

Model R-44 SERIES
Tail # N178DF
Serial # 11969
Current Time 2238
Total Time 2238
A/C Cert. Date

94-26
Method
SB #
Signature

*95-09
Method
SB #
Signature

95-11
Method
SB #
Signature

95-26
Method
SB #
Signature

96-18
Method
SB #
Signature

97-02
Method
SB #
Signature

*97-10
Method
SB #
Signature

ENGINE LOG EF5-1

R44 II
S/N: 11969

*98-04-12 04/27/98 CYCLIC TRIM SPRING SHAFT/
Method of Compliance NA-S/n

NEW RECIPROCATING ENGINE CERTIFICATE

This is to certify that the engine as described hereinafter has been manufactured run-in and tested as prescribed by **LYCOMING** specifications and Federal Aviation Regulations. No further run-in is required. All applicable Federal Aviation Airworthiness Directives and Lycoming Service Bulletins have been complied with at time of Manufacture.

MODEL IO-540-AE1A5

SERIAL NO. L-32273-48E

DATE MAY 25 2007

(AUTHORIZED REPRESENTATIVE)

LYCOMING
A Textron Company

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

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

ENGINE SERIAL NUMBER

L-32273-48E

IN SERVICE DATE

100507

ENG.
T.T.

0004

DETACH AND RETAIN THIS PORTION FOR YOUR RECORD

A/C Cert. Date

ENGINE DESCRIPTION

MANUFACTURER LYCOMING MODEL IO-540-AE1A5

SERIAL NUMBER L-32273-48E DATE OF MANUFACTURE 25 MAY 2007

RATED BHP _____ RPM _____ MANIFOLD PRESSURE _____

FUEL REQUIRED OCTANE/PERFORMANCE 100LL

REGISTERED OWNER _____

STREET & NO. _____

CITY, STATE, ZIP _____

REGISTERED OWNER _____

STREET & NO. _____

CITY, STATE, ZIP _____

Cert. #

18-04-12

Method of Compliance

#

04/27/98

NA--s/n

CYCLIC TRIM SPRING SHAFT/

Date

R44 II

ENGINE ACCESSORIES INSTALLED

OIL COOLER	STEWART WARNER	S/N <u>3839</u>
OIL COOLER (SMALL)	STEWART WARNER	S/N <u>987</u>
RIGHT MAGNETO	TCM AIRCRAFT PRODUCTS DIV.	S/N <u>E06KA046</u>
LEFT MAGNETO	TCM AIRCRAFT PRODUCTS DIV.	S/N <u>E07DA097</u>
ALTERNATOR	KELLY AEROSPACE	S/N <u>FO 63166 6080374</u>
STARTER	B & C SPECIALTY PRODUCTS	S/N <u>0207240202</u>
FUEL CONTROL	PRECISION AIRMOTIVE	S/N <u>70BT1806</u>

IP SBR

INSTALLATION RECORD

[illegible]

AIRWORTHINESS DIRECTIVE / FACTORY BULLETIN COMPLIANCE RECORD

A.D./BULL. NO.	ITEM AFFECTED	DATE & HRS. AT COMP.	METHOD OF COMPLIANCE	TYPE OF A.D. 1 TIME/RECUR.	NEXT COMP. DATE/HRS./CYCLE	AUTHORIZED SIGNATURE CERTIFICATE NO.
Lycoming SB 342	Injector Fuel Lines	OCT 2 '07 0	New lines and clamps installed	Recur	100 or Annual	RHC PC424WE
Lycoming SB 388	Valve Stem Clearance	OCT 2 '07 0	New engine installed	Recur	300.0	RHC PC424WE
Lycoming SB 480	Oil Change	OCT 2 '07 4.0	Changed oil	Recur	4 months or 29.0	RHC PC424WE
R2 94-01-03	TCM Magnetos	OCT 2 '07 0	N/A by Mag S/N	1 Time	N/A	RHC PC424WE
94-06-09	TCM Magnetos	OCT 2 '07 0	N/A by Mag S/N	1 Time	N/A	RHC PC424WE
95-07-01	Connecting Rod Bolts	OCT 2 '07 0	Mfg'd by Text-Lyc	1 Time	N/A	RHC PC424WE
96-09-10	Sintered Iron Impeller	OCT 2 '07 0	C/W by Mfr	1 Time	N/A	RHC PC424WE
96-23-03	Fuel Pumps	OCT 2 '07 0	N/A by D.O.M.	1 Time	N/A	RHC PC424WE
98-18-12	Fuel Pumps	OCT 2 '07 0	N/A by pump model	1 Time	N/A	RHC PC424WE
2000-18-53	Oil Filter Plate	OCT 2 '07 0	Converter Plate not installed	1 Time	N/A	RHC PC424WE
2002-26-01	Injector Fuel Lines	OCT 2 '07 0	New lines and clamps installed	Recur	100 or Annual	RHC PC424WE
2004-05-24	Crankshaft Gear Bolt	OCT 2 '07 0	Complied with by Lycoming	1 Time	N/A	RHC PC424WE
2004-10-14	Crankshaft Gear	N/A 0	N/A	Recur	Sudden Stoppage, or Gear Train Repair	RHC PC424WE
2005-12-06	TCM Magnetos	OCT 2 '07 0	N/A by Series	1 Time	N/A	RHC PC424WE
2005-19-11	Crankshaft	OCT 2 '07 0	N/A per SB 566	1 Time	N/A	RHC PC424WE
2006-20-09	Crankshaft	OCT 2 '07 0	N/A by Eng S/N	1 Time	N/A	RHC PC424WE

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A.D./BULL. NUMBER	ITEM AFFECTED	DATE & HRS. AT COMP.	METHOD OF COMPLIANCE	TYPE OF A.D. 1 TIME/RECUR	NEXT COMP. DATE/HRS./CYCLE	AUTHORIZED SIGNATURE CERTIFICATE NO.
SB480E	OIL	2-23-08 28.6	oil Change	Recur	4 months / 98.6	
SB480E	oil	10-4-08 93.1	oil charge	Recur	143.1	
AD2002-07	Fuel Lines	10-4-08 93.1	Fuel lines	Recur	193.1	
2003-06-51	Servo Plug	10-4-08 93.1	Servo Plug	Recur	143.1	
SB480E	oil	6-9-09 137.0	oil + filter change	Recur	4 months / or 100 hrs	
AD2004-02-03	Servo Plug	6-9-09 137	inspected 2577258	1 Time	NA	
LYC 53388	Valve stem clearance	7-6-10 214.4	Inspection	RECUR	514.4	
LYC 53342	injector fuel lines	7-6-10 214.4	Inspection	RECUR	314.4	
LYC 53301	Valves	7-6-10 214.4	Inspection	RECUR	614.4	
LYC 53380	oil change	7-6-10 214.4	change oil and filter	RECUR	264.4	
LYC 53390	oil change	11-3-11 291.6	change oil & filter	REC	391.6 / 03/03	
LYC 53342	injector fuel lines	11-3-11 291.6	Visual Insp	REC	391.6	
AD 2002-760	injector fuel lines	11-3-11 291.6	Visual Insp	REC	391.6	
LYC 53403	oil change	1-11-13 334.5	change oil filter and oil	REC	384.5 6-11-13	
LYC 53342	injector fuel lines	1-11-13 334.5	Inspection	REC	434.5	
AD 2002-760	injector fuel lines	1-11-13 334.5	Inspection	REC	434.5	
LYC 53342	injector fuel lines	2-4-14 369.8	Inspection	REC	469.8	
AD 2011-7604	injector fuel lines	2-4-14 369.8	Inspection	REC	469.7	

AIRWORTHINESS DIRECTIVE / FACTORY BULLETIN COMPLIANCE RECORD

A.D./BULL. NUMBER	ITEM AFFECTED	DATE & HRS. AT COMP.	METHOD OF COMPLIANCE	TYPE OF A.D. 1 TIME/RECUR	NEXT COMP. DATE/HRS./CYCLE	AUTHORIZED SIGNATURE CERTIFICATE NO.
SB480E	oil	10-4-08 93.1	oil charge	Recur	143.1	
PR5409	Fuel Lines	10-4-08 93.1	Fuel lines	Recur	193.1	
SB388C	Valve	10-4-08 93.1	Servo Plug	Recur	143.1	
SB480E	oil	6-9-09 137.0	oil + filter change	Recur	4 months / or 100 hrs	
SB342	injector fuel lines	7-6-10 214.4	Inspection	RECUR	314.4	
SB480E	oil	7-6-10 214.4	change oil and filter	RECUR	264.4	
SB480E	oil	11-3-11 291.6	change oil & filter	REC	391.6 / 03/03	
SB342	injector fuel lines	11-3-11 291.6	Visual Insp	REC	391.6	
AD 2002-760	injector fuel lines	11-3-11 291.6	Visual Insp	REC	391.6	
SB480E	oil	1-11-13 334.5	change oil filter and oil	REC	384.5 6-11-13	
SB388C	Valve	1-11-13 334.5	Inspection	REC	434.5	
SB480E	oil	2-4-14 369.8	Inspection	REC	469.8	
SB342	injector fuel lines	2-4-14 369.8	Inspection	REC	469.7	
AD 2011-7604	injector fuel lines	2-4-14 369.8	Inspection	REC	469.7	

CE RECORD

SIGNATURE
DATE NO.

AIRWORTHINESS DIRECTIVE / FACTORY BULLETIN COMPLIANCE RECORD

A.D./BULL. NUMBER	ITEM AFFECTED	DATE & HRS. AT COMP.	METHOD OF COMPLIANCE	TYPE OF A.D. 1 TIME/RECUR.	NEXT COMP. DATE/HRS./CYCLE
610476 SSKPS	oil filter	2/4/14 362.7	oil change	REL	419.0
PR5-109	Fuel pump	2/19/15 409.0	inspected for contamination	Rec	Every 500 hrs or 500 Atk cycle
SB 388C	Valve clearance	3/18/15 500.8	inspection	Rec	Every 300 hours
SB 480E	oil filter	3/18/15 500.8	oil change	Rec	550.8
SB 342	injector lines	3/18/15 500.8	visual inspection	Rec	600.8
SB 480E	oil filter change	4/16/15 549.6	oil change	Rec	599.6
SB 480E	oil and filter change	4/23/15 596.6	oil change	Rec	646.6
AD 2011-204	injector lines	4/23/15 596.6	inspection	Rec	696.6
SB 342	injector lines	4/23/15 596.6	inspection	Rec	696.6
SB 480E	oil + filter	5-15-15 646.6	oil change	Rec	696.6
SB 480E	oil + filter	688.6 5-29-15	oil change	Rec	788.6
SB 342	injector lines	688.6 5/29/15	inspection	Rec	788.6
AD 2011-204	injector lines	688.6 5/29/15	inspection	Rec	788.6
SB 480E	oil + filter	6/9/15 732.8	oil and filter	Rec	782.8
SB 388C	valve clearance	7/2/15 783.6	inspection	Rec	883.6
SB 480E	oil and filter	7/2/15 783.6	oil and filter	Rec	833.6
SB 342	injector lines	783.6 7/2/15	inspection	Rec	883.6
AD 2011-204	injector lines	783.6 7/2/15	inspection	Rec	883.6

AUTHORIZED SIGNATURE

AIRWORTHINESS DIRECTIVE / FACTORY BULLETIN COMPLIANCE RECORD

A.D./BULL. NUMBER	ITEM AFFECTED	DATE & HRS. AT COMP.	METHOD OF COMPLIANCE	TYPE OF A.D. 1 TIME/RECUR.	NEXT COMP. DATE/HRS./CYCLE
PR5-110	Fuel injector	11-5-15			at overhaul
SB480E	oil and filter	3/8/16 871.1	oil and filter change		971.1
SB342	injector lines	3/8/16 871.1	visual inspection of injector lines		971.1
AD2015-19-07	injector lines	3/8/16 871.1	visual inspection of injector lines		971.1
SB480E	oil and filter	5/18/16 977.6	oil and filter change		977.6
SB480E	oil and filter	6/16/16 1010.1	oil and filter change		1010.1
AD2015-19-07	injector lines	6/16/16 1070.1	visual inspection of injector lines		1070.1
SB342G3	injector lines	6/16/16 1070.1	injector lines		1070.1
SB480E	oil and filter	9/18/16 1059.7	oil and filter change		1059.7
SB480E	oil and filter	12/21/16 1094.0	oil and filter change		1094.0
SB342G3	injector lines	12/21/16 1144.0	visual inspection of injector lines		1144.0
AD2015-19-07	injector lines	12/21/16 1144.0	visual inspection of injector lines		1144.0
SB388E	valve clearance	12/21/16 1344.0	valve clearance inspection		1344.0
AD2015-19-07	injector lines	2/21/17 1216.8	visual inspection of injector lines		1216.8
SB342G3	injector lines	2/21/17 1216.8	visual inspection of injector lines		1216.8
SB480E	oil and filter	2/21/17 1166.8	oil and filter		1166.8
SB480E	oil and filter	3/1/17 1261.5	oil and filter change		1261.5
SB480E	oil and filter	4/1/17 1261.5	oil and filter change		1261.5

AUTHORIZED SIGNATURE

AIR

A.D./BULL. NUMBER

AD2015-19-07
11/3/15

SB342

AD2015-19-07
11/3/15

SB342

SB480E

SB388E

500 hours

12/21/16

SB632

AD2017-16-1

SB480E

SB342

AD2015-11/3/15

CORD

AIRWORTHINESS DIRECTIVE / FACTORY BULLETIN COMPLIANCE RECORD

A.D./BULL. NUMBER	ITEM AFFECTED	DATE & HRS. AT COMP.	METHOD OF COMPLIANCE	TYPE OF A.D. 1 TIME/RECUR.	NEXT COMP. DATE/HRS./CYCLE
AD2015-140 11/3/15	injector lines	4/11/17 1211.5	Visual inspection		1311.5
SB342	injector lines	4/11/17 1211.5	Visual inspection		1311.5
AD2015-140 11/3/15	injector lines	1283.4 6/5/17	Visual inspection		1383.4
SB342	injector lines	1283.4 6/5/17	Visual inspection		1383.4
SB480E	oil and filter change	6/5/17 1283.4	Changed Oil and filter		1333.4
SB388C	Valve guides	6/5/17 1283.4	Measured Valve guide clearance		1583.4
500 hour magneto inspection		6/5/17 1283.4	for Magneto after inspection		1783.4
SB632A	Rod Bushing	8-2-17 1323.1	N/A Per S/N		
AD2017 -16-11	8/15/17	2/2/18	N/A Per S/N		
SB460E	oil and filter	10/24/17 1331.5	oil and filter changed		1381.5
SB342	injector lines	2/2/18 1331.5	Visual inspection		1431.5
AD2015-140 11/3/15	injector lines	2/2/18 1331.5	Visual inspection		1431.5

AUTHORIZED SIGNATURE
CERTIFICATE NO.

ORD

INSPECTION & MAINTENANCE RECORD

DATE	TOTAL TIME	INSPECTION OR MAINTENANCE PERFORMED AGENCY & CERTIFICATE NO.
10/5/07	4.0	PICK-UP AT ROBINSON FACTORY
10/25/07	10.1	OIL & FILTER CHANGE - PHILLIPS 66-M-20W-50
		OP-BIC HELICOPTERS
2/23/08	38.6	PERFORMED LYCOMING SIID800 AND SB48DE. DRAINED ENGINE OIL, CLEANED AND CHECKED OIL SUCTION SCREENS AND REFILLED CRANKCASE WITH 9 QUARTS OF 15W-50 PREMIUM SEMISYNTHETIC OIL. OIL FILTER WAS CHANGED AND MAGNETS WERE TIMED. RUN UP CHECK FOR LEAKS CHECKED OKAY. THIS ENGINE WAS FOUND IN AIRWORTHY CONDITION AND APPROVED FOR RETURN TO SERVICE.
		[REDACTED] A&P [REDACTED]
		CHRISTIAN CORTER

INSPECTION & MAINTENANCE RECORD

DATE	TOTAL TIME	INSPECTION OR MAINTENANCE PERFORMED AGENCY & CERTIFICATE NO.
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25 March, 2008 Robinson Helicopter R44 II N178DF s/n 11969 Hobbs: 45.2 hrs
 -----Engine : Lycoming IO-540-AE1A5 s/n L-32273-48E-----
 Inspected fuel injection servo in accordance with Lycoming Service Bulletin NO. 581
 and in compliance with airworthiness directive 2008-06-51. Found plug loose and re-
 moved for inspection. Gasket was intact and the threads of the plug and servo were
 not damaged. The plug was inspected and determined to be in accordance with bulletin PEX-1.---end---

Inspector:

L.D./Adams

Aero-MARS LLC

N178DF Robinson R44 Date: 4 Oct. 2008

ETT: 93.1 Hobbs: 93.1

Lycoming: IO-540-AE1A5 S/N: L-32273-48A

Performed 50/100-hour /Annual inspection IAW Lycoming Operators Manual Section 4.4. Cleaned,
 inspected, tested and rotated spark plugs. Complied with SB-480E Drained oil, removed oil filter cut open
 no debris found installed new CH48108 filter, cleaned suction screen, serviced with 9 qts of AS 15W-50
 next due at 143.1. Complied with AD 2002-26-01 by visual inspection of fuel injection lines check good
 next due at 193.1. Cleaned fuel strainer and fuel injectors. Compressions are #1=78/80, #2=79/80,
 #3=78/80, #4=77/80, #5=78/80 and #6=77/80. Service Bulletins to SB-66 have been complied with. AD's
 current to revision 2008-20 Performed leak and operational checks on ground run. No defects noted at this
 time. I have inspected this engine IAW Lycoming operator's manual 50/100-hour inspection and
 determined this engine is approved for return for service. I certify that this engine has been inspected
 in accordance with an Annual inspection and is determined to be in airworthy condition. ---END---

Matthew Shubin A&P

IA

12/4

7-6-

INSPECTION & MAINTENANCE RECORD

DATE	TOTAL TIME	INSPECTION OR MAINTENANCE PERFORMED AGENCY & CERTIFICATE NO.
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N178DF Robinson R44 II Date: 09 June, 2009

ETT: 137.0 Hobbs: 137.0

Lycoming: IO-540-AE1A5 S/N: L-32273-48E

Performed 50-hour inspection IAW Lycoming Operators Manual Section 4.4. . Complied with SB-480E Drained oil, removed oil filter cut open no debris found installed new CH48108 filter, cleaned suction screen, serviced with 9 qts of AS 15W-50 plus next due at 237.0. Complied with AD 2009-02-03 by installation of P/N 2577258 gasket on fuel servo hex plug. Performed leak and operational checks on ground run. No defects noted at this time. **I have inspected this engine IAW Lycoming operator's manual 50-hour inspection and determined this engine is approved for return for service. --END-----**

Matthew Shubin A&P

IA

12/4/09 179.0

Drained oil, removed filter, cut open no debris found
cleaned suction screen, added 9 qts AS 15W-50

7-6-10 214.4

C/W annual Insp, C/W Lye SB 4P0E, SB 342, SB 301, SB 387 results: cyl #1 .019, #2 .020, #3 .019, #4 .019, #5 .021, #6 .020, C/W Lye SI 1080 & 1129, C/W TCM SB 613, replaced 9 qts of Aeroshell plus 100W SAE 50 Ashless dispersant engine oil, replaced oil filter K123-1, inspected oil suction screen OK, inspected gasket for screen OK,

INSPECTION & MAINTENANCE RECORD

DATE

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DATE

performed complete spark plug service OK,
performed diff cyl. comp. check results:
cyl #1 76/80, #2 76/80, #3 74/80, #4 72/80
#5 76/80 #6 72/80. Engine was run-up checked
for leaks none found. power checked OK.

I certify that this engine has been inspected
for an annual inspection IAW Lxc operators
manual and has been found to be in operational
serviceable condition at this time.

Vegas A/P

IA

12-14-10 252.3

C/W 50 HR inspection IAW Lxc Operators
Manual, C/W Lxc 52482, C/W Lxc 52108D.
replaced filter (oil) p/w 0123-1, removed and
replaced one spark plug RKM3PE, replaced all
9 qb of Amoskill plus Adlers dependent 100 w SAKSO
engine oil, inspected oil system seen OK,
performed complete spark plug service all OK

INSPECTION & MAINTENANCE RECORD

DATE

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TIME

INSPECTION OR MAINTENANCE PERFORMED
AGENCY & CERTIFICATE NO.

engine was run-up checked for leaks all OK,
this engine has been determined to be in
operational airworthy condition. [REDACTED] ASD [REDACTED]

11-3-11

29/06

11-2-11

BAKER AERO ELECTRIC

MAGNETO

p/n) 10-600616-9

s/n) E07DA097

Overhaul one TCM magneto. Disassembled, cleaned, inspected, replaced bearings, points, oil seal, and bench tested. Work performed as per TCM manual and FAR43.13.

A.D.# 94-01-03R2. Coil and rotor. N/A by magneto serial number.

A.D.# 94-06-09. Condenser. N/A by condenser date code.

David Baker AP [REDACTED]

11-2-11

BAKER AERO ELECTRIC

MAGNETO

p/n) 10-600646-201

s/n) E06KA046

Overhaul one TCM magneto. Disassembled, cleaned, inspected, replaced bearings, points, oil seal, and bench tested. Work performed as per TCM manual and FAR43.13.

A.D.# 94-01-03R2. Coil and rotor. N/A by magneto serial number.

A.D.# 94-06-09. Condenser. N/A by condenser date code.

David Baker AP [REDACTED]

INSPECTION & MAINTENANCE RECORD

DATE	TOTAL TIME	INSPECTION OR MAINTENANCE PERFORMED AGENCY & CERTIFICATE NO.
11-3-11	291.6	CLW 100 HR/annual insp. IAW Lxc operators manual. CLW Lxc. 53342, 584P0E, SP1129, SP1080, AD 200226-01, changed 9 qts of Aeroshell plus 100W SAE 50 engine oil Ashless dispersant, replaced B1231 oil filter, inspected oil suction screen OK, Both left and right Mag were repaired and re installed after O/H was performed. CLW Fern 53643, BISS cyl. compression check was performed results cyl #1 78/80, #2 78/80, #3 78/80, #4 78/80, #5 78/80 #6 78/80. Complete spark plug service was performed all checked out good. Engine was run. Replaced engine nose seal PIN LW11997. Engine was run-up checked for leaks non-found. power checked OK. this engine has been found to be in operational airworthy condition at this time. [REDACTED] E Fern Vager IA [REDACTED]

DATE

1-11-13

INSPECTION & MAINTENANCE RECORD

DATE	TOTAL TIME	INSPECTION OR MAINTENANCE PERFORMED AGENCY & CERTIFICATE NO.
1-11-13	334.5	I certify that this engine has been inspected for a 100 HR/annual inspection IAW Lye operator's manual. performed the following: C/W Lye. SB 480E, SB342, AD 2002-26-01, Lye. SI1080, SI1129, changed 9 qt of Acosbell plus engine oil, replaced B123-1 oil filter, inspected oil suction screen OK, performed complete spark plug service all checked out OK, C/W TCM S36V3 magnets turning oil, performed diff cyl. comp check results: cyl #1 78/80, #2 78/80, #3 78/80 #4 77/80, #5 76/80, #6 78/80. Engine was run-up power checked OK no leaks. Engine has been found to be in operational airworthy condition at this time and is OK to return to service [redacted] IA [redacted]

INSPECTION & MAINTENANCE RECORD

DATE	TOTAL TIME	INSPECTION OR MAINTENANCE PERFORMED AGENCY & CERTIFICATE NO.
2-4-14	369-8	I certify that this engine has been inspected for 100/Annual inspection, IAW Lye operator's manual. C/W Lye 53480, 342, C/W SC10P0, 1129, 1181, C/W AD 2011-26-04 C/W TCM 58643. Replaced 9 qts of Amsoil plus em oil, replaced B123-2 oil filter, replaced all 12 REMORE Spark plugs, performed diff cyl. Compression check results: cyl #1 74/80, #2 74/80, #3 78/80, #4 76/80, #5 75/80, #6 74/80, C/W TCM 58643, Engine was run-up power checked no leaks, Engine has been found to be in operational airworthy condition at this time and is OK to return to service. [Redacted Signature] Efor Vaz IA [Redacted]

INSPECTION & MAINTENANCE RECORD

DATE	TOTAL TIME	INSPECTION OR MAINTENANCE PERFORMED AGENCY & CERTIFICATE NO.
2/19/2015	HM 409.0 Act 409.0 SMOH 409.0	Date of manufacture May 25 2007
1/29	Inspected engine to c/w 100 hour inspection c/w AD 2009-02-03	
1/25/2012	Letter (Glon cap and not loose. C/w AD 2011-26-04 EFF Date	
1/25/2012	by inspecting fuel injector lines and clamps, AD 2012-03-06 C	
2/24/2012	N/A Precision Fire servo installed, AD 2012-19-01 EFF	
10/24/2012	N/A Date of engine manufacture AD 2015-02-07 EFF Date 3/11/15	
D/N/A	part not installed and not acrobatic, C/w SB 342 c/w SB 480E	
C/w SI 1129 B	C/w SI 1191 A. Changed oil A/SW 10 installed new robinson oil	
filter.	Cleaned suction screen checked timing 20° L/H and R/H magnetos compressions are	
#1 75 #2 70 #3 70 #4 70 #5 70 #6 76.	Checked throttle body bolts	
as per operators manual inspection instructions, and SB 366 B. cleaned		
and gapped spark plugs. Run up and leak check (ok).		
I certify that this engine has been Inspected IAW A		
100 hour, inspection and is in airworthy condition for return to Service		
		APK

INSPECTION & MAINTENANCE RECORD

DATE	TOTAL TIME	INSPECTION OR MAINTENANCE PERFORMED AGENCY & CERTIFICATE NO.
3/6/2015	HM 459.0	Act# 459.0 C/W S/B 480 changed oil A/S W80 changed oil filter cut and inspected old oil filter normal. cleaned suction screen. Run up and leak check (OK) Returned to service

N178DF EN S/N: L-32273-48E ETT: 500.8 Date: 03/18/2015
 C/W 100/300 hr. inspection. Changed oil with areoshell 100, changed oil filter & cleaned screen, no metal found. Cleaned & gaped spark plugs. Cleaned gascolator. Timed mag's to 20 deg's BTDC. Done compression test: #1 72/80, #4 72/80, #5 74/80, #2 70/80, #3 75/80, #6 70/80. Complied with S/B 388C on exhaust valves #1-.021, #2-.023, #3-.019, #4-.022, #5-.018, #6-.023. Complied with AD 11-26-04 on injector lines. Installed new v-belt on altanator. Changed seal on crank shaft. Balanced fan to .17 ips. Test ran & leak checked. Engine determined to be in an airworthy condition

A&P

signed

3/24/2015	HM 513.7	Replaced cylinder head temperature probe. Aircraft returned to service.
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4/6/15	HM 549.6	Act# 549.6 ETT 549.6 Changed oil A/S 100W changed filter Cut and inspected old filter (OK). to C/W S/B 480E Leak Check () Cleaned suction screen
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INSPECTION & MAINTENANCE RECORD

DATE	TOTAL TIME	INSPECTION OR MAINTENANCE PERFORMED AGENCY & CERTIFICATE NO.
4/23/15	HMS 96.6 AET 596.6 EIT 596.6	Performed 100 hour inspection. Changed oil A/S 100W cut and inspected filter (OK) to c/w SB 480E cleaned suction screen cleaned and gapped plugs. Performed differential cylinder pressure test #172 #274 #378 #476 #578 #673. Adjusted Alternator belt tension IAW Lycoming Service instruction 1129B. Checked magneto timing reset mag timing 4th magneto both 26°. CW AD 2011-26-04 EEE date 1/25/2012 by visually inspecting fuel injector lines, cleaned fuel injector servo Inlet screen, cleaned gas selector Replaced Air Conditioning belt and set tension as per Robinson Maintenance manuals. Balanced fan. Pressure tested exhaust system visually and internally inspected muffler assembly. c/w SB 342 by inspecting fuel injector lines. Checked rocker cover screws for security/tightness. Run up and leak check normal. Engine has been determined to be in airworthy condition for return to service. [redacted] AEF [redacted]
5-15-15	Hobbs 646.6	Complied with SB 480E changed oil - aeroshell w/100, changed filter + cleaned screen. Engine returned to service. AEF [redacted]

INSPECTION & MAINTENANCE RECORD

DATE	TOTAL TIME	INSPECTION OR MAINTENANCE PERFORMED AGENCY & CERTIFICATE NO.	DATE
5/29/15	HM 688.6	Act 688.6 ETT 688.6. Performed 100 hour inspection & changed oil A/S w 100 cut and inspected old oil filter. installed new oil filter cleaned and gapped plugs. pressure and visually inspected exhaust system c/w Lyr SB 480E and SB 342. c/w AD 2011-26-04 EFF date 1/25/2012 by inspecting fuel injector lines and chimping. cleaned fuel strainer, cleaned and gapped spark plugs, checked ignition timing 20° C/H and R/H. Performed differential cylinder pressure check #177 #272 #374 #473 #578 #670, balanced fan, 155ips checked alternator and air conditioning belt tensions, cleaned oil suction screen. Run up and leak check normal. Engine has been determined to be airworthy for return to service.	7/2/15
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6/9/15	HM 732.5	Act 732.8 ETT 732.8 c/w SB 480E changed oil A/S w 100 cut and inspected oil filter installed new filter cleaned suction screen Run up and leak check (OK)	

INSPECTION & MAINTENANCE RECORD

DATE	TOTAL TIME	INSPECTION OR MAINTENANCE PERFORMED AGENCY & CERTIFICATE NO.
7/2/15 HM 783.6	ET 783.6	Act 783.6
an n changed Filter exhaust M EFF date ened fuel timings are check 155 ips ed oil e has been 194648 SW on screen		Performed 100 hour inspection changed oil A/S w/100 cut and inspected oil filter (OK) installed new oil filter. Replaced spark plugs. Pressure tested and visually inspected exhaust system. Performed differential cylinder pressure check #1 78 #272 #378 #474 #576 #2 c/w SB 388 C Valve guide clearance by inspecting valve to guide clearances all within limits. Removed and Replaced L/H and R/H magnetos with overhauled magnetos see component card and yellow tags set timing 20° L/H and R/H installed with new drive cushions, c/w AD 2011-26-04 Effective date 1/25/2012 by inspecting fuel injector lines and clamping for proper installation and condition, as per SB 342 c/w SB 480 E. checked and balanced engine fan. Cleaned oil suction screen. Checked Air conditioning and alternator belt tension (OK). installed small baffling patch upper L/H engine baffling. Retorqued Rocker cover screws. Run up and leak check normal. Engine has been determined to be airworthy for return to service. [redacted] Aof [redacted] 12/16/15 HM 827.8 PN 62B 26931 S/N RC 34152697. [redacted] Aof [redacted] OOTS N

INSPECTION & MAINTENANCE RECORD

DATE	TOTAL TIME	INSPECTION OR MAINTENANCE PERFORMED AGENCY & CERTIFICATE NO.
12-17-15	827.9	Complied with SB480E. Changed engine oil oil filter & cleaned engine oil screen. NO metal found. test ran & leak checked. Engine returned to service. Aff [REDACTED]
3/8/16	HM 871.1 A #871.1 ET 871.1	Performed 100 hr inspection Changed oil A/S W100 cut and inspected oil filter, Installed new oil filter. Cleaned and gapped spark plugs. Visually and pressure tested Exhaust system. Reset magneto timing 20° L/H and R/H magnetos. C/W AD 2015-19-07 E/F Ed date 11/3/15 by visually inspecting fuel injector lines and clamps. C/W SB342 and 480E. Cleaned engine oil suction screen. Checked Air conditioning belt and adjusted alternator belt IAW Lycoming SI. Performed differential cylinder pressure test #1 77 #2 76 #3 78 #4 78 #5 78 #6 75. Fan balanced to less than .2 ips. Run up and leak check normal. I certify that this engine has been inspected IAW 100 hr/Annual inspection and is in airworthy condition for safe operation and returned to service this date, [REDACTED] AAF [REDACTED] I.A.

DATE
5/18/16
inspec
6/16/16
oil A/S
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SB 4
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spark
#2
L/H 2
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SB 35

INSPECTION & MAINTENANCE RECORD

DATE	TOTAL TIME	INSPECTION OR MAINTENANCE PERFORMED AGENCY & CERTIFICATE NO.
oil 5/18/16	ACT 927.6 HM 927.6 ETT 927.6	changed oil A/S W100 cut and inspected filter cleaned engine oil suction screen. [redacted] A/S [redacted]
[redacted] 6/16/16	ACT 960.1 HM 960.1 ETT 960.1	Performed 100 hour inspection Changed oil A/S W100 replaced oil filter cut and inspected old filter for metal none found, C/W AD 2015-19-07 11/3/15 Eff date by inspecting fuel injector lines visually and for clamping, due Again 1070.1, C/W SB 480 E oil and filter change due again 1010.1, Cleaned Suction screen and replaced crushwasher cleaned gapped and installed spark plugs using new copper crushwashers, Replaced upper #2 spark plug Performed differential cylinder pressure test #1 76 #2 78 #3 77 #4 78 #5 78 #6 76 Checked ignition timing 20° 1/11 20° R/H Inspected Air conditioning belt for condition and tension, Checked Alternator belt as per Lycoming service instruction, Lycoming Service Bulletin #625 P/N/A This Alternator manufacturer or P/N checked throttle control, Checked rocker cover screws Run up and leak check Normal C/W LVC SB 392 G3 Balanced fan, inspected slippage marks →

INSPECTION & MAINTENANCE RECORD

DATE

TOTAL
TIME

INSPECTION OR MAINTENANCE PERFORMED
AGENCY & CERTIFICATE NO.

~~Engine (BR)~~ has been inspected with reference to 100 hour inspection and has been determined to be in Airworthy condition at this time. [Redacted] ACP [Redacted]

9/16/16 HM 998.6 ACT 998.6 ETT 998.6 Troubleshoot Alternator Inop determined Alternator S/N 6080374 defective. Removed and installed used serviceable Alternator S/N F063166 Part total time 1615.9 384.1 till due overhaul. Adjusted belt tension with reference to Lycoming Service instruction and checked belt alignment Run up and ops Check normal. [Redacted] ACP [Redacted]

9/18/16 HM 1009.7 ACT 1009.7 ETT 1009.7 Changed Oil A/S W100 Changed Oil filter. Cut and inspected old oil filter (OK) cleaned engine suction screen c/w SB480E. Run up and Leak Check (OK) [Redacted] ACP [Redacted]

INSPECTION & MAINTENANCE RECORD

DATE	TOTAL TIME	INSPECTION OR MAINTENANCE PERFORMED AGENCY & CERTIFICATE NO.
100 hours changed oil timing #3 78 #4 78 #5 78 #6 70	12/21/16 HM 1044.0	ACT 1044.0 ET 1044.0 Performed 100 hour inspection changed oil A/S w 80. Cleaned and gapped spark plugs checked timing. Performed differential cylinder pressure check #1 77 #2 78 #3 78 #4 78 #5 78 #6 70. Performed Valve guide inspection required for Lycoming SB 388C Valve guide clearances as follows #1.024 #2.022 #3.023 #4.021 #5.023 #6.023. Checked Alternator belt tension 615.9 as per Lycoming SI 1129D. Checked Air conditioning belt condition and tension. C/W AD 2015-19-07 Effective date 11/3/15 Run C/W SB 480E oil and filter change. Checked injector inlet screen. Cleaned fuel strainer and pressure tested @ exhaust cut and inspected old oil filter Run up and leak check
200 changed oil spark plugs #3 78 #4 74 #5 78 #6 77	2/21/17 HM 1116.8	ACT 1116.8 ET 1116.8 Performed 100 hour inspection changed oil cut open oil filter serviced A/S w 80 cleaned and gapped spark plugs Performed differential cylinder pressure check #1 78 #2 78 #3 78 #4 74 #5 78 #6 77 Checked Alternator belt tension AS per Lycoming SI 1129D Cleaned engine oil suction screen C/W SB 480E C/W AD 2015-19-07 Effective date 11/3/15 by inspecting fuel injection lines

INSPECTION & MAINTENANCE RECORD

DATE	TOTAL TIME	INSPECTION OR MAINTENANCE PERFORMED AGENCY & CERTIFICATE NO.	DATE
		Cleaned fuel strainer. Pressure tested exhaust system. (Run up and back check OK) Aircraft has been inspected with reference to 100 hour inspection and is in Airworthy condition. [Redacted] AOP [Redacted]	5/8/17
3/1/17	Act 1156.0 HM 1156.0 ETT 1156.0	Changed oil A/S w 80 changed oil filter, cleaned filter screen. [Redacted] AOP [Redacted]	6/5/17
4/11/17	Act 1211.5 HM 1211.5 ETT 1211.5	Changed oil A/S w 100 c/w SB 480E oil and filter change, c/w AD 2015-19-07 ETT date 11/3/15 By visually inspecting fuel injection lines. Replaced All spark plugs checked timing. Checked Alternator belt tension with reference to Lycoming SI 11290. Performed differential cylinder pressure check #1 78 #2 78 #3 77 #4 78 #5 78 #6 78. Pressure Tested exhaust system. Replaced muffler with used serviceable muffler and retested. (OK). Engine inspected with reference to 100 hour inspection and is in airworthy condition for safe operation. [Redacted] AOP [Redacted]	SB Fall Perf #4 and mag and Sec SI of

INSPECTION OR MAINTENANCE PERFORMED
AGENCY & CERTIFICATE NO.

DATE	TOTAL TIME	INSPECTION OR MAINTENANCE PERFORMED AGENCY & CERTIFICATE NO.
5/5/17	1256.0	complied with (SB)480E +/SI/10805 returned to service. APP [REDACTED]
6/5/17	HM 1283.4 ACTT 1283.4 ETT 1283.4	Performed 100 hour/Annual inspection changed oil A/S W100, cut and inspected old filter installed new filter, c/w SB480E oil and filter change, c/w SB 388C Exhaust valve guide clearance check clearances as follows #1.023 #2.023 #3.022 #4.022 #5.022 #6.023 Performed differential cylinder pressure test #178 #278 #378 #478 #577 #678 Removed magnetos and reinstalled S/N E070A07 and E06KA046 magnetos after 500 hour inspection see Aircraft magneto service yellow tags, and retimed to engine. cleaned and gapped spark plugs replaced crush washers. cleaned oil suction screen. Checked Alternator belt tension with reference to LYcoming SI 11290. C/W AD 2015-19-07 ETT effective date 11/3/15 visual inspection of fuel injector lines. Run up and leak check normal. APP [REDACTED] TA

INSPECTION & MAINTENANCE RECORD

DATE	TOTAL TIME
5/8/17	1256.0

6/5/17 HM
inspection
installed
SB 388C
follows H
performed
478 #5
E06KA
magneto ser
d gapped s
een. Checked

replaced crash washers. cleaned oil suction
11290. CW AD 2015-19-07 Effect or date 11/3/15 Visual inspection
fuel injector lines. Run up and look check normal.

REORDER FROM:
AVIATION BUSINESS SYSTEMS
715 North Memorial Parkway
HUNTSVILLE, ALABAMA 35801
1-800-633-2950

Maintenance Release
LEADING EDGE AVIATION

The aircraft, airframe, aircraft engine, propeller or appliance identified below was repaired and inspected in accordance with current regulations of the Federal Aviation Administration and is approved for return to service.

Pertinent details of the repairs under
Work Order # 14171 are herein attached
Dated 16 May 2017
Inspected By [REDACTED]
A/E [REDACTED]
Cert. # [REDACTED]

SERVICEABLE
BENDIX (TCM) (CMI)

Name MAGNETO SCALSC-204-I
Unit 10-60046-204 E06KA046
Part # 10-60046-204 E06KA046
Aircraft R-44 ID# [REDACTED]
Disposition RETURN TO SERVICE
Reason For Removal 500HR INSPECTION
Removed By LEA Date [REDACTED]
AD or Service SEE REVERSE SIDE
Bulletins OF TAG FOR LISTING
Work 500HR INSPECTION 1AW
Performed CMI FORM #
FAA Certificate No. X42002-3

AIRCRAFT MAGNETO SERVICE



INSPECTION & MAINTENANCE RECORD

DATE	TOTAL TIME	INSPECTION OR MAINTENANCE PERFORMED AGENCY & CERTIFICATE NO.
2/21/18	HM 1331.5	N178DF Actt 1331.5 ETT 1331.5. Performed 100hr / Annual inspection oil was changed filter changed. Performed differential cylinder pressure check compressions #1 78 #2 78 #3 78 #4 78 #5 74 #6 74. C/w AP 2015-19-07 Eff date 11/3/15. Checked Alternator belt tension with reference to Lycoming ST 1129a. Cleaned and gapped spark plugs. Checked timing. Run Up and leak check normal. I certify that this engine has been inspected with reference to 100 hour inspection and is in airworthy condition at this time. [Redacted] AEP [Redacted] AD 2015-14-11 Eff date 8/15/17 con rods P/N/A this engine N/A [Redacted] AEP [Redacted]

INSPECTION & MAINTENANCE RECORD

DATE

TOTAL
TIME

INSPECTION OR MAINTENANCE PERFORMED
AGENCY & CERTIFICATE NO.

1424

EAST TEXAS FLYING SERVICE INC. AUTHORIZED
ROBINSON SERVICE CENTER #10073 903 571-0116
N178DF 6/29/2018 1424 TT. Engine compression test result:

as follows:

1-70 2-73 3-70 4-72 5-71 6-73

Oil & filter changed. 8 qts. Aeroshell 15W50 installed. CH
48108 oil filter & 1 Pt. Avblend installed.

Engine ground-run & leak checked. See airframe logbook &
AD compliance report for AD compliance details.

**I CERTIFY THAT I HAVE INSPECTED THIS
ENGINE IN ACCORDANCE WITH AN ANNUAL
(100 HR) INSPECTION & THAT IT IS IN AN
AIRWORTHY CONDITION.**

RAY BURCH
APC [REDACTED] IA

DATE	TOTAL TIME	INSPECTION OR MAINTENANCE PERFORMED AGENCY & CERTIFICATE NO.
		EAST TEXAS FLYING SERVICE INC. AUTHORIZED ROBINSON SERVICE CENTER #10073 903 571-0116 N178DF 10/11/2018 1523.7 TT. Engine compression test results as follows: 1-62 2-70 3-69 4-72 5-70 6-70 Oil & filter changed. 7 qts. Aeroshell 15W50 installed. CH 48108 oil filter & 1 Pt. Avblend installed. Repaired lower fan scroll. Installed new UREM38E spark plugs. Replaced intake tube gaskets & O-rings. Installed new C169-6 Rt collector. Engine ground-run & leak checked. See airframe logbook & AD compliance report for AD compliance details. I CERTIFY THAT I HAVE INSPECTED THIS ENGINE IN ACCORDANCE WITH AN ANNUAL (100 HR) INSPECTION & THAT IT IS IN AN AIRWORTHY CONDITION. PATRICIA BURCH AP [REDACTED] IA

Oil & filter changed. 7 qts. Aeroshell 15W50 installed. CH 48108 oil filter & 1 Pt. Avblend installed. Repaired lower fan scroll.

Installed new UREM38E spark plugs. Replaced intake tube gaskets & O-rings. Installed new C169-6 Rt collector. Engine ground-run & leak checked. See airframe logbook & AD compliance report for AD compliance details.

**I CERTIFY THAT I HAVE INSPECTED THIS
ENGINE IN ACCORDANCE WITH AN ANNUAL
(100 HR) INSPECTION & THAT IT IS IN AN
AIRWORTHY CONDITION.**

PATRICIA BURCH
AF [REDACTED] IA

INSPECTION & MAINTENANCE RECORD

DATE

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TIME

INSPECTION OR MAINTENANCE PERFORMED
AGENCY & CERTIFICATE NO.

EAST TEXAS FLYING SERVICE INC. AUTHORIZED
ROBINSON SERVICE CENTER #10073 903 571-0116
N178DF 10/11/2018 1523.7 TT. Engine compression test
results as follows:

1-72 2-73 3-74 4-72 5-73 6-73

Engine ground-run & leak checked. See airframe logbook &
AD compliance report for AD compliance details.

**I CERTIFY THAT I HAVE INSPECTED THIS
ENGINE IN ACCORDANCE WITH AN ANNUAL
(100 HR) INSPECTION & THAT IT IS IN AN
AIRWORTHY CONDITION.**

PATRICIA BURCH
APR 1 2019 A

Note Lycoming MSB 388C Due Next
Inspection

DATE	TOTAL TIME	INSPECTION OR MAINTENANCE PERFORMED AGENCY & CERTIFICATE NO.
		Valve Insp Due Mags Due
		EAST TEXAS FLYING SERVICE INC. AUTHORIZED ROBINSON SERVICE CENTER #10073 903 571-0116 N178DF 11/8/2019 1787 TT. Engine compression test results as follows: 1-70 2-76 3-74 4-72 5-68 6-70 Complied with Lycoming SB-338C—results: 1-.022 2-.019 3-.025 4-.023 5-.021 6-.017 Installed replacement overhauled magnetos. Installed new 07- 00705 high pressure fuel pump. Installed new REM38E Spark plugs. Engine ground-run & leak checked. See airframe logbook & AD compliance report for AD compliance details. I CERTIFY THAT I HAVE INSPECTED THIS ENGINE IN ACCORDANCE WITH AN ANNUAL (100 HR) INSPECTION & THAT IT IS IN AN AIRWORTHY CONDITION. PATRICIA BURCH AP [REDACTED] IA

as follows:

Complied with Lycoming SB-338C—results:

Installed replacement overhauled magnetos. Installed new 07-00705 high pressure fuel pump. Installed new REM38E Spark plugs.

Engine ground-run & leak checked. See airframe logbook & AD compliance report for AD compliance details.

**I CERTIFY THAT I HAVE INSPECTED THIS
ENGINE IN ACCORDANCE WITH AN ANNUAL
(100 HR) INSPECTION & THAT IT IS IN AN
AIRWORTHY CONDITION.**

PATRICIA BURCH
APR 1968

INSPECTION & MAINTENANCE RECORD

INSPECTION OR MAINTENANCE PERFORMED
AGENCY & CERTIFICATE NO.

DATE

TOTAL
TIME

EAST TEXAS FLYING SERVICE INC. AUTHORIZED
ROBINSON SERVICE CENTER #10073 903 571-0116
N178DF 11/8/2019 1787 TT.

Oil & filter changed. 7 Qts. Aeroshell, CH48108 filter and 1 Pt.
Avblend installed.

Engine ground-run & leak checked

PATRICIA BURCH
AP [REDACTED] IA

INSPECTION & MAINTENANCE RECORD

DATE	TOTAL TIME	INSPECTION OR MAINTENANCE PERFORMED AGENCY & CERTIFICATE NO.
5/15/20	1988.0	INSTALLED CHALLENGER OIL FILTER 48108C AS PER STC INSTRUCTIONS RAN ENGINE NO LEAKS [REDACTED] IA

EAST TEXAS FLYING SERVICE INC. AUTHORIZED
ROBINSON SERVICE CENTER #10073 903 571-0116
N178DF 1/18/2021 2238 TT. Engine compression test result
as follows:

1-67 2-72 3-70 4-62 5-66 6-68

Installed new left exhaust collector.

Installed 6 new UREM38E Spark plugs.

Engine ground-run & leak checked. See airframe logbook &
AD compliance report for AD compliance details.

Oil Changed. Filter serviced.

**I CERTIFY THAT I HAVE INSPECTED THIS
ENGINE IN ACCORDANCE WITH AN ANNUAL
(100 HR) INSPECTION & THAT IT IS IN AN
AIRWORTHY CONDITION.**

[REDACTED]
PATRICIA BURCH
AP [REDACTED] IA