

### Załącznik nr 1.1

Do Protokołu nr 1/2014 z przeprowadzonej w dniach 14 ÷ 16 kwietnia 2014 r. ekspertyzy  
silnika Continental IOF-240-B, nr fabryczny 400097

(1)

W załączniku nr 1 do Protokołu nr 1/2014 w punkcie 4 pt. „Ocena dokumentacji eksploatacyjnej silnika” stwierdzono, że:

- istnieje luka zapisów w dokumentacji obsługowej, okresu eksploatacji statku powietrznego pod amerykańskim Nadzorem Lotniczym,
- luka zapisów w dokumentacji obsługowej zostanie udokumentowana przez PKBWL w załączniku nr 1.1 (niniejszy załącznik).

W celu udokumentowania w/w luki przedstawiono skany wybranych stron z amerykańskiej Książki statku powietrznego – Aircraft Log oraz amerykańskiej Książki silnika – Engine Log Book.

(2)

#### Aircraft Log



Ilustracja 1. Strona tytułowa.

**Aircraft Record** General Information

Manufacturer Liberty Aerospace Model XL 2  
 Serial 0052 Registration Number N567XL  
 Date of Manufacture 2007

Engine(s) currently installed:  
 Manufacturer Continental Model 10F-240-B Serial 400095  
 Manufacturer \_\_\_\_\_ Model \_\_\_\_\_ Serial \_\_\_\_\_

Propeller(s) currently installed:  
 Manufacturer Sensenich Model W69EK763G  
 HUB Model \_\_\_\_\_ Serial AG6971 Serial \_\_\_\_\_  
 Blade Model \_\_\_\_\_ Serial \_\_\_\_\_ Serial \_\_\_\_\_ Serial \_\_\_\_\_  
 Blade Model \_\_\_\_\_ Serial \_\_\_\_\_ Serial \_\_\_\_\_ Serial \_\_\_\_\_

Ilustracja 2. Strona z informacjami o statku powietrznym.

YEAR: DATE	RECORDING TACH TIME	TODAY'S FLIGHT TS 100 HR	TOTAL TIME IN SERVICE	Description of Inspections, Tests, Repairs and Alterations Entries must be endorsed with Name, Rating and Certificate Number of Technician or Repair
1-11-08	336.5	36.6	336.5	Reg#: N567XL Make: Liberty Model: XL2 Date: 1/11/08 A/C TT: 336.5 Tach: 336.5 Executed stabliator "stiction" test, found <u>7.1</u> lbs control "stiction". Removed rear inspection panels at stabliator, inspected rod ends, swivel and end play. Lubricated stabliator rod ends, anti servo tab hinge, and stabliator fuselage mount bearings. Re-installed rear inspection panels at stabliator. Re-performed "stiction" test, recorded <u>7.4</u> lbs "stiction". <i>Richard Baker</i> RICHARD BAKER A/P 226764782
1/24/07	338.6		338.6	REMOVED NOSE BEAR DUE TO CRACKS NEAR LAST BEND AND WHEEL RITACH. GREG DORSEY <i>Greg Dorsey</i> A/P 226764782

Pomyłkowo wpisano rok 2007 zamiast 2008


Ilustracja 3. Strona z informacjami o użytkowaniu i obsłudze.





YEAR: DATE	RECORDING TACH TIME	TODAY'S FLIGHT	TOTAL TIME IN SERVICE	Description of Inspections, Tests, Repairs and Alterations Entries must be endorsed with Name, Rating and Certificate Number of Technician or Repair Facility. (See back pages for other specific entries.)
				<p align="center"><b>WELCH AVIATION, INC.</b> 439HERNDON AVE. ORLANDO FL. 32808 PH#407-804-6006/FAX 407-804-6008</p> <p><b>06-03-2011 N567XL HOBBS: 523.0 A/CTT: 523.0 A/C S/N0052</b></p> <p>OPENED AIRFRAME, LUBED AND INSPECTED IN ACCORDANCE WITH MANUFACTURER RECOMMENDATIONS. INSTALLED 1 NEW AIR FILTER P/N: R1260 SEE YELLOW TAG IN LOGS. INSTALLED NEW A/C BATTERY P/N: RG-25 S/N: 40428823. INSTALLED NEW STAND-BY BATTERY P/N: PS-12120F2. INSTALLED 2 AAA BATTRES IN EMERGENCY SAFETY HAMMER. REMOVED BRAKE RESERVOIR EMPTIED, SERVICED WITH HYDRAULIC FLUID. INSTALLED 4 NEW BRAKE LININGS P/N:066-10600. INSTALLED 12 NEW BRAKE LINING RIVETS P/N: 105-00200. INSTALLED 2 NEW BRAKE DISC P/N:RA164-01700. INSTALLED 2 NEW BEARING AND 2 CONES IN THE NOSE STEERING CASTER P/N: 30205J. INSTALLED 2 NEW WHEEL BEARING P/N: 08125 AND 2 NEW WHEEL RACES P/N: 08231 IN NOSE WHEEL. INSTALLED 3 NEW MICHELIN TUBES P/N: 092-308-0. INSTALLED 3 NEW MICHELIN TIRES P/N: 070-312-0. INSTALLED 6 NEW D CELL BATTERIES IN E.L.T. INSTALLED 6 NEW INSERTS P/N: CES-S1131-1. INSTALLED 2 NEW UNION TEES. P/N:POL264N04 INSTALLED 2 OWNER SUPPLIED V.O.R ANTENNAS. INSTALLED NEW FIRE EXTINGUISHER MODEL: RT A600 S/N: P023635.</p> <p align="center">(SEE CONTINUATION NEXT PAGE)</p>

Ilustracja 4. Strona z informacjami o użytkowaniu i obsłudze.

YEAR: DATE	RECORDING TACH TIME	TODAY'S FLIGHT	TOTAL TIME IN SERVICE	Description of Inspections, Tests, Repairs and Alterations Entries must be endorsed with Name, Rating and Certificate Number of Technician or Repair Facility. (See back pages for other specific entries.)
				<p><b>CONTINUED- N567XL HOBBS: 523.0 A/CTT: 523.0 AC S/N: 0052</b></p> <p>CLEANED, AND INSTALLED TAIL RUDDER USING NEW HARDWARE AND RIGGED INSTALLED IN ACCORDANCE WITH MAINTENANCE MANUAL. INSTALLED LEFT AND RIGHT STABILIZERS USING NEW HARDWARE RIGGED IN ACCORDANCE WITH MAINTENANCE MANUAL. INSTALLED ALL SEAT BELTS INSTALLED FADEC SYSTEM INSTALLED RADIO PACKAGE BACK IN INSTRUMENT PANEL. INSTALLED BLANK PANEL IN HOLE WHERE VOR HEAD AND CONTROLLER WOULD BE. INSTALLED LEFT AND RIGHT WINGS,AILERONS AND SERVICABLE FLAPS, USED NEW HARDWARE, RIGGED CONTROLS AS NEEDED.TREATED WINGS WITH CORROSION-X. COMPLIED WITH A.D. 2009-08-05 BY VISUAL INSPECTION. COMPLIED WITH SERVICE LETTER: <b>SL-10-003BY</b> VISUAL INSPECTION AND INSTALLATION OF PLACARD. COMPLIED WITH: <b>CSB-09-001R</b> LEVEL B. COMPLIED WITH <b>CSB-08-003</b> VISUAL INSPECTION OF THE AILERON. COMPLIED WITH F.A.R. 91.207 BY INSPECTION &amp; OPERATIONAL CHECK OF THE E.L.T. DUE AT NEXT ANNUAL CLOSED AIRFRAME, OPERATIONAL CHECKS SATISFACTORY. A.D.S CHECKED FOR COMPLIANCE, SEE A.D. COMPLIANCE LIST FOR THIS DATE: 06-02-2011 I CERTIFY THIS AIRCRAFT HAS BEEN INSPECTED I.A.W. FAR PART 43 AND MANUFACTURER RECOMMENDATIONS FOR AN ANNUAL INSPECTION AND HAS BEEN DETERMINED TO BE IN AN AIRWORTHY CONDITION ON THIS DATE AND TIME.</p> <p><b>ELT due date: 03-2016</b></p> <p align="center"></p> <p align="center"><b>VERNON A. WELCH A&amp;P 265374437 I.A</b></p>

Ilustracja 5. Strona z informacjami o użytkowaniu i obsłudze.

YEAR: _____ DATE	RECORDING TACH TIME	TODAY'S FLIGHT	TOTAL TIME IN SERVICE	Description of Inspections, Tests, Repairs and Alterations Entries must be endorsed with Name, Rating and Certificate Number of Technician or Repair Facility. (See back pages for other specific entries.)
				<p>I have issued an Export Certificate of Airworthiness this date for Liberty Aerospace, Inc. Model: Liberty XL-2, S/N: 0052. The Export Certificate No. is: E461019. --- END---</p> <p style="text-align: center;">   <b>George E. Littlefield III</b>  <b>DART-832601-SO</b>  <b>June 21, 2011</b> </p>

Ilustracja 6. Strona z informacją o wydaniu eksportowego świadectwa zdatności.

Ilustracje od 3 do 6 są skanami kolejnych stron z Aircraft Log – Aircraft Log nie ma numeracji stron.

Stwierdzono, że przy pozycji 338,6 godz. pomyłkowo wpisano rok 2007 zamiast 2008.

Tabela 1

Numer ilustracji	Data w formacie amerykańskim	Data w formacie polskim	Nalot (czas pracy) [godz.]
3	1-24-2008	24.01.2008	338,6
↑ Skany kolejnych stron z Aircraft Log ↓	-	↑ Luka ok. 3,5 roku ↓	↑ Luka ponad 180 godzin ↓
4	6-03-2011	3.06.2011	523,0

Jak wynika wyżej przedstawionych danych luka z zapisach w Aircraft Log wynosi ok. 3,5 roku/ ponad 180 godzin.

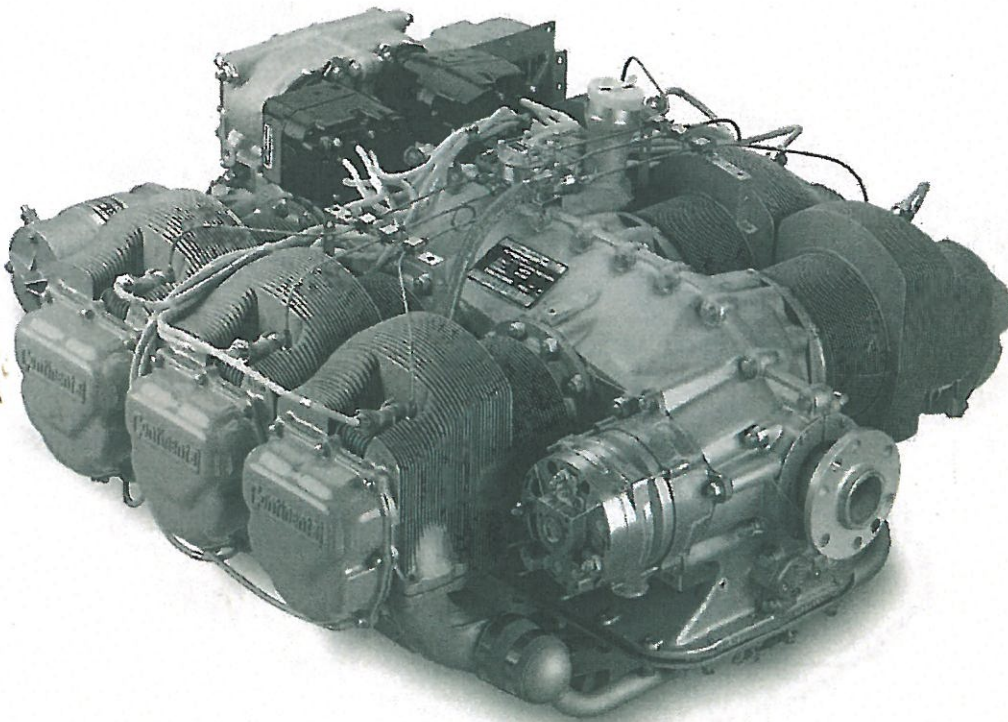


(3)

Engine Log Book

567XL

# ENGINE LOG BOOK



**Teledyne Continental Motors, Inc.**

Form No. ELB-01

Ilustracja 1. Strona tytułowa.



### ACCEPTANCE/SERVICEABLE TAG

PART No: IOF-240-B5B REV \_\_\_\_\_  
DESCRIPTION: Teledyne Continental 240 Engine w/FADEC  
COND: New  OVHL  SVCBL  HOURS: \_\_\_\_\_  
S/N 400097 W/O \_\_\_\_\_  
P/O 6772 QTY 1 LOT# \_\_\_\_\_  
REMARKS: TCM BY LIB 17  
3/28/07

Liberty Form QA-01 May 05

All returned engines are to be shipped with this log book  
Directly to:

Teledyne Continental Motors  
2039 South Broad Street  
Mobile, AL 36615

**USE ONLY FUEL CONFORMING TO ASTM D910  
USE OF AUTOMOTIVE GAS IS NOT APPROVED.**



Teledyne Continental Motors, Inc.  
A Teledyne Technologies Company  
Printed: 03/28/2007

This engine model IOF240B5, Serial No. 400097 was manufactured on 03/28/2007  
by Teledyne Continental Motors in accordance with approved design data and the applicable requirements  
of Part 21 of the Federal Aviation Regulation. The approved design data for this engine incorporates all  
changes required by applicable Airworthiness Directives and Teledyne Continental Motors Service Bulletins.



**TELEDYNE CONTINENTAL MOTORS**  
A TELEDYNE TECHNOLOGIES COMPANY  
PRODUCTION CERTIFICATE NO. 505

Ilustracja 2. Strona z informacjami o silniku.



Date	Total Time		Time Since Last Overhaul		<b>Engine Service and Maintenance Record</b> Installations, Inspections, Airworthiness Directives, Special Inspections, Modifications and Service Bulletins
	Hrs.	Min.	Hrs.	Min.	
Brought Forward	→				
7/7/07	149	2	149	2	Inspected engine in accordance with a 50 hr inspection and found it airworthy at this date and time. Munt Kart APP 157829388
8/10/07	200	7	200	7	Removed #2 cyl fuel injector S/N 6614-131 and installed a serviceable injector P/N 0644-210 IFAJ TCM 1/4 ch 10 4 APR B. M. W. J. P. 157829388
8-10-7	200	7	200	7	Removed and replaced oil cooler. New P/N 10933A, S/N 115. I certify that this (MK) checked propeller torque. I certify that this engine has been inspected IAW a 100 hour inspection and was determined airworthy at this date and time. Munt Kart APP 157829388, F.A.
9/4/07	221	.0	221	.0	Removed EC4#1 P/N 0657093-1 S/N 0705241/D AND EC4#2 P/N 0657093-2 S/N 0705237/D AND installed serviceable EC4#1 P/N 0657440-1 S/N 0639030A AND EC4#2 P/N 0657440-2 S/N 0638110A IFAJ TCM SSI 07-6. OPS cty Good. M. W. J. P. 157829388
10/3/07	232	.7	232	.7	Removed Sensenich propeller P/N W69EK7-636, S/N A66971 and installed MT Propeller P/N MT115R127-2CA, S/N 07129. Munt Kart APP/IA 157829388.
11/13/07	253	.0	253	.0	Removed and replaced oil and filter, checked propeller torque IAW Liberty S12-07-002. I certify that this engine has been inspected IAW a 50 hour inspection and was determined airworthy at this date and time. Munt Kart APP 157829388 FA.
12-28-07	305		305		I CERTIFY THIS ENGINE INSPECTED IAW 100hr INSPECTION AND WAS DETERMINED TO BE AIRWORTHY @ THIS TIME WITH NEXT INSPECTION DUE 400.7 HRS. SSI 2152309

Ilustracja 3. Strona nr 3 z informacjami o użytkowaniu i obsłudze.





Tabela 2

Numer ilustracji	Data w formacie amerykańskim	Data w formacie polskim	Czas pracy [godz.]
3	12-28-2007	28.12.2007	305,9
↑ Skany kolejnych stron z Engine Log Book ↓	-	↑ Luka ok 3,5 roku ↓	↑ Luka ponad 200 godzin ↓
4	6-03-2011	3.06.2011	508,7

Jak wynika wyżej przedstawionych danych luka z zapisach w Engine Log Book wynosi ok. 3,5 roku/ ponad 200 godzin.

(4)

Istnieje 14,3 godz. różnica (523,0 – 508,7) pomiędzy nalotem/ czasem pracy płatowca i silnika (tabela 1 i 2) w dniu 3.06.2011 r. Nie było możliwe zlokalizowanie, w którym miejscu powstała taka różnica z powodu luk w zapisach.

**WNIOSEK:**

Wykazane luki i błędy w zapisach w Aircraft Log i Engine Log Book nie miały wpływu na przebieg i zaistnienie zdarzenia.

**PKBWL**

Jacek Jaworski