



 The Standard
ENGINE LOG

ASA-SE-2



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 two years or 500 hours, whichever occurs first from the completion date of the overhaul. All accessories overhauled by PGA are warranted for 250 hours of operation or one year, whichever event shall occur first.

Any engine, cylinder or component Repair not associated with a major engine overhaul is warranted to be free from defects in material and workmanship for six months.

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. PGA assumes no obligation for work accomplished at a facility other than PGA unless prior notification is given and the owner receives authority from PGA 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.

Warranty is not applicable to routine maintenance, inspection 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.

PGA does not warrant accessories, such as factory-remanufactured 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 PGA'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 PGA's behalf unless made in writing and signed by an officer of PGA.

Date 28 Mar 2024 Model Lyc B-235-L1 S/N L-11978-15 WO# 106280

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 ensure 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.

For proper break-in/piston ring seating, operate the engine at 65-75% power during cruise while keeping engine temperatures well in the green arc. Maintain these power settings until oil consumption stabilizes, this will minimize the chance of glazing the cylinder bores. Glazing cylinder bores require cylinder removal, honing, and installing new piston rings. **Poplar Grove Airmotive does not warranty this condition.**

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 (ashless dispersant) oil until consumption stabilizes.

Engine Oil Recommendation For Piston Ring Seating

Aero Shell 100	SAE 50
Aero Shell 80	SAE 40
Aero Shell 65	SAE 30
Phillips 20W-50	Type M
Phillips 20W-50	XC

Above 60 degrees F
30 degrees - 90 degrees F
0 degrees - 70 degrees F
All Season
Nickel Cylinders

Use mineral based AD oils only after break-in - NO synthetics

THE STANDARD® ENGINE LOG
SE-2

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Engine Record General Information

Manufacturer Lycoming Model O-235-C1
Serial L-11978-15 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

Poplar Grove Airmotive, Inc.

Shop Orders — Inventory Summary

For Shop Order 106280 Only

YEAR
20
DATE

RECO
TACH
TIME

MANUFACTURER

AD #

75-08-09 8(3)

800-25-02 112

100-04-06 8(1)

100-03-10

100-03-10 C

100-07-11 C

100-10-14 C

100-03-07

100-06-11

Poplar Grove Air

FAA Approved R

106280
8 32AM

Shop Order # Class Date

Disc # Part Number

Description

Date Why?

Quantity

Units

106280	11.1	2.000	SL81485-1	Cashier Set	2/15/2024	1.00	Each
106280	11.1	2.000	U981485	Spark Plug/Bron SW 4	2/15/2024	8.00	Each
106280	11.1	2.000	SL 477022-13	Screw	2/15/2024	1.00	Each
106280	11.1	7.000	138241739	Lifter	3/26/2024	7.00	Each
106280	11.1	2.000	SL88753A M10	Main Bearing	2/15/2024	4.00	Each
106280	11.1	2.000	SL88753A M10	Main Bearing	2/15/2024	4.00	Each
106280	11.1	2.000	SL1023-8	Roll	2/15/2024	1.00	Each
106280	11.1	2.000	SL1023-8	Bushing	2/15/2024	4.00	Each
106280	11.1	2.000	SL78027	Gulf	2/15/2024	8.00	Each
106280	11.1	0.000	SL12180	Nut	2/15/2024	8.00	Each
106280	11.1	2.000	SL13824A M10	Bearing	2/15/2024	8.00	Each
106280	11.1	2.000	SL74027	Bushing	2/15/2024	8.00	Each
106280	11.1	2.000	SL13780A	Shaft	2/15/2024	4.00	Each
106280	11.1	2.000	SL12882	Thrust Button	2/15/2024	8.00	Each
106280	11.1	2.000	SL1023-8 (SL-STD180)	Roller	2/15/2024	4.00	Each
106280	11.1	2.000	SL1023-8 (SL-STD119)	Roller	2/15/2024	4.00	Each
106280	11.1	2.000	SL1023-8	Roll, Date Pump	2/15/2024	4.00	Each
106280	11.1	2.000	SL1023-8	Tech Shaft	2/15/2024	1.00	Each
106280	11.1	2.000	SL1023-8	Lock Nut	2/15/2024	8.00	Each
106280	11.1	2.000	SL1023-8	Nut	2/15/2024	32.00	Each
106280	11.1	2.000	SL1023-8	Tube	2/15/2024	1.00	Each
106280	11.1	2.000	SL1023-8	Push Rod	2/15/2024	4.00	Each
106280	11.1	2.000	SL1023-8	Crank Gear	2/15/2024	1.00	Each
106280	11.1	2.000	SL1023-8	Washer	2/15/2024	2.00	Each
106280	11.1	2.000	SL1023-8	Pipe Intake Thick Wall	2/15/2024	1.00	Each
106280	11.1	2.000	SL1023-8	Intake Pipe, Thick Wall	2/15/2024	1.00	Each
106280	11.1	2.000	SL1023-8	Gear Starter 122 Teeth	2/15/2024	1.00	Each
106280	11.1	2.000	SL1023-8	Tube Assy	2/15/2024	1.00	Each
106280	11.1	2.000	SL1023-8	Oil Return Line	2/15/2024	1.00	Each
106280	11.1	2.000	SL1023-8	Camshaft	2/15/2024	1.00	Each
106280	11.1	2.000	SL1023-8	Pump	2/15/2024	2.00	Each
106280	11.1	2.000	SL1023-8	Repair Kit For Slick Mo	3/06/2024	1.00	Each
106280	11.1	2.000	SL1023-8	Imp Coupling	3/06/2024	1.00	Each
106280	11.1	2.000	SL1023-8	Repair Kit For Slick Mo	3/06/2024	1.00	Each
106280	11.1	2.000	SL1023-8	Tube	3/21/2024	1.00	Each
106280	11.1	2.000	SL1023-8	Tube	3/21/2024	2.00	Each
106280	11.1	2.000	SL1023-8	Plug	3/21/2024	1.00	Each
106280	11.1	2.000	SL1023-8	Lifter	3/22/2024	1.00	Each
106280	11.1	2.000	SL1023-8	Control	3/22/2024	4.00	Each
106280	11.1	2.000	SL1023-8	Oil Spring	3/22/2024	1.00	Each
106280	11.1	2.000	SL1023-8	Cylinder (05922633)	10/11/2024	4.00	Each
106280	11.1	2.000	SL1023-8	Crankshaft	10/11/2024	1.00	Each
106280	11.1	2.000	SL1023-8	Tube	3/23/2024	1.00	Each
106280	11.1	2.000	SL1023-8	Push Rod	3/23/2024	1.00	Each
106280	11.1	2.000	SL1023-8	Gauge Assy	3/26/2024	1.00	Each

and Alterations

106280

106280

due any prop strike

3/26/2024

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.)
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MAKE LYCOMING MODEL 0-235-C1 S/N L 11978 15
Total Time 3 145 54 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 60204 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 crankshaft repaired by EC Services, W/O 87304 1, 32604-1. Installed new Lycoming camshaft P/N 75706 and tappets P/N 15B28739. Installed new Lycoming cylinder assemblies, P/N 05K29652. Installed magnetos, left P/N 4373, S/N 02041927/PGA106280, and right P/N 4370, S/N 02040886/PGA106280, overhauled by Poplar Grove Airmotive. Supplied carburetor P/N 10-3103-1, S/N Y424204, overhauled by Avstar Fuel Systems. See A.D. Compliance Record and Parts List for further details.

END

All applicable airworthiness directives and related factory publications have been checked for compliance at this date. See list in this logbook. 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 # 106280 Date 28/Mar/2024

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

Terry Aavang
Signed for Poplar Grove Airmotive, Inc.

Tests, Repairs and Alterations

YEAR 20 DATE	TIME	CURRENT TIME ON SERVICE	Engine must be accompanied with Name, Rating and Technician or Repair Facility (See back pages for other work)

MANUFACTURER	LYCOMING	ENGINE MOD	O-235-C1	S/N	L-11978-15	WO #	
DESCRIPTION		COMPLIANCE STATUS					
1-28-28 F(3)		oil pump drive shaft		N/A has new style shaft			
2-28-28 F(2)		engine push rods		N/A by new steel pushrods P/N SL 73806			
3-28-28 F(1)		oil line		N/A no prop governor oil line installed			
4-28-28 F(1)		engine push rods		N/A by Part Number SL 73806			
5-28-28 F(1)		oil pump		P/C/W "C" & "N" impellers			
6-28-28 F(1)		crankshaft		C/W by inspection IAW par(b)(1)			
7-28-28 F(1)		crankshaft gear		C/W by inspection IAW Lycoming SB 475C durability proof			
8-28-28 F(1)		H4-5 carburetors		N/A by carburetor model			
9-28-28 F(1)		Lycoming rod bushings		N/A to new bushings installed P/N 01K28983			
Poplar Grove Airmotive, Inc.							
FAA Approved Repair Station YYB664L Terry Asvang  Date 2/28/24							

YEAR 20 DATE	RECORDING TACH TIME	TODAY'S FLIGHT	TOTAL TIME IN SERVICE	Description of Inspections, Tests, Repairs and Alterations Engine must be accompanied with Name, Rating and Technician or Repair Facility (See back pages for other work)

MAKE	LYCOMING	MODEL	O-235-C1	S/N	L-11978-15
Total Time	3,145.54	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. We per the manufacturer's current overhaul manual 60204-7. 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 crankshaft repaired by EC Services, W/O 87304 1 32604-1. Installed new Lycoming camshaft P/N 75706 and tappets P/N 15B28739. Installed new Lycoming cylinder assemblies, P/N 05K29652. Installed magnetos, left P/N 4373, S/N 02041927/PGA106280, and right P/N 4370, S/N 02040886/PGA106280, overhauled by Poplar Grove Airmotive. Supplied carburetor P/N 10-3103-1, S/N Y424204, overhauled by Avstar Fuel Systems. See A.D. Compliance Record and Parts List for further details. END All applicable airworthiness directives and related factory publications have been checked for compliance at this date. See log in this logbook. 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 #		106280		Date	
		28 May 2024			
Poplar Grove Airmotive, Inc. Poplar Grove Airport, Poplar Grove, IL FAA Approved Repair Station #YYB664L					
				Terry Asvang  Signed for Poplar Grove Airmotive, Inc.	

Alterations
6 Number of
100% entries



AVIATION OIL
3319 W. Earth Drive, PM
Phone: 800-445-7900
http://www.tribology.com

closed with
oil filter
sample for

Customer Name: KELLY KELLER
Address: 6713 Canyon Crest Rd
Fort Worth TX 76179
USA

Phone:
Fax:

Tail Num
Aircraft
Aircraft
Serial N
VIN

Kelly Keller, Owner #3540870 Private Pilot
Kelly Keller

Sample No.
SIF No.
Date Sampled
Date Tested
Oil Brand
Oil Type
Oil Grade
Oil Mfr
Oil Additive
Fire Supp. New
Rt. Hrs

44150344138
44514319
30-Dec-24
08-Jun-25
Phillips 66
Type M
SAC 20W50
43
40
43

Metals (ppm)
Molybdenum (Mo)
Aluminum (Al)
Iron (Fe)
Copper (Cu)
Nickel (Ni)
Chromium (Cr)
Tin (Sn)
Lead (Pb)
Silver (Ag)

<1
37
252.68
40.52
7
52
4
3056.08
43

12-30

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 specifics or notes)

Chatham Municipal Airport
380 George Ryder Road
Chatham, MA 02611 Tel: (508) 945-5747
chathamairport@chathamairport.com
www.chathamairport.com



April 29, 2024
NSE448
Lycosony O-235C1
SN L-1197B-13

Engine Entry
Tach: 3145.5
TSSW 111.0.0
TTE 3145.5

Bellanca

Bellanca TECA

ANNUAL 12 HOUR INSPECTION one per ~~service manual~~ inspection checklist for ~~Model 1974~~
(110 Series) & FAR 43 Appendix D Scheduled servicing & lubrication performed per service manual instructions. In
addition the following items were accomplished per ~~service manual~~ service manual procedures and FAA
accepted practices per AC43.13-1B/2B

Lycosony

- 1) Engine installed on NSE445, 1974 Bellanca TECA, SN 1059-74
- 2) All new boxes set (see AFRO shipping list & Cert of Conformance attached) and gaskets installed firewall forward
- 3) Engine pre-oiled and then serviced w/ 6 quarts of Phillips Type M mineral oil
- 4) Oil filter replaced w/ new Tempest p/n AA48109
- 5) Magneto-to-engine timing completed IAW Lycosony direct drive manual
- 6) Flyer ops check normal w/ no leaks noted
- 7) Engine control travels re-rigged & tested
- 8) Air intake, fluid lines, fittings, and accessory clamps and securing nuts inspected for looseness and tightened as required
- 9) All new engine Barry Controls shock mounts installed P/N 71032 (x8) upon engine install
- 10) Oil cooler sent out to Pacific Oil Cooler service for flush & overhaul. See #130 attached.
- 11) Removed and replaced one of two oil cooler fittings P/N AN816-8D
- 12) Stop drilled cracks in LH forward and aft baffle assembly
- 13) Installed reinforcement back plate on RJ aft baffle assembly

YEAR
20 7.5
DATE

Emerald Arrow Aviation Services, LLC
Hicks Airfield
141 Aviator dr
Fort Worth Texas 76179



Make Bellanca Model 7ECA S/N 1050 74 Reg# N9034H Airframe TT 3180 0

Lycosing 0 ZIS C1 SN 1 11070 15 TTE 3180 0 TSMOH 42 5

Performed 100 hour / Annual Inspection IAW MFG Inspection checklist performed compression check 1) 78/80 2) 77/80 3) 79/80 4) 79/80 Ran engine leaked checked No defects noted at this time Regarding the work performed I find this aircraft to be in airworthy condition END

Troy Thompson *[Signature]* MP 3522701 Dated 04/17/25
Shawn Wyatt *[Signature]* I A 3173434 Date 04/17/25

10-23	3194	56 SMOY	Drained oil and replaced with 5 qts Phillips Victory 100AW - First oil change w/o Mineral Replaced Tempst oil 100AW 1A48109 + Safety wire. No leaks on test run. 35400 TO
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YEAR
20
DATE

Emerald Arrow Aviation Services, LLC
Hicks Airfield
141 Aviator dr
Fort Worth, Texas 76179



Make Bellanca Model 7ECA S/N 1050 74 Reg# N9034H Airframe TT 3187 0

Lycosing 0 ZIS C1 SN 1 11070 15 TTE 3180 0 TSMOH 52 4

Performed 100 hour / Annual Inspection IAW MFG Inspection checklist and AC43-13 Appendix D Compression Check 1) 72 2) 76 3) 77 4) 78 /80 Regarding the work performed, I find this Engine to be in airworthy condition END

Troy Thompson *[Signature]* MP 3522701 Dated 05/08/25
Shawn Wyatt *[Signature]* I A 3173434 Date 05/08/25

[illegible][illegible]

Maintenance Release Tags

Work Order 106280