

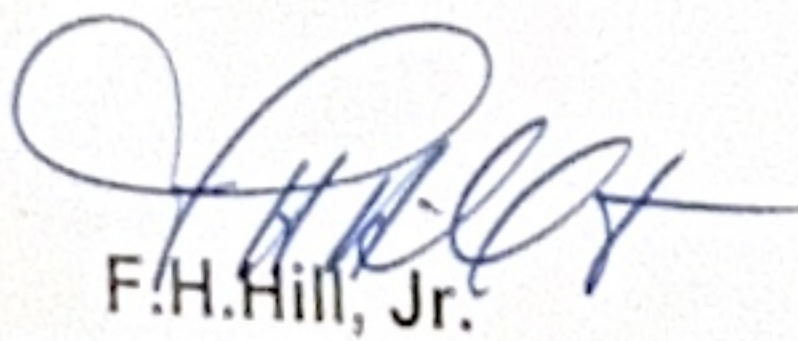
The United States of America
Department of Transportation
Federal Aviation Administration
Washington, D.C.

No. E 371015

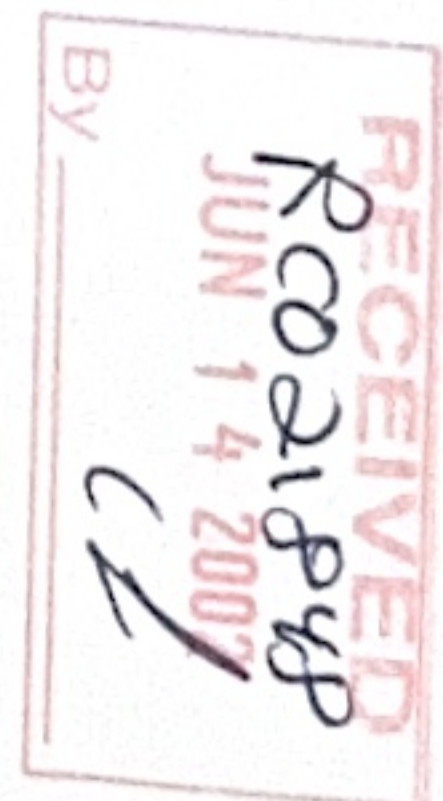
Export Certificate of Airworthiness

This certifies that the product identified below and more particularly described in Specification (s)¹ 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 these 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: Textron Lycoming, Williamsport, PA
Model: IO-360-M1A
Serial No.: L-30388-51A
New ☒ Newly Overhauled ☐
Used Aircraft ☐
Country to which exported: Canada
Exceptions: None


F.H. Hill, Jr.

Signature of Authorized Representative
May 01, 2002
Date



DMIR844023NE
District Office or Designee Number

¹ 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.

FAA Form 8130-4 (7-68) Formerly Form FAA 26

ENGINE LOG

LYCOMING
IO-360-M1A
1E10
L-30388-51A

Export Certificate of Airworthiness

the product identified below and more particularly described in Specification (s) of

tion, Number 1E10

4281603

ENGINE LOG

1. Make LYCOMING
2. Model TB-360-M1A
3. Specification 1E10
4. Manufacturer's Serial Number L-30388-S1A
5. Date of Manufacture _____
6. Aircraft Inspection Cycle _____

ENGINE SERVICE AND

MAINTENANCE RECORD

DATE	TIME RUN		TIME SINCE OVERHAUL		BROUGHT FORWARD	SIGNATURE	LICENCE NUMBER
	HRS.	MIN.	HRS.	MIN.			

NOTE: USE BOTH PAGES AND AS MANY LINES AS REQUIRED FOR COMPLETE

REPAIRS, ADJUSTMENTS, MODIFICATIONS, ENTRIES. DRAW A DIAGONAL LINE THROUGH ANY UNUSED LINES IN DATE AND TIME COLUMNS.

DA 013

ENGINE INSTALLED NEW OIL

Engine installation inspected I.A.W. Diamond Aircraft Industries W.O. # 999-1

Engine service with 8 qts. Of Phillips 20W50 Type "M" engine oil

Engine break-in I.A.W. Lycoming Service Instruction 1427B, FLIGHT TEST COMPLETED

28 NOV 2012

4 2

HOURS BELIEVED FORWARDED

DA 013

Log Book Insert
Avdyne AeroServices, LLC

MAKE: DIAMOND STAR
MODEL: DA-40
SERIAL NO.: 40-249
REGISTRATION NO.: N249DS

DATE: 10/03/03
WORKORDER: 03-10-002
TOTAL TIME: 44.6(H)
TAC TIME: 37.9(T)

1. Completed an annual inspection this date in accordance with FAR Part 43 Appendix "D" and DA40 Maintenance Manual.
2. Performed compression check. 1/76/80 2/75/80 3/72/80 4/70/80.
3. Removed, cleaned and reinstalled all fuel injector nozzles.
4. Removed, cleaned and reinstalled fuel screens.
5. Removed, inspected, cleaned and reconnected all fuel pressure VM1000 and white wire connectors.
6. Removed, inspected, cleaned, regapped and reinstalled spark plugs.
7. Drained oil and replenished with 8 quarts 100W50 AeroShell Mineral oil.
8. Removed and inspected oil filter for contaminants. None found.
9. Removed, inspected, cleaned, reinstalled, torqued and safetied oil suction screen.
10. Checked magneto to engine timing. No defects noted.
11. Checked for AD's thru ATP Navigator. None at present.

This aircraft and/or component identified above was repaired and inspected in accordance with current Federal Aviation Regulations and was found airworthy for return to service. Permanent details of the repair are on file at this agency under Work Order No.03-10-002. Date: 10/17/03. Signed: A&P#: 3554634741A for Avdyne AeroServices, LLC

MAKE: DIAMOND STAR
MODEL: DA-40
SERIAL NO.: 40-249
REGISTRATION NO.: N249DS

DATE: 11/08/04
WORKORDER: 04-11-001
TOTAL TIME: 96.5
TAC TIME: 96.5

1. Completed an annual inspection this date in accordance with FAR Part 43 Appendix "D" and DA40 Maintenance Manual.
2. Performed compression check. 1/71/80 2/74/80 3/73/80 4/74/80.
3. Removed, cleaned, inspected and reinstalled all fuel injector nozzles.
4. Removed, cleaned and reinstalled fuel screens.
5. Removed, inspected, cleaned, regapped and reinstalled spark plugs.
6. Removed and replaced #1 and #3 top spark plugs with new REM 38E.
7. Drained oil and replenished with 8 quarts 20W50 Phillips X Country oil.
8. Removed and inspected oil filter for contaminants. None found.
9. Removed, inspected, cleaned, reinstalled, torqued and safetied oil suction screen.
10. Checked magneto to engine timing. No defects noted.
11. Checked for AD's thru ATP Navigator. None at present.

I certify that this engine has been inspected in accordance with an annual inspection and found to be in an airworthy condition. Date: 11/08/04. Signed: A&P#: 3554634741A

TOTAL THIS PAGE
TOTAL FROM PREVIOUS SUMMARY
TOTAL

CARRIED FORWARD

MAXIMUM HOURS BETWEEN OVERHAULS _____ HOURS.

ENGINE SERVICE AND

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

AvDyne Aero Services, LLC

MAKE: Diamond

MODEL: DA40-180

SERIAL NO.: 40-249

REGISTRATION NO.: N249DS

DATE: 01/26/06

WORKORDER: 06-01-010

TOTAL TIME: 183.3

TAC TIME: 183.3

- Completed an annual engine inspection this date in accordance with FAR part 43 appendix "D" and by referencing DA40 AMM.
- Performed compression check 1) 74/80 2) 71/80 3) 75/80 4) 78/80.
- Drained oil and replenished engine with 8 quarts 15W50 Aeroshell oil.
- Removed and inspected oil filter for contaminants. None found.
- Installed, torqued and safety wired new filter PN CH48110-1.
- Removed, cleaned, inspected, reinstalled and torqued all fuel injector nozzles.
- Removed, inspected, cleaned, gapped, tested, reinstalled and torqued all spark plugs.
- Washed down engine and ran for operational and leak check. Ops checked good. No leaks noted.
- Researched AD's thru ATP Navigator V date January 26 2006. None due at present time.

This aircraft and/or component identified above was repaired and inspected in accordance with current Federal Aviation Regulations and was found airworthy for return to service. Date: 01/26/06
Signed: *[Signature]* A&P: 3554634741A

MAINTENANCE RECORD

REPAIRS, ADJUSTMENTS, MODIFICATIONS
ENTRIES. DRAW A DIAGONAL LINE THROUGH ANY UNUSED LINES IN DATE AND TIME COLUMNS.



Mattituck Service Centers

Make: Lycoming
Model: IO-360-M1A
Serial No.: L-30388-51A

TCM Mattituck Service Center, 8600 County Rd 32, Fairhope, AL 36532 251-990-5080 FAA Repair Station No. ID4R254M

Date: 09/01/2007
Hobbs Time: 343.2
Total Time: 343.2

I certify that this engine has been inspected in accordance with an annual inspection and determined to be in airworthy condition.

Work Performed: Completed an ANNUAL inspection in accordance with Diamond DA40 Maintenance Manual annual inspection checklist. Compression check / 80 psi. #1-78, #2-79, #3-78, #4-78. Cleaned fuel nozzles. Cleaned, gapped, tested and rotated spark plugs. Completed a 400 hour valve component inspection. Installed a new battery tray vent duct. Changed oil and filter. Serviced engine with Aeroshell 15W50 oil. AD notes checked through ATP Content Revision 8/24/2007. Completed ground operational checks and leak check. **END**

Authorized Signature For Repair Station ID4R254M: *[Signature]*
Details of the work performed is on file under Work Order No. 3470

Southeast Aero Services Inc.

St Augustine, FL.

Phone (904) 824-1899/Fax (904) 824-6334

IO360-M1A

s/n: L-30388-51A

N249DS

10/01/08 Hobbs: 410.6 Engine Time: 410.6 Completed an Annual inspection in accordance with Diamond Maintenance Manual inspection checklist this date. Compression checked as follows: 1) 75/80 2) 77/80 3) 77/80 4) 77/80. Oil drained, filter removed and inspected for contaminants. None found. New filter installed and engine serviced to capacity with Aeroshell 15W50 oil. Cleaned, gapped and rotated sparkplugs. Cleaned induction air filter. Complied with MSB40-33 by inspection of exhaust system. no defects noted. AD's checked thru FAA BI Weekly 2008-20. No AD's due at this time. Engine ran and leak checked satisfactory. I certify this Engine has been inspected in accordance with an Annual inspection and determined to be in Airworthy condition at this time.

Danny D. Stokes A&P/IA 587668284 Signature: *[Signature]*

HORIZON

AVIATION SERVICES

06/10/10

N249DS

Tach 437.3

Performed 100 Inspection on this engine using Horizon Aviation Services checklist and manufacturers instruction. Compression checks (1) 72 (2) 74 (3) 77 (4) 72. Drained oil, serviced with 7qts Phillips 20W50XC replaced oil filter with new AA48110-2 cut open and inspected old filter, no defects noted, checked magneto timing, removed, cleaned, gapped, tested, rotated and reinstalled spark plugs. AD's checked thru 06/10/10 CW AD 2008-14-07, Fuel injection lines visual inspection, no defects noted, due @ 537.3. Ground run and op checks all good.

I certify that this engine has been inspected in accordance with a 100 Hour inspection and was determined to be in airworthy condition.

James McGill

A&P 229194277

[Signature]

WORK ORDER

Work Order No. 61710

Part No. 8576568-1

Customer KEYSON Airways

Nomenclature PRECISION (SA-5AD1 SERVO

Description of work performed: Replaced + cleaned vent line.

Replaced O.B. seal, cleaned regulator section.

All work performed in accordance with applicable manufacturer's maintenance and parts manuals.

Date 7/6/06

Signed *[Signature]* TELEDYNE MATTITUCK SERVICES, INC.

FAA Repair Station T10R507Y

N 249DS Hobbs: 283.9 sent out for repairs by KM, as checked

N 249DS Hobbs: 283.9 7/7/06

- clw M3B-40-0441 exhaust bracket kit installation.

- RFR main points in left magneto, RFR coil in right magneto, reset internal timing on both magnetos, installed both magnetos & timed to engine.

TOTAL

437.3

ENGINE SERVICE AND

DATE	TIME RUN		TIME SINCE OVERHAUL	
	HRS.	MIN.	HRS.	MIN.

BROUGHT FORWARD

NOTE: USE BOTH PAGES AND AS MANY LINES AS REQUIRED FOR COMPLETE

2-23-11 Tach 497.0

Changed oil & oil filter. Inspected old filter. Serviced engine with 8qts. of Aeroshell 1500 oil & CH4S110-1 oil filter. Engine washed, ground run, checked for leaks. No leaks noted. John E. Gault 403065620 IFA

July 16 2011 439.7

GML - Maintenance
Mobile (334) 728-6806

Date: July 16, 2011 Lycoming M1A S/N 30386-51A Reg. N248DS
Tach. 439.7 hrs. TTE 439.7 hrs.

- 100hr / Annual inspection completed this date IAW Diamond Aircraft DA40 AWM rev 6. Compression Test #1) 72/80, #2) 76/80, #3) 76/80, #4) 76/80.
Serviced with 8 qts Aeroshell 15W50. Installed new AA48110 oil filter.
1. Replaced all Spark Plugs. Installed with new gaskets and torque to 30lb
2. Replaced RT magneto with new model 4370. S/N off 02031376. S/N on 11051651.
3. LI Magneto inspected and repaired IAW 500hr inspection. S/N 01113749.
4. Completed 500hr Valve Train Inspection. replaced valve cover gaskets.
5. Inspected, cleaned and re-installed J/R Air Filter. Cleaned IAW J/R manual.
6. Ran Engine checked for leaks and adjusted idle mixture, and idle speed.

I certify that this engine has been inspected IAW a 100hr/ Annual inspection and found to be in an airworthy condition.
AWD Checked through July 16th 2011.

Glenn M. Lawler

AP 2151920 IFA

CARRIED FORWARD

MAINTENANCE

REPAIRS, ADJUSTMENTS, DRAW A DIAGONAL LINE THROUGH

10-18-11 Hobbs 613.0

Changed oil & oil filter. Inspected old filter. Serviced engine with 8qts. of Aeroshell 15W50 oil & CH4S110-1 oil filter. Engine washed, ground run, checked for proper operating vibrato. No leaks noted. John E. Gault 403065620 IFA

MAXIMUM HOURS BETWEEN OVERHAULS _____ HOURS.

INT	51031	M3015	M3021	MS24665-302	M3215	M3637
1						
2						

Important to use the user/ins ntial that the u try specified in ments in Bloo d in accor

ENGINE SERVICE AND

MAINTENANCE RECORD

4

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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4-13-12 Tach 668.6 (Hobbs)
 Changed oil & oil filter. Inspected old filter. Serviced engine with 8 qts of AeroShell 15W50 oil & CH 48110-1 oil filter. Engine washed, ground run, checked for leaks. No leaks noted.
 John E. Gutter 402065620 IA

SouthTecAviation
 Mobile (334) 728-6806

Date: Jun 15, 2012. Lycoming M1A S/N 30388-51A Reg: N249DS
 Tach: 549.3 hrs. TTE: 549.3 hrs.

100hr / Annual inspection completed this date I/A/W Diamond Aircraft DA40 AMM rev.6. Compression Test #1) 76/80, #2) 74/80, #3) 72/80, #4) 70/80.
 Serviced with 8 qts AeroShell 15W50, Installed new AA48110 oil filter.
 1. Cleaned all Spark Plugs, installed with new gaskets and torque to 30lb.
 2. Checked Magneto Timing.
 3. Ran Engine checked for leaks and adjusted Idle mixture, and idle speed.

I certify that this engine has been inspected I/A/W a 100hr/ Annual inspection and found to be in an airworthy condition.

See AD List dated July 15 2012.

Glenn M. Lawler
 Glenn M. Lawler AP 2151929 IA

CARRIED FORWARD

TOTAL THIS PAGE	
TOTAL FROM PREVIOUS SUMMARY	
TOTAL SINCE MFG.	

SouthTecAviation
 Mobile (334) 728-6806

Date: Sep. 26 2013. Lycoming M1A S/N 30388-51A Reg: N249DS
 Tach: 639.7 hrs. TTE: 639.7 hrs.

100hr / Annual inspection completed this date I/A/W Diamond Aircraft DA40 AMM rev.7. Compression Test #1) 72/80, #2) 76/80, #3) 65/80, #4) 76/80.
 Serviced with 7qts AeroShell 15W50, Installed new AA48110-2 oil filter.
 1. Inspected Screen and Filter for Metal, none found.
 2. Cleaned and gaped Spark Plugs, installed with new gaskets and torque to 30lb.
 3. Inspected, cleaned and re-installed JR Air Filter. Cleaned I/A/W JR manual.
 4. Ran Engine checked for leaks and adjusted Idle mixture, and idle speed.
 5. AD 2011-26-04R External Fuel Lines, C/W by visual inspection. Due 739.7hrs.

I certify that this engine has been inspected I/A/W a 100hr/ Annual inspection and Found to be in an Airworthy Condition

See AD Compliance List

Glenn M. Lawler
 Glenn M. Lawler AP 2151929 IA

SouthTecAviation
 Mobile (334) 728-6806

Date: Oct. 15 2014. Lycoming M1A S/N 30388-51A Reg: N249DS
 Tach: 670.5 hrs. TTE: 670.5 hrs.

100hr / Annual inspection completed this date I/A/W Diamond Aircraft DA40 AMM rev.7. Compression Test #1) 77/80, #2) 75/80, #3) 72/80, #4) 73/80.
 Serviced with 8qts AeroShell 15W50, Installed new AA48110-2 oil filter.
 1. Inspected Screen and Filter.
 2. Cleaned and gaped Spark Plugs, installed with new gaskets and torque to 30lb.
 3. Inspected, cleaned and re-installed JR Air Filter. Cleaned I/A/W JR manual.
 4. Ran Engine checked for leaks and adjusted Idle mixture, and idle speed.
 5. AD 2011-26-04R External Fuel Lines, C/W by visual inspection. Due 770.5hrs.

I certify that this engine has been inspected I/A/W a 100hr/ Annual inspection and Found to be in an Airworthy Condition

See AD Compliance List

Glenn M. Lawler
 Glenn M. Lawler AP 2151929 IA

MAXIMUM HOURS BETWEEN OVERHAULS _____ HOURS.

ENGINE SERVICE AND

MAINTENANCE RECORD

5

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

REPAIRS, ADJUSTMENTS, MODIFICATIONS
ENTRIES. DRAW A DIAGONAL LINE THROUGH ANY UNUSED LINES IN DATE AND TIME COLUMNS.

SIGNATURE

LICENCE NUMBER



CAROLINA AVIATION TECHNICAL SERVICES, LLC

CAROLINA AVIATION TECHNICAL SERVICES, LLC, 238 AIRPORT ROAD, STATESVILLE, NC 28677

WORK ORDER: 000328 AIRCRAFT: DIAMOND DA40 ACSN: 40.249 REG. NO.: N249DS TACH TIME: 874.2
Manufacturer: TEXTRON LYCOMING Model: IO-360-M1A SERIAL NUMBER: L-30388-51A TSMOH: 874.2

- Inspected Engine IAW FAR PART 43 APPENDIX "D" AND DA40 MAINTENANCE MANUAL
- DRAINED OIL, REMOVED OIL FILTER AND CUT OPEN FOR INSPECTION. NO ABNORMALITIES NOTED. INSTALLED NEW OIL FILTER CH48110-2 AND REPLENISHED ENGINE WITH 8 QUARTS OF AEROSHELL W15W50 OIL
- CLEANED, INSPECTED, AND GAPPED SPARK PLUGS INSTALLED WITH NEW GASKETS
- CLEANED, INSPECTED, AND RE-INSTALLED JR AIR FILTER
- COMPRESSION TEST BY CYLINDER, #1: 78/80, #2: 77/80, #3: 77/80, #4: 76/80
- C/W ENGINE GROUND RUNS FOR LEAK CHECKS AND ENGINE OPERATIONAL CHECKS.
- ADJUSTED L/H AND R/H MAG TIMING
- RESEARCHED FAA AD'S THROUGH ATP NAVIGATOR REV DATE OCTOBER 04, 2015
- C/W RECURRENT AD 2015-19-07, INSPECTION OF FUEL INJECTOR FUEL LINES. NO DEFECTS NOTED. NEXT AD COMPLIANCE DUE AFTER ANY MAINTENANCE TO FUEL SYSTEM, 984.2 HOURS HOBBS TIME, ANNUAL INSPECTION, OR AFTER ENGINE OVERHAUL.
- AD 2015-02-07, PROP GOVERNOR SHAFT SET SCREW, DUE AT NEXT OVERHAUL
- SEE FAA AD COMPLIANCE RECORD DATED 10/05/2015

THE AIRCRAFT AIRFRAME, POWERPLANT OR APPLIANCE IDENTIFIED ABOVE WAS REPAIRED AND/OR INSPECTED I/A/W CURRENT F.A.A. REGULATIONS AND I/A/W THE SCOPE AND DETAIL OF FAR 43 APPENDIX D AND IS APPROVED FOR RETURN TO SERVICE FOR THE WORK PERFORMED. PERTINENT DETAILS OF THE REPAIR ARE ON FILE AT THIS FACILITY UNDER W.O. 000328 DATED October 5, 2015.

I CERTIFY THAT THIS ENGINE HAS BEEN INSPECTED IN ACCORDANCE WITH AN ANNUAL INSPECTION AS PER FAR 43 APPENDIX D AND WAS DETERMINED TO BE IN AN AIRWORTHY CONDITION.

SIGNED: *William D. Currie, Jr.*

PRINTED: WILLIAM CURRIE, JR A&P 3025857 IA

DATE: October 5, 2015

CARRIED FORWARD

TOTAL THIS PAGE

TOTAL FROM PREVIOUS SUMMARY

TOTAL SINCE REG.

SouthTecAviation
Mobile (334) 728-6806

Date: Nov. 7, 2016. Lycoming M1A S/N 30388-51A Reg: N249DS
Tach: 718.5 hrs. TTE: 718.5 hrs.

100hr / Annual inspection completed this date I/A/W Diamond Aircraft DA40 AMM rev.7.
Compression Test #1) 78/80, #2) 76/80, #3) 75/80, #4) 74/80.
Served with 7qts AeroShell 15W50, Installed new AA48110-2 oil filter.

1. Inspected Screen and Filter for metal, none found.
2. Cleaned and gaped Spark Plugs, and installed with new gaskets.
3. Ran Engine checked for leaks and adjusted idle mixture, and idle speed.
4. AD 2015-19-07 External Fuel Lines, C/W by visual inspection. Due 828.5
5. Completed Service Instruction for Slick Magneto. Removed RH magneto
6. Ground wire from pin # 2 on slick start system.

I certify that this engine has been inspected I/A/W a 100hr/ Annual inspection and Found to be in an Airworthy Condition

See AD Compliance List

Glenn M. Lawler
Glenn M. Lawler

AP 2151929 IA

SouthTecAviation
Mobile (334) 728-6806

Date: December 28, 2017 | Lycoming M1A | S/N: L-30388-51A | Reg: N249DS
Tach: 761.5 hrs. Hobbs: 949.4 hrs. TTE: 761.5 hrs.

AD2015-19-07 due inspection of fuel injector lines. Complied with Lycoming Engines Mandatory Service Bulletin (MSB) No. 342G. Next due in 12 months or 110 hours. Compressions 1.78/80 2.72/80 3.79/80 4.79/80. Changed oil. Serviced with eight quarts of AeroShell and AA48110-2 oil filter. Inspected oil filter, no metal noted. Cleaned and gapped spark plugs. Installed with eight new plug gaskets, P/N (M-674). Inspected alternator brushes and installed new ALU-3045BS Hartzell brush holder assembly. Installed four new Lycoming exhaust gaskets P/N (77611). Maintenance performed in accordance with manufacturer maintenance manual and inspection check list. I certify that this engine has been inspected in accordance with an annual inspection and was determined to be in an airworthy condition./////////END/////////

Michael S. Doud
Michael S. Doud

A&P 304660342 IA

MAXIMUM HOURS BETWEEN OVERHAULS _____ HOURS.

300 Hr - 439.7

Power Hour next: 9/10/2019 = NO 337

ENGINE SERVICE AND

MAINTENANCE RECORD

6

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

BROUGHT FORWARD →

SouthTecAviation
Office: 704-431-6862

3330 Airport Loop Road
Salisbury, NC 28147
info@southtecaviation.com

Date: February 4, 2019 | Lycoming IO-360-M1A | S/N: L-30388-51A | Reg: N249DS
Tach: 772.2 hrs. Hobbs: 962.7 hrs. TTE: 772.2 hrs.

AD 2015-19-07 due inspection of fuel injector lines. Complied with Lycoming Engines MSB No. 342G. Next due: **FEB 2020 or 882.2 hrs.** Compressions: 1.) 71/80 2.) 75/80 3.) 70/80 4.) 73/80. Powerflow systems continued airworthiness requirements due. Inspected exhaust system and lubed in accordance with ICA. Inspected oil filter, no metal noted. Collected oil sample and sent to Blackstone Laboratories for analysis. Serviced engine with eight quarts of AeroShell 15W50 and replaced oil filter (P/N) CH48110-1. Replaced sparkplug gaskets (P/N) M-674. Replaced magneto gaskets (P/N) LW-12681. Maintenance performed in accordance with manufacturer's maintenance manual. I certify that this engine has been inspected in accordance with an annual inspection and was determined to be in an airworthy condition. **END**

Michael S. Doud

A&P 304660342 IA

SouthTecAviation
Office: 704-431-6862

3330 Airport Loop Road
Salisbury, NC 28147
info@southtecaviation.com

Date: MAY 29, 2019 | Lycoming IO-360-M1A | S/N: L-30388-51A | Reg: N249DS
TACH: 784.8 hrs. TTE: 784.8 hrs.

Cut oil filter, inspected for metal, none noted at this time. Replaced oil filter, P/N: (CH48110-1) and serviced engine with one quart AeroShell 15W-50. Compressions as follows: #1. 78/80 #2. 72/80 #3. 76/80 #4. 73/80. Replaced worn scat tube going from cowl to exhaust manifold.

Maintenance performed in accordance with Diamond Aircraft Industries GmbH DA40 AMM and Lycoming Engines Repair Manual.

Christian Hedrick

A&P 3740465 IA

CARRIED FORWARD

TOTAL THIS PAGE
TOTAL FROM PREVIOUS SUMMARY
TOTAL SINCE MFG.

Kane Aviation LLC
22 Waypoint Dr NW
Roanoke, VA 24012

Kane Aviation LLC
22 Waypoint Dr NW
Roanoke, VA 24012

Engine Date: 8/5/2019 Tail #: N249DS

A/C Make/Model: Diamond DA40

Engine Make: Lycoming Engine Model: IO-360-M1A

Engine S/N: L-30388-51A Tach Time: 822.2

Work Performed: Drained oil and serviced with 8 quarts of 15W50. Removed oil filter, cut open, and inspected. No contaminants found. Installed, torqued, and safetied new AA48110-2 filter.

Run up and leak check performed with no leaks or defects noted at this time.

All work listed above was performed I/R/T Lycoming IO-360 Operators Manual and AC 43.13. In reference to the work listed above, this aircraft was found to be in an airworthy condition and is approved for return to service.

Casey McGuffee A&P 3957181

Engine Date: 12/5/2019 Tail #: N249DS

A/C Make/Model: Diamond DA40

Engine Make: Lycoming Engine Model: IO-360-M1A

Engine S/N: L-30388-51A Tach Time: 874.5 Total Time: 874.5

Work Performed: Drained oil and serviced with 8 quarts of AeroShell 15W50. Removed, cut open, and inspected old oil filter. No contaminants found. Installed new AA48110-2 filter, torqued and safetied. Differential compression test performed results as follows: #1: 76/80 #2: 76/80 #3: 76/80 #4: 77/80. Removed fuel injectors, cleaned and inspected, and reinstalled to proper torque specifications. Inspected and lubricated all engine controls. Removed, cleaned, and inspected spark plugs and reinstalled to proper torque specifications. Complied with **AD2015-19-07** by visually inspecting fuel injector fuel lines and clamps between the fuel manifold and fuel injector nozzles. No leaks or defects found at this time. **Next inspection due by AFTT 984.5.**

Run up and leak check performed with no leaks or defects noted at this time.

All work listed above was performed I/R/T Lycoming IO-360 M1A Maintenance and Overhaul Manual and AC 43.13. In reference to the work listed above, this aircraft was found to be in an airworthy condition and is approved for return to service.

Casey McGuffee A&P 3957181

Kane Aviation LLC
22 Waypoint Dr NW
Roanoke, VA 24012

Engine Date: 12/5/2019 Tail #: N249DS

A/C Make/Model: Diamond DA40

Engine Make: Lycoming Engine Model: IO-360-M1A

Engine S/N: L-30388-51A Tach Time: 874.5 Total Time: 874.5

Work Performed: I certify this engine has been serviced and inspected I/A/W a 100 Hour Inspection I/A/W Lycoming IO-360-M1A Maintenance and Overhaul Manual, Diamond DA40 Maintenance Manual, and AC 43.13. This engine was found to be in an airworthy condition and is approved for return to service

Casey McGuffee A&P 3957181

HOURS.

ENGINE SERVICE AND

DATE	TIME RUN		TIME SINCE OVERHAUL		NOTE: USE BOTH PAGES AND AS MANY LINES AS REQUIRED FOR COMPLETE
	HRS.	MIN.	HRS.	MIN.	
BROUGHT FORWARD					
					Kane Aviation LLC 22 Waypoint Dr NW Roanoke, VA 24012
					Engine Date: 01/27/2020 Tail #: N249DS
					A/C Make/Model: Diamond DA40
					Engine Make: Lycoming Engine Model: IO-360-M1A
					Engine S/N: L-30388-51A Tach Time: 925.2
					Work Performed: Drained oil and serviced with 8 quarts of 15W50. Removed oil filter, cut open, and inspected. No contaminants found. Installed, torqued, and safetied new AA48110-2 filter.
					Run up and leak check performed with no leaks or defects noted at this time.
					All work listed above was performed I/R/T Lycoming IO-360 Operators Manual and Diamond Maintenance manual 05-28-00. In reference to the work listed above, this aircraft was found to be in an airworthy condition and is approved for return to service.

Jeffrey W. Stuber
Jeffrey W. Stuber A&P 358883C

Kane Aviation LLC
22 Waypoint Dr NW
Roanoke, VA 24012

Engine Date: 3/15/2020 Tail #: N249DS

A/C Make/Model: Diamond DA40

Engine Make: Lycoming Engine Model: IO-360-M1A

Engine S/N: L-30388-51A Tach Time: 951.9 Total Time: 951.9

Work Performed: Drained oil and serviced with 7 quarts of Aeroshell 15W50. Removed, cut open, and inspected old oil filter. No contaminants found. Installed new AA48110-2 filter, torqued and safetied. Differential compression test performed results as follows: #1: 78/80 #2: 72/80 #3: 78/80 #4: 78/80. Removed fuel injectors, cleaned and inspected, and reinstalled to proper torque specifications. Inspected and lubricated all engine controls. Removed, cleaned, and inspected spark plugs and reinstalled to proper torque specifications. Complied with AD2015-19-07 by visually inspecting fuel injector fuel lines and clamps between the fuel manifold and fuel injector nozzles. No leaks or defects found at this time. Next inspection due by AFTT 1061.9.

Run up and leak check performed with no leaks or defects noted at this time.

All work listed above was performed I/R/T Lycoming IO-360 M1A Maintenance and Overhaul Manual and AC 43.13. In reference to the work listed above, this aircraft was found to be in an airworthy condition and is approved for return to service.

William Painter
William Painter A&P 3170695 IA

Kane Aviation LLC
22 Waypoint Dr NW
Roanoke, VA 24012

Engine Date: 3/15/2020 Tail #: N249DS

A/C Make/Model: Diamond DA40

Engine Make: Lycoming Engine Model: IO-360-M1A

Engine S/N: L-30388-51A Tach Time: 951.9 Total Time: 951.9

Work Performed: I certify this engine has been serviced and inspected I/R/T a 100 Hour Inspection I/R/T Lycoming IO-360-M1A Maintenance and Overhaul Manual, Diamond DA40 Maintenance Manual, and AC 43.13. This engine was found to be in an airworthy condition and is approved for return to service.

William Painter
William Painter A&P 3170695 IA

MAINTENANCE RECORD

Kane Aviation LLC
22 Waypoint Dr NW
Roanoke, VA 24012

Engine Date: 7/20/2020 Tail #: N249DS

A/C Make/Model: Diamond DA40

Engine Make: Lycoming Engine Model: IO-360-M1A

Engine S/N: L-30388-51A Tach Time: 1006.7

Work Performed: Drained oil and serviced with 8 quarts of 15W50. Removed oil filter, cut open, and inspected. No contaminants found. Installed, torqued, and safetied new AA48110-2 filter.

Run up and leak check performed with no leaks or defects noted at this time.

All work listed above was performed I/R/T Lycoming IO-360 Operators Manual and AC 43.13. In reference to the work listed above, this aircraft was found to be in an airworthy condition and is approved for return to service.

William Painter
William Painter A&P 3170695IA

Maintenance Release
KANE 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 # 24561 are herein attached

Dated 26 JUNE 2020

Inspected By AJP

Cert. # A/P 1862854

SERVICEABLE

Name CHAMPION AEROSPACE

Unit SLICK MAGNETO

Part # 4347 Ser. # 09041758

Aircraft ID#

Disposition RETURN TO SERVICE

Reason For Removal 500HR INSPECTION

Removed By KANE Date

AD or Service C/W SLICK SB2-08B, SB3-08B

Bulletins SB1-12 WITH NEW PARTS

Work Performed 500HR INSPECTION IAW MFR'S SERVICE INSTRUCTIONS

FAA Certificate No.

AIRCRAFT MAGNETO SERVICE

3995 FLYING LANE #5-5

STEVENSVILLE, MT 59870

www.aircraftmagnetoservice.com

Kane Aviation LLC
22 Waypoint Dr NW
Roanoke, VA 24012

Engine Date: 9/1/2020 Tail #: N249DS

A/C Make/Model: Diamond DA40

Engine Make: Lycoming Engine Model: IO-360-M1A

Engine S/N: L-30388-51A Tach Time: 1049.1 Total Time: 1049.1

Work Performed: I certify this engine has been serviced and inspected I/A/W a 100 Hour Inspection I/R/T Lycoming IO-360-M1A Maintenance and Overhaul Manual, Diamond DA40 Maintenance Manual, and AC 43.13. This engine was found to be in an airworthy condition and is approved for return to service.

William Painter
William Painter A&P 3170695 IA

Kane Aviation LLC
22 Waypoint Dr NW
Roanoke, VA 24012

Engine Date: 10/10/2020 Tail #: N249DS

A/C Make/Model: Diamond DA40

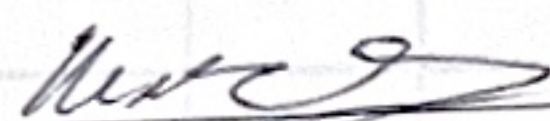
Engine Make: Lycoming Engine Model: IO-360-M1A

Engine S/N: L-30388-51A Tach Time: 1100.4

Work Performed: Drained oil and serviced with 7 quarts of 15W50. Removed oil filter, cut open, and inspected. No contaminants found. Installed, torqued, and safetied new AA48110-2 filter. Replaced all spark plugs with new plugs. Replaced all intake gaskets.

Run up and leak check performed with no leaks or defects noted at this time.

All work listed above was performed I/R/T Lycoming IO-360 Operators Manual and AC 43.13. In reference to the work listed above, this aircraft was found to be in an airworthy condition and is approved for return to service.



William Painter A&P 3170695IA

Kane Aviation LLC
22 Waypoint Dr NW
Roanoke, VA 24012

Airframe Date: 10/29/2020 Tail #: N249DS

A/C Make/Model: Diamond DA40

A/C S/N: 40 249 Tach Time: 1134.9 AFTT: 1134.9

Work Performed: Replaced landing light. Replaced fuel pump with PN 5100-00-9CJ SN 4316 CJ Aviation work order 303338.

Performed ground run and operational inspection of aircraft and systems. No leaks or defects noted at this time.

All work listed above was performed I/R/T Diamond DA40 Series Maintenance Manual and AC 43.13. In reference to the work listed above, this aircraft was found to be in an airworthy condition and is approved for return to service.



William Painter A&P 3170695IA

Kane Aviation LLC
22 Waypoint Dr NW
Roanoke, VA 24012

Engine Date: 12/27/2020 Tail #: N249DS

A/C Make/Model: Diamond DA40

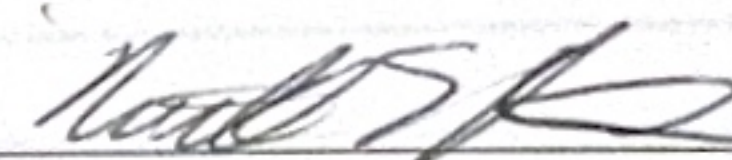
Engine Make: Lycoming Engine Model: IO-360-M1A

Engine S/N: L-30388-51A Tach Time: 1523.2

Work Performed: Replaced eight sparkplugs with UREM38S fine wire plugs.

Run up and leak check performed with no leaks or defects noted at this time.

All work listed above was performed I/R/T Lycoming IO-360 Operators Manual and AC 43.13. In reference to the work listed above, this aircraft was found to be in an airworthy condition and is approved for return to service.



William Painter A&P 3170695IA

Kane Aviation LLC
22 Waypoint Dr NW
Roanoke, VA 24012

Engine Date: 2/3/2021 Tail #: N249DS

A/C Make/Model: Diamond DA40

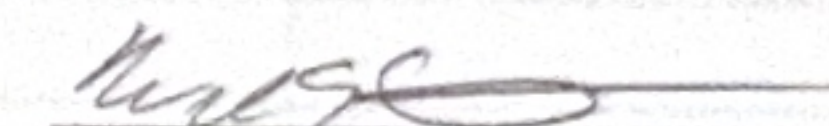
Engine Make: Lycoming Engine Model: IO-360-M1A

Engine S/N: L-30388-51A Tach Time: 1198.1

Work Performed: Drained oil removed oil filter, cut open, and inspected. No contaminants found. Installed, torqued, and safetied new AA48110-2 filter. Serviced with 7 quarts of Shell 15W50.

Run up and leak check performed with no leaks or defects noted at this time.

All work listed above was performed I/R/T Lycoming IO-360 Operators Manual and AC 43.13. In reference to the work listed above, this aircraft was found to be in an airworthy condition and is approved for return to service.



William Painter A&P 3170695IA

Kane Aviation LLC
22 Waypoint Dr NW
Roanoke, VA 24012

Engine Date: 12/6/2020 Tail #: N249DS

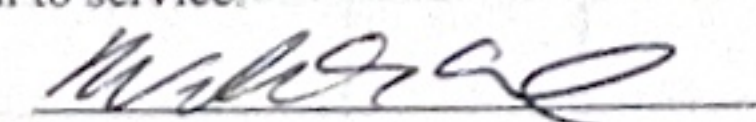
A/C Make/Model: Diamond DA40

Engine Make: Lycoming Engine Model: IO-360-M1A

Engine S/N: L-30388-51A Tach Time: 1148.2 Total Time: 1148.2

Work Performed: Drained oil and serviced with Aeroshell 15W50. Removed, cut open, and inspected old oil filter. No contaminants found. Installed new AA48110-2 filter, torqued and safetied. Differential compression test performed results as follows: #1: 75/80 #2: 74/80 #3: 76/80 #4: 76/80. Removed fuel injectors, cleaned and inspected, and reinstalled to proper torque specifications. Inspected and lubricated all engine controls. Removed, cleaned, and inspected spark plugs and reinstalled to proper torque specifications. Set mags to 25 Degrees. Complied with AD2015-19-07 by visually inspecting fuel injector fuel lines and clamps between the fuel manifold and fuel injector nozzles. No leaks or defects found at this time. **Next inspection due by AFTT 1258.2.** Run up and leak check performed with no leaks or defects noted at this time.

All work listed above was performed I/R/T Lycoming IO-360 M1A Maintenance and Overhaul Manual and AC 43.13. In reference to the work listed above, this aircraft was found to be in an airworthy condition and is approved for return to service.



William Painter A&P 3170695IA

Kane Aviation LLC
22 Waypoint Dr NW
Roanoke, VA 24012

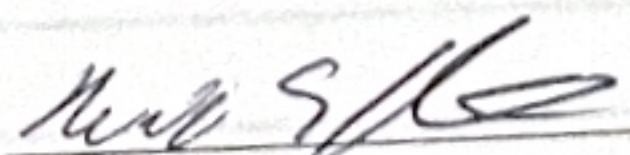
Engine Date: 12/6/2020 Tail #: N249DS

A/C Make/Model: Diamond DA40

Engine Make: Lycoming Engine Model: IO-360-M1A

Engine S/N: L-30388-51A Tach Time: 1148.2 Total Time: 1148.2

Work Performed: I certify this engine has been serviced and inspected I/R/T a 100 Hour Inspection I/R/T Lycoming IO-360-M1A Maintenance and Overhaul Manual, Diamond DA40 Maintenance Manual, and AC 43.13. This engine was found to be in an airworthy condition and is approved for return to service.



William Painter A&P 3170695IA

Kane Aviation LLC
22 Waypoint Dr NW
Roanoke, VA 24012

Engine

Date: 6/19/2021 Tail #: N249DS

A/C Make/Model: Diamond DA40

Engine Make: Lycoming Engine Model: IO-360-M1A

Engine S/N: L-30388-51A Tach Time: 1251.6 Total Time: 1251.6

Work Performed: Drained oil. Removed, cut open, and inspected old oil filter. No contaminants found. Installed new AA48110-2 filter, torqued and safety wired. Serviced with 7 quarts of Phillips 20W-50. Differential compression test performed results as follows: #1: 78/80 #2: 76/80 #3: 74/80 #4: 72/80. Removed fuel injectors, cleaned and inspected, and reinstalled to proper torque specifications. Inspected and lubricated all engine controls. Removed, cleaned, and inspected spark plugs and reinstalled to proper torque specifications. Removed prop governor for overhaul by Sensenich Propeller Service under WO. L4361. Reinstalled prop governor. Complied with AD2015-19-07 by visually inspecting fuel injector fuel lines and clamps between the fuel manifold and fuel injector nozzles. No leaks or defects found at this time. **Next inspection due by AFTT 1361.6.**

Run up and leak check performed with no leaks or defects noted at this time.

All work listed above was performed I/R/T Lycoming IO-360 M1A Maintenance and Overhaul Manual and AC 43.13. In reference to the work listed above, this aircraft was found to be in an airworthy condition and is approved for return to service.


William Painter A&P 3170695IA

Kane Aviation LLC
22 Waypoint Dr NW
Roanoke, VA 24012

Engine

Date: 6/19/2021 Tail #: N249DS

A/C Make/Model: Diamond DA40

Engine Make: Lycoming Engine Model: IO-360-M1A

Engine S/N: L-30388-51A Tach Time: 1251.6 Total Time: 1251.6

Work Performed: I certify this engine has been serviced and inspected I/R/T a 100 Hour Inspection I/R/T Lycoming IO-360-M1A Maintenance and Overhaul Manual, Diamond DA40 Maintenance Manual, and AC 43.13. This engine was found to be in an airworthy condition and is approved for return to service.



William Painter A&P 3170695IA

PREVIOUS SUMMARY		
TOTAL SINCE MFG.		

ENGINE SERVICE AND

Kane Aviation LLC
22 Waypoint Dr NW
Roanoke, VA 24012

INSTALLATIONS, INSPECTIONS,
USE BOTH PAGES AND AS MANY LINES AS REQUIRED FOR COMPLETE

Engine Date: 7/19/2021 Tail #: N249DS

A/C Make/Model: Diamond DA40

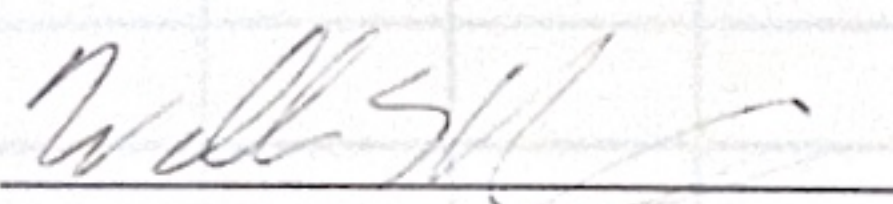
Engine Make: Lycoming Engine Model: IO-360-M1A

Engine S/N: L-30388-51A Tach Time: 1305.2

Work Performed: Drained oil removed oil filter, cut open, and inspected. No contaminants found. Installed, torqued, and safety wired new AA48110-2 filter. Serviced with 7 quarts of Philips 20W50.

Run up and leak check performed with no leaks or defects noted at this time.

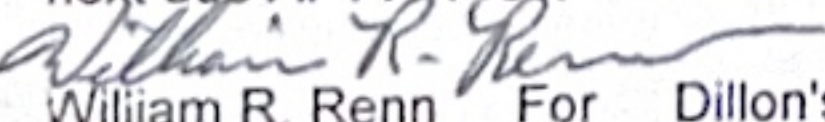
All work listed above was performed I/R/T Lycoming IO-360 Operators Manual and AC 43.13. In reference to the work listed above, this aircraft was found to be in an airworthy condition and is approved for return to service.


William Painter A&P 31706951A

Date	TACH/HOBBS	ESMOH	ETT
8/27/2021	1350.4		1350.4

Eng Entry

Performed 100 hour inspection on this engine in accordance with FAR 43 appendix D. Cleaned and gapped all spark plugs cleaned all air and fuel filters. Changed oil and filter. Serviced with 7 quarts Phillips X/C 20W/50 oil and AA48110-2 filter furnished by owner. Checked magneto points and timing. Performed compression check as follows: 1-76/80, 2-78/80, 3-75/80, 4-72/80. Staked #4 exhaust valve, replaced 1 button PN LW-12892, reinstalled valve cover with new gasket PN 06B26669. Replaced gascolator o-ring PN ORO375. Checked and serviced all fluid levels, lubricated controls and washed engine. Checked applicable AD's for compliance to date. Performed all work in reference to Lycoming service manual and standard practice as listed in FAR part 43 to return this engine to service in airworthy condition. Refer to WO #G04821 on file at Dillon's Aviation, Inc.
*C/W AD 2015-19-07 Fuel injection system by inspection per par (e)(1)(ii) & Lycoming MSB342G, next due AFTT: 1460.4.


William R. Renn For Dillon's Aviation, Inc.
AP3579353

CARRIED FORWARD

TOTAL THIS PAGE

TOTAL FROM
PREVIOUS SUMMARY

TOTAL
SINCE MFG.

MAINTENANCE RECORD

Kane Aviation LLC
22 Waypoint Dr NW
Roanoke, VA 24012

Kane Aviation LLC
22 Waypoint Dr NW
Roanoke, VA 24012

Engine Date: 11/02/2021 Tail #: N249DS

A/C Make/Model: Diamond DA40

Engine Make: Lycoming Engine Model: IO-360-M1A

Engine S/N: L-30388-51A Tach Time: 1401.3

Work Performed: Drained oil and serviced with 7 quarts of 20W50. Removed oil filter, cut open, and inspected. No contaminants found. Installed, torqued, and safetied new AA48110-2 filter.

Run up and leak check performed with no leaks or defects noted at this time.

All work listed above was performed I/R/T Lycoming IO-360 Operators Manual and AC 43.13. In reference to the work listed above, this aircraft was found to be in an airworthy condition and is approved for return to service.


Scott Emmons A&P 4560305

Engine Date: 12/30/2021 Tail #: N249DS

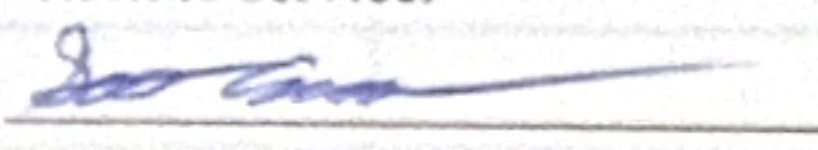
Engine Make: Lycoming Engine Model: IO-360-M1A

Engine S/N: L-30388-51A Tach Time 1444.5

Work Performed: Installed Rebuilt Flow divider from precision Airmotive LLC. S/N A0TR0904 Work order Number JO# 10U0F. Tested for correct operation

Run up and leak check performed with no leaks or defects noted at this time.

All work listed above was done I/R/T Lycoming IO-360 Operators Manual and AC 43.13. In reference to the work listed above, this engine was found to be in an airworthy condition and is approved for return to service.


Scott Emmons A&P 4560305

Kane Aviation LLC
22 Waypoint Dr NW
Roanoke, VA 24012

Engine Date: 1/4/2022 Tail #: N249DS

A/C Make/Model: Diamond DA40

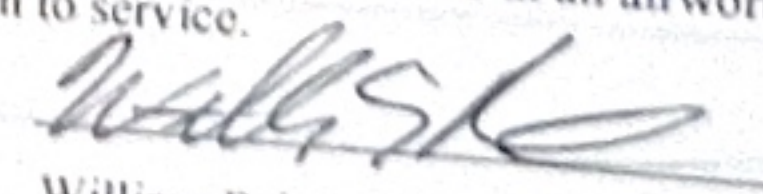
Engine Make: Lycoming Engine Model: IO-360-M1A

Engine S/N: L-30388-51A Tach Time: 1444.5 TSMO: 1444.5
Total Time: 1444.5

Work Performed: Drained oil. Removed, cut open, and inspected old oil filter. No contaminants found. Installed new AA48110-2 filter, torqued and safety wired. Serviced with 7 quarts of Phillips 20W-50. Differential compression test performed results as follows: #1: 74/80 #2: 76/80 #3: 73/80 #4: 38/80. Replaced cylinder four with a repaired cylinder from Triad Aviation INC under work order 26980. Replaced rings with new rings gapped from Triad Aviation. Replaced the fuel servo with an overhauled unit (SN 720T0H05) by Precision Airmotive (WO# 10T0H). Removed fuel injectors, cleaned and inspected, and reinstalled to proper torque specifications. Inspected and lubricated all engine controls. Removed, cleaned, and inspected spark plugs and reinstalled to proper torque specifications. Complied with AD2015-19-07 by visually inspecting fuel injector fuel lines and clamps between the fuel manifold and fuel injector nozzles. No leaks or defects found at this time. Next inspection due by AFTT 1554.4.

Run up and leak check performed with no leaks or defects noted at this time.

All work listed above was performed I/R/T Lycoming IO-360 M1A Maintenance and Overhaul Manual and AC 43.13. In reference to the work listed above, this aircraft was found to be in an airworthy condition and is approved for return to service.


William Painter A&P 3170695 1A

Kane Aviation LLC
22 Waypoint Dr NW
Roanoke, VA 24012

Engine

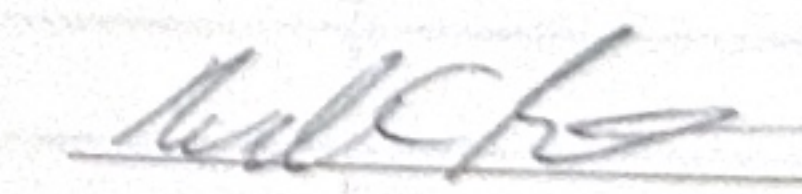
Date: 1/4/2022 Tail #: N249DS

A/C Make/Model: Diamond DA40

Engine Make: Lycoming Engine Model: IO-360-M1A

Engine S/N: L-30388-51A Tach Time: 1444.5 TSMO: 1444.5
Total Time: 1444.5

Work Performed: I certify this engine has been serviced and inspected I/R/T a 100 Hour Inspection I/R/T Lycoming IO-360-M1A Maintenance and Overhaul Manual, Diamond DA40 Maintenance Manual, and AC 43.13. This engine was found to be in an airworthy condition and is approved for return to service.


William Painter A&P 3170695 1A

Kane Aviation LLC
22 Waypoint Dr NW
Roanoke, VA 24012

Engine Date: 1/19/2022 Tail #: N249DS

A/C Make/Model: Diamond DA40

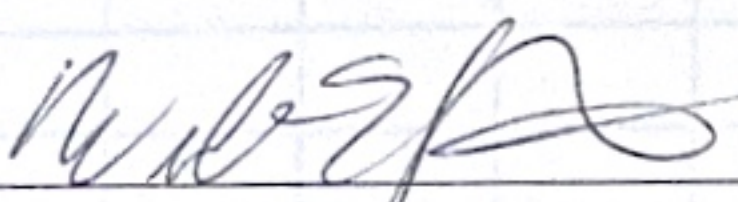
Engine Make: Lycoming Engine Model: IO-360-M1A

Engine S/N: L-30388-51A Tach Time: 1448.3

Work Performed: Replaced both mags for 500 hour inspection with new champion Aerospace PN# 4370 (SN21051172) and PN# 4347 (SN21081328) mags.

Run up and leak check performed with no leaks or defects noted at this time.

All work listed above was performed I/R/T Lycoming IO-360 Operators Manual and AC 43.13. In reference to the work listed above, this aircraft was found to be in an airworthy condition and is approved for return to service.


William Painter A&P 31706951A

Kane Aviation LLC
22 Waypoint Dr NW
Roanoke, VA 24012

Engine Date: 3/17/2022 Tail #: N249DS

A/C Make/Model: Diamond DA40

Engine Make: Lycoming Engine Model: IO-360-M1A

Engine S/N: L-30388-51A Tach Time: 1491.4

Work Performed: Drained oil and serviced with 7 quarts of Phillips X/C 20W50. Removed oil filter, cut open, and inspected. No contaminants found. Installed, torqued, and safetied new AA48110-2 filter. Removed, cleaned, inspected, installed and torqued all sparkplugs.

Run up and leak check performed with no leaks or defects noted at this time.

All work listed above was performed I/R/T Lycoming IO-360 Operators Manual and AC 43.13. In reference to the work listed above, this aircraft was found to be in an airworthy condition and is approved for return to service.


Scott Emmons A&P 4560305

Kane Aviation LLC
22 Waypoint Dr NW
Roanoke, VA 24012

Engine Date: 2/16/2022 Tail #: N249DS

A/C Make/Model: Diamond DA40

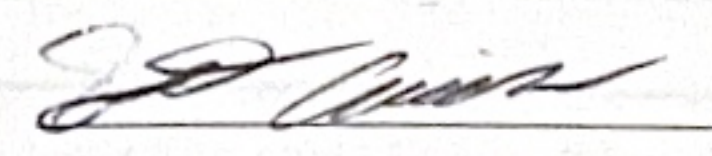
Engine Make: Lycoming Engine Model: IO-360-M1A

Engine S/N: L-30388-51A Tach Time: 1470.9

Work Performed: Drained oil and serviced with 7 quarts of Phillips X/C 20W50. Removed oil filter, cut open, and inspected. No contaminants found. Installed, torqued, and safetied new AA48110-2 filter. Removed cleaned and inspected all sparkplugs. Differential pressure test preformed. Cylinder #1 72/80, #2 70/80, #3 68/80, #4 74/80.

Run up and leak check performed with no leaks or defects noted at this time.

All work listed above was performed I/R/T Lycoming IO-360 Operators Manual and AC 43.13. In reference to the work listed above, this aircraft was found to be in an airworthy condition and is approved for return to service.


Scott Emmons A&P 4560305

Kane Aviation LLC
22 Waypoint Dr NW
Roanoke, VA 24012

Engine Date: 3/30/2022 Tail #: N249DS

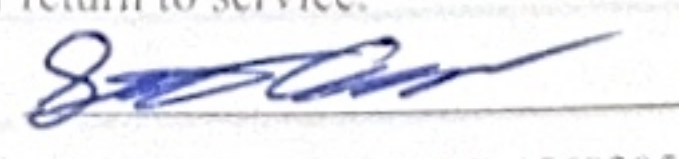
Engine Make: Lycoming Engine Model: IO-360-M1A

Engine S/N: L-30388-51A Tach Time 1510.9

Work Performed: Removed, cleaned, and inspected all spark plugs. Replaced Bottom spark plug on #1 cylinder and retorqued all spark plugs. Retimed magnetos to 25 degrees.

Run up and leak check performed with no leaks or defects noted at this time.

All work listed above was done I/R/T Lycoming IO-360 Operators Manual and AC 43.13. In reference to the work listed above, this engine was found to be in an airworthy condition and is approved for return to service.


Scott Emmons A&P 4560305

Engine

A/C Ma

Engine

Engine

Work P

20W50.

found. In

compress

/80 #4:73

reinstall

cylinder

cc

Maintenance Release
KANE 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 # 32137 are herein attached

- SB1-15A**
☒ Service Bulletin DOES NOT APPLY by Serial or Part Number - no action required
☐ Distributor Gear Replaced with New K3008 - Complies with Terminating Action
☐ Distributor Gear has been Previously Replaced - no action required
- SB1-19**
☒ Service Bulletin DOES NOT APPLY by Serial or Part Number - no action required
☐ Complied with Stop Pin Inspection by method outlined in SB1-19
- SB2-19A**
☒ Service Bulletin DOES NOT APPLY by Serial or Part Number - No action required
☐ Passed required inspection (CAT 1) - Reinspect every 400 hours TIS until terminating action is complete
☐ Passed required inspection (CAT 2) - Reinspect every 100 hours TIS until terminating action is complete
☐ Replaced with New Impulse Coupling - This Complies with Terminating Action outlined in SB2-19A
- AD 99-04-04** (Applicability: Textron Lycoming O-540-B2B5, B2C5, E4B5, E4C5, G1A5, G2A5, IO-540-K1A5, K1B5, and K1G5)
☐ Complied With AD99-04-04, effective Feb 25, 1999 by inspection of the magneto impulse coupling per steps 1-7 of Textron Mandatory SB no. 537, dated Nov. 20, 1998, and using Stick Service Bulletin SB1-98A, revised December 16, 2003. Next Due 250 hours TIS. Impulse coupling replacement required before 2000 hours TIS since new.
☒ DOES NOT APPLY by Part Number - no action required

Service Bulletin Method of Compliance

Kane Aviation LLC
22 Waypoint Dr NW
Roanoke, VA 24012

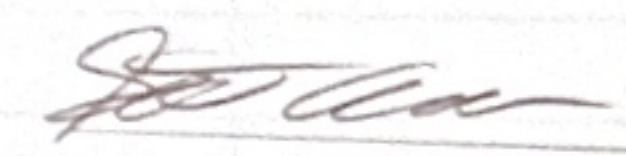
Engine Date: 4/20/2022 Tail #: N249DS

A/C Make/Model: Diamond DA40

Engine Make: Lycoming Engine Model: IO-360-M1A

Engine S/N: L-30388-51A Tach Time: 1542.0 Total Time: 1542.0

Work Performed: I certify this engine has been serviced and inspected I/A/W a 100 Hour Inspection I/R/T Lycoming IO-360-M1A Maintenance and Overhaul Manual, Diamond DA40 Maintenance Manual, and AC 43.13. This engine was found to be in an airworthy condition and is approved for return to service.


Scott Emmons A&P 4560305

Kane Aviation LLC
22 Waypoint Dr NW
Roanoke, VA 24012

Engine Date: 6/15/2022 Tail #: N249DS

A/C Make/Model: Diamond DA40

Engine Make: Lycoming Engine Model: IO-360-M1A

Engine S/N: L-30388-51A Tach Time: 1620.9 Total Time: 1620.9

Work Performed: Installed mags from Aircraft Magneto Service Model 4347 SN 21081328 500 HR inspection under work order 34223 and Model 4370 SN 21051172 500 HR inspection under work order 34222. Tuned magnetos to the engine. Run up and leak check performed with no leaks or defects noted at this time.

All work listed above was performed I/R/T Lycoming IO-360 M1A Maintenance and Overhaul Manual and AC 43.13. In reference to the work listed above, this aircraft was found to be in an airworthy condition and is approved for return to service.


Scott Emmons A&P 4560305

Kane Aviation LLC
22 Waypoint Dr NW
Roanoke, VA 24012

Engine

Date: 6/28/2022 Tail #: N249DS

A/C Make/Model: Diamond DA40

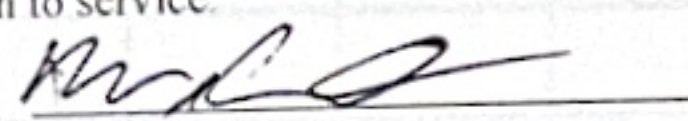
Engine Make: Lycoming Engine Model: IO-360-M1A

Engine S/N: L-30388-51A Tach Time: 1634.8 Total Time: 1634.8

Work Performed: Drained oil. Removed, cut open, and inspected old oil filter. No contaminants found. Installed new CH48110-1 oil filter, torqued and safety wired. Serviced with 7 quarts of Phillips 20W-50. Differential compression test performed results as follows: #1: 72/80 #2: 76/80 #3: 74/80 #4: 78/80. Removed fuel injectors, cleaned and inspected, and reinstalled to proper torque specifications. Inspected and lubricated all engine controls. Removed, cleaned, and inspected spark plugs and reinstalled to proper torque specifications. Complied with AD2015-19-07 by visually inspecting fuel injector fuel lines and clamps between the fuel manifold and fuel injector nozzles. No leaks or defects found at this time. **Next inspection due by AFTT 1744.8.**

Run up and leak check performed with no leaks or defects noted at this time.

All work listed above was performed I/R/T Lycoming IO-360 M1A Maintenance and Overhaul Manual and AC 43.13. In reference to the work listed above, this aircraft was found to be in an airworthy condition and is approved for return to service.


William Painter A&P 3170695 1A

ENGINE SERVICE AND

Kane Aviation LLC
22 Waypoint Dr NW
Roanoke, VA 24012

Engine

Date: 6/28/2022 Tail #: N249DS

A/C Make/Model: Diamond DA40

Engine Make: Lycoming Engine Model: IO-360-M1A

Engine S/N: L-30388-51A Tach Time: 1634.8 Total Time: 1634.8

Work Performed: I certify this engine has been serviced and inspected I/R/T a 100 Hour Inspection I/R/T Lycoming IO-360-M1A Maintenance and Overhaul Manual, Diamond DA40 Maintenance Manual, and AC 43.13. This engine was found to be in an airworthy condition and is approved for return to service.


William Painter A&P 3170695 1A

MAINTENANCE RECORD

Kane Aviation LLC
22 Waypoint Dr NW
Roanoke, VA 24012

Engine Date: 8/10/2022 Tail #: N249DS

A/C Make/Model: Diamond DA40

Engine Make: Lycoming Engine Model: IO-360-M1A

Engine S/N: L-30388-51A Tach Time: 1733.5 Total Time: 1733.5

Work Performed: I certify this engine has been serviced and inspected I/A/W a 100 Hour Inspection I/R/T Lycoming IO-360-M1A Maintenance and Overhaul Manual, Diamond DA40 Maintenance Manual, and AC 43.13. This engine was found to be in an airworthy condition and is approved for return to service.


Scott Emmons A&P 456035

Kane Aviation LLC
22 Waypoint Dr NW
Roanoke, VA 24012

Engine Date: 9/7/2022 Tail #: N249DS

A/C Make/Model: Diamond DA40

Engine Make: Lycoming Engine Model: IO-360-M1A

Engine S/N: L-30388-51A Tach Time: 1754.3

Work Performed: Replaced all four cylinders with overhauled cylinders. Overhauled by Triad Aviation, INC under W.O. 27411.

Run up and leak check performed with no leaks or defects noted at this time.

All work listed above was performed I/R/T Lycoming IO-360 Operators Manual and AC 43.13. In reference to the work listed above, this aircraft was found to be in an airworthy condition and is approved for return to service.


William Painter A&P 3170695 1A

Kane Aviation LLC
22 Waypoint Dr NW
Roanoke, VA 24012

Engine Date: 7/18/2022 Tail #: N249DS

A/C Make/Model: Diamond DA40

Engine Make: Lycoming Engine Model: IO-360-M1A

Engine S/N: L-30388-51A Tach Time: 1686.5 Total time: 1686.5

Work Performed: Drained oil and serviced with 7 quarts of Phillips X/C 20W50. Removed oil filter, cut open, and inspected. No contaminants found. Installed, torqued, and safetied new AA48110-2 filter. Removed spark plugs cleaned, inspected and re-installed.

Run up and leak check performed with no leaks or defects noted at this time.

All work listed above was performed I/R/T Lycoming IO-360 Operators Manual and AC 43.13. In reference to the work listed above, this aircraft was found to be in an airworthy condition and is approved for return to service.


Scott Emmons A&P 4560305

Kane Aviation LLC
22 Waypoint Dr NW
Roanoke, VA 24012

Engine Date: 8/10/2022 Tail #: N249DS

A/C Make/Model: Diamond DA40

Engine Make: Lycoming Engine Model: IO-360-M1A

Engine S/N: L-30388-51A Tach Time: 1733.5 Total Time: 1733.5

Work Performed: Drained oil and serviced with Phillips 20W-50. Removed, cut open, and inspected old oil filter. No contaminants found. Installed new CH48110-1 filter, lubricated, torqued and safetied. Differential compression test performed results as follows: #1: 71/80 #2: 70/80 #3: 69/80 #4: 73/80. Removed fuel injectors, cleaned and inspected, and reinstalled to proper torque specifications. Inspected and lubricated all engine controls. Removed, cleaned, and inspected spark plugs and reinstalled to proper torque specifications. Reset mags to 25 Degrees. Complied with AD2015-19-07 by visually inspecting fuel injector fuel lines and clamps between the fuel manifold and fuel injector nozzles. No leaks or defects found at this time. **Next inspection due by AFTT 1843.5.**

Run up and leak check performed with no leaks or defects noted at this time.

All work listed above was performed I/R/T Lycoming IO-360 M1A Maintenance and Overhaul Manual and AC 43.13. In reference to the work listed above, this aircraft was found to be in an airworthy condition and is approved for return to service.


Scott Emmons A&P 456035

Kane Aviation LLC
22 Waypoint Dr NW
Roanoke, VA 24012

Engine Date: 9/14/2022 Tail #: N249DS

A/C Make/Model: Diamond DA40

Engine Make: Lycoming Engine Model: IO-360-M1A

Engine S/N: L-30388-51A Tach Time: 1766.2 Total time: 1766.2

Work Performed: Drained oil and serviced with 7 quarts of Phillips X/C 20W50. Removed oil filter, cut open, and inspected. No contaminants found. Removed oil screen inspected, cleaned reinstalled and safetied Installed, torqued, and safetied new AA48110-2 filter. Removed spark plugs cleaned, inspected and re-installed.

Run up and leak check performed with no leaks or defects noted at this time.

All work listed above was performed I/R/T Lycoming IO-360 Operators Manual and AC 43.13. In reference to the work listed above, this aircraft was found to be in an airworthy condition and is approved for return to service.


Scott Emmons A&P 4560305

Kane Aviation LLC
22 Waypoint Dr NW
Roanoke, VA 24012

Engine Date: 9/19/2022 Tail #: N249DS

A/C Make/Model: Diamond DA40

Engine Make: Lycoming Engine Model: IO-360-M1A

Engine S/N: L-30388-51A Tach Time: 1784.4

Total time: ~~1780.4~~ 1784.4

Work Performed: Drained oil and serviced with 7 quarts of Phillips X/C 20W50. Removed oil filter, cut open, and inspected. No contaminants found. Removed oil screen inspected, cleaned reinstalled and safetied Installed, torqued, and safetied new AA48110-2 filter. Removed spark plugs cleaned, inspected and re-installed.

Run up and leak check performed with no leaks or defects noted at this time.

All work listed above was performed I/R/T Lycoming IO-360 Operators Manual and AC 43.13. In reference to the work listed above, this aircraft was found to be in an airworthy condition and is approved for return to service.


Scott Emmons A&P 4560305

TOTAL FROM PREVIOUS SUMMARY		
TOTAL SINCE MFG.		

Kane Aviation LLC
22 Waypoint Dr NW
Roanoke, VA 24012

Engine Date: 9/24/2022 Tail #: N249DS

A/C Make/Model: Diamond DA40

Engine Make: Lycoming Engine Model: IO-360-M1A

Engine S/N: L-30388-51A Tach Time: 1793.3

Work Performed: Replaced left Magneto with new Champion model 4347 S/N 22011089.

Run up and leak check performed with no leaks or defects noted at this time.

All work listed above was performed I/R/T Lycoming IO-360 Operators Manual and AC 43.13. In reference to the work listed above, this aircraft was found to be in an airworthy condition and is approved for return to service.

William Painter A&P 31706951A

Kane Aviation LLC
22 Waypoint Dr NW
Roanoke, VA 24012

Engine Date: 10/21/2022 Tail #: N249DS

A/C Make/Model: Diamond DA40

Engine Make: Lycoming Engine Model: IO-360-M1A

Engine S/N: L-30388-51A Tach Time: 1830.1 Total Time: 1830.1

Work Performed: Drained oil and serviced with Phillips 20W-50. Removed, cut open, and inspected old oil filter. No contaminants found. Installed new AA48110-2 filter, lubricated, torqued and safetied. Differential compression test performed results as follows: #1 78/80 #2 80/80 #3 79/80 #4 78/80. Removed fuel injectors, cleaned, and inspected, and reinstalled to proper torque specifications. Inspected and lubricated all engine controls. Removed, cleaned, and inspected spark plugs and reinstalled to proper torque specifications. Reset mags to 25 Degrees. Complied with AD2015-19-07 by visually inspecting fuel injector fuel lines and clamps between the fuel manifold and fuel injector nozzles. No leaks or defects found at this time. Next inspection due by AFTT 1940.1

Run up and leak check performed with no leaks or defects noted at this time.

All work listed above was performed I/R/T Lycoming IO-360 M1A Maintenance and Overhaul Manual and AC 43.13. In reference to the work listed above, this aircraft was found to be in an airworthy condition and is approved for return to service.

Scott Emmons A&P 4560305

Kane Aviation LLC
22 Waypoint Dr NW
Roanoke, VA 24012

Engine Date: 1/20/2023 Tail #: N249DS

A/C Make/Model: Diamond DA40

Engine Make: Lycoming Engine Model: IO-360-M1A

Engine S/N: L-30388-51A Tach Time: 1928.7 Total Time: 1928.7

Work Performed: Drained oil and serviced with Phillips 20W-50. Removed, cut open, and inspected old oil filter. No contaminants found. Installed new AA48110-2 filter, lubricated, torqued and safetied. Differential compression test performed results as follows: #1 75/80 #2 72/80 #3 74/80 #4 73/80. Removed fuel injectors, cleaned, and inspected, and reinstalled to proper torque specifications. Inspected and lubricated all engine controls. Removed, cleaned, and inspected spark plugs and reinstalled to proper torque specifications. Reset mags to 25 Degrees. Replaced lower filler tube seal. Complied with AD2015-19-07 by visually inspecting fuel injector fuel lines and clamps between the fuel manifold and fuel injector nozzles. No leaks or defects found at this time. Next inspection due by AFTT 2038.7

Run up and leak check performed with no leaks or defects noted at this time.

All work listed above was performed I/R/T Lycoming IO-360 M1A Maintenance and Overhaul Manual and AC 43.13. In reference to the work listed above, this aircraft was found to be in an airworthy condition and is approved for return to service.

Scott Emmons A&P 4560305

Kane Aviation LLC
22 Waypoint Dr NW
Roanoke, VA 24012

Engine Date: 1/20/2023 Tail #: N249DS

A/C Make/Model: Diamond DA40

Engine Make: Lycoming Engine Model: IO-360-M1A

Engine S/N: L-30388-51A Tach Time: 1928.7 Total Time: 1928.7

Work Performed: I certify this engine has been serviced and inspected I/A/W a 100 Hour Inspection I/R/T Lycoming IO-360-M1A Maintenance and Overhaul Manual, Diamond DA40 Maintenance Manual, and AC 43.13. This engine was found to be in an airworthy condition and is approved for return to service.

Scott Emmons A&P 4560305

Kane Aviation LLC
22 Waypoint Dr NW
Roanoke, VA 24012

Engine Date: 10/21/2022 Tail #: N249DS

A/C Make/Model: Diamond DA40

Engine Make: Lycoming Engine Model: IO-360-M1A

Engine S/N: L-30388-51A Tach Time: 1830.1 Total Time: 1830.1

Work Performed: I certify this engine has been serviced and inspected I/A/W a 100 Hour Inspection I/R/T Lycoming IO-360-M1A Maintenance and Overhaul Manual, Diamond DA40 Maintenance Manual, and AC 43.13. This engine was found to be in an airworthy condition and is approved for return to service.

Scott Emmons A&P 4560305

Kane Aviation LLC
22 Waypoint Dr NW
Roanoke, VA 24012

Engine Date: 11/28/2022 Tail #: N249DS

A/C Make/Model: Diamond DA40

Engine Make: Lycoming Engine Model: IO-360-M1A

Engine S/N: L-30388-51A Tach Time: 1879.1

Total time: 1879.1

Work Performed: Drained oil and serviced with 7 quarts of Phillips X/C 20W50. Removed oil filter, cut open, and inspected. No contaminants found. Removed oil screen inspected, cleaned reinstalled and safetied Installed, torqued, and safetied new AA48110-2 filter. Removed spark plugs cleaned, inspected and re-installed.

Run up and leak check performed with no leaks or defects noted at this time.

All work listed above was performed I/R/T Lycoming IO-360 Operators Manual and AC 43.13. In reference to the work listed above, this aircraft was found to be in an airworthy condition and is approved for return to service.

Scott Emmons A&P 4560305

Kane Aviation LLC
22 Waypoint Dr NW
Roanoke, VA 24012

Engine Date: 2/24/2023 Tail #: N249DS

A/C Make/Model: Diamond DA40

Engine Make: Lycoming Engine Model: IO-360-M1A

Engine S/N: L-30388-51A Tach Time: 1970.1

Total time: 1970.1

Work Performed: Drained oil and serviced with 7 quarts of Phillips X/C 20W50. Removed oil filter, cut open, and inspected. No contaminants found. Removed oil screen inspected, cleaned reinstalled and safetied Installed, torqued, and safetied new AA48110-2 filter. Removed spark plugs cleaned, inspected and re-installed to proper torque specifications.

Run up and leak check performed with no leaks or defects noted at this time.

All work listed above was performed I/R/T Lycoming IO-360 Operators Manual and AC 43.13. In reference to the work listed above, this aircraft was found to be in an airworthy condition and is approved for return to service.

Scott Emmons A&P 4560305

Kane Aviation LLC
22 Waypoint Dr NW
Roanoke, VA 24012

Engine Date: 3/31/2023 Tail #: N249DS

A/C Make/Model: Diamond DA40

Engine Make: Lycoming Engine Model: IO-360-M1A

Engine S/N: L-30388-51A Tach Time: 1991.9

Total time: 1991.9

Work Performed: Removed spark plugs cleaned, inspected and re-installed to proper torque spec.

Run up and leak check performed with no leaks or defects noted at this time.

All work listed above was performed I/R/T Lycoming IO-360 Operators Manual and AC 43.13. In reference to the work listed above, this aircraft was found to be in an airworthy condition and is approved for return to service.

Scott Emmons A&P 4560305

TOTAL THIS PAGE		
TOTAL FROM PREVIOUS SUMMARY		
TOTAL SINCE MFG.		

MAXIMUM HOURS BETWEEN OVERHAULS _____ HOURS.