ENGINE LOG



Certificate No.

DATE 7-25-22 HOBBS 1138.1 N539MA

OIL AND FILTER CHANGE. INSPECT OIL FILTER. INSTALL NEW CH48103-1
OIL FILTER AND SERVICE ENGINE WITH 10 QTS. OF PHILLIPS XC 20W50 OIL.
GROUND RUN AND LEAK CHECK SATISFACTORY. END.

[redacted] AP [redacted] IA

KURT SCHIMPF AP [redacted] IA
SELECT AIRCRAFT SERVICE

DATE 12-1-22 HOBBS 1175.4 N539MA

OIL AND FILTER CHANGE. INSPECT OIL FILTER. INSTALL NEW CH48103-1
OIL FILTER AND SERVICE ENGINE WITH 10 QTS. OF PHILLIPS XC 20W50 OIL.
GROUND RUN AND LEAK CHECK SATISFACTORY. END.

[redacted] AP [redacted] IA

KURT SCHIMPF AP [redacted] IA
SELECT AIRCRAFT SERVICE

TOTAL TIME

8-1-2023 1208.6

REMOVE ENGINE FROM AIRCRAFT N539MA.

[redacted] AP [redacted] IA

END OF LOG BOOK

Date	Time Run (Hours)	Total Time Since Overhaul	Repairs, Adjustments, Service, Remarks	Signature	Licence #
BROUGHT FORWARD					

DATE 8-15-2023 TACH 1208.6 TT 1795.2 TSMOH 0.0 N539MA

INSTALL LYCOMING FACTORY OVERHAULED ENGINE MODEL TIO-540-AE2A, S/N L-10566-61A, W.O. NFR10566, SEE 8130-3 W.O. MS-589579 DATED 7-14-23 AND LOG ENTRY FOR MORE INFORMATION. INSTALLATION PERFORMED IAW MANUFACTURERS MAINTENANCE MANUAL 761-876 DATED 3-25-21 AND LYCOMING SI 1427C.
INSTALL THE FOLLOWING NEW PARTS. INSTALL ALL NEW ENGINE LORD MOUNTS P/N'S (4) 475-116, (4) 475-117, (4) 587-307, (4) AN7-40A, (4) 477-664. INSTALL NEW STARTER P/N 149NL/EC S/N H-X042707. INSTALL ORIGINAL HARTZELL PROP GOV AFTER OVERHAUL P/N S-1-30 S/N G356NJ, PROP LOG BOOK FOR MORE INFORMATION. INSTALL NEW ALT BELTS AND ADJUST TO SPEC., P/N 37B19774-460, 37A19773-382, 37A 19773-464. INSTALL ALL NEW VAC HOSES WITH NEW. INSTALL NEW AIRFILTER P/N P15-1936. REMOVE AND REPLACE ALL FLEXIBLE BAFFLE SEAL WITH NEW TA8071. RE-INSTALL ORIGINAL SERVICEABLE VACUUM PUMPS. INSTALL NEW P5000 OIL QUICK DRAIN. INSTALL 5 NEW HIGH PRESSURE FUEL AND OIL HOSES MANUFACTURERED BY PHT INV 624319 P/N 124F003-8CR0210, 124F001-8CR0214, -8CR0320, -4CR0420, 124F012E0193C270.
INSTALL NEW TIT PROBE 686-216. REMOVE LEFT AND RIGHT TURBOCHARGERS AND INSTALL ORIGINAL SERVICEABLE TURBOCHARGERS AT LYCOMINGS REQUEST, SEE LYCOMING SERVICE REQUEST NO 27245, 27246. SERVICE ENGINE WITH PHILLIPS VICTORY 20W-50 OIL AND PRE-OIL ENGINE IAW SI1427C.

I CERTIFY THAT THIS ENGINE HAS BEEN INSPECTED IN ACCORDANCE WITH AN ANNUAL INSPECTION AND WAS DETERMINED TO BE IN AN AIRWORTHY CONDITION. INSPECTED IAW FAR 43 APPENDIX D. AND INSPECTION REQUIREMENTS IN MM MAINTENANCE MANUAL 761-876 DATED 3-25-21 CHAPTERS 4 AND 5. ALL ADS CURRENT SEE AD COMPLIANCE RECORDS. GROUND RUN IAW SI1427C. OIL AND FILTER CHANGED, SUCTION SCREEN AND OIL FILTER INSPECTED IAW SI1427C. NO METAL FOUND., INSTALL NEW CH48103-1 AND SERVICE ENGINE WITH 11 QTS OF AEROSHELL VICTORY 20W-50 OIL. GROUND RUN, OPERATIONAL AND LEAK CHECK PERFORMED SATISFACTORY. END.

[redacted] IA
KURT SCHIMPF AP[redacted] IA
SELECT AIRCRAFT SERVICE

DATE 8-17-2023 TACH 1211.3 N539MA

OIL AND FILTER CHANGE AFTER TEST FLIGHT IAW SI1427C. INSPECT OIL FILTER, INSTALL NEW CH48103-1 OIL FILTER. INSPECT OIL SUCTION SCREEN, NO METAL FOUND. SERVICED ENGINE WITH 11 QTS. OF PHILLIPS VICTORY 20W-50 OIL.

[redacted] IA
KURT SCHIMPF AP[redacted]
SELECT AIRCRAFT SERVICE

Page Total: _____

All repair data must bear the endorsement o

Date	Time Run (Hours)	Total Tim Since Overh
BROUGHT FORWARD		

DATE 9-18-2023

RE-INSTALLED ORIGI
S/N H-ZLL00010, S/N
TECHNOLOGIES FOR
SA-203, AND HET SB-
DATED 9-15-2023 FOR
PERFORMED SASTIFA

DATE 10-24-202

OIL AND FILTER
OIL FILTER AND
OIL. GROUND RU

Page Total: _____

Engine Log

Serial # _____

Date	Time Run (Hours)	Total Time Since Overhaul	Repairs, Adjustments, Service, Remarks	Signature	Licence #
BROUGHT FORWARD					

HARTZELL

PROPELLER LOGBOOK

PROPELLER MODEL HC-I3YIR-IN

PROPELLER S/N NM25B

LOGBOOK # 1

Date	Propeller TSN	A/C	Description of all operations ... ons.

AUTHORIZED RELEASE CERTIFICATE

FAA FORM 8130-3 AIRWORTHINESS APPROVAL TAG

1. Approving National Aviation Authority/Country:	2.	3. Form Tracking Number:
FAA/United States		PRP23-05281

4. Organization Name and Address:	5. Work Order/Contract/Invoice Number:
Aircraft Specialists, Inc., 6005 Propeller Lane, Sellersburg, IN 47172	PRP23-05281

6. Item:	7. Description:	8. Part Number:	9. Quantity:	10. Serial Number:	11. Status/Work:
1	Hartzell Propeller	HC-I3Y1R-1N	1	NM42B	OVERHAULED

12. Remarks:

1.1 Overhauled Hartzell Propeller, M/N: HC-I3Y1R-1N S/N: NM42B, Per Hartzell Manual 113B Rev. 53 AUG 2023

13a. Certifies the items identified above were manufactured in conformity to:	14a. ☒ 14 CFR 43.9 Return to Service ☐ Other regulation specified in Block 12
☐ Approved design data and are in a condition for safe operation. ☐ Non-approved design data specified in Block 12.	Certifies that unless otherwise specified in Block 12, the work identified in Block 11 and described in Block 12 was accomplished in accordance with Title 14, Code of Federal Regulations, part 43 and in respect to that work, the items are approved for return to service.

13b. Authorized Signature:	13c. Approval/Authorization No:	14b. Authorized Signature: [redacted]	14c. Approval/Certificate No.: PZ4R458M
13d. Name (Typed or Printed):	13e. Date (m/d/y):	14d. Name (Typed or Printed): O. Tingle	14e. Date (dd/mmm/yyyy): 10/Aug/2023

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 National Aviation Authority/Country: FAA/United States	2. **AUTHORIZED RELEASE CERTIFICATE** FAA FORM 8130-3 AIRWORTHINESS APPROVAL TAG	3. Form Tracking Number: PRP23-05304
4. Organization Name and Address: Aircraft Specialists, Inc., 6005 Propeller Lane, Sellersburg, IN 47172		5. Work Order/Contract/Invoice Number: PRP23-05304

6. Item:	7. Description:	8. Part Number:	9. Quantity:	10. Serial Number:	11. Status/Work:
1	Hartzell Hub	HC-I3Y1R-1N.	1	NM42B	OVERHAULED

12. Remarks:

1.1 Overhauled Hartzell Hub, M/N: HC-I3Y1R-1N S/N: NM42B, Per Hartzell Manual 202A.

13a. Certifies the items identified above were manufactured in conformity to: ☐ Approved design data and are in a condition for safe operation. ☐ Non-approved design data specified in Block 12.		14a. ☒ 14 CFR 43.9 Return to Service ☐ 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:	[redacted]	14c. Approval/Certificate No.: PZ4R458M
13d. Name (Typed or Printed):	13e. Date (m/d/y):	14d. Name (Typed or Printed): D. Tingle	14e. Date (dd/mmm/yyyy): 10/Aug/2023

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.

Date	Prop TSN

DATE 8-15-2023 TACH 1208.0 TT 1208.6 TSPOH 0.0 N539MA

RE-INSTALL ORIGINAL PROPELLER AFTER OVERHAUL BY AIRCRAFT SPECIALIST, SEE LOGBOOK ENTRY FOR MORE INFORMATION.

I CERTIFY THAT THIS PROPELLER HAS BEEN INSPECTED IN ACCORDANCE WITH AN ANNUAL INSPECTION AND WAS DETERMINED TO BE IN AN AIRWORTHY CONDITION. INSPECTED IAW FAR 43 APPENDIX D. ALL ADS CURRENT SEE AD COMPLIANCE RECORDS. OPERATIONAL AND LEAK CHECK PERFORMED SATISFACTORY. END.

[redacted] A

KURT SCHIMPF AP[redacted]IA
SELECT AIRCRAFT SERVICE

No. 2-5 **LYCOMING** **Production Automated Engine Test Log** Form# T-001

Std Airflow Data Sheet

Engine # : L-10566-61A	**Model # :** TIO-540-AE2A	**Order # :** JN810441	
Operator 1: P. FISHER	**Accept/Date** [redacted]	**Test Mode :** Final	
Operator 2:	**Accept/Date :** 05-09-23	**BOM :** HENPL-10844	
Fuel Serial # : 70007902	**Ignition Left :** 23010405	**Ignition Right :** 22050256	
Fuel Slave : NO	**Ignit_L Slave :** NO	**Ignit_R Slave :** NO	**SW Rev :** LSW20001-A LCY
Fuel Curve: C-13487-E	**Float Bowl Connected to Fuel Pump Inlet :** YES		**Barometer :** 29.5
Pre-Oil Temp : 165	**Pre-Oil Pres :** 85	**Setting # :** 2549038-4	**Read Time :** 5/9/23 13:31
ETS # : 760	**ETS Rev :** ECO-26870	**Date/Time :** 5/9/23 11:35	**Test Status :** Review

Comments

Variations

The following minor variations to the applicable engine test specification were observed during this test and determined to be acceptable 'as is'. The acceptance of these variations will not affect air worthiness or performance.

1)_____

2)_____

3)_____

4)_____

Engr._____ Q.C._____ Date_____

When / Test	Low Limit	Value	High Limit	Status
4 Airflow @ AF-700 for 4 min				
Fuel Flow Limits (PPH)	64.9	70.11	74.9 @ AF-699	Pass
Fuel Nozzle Limits ("HG)	N/A	2.18	N/A	Pass
MSD ("H2O)		3.045	50	Pass
Cylinder Head Temperature (DegF)		269.3	500	Pass
Exhaust Gas Temperature (DegF)		1050.4	1750	Pass
Inlet Air Temp (DegF)	0	69.5	110	Pass
6 Airflow @ AF-900 for 4 min				
Fuel Flow Limits (PPH)	88.2	91.91	98.1 @ AF-901	Pass
Fuel Nozzle Limits ("HG)	N/A	4.19	N/A	Pass
MSD ("H2O)		4.5634	50	Pass
Cylinder Head Temperature (DegF)		278.3	500	Pass
Exhaust Gas Temperature (DegF)		1099.1	1750	Pass
Inlet Air Temp (DegF)	0	69.8	110	Pass
8 Airflow @ AF-1700 for 4 min				
Fuel Flow Limits (PPH)	182.2	184.72	194.3 @ AF-1694	Pass
Fuel Nozzle Limits ("HG)	14.8	16.05	17.3 @ AF-1694	Pass
MSD ("H2O)		14.5734	50	Pass
Cylinder Head Temperature (DegF)		308.7	500	Pass
Exhaust Gas Temperature (DegF)		1275.8	1750	Pass
Inlet Air Temp (DegF)	0	69.8	110	Pass
10 Airflow @ AF-2200 for 4 min				
Fuel Flow Limits (PPH)	225	222.93	239.8 @ AF-2156	Review
Fuel Nozzle Limits ("HG)	21.1	23.45	24.3 @ AF-2156	Pass
MSD ("H2O)		20.3553	50	Pass
Cylinder Head Temperature (DegF)		348.7	500	Pass
Exhaust Gas Temperature (DegF)		1349.2	1750	Pass
Inlet Air Temp (DegF)	0	69.5	110	Pass
29 Rated @ Rated for 15 min				
Rated Speed (RPM)	2450	2490.9	2550	Pass
Manifold Pressure @ Rated ("HG)	41.5	41.97	42.5	Pass
Fuel Pressure @ Rated (PSI)	36	37.9	40	Pass
Fuel Flow @ Rated (PPH)	206.1	228.85	@ AF-2211	Pass

Pressure @ Rated (PSI)	75	77.2	85	Pass
Turbocharger Oil Inlet Pressure @ Rated (PSI)	30	38.7		Pass
Comp Discharge T - Diff Left & Right (DegF)		3.9	50	Pass
Air Flow Limits (PPH)	2170.4	2220.5		Pass
MSD ("H2O)		21.3116	50	Pass
Cylinder Head Temperature (DegF)		365	500	Pass
Exhaust Gas Temperature (DegF)		1362.1	1750	Pass
Oil Gallery Temp @ Rated (DegF)	165	191.9	215	Pass
Inlet Air Temp (DegF)	0	70.4	110	Pass
32 Final_Idle @ 0 for 4 min				
Idle Speed (RPM)	600	689.7	700	Pass
Fuel Pressure @ Final Idle (PSI)	35	36.3		Pass
Cylinder Head Temperature (DegF)		300.1	500	Pass
Exhaust Gas Temperature (DegF)		634.6	1750	Pass
Oil Gallery Temp @ Final_Idle (DegF)	140	177.3	215	Pass
Oil Pressure @ Idle (PSI)	25	39.3		Pass
Manifold Pressure @ Final Idle (In Hg)	8	14.2	17	Pass
Inlet Air Temp (DegF)	0	75	110	Pass
34 Manual @ N/A for 0 min				
Acceleration Check (sec)	2	4	5	Pass
Idle Cut-off Time (sec)	0	4	5	Pass
Engine # : L-10566-61A				
Date/Time : '5/9/23 11:35				

1. Approving Civil Aviation Authority/Country: **FAA/UNITED STATES**	2. **AUTHORIZED RELEASE CERTIFICATE** **FAA FORM 8130-3, AIRWORTHINESS APPROVAL TAG**	3. Form Tracking Number: **L-10566-61A**
4. Organization Name and Address: Lycoming Engines, [redacted] EJ1R115K		5. Work Order/Contract/ Invoice Number: **MS-586937**

6. Item:	7. Description:	8. Part Number:	9. Quantity:	10. Serial Number:	11.Status/Work:
1.1	Aircraft Engine	**HENPL-10844**	1	**L-10566-61A**	OVERHAULED

12. REMARKS: **ENGINE MODEL: TIO-540-AE2A**

This engine was overhauled in accordance with Lycoming Overhaul manual 60294-7 Revision July 2011 and all applicable Lycoming and FAA service documents.
Full details of work carried out per work order on file at Lycoming Engines.

13a. Certifies the items identified above were manufactured in conformity to: ___ Approved Design data and are in a condition for safe operation. __ Non-approved design data specified in Block 12.		14a. _X_ 14 CFR 43.9 Return to Service ___ 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: [redacted]	14c. Approval/Certificate No.: EJ1R115K
13d. Name (Typed or Printed):	13e. Date (dd/mmm/yyyy):	14d. Name (Typed or Printed): J. DABBACK	14e. Date (dd/mmm/yyyy): 25-MAY-2023

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:	2.	3. Form Tracking Number:
FAA/UNITED STATES	**AUTHORIZED RELEASE CERTIFICATE** **FAA Form 8130-3, AIRWORTHINESS APPROVAL TAG**	ST0972958
4. Organization Name and Address: Piper Aircraft, Inc [redacted]	**PC 206**	5. Work Order / Contract / Invoice Number: ST0972958 / 210008000 / SH0280521 Page 1 of 1

6. Item:	7. Description:	8. Part Number:	9. Quantity:	10. Serial Number:	11. Status/Work:
10	MOUNT ASSY - ENGINE	89137-043	3 ea	S/N M01362578, M01362576, M01362568	NEW

12. Remarks:

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

[X] Approved design data and are in condition for safe operation.

[ ] Non-approved design data specified in Block 12.

14a. [ ] 14 CFR 43.9 Return to Service/ [ ] 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.:
[redacted]	PC206		
13d. Name (Typed or Printed):	13e. Date (dd/mmm/yyyy):	14d. Name (Typed or Printed):	14e. Date (dd/mmm/yyyy):
Wilson, James	20/Apr/2023		

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.

Boeing Distribution, Inc. - TRUE CERTIFIED COPY | 04/27/2023 | Ship #: 8011716722 | Line: 10 | 7365976035 | Qty: 1 | CPO: P15035

1. Approving Civil Aviation Authority/Country:	2.	3. Form Tracking Number:
FAA/ United States	**AUTHORIZED RELEASE CERTIFICATE** **FAA Form 8130-3, AIRWORTHINESS APPROVAL TAG**	64160
4. Organization Name and Address: PROFESSIONAL AIRCRAFT ACCESSORIES INC [redacted]		**5. Work Order/Contract/Invoice Number:** 64160

6. Item:	7. Description:	8. Part Number:	9. Quantity:	10. Serial Number:	11. Status/Work:
1	HARTZELL PROP GOVERNOR	S-1-30	1	G356NJ	OVERHAULED

12. Remarks:

THIS PART WAS OVERHAULED & TESTED IN ACCORDANCE WITH CURRENT OVERHAUL MANUAL 130B REV 25
AND IN ACCORDANCE WITH FAA REGULATIONS.

13a Certifies the items identified above were manufactured in conformity to: ☐ Approved design data and are in a condition for safe operation. ☐ Non-approved design data specified in Block 12.		14a. ☒ 14 CFR 43.9 Return to Service ☐ Other regulations 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.:**	**14** [redacted]	**c. Approval/Certificate No.:** CRS# PO5R554Y
13d. Name (Typed or Printed):	**13e. Date (dd/mmm/yyy):**	**14d. Name (Typed or Printed):** RICHARD D BOURBEAU	**14e. Date (dd/mmm/yyy):** 26/JUL/2023

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: H-X042707
4. Organization Name and Address: HARTZELL ENGINE TECHNOLOGIES, [redacted] PQ1383CE-D		5. Work Order/Contract/Invoice Number: M701240

6. Item:	7. Description:	8. Part Number:	9. Quantity:	10. Serial Number:	11. Status/Work:
1	STARTER **** END ****	149NL/EC	1	H-X042707	NEW

12. Remarks:

AIRWORTHINESS APPROVAL- PARTS.FOR PMA ELIGIBILITY SEE WWW.HARTZELL.AERO/PMA/

13a. Certifies the items identified above were manufactured in conformity to: ☒ Approved design data and are in a condition for safe operation. ☐ Non-approved design data specified in Block 12.		14a. ☐ 14 CFR 43.9 Return to Service ☐ 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: [redacted]	13c.Approval/Authorization No.: ODA-100082-CE	14b. Authorized Signature:	14c. Approval/Certificate No:
13d. Name (Typed or Printed): Daniel W Paul	13e. Date (dd/mmm/yyyy): 02-May-2023	14d. Name (Typed or Printed):	14e. Date (dd/mmm/yyyy):

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 Block 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.

HARTZELL
ENGINE TECHNOLOGIES
MONTGOMERY, ALABAMA USA

[redacted]
(334) 38

Packing List No.: 318458
Company: 1 HARTZELL ENGINE
Warehouse: 1
Ship Date: 9/15/23
Ship No.: 704961

SOLD to
WARRANTY SHIPPERS
HARTZELL ENGINE TECHNOLOGIES
[redacted]

SHIP to
SELECT AIRCRAFT SERVICE
[redacted]

ORDER NUMBER	ORDER DATE	P.O. NUMBER	CARRIER	TRACKING NO.
CO 778078	9/08/23	SELECT AIRCRAFT	UPS NEXT DAY AIR	1Z3547E20179982167

LINE NO	ITEM NUMBER	ITEM DESCRIPTION	PACKED QUANTITY	REMAINING ON ORDER	UM
	-HER THAN THE AUTHORIZED -ULTIMATE CONSIGNEE OR EN -D-USER(S), EITHER IN THE -IR ORIGINAL FORM OR AFTE -R BEING INCORPORATED INT -O OTHER ITEMS,WITHOUT FI -RST OBTAINING APPROVAL -FROM THE U.S. GOVERNMENT -OR AS OTHERWISE AUTHORIZ -ED BY U.S. LAW AND REGUL -ATIONS.				
	WARR RPR GARR Shipment No-Serial/Batch No:	WARRANTY REPAIR GARRETT H-AAL00081	2 H-ZLL00010	0	EA
		** End of Packing List **			

WE HEREBY CERTIFY THAT ALL MATERIALS USED IN OVERHAUL, REPAIR, REBUILD OR MANUFACTURE OF THE ABOVE LISTED PARTS CONFORM TO THE MATERIAL AND/OR MANUFACTURING SPECIFICATIONS REQUIRED BY THE DRAWING OR SPECIFICATIONS AS CALLED FOR BY THE LISTED PURCHASE ORDER TEST REPORTS INDICATING CONFORMANCE WITH THE APPLICABLE REQUIREMENTS ARE ON FILE AT HARTZELL ENGINE TECHNOLOGIES [redacted] FACILITIES AND ARE AVAILABLE FOR EXAMINATION.

AUTHORIZED REPRESEN[redacted]

DATE 9-15-23

PAGE

BOX # - 001

1. Approving Civil Aviation Authority/Country: **FAA/UNITED STATES**	2. **AUTHORIZED RELEASE CERTIFICATE FAA FORM 8130-3, AIRWORTHINESS APPROVAL TAG**	3. Form Tracking Number: **L-10566-61A**
4. Organization Name and Address: Lycoming Engines, [redacted] 17701 EJ1R115K		5. Work Order/Contract/ Invoice Number: **MS-586937**

6. Item:	7. Description:	8. Part Number:	9. Quantity:	10. Serial Number:	11.Status/Work:
1.1	Aircraft Engine	**HENPL-10844**	1	**L-10566-61A**	OVERHAULED

12. REMARKS: **ENGINE MODEL: TIO-540-AE2A**

This engine was overhauled in accordance with Lycoming Overhaul manual 60294-7 Revision July 2011 and all applicable Lycoming and FAA service documents.
Full details of work carried out per work order on file at Lycoming Engines.

13a. Certifies the items identified above were manufactured in conformity to: ___ Approved Design data and are in a condition for safe operation. __ Non-approved design data specified in Block 12.		14a. _X_ 14 CFR 43.9 Return to Service ___ 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: [redacted]	14c. Approval/Certificate No.: EJ1R115K
13d. Name (Typed or Printed):	13e. Date (dd/mmm/yyyy):	14d. Name (Typed or Printed): J. DABBACK	14e. Date (dd/mmm/yyyy): 25-MAY-2023

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.

Form FAAR (REV.02/11)

LYCOMING

Airworthiness Directive Compliance List

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

Sign for AD's Coded 1 (Applicable to engine Model)

Engine Model No: **TIO-540-AE2A** Engine SN: **L-10566-61A** **11-JUL-23**

AD No. / Rev	SB / Rev	Description	Method of Compliance	Next Due	Code
89-15-10	487	Fuel Pump vent restriction	Serviceable or unaffected unit installed	N/A	1
92-12-05	501/B	LW-14077 Piston Pin	Serviceable or unaffected unit installed	N/A	1
97-15-11	527/C	Recall of Piston Pin P/N LW-14077	Serviceable or unaffected unit installed	N/A	1
2002-19-03	553	Crankshaft Inspection for Lycoming 6 cylinder Turbo Engines	Serviceable or unaffected unit installed	N/A	1
2003-14-03	529/B	Rotary Fuel Pump torque	Serviceable or unaffected unit installed	N/A	1
2004-05-24	554	Crankshaft Gear Retaining Bolt replacement	Serviceable or unaffected unit installed	N/A	1
2005-12-06	425/C	Inspection of impulse couplings and stop pins	Serviceable or unaffected unit installed	as per AD	1
2005-19-11	566	Crankshaft replacement	Serviceable or unaffected unit installed	N/A	1
2009-02-03	581	Inspection of Precision Airmotive Hex Plug in regulator cover	Serviceable or unaffected unit installed	N/A	1
2010-07-08		Kelly Aerospace Energy Systems rebuilt turbocharger	Serviceable or unaffected unit installed	N/A	1
2011-13-03	-	Hartzell Turbocharger	Serviceable or unaffected unit installed	N/A	1
2012-03-06	596	Avstar Fuel System fuel servo diaphragm	Serviceable or unaffected unit installed	N/A	1
2012-19-01	569/A	CRANKSHAFT REPLACEMENT	Serviceable or unaffected unit installed	N/A	1
2015-19-07	342/G	FUEL LINE AND SUPPORT CLAMP INSPECTION & INSTALL.	Fuel lines routed and clamped per AD requirements	100 HOURS	1
75-09-15	382	Bendix Fuel Injector RS-43 Inspect/replace Flow Divider gasket	Serviceable or unaffected unit installed	N/A	2
78-23-10	428,29,30	Bendix Injector RS52, RS 53 RS 54 all Rev 2	Serviceable or unaffected unit installed	N/A	2
79-04-05	433/A	Bendix Fuel Injector Bulletin RS-57	Serviceable or unaffected unit installed	N/A	2
87-10-06/R1	477/A	Inspection & rework of LW-18790 Rocker Arm Assembly	LW-18790 rocker arms not installed	N/A	2
91-08-07	494, 497	Installation of restricted Fuel Pump Vent fittings	Serviceable or unaffected unit installed	N/A	2
91-08-07	494	INSTALLATION OF RESTRICTED FUEL PUMP VENT FITTINGS	INST. NEW RESTRICTED FITTING	N/A	2
93-11-11		Fuel Pump Aero Accessories, Inc. Mandatory Service Bulletin No. 001	Serviceable or unaffected unit installed	N/A-Once	2
95-26-02	398	Engine operated with Low Octane Fuel	Engine is new or rebuilt at Manufacturer	N/A	2
91-10-04	491/A	Inspection of Exhaust Transition bolts	Serviceable or unaffected unit installed	N/A	3
2004-10-14	475/C	Crankshaft Gear Modification and Assembly procedures	Serviceable or unaffected unit installed	N/A	3

Codes: 1 = AD Appli

Form ET-001(Rev 10/10)

LYCOMING

Record of Accessories and Major Parts Shipped with Engine

Model No: **TIO-540-AE2A** Serial No: **L-10566-61A** ENPL: **HENPL-10844**
Order No: **NFR10566** TC No: **E14EA** Date: **11-JUL-2023** Inspector: QC 11

All accessories listed are 0 (zero) time since New or 0 (zero) time since Overhaul. All accessories are new unless part number is succeeded by -85 or -70

Part Name	Part Number	Manufacture	Serial#	Setting
AB Press. Controller	LW-14445-2-85	Hartzell	H-ZAO00122	
Bypass Valve	47E21296-85	Hartzell	H-ZAO00117	
Crankcase Match No	11F24023-S3		K1702	
Crankshaft Serial No	13F47738-70		V537955031	
Cylinder 1	16A30161-01	Lycoming	39228565-052	
Cylinder 2	16A30161-01	Lycoming	39228565-055	
Cylinder 3	16A30161-01	Lycoming	39228565-043	
Cylinder 4	16A30161-01	Lycoming	39228565-053	
Cylinder 5	16A30161-01	Lycoming	39228565-045	
Cylinder 6	16A30161-01	Lycoming	39228565-047	
Fuel Pump	62E23186	Hartzell	H-ZHN038FP	
Ignition Harness - Left	67J20609-P	SLICK		
Ignition Harness - Right	67J20608-P	SLICK		
Injector	61M26354-70	Avstar	70007902	2549038-4
Intercooler	42K19867	Niagara	D22-13091-13	
Intercooler	42K19867	Niagara	B22-12295-05	
Magneto - Left	66LR30SCNP	SLICK	23010405	Slick pn 6363
Magneto - Right	66LP-0SCNP	SLICK	22050256	Slick pn 6360
Manifold Assy	63B26718		AV56937750	
Press. Controller	48E21383	Hartzell	H-ZKN00205	
Spark Plug	1182-L7	Champion		
Turbocharger - Left	46C19839	Hartzell	H-ZLL00010	TA0411-466642-5
Turbocharger - Right	46C19839	Hartzell	H-AAL00081	TA0411-466642-5