

# ENGINE MAINTENANCE RECORDS

Log No. \_\_\_\_\_

Aircraft Registration No. N77GC

Engine Manufacturer MATTITUCK

Model MYT O-540-E4A5

Serial No. AV 537 943 884

Date installed on aircraft 5-15-08

Time Between Overhauls (TBO) \_\_\_\_\_ Hours

If used on multi-engine aircraft:

☐ Right

☐ Left

☐ Front

☐ Rear

This TMX Experimental Aircraft Engine has been assembled according to the procedures listed in the latest revision of Lycoming Direct Drive Overhaul Manual P/N 60294-7 by Teledyne Mattituck Services at its Mattituck, New York facility. This TMX engine, although assembled for experimental use, has followed the same in-house FAA approved assembly and assembly inspection protocols used during the repair and overhaul of FAA certified engines.

The engine was test cell run and found to be performing to specification.

All FAA AD notes applicable to the engine as a whole, the accessories supplied with the engine or any parts or components used in the assembly of the engine have been complied with to date. A list of AD note status is attached at the rear of this Logbook.

As of this date, any and all published Service Bulletins or Service Letters, as provided by the manufacturers of the parts or accessories used in the assembly of this engine, have been complied with.

This TMX engine should use the applicable sections of the Lycoming Direct Drive Overhaul Manual, Lycoming Parts Catalogs, and Lycoming Owner's Manuals for operational instructions and continued airworthiness maintenance instructions. In addition, any accessory vendor supplied accessory maintenance and or operational data, may also be used in conjunction with the previously specified information.

This TMX engine has been assembled for and is intended for experimental use only.

Other pertinent details about this engine are on file at Teledyne Mattituck Services under the Work Order listed.

M/N TMX O-540, light speed ignition, Red Gold  
S/N RV 537943884  
Work Order 50515  
Date 5 JUNE 2007



Teledyne Mattituck Services  
410 Airway Drive  
Mattituck, NY USA 11952  
FAA CRS T10R507Y

FORM RS-056 REV. (March 2006)



Port City Air, Inc

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Portsmouth New Hampshire 03801-3177

Phone: 603 430 1111

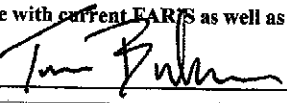
fax: Maintenance and Avionics 603 430 1199, fax: Operations 603-776-0266 Toll Free: 888 732 7324

12/23/10 N710GC RV-10A S/N: 40040 W/O 40402

Lycoming O-540-E4A5

Drained oil, inspected filter, No Defects Noted. Installed new filter CH48108-1. Serviced with 12qts Phillips 20w-50 Type M. Leak and Operational check Good.

The aircraft and/or components identified above were repaired in accordance with current FAR'S as well as manufacturers recommendations and is approved for return to service.

Authorized Signature Travis Buchanan A&P 3202781 



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06/01/11 N710GC RV-10A S/N: 40040 Tach 25.7 Hobbs 30.4 W/O 40452

Lycoming O-540-E4A5

Drained oil, inspected filter, No Defects Noted. Installed new filter CH48108-1. Serviced with 10qts Phillips 20w-50 X/C. Leak and Operational check Good.

The aircraft and/or components identified above were repaired in accordance with current FAR'S as well as manufacturers recommendations and is approved for return to service.

Authorized Signature Richard Ruel A&P 5526834 

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2/14/12 N710GC RV-10A S/N: 40040 Tach: 56.5 W/O 40040

TMXO540; S/N AV537943884

Drained oil, inspected filter. Installed new CH48108-1 filter. Serviced with 12 quarts Phillips 20W-50.

Compression test; 1) 78/80 2) 78/80 3) 78/80 4) 78/80 5) 78/80 6) 80/80.

Cleaned carburetor strainer. Retorqued oil sump bolts. Recharged K&N induction air filter.

C/W ON CONDITION inspection of engine. Aircraft ground run; ops checked good; no leaks noted.

The aircraft and/or components identified above were repaired in accordance with current FAR'S as well as manufacturers recommendations and is approved for return to service.

Authorized Signature Richard Ruel A&P 5526834



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2/27/13 N710GC RV-10A S/N: 40040 Tach: 122.2 Hobbs: 138 W/O 40542

TMXO540; S/N AV537943884

Drained oil, inspected filter. Installed new CH48108-1 filter. Serviced with 12 quarts Phillips 20W-50.

Compression test; 1) 74/80 2) 78/80 3) 78/80 4) 78/80 5) 76/80 6) 76/80.

Cleaned carburetor strainer. Retorqued oil sump bolts. Recharged K&N induction air filter.

Cleaned, gapped and tested spark plugs

C/W ON CONDITION inspection of engine per Lycoming Operator's Manual Section 4; Daily, 50-hour, 100-hour scope and detail.

Aircraft ground run; ops checked good; no leaks noted.

The aircraft and/or components identified above were repaired in accordance with current FAR'S as well as manufacturers recommendations and is approved for return to service.

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2/26/14 N710GC RV-10A S/N: 40040 Tach: 163.4 Hobbs: 185.4 W/O 40592

TMXO540; S/N AV537943884

Drained oil, inspected filter. Installed new CH48108-1 filter. Serviced with 12 quarts Phillips 20W-50.

Compression test; 1) 74/80 2) 76/80 3) 76/80 4) 78/80 5) 76/80 6) 76/80.

Replaced crankshaft seal with new PN LW13792.

Replaced alternator belt with new XL7355.

Cleaned carburetor strainer.

Cleaned, gapped and tested spark plugs

C/W ON CONDITION inspection of engine per Lycoming Operator's Manual Section 4; Daily, 50-hour, 100-hour scope and detail.

Aircraft ground run, leak and operational check good.

The aircraft and/or components identified above were repaired in accordance with current FAR'S as well as manufacturers recommendations and is approved for return to service.

Authorized Signature Travis Buchanan A&P / IA 3202781



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1/5/2015 N710GC RV-10A S/N: 40040 Tach: 177.8 Hobbs: 202.6 W/O 40628

TMXO540; S/N AV537943884 TTSN: 177.8

Drained oil, inspected filter. Installed new CH48108-1 filter. Serviced with 11 quarts Phillips 20W-50.

Compression test; 1) 76/80 2) 79/80 3) 76/80 4) 80/80 5) 80/80 6) 76/80.

Drained carburetor & cleaned strainer.

Cleaned, gapped and tested spark plugs, replaced #1 bottom plug with new UREM38S.

Cleaned and recharged K&N induction air filter.

C/W ON CONDITION INSPECTION of engine per Lycoming Operator's Manual Section 4; Daily, 50-hour, 100-hour scope and detail. Aircraft ground run, leak and operational check good.

The aircraft and/or components identified above were repaired in accordance with current FAR'S as well as manufacturers recommendations and is approved for return to service.

Authorized Signature: Richard Ruel A&P 5526834

DATE



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1/15/2016 N710GC RV-10A S/N: 40040 Tach: 231.9 Hobbs: 261.8 W/O 40714

TMXO540; S/N AV537943884 TTSN: 177.8

Drained oil, inspected filter. Installed new CH48108-1 filter. Serviced with 10 quarts Phillips 20W-50 and pint Cam Guard.

Compression test: 1) 72/80 2) 72/80 3) 75/80 4) 74/80 5) 72/80 6) 72/80.

Drained carburetor & cleaned strainer.

Cleaned, gapped and tested spark plugs.

Cleaned and recharged K&N induction air filter.

C/W ON CONDITION INSPECTION of engine per Lycoming Operator's Manual Section 4; Daily, 50-hour, 100-hour scope and detail. Aircraft ground run, leak and operational check good.

The aircraft and/or components identified above were repaired in accordance with current FAR'S as well as manufacturers recommendations and is approved for return to service.

Authorized Signature: Richard Ruel A&P 5526834



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10/19/2016 N710GC RV-10A S/N: 40040 TT 251.8 W/O 40785

Lycoming TMXO-540 S/N AV537943884 TT 251.8

Removed this engine from N710GC for tear down inspection.

Authorized Signature: Richard Ruel A&P 5526834

DATE:	ENGINE MODEL:	ENGINE S/N:	ENGINE T.T. S.M.O.H.
October 18, 2019	TMX-0540	AV537943884	251.8
<p><b>CONTINENTAL SERVICES</b> Fairhope, Alabama, USA</p>			
<p>THIS LOG ENTRY SERVES TO CORRECT A PREVIOUS ENTRY IN WHICH THE ENGINE SERIAL NUMBER WAS RECORDED INCORRECTLY.</p>			
<p>This TMX Experimental Aircraft Engine has been disassembled, inspected, assembled, and tested according to the procedures listed in Lycoming's Direct Drive Overhaul Manual P/N 60294-7, revision date July 2011. This TMX engine, although assembled for experimental use, has followed the same in-house FAA approved assembly and assembly inspection protocols used during the repair and overhaul of FAA certified engines. The engine was test cell run and found to be performing to specification. All FAA AD notes applicable to the engine as a whole, the accessories supplied with the engine or any parts or components used in the assembly of the engine have been complied with to date. As of this date, any and all published Service Bulletins or Service Letters, as provided by the manufacturers of the parts or accessories used in the assembly of this engine, have been complied with. This TMX engine should use the applicable sections of the Lycoming Direct Drive Overhaul Manual, Lycoming Parts Catalogs, and Lycoming Owner's Manuals for operational instructions and continued airworthiness maintenance instructions. In addition, any vendor supplied accessory maintenance and or operational data, may also be used in conjunction with the previously specified information. This TMX engine has been assembled for and is intended for experimental use only. Details of this repair are on record at this facility. Work Order ES-7343</p>			
<p>Complied with: 533C, 518D, 366C, 201F, 240W, 480E, 388C, 475C, 439A, 301B, 183A AND 2004-10-14C.</p>			
MECHANIC:		AUTHORIZATION:	

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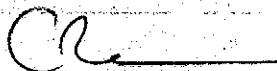
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DATE	TOTAL TIME IN SERVICE	TOTAL TIME SINCE OVERHAUL	TACH OR RECORDING METER TIME	DESCRIPTION OF WORK PERFORMED— SIGNATURE & CERTIFICATE NO. OF PERSON PERFORMING WORK
<b>FAA - PMA</b>				rd from previous page
This tag certifies that Sky-Tec Model No. <u>149-NL</u>				
Serial No. <u>FN-401688</u> was manufactured new on <u>03 Oct 2016</u>				
by Sky-Tec under the authority of FAA-PMA No. PQ0852SW				
Supplement No. <u>7</u> 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 <a href="http://www.skytecair.com/eligibility.htm">www.skytecair.com/eligibility.htm</a>				
Installed on <u>N 710 GC</u> by <u>Craig Sinclair</u>				
(Aircraft) (Mechanic)				
Form CC1108-1				

June 8, 2018 N710 GC TMX-540 S/N AV437943884-Tach./TTE 251.8

Engine reinstalled in N710GC after tear down inspection. Engine serviced with Phillips 20W-50 Mineral oil and install Champion CH48108-1 oil filter. Magneto timing set, new spark plugs installed and engine ground run and checked for oil leaks. I certify that this engine has been inspected in accordance with an Annual Condition Inspection and has been determined to be in a condition for safe operation.

Craig Sinclair AP15363991




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6/27/2018 N710GC RV-10A S/N: 40040 TT 5.7 W/O 40966

LycomingTMXO-540 S/N AV537943884 TT 5.7

Inspected filter for contaminants. None found. Installed new CH48108-1 Filter

Authorized Signature: ANDREW BLOHM A&P 3533510



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10/28/2019 N710GC RV-10A S/N: 40040 Tach: 272.7 W/O 41151

TMX O-540-E4A5; S/N AV537943884 TTSN: 272.7

Drained oil, inspected filter. Installed new CH48108-1 filter. Serviced with 10 quarts Phillips 20W-50 and pint Cam Guard.

Compression test; 1) 74/80 2) 76/80 3) 78/80 4) 78/80 5) 74/80 6) 78/80.

Drained carburetor & cleaned strainer.

Cleaned, gapped and tested spark plugs.

Cleaned and recharged K&N induction air filter.

Installed engine data plate.

Rigged mixture & prop controls.

Retimed L&R/H mags to 25 degrees BTDC.

C/W **CONDITION / ANNUAL INSPECTION** of engine per Lycoming Operator's Manual Section 4; Daily, 50-hour, 100-hour scope and detail. Aircraft ground run, leak and operational check good.

**The aircraft and/or components identified above were repaired in accordance with current FAR'S as well as manufacturers recommendations and is approved for return to service.**

Authorized Signature: Richard Ruel A&P 5526834 *Richard Ruel*



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11/18/2020 N710GC RV-10A S/N: 40040 Tach: 318.5 W/O PCA-P530

TMX O-540-E4A5; S/N AV537943884 TTSN: 318.5

Drained oil, inspected filter. Installed new CH48108-1 filter. Serviced with 10 quarts Phillips 20W-50 and pint Cam Guard.

Compression test; 1) 76/80 2) 78/80 3) 78/80 4) 78/80 5) 78/80 6) 78/80.

Drained carburetor & cleaned strainer.

Cleaned, gapped and tested spark plugs.

Cleaned and recharged K&N induction air filter.

C/W **CONDITION / ANNUAL INSPECTION** of engine per Lycoming Operator's Manual Section 4; Daily, 50-hour, 100-hour scope and detail. Aircraft ground run, leak and operational check good.

**The aircraft and/or components identified above were repaired in accordance with current FAR'S as well as manufacturers recommendations and is approved for return to service.**

Authorized Signature: Richard Ruel A&P 5526834 *Richard Ruel*



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11/16/2021 N710GC RV-10A S/N: 40040 Tach: 372.9 W/O PCA-P1336

TMX O-540-E4A5; S/N AV537943884 TTSN: 372.9

Drained oil, inspected filter. Installed new CH48108-1 filter. Serviced with 10 quarts Phillips 20W-50 and pint Cam Guard.

Compression test; 1) 74/80 2) 76/80 3) 76/80 4) 76/80 5) 78/80 6) 76/80.

Drained carburetor & cleaned strainer.

Cleaned, gapped and tested spark plugs.

Cleaned and recharged K&N induction air filter.

Replace 6 EGT probes with P/N 100405-00

Replaced Carburetor temperature sensor with P/N 100468-000.

Replaced oil temperature sensor with P/N 100404-001.

Repaired right FWD. baffle with a sheet metal patch.

Replaced rocker cover gaskets with 6 each P/N 06B2669. C/W 400hour valve inspection.

C/W **CONDITION / ANNUAL INSPECTION** of engine per Lycoming Operator's Manual Section 4; Daily, 50-hour, 100-hour scope and detail. Aircraft ground run, leak and operational check good.

**The aircraft and/or components identified above were repaired in accordance with current FAR'S as well as manufacturers recommendations and is approved for return to service.**

Authorized Signature: Richard P. Dole A&P 3971178 *Richard P. Dole*

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11/9/2022 N710GC RV-10A S/N: 40040 Tach: 405.8 W/O PCA-P2030

TMX O-540-E4A5; S/N AV537943884 TTSN: 405.8

Drained oil, inspected filter. Installed new AA48108-1 filter. Serviced with 10 quarts Phillips 20W-50 and 1 pint Cam Guard.

Compression test: 1) 76/80 2) 76/80 3) 74/80 4) 78/80 5) 76/80 6) 78/80.

Drained carburetor & cleaned strainer.

Cleaned, gapped and tested spark plugs.

Cleaned and recharged K&N induction air filter.

Replaced oil pressure transducer with new P/N 11-08066; ops & leak check good.

C/W CONDITION / ANNUAL INSPECTION of engine per Lycoming Operator's Manual Section 4; Daily, 50-hour, 100-hour scope and detail. Aircraft ground run, leak and operational check good.

The aircraft and/or components identified above were repaired in accordance with current FAR'S as well as manufacturers recommendations and is approved for return to service.

Authorized Signature: Richard Ruel A&P 5526834

12-1-2023	N710GC	W/O PCA-P2773
AIRCRAFT	Vans RV-10A / S/N: 40040	HOBBS: 477.6
ENGINE	TMX O-540-E4A5 / S/N: AV537943884	TACH: 448.9 ETT: 448.9

- Performed Vans Aircraft Condition Inspection & Lycoming Periodic Inspections IAW Lycoming O-540 Operators Manual & Scope and Detail of FAR § 43 Appendix D. Performed compression test with the following results: Cyl#1: 74/80, Cyl#2: 74/80, Cyl#3: 75/80, Cyl#4: 78/80, Cyl#5: 76/80, Cyl#6: 73/80. Cleaned, gapped and tested all spark plugs. Lubed all engine controls. Recharged K&N induction air filter. Removed, cleaned, inspected and reinstalled the carburetor inlet strainer with a new one. Replaced oil filter with new AA48108-1.
- Drained the engine oil. Removed and inspected the oil filter - no unusual debris noted. Serviced the engine with 10qts of Phillips XC 20W-50, 1 pint Cam Guard and 1 pint Champion CH48108-1 oil filter.
- Replaced the cylinder #3 & #4 fuel primer line adel clamps and hardware.
- Secured and applied red RTV to loose & chafing ignition leads as needed.
- Applied red RTV to seal firewall as needed.
- C/W Lycoming 400HR Valve Inspection IAW Lycoming O-540 Operators Manual Section 4.6. No defects noted at this time. Replaced all rocker box cover gaskets... Ground run-up, operational and leak check good.

I certify this ENGINE has been inspected in accordance with an Annual inspection. The work / inspections listed above were performed in accordance with the current manufacturer's maintenance manuals and current FAA regulations. With the respect to the inspections / work performed the aircraft identified above is found to be in airworthy condition and is returned to service.

AUTHORIZED SIGNATURE: Richard Ruel A&P 41810621A  
PORT CITY AIR, INC. / NEW HAMPSHIRE HELICOPTERS, 104 GRAFTON DRIVE, PORTSMOUTH, NH 03801

04/13/2024	Hobbs Tach	511.1 480.6	Drained oil. Serviced with 10 qts Phillips 20W-50 AW. Aircraft ground run, Leak & ops check good G. Stephen Chaudron ATP 2562880
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05-28-2024	N710GC	W/O PCA-P3007
AIRCRAFT	Vans RV-10A / S/N 40040	HOBBS: 520.8 FLT: 647
ENGINE	TMX O-540-E4A5 / S/N: AV537943884	TACH: 490.3

- Removed magnetos for 500-hour inspection with Poplar Grove. L/H magneto P/N 6351, S/N 14051096. R/H magneto P/N 6351, S/N 14051099. Removed, inspected, and installed magnetos P/N 6351 S/Ns 14051096 and 14051099. Ran engine no leaks or defects noted.

I certify this aircraft has been inspected / repaired in accordance with the current manufacturer's maintenance manuals, and current FAA regulations. With the respect to the inspections / work performed the aircraft identified above is found to be in airworthy condition and is returned to service.

AUTHORIZED SIGNATURE: Richard Ruel FOR: FAA REPAIR STATION #P49R490N  
PORT CITY AIR, INC. / NEW HAMPSHIRE HELICOPTERS, 104 GRAFTON DRIVE, PORTSMOUTH, NH 03801


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11/21/2024	N710GC	W/O PCA-P3392
<b>AIRCRAFT</b>	Vans RV-10A   SN: 40040	HOBBS: 537.4
<b>ENGINE</b>	TMX O-540-E4A5   SN: AV537943884	TACH: 503.5   ETT: 503.5

- Performed Vans Aircraft Condition Inspection & Lycoming Periodic Inspections IAW Lycoming O-540 Operators Manual & Scope and Detail of FAR § 43 Appendix D. Performed compression test with the following results: Cyl#1: 78/80, Cyl#2: 73/80, Cyl#3: 76/80, Cyl#4: 70/80, Cyl#5: 80/80, Cyl#6: 78/80.
- Removed and replaced cyl #3 bottom spark plug P/N UREM38E IAW Lycoming SSP-1776.
- Ground run-up, operational and leak check good.

I certify this **ENGINE** has been inspected in accordance with a **Condition Inspection IAW Scope and Detail of FAR § 43 Appendix D**. The work / inspections listed above were performed in accordance with the current manufacturer's maintenance manuals and current FAA regulations. With the respect to the inspections / work performed the aircraft identified above is found to be in airworthy condition and is returned to service.

**AUTHORIZED SIGNATURE:**  **A&P 41810621A**  
**PORT CITY AIR, INC. / NEW HAMPSHIRE HELICOPTERS, 104 GRAFTON DRIVE, PORTSMOUTH, NH 03801**



