

ENGINE LOG BOOK



Service Information

Consult the Continental Motors web site at continentalmotors.aero for engine related news or announcements. Continental Motors Internet Service contains useful information for Continental Motors engine owners, including electronic versions of the most current engine Instructions for Continued Airworthiness and service documents that may be pertinent to your engine model.

If Internet access is not available, contact our Customer Service Department at:
1-888-826-5465 Toll free in the United States or
1-251-436-8299 International

Engine Returns

Return engines for core credit with this log book to:

Continental Motors, Inc.
2039 Broad Street
Mobile, AL 36615 USA

Return engines for overhaul with this log book to:

Continental Motors, Inc.
Factory Service Center
8600 County Road 32
Fairhope, Alabama 36532 USA

**USE ONLY FUEL SPECIFIED IN OPERATOR'S
MANUAL OR TYPE CERTIFICATE DATA SHEET
USE OF AUTOMOTIVE FUEL IS PROHIBITED**



Continental Motors

FAA PRODUCTION CERTIFICATE NO. 508

Printed: 03/09/2015

Test Date: 03/06/2015

This engine model TSI0520M7B, serial number 1011764 was rebuilt by Continental Motors Inc, in accordance with approved design data and the applicable requirements of 14 CFR, Part 21 and 43 of the Federal Aviation Regulation. The approved design data for this engine incorporates all changes required by applicable Airworthiness Directives and Continental Motors Service Bulletins.

Thomas Howard
CONTINENTAL MOTORS, INC.

Form 6032-04 (Rev Sept 2014)



Continental Motors, Inc.

REBUILT ENGINE WARRANTY

Each rebuilt aircraft engine shipped from the Continental Motors Inc. (CMI) plant on or after April 2, 2010 is warranted as follows:

1. (a) For a period of eighteen (18) months or until the expiration of CMI's recommended Time Between Overhaul (TBO), whichever occurs first, after the warranty activation date CMI will, except as excluded below, at its option repair or replace on an exchange basis any engine, component or part manufactured or supplied by it which within the applicable eighteen (18) month or TBO period is returned to a CMI representative authorized to handle the engine covered by this warranty and which upon examination is found to the satisfaction of CMI to be defective in material or workmanship. The warranty activation date is the date the engine is first operated for any use or the 180th day after CMI's invoice date, whichever occurs first. After the expiration of the first twelve (12) months of the applicable eighteen (18) month period described above, CMI will not assume any responsibility for the repair or replacement of engine accessories, i.e. parts which have been purchased by CMI from a manufacturer as a complete and finished unit and included in the assembly of an engine without altering the unit, including, but not limited to, carburetors, starters, alternators, turbochargers and fuel controls. After the expiration of the initial twelve (12) month period, accessories will be subject to such warranty coverage as may be provided by their manufacturer.

(b) CMI will pay for reasonable labor costs associated with repairs or replacements under paragraph 1(a) of this warranty and for "troubleshooting" costs associated with identifying the need for such repairs or replacements when coordinated through an authorized CMI representative. The amount of repair and replacement labor costs allowed will be in accordance with the latest revision of the warranty labor allowance schedule, form X30552, published by CMI. The amount of "troubleshooting" costs allowed will be the reasonable costs under the circumstances of identifying the need for such repairs or replacements, but in no event will the "troubleshooting" costs allowed exceed fifteen percent (15%) of the labor costs associated with such repairs or replacements allowed by CMI. No "troubleshooting" cost allowance will be made where the need for repairs or replacements is identified in the course of overhaul, routine maintenance or on the basis of an obvious defect.

(c) CMI will pay transportation costs in connection with the repair or replacement of any engine, component or part found to the satisfaction of CMI to be defective in material or workmanship under paragraph 1(a) of this warranty. The engine, component or part must be shipped prepaid to the repair facility designated by CMI. Transportation cost reimbursement for engines will be the actual surface freight charge or \$500.00, whichever is less. Engines must be described on the bill of lading as follows: "Internal combustion engine, other than Radial Cyl RVNX \$5.00". Transportation cost reimbursement for components or parts will be the actual surface freight charge for shipment of the component or part or the currently published UPS surface rate schedule, whichever is less.

2. CMI reserves the right at its option to replace any defective engine or part with either a new or rebuilt engine or part.

3. After the expiration of the applicable eighteen (18) month period described above and before the expiration of an additional six (6) month period or TBO, whichever occurs first, the coverage under this warranty applicable to cylinder assemblies and related parts shall be subject to the terms, conditions and limitations set forth in the applicable CMI Cylinder Warranty.

4. Repair or replacement of any engine or part under this warranty will not extend the period of warranty coverage set forth above.

5. This warranty applies only to engines in which parts manufactured or supplied by CMI or parts manufactured pursuant to an FAA Parts Manufacturer Approval have been used and nothing contained herein should be construed as a warranty by CMI of any engine or part not manufactured or supplied by CMI. CMI accepts no responsibility for the failure of any engine or part which it does not manufacture or supply or damage resulting from such failure.

6. This warranty applies only to engines which have been installed, inspected and maintained in accordance with the instructions for continued airworthiness, including compliance with all applicable service bulletins issued by CMI, the aircraft manufacturer or any accessory or component manufacturer. Performance of recommended inspections and maintenance must be documented by appropriate logbook entries and the logbook must accompany any engine being returned for warranty consideration.

7. This warranty does not apply to any engine, component or part manufactured or supplied by CMI which (1) has been subject to misuse, neglect or accident; (2) has been installed, repaired, maintained or altered in any way that in the judgment of CMI has adversely affected the condition of the engine; (3) has been operated inconsistent with CMI and aircraft manufacturer recommendations and limitations (such as, but not limited to engine RPM, temperature, manifold pressure, fuel flow and proper system adjustment) or (4) has been changed from its original FAA certificated configuration.

8. CMI will not be responsible for repair or replacement of any engine, component or part damaged or worn as a result of corrosion, pre-ignition/detonation, operation with non-calibrated engine gauges, improper fuel system adjustment, non-CMI approved fuel and oil grades or additives or installation of parts, components or accessories that alter the engine's original type design.

9. The provisions of this warranty do not apply to normal maintenance service (such as engine tuneups, adjustments, inspections, engine or component overhaul resulting from time between overhaul (TBO) recommendations, etc.) or to the replacement of normal service items (such as spark plugs, filters, hoses, belts, etc.).

10. CMI reserves the right to change any engine or part specifications or prices without incurring any responsibility with regard to engines or parts previously sold or replaced.

11. THIS WARRANTY IS A WARRANTY TO REPAIR OR REPLACE AND NOT A WARRANTY OF THE CONDITION OR FUTURE PERFORMANCE OF THE PRODUCTS WHICH IT COVERS. THERE ARE NO OTHER WARRANTIES, EXPRESSED OR IMPLIED, SPECIFICALLY, BUT WITHOUT LIMITATION, THERE ARE NO IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. IN NO EVENT WILL CMI BE RESPONSIBLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING OUT OF ANY DEFECT IN ANY ENGINE OR PART, ARISING OUT OF THE FAILURE OF ANY ENGINE OR PART TO OPERATE PROPERLY, OR ARISING OUT OF ANY BREACH OF THE WARRANTY MADE HEREIN. NO PERSON IS AUTHORIZED TO GIVE ANY OTHER WARRANTY OR TO ASSUME ANY ADDITIONAL OBLIGATION OR LIABILITY ON BEHALF OF CMI.





Continental Motors, Inc.

CYLINDER WARRANTY

Each cylinder shipped from the Continental Motors, Inc. (CMI) plant on or after April 2, 2010 is warranted as follows:

1. For a period of twenty-four (24) months or one thousand (1000) hours of operation, whichever occurs first, after the warranty activation date, CMI will at its option repair or replace on an exchange basis any cylinder component or related part manufactured or supplied by it which within the applicable twenty-four (24) month or one thousand (1000) hour period is returned to a representative of CMI authorized to handle the engine in which the cylinder component or related part covered by this warranty is installed and which upon examination by CMI is found to be defective in material or workmanship. For cylinders installed in new or rebuilt engines, the warranty activation date is the date the engine is first operated for any use or the 180th day after CMI's invoice date, whichever occurs first. For cylinder components purchased as aftermarket replacement components, the warranty activation date is the date the cylinder is first operated for any use. CMI will pay for reasonable labor costs associated with repairs or replacements under paragraph 1 of this warranty and for "troubleshooting" costs associated with identifying the need for such repairs or replacements when coordinated through an authorized CMI representative. The amount of repair or replacement labor costs allowed will be in accordance with the latest revision of the warranty labor allowance schedule, Form X30552, published by CMI. The amount of "troubleshooting" costs allowed will be the reasonable costs under the circumstance of identifying the need for such repairs or replacements, but in no event will the "troubleshooting" costs allowed exceed fifteen percent (15%) of the labor costs associated with such repairs or replacements allowed by CMI. No "troubleshooting" cost allowance will be made where the need for repairs or replacements is identified in the course of overhaul, routine maintenance or on the basis of an obvious defect.
2. CMI reserves the right at its option to replace any defective cylinder component or related part with either a new or rebuilt cylinder component or related part.
3. Repair or replacement of any cylinder component or related part under this warranty will not extend the period of warranty coverage set forth above.
4. CMI will not assume any responsibility for transportation costs in connection with the repair or replacement of any cylinder component or related part under this warranty, except when such transportation has been expressly authorized by CMI. When authorized, transportation cost reimbursement for cylinder components will be the actual surface freight cost or the currently published UPS surface rate schedule, whichever is less.
5. This warranty applies only to cylinders in which parts manufactured or supplied by CMI or parts manufactured pursuant to an FAA Parts Manufacturer Approval have been used and nothing contained herein should be construed as a warranty by CMI of any cylinder or related part not manufactured or supplied by CMI. CMI accepts no responsibility for the failure of any cylinder or related part which it does not manufacture or supply or damage resulting from such failure.
6. This warranty also applies only to cylinders and related parts on which the installation, inspection, maintenance and operating instructions and recommendations contained in the appropriate operator's manual, overhaul manual and applicable service bulletins have been complied with. Performance of recommended inspections and maintenance must be

documented by appropriate logbook entries and a copy of the logbook must accompany any cylinder and related part being returned for warranty consideration.

7. This warranty does not apply to any cylinder or related part manufactured or supplied by CMI which has been subject to misuse, neglect or accident or which has been installed, repaired, maintained or altered in any way that in the judgment of CMI has adversely affected the condition of the engine or which has been operated beyond factory recommendations (such as, but not limited to RPM, temperature, manifold pressure, fuel flow and proper system adjustment).
8. CMI will not be responsible for repair or replacement of cylinder components or parts damaged or worn as a result of corrosion, pre-ignition/detonation, operation with non-calibrated engine gauges, improper fuel system adjustment, non- CMI approved fuel and oil grades or additives and installation of parts, components or accessories that alter the engines' original type design.
9. The provisions of this warranty do not apply to normal maintenance service or to the replacement of normal service items.
10. CMI reserves the right to change any part specifications or prices without incurring any responsibility with regard to engines or parts previously sold or replaced.
11. THIS WARRANTY IS A WARRANTY TO REPAIR OR REPLACE AND NOT A WARRANTY OF THE CONDITION OR FUTURE PERFORMANCE OF THE PRODUCTS WHICH IT COVERS. THERE ARE NO OTHER WARRANTIES, EXPRESSED OR IMPLIED, SPECIFICALLY, BUT WITHOUT LIMITATION, THERE ARE NO IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. IN NO EVENT WILL CMI BE RESPONSIBLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING OUT OF ANY DEFECT IN ANY CYLINDER OR RELATED PART, ARISING OUT OF THE FAILURE OF ANY CYLINDER OR RELATED PART TO OPERATE PROPERLY, OR ARISING OUT OF ANY BREACH OF THE WARRANTY MADE HEREIN. No person is authorized to give any other warranty or to assume any additional obligation or liability on behalf of CMI.



Mobile, AL 36601

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1. Approving Civil Aviation Authority/Country: FAA/United States		2. Form Tracking Number: 400457	
4. Organization Name and Address Continental Motors, Inc. 2039 Broad Street, Mobile, Alabama 36615		5. Work Order/Contract/Invoice Number: EPN 452514 Order 0000169547	
6. Item:		11. Status/Work:	
1	7. Description ENGINE - REBUILT	9. Quantity: 1	10. Serial Number: See Block 12
12. Remarks: Rebuilt to original PAH's specifications in accordance with 14 CFR §43.3(i). Total Time: 0 Preservation: This Engine was treated 03/09/15 for one hundred eighty days corrosion protection. Serial/Batch Number(s): Serial 1011764 Description ENGINE - REBUILT			
13a. Certifies the items identified above were manufactured in conformity to: ☐ 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:		14b. Authorized Signature: Daniel L. Nicholas	
13c. Approval/Authorization No.:		14c. Approval/Certificate No.: PC #508	
13d. Name (Typed or Printed):		14d. Date (dd/mm/yyyy): 04/May/2015	
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.			
FAA Form 8130-3 (02-14) NSN-0052-00-012-9005			



Continental Motors

Engine Component Information Sheet

Printed: 03/09/2015

Serial: 1011764

Assembled: 03/03/2015

Spec: TSI0520M7B

Shipped: / /

New/Rebuilt: (REBUILT)

Packed: 03/09/2015

Customer Name: CONTINENTAL MOTORS WARRAN

Shipping Address: 2039 BROAD STREET

Component	Serial Number
CAMSHAFT	248636
CRANKSHAFT	N14JA274
CRANKCASE	R06KA144
CONNROD	AE03FA683
CONNROD	AE13FA124
CONNROD	AE06JA565
CONNROD	AE03FA726
CONNROD	AE08IB805
CONNROD	AE08IB801
L MAGNETO	F15BA042R
R MAGNETO	F15BA183R
FUEL PUMP	B15BA122R
MANIFOLD VALVE	C15AA081R
METERING UNIT	A15BA011R
STARTER	H-O-211505
OIL COOLER	K14-11684-253

Component	Serial Number
CYLINDER-1	AC15AB717
CYLINDER - 2	AC15BA006
CYLINDER - 3	AC14HA564
CYLINDER - 4	AC15BA005
CYLINDER - 5	AC15AB794
CYLINDER - 6	AC15AB797
NOZZLE - 1	1284
NOZZLE - 2	2284
NOZZLE - 3	3284
NOZZLE - 4	4284
NOZZLE - 5	5284
NOZZLE - 6	6284

Pack Inspection Stamp



All of the information provided herein is subject to verification by the user. Continental Motors, Inc. makes no representation or warranty concerning the accuracy or completeness of the information and assumes no responsibility with respect thereto.

PHT INC 918-835-3660 800-331-5946 FAX 918-835-3696
2702-D N SHERIDAN RD - TULSA OK 74115

09-19-14
INV 588911

NAME: ZEPHYR AIRCRAFT ENG, INC
MUNICIPAL AIRPORT
FL 33542

P.O.: 214189
39320 B AVENUE ZEPHYRHILLS
Ph: 813-788-3305

1	1	124J001-4CR0060	AE3663161E0060
2	1	124J001-4CR0290	AE3663161E0290
3	1	124J001-4CR0110	AE3663161E0110
4	1	124J001-4CR0150	AE3663161E0150

WE HEREBY CERTIFY THAT THE ABOVE PARTS, INCLUDING ALL MATERIALS, HAVE BEEN MANUFACTURED, TESTED, INSPECTED AND PACKED IN CONFORMANCE WITH ALL OF THE REQUIREMENTS OF YOUR ORDER AND THE APPLICABLE GOVERNMENT SPECIFICATIONS & STANDARDS. RECORDS OF TESTS, INSPECTION AND CERTIFICATION INDICATING THE ABOVE CONFORMANCE ARE ON FILE AT PRECISION ROSE TECH AND ARE AVAILABLE FOR YOUR EXAMINATION. IT IS FURTHER CERTIFIED THAT (A) THE TSO'D PARTS AND/OR MATERIALS REFLECTED HEREIN WERE PRODUCED UNDER FEDERAL AVIATION ADMINISTRATION APPROVED MANUFACTURING AND QUALITY CONTROL SYSTEMS/METHODS AS SET FORTH IN THE FAA ISSUED TECHNICAL STANDARD ORDER AUTHORIZATIONS (TSOA) ISSUED TO STRATOFLEX AND (B) SUCH PARTS AND/OR MATERIAL ARE NEW AND ARE IN CONDITION FOR SAFE OPERATION. IF APPLICABLE, SATISFACTORY COMPLIANCE WITH THE CONDITIONS AND TESTS REQUIRED FOR TSO APPROVAL INDICATES THE HOSE ASSEMBLY HAS MET THE MINIMUM PERFORMANCE STANDARDS AS STATED IN THE TSO. FURTHERMORE, IT IS THE RESPONSIBILITY OF THE INSTALLER TO DETERMINE THE INSTALLATION ELIGIBILITY AND THAT IT WILL NOT CAUSE THE HOSE ASSEMBLY TO BE SUBJECTED TO CONDITIONS IN EXCESS OF THOSE FOR WHICH IT HAS BEEN APPROVED.

FOR PHT



1. Approving Civil Aviation
Authority/Country:
FAA/UNITED STATES

2.

AUTHORIZED RELEASE CERTIFICATE

FAA Form 8130-3, AIRWORTHINESS APPROVAL TAG

3. Form Tracking Number:

INV #:

4. Organization Name and Address:

Aerotech of Louisville, Inc. 2209 Watterson Trail Louisville, KY 40299

5. Work Order, Contract, or Invoice Number:

W/O: 112359

6. Item:	7. Description:	8. Part Number:	9. Quantity	10. Serial Number:	11. Status/Work:
1	PRESTOLITE STARTER	MCL-6501	1	S/N 8E000684	Overhauled
12. Remarks: This item was overhauled by Aerotech of Louisville, Inc. on W/O # 112359 Dated 28/Jul/2014 FAA Approved repair station number PU4R453M. Overhauled unit per overhaul manual TW5000					
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:		14b. Authorized Signature:		14c. Approval/Certificate No:
13d. Name (Typed or Printed):	13e. Date (dd/mm/yyyy):		14d. Name (Typed or Printed):		14e. Date: (dd/mm/yyyy):
			John C. Evans		PU4R453M 28/Jul/2014
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: 2014-000700	
4. Organization Name and Address: Approved Turbo Components-Florida, Inc dba ATC 663 2nd Lane Vero Beach, FL 32962 800-626-0367					5. Work Order/Contract/Invoice Number: 34127		
6. Item:	7. Description:	8. Part Number:	9. Quantity:	10. Serial Number:	11. Status/Work:		
1	KPS Turbocharger	406610-0005	1	GBL00095	Overhauled		
12. Remarks: Alternate Part Number: C295001-0101 Overhauled in accordance with: 400600-0000 Rev A /EA09-27 Certifies that the work specified in block 11/12 was carried out in accordance with EASA part 145 and in respect to that work, the product/article is considered ready for release to service under EASA part 145.5482 All known AD's and pertinent bulletins have been complied with as of the date of this form.							
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.:		14b. Authorized Signature:		14c. Approval/Certificate No.:	
						U5AR184Y	
13d. Name (typed or Printed):		13e. Date (dd/mm/yyyy):		14d. Name (Typed or Printed):		14e. Date (dd/mm/yyyy):	
				Jeffery S. Newbold		18/Sep/2014	
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.							

WORK ORDER NUMBER**34127****APPROVED TURBO COMPONENTS- Florida, Inc**

663 2nd Lane

Vero Beach, FL 32962

1-800-626-0367

772-569-2995 (Local / Intl.)

772-569-3947 (Fax)

www.approvedturbo.com

**Approved Turbo Components**

Received Date: 9-16-14

CUSTOMER INFORMATION

Invoice Number: 12189

Contact Name: **MIKE P.O. 214189**Company Name: **ZEPHYR ACFT ENG**Address: **39320 B AVE.
Z-HILLS AIRPORT**City: **Z-HILLS** State: **FL** Zip: **33542** Country: **USA**Phone: **813-788-3305** Fax: **813-782-6970** Cell No: Email:Drop Ship ☐

Company Name:

Contact Name:

Phone:

Address:

City:

State:

Zip:

UNIT INFORMATIONManufacturer: **Kelly Aerospace**Description: **Turbocharger**Part Number: **406610-0005**Alternate Part Number: **C295001-0101**Serial Number: **GBL00095**Maintenance Requested: **Overhaul**

Special Instructions:

FINAL DISPOSITION OF UNIT

Overhauled and returned to service

DOCUMENTATION

FAA Form 8130-3 Overhaul

DATA USED TO PERFORM MAINTENANCE

400600-0000 Rev A / ATC/FAA Approved Data

EA09-27 ☒

Fittings: Y / N Gaskets: Y / N Brackets: Y / N Confirmed By:

WORK ORDER FINAL INSPECTION BY:**Completed Date 9/18/2014****ADDITIONAL FORMS ATTACHED**1002-1 Receiving Inspection ☒1002-2 Preliminary Inspection ☒1002-9 Penetrant Inspection ☒1002-5 Turbo Final ☒1002-6 Control Final ☐1002-7 Parts Issue ☒1015 Hidden Damage ☐**Jeffery Newbold****FAA APPROVED REPAIR STATION NUMBER****U5AR184Y**

Full details of the maintenance performed on this unit are available upon request

Rev: Original

APPROVED TURBO COMPONENTS



TURBOCHARGER OIL LEAKS TROUBLESHOOTING TIPS

CALL 800-626-0367 (Florida) or 800-523-4809 (California) For Further Service

A common problem encountered with turbocharger operations is the "turbocharger oil leak". Often the assumption is made that the turbo is at fault. This can cause unnecessary maintenance to be performed. In many cases the "oil leak" is not a turbo problem-rather it is caused by either improper turbo installation or engine maintenance.

To fully understand what causes a turbocharger to leak oil and how to prevent it, we will cover:

- Oil inside the turbocharger
 - Turbocharger Seals
 - Check Valves
- Leaks at the compressor outlet
- Leaks at the turbine outlet
 - Engine breathers

OIL INSIDE THE TURBOCHARGER

Engine oil *under pressure* enters the bearing housing from the oil inlet line. This oil passes between the bearing and wheel journal surfaces where, as a result of turbulence, air is mixed with the oil and is de-pressurized. This oil then flows either by gravity or scavenge pump through the oil drain line and into the engine sump. Anything which prevents this draining will cause the oil to build up in the bearing housing to a height above the oil seals. Under this condition, the oil will leak out into the compressor housing and/or the turbine housing past the piston ring seals.

SEALS

The main purpose of the seals at both the compressor and turbine ends of the center housing is to prevent the high pressure gasses from entering the center housing and then to the crankcase! The fact that the seals prevent oil from entering the housings is secondary.

CHECK VALVES

Check valves are sometimes installed into supply and drain lines of turbocharger oil systems to prevent oil from seeping by gravity (after engine shutdown) into the bearing housing. If the inlet or outlet check valves are faulty, all the oil that remains in the line will flow back into the bearing housing which can fill up to a point past the seals and cause the turbo to leak oil. The inlet check valve is usually the spring loaded ball and seat type. "Cracking pressures vary between 5-20 lbs". If air flows immediately the valve is probably faulty. The outlet check valves are usually have a spring loaded tensioned valve which will close with the absence of flowing oil. Sometimes the spring will break and allow the valve to remain open at all times. Check to see the valve will open and close by depressing the valve.

OIL AT THE COMPRESSOR OUTLET

The air filter, as it accumulates dirt, offers an increasing restriction, causing a pressure drop across it. A partial vacuum at the compressor inlet will result. If this condition continues for any length of time, it will cause oil to be drawn from the bearing housing and into the compressor housing and induction system. Service the air filter regularly to prevent this condition.

OIL AT THE TURBINE OUTLET

Problems with the oil drain system can cause leaks to turbochargers as well. The majority of turbocharger oil leaks are recognized at the turbine (exhaust) outlet. This is because you will get an indication of oil coming out the tailpipe or leaking out the parting lines of the center housing and turbine housing. If the center housing does not drain back to the sump properly, the level of oil in the bearing housing will exceed the height of the seals and leak. Check the following conditions and correct them to eliminate the problem. Make certain that the turbo oil drain port is pointing *down* at no more than a 35 degree swing on either side of a vertical center-line; (see figure 1). On gravity drain systems (no scavenge pump) ensure the drain lines slopes downward its

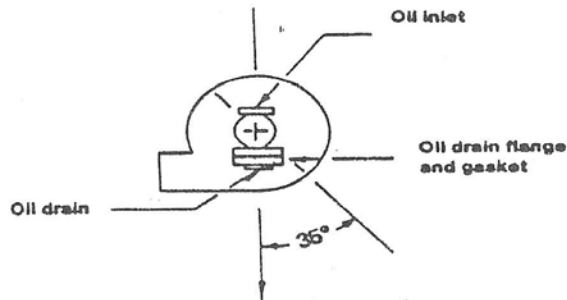


Figure 1

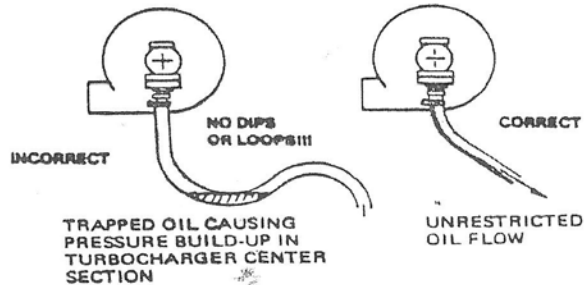


Figure 2

Continued on reverse



OIL AT TURBINE OUTLET (continued)

Finally, check the condition of the drain lines. Those made from a rubber-lined fabric covered hose may not cause any problems at all after running several years in one position. Even though the exterior of the hose looks fine, the rubber interior lining has become brittle. When replacing the turbocharger at any time, it is very possible that such a drain line could be disturbed and bent, causing pieces of the brittle rubber to break off inside the drain line and partially obstruct the flow of oil. To prevent this from happening, always inspect the drain line when the turbocharger has been removed.

ENGINE BREATHERS

Oil leaks in the turbocharger may also, be the result of problems in the crankcase ventilation system. The vent or breather line may sometimes become clogged or restricted through engine operation. These conditions allow positive pressure to build up in the crankcase and restrict the oil from flowing down the drain hose and into the crankcase. This will cause oil to back up into the bearing housing and leak past the piston ring type seals.



A FRESHLY OVERHAULED TURBOCHARGER MAY SMOKE FOR A SHORT PERIOD (PERHAPS 30 MINUTES) UNTIL ASSEMBLY LUBRICATION ON SEALS HAVE BEEN CONSUMED.



We feel that if were known that most turbocharger oil leaks are caused by non-turbocharger problems, much unnecessary maintenance , downtime and expense could be saved

*** The information in this troubleshooting guide is presented for use only to aid properly qualified persons in the maintenance of the equipment covered herein. It no way replaces or changes the appropriate airframe, engine or turbocharger manufacturer's service publications for the proper procedures on any maintenance performed.

APPROVED TURBO COMPONENTS LIMITED WARRANTY

Approved turbo Components, Inc. (ATC) warrants each overhauled turbocharger or turbocharger system component overhauled by ATC to be free of defects in material and workmanship under normal use and service for 18 months from date of sale.

As an express condition of this warranty, the unit must be installed and operated in accordance with the manufacturer's recommended procedures and in conformity with applicable FAA/JAA regulations and procedures.

Approved Turbo Components, Inc. obligations under this warranty are limited to repairing or replacing, at its option, any part or parts returned in an as removed condition which examination shall disclose to have been defective. The repair or replacement of defective parts under this warranty will be made by ATC without charge.

This warranty does not cover any unit which has been subject to misuse, neglect, alteration or accident. Normal wear of service items shall not be considered defects under this warranty. This warranty does not cover any defect, which is the result of improper installation, improper maintenance or improper modification of the unit or any of its components

Approved Turbo Components, Inc.
1545 E. Acequia Ave.
Visalia, CA 93292
800-523-4809

Approved Turbo Components, Inc. -FL
663 2nd Lane
Vero Beach, FL 32962
800-626-0367

APPROVED TURBO COMPONENTS-FLORIDA, INC.

400 SERIES TURBOCHARGERS

INSTALLATION INSTRUCTIONS

CAUTION: Failure to follow these instructions can result in premature turbocharger failure and warranty denial.

I. GENERAL

A. When installing a replacement turbocharger, be careful there is no foreign material in the air cleaner and the ducting to the compressor inlet or in the exhaust manifold. Even small or soft objects will cause extensive damage to the turbocharge wheels.

B. Take care to avoid getting dirt or debris into the turbocharger openings.

C. New and replacement turbochargers may have bolts missing or deliberately left loose to facilitate installations. (A bolt kit may be required. See airframe and/or Engine Manufacturer's Pertinent Overhaul Manual for specific instructions.) If the turbocharger bolts are all tight, all lock tabs bent up and compressor turbine housings are correctly aligned proceed to Step IV. Otherwise, proceed to Step II.

II. REALIGNMENT OF END HOUSINGS

A. Loosen the compressor (aluminum) and turbine housing (Cast iron) bolts and/or V-band nut(s) the minimum required to permit the housings to rotate on the center housing. Excessive loosening of the housings will allow contact and possible wheel damage. Bolts should not have to be loosened more than 1 1/2 turns.

B. Temporarily secure the turbocharger to the engine exhaust manifold outlet flange with two bolts.

C. Rotate the center housing so that the oil inlet and outlet pads will mate with the engine lines. The oil outlet (largest hole) must be at the bottom with the center line of the hole not more than 35° from vertical. Snugly tighten at least two bolts to lock the center housing to the turbine housing.

D. Rotate the compressor housing until it lines up with the intake manifold or intercooler ducting. Snugly tighten at least two bolts or V-band to lock the housing in place.

E. Remove turbocharger from engine and tighten all bolts and/or V-band nuts. Tighten bolts alternately from side to side to prevent cocking of the housings. Turn V-band nuts slowly as the torque setting is neared, tapping band slightly with a soft mallet, to allow the band to fully set. Refer to torque values specified in the applicable Manual.

(Over)

IN ACCORDANCE WITH KELLY AEROSPACE OVERHAUL MANUALS
"THE ORIGINAL NAMEPLATE MUST BE RETAINED IN
THE AIRCRAFT RECORDS WHEN THE NAMEPLATE IS
REMOVED FOR A FIELD OVERHAUL".

Thank you for your valued business!

APPROVED TURBO COMPONENTS, Florida, Inc.

www.approvedturbo.com



III. BEND LOCKTABS

Bend lockplate tabs up against a flat on each bolt head (if not already bent) on bolted housing models. Bend in a direction which will tend to tighten not loosen the bolt. V-band nuts are self-locking.

IV. INSTALLATION AND PRE-OILING OF TURBOCHARGERS

- A. Remove old gasket from exhaust manifold mounting flange, inspect flange for erosion and flatness and install a new gasket, if used.
- B. Inspect oil drain and supply lines for kinking, clogging, restrictions and other signs of deterioration.
- C. Install turbocharger on engine using all new gaskets and "O" rings (when needed), but do not connect the compressor inlet and oil supply line. Tighten the nuts or bolts attaching the turbocharger to the exhaust manifold to the torque values given in the shop manual. Use of a high temperature lubricant on these threads is recommended.
- D. Fill the oil inlet hole with clean engine oil and spin the compressor wheel several times to coat the bearings with oil. Refill the oil inlet hole and connect the oil supply line.
- E. If the compressor wheel cannot be freely spun by hand or if there is any indication of rubbing or scraping, determine the reason before starting the engine. One cause of wheel rubbing is a cocked compressor or turbine housing. TO4 and TO4B turbochargers may have a slight drag before running in, which is a normal condition. Connect the pipe or hose from the outlet of the air filter to the compressor inlet.
- F. Check lubricant level in engine crankcase.
- G. Prime the oil filter if it was changed.

V. START ENGINE

- A. Before attempting to start the engine, crank the engine with the fuel off for 10 to 15 seconds or until the instruments show an oil pressure buildup.
- B. Start the engine and allow it to run at idle speed for 3 to 4 minutes before accelerating.
- C. Check for oil leaks.

VI. OPERATIONAL TEST

- A. Perform per Kelly Aerospace Service Bulletin No. 23.



Canadian Aero Manufacturing Batch # **13-082-41**
Qty-1- **CAM643109** Starter Adapter Spring
RETAIN this batch # as part of your records for
traceability. Refer to PDA #PDA01-11 for eligibility

SERVICE INFORMATION LETTER

SIL99-1**CONTAINS USEFUL INFORMATION PERTAINING TO THE
CONTINENTAL AIRCRAFT ENGINE**Technical Portions FAA
Approved
Supersedes M91-5**SUBJECT: ENGINE PRESERVATION FOR ACTIVE AND STORED
AIRCRAFT****PURPOSE:** Provide current engine preservation information**COMPLIANCE:** During periods as specified by this document**MODELS****AFFECTED:** All Continental Engine Models**GENERAL**

There is no practical procedure that will insure corrosion prevention on installed aircraft engines. Susceptibility to corrosion is influenced by geographical location, season and usage. The owner/operator is responsible to recognize the conditions that are conducive to corrosion and take appropriate precautions.

ENGINE PRESERVATION

Corrosive attack can occur in engines that are flown only occasionally regardless of geographical location. In coastal areas and areas of high humidity, corrosive attack can occur in as little as two days. The best method of reducing the likelihood of corrosive attack is to fly the aircraft at least once every week for a minimum of one hour.

NOTE...

Corrosive attack may reduce engine service life. Of primary concern are cylinders, piston rings, valves, valve guides, camshaft and lifters.

TEMPORARY STORAGE (Aircraft that are not flown for 30 to 90 days)

Preparation for storage.

1. Remove oil sump drain plug and drain oil. Replace drain plug, torque and safety. Remove oil filter. Install new oil filter, torque and safety. Service engine to proper sump capacity with oil conforming to MIL-C-6529 Type II.

2. Perform a ground run-up. Perform a pre-flight inspection and correct any discrepancies. Fly the aircraft for one hour at normal operation temperatures.

WARNING

To prevent possibility of serious bodily injury or death, before moving the propeller accomplish the following:

- a. Disconnect all spark plug leads.
- b. Verify magneto switches are connected to magnetos, that they are in the "OFF" Position and "P" leads are grounded.
- c. Throttle position "CLOSED."
- d. Mixture control "IDLE-CUT-OFF."
- e. Set brakes and block aircraft wheels. Insure that aircraft tie-downs are installed and verify that the cabin door latch is open.
- f. Do not stand within the arc of the propeller blades while turning the propeller.

ISSUED			REVISED			 TELEDYNE CONTINENTAL MOTORS An Allegheny Teledyne Company P.O. Box 90 Mobile AL 36601 • 334-438-3411	PAGE NO	REVISION
MO	DAY	YEAR	MO	DAY	YEAR		1 of 4 SIL99-1	
03	25	99						

WARNING

To prevent possibility of serious bodily injury or death, before moving the propeller accomplish the following:

3. After flight remove all spark plug leads and remove the top spark plugs. Protect the ignition lead ends with AN-4060 Protectors. Using a common garden sprayer or equivalent, spray atomized preservative oil that meets MIL-P - 46002, Grade 1, at room temperature through upper spark plug hole of each cylinder with the piston at bottom dead center position. Rotate crankshaft as opposite cylinders are sprayed. Stop crankshaft with none of the pistons at top dead center.
 4. Re-spray each cylinder. To thoroughly cover all surfaces of the cylinder interior move the nozzle or spray gun from the top to the bottom of the cylinder.
 5. Install top spark plugs but do not install spark plug leads.
 6. Seal all engine openings exposed to the atmosphere using suitable plugs and covers. Attach a red "REMOVE BEFORE FLIGHT" streamer at each location.
 7. Tag each propeller in a conspicuous place with the following notation on the tag: DO NOT TURN PROPELLER - ENGINE PRESERVED - PRESERVATION DATE _____.
- a. Disconnect all spark plug leads.
 - b. Verify magneto switches are connected to magnetos, that they are in the "OFF" Position and "P" leads are grounded.
 - c. Throttle position "CLOSED."
 - d. Mixture control "IDLE-CUT-OFF."
 - e. Set brakes and block aircraft wheels. Insure that aircraft tie-downs are installed and verify that the cabin door latch is open.
 - f. Do not stand within the arc of the propeller blades while turning the propeller.
3. After flight remove all spark plug leads and remove the spark plugs. Protect the ignition lead ends with AN-4060 Protectors. Install protective plugs P/N 22671 in bottom spark plug holes. Using a common garden sprayer or equivalent, spray atomized preservative oil that meets MIL-P-46002, Grade 1, at room temperature through upper spark plug hole of each cylinder with the piston at bottom dead center position. Rotate crankshaft as opposite cylinders are sprayed. Stop crankshaft with none of the pistons at top dead center.
 4. Re-spray each cylinder. To thoroughly cover all surfaces of the cylinder interior move the nozzle or spray gun from the top to the bottom of the cylinder.
 5. Install dehydrator plugs MS27215-1 or -2 in each of the upper spark plug holes. Make sure each plug is blue in color when installed.

NOTE...

If the engine is not returned to flyable status on or before the 90-day expiration, it must be preserved in accordance with "Indefinite Storage" procedures in this document.

INDEFINITE STORAGE (Aircraft that are not flown for 90 days)

PREPARATION FOR STORAGE

1. Remove oil sump drain plug and drain oil. Replace drain plug, torque and safety. Remove oil filter Install new oil filter torque and safety. Service engine to proper sump capacity with oil conforming to MIL-C-6529 Type II.
 2. Perform a ground run-up. Perform a pre-flight inspection and correct any discrepancies. Fly the aircraft for one hour at normal operation temperatures.
5. Install dehydrator plugs MS27215-1 or -2 in each of the upper spark plug holes. Make sure each plug is blue in color when installed.

ISSUED			REVISED			 TELEDYNE CONTINENTAL MOTORS An Allegheny Teledyne Company P.O. Box 90 Mobile AL 36601 • 334-438-3411	PAGE NO	REVISION
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6. Attach a red "REMOVE BEFORE FLIGHT" streamer to each bag of desiccant. Place a bag of desiccant in the exhaust pipes and seal the openings.
7. Seal all engine openings exposed to the atmosphere using suitable plugs and covers.
8. Tag propeller in a conspicuous place with the following notation on the tag: DO NOT TURN PROPELLER - ENGINE PRESERVED - PRESERVATION DATE _____.

INDEFINITE STORAGE INSPECTION PROCEDURES

1. Aircraft prepared for indefinite storage must have the cylinder dehydrator plugs visually inspected every 15 days. The plugs must be changed as soon as they indicate other than a dark blue color. If the dehydrator plugs have changed color in one-half or more of the cylinders, all desiccant material on the engine must be replaced.
2. The cylinder bores of all engines prepared for indefinite storage must be re-sprayed with corrosion preventive mixture every 90 days.

RETURNING AN ENGINE TO SERVICE AFTER STORAGE

1. Remove seals and all desiccant bags.
2. Remove cylinder dehydrators and plugs or spark plugs from upper and lower spark plug holes.
3. Remove oil sump drain plug and drain the corrosion preventive mixture. Replace drain plug, torque and safety. Remove oil filter. Install new oil filter torque and safety. Service the engine with oil in accordance with the manufacturer's instructions.

WARNING

To prevent possibility of serious bodily injury or death, before moving the propeller accomplish the following:

- a. **Disconnect all spark plug leads.**
 - b. **Verify magneto switches are connected to magnetos, that they are in the "OFF" Position and "P" leads are grounded.**
 - c. **Throttle position "CLOSED."**
 - d. **Mixture control "IDLE-CUT-OFF."**
 - e. **Set brakes and block aircraft wheels. Insure that aircraft tie-downs are installed and verify that the cabin door latch is open.**
 - f. **Do not stand within the arc of the propeller blades while turning the propeller.**
4. Rotate propeller by hand several revolutions to remove preservative oil.
 5. Service and install spark plugs and ignition leads in accordance with the manufacturer's instructions.
 6. Service engine and aircraft in accordance with the manufacturer's instructions.
 7. Thoroughly clean the aircraft and engine. Perform visual inspection.
 8. Correct any discrepancies.
 9. Conduct a normal engine start.
 10. Perform operational test in accordance with "Operational Inspection," of the applicable Maintenance Manual.
 11. Correct any discrepancies.
 12. Perform a test flight in accordance with airframe manufacturer's instructions.
 13. Correct any discrepancies prior to returning aircraft to service.
 14. Change oil and filter after 25 hours of operation.

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03	25	99						



Continental Motors, Inc.

THE OIL PRESSURE ON THIS ENGINE WAS ADJUSTED DURING THE ENGINE ACCEPTANCE TEST AT THE FACTORY. ONLY MINOR ADJUSTMENTS MAY BE NECESSARY TO ASSURE THE PROPER INDICATION ON THE COCKPIT GAUGE.

FACTORY SETTINGS:

RPM 2703 OIL TEMP 197 OIL PRESSURE 48.6

OIL PRESSURE PICK UP POINT: MAIN OIL GALLERY BETWEEN #2 AND #4 CYLINDERS

655305 Rev.A

Aircraft Engine Test Verification

This document verifies that the engine model listed below has satisfactorily completed all testing listed below in accordance with CM standard engine testing specifications as approved by the FAA.

Engine Model T310 520 M7B

Engine Serial Number 1011764

Testing Completed

Standard Acceptance Test:

Date of Completion MAR 06 2015 Test Operator 29769



Continental Motors, Inc.



Continental Motors, Inc.

ENGINE WARRANTY REGISTRATION

Sent
Registered
mail
5-14-15
QME

This is your **ENGINE WARRANTY/RUST** and **CORROSION AWARENESS PROGRAM REGISTRATION** form. It is essential that it be properly completed and returned to CMI Warranty Department immediately. This will expedite processing of the claim should your engine require repair or replacement as provided in the appropriate warranty policy. The engine owner can register on-line for free product and service information at <http://continentalmotors.aero> or contact a Factory Service Representative at 1-888-826-5465 or 1-251-436-8299.

PLEASE COMPLETE AND RETAIN FOR OWNER'S RECORD



Owner's Name Southern Aerial
Images, Inc.
Address 2808-4 McFarland Blvd

City Northport
State/Province AL
Country USA Postal Code 35476

Engine Model TSIO-520-M7B Serial # 1011764
Date Installed May 13, 2015 Tach Time 106
Aircraft Model TP206D Serial # P206-0602
Year Manufactured Aircraft Total Hours 10,502.7
What engine is being replaced? TSIO-520-M Continental
Serial # 532085 Model TSIO-520-M
Hours ENGINE T.T. 2412.8



ZEPHYR AIRCRAFT ENGINES, INC

FAA CERTIFIED REPAIR STATION # VI4R597M

39320 B AVE
813-788-3305

ZEPHYRHILLS, FL 33542
FAX 813-788-4412

W.O.# 215123

DATE: 5/13/2015

SOUTHERN AERIAL IMAGES INC
2808 MCFARLAND BLVD #4
NORTHPORT, AL 35476-2932

DESCRIPTION OF SERVICES: N5702J

PROPELLER & EXHAUST REMOVED. REMOVED CONTINENTAL ENGINE TSIO-520-M SN 532085 FOR EXCHANGE FACTORY RE-MAN. INSTALLED CONTINENTAL TSIO-520-M7B, SN 1011764 RE-MAN ENGINE FROM FACTORY. PROPELLER CLEANED & REINSTALLED . GROUND RAN AIRCRAFT, NO LEAKS NOTED AT THIS TIME.

WARRANTY

N/C

SUBTOTAL:

N/C

SALES TAX: 6%

SALES TAX: 1% DISCRETIONARY TAX ON \$5,000.00

FREIGHT

TOTAL BALANCE DUE:

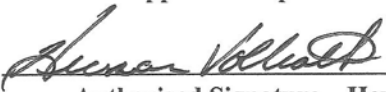
N/C

Date	Total Time		Time Since Last Overhaul		Engine Service and Maintenance Record Record maintenance actions including engine part removal and installation and compliance with inspections, Airworthiness Directives, Special Inspections, Modifications and Service Bulletins
	Hours	Min	Hours	Min	

Date: May 13, 2015	Tach Time: 10:6	A/C T.T. 10502:7	ZAE W.O. 215123
Aircraft Model: Cessna TP206D	S/N. P206-0602	N5702J	

Installed this Continental TSIO-520-M7B, S/N. 1011764 re-man engine from factory. Installed into N5702J
 Flushed all oil engine hoses & fuel hoses flushed & reinstalled. Engine baffles reinstalled, exhaust system
 reinstalled using all new exhaust gaskets, nuts & bolts, turbo, waste gate & controller cleaned & reinstalled.
 Prop governor cleaned & reinstalled with new MS9144-01 gasket & vacuum pump reinstalled with new
 gasket. Engine serviced with 12 qts. Of Phillips 20W50XC oil. Propeller cleaned & reinstalled. Ground ran
 aircraft no leaks noted, at this time. Engine cowling reinstalled on aircraft. No other work or accessories done
 or supplied at this time. Work done under Zephyr Aircraft Engines W.O. 215123.

End of work done.

Zephyr Aircraft Engines Inc. 39320 B ave. Zephyrhills, Florida 33542 Phone: 813-788-3305	F.A.A. Approved Repair Station # VI4R597M  Authorized Signature Herman Vollrath
---	--

June 24, 2015 N5702J S/N P206-0602 Tach: 55.0

C/W Oil & filter change. Opened & inspected oil filter, no defects noted. Serviced oil with 11 quarts Phillips XC20W50.

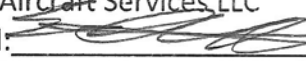
All above work was accomplished IAW Manufacturers Service & Maintenance Documents. This aircraft is found to be in airworthy condition with respect to work performed.

B-N-B Aircraft Services LLC Signed: 	Edward C. Vigne Cert #: A&P2876861IA
--	---

July 7, 2015 N5702J S/N P206-0602 Tach: 62.0

Removed & replaced P/N P10-7210 intake air filter. Removed & replaced P/N 066-10500 brake linings.

All above work was accomplished IAW Manufacturers Service & Maintenance Documents. This aircraft is found to be in airworthy condition with respect to work performed.

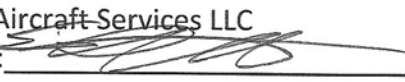
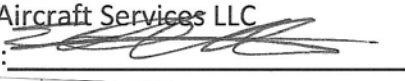
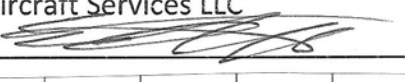
B-N-B Aircraft Services LLC Signed: 	Edward C. Vigne Cert #: A&P2876861IA
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July 27, 2015 N5702J S/N P206-0602 Tach: 78.4

Engine running rough & not producing full power. Found fuel injector air lines loose, torqued air lines. Ground run & test flight complied with – no defects noted

All above work was accomplished IAW Manufacturers Service & Maintenance Documents. This aircraft is found to be in airworthy condition with respect to work performed.

B-N-B Aircraft Services LLC Signed: 	Edward C. Vigne Cert #: A&P2876861IA
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Date	Total Time		Time Since Last Overhaul		Engine Service and Maintenance Record Record maintenance actions including engine part removal and installation and compliance with inspections, Airworthiness Directives, Special Inspections, Modifications and Service Bulletins
	Hours	Min	Hours	Min	
Carried forward →					
August 4, 2015			N5702J		S/N P206-0602 Tach: 82.3 C/W Oil & filter change. Opened & inspected oil filter, no defects noted. Serviced oil with 11 quarts Phillips XC20W50. All above work was accomplished IAW Manufacturers Service & Maintenance Documents. This aircraft is found to be in airworthy condition with respect to work performed. B-N-B Aircraft Services LLC Signed:  Edward C. Vigne Cert #: <u>A&P2876861IA</u>
October 6, 2015			N5702J		S/N P206-0602 Tach: 106.0 C/W Oil & filter change. Opened & inspected oil filter, no defects noted. Serviced oil with 11 quarts Phillips XC20W50. All above work was accomplished IAW Manufacturers Service & Maintenance Documents. This aircraft is found to be in airworthy condition with respect to work performed. B-N-B Aircraft Services LLC Signed:  Edward C. Vigne Cert #: <u>A&P2876861IA</u>
November 19, 2015			N5702J		S/N P206-0602 Tach: 128.7 C/W 100 hour/annual inspection IAW Continental TSIO-520 Service & Maintenance Manual. Complied with oil & filter change. Opened & inspected oil filter, no defects noted. Serviced oil with 11 quarts Phillips XC20W50. Complied with compression check; 1) 78, 2) 78, 3) 76, 4) 78, 5) 74, 6) 76. I certify this engine has been inspected IAW a annual inspection and is determined to be in airworthy condition. All above work was accomplished IAW Manufacturers Service & Maintenance Documents. This aircraft is found to be in airworthy condition with respect to work performed. B-N-B Aircraft Services LLC Signed:  Edward C. Vigne Cert #: <u>A&P2876861IA</u>

Date	Total Time		Time Since Last Overhaul		Engine Service and Maintenance Record
	Hours	Min	Hours	Min	
Carried forward →					Record maintenance actions including engine part removal and installation and compliance with inspections, Airworthiness Directives, Special Inspections, Modifications and Service Bulletins

RainAir Aircraft Services, LLC
 Located at the Albertville Airport, Albertville, AL 35950
 Ph.# (256) 660-1311
N5702J

Engine Log Entry

Date: 02/03/2016

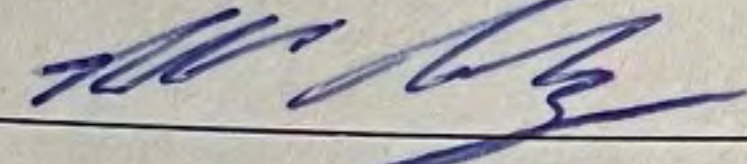
W/O# 1339

Engine S/N# 1011764

Tach: 201.1

Checked and set engine fuel system pressures in accordance with TCM SID97-3F. Performed run up, op's and leak ck'd. ok. With respect to the maintenance performed, engine approved for return to service.

Richard Hudgins

Date: 02/03/2016 Signature:  Certificate #: A&P 3682396 I.A.

ENGINE MODEL:
ENGINE S/N:
REG. NO: 5702J
WORK ORDER:
8471-11-2015



Flightline Group, Inc.

3256 Capital Circle SW
Tallahassee, Florida 32310
Phone: 850-576-3515

DATE: 11/20/2015
A/C TSN:
ENG TT:
TSMOH:
TACH: 124.5

Engine Entries

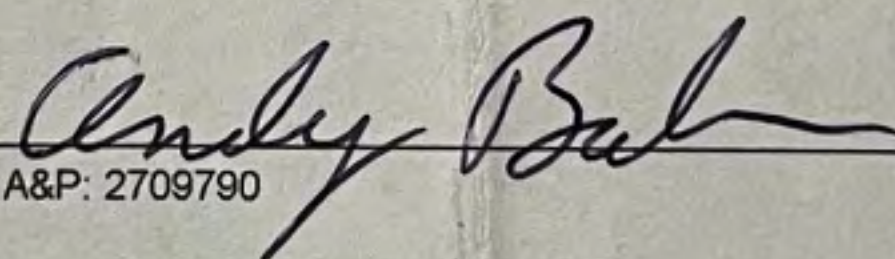
Found oil pressure line fitting coming off of the controller (on the engine side) to be loose, removed fitting, cleaned and reinstalled fitting, cleaned and ran engine and leak checked good. No other leaks noted at this time. Request pilot report.

The aircraft, engine, propeller or appliance identified above was repaired and inspected referencing current regulations of the FAA and is approved for return to service.

DATE: 11/20/2015

SIGNED:

Andy Baker, A&P: 2709790



Work Order: 8471-11-2015

Printed by EBis 3 (datcomedia.com)

RainAir Aircraft Services, LLC
 Located at the Albertville Airport, Albertville, AL 35950
 Ph.# (256) 660-1311
Airframe Log Entry
N5702J

Date: 09/08/2016

W/O #1475

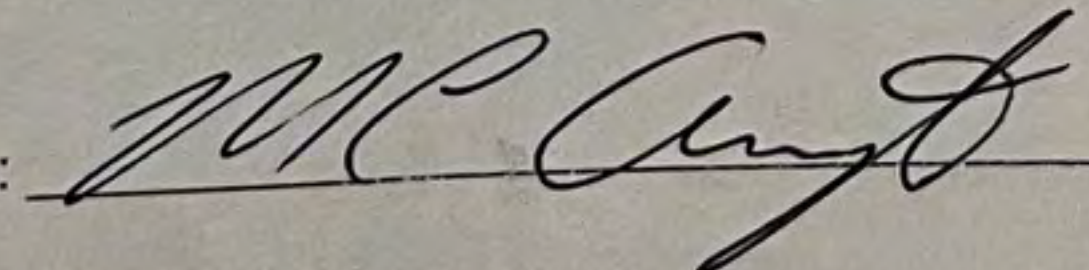
Cessna 206

S/N: P206-0602

Tach 291.9

- 1) Drained oil, removed filter. Cut open old filter and inspected, no defects noted. Installed new Champion CH48109-9 oil filter and 12 qts. Phillips X/C 20W50. oil. Performed run up, op's and leak checked ok.
- 2) Adjusted Manifold Pressure.
Aircraft/ Engine approved for return to service, with respect to the maintenance performed.

Mike Arrington

Date: 09/08/2016 Signature:  Certificate#: A&P 3550266

Engine Service and Maintenance Record

Date	Total Time		Time Since Last Overhaul		Record maintenance actions including engine part removal, installation and compliance with inspections, Airworthiness Directives, Special Inspections, Modifications and Service Bulletins
	Hours	Min	Hours	Min	
Carried forward →					
10-18-16					1. changed oil & filter. Serviced with W100 oil & CH481D9-1 filter.
340.5 TACH					2. Ground run, no leaks noted AT filter or drain Ret W/D 2024. M Terry 2745381 AP/1A

N5702J

S/N P206-0602

Tach: 359.4

AFTT: 10547.1

01/02/2017

Engine: Continental TSIO-520-M

S/N: 1011764

TSO: 354.4

Complied with 100 hour/Annual inspection IAW Cessna T206 Service & Maintenance Manual & Continental TSIO-520 Series Maintenance Manual. Replaced 12 Tempest URHM 32E spark plugs with new. Replaced cabin heat air intake hose on left side. Complied with compression check 1) 68, 2) 70, 3) 72, 4) 70, 5) 74, 6) 70. AD 16-16-12 is NA. I certify this engine has been inspected in accordance with a annual inspection and is determined to be in an airworthy condition. This engine has been determined to be in an airworthy condition with respect to work performed.

B-N-B Aircraft Services LLC
Bessemer, AL (KEY)

Edward C Vigne - A&P2876861

3-31-17

Tach 387.7

Changed oil and filter. Serviced with
12 qts Aeroshell W100. Washed & Run eng.
no discrepancies noted.
Ret 7A2745080

Date	Total Time		Time Since Last Overhaul		Engine Service and Maintenance Record
	Hours	Min	Hours	Min	
Carried forward →					Record maintenance actions including engine part removal and installation and compliance with inspections, Airworthiness Directives, Special Inspections, Modifications and Service Bulletins

Date: 7/19/2017; Aircraft: N5702J; Type: TP206D; S/N: P206-0602; Tach: 442.0; Total Time: 442.0; Engine - Type: , S/N:, Time:, SMOH:

Changed oil and filter. Serviced with 12 qts Aeroshell W100. Degreased engine. Cut open old filter and inspected. No discrepancies noted.

The work described above was performed and inspected IAW current regulations of the Federal Aviation Administration. I certify this engine is approved for return to service with respect to work performed. Pertinent details are on file at Hawthorne Global Aviation Services, 4800 Carter Dr., Tuscaloosa AL. 35401, under W.O.# 16137

Signed R. Gant FA2745080 Date 7-19-17

10-9-17

Tach 489.5

Changed oil & filter. Serviced with 12 qts Aeroshell W100. Worked & Ran engine. No leaks noted.

R. Gant FA2745080

Date: 3/08/2018; Aircraft: N5702J; Type: TP206D; S/N: P206-0602; Tach: 539.1; Total Time: 11035.9; Engine - Type: TSIO520M7B, S/N: 1011764, Time: 528.5, SMOH: 528.5

Compression check: #1. 72/80 #2. 78/80 #3. 78/80 #4. 74/80 #5. 72/80 #6. 74/80. Changed oil and filter. Checked mag timing and inspected harness. Replaced spark plugs with new units. Inspected induction and exhaust system. Inspected engine mounts. Pressure checked exhaust system for leaks. Degreased engine. Ground run. No discrepancies noted.

I certify this airframe / engine propeller has been inspected IAW a 100 hr / Annual Inspection and found to be airworthy.

WO# 16600 Date 3/8/18

Signed R. Gant FA2745080
For Hawthorne Global Aviation Services
4800 Carter Dr Tuscaloosa, AL 35401

Date	Total Time		Time Since Last Overhaul		Engine Service and Maintenance Record
	Hours	Min	Hours	Min	
Carried forward →					Record maintenance actions including engine part removal, installation and compliance with inspections, Airworthiness Directives, Special Inspections, Modifications and Service Bulletins
4-8-2019					1. Complied with Annual insp I/A/w Cessna mm Guidelines.
690.7 Tach					2. Complied with AD research with ATP HUB revision date 3-30-19 and verified current with revision date 4-6-19.
680.1 SMOH					3. Changed oil & filter. Serviced with Aeroshell W100 oil & CH48108-1 filter. Cut open & insp removed filter.
					4. Checked comp. 1-70/80, 2-72/80, 3-70/80, 4-74/80, 5-72/80, 6-70/80.
					5. Tested spark plugs & leads
					6. Inspected for fuel, oil, intake, & exhaust leaks.
					7. Degreased & Ground run. OPS checked normal.
					I certify this engine has been inspected I/A/w an Annual inspection and is found to be airworthy.
					M Terry 2745381 AP/IA
					Ref Dixie Air W/O# 2202
7-26-2019 N5702J 725.3 tach Engine log 1- Changed oil and filter. Serviced with W100 oil and CH48108-1 filter. 2- Inspected removed filter. 3- Degreased and ground run. No leaks noted at filter or drain. 4- In reference to work performed, reference Dixie Air W/O# 2241. Mike Terry 2745381 AP/IA <u>M Terry</u>					

Date	Total Time		Time Since Last Overhaul		Engine Service and Maintenance Record Record maintenance actions including engine part removal installation and compliance with inspections, Airworthiness Directives, Special Inspections, Modifications and Service Bulletins
	Hours	Min	Hours	Min	
Carried forward →					

~~6-4-2021~~ 899.4 Tach
 889.1 SMOH
 6-4-2021

- 1- Complied with an ANNUAL inspection I/AW Cessna maintenance manual guidelines.
- 2- Complied with AD research with ATP HUB revision date 6-3-2021.
- 3- Changed oil and filter. Serviced with Aeroshell W100 oil and CH48108-1 filter.
- 4- Cut open and inspected removed filter.
- 5- Checked compression. 1- 68/80, 2- 66/80, 3- 68/80, 4- 68/80, 5- 66/80, 6- 60/80. (40/80 is calibrated lower limit at this inspection.)
- 6- Tested sparkplugs and leads.
- 7- Lubed exhaust sections and wastegateb valve with Mousemilk.
- 8- Checked for fuel, oil, intake, and exhaust leaks.
- 9- Checked magneto to engine timing.
- 10- Degreased and ground run ops checked normal. Reference Dixie Air W/O# 2598.

I certify this engine has been inspected I/AW an ANNUAL inspection and is found to be airworthy.

Mike Terry 2745381 AP/IA

M Terry

6-14-2022
 N5702J
 974.3 Tach
 963.7 SMOH

- 1- Comply with Annual inspection I/A/W Cessna maintenance manual.
- 2- Comply with AD research with ATP Hub revision date 5-31-2022.
- 3- Checked compression. 1-70/80, 2-68/80, 3-70/80, 4- 68/80, 5- 70/80, 6- 72/80.
- 4- Replaced all RHB38E sparkplugs.
- 5- Changed oil and filter. Serviced with Aeroshell W100 oil and CH48108-1 filter.
- 6- Cut open and inspected removed filter.
- 7- Lubed wastegate valve and exhaust slipjoints with mouse milk.
- 8- Complied with CSB07-01A dated 3-19-2007. No defects noted.
- 9- Degreased engine
- 10- Ground run ops checked normal. Reference Dixie Air W/O# 2685.

I certify this engine has been inspected I/A/W an ANNUAL inspection and is found to be airworthy.

Mike Terry 2745381 AP/IA

M Terry

Date

7-6-2023

1011.1 tach

1000.5 SMOH

Carried forv

- 1- Complied with an ANNUAL inspection I/A/W Cessna MM guidelines.
2- Complied with AD research with Veryon publications revision date 6-26-2023. Verified current at sign-off.
3- Checked compression. 1- 68/80, 2- 66/80, 3- 68/80, 4- 68/80, 5- 70/80, 6- 66/80.
4- Changed oil and filter. Serviced with Aeroshell W100 oil and CH48108-1 filter. Cut open and inspected removed filter.
5- Cleaned, gapped, tested, rotated sparkplugs.
6- Checked magneto timing.
7- Degreased and ground run. Ops checked normal.
8- Reference Dixie Air w/o# 2802.

I certify this engine has been inspected I/A/W an ANNUAL inspection and has been found to be airworthy.

Mike Terry 2745381 AP/IA

M Terry

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5-1-2024

1027.3 tach

1016.7 SMOH

- 1- Complied with an ANNUAL inspection I/A/W Cessna MM guidelines.
2- Complied with AD research with VERYON revision date 4-26-2024 and verified current at sign-off.
3- Changed oil and filter. Serviced with Aeroshell W100 oil and CH48108-1 filter. Cut open and inspected removed filter.
4- Cleaned, gap, test, and rotate sparkplugs.
5- Checked compression. 1- 60/80, 2- 58/80, 3- 70/80, 4- 62/80, 5- 66/80, 6- 70/80. Lower calibrated limit 40/80.
6- Lube exhaust slip joints, wastegare with mousemilk.
7- Check magneto to engine timing.
8- Degreased and ground run. Ops checked normal. No leaks noted at filter or drain.
9- Reference Bama Dixie w/o# 2935.

I certify this engine has been inspected I/A/W an ANNUAL inspection and has been found to be airworthy.

Mike Terry 2745381 AP/IA

M Terry

5-29-2025

1073.0 tach

1062.4 SMOH

- 1- Complied with an ANNUAL inspection I/A/W Cessna maintenance manual guidelines.
2- Complied with AD research with VERYON revision date 5-20-2025 and verified current with revision date 5-29-2025.
3- Changed oil and filter. Serviced with Aeroshell W100 oil and CH48108-1 filter.
4- Cut open and inspected removed oil filter.
5- Complied with CSB07-01A at oil change.
6- Checked compression. 1- 68/80, 2- 66/80, 3- 70/80, 4- 66/80, 5- 70/80, 6- 68/80. (Calibrated lower compression limit 44/80.)
7- Cleaned, gapped, tested and rotated sparkplugs.
8- Checked magneto to engine timing.
9- Lubricated exhaust slip joints and wastegate shaft with mouse milk.
10- Retorqued valve cover screws
11- Degreased and ground run. Ops checked normal. No leaks noted at filter or drain.
12- Reference Bama Dixie w/o# 25-2558.

I certify this engine has been inspected I/A/W an ANNUAL inspection and is found to be airworthy.

Mike Terry 2745381 AP/IA

M Terry

Date	Total Time		Time Since Last Overhaul		Engine Service and Maintenance Record
	Hours	Min	Hours	Min	
12-20-2019 N57023J 773.0 Tach Engine log					Record maintenance actions including engine part removal and installation and compliance with inspections, Airworthiness Directives, Special Inspections, Modifications and Service Bulletins 1- Changed oil and filter. Serviced with Aeroshell W100 Plus oil and CH48108-1 filter. 2- Cut open and inspected removed oil filter. 3- Adjusted alternator belt tension. 4- Degreased and ground run. No oil leaks noted at filter or drain 5- In reference to work performed, Reference Dixie Air Services W/O# 2487. Mike Terry 2745381 AP/IA <i>M Terry</i>
5-1-2020 804.1 tach 793.5 smox					1- Complied with an ANNUAL inspection I/A/W Cessna maintenance manual guidelines. 2- Complied with AD research with ATP Hub revision date 4-9-2020. 3- Changed oil and filter. Serviced with Aeroshell 100 Plus oil and CH48108-1 filter. 4- Checked compression. 1- 68/80, 2- 68/80, 3- 70/80, 4- 74/80, 5- 68/80, 6- 70/80. (Lower calibrated compression limit was 42/80.) 5- Cut open and inspected removed filter. 6- Cleaned, gapped, tested, and rotated sparkplugs. 7- Lubed wastegate and engine controls. Lubed exhaust slip joints. 8- Checked for fuel, exhaust, intake, and oil leaks. 9- Checked magneto to engine timing. 10- Degreased and ground run. ops checked normal. No leaks noted at filter or drain. 15- Reference Dixie Air Services W/O# 2469. I certify this Engine has been inspected I/A/W an ANNUAL inspection and has been found to be airworthy. Mike Terry 2745381 AP/IA. <i>M Terry</i>
3-26-2021 883.5 HM Eng log					1- Changedd oil and filter. Serviced with Aeroshell W100 oil and Champion filter. Cut open and inspected removed filter. 2- Replaced #6 cylinder lower sparkplug. 3- Degreased and ground run. No leaks noted at filter or drain 4- Reference Dixie Air W/O# 2581 Mike Terry 2745381 AP/IA <i>M Terry</i>