



39320 B AVE
ZEPHYRHILLS, FL 33542

FAA CERTIFIED REPAIR STATION # VI4R597M

813-788-3305
FAX 813-788-4412

DATE: 7/31/2023

W.O.# 223061

Madison Air LLC
7450 Old Canton Rd.
Madison, MS 39110

DESCRIPTION OF SERVICES:

CONTINENTAL IO-550-B (29) ENGINE SN 682611 DISASSEMBLED FOR A MAJOR OVERHAUL,
ALL PARTS CLEANED & INSPECTED, STEEL PARTS MAGNA FLUXED, ENGINE REASSEMBLED
IN ACCORDANCE WITH OVERHAUL MANUAL.

FLAT RATE PRICE PER QUOTE	\$	41,400.00
Starter Shaft	\$	2,740.00

SUBTOTAL:	\$	44,140.00
SALES TAX: 6%		TNOF
SALES TAX: 1% DISCRETIONARY TAX ON \$5,000.00		
FREIGHT	\$	-
TOTAL:	\$	44,140.00

WO # 223061

Continental IO-550-B (29)

Madison Air

<u>PART NUMBER</u>	<u>DESCRIPTION</u>	<u>QTY</u>
IO-550	Crankshaft R&M=M010 H209617N*	1
	*Repaired by Roman's	
IO-550	Crankcase CN 646201 MN K49601*	1
	*Repaired by Divco	
SA646550-A1	Gasket Set	1
641250	Nose Seal	1
653547 M010	Front Main Bearing	4
SA642398 M010	Rod Bearings	12
SA530658	Rod Bushing	6
655958	Rod Bolt	12
654490	Rod Nuts	12
629680 M010	Oil Transfer Collar	1
SA639193	Ct. Wt. Bushing	16
NAS1805-4	12 Point Nut	2
SA643629	Plate	16
SA629104	Snap Ring	16
SA643626-105	Roller	4
SA643626-104	Roller	2
SA643626-103	Roller	2
SA536379	Crk End Gear Bolt	6
654587-.44	Cam Gear Bolt	4
649205	Face Gear Bolt	4
SA641909	Face Gear Lock Plates	2
658716	Thrust Washers	4
634503 M010	Main Bearings	6
653058	Reground Camshaft	1
SA646277	Hyd. Lifters	6
SA628488	Hyd. Lifters	6
SA652984	R Arm Shaft	12
639305	Vernatherm	1
SA638172	Mag Cushions	4
642335A1A	Screw & Plunger Kit	1
652541	Cyl. Nuts	12
652422	Cyl. Nuts	36
634150	O/P Spring	1
630899	Bearing	1
24835	Intake Bolts	24
MS90725-12	R. Arm Bolt	24
653309	Washers	12
535847	Mag Washer	6
MS20500-428	Exh. Nut	24
MS35756-8	Key	1
652436-1	Fuel Clamp	6
642087A69	O/H Starter Adapter S/N QM726300	1

WO # 223061

Continental IO-550-B (29)

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<u>PART NUMBER</u>	<u>DESCRIPTION</u>	<u>QTY</u>
539023	Intake Hose	1
SA642917-1	Intake Hose	8
629163	Clamp	1
2078-1	RAM Cam Gear	1
641742	Mag Gear	1
SA630046	Piston Pins	6
AA48109	Oil Filter	1
URHM32E	Spark Plugs	12
M2381R	Ignition Harness Kit	1
63110	(New) Mag S/N 22120049 (Right)	1
6310	(New) Mag S/N 22120050 (Left)	1
10194A/635996-1	O/H Oil Cooler S/N I96-1949-1641	1
124F001-4CR0410	Fuel Hose	2
124F001-4CR0340	Fuel Hose	1
646766-3	O/H Fuel Pump S/N J319619B	1
649468-2	O/H Throttle Body S/N J319625A	1
646508-6A10M	O/H Manifold Valve S/N J319604C	1
2917-5.31	Thru Bolt	1
AEC652129	R Arm Bushing	12
2917-6.19	Thru Bolt	1
2108-11.67	Thru Bolt	1
2107-10.75	Thru Bolt	8
IO-550	O/H Cermilnil Cyl.	6
654857	Piston	6
SA5201-SC2	Ring Set	6
SA643873	Ex. Valve	6
SA654441	Spring	12
SA654442	Spring	12
SA24802	Keys	24
SA646985	Seal	6
SA629117-1	Roto Coil	6
MS9970-116	O-Ring	1
MS9970-117	O-Ring	1
SA629163-5	Clamp	4

AD NOTES COMPLIANCE RECORD

Engine - Teledyne Continental - IO-550-B (29)

682611

Engine overhauled by Zephyr Aircraft Engines Inc. under W.O. #223061. Crankshaft was repaired by Romans S/N. H209617N, main & pins =M010. crankcase repaired by Divco Inc. Installed [6] TCM cermilnit cylinder asm. Installed reground TCM Camshaft. New ram cam gear P/N. 2078-1, Throttle body & flow divider, fuel pump O/H, Starter adapter O/H exch. by Quality AC assy, Oil cooler O/H, new magnetos, spark plugs & Harness. No other accessories done nor supplied by this agency at this time.

AD#	Applicable S.B. # & Subject	Date & Hours @ Comp.	Method of Compliance	One Time Requiring	Next Compl. @ Hrs/Date	Authorized Signature & Number
86-13-04 R3	Cylinder assemblies	07/31/2023 at O/H	N/A by P/N. on cylinder flange.	X		James H. Earnest Jr. V4AR597M
87-14-02	Starter adaptor shaftgear	07/31/2023 at O/H	Installed O/H adapter P/N 642087A69 S/N. CM726300 by Quality Aircraft Acgy/CRS#QYIR334Y	X		James H. Earnest Jr. V4AR597M
88-03-06	Oil filter	07/31/2023 at O/H	Installed new oil filter P/N. AA48109.	X		James H. Earnest Jr. V4AR597M
88-17-03	Starter adapter shaftgear	07/31/2023 at O/H	Installed O/H adapter P/N 642087A69 S/N. CM726300 by Quality Aircraft Acgy/CRS#QYIR334Y	X		James H. Earnest Jr. V4AR597M
91-19-03	Champion oil filter	07/31/2023 at O/H	Installed new oil filter P/N. AA48109.	X		James H. Earnest Jr. V4AR597M
93-08-17	Incorrect oil pick-up tube	07/31/2023 at O/H	N/A by Model per TCM S.B M91-10 rev. 1.	X		James H. Earnest Jr. V4AR597M
93-10-02	Cylinder valve retainer	07/31/2023 at O/H	Installed [6] O/H cermilnit TCM cylinder assy. All keys in place.	X		James H. Earnest Jr. V4AR597M
93-16-15	Fuel pumps	07/31/2023 at O/H	P/C/W By fuel pump P/N. & coupling P/N. 663359.	X		James H. Earnest Jr. V4AR597M
PL98-01-08	Exhaust roller rocker arms	07/31/2023 at O/H	N/A. Not installed.	X		James H. Earnest Jr. V4AR597M
PL98-09-17	Crankshaft failure	07/31/2023	Superseded by: 99-19-01	X		James H. Earnest Jr. V4AR597M
99-19-01	Crankshaft failure	07/31/2023 at O/H	D/N/A. by crankshaft manufacture date. S/N. H209617N, ultrasonic inspection done by Rick Romans Inc. CRS# BE2R713K dated 06/13/2023.	X		James H. Earnest Jr. V4AR597M
PL2000-08-51	Crankshaft connecting rod journal fracture	07/31/2023	Superseded by: 2000-23-21	X		James H. Earnest Jr. V4AR597M
2000-23-21	Fracture of the crankshaft connecting rod journal	07/31/2023 at O/H	N/A. per TCM M.S.B. 00-5C by Date of manufacture of crankshaft & engine S/N. Crankshaft S/N. H209617N 650 VAR.	X		James H. Earnest Jr. V4AR597M
2004-08-10	Prevent loss of engine power	07/31/2023 at O/H	N/A. by cylinder manufacture.	X		James H. Earnest Jr. V4AR597M
2009-16-03	To prevent the separation of the cylinder head	07/31/2023	Superseded by: 2014-05-29	X		James H. Earnest Jr. V4AR597M

Zephyr Aircraft Engines Inc.
CRS# 24AR597M

Engine - Teledyne Continental - IO-550-B (29)

682611

Engine overhauled by Zephyr Aircraft Engines Inc. under W.O. #223061. Crankshaft was repaired by Romans SN. H209617N, main & pins =M010, crankcase repaired by Divco Inc. Installed [6] TCM cam/inlin cylinder asrm. Installed reground TCM Camshaft, New ram cam gear P/N. 2078-1, Throttle body & flow divider, fuel pump O/H, Starter adapter O/H exch. by Quality AC assy, Oil cooler O/H, new magnetos, spark plugs & Harness. No other accessories done nor supplied by this agency at this time.

AD#	Applicable S.B. # & Subject	Date & Hours @ Comp.	Method of Compliance	One Time	Recurring	Next Comp. @ Hrs/Date	Authorized Signature & Number
2009-19-07	Correction - To prevent loss of engine power due to cracks in the cylinder head, possible engine failure, and fire in the engine compartment	07/31/2023 at O/H	N/A. No EO3 cylinders installed on engine.	X			James H. Earnest Jr. V4AR597M
2009-24-52	To address rapid wear on the face of hydraulic lifters	07/31/2023	Superseded by:2010-11-04	X			James H. Earnest Jr. V4AR597M
2010-11-04	To prevent excessive hydraulic lifter wear	07/31/2023 at O/H	N/A by P/N of lifters. Installed (6) P/N.SA628488 & (6) P/N.SA646277.	X			James H. Earnest Jr. V4AR597M
2012-03-06	To prevent an in-flight shutdown due to a failed fuel servo diaphragm	07/31/2023 at O/H	D/N/A. by type of fuel system.	X			James H. Earnest Jr. V4AR597M
2012-10-13	To prevent starter adapter gear shaft failure	07/31/2023 at O/H	N/A by P/N. of starter adapter installed.	X			James H. Earnest Jr. V4AR597M
2014-05-29	Superior Air Parts Investment Cast Cylinder Assemblies	07/31/2023 at O/H	N/A. by manufacture of cylinders installed on engine.	X			James H. Earnest Jr. V4AR597M
2016-16-12	ECI Class 71 or Class 76 Cylinder Assembly Failures	07/31/2023 at O/H	N/A. No ECI cylinders installed on engine.	X			James H. Earnest Jr. V4AR597M
2022-04-04	STC Stratus Oil Filter Adapter Fiber Gasket Oil Loss	07/31/2023 at O/H	N/A - not installed.	X			James H. Earnest Jr. V4AR597M
2023-02-12	Intake Valve Failures	07/31/2023 at O/H	N/A by manufacture of cylinders & valves installed.	X			James H. Earnest Jr. V4AR597M
2023-04-08	Crankshaft Assembly Counterweight Retaining Rings in the Counterweight Groove	07/31/2023 at O/H	Superseded by:2023-05-16	X			James H. Earnest Jr. V4AR597M
2023-05-16	Improper Installation of Counterweight Retaining Rings	07/31/2023 at O/H	N/A by Crankshaft & Engine serial number engine overhauled by stand alone repair station. All snap rings installed per MSB.	X			James H. Earnest Jr. V4AR597M

Zephyr Aircraft Engines Inc.

CRS#22AR597M

James H. Earnest Jr.

THE **adlog**TM AIRCRAFT
MAINTENANCE
RECORDKEEPING
SYSTEM

**ENGINE
MAINTENANCE
RECORDS**



ENGINE MAINTENANCE RECORDS

Lcg No. _____

Aircraft Registration No. _____

Engine Manufacturer Continental

Model TIO-550-B (29)

Serial No. 682611

Date installed on aircraft _____

Time Between Overhauls (TBO) _____ Hours

If used on multi-engine aircraft:

- | | |
|--------------------------------|-------------------------------|
| ☐ Right | ☐ Left |
| ☐ Front | ☐ Rear |

(All applicable information must be filled in)



AEROTECH PUBLICATIONS INC.

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DATE	TOTAL TIME IN SERVICE	TOTAL TIME SINCE OVERHAUL	TACH OR RECORDING METER TIME	DESCRIPTION OF WORK PERFORMED — SIGNATURE & CERTIFICATE NO. OF PERSON PERFORMING WORK
				TOTALS brought forward from previous page

ZEPHYR AIRCRAFT ENGINES INC.

39320 B, Avenue. Zephyrhills FL. 33542
(813) 788-3305. FAX (813) 788-4412

N197DH

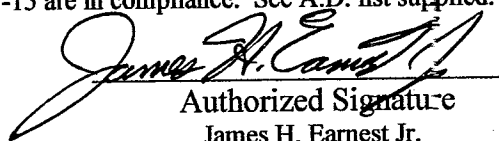
W.O. No. 223061Mfg. ContinentalSerial No. 682611Dated July 31, 2023Model O-550-B (29)

Engine Total Time. _____

Time since Major Overhaul 0.00

This is to certify that the engine described hereafter has been overhauled to manufacturer's new parts limits. The Engine was disassembled, cleaned, and inspected in accordance with Manufacturer's instructions. All steel parts magnafluxed, reassembled and test run in accordance with manufacturer's current overhaul manual and in accordance with current Federal Aviation Regulations and is approved for return to service. Pertinent details of these repairs are on file at this agency under the W.O. # listed above. All applicable Airworthiness Directives thru 2023-15 are in compliance. See A.D. list supplied.

F.A.A. APPROVED REPAIR STATION #VI4R397M


Authorized Signature
James H. Earnest Jr.

Installed reground camshaft from Rick Romans and new cam gear from Ram p/n.2078-1.

Installed O/H starter adapter p/n. 642087A69 s/n. QM726300 from Quality Aircraft accy.

Installed [6] O/H cermilnil TCM cylinder assemblies.

Components, Accessories, & Related Parts supplied or installed.				Overhauled	Repaired	Not Repaired
Fuel Servo	P/N	649468-2	S/N	J319625A	X	
Fuel Flow Divider	P/N	646508-6A10M	S/N	J319604C	X	
Fuel Pump	P/N	646766-3	S/N	J319619B	X	
Left Magneto	P/N	6310	S/N	22120050	NEW	
Right Magneto	P/N	6310	S/N	22120049	NEW	
Oil Cooler	P/N	10194A/635996-1	S/N	196-1949-1641	X	
Spark Plugs	P/N	URHB32E	Ignition Harness	P/N	M2381R NEW	
Oil Filter	P/N	AA48109				

SUB-TOTALS this page

TOTALS-Carry forward to next page

