

ENGINE S/N  
L-33616-S1E

# AIRCRAFT TECHNICAL LOGS

Section 3. ENGINE

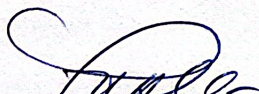
The United States of America  
Department of Transportation  
**Federal Aviation Administration**  
Washington, D.C.

No. E 407348

# Export Certificate of Airworthiness

This certifies that the product identified below and more particularly described in Specification (s)<sup>1</sup> of the Federal Aviation Administration, Numbered **1E10** has been examined and as of the date of this certificate, is considered airworthy in accordance with a comprehensive and detailed airworthiness code of the United States Government, and is in compliance with those special requirements of the importing country filed with the United States Government, except as noted below. This certificate in no way attests to compliance with any agreements or contracts between the vendor and purchaser, nor does it constitute authority to operate an aircraft.

Product: **Aircraft Engine**  
Manufacturer: **Lycoming Engines**  
Model: **IO-360-M1A**  
Serial No.: **L-33616-51E**  
New  Newly Overhauled   
Used Aircraft   
Country to which exported: **Canada**  
Exceptions: **None**

  
F.H. Hill, Jr.

Signature of Authorized Representative

June 12, 2007  
Date

ODARF830878NE

District Office or Designee Number



<sup>1</sup> For complete aircraft, list applicable specification or Type Certificate Data Sheet numbers for the aircraft, engine, and propeller. Applicable specifications or Type Certificate Data Sheet, if not attached to this export certificate, will have been forwarded to the appropriate governmental office of the importing country.

# LYCOMING

A Textron Company

## RECORD of ACCESSORIES AND MAJOR PARTS SHIPPED with ENGINE

652 Oliver Street Williamsport, PA 17701 U.S.A.

Model No: **IO-360-M1A**

Serial No: **L-33616-51E**

Enpl: **ENPL-RT10051**

Order No **MT291513**

TC No: **1E10**

Date: **6/12/2007**

Part Name	Part Number	Manufacturer	Serial	Setting
CARBURETOR				
INJECTOR	61J22633	PAM	70BW3909	2576568-1
LT ALTERNATOR				
RT ALTERNATOR	32C19553	KELLY	H043081	
MAGNETO LEFT	66GR25SANN	SLICK	07051362	
MAGNETO RIGHT	66GP-0SANN	SLICK	07051626	
MAGNETO DUAL				
LASER IGN CONT				
STARTER	31B22105	SKY-TEC	F4L-050709	
FUEL PUMP	LW-15473	LYC	0606 D/C	
IGN HARNESS L	67P20429	SLICK		
IGN HARNESS R	67P20428	SLICK		
LASER IGN HARNESS				
SPARK PLUG	1182-E7	Champion		
LT TURBOCHARGER				
RT TURBOCHARGER				
BYPASS VALVE				
DENSITY CONTR.				
PRESS. CONTR.				
AB PRESS REL.				
#1 INTERCOOLER				
#2 INTERCOOLER				

CRANKCASE MATCH NO. **TPM38**

CRANKSHAFT SERIAL NO. **V537948029**

All accessories listed are 0 (zero) time since New or 0 (zero) time since Overhaul.  
All accessories are new unless part number is succeeded by -85 or -70.

Released: Inspector



Date: **6/12/2007**

C of A Issued Date: **6-12-07**



NOTE: Form to be used on all New, Overhauled, Rebuilt Engine Models.

ENGINE LOG

1. Make
2. Model
3. Specification
4. Manufacturer's Serial Number
5. Date of Manufacture
6. Aircraft Inspection Cycle

LYCOMING

IO-360-MIA

1E10

L-33616-51E

5 17 0 45 11/10/08

5 17	11/10/08
0	
5 17	

# ENGINE SERVICE AND

# MAINTENANCE RECORD

DATE	TIME RUN		TIME SINCE OVERHAUL		INSTALLATIONS, INSPECTIONS, NOTE: USE BOTH PAGES AND AS MANY LINES AS REQUIRED FOR COMPLETE ENTRIES. DRAW A DIAGONAL LINE THROUGH ANY UNUSED LINES IN DATE AND TIME COLUMNS.
	HRS.	MIN.	HRS.	MIN.	
BROUGHT FORWARD →	0	0	0	0	ENGINE INSTALLED NEW ON DA 40 SIN Engine installation inspected I.A.W. Diamond Aircraft Industries Inc. DA 40 W.I.S. Rev: N Form ME-01-A Engine service with 8 qts. Of Phillips 20W50 Type "M" engine oil. Engine break-in I.A.W. Lycoming Service Instruction 1427B, <b>FLIGHT TEST COMPLETED</b>
SEPT 21 2007	4	5	4	5	HOURS BROUGHT FORWARD
Nov 16/07	18	7	23	2	
Mar 11/08	24	0	47	2	
TOTAL THIS PAGE	47	2	47	2	CARRIED FORWARD
TOTAL FROM PREVIOUS SUMMARY		0			
TOTAL SINCE MFG.	47	2			

REPAIRS, ADJUSTMENTS, MODIFICATIONS	SIGNATURE	LICENCE NUMBER
40.839 →	<i>[Signature]</i>	DA Q 4
November 16, 2007 TTSN: 23.2 C-GLXL A 100 Hr inspection has been carried out per Diamond DA40 Service Manual. Engine oil and filter changed. Phillips 20W50 mineral oil installed. P5000 oil quick drain installed. Cylinder # 2 fuel injector removed, resealed, and reinstalled. Cylinder # 3 oil drain hose clamps re-torqued. Ignition wires rerouted to relieve tension on wires.  The maintenance described above has been carried out in accordance with the applicable standards of airworthiness. <i>Jake Beutema</i> 168735	<i>[Signature]</i>	DA Q 4
March 11, 2008 TTSN: 47.2 C-GLXL A 50 Hr inspection has been carried out per Diamond DA40 Service Manual. Engine oil and filter changed. Phillips 20W50 XC installed. Fuel injection servo inspected per Precision Airmotive SB PRS-107. No fault found.  The maintenance described above has been carried out in accordance with the applicable standards of airworthiness. <i>Jake Beutema</i> 168735	<i>[Signature]</i>	

MAXIMUM HOURS BETWEEN OVERHAULS \_\_\_\_\_ HOURS.

2721  
517  
8740

# ENGINE SERVICE AND

# MAINTENANCE RECORD

DATE	TIME RUN		TIME SINCE OVERHAUL		NOTE: USE BOTH PAGES AND AS MANY LINES AS REQUIRED FOR COMPLETE ENTRIES. DRAW A DIAGONAL LINE THROUGH ANY UNUSED LINES IN DATE AND TIME COLUMNS.
	HRS.	MIN.	HRS.	MIN.	
Aug 8/08	52	8	47	2	
Apr 27/09	52	0	152	0	
Aug 13/09	52	8	204	8	
			204	8	CARRIED FORWARD
TOTAL THIS PAGE		157	6		
TOTAL FROM PREVIOUS SUMMARY		47	2		
TOTAL SINCE MFG.		204	8		

REPAIRS, ADJUSTMENTS, MODIFICATIONS ENTRIES. DRAW A DIAGONAL LINE THROUGH ANY UNUSED LINES IN DATE AND TIME COLUMNS.	SIGNATURE	LICENCE NUMBER
<p>August 08, 2008 TTSN: 100.0 C-GLXL</p> <p>A 100 hour/annual inspection has been carried out IAW Diamond DA40 Maintenance Manual and CAR 625 B &amp; C.                      Engine oil and filter replaced, Aeroshell W100+ installed.                      Cylinder compression check completed 1) 79/80 2) 78/80 3) 78/80 4) 79/80.                      Spark plugs cleaned, gapped and reinstalled.                      Engine air filter element serviced.                      Cabin heater inspected per AD CF90-03R2.                      Fuel injection lines inspected per AD 2008-14-07.                      Fuel injector servo plug inspected per AD 2008-08-14.</p> <p>The maintenance described above has been carried out in accordance with the applicable standards of airworthiness.</p> <p><i>Clarence Beuten</i> 348208</p>		
<p>April 27, 2009 TTSN: 152.0 C-GLXL</p> <p>A 50 Hr inspection has been carried out per Diamond DA40 Service Manual.                      Engine oil and filter changed. Aeroshell W100 plus installed.                      Fuel injection servo plug gasket replaced with PN CF365533.</p> <p>The maintenance described above has been carried out in accordance with the applicable standards of airworthiness.</p> <p><i>Jake Beuten</i> 168735</p>		
<p>August 13, 2009 TTSN: 204.8 C-GLXL</p> <p>A 200 Hr/Annual Inspection has been carried out per Diamond DA40 Service Manual and CAR 625 Appendix B &amp; C.                      Engine oil and filter changed. Aeroshell W100 plus installed.                      Rocker cover gaskets replaced.                      Fuel injection lines inspected per AD 2008-14-07.</p> <p>The maintenance described above has been carried out in accordance with the applicable standards of airworthiness.</p> <p><i>Jake Beuten</i> 168735</p>		

MAXIMUM HOURS BETWEEN OVERHAULS \_\_\_\_\_ HOURS.

# ENGINE SERVICE AND

DATE	TIME RUN		TIME SINCE OVERHAUL		INSTALLATIONS, INSPECTIONS, NOTES: USE BOTH PAGES AND AS MANY LINES AS REQUIRED FOR COMPLETE
	HRS.	MIN.	HRS.	MIN.	

BROUGHT FORWARD → 204 8  
Oct 30/09

~~Nov 11/09~~  
Aug 12/10 255 3

Aug 5/11 5 6 260 9

260 9 CARRIED FORWARD

TOTAL THIS PAGE	<u>56</u>	<u>1</u>
TOTAL FROM PREVIOUS SUMMARY	<u>204</u>	<u>8</u>
TOTAL SINCE MFG.	<u>260</u>	<u>9</u>

# MAINTENANCE RECORD

REPAIRS, ADJUSTMENTS, MODIFICATIONS ENTRIES. DRAW A DIAGONAL LINE THROUGH ANY UNUSED LINES IN DATE AND TIME COLUMNS.	SIGNATURE	LICENCE NUMBER
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October 30, 2009 TTSN: C-GLXL  
 Engine oil and filter changed. Phillips 20W50 XC and ASL CamGuard installed.  
 The maintenance described above has been carried out in accordance with the applicable standards of airworthiness.  
Jake Bertema  
 168735

August 12, 2010 TTSN: 255.3 C-GLXL  
 A 100 Hr/Annual inspection has been carried out per Diamond DA-40 Service Manual and CAR 625 Appendix B & C.  
 Engine oil and filter changed. Aeroshell W100 plus and ASL Camguard installed.  
 Spark plugs cleaned and gapped.  
 Oil temperature probe wiring repaired.  
 Cylinder #2 removed. Base o ring replaced and cylinder reinstalled.  
 Cylinder #2 rocker cover gasket replaced.  
 Engine air filter serviced.  
 Fuel injection lines inspected per AD 2008-14-07.  
 Cabin heater inspected per AD CF90-03R2.  
 I have carried out an independent check of the power plant controls affected by the work accomplished.

Scott Keith  
 747077  
 The maintenance described above has been carried out in accordance with the applicable standards of airworthiness.  
Steven Przag  
 823943

August 05, 2011 TTSN: 260.9 C-GLXL  
 A 100 hour/ annual inspection has been carried out IAW CAR 625 B & C and the Diamond DA 40 Maintenance Manual.  
 Engine oil and filter replaced, Aeroshell W-100 plus and ASL Cam Guard installed.  
 Cylinder Compression check carried out, 78/80 80/80 78/80 78/80.  
 Spark plugs cleaned gapped and reinstalled.  
 Engine air filter element serviced.  
 Cylinder #3 rocker cover gasket replaced.  
 Oil temperature bulb gasket replaced.  
 Power flow exhaust system 50 and 100 inspections carried out.  
 Fuel injection lines inspected per Ad 2008-14-07.  
 Cabin heater inspected per AD CF90-03R2.  
 The maintenance described above has been carried out in accordance with the applicable standards of airworthiness.

Clarence Beert  
 348208












# ENGINE SERVICE AND

# MAINTENANCE RECORD

DATE	TIME RUN		TIME SINCE OVERHAUL		INSTALLATIONS, INSPECTIONS, NOTE: USE BOTH PAGES AND AS MANY LINES AS REQUIRED FOR COMPLETE
	HRS.	MIN.	HRS.	MIN.	

REPAIRS, ADJUSTMENTS, MODIFICATIONS ENTRIES. DRAW A DIAGONAL LINE THROUGH ANY UNUSED LINES IN DATE AND TIME COLUMNS.	SIGNATURE	LICENCE NUMBER
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BROUGHT FORWARD



Date: July 1, 2021  
 Model: D1440  
 Engine TTSN: 451.2  
 Total time since last inspection: 3.3

Reg: C-GLXL  
 T.T.S.N: 451.2  
 Prop TTSN: 15.8

- > Annual inspection carried out IAW CAR 625 appendix B & C
- > Oil change carried out. Oil and filter removed and replaced new.
- > Induction filter removed, inspected, and re-installed

The maintenance described above has been performed in accordance with the applicable standards of airworthiness requirements.

Signature: *Kristian M1834341*




CARRIED FORWARD

TOTAL THIS PAGE		
TOTAL FROM PREVIOUS SUMMARY		
TOTAL SINCE MFG.		

MAXIMUM HOURS BETWEEN OVERHAULS \_\_\_\_\_ HOURS.

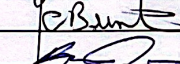

RECORD OF ENGINE  
AIRWORTHINESS DIRECTIVES (A/D), SERVICE BULLETINS (S/B),

RECORD OF ENGINE  
SPECIAL INSPECTIONS (S/I) AND MODIFICATIONS (MODS)

DATE	A/D, S/B, S/I, MODS	DETAILS OF
 Date: <u>21 SEPT, 2007</u> S/N: 40.839 Reg: C-GLXL Engine S/N: L-33616-51E Eng TTSN: 4.5 HRS  The following S/B and S/I have been carried out as applicable: DAI SI 40-005/Lycoming SB 342E/AWD 93-02-05 Fuel Line (stainless steel tube assy) and support clamp Inspection and Installation New - Due every 100 hours. SI 40-009 (FAA AD 2002-26-01) - Externally mounted fuel injection lines - C/W DAI SI 40-010- Repair of certain injection servos - N/A due to S/N of unit. MSB 40-009 Improvement of ground-connection to Alternator - N/A by A/C S/N. MSB 40-012 Replacement of Mixture Control Cable N/A as already incorp. During mfg. Precision Air motive Fuel Servo SB PRS-105 - N/A due to S/N of unit. Textron Lycoming MSB 565 - Replacement of Diaphragm-Type Fuel Pumps P/N LW-15473 with date code of 3201 - N/A as date code does not match installed on this A/C Textron Lycoming MSB 548/DAI SI 40-023 - Diaphragm-Type Fuel Pump - with a date code of 0700 through 0401- N/A as date code does not match installed on A/C Textron Lycoming MSB 574A - Cylinder Stud Hole Cross-Threaded - N/A by eng S/N Textron Lycoming AD 2002-12-07-Prevent Complete loss of engine oil-N/A due to M/N BI-weekly AWD check carried out to current revision 2007-20 The maintenance described above has been performed in accordance with the applicable standards of airworthiness. DIAMOND AIRCRAFT INDUSTRIES INC. D.O.T. APPROVAL #161-93 Signature:  Lic or Stamp: 		

WORK OR INSPECTION PERFORMED	SIGNATURE
(This page is crossed out with a large X)	

Mar 11/08	SB PRS-107	Fuel injection servos nut inspected
Aug 8/08	2008-14-07	Fuel injection lines inspected
Aug 8/08	2008-08-14	Fuel injection servos nut torque checked
Apr 27/09	2009-02-03	Fuel injection servos plug gasket.
Aug 13/09	2008-14-07	Fuel injection lines inspected
Aug 5/11	2008-14-07	Fuel injection lines inspected
Sept 3/13	2011-26-04	fuel injection lines wrap
Dec 4/17	SB612	oil dipstick remove & replaced new

* CF 365533 gasket installed	John Bentann	16873
N/A Ins Part #	John Bentann	16873
	John Bentann	168735
	John Bentann	168735
	John Bentann	168735
	C Bent	348208
		82284
		M834394



# AIRWORTHINESS DIRECTIVE COMPLIANCE LIST

6/12/07

A Textron Company

652 Oliver Street Williamsport, PA 17701 U.S.A.

Engine Model No: **IO-360-M1A**

Engine SN: **L-33616-51E**

Page 1 of 2

AD NO. / SB	RV	Description / Method of Compliance	Next Due	Once	Rec	Code	Sign
2002-26-01 342	E	FUEL LINE AND SUPPORT CLAMP INSPECTION & INSTALL. NEW LINES INST. WITH NEW CLAMP	100 HOURS		X	1	3
2004-10-14 475	C	CRANKSHAFT GEAR MODIFICATION AND ASSY PROCEDURES NEW P/N INSTALLED	N/A	X		1	3
2005-19-11 566		Crankshaft replacement Replace Crankshaft	N/A	X		1	3
75-09-15 382		BENDIX FUEL INJ RS-43 INSP OF MOD OF FLOW DIVIDERS NEW P/N GASKET INSTALLED	N/A	X		1	3
93-11-11 N/A		AC, TEXTRON LYC FUEL PUMP O/H BY AERO ACCESSORIES NEW AC F/P INST. WHEN APPLIC.	N/A	X		1	3
94-01-03 N/A	R2	DEFECTIVE IGN COILS AND ROTATING MAGNETS NEW CONFIGURATION PART INST.	N/A	X		1	3
94-06-09 517		INCOMPLETE INTERNAL GROUNDING ON MAG CAPACITORS NEW CONF. CAPACITORS INSTALLED	N/A	X		1	3
96-23-03 525	A	HIGH PRESSURE FUEL PUMP INSTALLED LW-15473 NEWLY MANUFACTURED PUMPS INST.	N/A	X		1	3
97-15-11 527	C	RECALL OF PISTON PIN P/N LW-14077 NEW CONFIGURATION P/N INST.	N/A	X		1	3
98-02-08 530	A	INSPECTION OF CRANKSHAFT ID FOR CORROSION MAG INSP./APPLY URETHABOND 104	N/A	X		1	3
2002-12-07 543	B	OIL FILTER CONVERTER PLATE GASKET REPLACEMENT NEW P/N CONVERTER PLATE INSTALLED	N/A	X		2	
2003-14-03 529	B	ROTARY FUEL PUMP TORQUE. NEW PUMP WITH "M" SUFFIX INSTALLED	N/A		X	2	
2006-06-16 566 Sup 1		Replace crankshaft Crankshaft replaced	N/A	X		2	
2006-10-21 N/A		ECl connecting rods P?N AEL11750 Used genuine Lycoming Parts	N/A	X		2	
2006-12-07 N/A		ECl Cylinder Assemblies P/N AEL65102 Used genuine Lycoming parts	N/A	X		2	
2006-20-09 569	A	CRANKSHAFT REPLACEMENT REPLACE CRANKSHAFT	N/A	X		2	
64-16-05 298	Inactive	AC FUEL PUMP OIL SEAL NEW CONF. FUEL PUMP INSTALLED	N/A	X		2	

Codes:  
 1 AD Applicable to Engine  
 2 AD Not Applicable to Engine



# WORTHINESS DIRECTIVE COMPLIANCE LIST

6/12/07

Williamsport, PA 17701 U.S.A.  
 Engine Model No: **IO-360-M1A**

Engine SN: **L-33616-51E**

Page 2 of 2

AD NO./ SB	RV RV	Description / Method of Compliance	Next Due	Once	Rec	Code	Sign
66-06-03 302	A	REPLACEMENT OF CONNECTING ROD ASSY. NEW ROD CONFIGURATION	N/A	X		2	
66-20-04 307		OIL FILTER ADAPTER GASKET NEW CONF. GASKET INSTALLED	N/A	X		2	
67-22-06 305	4 B	REPLACEMENT OF BENDIX FUEL DIAPHRAGM ASSY NEW OR NEWLY O/H INSTALLED	N/A	X		2	
71-05-02 327	C	INSPECTION OF CENTER MAIN BEARING NEW INSTALLED	N/A	X		2	
71-11-02 328		REPLACEMENT OF EXH & INT HYD TAPPET PLUNGERS NEW P/N HYD TAPPETS INSTALLED	N/A	X		2	
73-23-01 367	F	INSP FOR CRACKS IN PISTON PINS INST NEW PARTS	N/A	X		2	
78-23-10 428		BENDIX FUEL INJ. BULLETIN RS-42 NEW P/N INSTALLED	N/A	X		2	
79-04-05 433	A	BENDIX FUEL INJ. BULLETIN RS-57 NEW P/N INSTALLED	N/A	X		2	
87-10-06 477	R1 A	INSPECTION AND REWORK OF LW-18790 ROCKER ARM ASSY NEW CONFIGURATION P/N INST.	N/A	X		2	
90-04-06 488	R1 A	PROPELLER GOVERNOR LINE SUPPORT NEW LINE W/STEEL CON. NUTS INS	N/A	X		2	
92-12-05 501	B	LW-14077 PISTON PIN NEW PARTS INSTALLED	N/A	X		2	
93-14-15 N/A		INST OF PLCKRD DENOTING OPER. NOT TO EXCEED 33.#HG FIELD COMPLIANCE AFTER STC	N/A	X		2	
95-07-01 N/A		CONNECTING ROD BOLT FAILURE LYCOMING PART INSTALLED	N/A	X		2	
95-26-02 398		ENGINES OPERATED WITH LOW OCTANE FUEL ENGINE IS NEW OR HAS BEEN REBUILT AT MANUFACTURER	N/A	X		2	
96-09-10 524		REPLACEMENT OF OIL PUMP IMPELLERS STEEL IMPELLERS INSTALLED	N/A	X		2	
98-17-11 N/A		CRANKSHAFT REPAIRED BY NELSON BALANCING SERVICE MAG/PARTICLE INSP OF C/SHAFT	N/A	X		2	

**Codes:**

- 1 AD Applicable to Engine
- 2 AD Not Applicable to Engine
- 3 Field Compliance where applicable

