017-1A

Year: \_\_\_\_\_ Total Time In Service \_\_\_\_\_  
 Date: \_\_\_\_\_  
 Next Inspection Due: \_\_\_\_\_ Time Since Overhaul \_\_\_\_\_

HUB & BLADE INSPECTIONS, REPAIRS AND ALTERATIONS

Year:	Total Time in Service	Description
_____	_____	_____
Date: _____		
Next Insp Due: _____		



**Propel**  
AVIATION SALES & SERVICES, LLC  
Propeller Logbook Entry

**Beechcraft**  
TEXTRON AVIATION  
AUTHORIZED SERVICE FACILITY

Registration #: N4145Z  
Aircraft Model: Piper PA-32R-301  
Aircraft Total Time: 2389.2 hours  
Propeller Model: Hartzell HC-13YR-1RF  
Propeller Total Time: 2389.2 hours

Date: March 19, 2019  
Aircraft S/N: 3246142  
Aircraft Hobbs Reading: 2389.2 hours  
Propeller S/N: HK423A  
Propeller TSO: 638.8 hours

Performed an Annual Inspection, in accordance with FAR Part 43 Appendix D Scope and Detail.  
I certify that the Annual Inspection and other work specified; except as otherwise specified, was carried out in accordance with FAA regulations, and in respect to that work performed, the Propeller is approved for return to service.  
Lazaro Mendoza AP 267717017 - IA

*Lazaro Mendoza*

Year: \_\_\_\_\_  
Date: \_\_\_\_\_  
Next Insp Due: \_\_\_\_\_

Overall

Mech. Cert. # or Repair Station # \_\_\_\_\_



**Propel**  
AVIATION SALES & SERVICES, LLC  
Propeller Logbook Entry

**Beechcraft**  
TEXTRON AVIATION  
AUTHORIZED SERVICE FACILITY

Registration #: N4145Z  
Aircraft Model: Piper PA-32R-301  
Aircraft Total Time: 2454.5 hours  
Propeller Model: HC-13YR-1RF

Date: April 15, 2020  
Aircraft S/N: 3246142  
Aircraft Hobbs Reading: 2454.5 hours  
Propeller S/N: HK423A

Performed an Annual Inspection, in accordance with FAR Part 43 Appendix D Scope and Detail.  
I certify that the Annual Inspection and other work specified; except as otherwise specified, was carried out in accordance with FAA regulations, and in respect to that work performed, the Aircraft is approved for return to service.  
Lazaro Mendoza AP 267717017 - IA

*Lazaro Mendoza*

Date: \_\_\_\_\_  
Next Inspection Due: \_\_\_\_\_

Time Since Overhaul \_\_\_\_\_

Mech. Cert. # or Repair Station # \_\_\_\_\_

HUB & BLADE INSPECTIONS, REPAIRS AND ALTERATIONS

Year: _____	Total Time in Service	Description
Date: _____		7/21/21
Next Inspection Due:	Time Since Overhaul	<del>CLOSED - SEE Hartzell Propeller Log #1</del>
		Mech. Cert. # or Repair Station # _____
Year: _____	Total Time in Service	Description
Date: _____		
Next Inspection Due:	Time Since Overhaul	
		Mech. Cert. # or Repair Station # _____
Year: _____	Total Time in Service	Description
Date: _____		
Next Inspection Due:	Time Since Overhaul	
		Mech. Cert. # or Repair Station # _____

HUB & BLADE INSPECTIONS, REPAIRS AND ALTERATIONS

Year: _____	Total Time in Service	Description
Date: _____		
Next Inspection Due:	Time Since Overhaul	
		Mech. Cert. # or Repair Station # _____
Year: _____	Total Time in Service	Description
Date: _____		
Next Inspection Due:	Time Since Overhaul	
		Mech. Cert. # or Repair Station # _____
Year: _____	Total Time in Service	Description
Date: _____		
Next Inspection Due:	Time Since Overhaul	
		Mech. Cert. # or Repair Station # _____