

N1640C

THE **adlog**™
AIRCRAFT
MAINTENANCE
RECORDKEEPING
SYSTEM

**ENGINE
MAINTENANCE
RECORDS**



ENGINE MAINTENANCE RECORDS

Log No. 2

Aircraft Registration No. N1640C

Engine Manufacturer Teledyne Continental

Model I0-550-N

Serial No. 687494

Date installed on aircraft 5/12/2011

Time Between Overhauls (TBO) 2000 Hours

- If used on multi-engine aircraft:
- Right Left
 - Front Rear

(All applicable information must be filled in)



AEROTECH PUBLICATIONS INC.

TOTALS brought forward from previous page

1. Approving National Aviation Authority/Country: UNITED STATES		AUTHORIZED RELEASE CERTIFICATE FAA Form 8130-3, AIRWORTHINESS APPROVAL TAG					3. Form Tracking Number: Invoice # 6755	
4. Organization Name and Address: SIGNATURE ENGINES, INC., 4760 AIRPORT ROAD, HANGAR 6, LUNKEN AIRPORT, CINCINNATI, OHIO 45226						5. Work Order/Contract/Invoice Number: E4746		
6. Item:	7. Description:	8. Part Number:	9. Eligibility:	10. Quantity:	11. Serial/Batch Number:	12. Status/Work:		
1	TELEDYNE CONTINENTAL ENGINE	IO-550-N	N/A	1	687494	OVERHAULLED		
13. Remarks: THIS ENGINE HAS BEEN OVERHAULED IN ACCORDANCE WITH THE APPLICABLE CONTINENTAL MANUALS. A LIST OF ALL PARTS, F.A.A. AIRWORTHINESS DIRECTIVES AND MANUFACTURER'S SERVICE BULLETINS COMPLIED WITH ARE A PART OF THESE RECORDS. ALL PARTS HAVE BEEN INSPECTED AND HAVE BEEN DETERMINED AIRWORTHY TO RETURN TO SERVICE. ENGINE TEST RUN PER OVERHAUL MANUAL. TEST SHEET FURNISHED. THIS ENGINE IS RETURNED TO SERVICE. 6 Factory New Steel Cylinders 2 Magnetos 1 Harness 1 Fuel Injection 1 Set of New Spark Plugs Engine T S M O H 0 0 Hours Engine T T 2078 9 Hours								
14. Certifies the items identified above were manufactured in conformity to: <input type="checkbox"/> Approved design data and are in condition for safe operation. <input type="checkbox"/> Non-approved design data specified in Block 13.				19. <input checked="" type="checkbox"/> 14 CFR 43.9 Return to Service <input type="checkbox"/> Other regulation specified in Block 13 Certifies that unless otherwise specified in block 13, the work identified in Block 12 and described in Block 13 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.				
15. Authorized Signature:		16. Approval/Authorization No.:		20. Authorized Signature: <i>Steven A. Darr</i>		21. Approval/Certificate No.: E5ZR316Y		
17. Name (Typed or Printed):		18. Date:		22. Name (Typed or Printed): Steven A. Darr, Inspector		23. Date (m/d/y): May 2, 2011		
User/Installer Responsibilities								
It is important to understand that the existence of this document alone does not automatically constitute authority to install the part/component/assembly. Where the user/installer performs work in accordance with the national regulations of an airworthiness authority different than the airworthiness authority of the country specified in Block 1, it is essential that the user/installer ensures that his/her airworthiness accepts parts/components/assemblies from the airworthiness authority of the country specified in Block 1. Statements in Blocks 14 and 19 do not constitute installation certification. In all cases, aircraft maintenance records must contain an installation certification issued in accordance with the national regulations by the user/installer before the aircraft may be flown.								

FAA Form 8130-3 (6-01)

*Installer must cross-check eligibility with applicable technical data.

NSN. 0052-00-012-9005



4510 Airport Rd.
Cincinnati OH 45226
(513) 321-1200



N1640C ENG. S/N: 687494 Date: 5/12/2011 Engine Flight 0.0 TSN: 2078.9 TSMOH: 0.0

- This engine reinstalled in aircraft after overhaul by Signature Engines RS# E5ZR316Y
- Serviced oil with 8 qts of Aeroshell W100 straight mineral oil.
 - Installed new Saf-Air products oil drain valve p/n# S6250
 - Inspected fuel inlet filter.
 - Performed TCM SID97-3E functional inspection of fuel injection system.
 - Performed post maintenance engine run-up and leak check per TCM SB M89-7R1. No leaks noted. Aircraft test flown per service bulletin. Operational checks good.

I certify that this engine has been inspected and repaired in accordance with current regulations of the FAA and is approved for return to service.

Greg Herrmann 4069015631A

Greg Herrmann



4510 Airport Rd.
Cincinnati OH 45226
(513) 321-1200



N1640C ENG. S/N: 687494 Date: 5/27/2011 Engine Flight: 14.8 TSN: 2093.7 TSMOH: 14.8

I certify that I have inspected this engine. I/A/W an **Annual** inspection per Cirrus SR22 AMM rev. B Chapter 5-20 and determined it to be airworthy for return to service. The following work was accomplished at this time:

1. Inspected fuel inlet filter.
2. Performed TCM SID97-3E functional inspection of fuel injection system.
3. Performed post maintenance engine run-up and leak check. No leaks noted. Operational checks good.

I certify that this engine has been inspected and repaired in accordance with current regulations of the FAA and is approved for return to service.

Greg Herrmann 406901563IA



4510 Airport Rd.
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(513) 321-1200



N1640C

Date: 6/17/2011

Engine

Hobbs: 2147.8 Flight: 55.0

Changed engine oil. Serviced oil with 8 qts. of 15w-50wt Aeroshell. Installed new oil filter pn# AA48108-2. Cut open old filter and inspected for metal debris. None found. Inspected drain plug for debris. None found. Run-up checks good. No leaks noted.

Greg Herrmann 406901563IA



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Cincinnati OH 45226
(513) 321-1200



N1640C ENG. S/N: 687494 Date: 8/5/2011 Engine Flight: 115.4 TSN: 2194.3 TSMOH: 115.4

Inspected this engine. I/A/W an **Annual** inspection per Cirrus SR22 AMM rev. B1 Chapter 5-20

The following work was accomplished at this time:

1. Compressions: 1)72/80 2)65/80 3)72/80 4)70/80 5)74/80 6)72/80 master orifice 42psi.
2. Changed engine oil. Oil sample taken for analysis. Serviced oil with 8 qts of 15w-50wt Aeroshell.
3. Installed new oil filter p/n AA48108-2.
4. Inspected fuel inlet filter.
5. Installed new prop governor gasket p/n FH0502.
6. Performed TCM SID97-3E functional inspection of fuel injection system.
7. Performed post maintenance engine run-up and leak check. No leaks noted. Operational checks good.

I certify that this engine has been inspected and repaired in accordance with current regulations of the FAA and is approved for return to service.

Greg Herrmann 406901563IA



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(513) 321-1200



N1640C

Date: 9/16/2011

Engine

Hobbs: 2286.1 Flight: 167.3

Changed engine oil. Serviced oil with 8 qts. of 15w-50wt Aeroshell. Installed new oil filter pn# AA48108-2. Cut open old filter and inspected for metal debris. None found. Oil sample taken for analysis. Run-up checks good. No leaks noted.

Greg Herrmann 406901563IA

TOTALS-Carry forward to next page

DATE

CIRRUS
AIRCRAFT

N1640C ENG. S/N: 687494 Date: 3/1/2012 Engine Flight: 312.4 TSN: 2391.3 TSMOH: 312.4

Inspected this engine. I/A/W an Annual inspection per Cirrus SR22 AMM rev. B1 Chapter 5-20

The following work was accomplished at this time:

1. Compressions: 1)78/80 2)72/80 3)76/80 4)70/80 5)70/80 6)68/80 master orifice 42psi.
2. Inspected fuel inlet filter.
3. Performed TCM SID97-3E functional inspection of fuel injection system.
4. Performed post maintenance engine run-up and leak check. No leaks noted. Operational checks good.

I certify that this engine has been inspected and repaired in accordance with current regulations of the FAA and is approved for return to service.

Greg Herrmann 406901563IA



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Cincinnati OH 45226
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N1640C

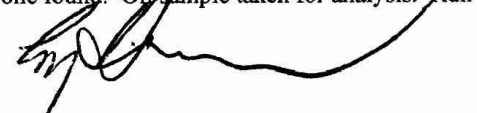
Date: 4/3/2012

Engine

Hobbs: 2536.9 Flight: 363.3

Changed engine oil. Serviced oil with 8 qts. of 15w-50wt Aeroshell. Installed new oil filter pn# AA48108-2. Cut open old filter and inspected for metal debris. None found. Oil sample taken for analysis. Run-up checks good. No leaks noted.

Greg Herrmann 406901563IA



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N1640C ENG. S/N: 687494 Date: 4/25/2012 Engine Flight: 409.3 TSN: 2488.2 TSMOH: 409.3

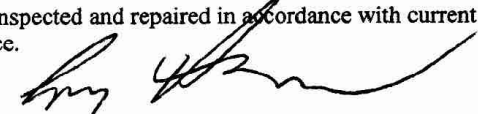
Inspected this engine. I/A/W an Annual inspection per Cirrus SR22 AMM rev. B1 Chapter 5-20

The following work was accomplished at this time:

1. Compressions: 1)78/80 2)66/80 3)68/80 4)71/80 5)70/80 6)70/80 master orifice 44psi.
2. Changed engine oil. Serviced oil with 8 qts. of 15w-50wt Aeroshell.
3. Installed new oil filter pn# AA48108-2. Cut open old filter and inspected for metal debris. None found.
4. Oil sample taken for analysis.
5. Inspected fuel inlet filter.
6. Left magneto drive gear found sheared. Installed repaired magneto p/n 10-50056-1 s/n off: D08DA192R s/n on: D07BA115.
7. Performed TCM SID97-3E functional inspection of fuel injection system.
8. Performed post maintenance engine run-up and leak check. No leaks noted. Operational checks good.

I certify that this engine has been inspected and repaired in accordance with current regulations of the FAA and is approved for return to service.

Greg Herrmann 406901563IA



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N1640C

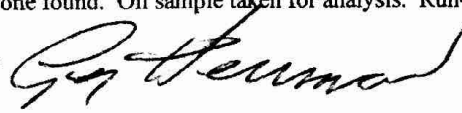
Date: 6/6/2012

Engine

Hobbs: 2679.0 Flight: 474.0

Changed engine oil. Serviced oil with 8 qts. of 15w-50wt Aeroshell. Installed new oil filter pn# AA48108-2. Cut open old filter and inspected for metal debris. None found. Oil sample taken for analysis. Run-up checks good. No leaks noted.

Greg Herrmann 406901563IA





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(513) 321-1200



N1640C ENG. S/N: 687494 Date: 6/29/2012 Engine Flight:509.8 TSN: 2588.7 TSMOH: 509.8

Inspected this engine. I/A/W an Annual inspection per Cirrus SR22 AMM rev. B1 Chapter 5-20

The following work was accomplished at this time:

1. Compressions: 1)78/80 2)79/80 3)76/80 4)73/80 5)78/80 6)70/80 master orifice 44psi.
2. Inspected fuel inlet filter.
3. Installed new air filter p/n ba-3.
4. Performed TCM SID97-3E functional inspection of fuel injection system.
5. Changed engine oil. Serviced oil with 8 qts. of 15w-50wt Aeroshell.
6. Installed new oil filter pn# AA48108-2. Cut open old filter and inspected for metal debris. None found.
7. Oil sample taken for analysis.
8. Performed post maintenance engine run-up and leak check. No leaks noted. Operational checks good.

I certify that this engine has been inspected and repaired in accordance with current regulations of the FAA and is approved for return to service.

Greg Herrmann 406901563IA

ORK



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(513) 321-1200



N1640C Date: 8/1/2012 Engine Hobbs:2779.5 Flight:553.2 TSMOH:553.2

1. Removed and replaced alternator p/n 646843 with overhauled unit. Serial number off: 004GA828R, on:008FA115.
2. Installed new manifold pressure sensor p/n 12635-001.
3. Run-up and operational tests good.

Greg Herrmann 406901563IA



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N1640C

Date: 8/9/2012

Engine

Hobbs: 2754.8 Flight: 556.9

Changed engine oil. Serviced oil with 8 qts. of 15w-50wt Aeroshell. Installed new oil filter pn# AA48108-2. Cut open old filter and inspected for metal debris. None found. Oil sample taken for analysis. Run-up checks good. No leaks noted.

Greg Herrmann 406901563IA



4510 Airport Rd.
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(513) 321-1200



N1640C ENG. S/N: 687494 Date: 9/26/2012 Engine Flight:604.0 TSN: 2682.9 TSMOH: 604.0

Inspected this engine. I/A/W an **Annual** inspection per Cirrus SR22 AMM rev. B1 Chapter 5-20

The following work was accomplished at this time:

1. Compressions: 1)74/80 2)78/80 3)76/80 4)70/80 5)74/80 6)67/80 master orifice 42psi.
2. Inspected fuel inlet filter.
3. Installed new #6 cht probe p/n 16578-001.
4. Performed TCM SID97-3E functional inspection of fuel injection system.
5. Changed engine oil. Serviced oil with 8 qts. of 15w-50wt Aeroshell.
6. Installed new oil filter pn# AA48108-2. Cut open old filter and inspected for metal debris. None found.
7. Oil sample taken for analysis.
8. Performed post maintenance engine run-up and leak check. No leaks noted. Operational checks good.

I certify that this engine has been inspected and repaired in accordance with current regulations of the FAA and is approved for return to service.

Greg Herrmann 406901563IA

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TOTALS-Carry forward to next page



Certified Repair Station E5ZR316Y
 4760 Airport Road, Hangar 6 513-871-9966 fax 513-871-9261
 Cincinnati, Ohio 45226

LOGBOOK ENTRY

Date: 12/11/2013 Model: IO-550-N S/N: 687494 W.O. E5931 Hobbs: 871.9

Disassembled engine for inspection. Magnafluxed crankshaft, OK. Crankshaft sent to Phils Cylinder Service for UT inspection and installed. Zygloed crankcase OK. Assembled engine with new gaskets, main bearings, rod bearings, adp bearings, c.w. pins, blade bushings, c.w. plates, c.w. circlips, r/g lifters, crank bolts, mag couplings, lock plates, lock washers, alternator gear bolts, camshaft bolts, rod bolts, and rod nuts. A copy of all A.D. complied with and parts sheet supplied. Test ran engine to check operations. This engine is in serviceable condition. END


 Terrence McRoberts, Inspector



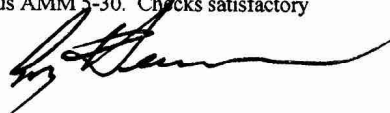
4510 Airport Rd. Cincinnati OH 45226 (513) 321-1200



N1640C Date: 12/20/2013 Engine S/N 687494 Flight: 871.9 TSMOH: 871.9

1. Installed engine per Cirrus AMM 71-00 after repair of crankshaft starter gear bolts by Signature Engines CRS# E5ZR316Y under Work Order E5931.
2. Installed new alternate air support tube p/n 18293-001.
3. Installed repaired prop governor after repair of leak by Professional Aircraft Accessories under WO#571409.
4. Serviced engine with 8 qts. Aeroshell 15w50wt oil.
5. Installed new oil filter p/n AA48108-2.
6. Removed faulty Tanis sump heater and installed Reiff Hotstrip oil sump heater p/n 08-00688. Weight change negligible.
7. Engine run-up accomplished per Cirrus AMM 5-30. Checks satisfactory

Greg Herrmann 406901563IA





4510 Airport Rd.
 Cincinnati OH 45226
 (513) 321-1200



N1640C Date: 3/18/2014 Engine Hobbs: 3288.1 Flight: 957.6

1. Changed engine oil. Serviced oil with 8 qts. of 15w-50wt Aeroshell.
2. Installed new oil filter pn# AA48108-2. Cut open old filter and inspected for metal debris. None found.
3. Oil sample taken for analysis.
4. Installed new oil pressure transducer p/n 12635-004.
5. Run-up checks good. No leaks noted.

Greg Herrmann 406901563IA



Signature

ENGINES, INC.

SEF #1

4760 Airport Road Cincinnati, Ohio 45226
 (513) 871-9966 fax (513) 871-9261
 Repair Station #E5ZR316Y

ENGINE OVERHAUL / T.D.I. RECORD

MAKE: <u>Coult</u>	MODEL: <u>10 550 N</u>	S/N.: <u>687494</u>
RATED H.P.: <u>310</u>	RATED R.P.M.: <u>2700</u>	T.C. NO.: <u>E350</u>
WORK ORDER NO.: <u>E5931</u>	CYL. TYPE: <u>STEEL</u>	DATE COMPLETE: <u>12/9/13</u>

Engine T.S.M.O.: _____ Hr. Engine T.T.S.N.: _____ Hr.

Technician Signature: _____ Inspector Signature: _____

Prop Dowel Bushings: _____ Crankshaft S.N.: N05AA503 Case Match #: _____
 Rod Journals Dia: STD Cam Gear Backlash: N Prop Drive Geag Backlash: _____
 Main Journals Dia: STD Mag. Drive Gear Backlash: N Mag. Drive Gear Bearing: _____
 Rods Torqued: N AS C/W Pins, Plates, Rings: N AS Camshaft Saddle: (std) P20
 Crank End Clearance: N Crankcase Plugs: N Sludge Tubes: _____
 Oil Pump Gear To Housing: N Crank C. W. Bushings: N Cylinder Torqued: N AS
 Valve Clearance: N AS Oil Pump Gears: N Cam To Crank Timing: N AS
 Crankshaft Oil Passage: N Crankcase Oil Passage: _____ Thrust Clearance Face: 1010 Stinger: _____
 Mag. To Eng. Timing: N S.B. 651 NA

AMT.	PART NUMBER	DESCRIPTION	\$ COST	AMT.	PART NUMBER	DESCRIPTION	\$ COST
1	<u>EQ7191</u>	GASKET SET				OIL DRAIN HOSES	
1	<u>SA64250</u>	OIL SEAL				COUNTERWEIGHT	
1	<u>AEC 646592A</u>	BEARING SET				COUNTERWEIGHT	
		BEARING				CAMSHAFT P/N	
		BEARING				VERNATHERM	
12	<u>SA 642398</u>	ROD BEARING				OIL PUMP KIT	
		SLUDGE TUBE		6	<u>S9 536379</u>	CRANK BOLT	
1	<u>SA 630899</u>	ADP. BEARING				R/A BUSHING	
4	<u>SA 643626-105</u>	C.W. PINS				R/A BUSHING	
2	<u>" -104</u>	C.W. PINS		4	<u>SA 638172</u>	MAG COUPLING	
2	<u>" -103</u>	C.W. PINS				PISTON	
		C.W. BUSHING		12	<u>SA 655958</u>	ROD BOLTS	
		C.W. BUSHING		12	<u>SA 654490</u>	ROD NUTS	
		C.W. BUSHING					
8	<u>S9 350998</u>	BLADE BUSHING		2	<u>SA 641909</u>	lock plate	
		BLADE BUSHING		4	<u>S9 644205</u>	Bolt	
16	<u>SA 643629</u>	C.W. PLATE		4	<u>621088-44</u>	Bolt	
16	<u>SA 629104</u>	C.W. CIRCLIP		24	<u>501848</u>	lock washer	
		CRANK PLUG					
		CONN. ROR PINS					
4	<u>SA 628488</u>	LIFTERS R6					
6	<u>653877</u>	LIFTERS R6					
		ROCKER SHAFT					
		INTAKE HOSES					

Continental Engine Assembly Inspection

Make	CONTINENTAL	Model	IO 550 N	Serial No.	682494
Work Order No.	E 5931	Inspector	Terry Roberts	Date	12/9/13

	Assembler Initial	Inspector Initial
Crankshaft Inner Plug	~	BS
Front Crankshaft Oil Seal	~	BS
Crankshaft Counterweight Bushings	~	BS
Counterweight Pins, Plate, Snap Ring And Bushings	~	BS
Connecting Rod Bearings (std) .010	~	BS
Connection Rod, Bolts, Torqued, Cotter Pins Bent Over	~	BS
Oil Transfer Collar And Clearance Checked	~	BS
Alternator Gear And Bolt On Crank Torqued And Safety	~	BS
Crankshaft Gear Bolts Torqued And Safety	~	BS
Camshaft Plug In The End Of Camshaft, Gear And Bolts. Torqued (Std) P20	~	BS
Clean All Oil Passages In Crankcase And Plugs Installed	~	BS
Check All Caste Surfaces	~	BS
Vacuum Pump Drive Gear To Camshaft Shims (O-200-Series)	NA	—
Crankshaft Main Bearings And Thrust Washers (std) .010	~	BS
Propeller Shaft Bearings	NA	—
Camshaft Saddle --(std)---P20	~	BS
Thru-Bolt O-Ring Seals Installed	~	BS
Starter Pivot Bearing	NA	—
Cyl. Base Studs Wired Brushed And Oiled After Cylinder Installed	~	BS
Cyl. Base Nuts Wired Brushed Inside And Oiled	~	BS
Cylinders And Cylinder Base O-Rings Installed	~	BS
Lifters And Plungers	~	BS
Push Rods And Push Rod Sockets	~	BS
Rocker Arms, Shafts, Spacers And Retainers	~	BS
Rocker Arm Shaft Retaining Bolts Torque And Safety	~	BS
Oil Pump Assembly Checked And Torque	~	BS
Oil Pressure Relief Valve And Spring	~	BS
Needle Bearing In Front Camshaft Bearing Support	NA	—
Retaining Plate, Bolts And Snap Ring In Prop Drive Gear Quill Shaft	NA	—
Oil Cooler, Baffle And Support	~	BS
Oil Suction Tube Bolts Torqued And Safety	~	BS
Needle Bearing In Accessory Drive Gear (GTSIO-520)	NA	—
Engine Mount Brackets Torqued	~	BS
Needle Bearing In Case For Starter Adapter	~	BS
Magneto Drive Gear Cushion	~	BS
Cylinder Base Nuts Torqued	~	BS

Signature
ENGINES, INC.

SEF #4
 4760 Airport Road Cincinnati, Ohio 45226
 (513) 871-9966 fax (513) 871-9261
 Repair Station # E5ZR316Y

Continental Connecting Rod Maintenance Release

Connecting Rod No. 655911 Bolt No. 655958
 Bushing No. 530658 Nut No. 654490

Rod No.	1	2	3	4	5	6
Rod Width At Crank	1.470	1.470	1.470	1.470	1.470	1.470
Crank End I.D.	2.375	2.375	2.375	2.375	2.375	2.375
Twist Check	+/- .007 ✓	+/- .007 ✓	+/- .007 ✓	+/- .007 ✓	+/- .007 ✓	+/- .007 ✓
Bend Check	+/- .005 ✓	+/- .005 ✓	+/- .005 ✓	+/- .005 ✓	+/- .005 ✓	+/- .005 ✓
Rods Weighted	+/- 1/2 oz. ✓	+/- 1/2 oz. ✓	+/- 1/2 oz. ✓	+/- 1/2 oz. ✓	+/- 1/2 oz. ✓	+/- 1/2 oz. ✓
Piston Pin To Rod Bushing Clearance						

Service Bulletins, Service Instructions, Service Letters & A.D. Notes Complied With

Number	Method of Compliance	Initial
S.B. M72-17R1	WEIGHT DIFFERENCE	RK
SB07-1	INSPECTION OF CONNECTING ROD BUSHING	RK

The Following Parts Have Been Replaced

Qty	Part No.	Part Description	Remarks
0	530658	BUSHING	MAGNAFLUXED REBUSHED LINE BORED BALANCED & CHECKED ALIGNMENT
12	655958	BOLT	LoT# 37117
12	654490	NUT	LoT# 31663

Technician *Ros R...* Date 12-3-13
 Inspector *[Signature]* Date 12/3/13

4. Organization AIRCRAFT SPECIALTIES SERVICES, INC. PHONE: (918) 836-6872
 2860 NORTH SHERIDAN ROAD FAX: (918) 836-4419
 TULSA, OK 74115
 FAA REPAIR STATION NO. DD2R764K

5. Work Order/
 Contract/Invoice No.
 222096

6. Item	7. Description	8. Part Number	9. Eligibility	10. Quantity	11. Serial/Part No	12. Status/Work
1.	LIFTER	SA628488	N/A	8	N/A	OVERHAUL

13. Remarks:
 LAW AIRCRAFT SPECIALTIES SERVICES DRAWING 2002-01
 PART TRACKING#: ASR-10-4-13

14. 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 13

19. 14 CFR 43.9 Return to Service Other regulation specified in Block 13

Certifies that unless otherwise specified in Block 13, the work identified in Block 12 and described in Block 13 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

15. Authorized Signature

16. Approval/
 Authorization No.

20. Authorized Signature

21. Approval/
 Certificate No.

DD2R764K

17. Name (Typed or Printed)

18. Date (m d y)

22. Name (Typed or Printed)

23. Date (m d y)

Cary Van Deventer

NOV 27 2013

User/Installer Responsibilities

It is important to understand that the existence of this document alone does not automatically constitute authority to install the part/component/assembly.

Where the user/installer 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 parts/components/assemblies from the Airworthiness Authority of the country specified in Block 1.

Statements in Block 14 and 19 do not constitute installation certification. In all cases, aircraft maintenance records must contain an installation certification issued in accordance with the national regulations by the user/installer before the aircraft may be flown.


1. Approving National Aviation Authority / Country FAA / United States	2. AUTHORIZED RELEASE CERTIFICATE FAA Form 8130-3 AIRWORTHINESS APPROVAL TAG	3. Form Tracking No: ASI-019350
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4. Organization AIRCRAFT SPECIALTIES SERVICES, INC. PHONE: (918) 836-6872 2860 NORTH SHERIDAN ROAD FAX: (918) 836-4419 TULSA, OK 74115 FAA REPAIR STATION NO. DD2R764K	5. Work Order/ Contract/Invoice No. 221333
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6. Item	7. Description	8. Part Number	9. Eligibility	10. Quantity	11. Serial/Batch No	12. Status/Work
1.	LIFTERS	653877	N/A	6	N/A	OVERHAUL

13. Remarks:
LAW AIRCRAFT SPECIALTIES SERVICES DRAWING 2002-01
PART TRACKING#: ASR-9-10-13

14. Certifies the items identified above were manufactured in conformity to <input type="checkbox"/> Approved design data and are in a condition for safe operation. <input type="checkbox"/> Non-approved design data specified in Block 13	19. <input checked="" type="checkbox"/> 14 CFR 43.9 Return to Service <input type="checkbox"/> Other regulation specified in Block 13 Certifies that unless otherwise specified in Block 13, the work identified in Block 12 and described in Block 13 was accomplished in accordance with Title 14, Code of Federal Regulations, part 43 and in respect to that work, the items are approved for return to service.
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15. Authorized Signature	16. Approval/ Authorization No.	20. Authorized Signature 	21. Approval/ Certificate No. DD2R764K
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17. Name (Typed or Printed)	18. Date (m d y)	22. Name (Typed or Printed) Cary Van Deventer	23. Date (m d y) OCT 10 2013
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User/Installer Responsibilities

It is important to understand that the existence of this document alone does not automatically constitute authority to install the part/component/assembly.

Where the user/installer 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 parts/components/assemblies from the Airworthiness Authority of the country specified in Block 1.

Statements in Block 14 and 19 do not constitute installation certification. In all cases, aircraft maintenance records must contain an installation certification issued in accordance with the national regulations by the user/installer before the aircraft may be flown.

Signature

ENGINES, INC.

SEF #10

4760 Airport Road Cincinnati, Ohio 45226
(513) 871-9966 fax (513) 871-9261
Repair Station # E5ZR316Y

ENGINE TEST LOG FOR SHIPPED ENGINE

ENGINE MODEL IO-550-N ENGINE S/N 687494 T/C # E3SO
 WORK ORDER NO. E5931 TEST OPERATOR Douglas P Kleeman DATE 12/11/13

TOTAL TIME	R.P.M.	M.P.	OIL PRESS	OIL TEMP	C.H.T. #1	C.H.T. #2	C.H.T. #3	C.H.T. #4	C.H.T. #5	C.H.T. #6	C.H.T. #7	C.H.T. #8
5	1200	15	59	128	217	223	215	220	223	219		
5	1600	17	50	159	263	272	257	265	253	257		
5	2100	21	50	185	307	318	306	304	310	312		
5	2400	24	52	185	381	386	394	388	384	390		
10	2700	27	56	185	436	442	439	432	437	440		
10	1025	15	42	167	234	229	224	232	238	240		
5	600	14	33	156	221	221	205	206	209	216		
15	2025	20	48	185	294	294	284	281	287	291		
15	2025	20	48	185	291	299	289	279	286	292		
5	2000	20	48	185	289	283	277	274	279	282		
5	2700	24	56	185	424	433	430	420	422	437		
5	2025	20	48	185	287	296	281	275	280	293		
5	600	14	33	157	219	219	237	226	213	231		
15	2025	20	48	187	288	294	283	277	279	289		
15	2025	20	48	185	290	290	280	274	282	285		
10	600	14	33	167	199	194	206	200	187	197		

TOTAL TIME 2.25

Tach Drive Check 1/A Prop Gov Pad 37 Mag To Eng. Timing DK 22°

Magcheck RPM 2100 L/M RPM Drop 58 R/M RPM Drop 63 Carb. F.I/O/H-Test

Idle Mixture Check OK Idle Cut Off OK T.O. R.P.M. Oil Pressure 56 Supplied Fuel Pressure 8

Idle RPM 600 Idle Oil Pressure 33 Idle Fuel Pressure 1/A T.O. Fuel Pressure 1/A

Idle Unmeter F/P 12 Idle Meter F/P 5 Meter F/P T.O. 23 Unmeter F/P T.O. 35

M89-7R1 Engine operation after cylinder replacement and or major overhaul. DK
RUNNING VISUAL INSPECTION Douglas P Kleeman DATE 12/11/13

INSPECTOR [Signature] DATE 12/11/13



4510 Airport Rd.
Cincinnati OH 45226
(513) 321-1200



N1640C ENG. S/N: 687494 Date: 5/5/2014 Engine Flight: 998.3 TSN: 3076.8 TSMOH: 906.0

Inspected this engine. I/A/W an Annual inspection per Cirrus SR22 AMM rev. B1 Chapter 5-20

998.3

The following work was accomplished at this time:

1. Compressions: 1)74/80 2)68/80 3)73/80 4)66/80 5)72/80 6)64/80 master orifice 42psi.
2. Inspected fuel inlet filter.
3. Cleaned fuel nozzles.
4. Installed new induction air filter p/n BA-3.
5. Performed functional inspection of fuel injection system per TCM M-16 overhaul manual.
6. Changed engine oil. Serviced oil with 8 qts. of 15w-50wt Aeroshell.
7. Installed new oil filter pn# AA48108-2. Cut open old filter and inspected for metal debris. None found.
8. Oil sample taken for analysis.
9. Performed post maintenance engine run-up and leak check. No leaks noted. Operational checks good.

I certify that this engine has been inspected and repaired in accordance with current regulations of the FAA and is approved for return to service.

Greg Herrmann 406901563IA



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N1640C Date: 6/27/2014 Engine Hobbs: 3405.0 Flight: 1052.0 TSMOH: 1052.0

1. Changed engine oil. Serviced oil with 8 qts. of 15w-50wt Aeroshell.
2. Installed new oil filter pn# AA48108-2. Cut open old filter and inspected for metal debris. None found.
3. Oil sample taken for analysis.
4. Run-up checks good. No leaks noted.

Greg Herrmann 406901563IA



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N1640C ENG. S/N: 687494 Date: 8/28/2014 Engine Flight: 1099.1 TSN: 3177.0 TSMOH: 1099.1

Inspected this engine. I/A/W an Annual inspection per Cirrus SR22 AMM rev. B1 Chapter 5-20

The following work was accomplished at this time:

1. Compressions: 1)66/80 2)68/80 3)72/80 4)76/80 5)70/80 6)71/80 master orifice 42psi.
2. Inspected fuel inlet filter.
3. Performed functional inspection of fuel injection system per TCM M-16 overhaul manual.
4. Changed engine oil. Serviced oil with 8 qts. of 15w-50wt Aeroshell and 12oz. of CamGuard.
5. Installed new oil filter p/n AA48108-2. Cut open old filter and inspected for metal debris. None found.
6. Oil sample taken for analysis.
7. Performed post maintenance engine run-up and leak check. No leaks noted. Operational checks good.

I certify that this engine has been inspected and repaired in accordance with current regulations of the FAA and is approved for return to service.

Greg Herrmann 406901563IA



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N1640C Date: 11/25/2014 Engine Hobbs: 3527.3 Flight: 1150.3 TSMOH: 1150.3

1. Changed engine oil. Serviced oil with 8 qts. of 15w-50wt Aeroshell.
2. 12 oz. CamGuard added
3. Installed new oil filter pn# AA48108-2. Cut open old filter and inspected for metal debris. None found.
4. Oil sample taken for analysis.
5. Run-up checks good. No leaks noted.

Greg Herrmann 406901563IA



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(513) 321-1200



N1640C ENG. S/N: 687494 Date: 3/31/2015 Engine Flight: 1199.2 TSN: 3277.1 TSMOH: 1199.2

Inspected this engine. I/A/W an Annual inspection per Cirrus SR22 AMM rev. B1 Chapter 5-20

The following work was accomplished at this time:

1. Compressions: 1)67/80 2)66/80 3)67/80 4)70/80 5)63/80 6)65/80 master orifice 42psi.
2. Inspected fuel inlet filter.
3. Changed engine oil. Serviced oil with 8 qts. of 15w-50wt Aeroshell and 12oz. of CamGuard.
4. Installed new oil filter p/n AA48108-2. Cut open old filter and inspected for metal debris. None found.
5. Oil sample taken for analysis.
6. Installed 2 new spark plugs p/n URHB32E.
7. Installed new lh tailpipe bonding strap p/n MS25083-6BB6.
8. Performed post maintenance engine run-up and leak check. No leaks noted. Operational checks good.

I certify that this engine has been inspected and repaired in accordance with current regulations of the FAA and is approved for return to service.

Greg Herrmann 406901563IA



AIRCRAFT REG: N1640C

MFG: T.C.M.

MODEL: IO-550-N(7)

SERIAL: 687494

HOUR METER: 3598.0

DATE: 4/7/15

WORK PACKAGE: P5344

TACH TIME: 1207.1 (FT)

TOTAL TIME:

TSMOH:

Removed starter P/N: C24ST5, S/N: 4C5-241320, installed new P/N: C24ST5, S/N: 4C5-131502, referenced Sky-Tec C24ST5 Installation drawing 60001, Rev. C, dated 08/10/09, engine crank checked good.

FAA - PMA

Page No. _____

This tag certifies that Sky-Tec Model No. C24ST5
Serial No. 4C5-131502 was manufactured new on 01 Apr 2015
by Sky-Tec under the authority of FAA-PMA No. PQ0852SW
Supplement No. 6 in accordance with Sky-Tec's
FAA-Approved Quality System (14CFR Part 21, Subpart K).
This article has been determined to be airworthy.

For installation eligibility see www.skytecair.com/eligibility.htm
Installed on N 1640C by [Signature]
(Aircraft) (Mechanic)
ESM 6880

DESCRIPTION OF WORK PERFORMED—
& CERTIFICATE NO. OF PERSON PERFORMING WORK

forward from previous page

Form CC1108-1



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N1640C Date: 7/1/2015 Engine Hobbs: 3651.0 Flight: 1251.4 TSMOH: 1251.4

1. Changed engine oil. Serviced oil with 8 qts. of 15w-50wt Aeroshell.
2. 12 oz. CamGuard added
3. Installed new oil filter pn# AA48108-2. Cut open old filter and inspected for metal debris. None found.
4. Oil sample taken for analysis.
5. Installed new intake air filter p/n BA-24.
6. Run-up checks good. No leaks noted.

Greg Herrmann 4069015631A

[Signature]



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N1640C ENG. S/N: 687494 Date: 4/1/2016 Engine Flight: 1324.1 TSN: 3402.0 TSMOH: 1324.1

Inspected this engine. I/A/W an Annual inspection per Cirrus SR22 AMM rev. B1 Chapter 5-20
The following work was accomplished at this time:

1. Compressions: 1)66/80 2)60/80 3)60/80 4)60/80 5)60/80 6)66/80 master orifice 40psi.
2. Inspected fuel inlet filter.
3. Changed engine oil. Serviced oil with 8 qts. of 15w-50wt Aeroshell and 12oz. of CamGuard.
4. Installed new oil filter p/n AA48108-2. Cut open old filter and inspected for metal debris. None found.
5. Oil sample taken for analysis.
6. Installed new fuel line retainer brackets p/n 641559 and clips p/n 654236-1.
7. Installed new intake air cleaner p/n BA-24.
8. Installed new oil cooler p/n 654585 and gasket p/n 649989.
9. Installed new muffler p/n A14836-001 and heat exchanger p/n A14837-001.
10. Installed new #3 EGT probe p/n 16579-002.
11. Performed post maintenance engine run-up and leak check. No leaks noted. Operational checks good.

I certify that this engine has been inspected and repaired in accordance with current regulations of the FAA and is approved for return to service.

Greg Herrmann 4069015631A

[Signature]



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Cincinnati OH 45226
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N1640C ENG. S/N: 687494 Date: 4/4/2017 Engine Flight: 1393.4 TSN: 3471.3 TSMOH: 1393.4

Inspected this engine. I/A/W an **Annual** inspection per Cirrus SR22 AMM rev. B1 Chapter 5-20

The following work was accomplished at this time:

1. Compressions: 1)67/80 2)65/80 3)63/80 4)63/80 5)62/80 6)67/80 master orifice 42psi.
2. Inspected fuel inlet filter.
3. Changed engine oil. Serviced oil with 8 qts. of 15w-50wt Aeroshell and 12oz. of CamGuard.
4. Installed new oil filter p/n AA48108-2. Cut open old filter and inspected for metal debris. None found.
5. Oil sample taken for analysis.
6. Installed new fuel line retainer clip p/n 654236-1.
7. Installed new intake air cleaner p/n BA-24.
8. Installed new alternator #1 gasket p/n 653981.
9. Installed overhauled mechanical fuel pump p/n 65592-3A1 s/n B05GA248
10. Cleaned and flow checked fuel injectors.
11. Installed both magnetos after 500 hour inspection
12. Installed new intake air bolt p/n AN310.
13. Installed new prop gov cable retainer p/n
14. Performed post maintenance engine run-up fuel metering adjustments and leak check. No leaks noted. Operational checks good.

I certify that this engine has been inspected and repaired in accordance with current regulations of the FAA and is approved for return to service.

Greg Herrmann 406901563IA





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N1640C Date: 7/20/2017 Engine S/N 687494 Flight: 1423.5 TSMOH: 1423.5

1. Installed new #1 exhaust head pipe p/n 15080-001.

Greg Herrmann 406901563IA



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N1640C ENG. S/N: 687494 Date: 4/19/2018 Engine Flight: 1464.4 TSN: 3542.3 TSMOH: 1464.4

Inspected this engine. I/A/W an **Annual** inspection per Cirrus SR22 AMM rev. B1 Chapter 5-20

The following work was accomplished at this time:

1. Compressions: 1)68/80 2)68/80 3)65/80 4)68/80 5)62/80 6)63/80 master orifice 42psi.
2. Inspected fuel inlet filter.
3. Installed new gascolator o-ring p/n NAS1523-8B.
4. Changed engine oil. Serviced oil with 8 qts. of 15w-50wt Aeroshell and 12oz. of CamGuard.
5. Installed new oil filter p/n AA48108-2. Cut open old filter and inspected for metal debris. None found.
6. Oil sample taken for analysis.
7. Installed 1 new sparkplug p/n URHB32E.
8. Installed new intake air cleaner p/n BA-24.
9. Cleaned and flow checked fuel injectors.
10. Performed post maintenance engine run-up fuel metering adjustments and leak check. No leaks noted. Operational checks good.

I certify that this engine has been inspected and repaired in accordance with current regulations of the FAA and is approved for return to service.

Greg Herrmann 406901563IA