

RAM AIRCRAFT
The Engine Specialist
FOR CESSNA, BEECHCRAFT, & CIRRUS AIRCRAFT



ENGINE MAINTENANCE RECORDS

Aircraft Registration N1557T
Engine Position Left
Engine Serial No. 504184



ENGINE MAINTENANCE RECORDS

Log No. 1

Aircraft Registration No. N1557T

Engine Manufacturer Continental

Model TS10-520-NB

Serial No. 504184

Date installed on aircraft 12-18-19

Time Between Overhauls (TBO) 1600 Hours

If used on multi-engine aircraft:

☐ Right

☒ Left

Waco Regional Airport
7505 Karl May Drive • P.O. Box 5219 • Waco, Texas 76708
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www.ramaircraft.com

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

Date	Total Time In Service	Total Time Since Overhaul	Recording Meter Time
12/18/19	5327.3	0.0	397.4

RAM
RAM Aircraft, Limited Partnership • Waco Regional Airport

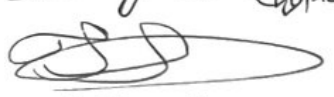
CONTINENTAL TSIO-520-NB Series VI Left S/N 504184

Above referenced engine overhauled to new parts limits per FAR 43.2(a)(1)(2) to conform w/Continental SM X-30574 and Continental M-0, Standard Practice Maintenance Manual. Applicable AD's and Service Bulletins C/W at this time. All gears cleaned, polished when required, inspected, magnetic particle inspected, and no cracks found. Finish and dimensional limits within RAM Gear Inspection Specification No. 1818, Rev. P dated 07/19/2017. Installed above referenced engine modified to TSIO-520-NB 335 HP per STC SE4327SW-D in left position of Cessna s/n 414-0272. See 337. Installed new RAM camshaft p/n 1058-20, s/n XA18004 per STC SE4327SW-D. Installed new lifters p/n SA628488 int., p/n SA646277 exh. AD10-11-04 n/a to lifter p/n installed. AD97-26-17 c/w per installation of overhauled VAR crankshaft p/n 649898, s/n N09AA021 per Continental CSB96-8. C/W Ultrasonic inspection per MSB96-10B due at next overhaul or when crankshaft removed. AD99-19-01 n/a per crankshaft date of manufacture I/A/W Continental MSB99-3C. AD2000-23-21 N/A to crankshaft serial number/date of manufacture I/A/W Continental Mandatory Service Bulletin MSB00-5D. Engine assembled with overhauled Continental crankcase p/n 654128-1, s/n 1A822PL. Installed new Superior Steel cylinders. Installed Floscan transducer per STC SE5726SW-D. Installed new Hartzell Scimitar Plus propeller model PHC-C3YF-2UF, s/n EB8401B per STC SA09971SC-D. Installed new prop governor s/n 180019. Engine accessories exchanged for overhauled or new units except as noted. Re-used customer's vacuum pump s/n unknown, tach generator s/n 25523, alternator p/n ALV9610, s/n H-P041532 and reused customers alternator drive coupling p/n 646655, s/n unknown. Installed factory new turbocharger p/n 407810-0003, s/n H-WIL00025. Installed new RAM FAA-PMA fuel nozzles p/n 2562-14D. Continental Service Bulletin SB06-1A N/A per installation of RAM fuel nozzles. New Slick magnetos p/n 6320 installed per STC SE4651SW-D and pressurized. Slick Service Bulletin SB3-08A N/A to magneto serial numbers installed. Slick Service Bulletin SB1-12 (Points assy.), SB1-19 (Impulse coupling stop pins) and SB2-19 (Impulse coupling rivets) N/A per S/N or manufacture date. MSB94-8D on magneto timing procedure c/w per timing to STC degree requirements with TDC locator and protractor with pointer. Engine modified to TSIO-520-NB per Continental Service Bulletin M-75-6 Rev. 1. Installed modified connecting rods p/n 1162 per STC SE4327SW-D as FAA-PMA approved replacement. Installed RAM FAA-PMA induction flex elbows p/n 1111-2, spring loaded induction clamps p/n 1170-2 and double clamps p/n 1170-5, rocker arm cover gaskets p/n 1387-1 and oil cooler baffle p/n 1253-1. P/N 652130 & 652131 rocker arms installed. C/W AD2000-01-16, see airframe log for details. Installed new Aeroquip integral firesleeved fuel and oil hoses meeting TSO- C53A Type D and TSO-C75 Type III. Installed overhauled oil cooler p/n 2600-1, s/n 1752971. C/W AD78-06-01 per installation of intake tube p/n 642590. C/W AD79-05-09 per installation of new current design oil pressure plunger assy. C/W AD89-24-01 R1 per installation of starter adapter p/n 642085A4 with current scavenge pump gears. AD2012-10-13 and MSB11-4B starter adapter inspection n/a per p/n installed. Installed .030 inch undersize starter adapter spring p/n S539800M30 per STC SE09846SC. C/W AD93-16-15 per Continental MSB95-6 installation of fuel pump drive coupling p/n 653359. Category 1 thru 3 Continental Service Bulletin Compliance Listing in RAM Manual. Installed EZ Heat Preheat Kit, m/n 540. Engine serviced with AeroShell 100 mineral oil. See RAM Recommended Oil Grade Maintenance Tip MT-1 for recommended oil. Engine ground run on test stand per CMI M-16, Ch.18 specifications for 3 hours. Engine pump pressure, idle, mixture, fuel flow, max RPM, manifold pressure, and oil pressure adjusted per RAM Series VI specifications. Engine ground run power test good. All engine systems checked for leaks. Engine approved for return to service for the work performed. Pertinent details on file under Project No. 9243.

RAM Aircraft, Limited Partnership, P. O. Box 5219, Waco, Texas 76708 CRS VA1R551K

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DATE	TOTAL TIME IN SERVICE	TOTAL TIME SINCE OVERHAUL	TACH OR RECORDING METER TIME	DESCRIPTION OF WORK PERFORMED— SIGNATURE & CERTIFICATION NO. OF PERSON PERFORMING WORK
419.4				ht forward from previous page
Oil and Filter change				
20W50 - 48108 Filter				
Inspect engine for leak				
				
AP 36895688IA				

SO#	20-0006	Elevate Air Services LLC.				DATE	4/FEB/2020
REG.	N1557T	Crete Municipal Airport [CEK]				HOUR	453.8
MAKE	Continental	MODEL	TSIO-520-NB	SERIAL NO.	504184	ACTT	7078.7
LEFT	Engine	ETT	5383.7	ETSOH	56.4		

Maintenance Record Engine

1. Complied with engine oil change. Removed old oil filter P/N AA48108, cut open to examine for debris, none found. Installed new oil filter P/N AA48108 and 10 quarts of Phillips XC 20W/50 oil. Cleaned engine, test ran for leaks, none found.
2. Oil was streaming down nacelle, after investigation, found that air-oil separator to be broken. Replaced air-oil separator with new RAM supplied warrantied separator P/N AM107935AO.

Dated: Feb 4, 2020 Shop Order: 20-0006

Signed: Shaun Krzycki
A&P 3624942

SO#	20-0016	Elevate Air Services LLC.				DATE	12/MAR/2020
REG.	N1557T	Crete Municipal Airport [CEK]				HOUR	492.8
MAKE	Continental	MODEL	TSIO-520-NB	SERIAL NO.	504184	ACTT	7117.7
LEFT	Engine	ETT	5422.7	ETSOH	95.4		

Maintenance Record Engine

1. Complied with engine oil change. Removed old oil filter P/N AA48108, cut open to examine for debris, none found. Installed new oil filter P/N AA48108 and 11 quarts of Phillips XC 20W/50 oil. Cleaned engine, test ran for leaks, none found.

Dated: Mar 12 2020 Shop Order: 20-0016

Signed: 

Shaun Krzycki

SO#	20-0050	Elevate Air Services LLC.				DATE	17/JUL/2020
REG.	N1557T	Crete Municipal Airport [CEK]				HOUR	542.3
MAKE	Continental	MODEL	TSIO-520-NB	SERIAL NO.	504184	ACTT	7167.2
LEFT	Engine	ETT	5472.2	ETSOH	144.9		

Maintenance Record Engine

1. Complied with engine oil change. Removed old oil filter P/N AA48108, cut open to examine for debris, none found. Installed new oil filter P/N AA48108 and 11 quarts of Phillips XC 20W/50 oil. Cleaned engine, test ran for leaks, none found.
2. Complied with AD 2000-01-16, 50-hour exhaust inspection part B,C,D and E via visual inspection. No discrepancies noted at this time.

Dated: July 17 2020 Shop Order: 20-0050

Signed: Shaun Krzycki
A&P 3624942

SO#	20-0056	Elevate Air Services LLC.				DATE	11/NOV/2020
REG.	N1557T	Crete Municipal Airport [CEK]				TACH	
MAKE	Continental	MODEL	TSIO-520-NB	SERIAL NO.	504184	HOBBS	
	Engine	ETT	5486.3	ETSOH	159		556.4

Maintenance Record Left Engine

1. Complied with Annual Inspection/100 Hour referencing the Cessna 414 Service Manual Section 2A and the scope and detail of Title 14 CFR Part 43 Appendix (d). Performed engine/propeller ground run/leak check with no discrepancies noted at this time.
2. Left Engine compressions are as follows, #1 : 65/80, #2 : 60/80, #3 : 65/80, #4 : 74/80, #5 : 72/80, #6 : 70/80
3. Tightened the L/H engine oil cooler plug that was seeping oil.
4. Repaired the L/H engine fuel injector manifold drain line that was broken.
5. Tightened the wastegate actuator fittings that were seeping oil.
6. Complied with AD 2000-01-16 exhaust inspection part b, c, d, and e via visual inspection. No discrepancies noted at this time. Next inspection due at hour meter time 606.4.

I certify this (aircraft) (engine) (propeller) has been inspected in accordance with an Annual/100 Hour inspection as per Title 14 CFR part 91.409 (a)(1) and was determined to be in an airworthy condition
Dated November 6, 2020 Shop Order: 20-0056

Signed Shaun Krzycki
A&P 3624942

Signed James Dux
A&P 2815885IA

SO#	20-0087	Elevate Air Services LLC.				DATE	17/DEC/2020
REG.	N1557T	Crete Municipal Airport [CEK]				HOUR	585.4
MAKE	Continental	MODEL	TSIO-520-NB	SERIAL NO.	504184	ACTT	
LEFT	Engine	ETT	5515.3	ETSOH	185		

Maintenance Record Left Engine

1. Complied with engine oil change. Removed old oil filter P/N AA48108, cut open to examine for debris, none found. Installed new oil filter P/N AA48108 and 11 quarts of Phillips XC 20W/50 oil. Cleaned engine, test ran for leaks, none found.
2. Complied with AD 2000-01-16, 50-hour exhaust inspection part B,C,D and E via visual inspection. No discrepancies noted at this time.

Dated December 17, 2020 Shop Order: 20-0087

Signed Shaun Krzycki
A&P 3624942

SO#	21-0054	Elevate Air Services LLC.				DATE	17/JUL/2021
REG.	N1557T	Crete Municipal Airport [CEK]				HOUR	680.1
MAKE	Continental	MODEL	TSIO-520-NB	SERIAL NO.	504184	ACTT	7305.0
LEFT	Engine	ETT	5877.4	ETSOH	282.7		

Maintenance Record Left Engine

1. Complied with engine oil change. Removed old oil filter P/N AA48108, cut open to examine for debris, none found. Installed new oil filter P/N AA48108 and 11 quarts of Phillips XC 20W/50 oil. Cleaned engine, test ran for leaks, none found.
2. Complied with AD 2000-01-16, 50-hour exhaust inspection part B,C,D and E via visual inspection. No discrepancies noted at this time.

Dated July 16, 2021 Shop Order: 21-0054

Signed Shaun Krzycki
A&P 3624942

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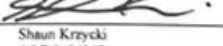
TOTALS—Carry forward to next page

SO#	21-0077	Elevate Air Services LLC.				DATE	22/NOV/2021
REG.	N1557T	Crete Municipal Airport [CEK]				HOUR	718.5
MAKE	Continental	MODEL	TSIO-520-NB	SERIAL NO.	504184	ACTT	7279.0
RIGHT	Engine	ETT	5880 4	ETSOH	332 2		

Maintenance Record Left Engine

- Complied with Annual Inspection/100 Hour referencing the Cessna 414 Service Manual Section 2A and the scope and detail of Title 14 CFR Part 43 Appendix (d). Performed engine/propeller ground run/leak check with no discrepancies noted at this time.
- Left engine compressions are as follows, #1 : 70/80, #2 : 69/80, #3 : 65/80, #4 : 70/80, #5 : 64/80, #6 : 76/80.
- Complied with engine oil change. Removed old oil filter P/N AA48108, cut open to examine for debris, none found. Installed new oil filter P/N AA48108 and 11 quarts of Phillips XC 20W/50 oil. Cleaned engine, test ran for leaks, none found.
- Complied with AD 2000-01-16, 50-hour exhaust inspection part B,C,D and E via visual inspection. No discrepancies noted at this time. Next inspection due at hour meter time 768.5
- Adjusted the wastegate controller down to meet factory specifications.
- Adjusted the idle and mixture to factory specifications
- Checked and adjusted the magneto timing to factory specifications.

I certify this (aircraft) (engine) (propeller) has been inspected in accordance with an Annual/100 Hour inspection as per Title 14 CFR part 91.409 (a)(1) and was determined to be in an airworthy condition
Dated: November 22, 2021 Shop Order: 21-0077

Signed 
Shaun Krzycki
A&P 3624942

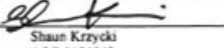
Signed 
James Dux
A&P 28158651A

SO#	22-0017	Elevate Air Services LLC.				DATE	23/MAR/2022
REG.	N1557T	Crete Municipal Airport [CEK]				HOUR	793.6
MAKE	Continental	MODEL	TSIO-520-NB	SERIAL NO.	514737	ACTT	7354.1
RIGHT	Engine	ETT	5955 5	ETSOH	407 3		

Maintenance Record Left Engine

- Troubleshoot left engine not making full boost. Found both turbo controller and wastegate operating incorrectly. Replaced the Wastegate P/N 470908-9013-OH S/N DF008342 with overhauled unit P/N 470908-9013-OH S/N BB002208 and Turbo Controller P/N 470836-18RAM-OH S/N KF0108 with overhauled unit P/N 470836-18RAM-OH S/N TDR0143P. Re-rigged engine per RAM specifications, test ran engine for performance check, found satisfactory.

Dated: March 23, 2022 Shop Order: 22-0017

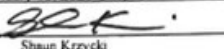
Signed 
Shaun Krzycki
A&P 3624942

SO#	22-0080	Elevate Air Services LLC.				DATE	13/JAN/2023
REG.	N1557T	Crete Municipal Airport [CEK]				HOUR	807.5
MAKE	Continental	MODEL	TSIO-520-NB	SERIAL NO.	514737	ACTT	7368.0
RIGHT	Engine	ETT	5969 4	ETSOH	421.2		

Maintenance Record Left Engine

- Complied with Annual Inspection/100 Hour referencing the Cessna 414 Service Manual Section 2A and the scope and detail of Title 14 CFR Part 43 Appendix (d). Performed engine/propeller ground run/leak check with no discrepancies noted at this time.
- Left engine compressions are as follows, #1 : 60/80, #2 : 60/80, #3 : 62/80, #4 : 59/80, #5 : 64/80, #6 : 60/80.
- Complied with AD 2000-01-16, 50-hour exhaust inspection part B,C,D and E via visual inspection. No discrepancies noted at this time. Next inspection due at hour meter time 857.5

I certify this (aircraft) (engine) (propeller) has been inspected in accordance with an Annual/100 Hour inspection as per Title 14 CFR part 91.409 (a)(1) and was determined to be in an airworthy condition
Dated: January 13, 2023 Shop Order: 22-0080

Signed 
Shaun Krzycki
A&P 36249421A

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