

AIRCRAFT TECHNICAL RECORD

Section 3. ENGINE LOG

ENGINE DATA

1. Make

Lycoming

2. Model

IO-360-M1A

3. Specification

4. Manufacturer's Serial
Number

RL-19203-51E

5. Date of Manufacture

Engine Service and Maintenance Log

DATE _____ TIME _____

Kane Aviation LLC
22 Waypoint Dr NW
Roanoke, VA 24012

Kane Aviation LLC
22 Waypoint Dr NW
Roanoke, VA 24012

Engine Date: 1/10/2024 Tail #: N38CF
A/C Make/Model: Diamond DA40
Engine Make: Lycoming Engine Model: IO-360-M1A
Engine S/N: RL-19203-51E Tach Time: 5976.8 SMOH: 1411.0 TT 1411.0

Engine Date: 1/10/2024 Tail #: N38CF

A/C Make/Model: Diamond DA40

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

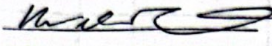
Engine S/N: RL-19203-51E Tach Time: 5976.8
SMOH: 1411.0 TT 1411.0

Work Performed: 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: 74/80 #2: 70/80 #3: 72/80 #4: 75/80. 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. Verified magneto timing to 25°. Installed new fuel servo PN 2576568-1 SN 7517UY01. Installed overhauled prop governor overhauled by Sensenich Propeller Service, INC. under WO LS934. 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 before AFTT 6086.8.

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

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 31706951A


William Painter A&P 31706951A

Kane Aviation LLC
22 Waypoint Dr NW
Roanoke, VA 24012

Kane Aviation LLC
22 Waypoint Dr NW
Roanoke, VA 24012

Engine Date: 2/7/2024 Tail #: N38CF
A/C Make/Model: Diamond DA40
Engine Make: Lycoming Engine Model: IO-360-M1A
Engine S/N: RL-19203-51E Tach Time: 6001.6
SMO: 1435.8 TT: 1435.8

Engine Date: 2/22/2024 Tail #: N38CF

A/C Make/Model: Diamond DA40

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


Engine S/N: RL-19203-51E Tach Time: 6025.2 TSMOH: 1450.0


Work Performed: Installed new EGT probe (A002BG-WIP) on cylinder #4. Installed new upper exhaust clamp on cylinder #2.
Run up and leak check performed with no leaks or defects noted at this time.

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.

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

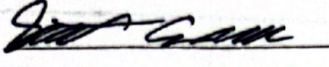

Scott Emmons A&P 4560305

Kane Aviation LLC
22 Waypoint Dr NW
Roanoke, VA 24012

Engine Date: 3/25/2024 Tail #: N38CF
A/C Make/Model: Diamond DA40
Engine Make: Lycoming Engine Model: IO-360-M1A
Engine S/N: RL-19203-51E Tach Time: 6061.6 Total Time: 1495.8
TSMO: 1495.8

Work Performed: Drained oil and serviced with 7 quarts of Phillips 20W 50 X/C oil. 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: 78/80 #4: 74 /80. Removed fuel injectors, cleaned, and inspected, and installed all injectors to proper torque specifications. Inspected and lubricated all engine controls. Removed, cleaned, and inspected spark plugs and reinstalled to proper torque specifications. Verified magneto timing to 25°. Installed new sky tech starter (P/N: 149-24LS S/N: H-W050198) Complied with AD2015-19-07 by visually inspecting fuel injector fuel lines and clamps between the fuel manifold and fuel injector nozzles. Next inspection due before AFTT 7571.8


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: 3/25/2024 Tail #: N38CF
A/C Make/Model: Diamond DA40
Engine Make: Lycoming Engine Model: IO-360-M1A
Engine S/N: RL-19203-51E Tach Time: 6061.6 Total Time: 1495.8
TSMO: 1495.8

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: 4/23/2024 Tail #: N38CF
A/C Make/Model: Diamond DA40
Engine Make: Lycoming Engine Model: IO-360-M1A
Engine S/N: RL-19203-51E Tach Time: 6108.6 TSMOH: 1533.4

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 spark plugs cleaned, inspected, tested, and reinstalled to proper torque.

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.

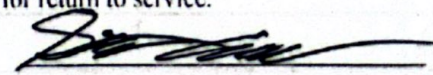

Scott Emmons A&P 4560305

Kane Aviation LLC
22 Waypoint Dr NW
Roanoke, VA 24012

Engine Date: 4/30/2024 Tail #: N38CF
A/C Make/Model: Diamond DA40
Engine Make: Lycoming Engine Model: IO-360-M1A
Engine S/N: RL-19203-51E Tach Time: 6120.7 TSMOH: 1545.5
Work Performed: Installed 8 new spark plugs P/N: UREM38S. Installed new Slick ignition harness P/N: M4004.

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

3A: Engine Service and Maintenance Log


Kane Aviation LLC
22 Waypoint Dr NW
Roanoke, VA 24012

Engine Date: 4/30/2024 Tail #: N38CF
A/C Make/Model: Diamond DA40
Engine Make: Lycoming Engine Model: IO-360-M1A
Engine S/N: RL-19203-51E Tach Time: 6120.7 TSMOH: 1545.5

Work Performed: Installed right side slick magneto that has been inspected in accordance with 500 hour. PN:4370 SN:22050100.

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 31706951A

Kane Aviation LLC
22 Waypoint Dr NW
Roanoke, VA 24012

Engine Date: 5/23/2024 Tail #: N38CF
A/C Make/Model: Diamond DA40
Engine Make: Lycoming Engine Model: IO-360-M1A
Engine S/N: RL-19203-51E Tach Time: 6151.4 Total Time: 1585.6
TSMOH: 1585.6

Work Performed: Drained oil and serviced with 7 quarts of Phillips 66 50 X/C oil. Removed, cut open, and inspected old oil filter. No contaminants found. Installed new AA48110-2 filter, torqued and sealed. Differential compression test performed results as follows: #1 79/80 #2 78/80 #3 79/80 #4 78/80. Removed fuel injectors, cleaned, and inspected, and installed all injectors to proper torque specifications. Inspected and lubricated all engine controls. Removed, cleaned, and inspected spark plugs and reinstalled to proper torque specifications. Verified magneto timing to 25°. Replaced all exhaust gaskets and hardware. Installed all new intake gaskets and hardware. Replaced all valve cover gaskets and hardware. Lapped exhaust valves from cylinders 1 and 3. Installed serviceable fuel servo with 74.1 hours P/N: 6126423 S/N: AV55917792. Complied with AD2015-19-07 by visually inspecting fuel injector fuel lines and clamps between the fuel manifold and fuel injector nozzles. Next inspection due before AFTI 6261.4

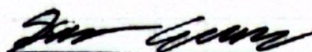
All work listed above was performed I/R/T Lycoming IO-360 M1A Maintenance and Overhaul Manual and AC 43.13. In reference to the work listed above, this aircraft was found to be in an airworthy condition and is approved for return to service.


Scott Emmons A&P 4560305

Kane Aviation LLC
22 Waypoint Dr NW
Roanoke, VA 24012

Engine Date: 5/23/2024 Tail #: N38CF
A/C Make/Model: Diamond DA40
Engine Make: Lycoming Engine Model: IO-360-M1A
Engine S/N: RL-19203-51E Tach Time: 6151.4 Total Time: 1585.6
TSMOH: 1585.6

Work Performed: I certify this engine has been serviced and inspected via 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: 5/27/2024 Tail #: N38CF
A/C Make/Model: Diamond DA40
Engine Make: Lycoming Engine Model: IO-360-M1A
Engine S/N: RL-19203-51E Tach Time: 61580.7
TSMOH: 1,580.7

Work Performed: Replaced starter (P/N: 149-24LS SN: H-Y022170) and attachment hardware.

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: 6/18/2024 Tail #: N38CF

A/C Make/Model: Diamond DA40

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

Engine S/N: RL-19203-51E Tach Time: 6201.8 TSMOH: 1626.6

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, tested, replaced bottom spark plug on cylinder #2(UREM38S) and reinstalled to proper torque.

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: 7/5/2024 Tail #: N38CF

A/C Make/Model: Diamond DA40

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

Engine S/N: RL-19203-51E Tach Time: 6237.4 Total Time: 1671.6
TSMO: 1671.6

Work Performed: Drained oil and serviced with 7 quarts of Phillips 20W 50 X/C oil. 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: 68/80 #2: 75/80 #3: 77/80 #4: 72/80. Removed fuel injectors, cleaned, and inspected, and installed all injectors to proper torque specifications. Inspected and lubricated all engine controls. Removed, cleaned, and inspected spark plugs and reinstalled to proper torque specifications. Verified magneto timing to 25°. Complied with AD2015-19-07 by visually inspecting fuel injector fuel lines and clamps between the fuel manifold and fuel injector nozzles. Next inspection due before AFTT 6347.4

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: 7/5/2024 Tail #: N38CF

A/C Make/Model: Diamond DA40

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

Engine S/N: RL-19203-51E Tach Time: 6237.4 Total Time: 1671.6
TSMO: 1671.6

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: 8/4/2024 Tail #: N38CF

A/C Make/Model: Diamond DA40

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

Engine S/N: RL-19203-51E Tach Time: 6288.7 TSMOH: 1713.5

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, tested, and reinstalled to proper torque.

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.



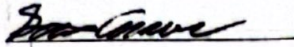
Section 3A: Engine Service and Maintenance Log

Kane Aviation LLC
22 Waypoint Dr NW
Roanoke, VA 24012

Engine Date: 8/22/2024 Tail #: N38CF
A/C Make/Model: Diamond DA40
Engine Make: Lycoming Engine Model: IO-360-M1A
Engine S/N: RL-19203-51E Tach Time: 6328.0 Total Time: 1762.2
TSMO: 1762.2

Work Performed: Drained oil and serviced with 7 quarts of Phillips 20W 50 X/C oil. 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: 72/80 #2: 75/80 #3: 74/80 #4: 68/80. Removed fuel injectors, cleaned, and inspected, and installed all injectors to proper torque specifications. Inspected and lubricated all engine controls. Removed, cleaned, and inspected spark plugs and reinstalled to proper torque specifications. Verified magneto timing to 25°. Complied with AD2015-19-07 by visually inspecting fuel injector fuel lines and clamps between the fuel manifold and fuel injector nozzles. Next inspection due before AFTT 6438.0

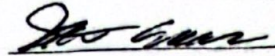
All work listed above was performed I/R/T Lycoming IO-360 M1A Maintenance and Overhaul Manual and AC 43.13. In reference to the work listed above, this aircraft was found to be in an airworthy condition and is approved for return to service.


Scott Emmons A&P 4560305

Kane Aviation LLC
22 Waypoint Dr NW
Roanoke, VA 24012

Engine Date: 8/22/2024 Tail #: N38CF
A/C Make/Model: Diamond DA40
Engine Make: Lycoming Engine Model: IO-360-M1A
Engine S/N: RL-19203-51E Tach Time: 6328.0 Total Time: 1762.2
TSMO: 1762.2

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

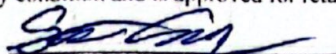
Kane Aviation LLC
22 Waypoint Dr NW
Roanoke, VA 24012

Engine Date: 8/28/2024 Tail #: N38CF
A/C Make/Model: Diamond DA40
Engine Make: Lycoming Engine Model: IO-360-M1A
Engine S/N: RL-19203-51E Tach Time: 6342.5
TSMOH: 1767.3

Work Performed: Installed right side slick magneto that has been overhauled I/A/W Manufacturers service instructions by Aircraft Magneto Service. W/O: 48368 PN:4370 SN:09120633. Installed left side Slick magneto that has received a 500 hour inspection I/A/W manufacturers instructions by Aircraft Magneto Service. W/O:46508 P/N:4347 S/N:22011086.

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: 9/20/2024 Tail #: N38CF
A/C Make/Model: Diamond DA40
Engine Make: Lycoming Engine Model: IO-360-M1A
Engine S/N: RL-19203-51E Tach Time: 6372.0
TSMOH: 1796.8

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, tested, and reinstalled to proper torque.

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: 11/01/2024 Tail #: N38CF

A/C Make/Model: Diamond DA40

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

Engine S/N: RL-19203-51E Tach Time: 6425.4 Total Time: 1859.6

TSMO: 1859.6

Work Performed: Drained oil and serviced with 7 quarts of Phillips 20W-50 X/C oil. 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: 71/80 #2: 74/80 #3: 75/80 #4: 77/80. Removed fuel injectors, cleaned, and inspected, and installed all injectors to proper torque specifications. Inspected and lubricated all engine controls. Removed, cleaned, and inspected spark plugs and reinstalled to proper torque specifications. Verified magneto timing to 25° Performed rote trick on exhaust valves #1,3, and 4 due to high led build up. Replaced all exhaust valve rotators. Installed new valve cover gaskets. Complied with AD2015-19-07 by visually inspecting fuel injector fuel lines and clamps between the fuel manifold and fuel injector nozzles. Next inspection due before AFTT 6535.4

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: 11/01/2024 Tail #: N38CF

A/C Make/Model: Diamond DA40

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

Engine S/N: RL-19203-51E Tach Time: 6425.4 Total Time: 1859.6

TSMO: 1859.6

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: 12/3/2024 Tail #: N38CF

A/C Make/Model: Diamond DA40

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

Engine S/N: RL-19203-51E Tach Time: 6477.5 TSMOH: 1902.3

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.

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: 1/11/2025 Tail #: N38CF

A/C Make/Model: Diamond DA40

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

Engine S/N: RL-19203-51E Tach Time: 6515.7 Total Time: 1949.9

TSMO: 1949.9

Work Performed: Drained oil and serviced with 7 quarts of Phillips 20W-50 X/C oil. Removed, cut open, and inspected old oil filter. No contaminants found. Installed new AA48110-2 filter, torqued and safetied. Removed, inspected, cleaned, reinstalled suction screen with a new crush gasket, torqued and safetied. Differential compression test performed results as follows: #1: 76/80 #2: 76/80 #3: 75/80 #4: 74/80. Removed fuel injectors, cleaned, and inspected, and installed all injectors to proper torque specifications. Inspected and lubricated all engine controls. Removed, cleaned, and inspected spark plugs and reinstalled to proper torque specifications. Verified magneto timing to 25° Complied with AD2015-19-07 by visually inspecting fuel injector fuel lines and clamps between the fuel manifold and fuel injector nozzles. Next inspection due before AFTT 6625.7

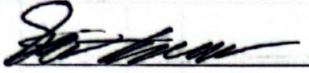
All work listed above was performed I/R/T Lycoming IO-360 M1A Maintenance and Overhaul Manual and AC 43.13. In reference to the work listed above, this aircraft was found to be in an airworthy condition and is approved for return to service.


Scott Emmons A&P 4560305

Kane Aviation LLC
22 Waypoint Dr NW
Roanoke, VA 24012

Engine Date: 1/11/2025 Tail #: N38CF
A/C Make/Model: Diamond DA40
Engine Make: Lycoming Engine Model: IO-360-M1A
Engine S/N: RL-19203-51E Tach Time: 6515.7 Total Time: 1949.9
TSMO: 1949.9

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: 2/10/2025 Tail #: N38CF
A/C Make/Model: Diamond DA40
Engine Make: Lycoming Engine Model: IO-360-M1A
Engine S/N: RL-19203-51E Tach Time: 6560.1 SMOH: 1994.3 TT 1994.3

Work Performed: 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: 78/80 #2: 78/80 #3: 79/80 #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. Replaced valve cover gaskets. Replaced cylinder 1 and 3 oil drain back hoses.

Replaced left Mag gasket. Verified magneto timing to 25°. 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 before AFTT 6670.1.

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.


William Painter A&P 31706951A

Kane Aviation LLC
22 Waypoint Dr NW
Roanoke, VA 24012

Engine Date: 2/10/2025 Tail #: N38CF
A/C Make/Model: Diamond DA40
Engine Make: Lycoming Engine Model: IO-360-M1A
Engine S/N: RL-19203-51E Tach Time: 6560.1
SMOH: 1994.3 TT 1994.3

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 31706951A


Kane Aviation LLC
22 Waypoint Dr NW
Roanoke, VA 24012

Engine Date: 3/10/2025 Tail #: N38CF
A/C Make/Model: Diamond DA40
Engine Make: Lycoming Engine Model: IO-360-M1A
Engine S/N: RL-19203-51E Tach Time: 6608.0 TSMOH: 2032.8

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

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

TOTALS
SINCE NEW

CARRX

Kane Aviation LLC
22 Waypoint Dr NW
Roanoke, VA 24012

Engine Date: 3/18/2025 Tail #: N38CF

A/C Make/Model: Diamond DA40

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


Engine S/N: RL-19203-51E Tach Time: 6,625.9

TSMOH: 2050.7

Work Performed: Replaced starter (P/N: 149-24LS S/N:H-Y043166) and attachment hardware.

Operational check performed with no 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: 4/11/2025 Tail #: N38CF

A/C Make/Model: Diamond DA40

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

Engine S/N: RL-19203-51E Tach Time: 6656.5 Total Time: 2090.8

TSMO: 2090.8

Work Performed: Drained oil and serviced with 7 quarts of Phillips 20W 50 X/C oil. Removed, cut open, and inspected old oil filter. No contaminants found. Installed new AA48110-2 filter, torqued and safetied. Removed, inspected, cleaned, reinstalled suction screen with a new crush gasket, torqued and safetied. Differential compression test performed results as follows: #1: 77/80 #2: 74/80 #3: 75/80 #4: 73/80. Removed fuel injectors, cleaned, and inspected, and installed all injectors to proper torque specifications. Flushed fuel lines. Inspected and lubricated all engine controls. Removed, cleaned, and inspected spark plugs and reinstalled to proper torque specifications. Replaced spark plugs in cylinder #3 with serviceable UREM38S Spark plugs. Verified magneto timing to 25°C. Complied with AD2015-19-07 by visually inspecting fuel injector fuel lines and clamps between the fuel manifold and fuel injector nozzles. Next inspection due before AFTT 6766.6

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: 4/11/2025 Tail #: N38CF

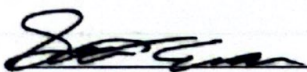
A/C Make/Model: Diamond DA40

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

Engine S/N: RL-19203-51E Tach Time: 6656.5 Total Time: 2090.8

TSMO: 2090.8

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: 4/29/2025 Tail #: N38CF

A/C Make/Model: Diamond DA40

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

Engine S/N: RL-19203-51E Tach Time: 6709.3 TSMOH: 2143.6

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

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

3A: Engine Service and Maintenance Log

Kane Aviation LLC
22 Waypoint Dr NW
Roanoke, VA 24012

Kane Aviation LLC
22 Waypoint Dr NW
Roanoke, VA 24012

Engine Date: 5/9/2025 Tail #: N38CF

A/C Make/Model: Diamond DA40

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

Engine S/N: RL-19203-51E Tach Time: 6,625.9

TSMOH: 2050.7

Work Performed: Replaced starter (P/N: 149-24LS S/N:H-Y122273) and attachment hardware. Installed new flywheel assembly (P/N: LW-16471)

Operational check performed with no 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: 5/22/2025 Tail #: N38CF

A/C Make/Model: Diamond DA40

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

Engine S/N: RL-19203-51E Tach Time: 6749.3 Total Time: 2183.6

TSMO: 2183.6

Work Performed: Drained oil and serviced with 7 quarts of Phillips 20W 50 X/C oil. Removed, cut open, and inspected old oil filter. No contaminants found. Installed new AA48110-2 filter, torqued and safetied. Removed, inspected, cleaned, reinstalled suction screen with a new crush gasket, torqued and safetied. Differential compression test performed results as follows: #1: 79/80 #2:79/80 #3:75/80 #4:77/80. Removed fuel injectors, cleaned, and inspected, and installed all injectors to proper torque specifications. Flushed fuel lines. Inspected and lubricated all engine controls. Removed, cleaned, and inspected spark plugs and reinstalled to proper torque specifications. Verified magneto timing to 25°C Complied with AD2015-19-07 by visually inspecting fuel injector fuel lines and clamps between the fuel manifold and fuel injector nozzles. Next inspection due before AFTT 6859.3

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

Kane Aviation LLC
22 Waypoint Dr NW
Roanoke, VA 24012

Engine Date: 5/22/2025 Tail #: N38CF

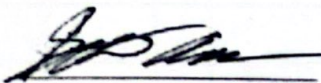
A/C Make/Model: Diamond DA40

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

Engine S/N: RL-19203-51E Tach Time: 6749.3 Total Time: 2183.6

TSMO: 2183.6

Work Performed: I certify this engine has been serviced and inspected with a 100 Hour Inspection I/R/T Lycoming IO-360-M1A Maintenance 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

Engine Date: 6/13/2025 Tail #: N38CF

A/C Make/Model: Diamond DA40


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

Engine S/N: RL-19203-51E Tach Time: 6809.0 TSMOH: 2233.8

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

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: 7/2/2025 Tail #: N38CF
A/C Make/Model: Diamond DA40
Engine Make: Lycoming Engine Model: IO-360-M1A
Engine S/N: RL-19203-51E Tach Time: 6845.2 Total Time: 2279.5
TSMO: 2279.5

Work Performed: Drained oil and serviced with 7 quarts of Phillips 20W 50 X/C oil. Removed, cut open, and inspected old oil filter. No contaminants found. Installed new AA48110-2 filter, torqued and safetied. Removed, inspected, cleaned, reinstalled suction screen with a new crush gasket, torqued and safetied. Differential compression test performed results as follows: #1: 68/80 #2:72/80 #3:74/80 #4:75/80. Removed fuel injectors, cleaned, and inspected, and installed all injectors to proper torque specifications. Inspected and lubricated all engine controls. Removed, cleaned, and inspected spark plugs and reinstalled to proper torque specifications. Washed engine with mineral spirits and sprayed dry. Washed debris from oil cooler. Installed overhauled magnetos (P/N:4370 S/N:0409243) (S/N:4347 S/N:13060166) set timing to 25°. Complied with AD2015-19-07 by visually inspecting fuel injector fuel lines and clamps between the fuel manifold and fuel injector nozzles. Next inspection due before AFTT 6955.2


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: 7/2/2025 Tail #: N38CF
A/C Make/Model: Diamond DA40
Engine Make: Lycoming Engine Model: IO-360-M1A
Engine S/N: RL-19203-51E Tach Time: 6845.2 Total Time: 2279.5
TSMO: 2279.5

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 4560305


Kane Aviation LLC
22 Waypoint Dr NW
Roanoke, VA 24012

Engine Date: 7/25/2025 Tail #: N38CF
A/C Make/Model: Diamond DA40
Engine Make: Lycoming Engine Model: IO-360-M1A
Engine S/N:RL-19203-51E Tach Time:6897.8 TSMOH: 2322.6

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

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.

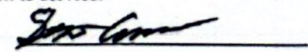

Scott Emmons A&P 4560305

Kane Aviation LLC
22 Waypoint Dr NW
Roanoke, VA 24012

Engine Date: 8/29/2025 Tail #: N38CF
A/C Make/Model: Diamond DA40
Engine Make: Lycoming Engine Model: IO-360-M1A
Engine S/N: RL-19203-51E Tach Time: 6936.9 Total Time: 2371.2
TSMO: 2371.2

Work Performed: Drained oil and serviced with 7 quarts of Phillips 20W 50 X/C oil. Removed, cut open, and inspected old oil filter. No contaminants found. Installed new AA48110-2 filter, torqued and safetied. Removed, inspected, cleaned, reinstalled suction screen with a new crush gasket, torqued and safetied. Performed rope trick on exhaust valves for cylinders 1&3 for low compression. Differential compression test performed results as follows: #1: 75/80 #2:74/80 #3:70/80 #4:74/80. Removed fuel injectors, cleaned, and inspected, and installed all injectors to proper torque specifications. Inspected and lubricated all engine controls. Removed, cleaned, and inspected spark plugs and reinstalled to proper torque specifications. Checked magneto timing to ensure they were at 25°. Complied with AD2015-19-07 by visually inspecting fuel injector fuel lines and clamps between the fuel manifold and fuel injector nozzles. Next inspection due before AFTT 7046.9

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

Section 3A: Engine Service and Maintenance Log

Kane Aviation LLC
22 Waypoint Dr NW
Roanoke, VA 24012

Kane Aviation LLC
22 Waypoint Dr NW
Roanoke, VA 24012

Engine Date: 8/29/2025 Tail #: N38CF

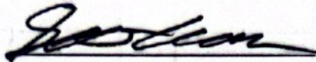
A/C Make/Model: Diamond DA40

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

Engine S/N: RL-19203-51E Tach Time: 6936.9 Total Time: 2371.2

TSMO: 2371.2

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

Engine Date: 9/16/2025 Tail #: N38CF

A/C Make/Model: Diamond DA40

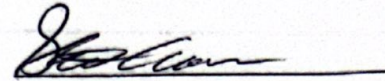
Engine Make: Lycoming Engine Model: IO-360-M1A

Engine S/N: RL-19203-51E Tach Time: 6987.3 TSMOH: 2412.1

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

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: 10/2/2025 Tail #: N38CF

A/C Make/Model: Diamond DA40

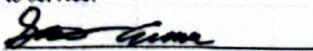
Engine Make: Lycoming Engine Model: IO-360-M1A

Engine S/N: RL-19203-51E Tach Time: 7012.7 Total Time: 2447.0

TSMO: 2447.0

Work Performed: Drained oil and serviced with 7 quarts of Phillips 20W 50 X/C oil. Removed, cut open, and inspected old oil filter. No contaminants found. Installed new AA48110-2 filter, torqued and safetied. Removed, inspected, cleaned, reinstalled suction screen with a new crush gasket, torqued and safetied. Differential compression test performed results as follows: #1: 79/80 #2: 76/80 #3: 74/80 #4: 72/80. Removed fuel injectors, cleaned, and inspected, and installed all injectors to proper torque specifications. Inspected and lubricated all engine controls. Removed, cleaned, and inspected spark plugs and reinstalled to proper torque specifications. Checked magneto timing to ensure they were at 25°. Installed new EGT probe(P/N: 002BG-WIP) on cylinder #3. Complied with AD2015-19-07 by visually inspecting fuel injector fuel lines and clamps between the fuel manifold and fuel injector nozzles. Next inspection due before AFTT 7122.7

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: 10/2/2025 Tail #: N38CF

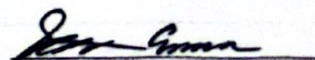
A/C Make/Model: Diamond DA40

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

Engine S/N: RL-19203-51E Tach Time: 7012.7 Total Time: 2447.0

TSMO: 2447.0

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

TOTALS
SINCE NEW

Engine Date: 11/4/2025 Tail #: N38CF

A/C Make/Model: Diamond DA40

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

Engine S/N: RL-19203-51E Tach Time: 7070.5 TSMOH: ~~2495.58~~ ^{2564.7}

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

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: 11/26/2025 Tail #: N38CF

A/C Make/Model: Diamond DA40

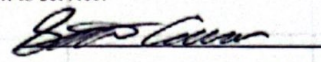
Engine Make: Lycoming Engine Model: IO-360-M1A

Engine S/N: RL-19203-51E Tach Time: 7,105.2 Total Time: 2,539.5

TSMO: 2,539.5

Work Performed: Drained oil and serviced with 7 quarts of Phillips 20W 50 X/C oil. Removed, cut open, and inspected old oil filter. No contaminants were found. Installed new AA48110-2 filter, torqued and safetied. Removed, inspected, cleaned, reinstalled suction screen with a new crush gasket, torqued and safetied. Differential compression test performed results as follows: #1: 72/80 #2: 75/80 #3: 68/80 #4: 73/80. Removed fuel injectors, cleaned, and inspected, and installed all injectors to proper torque specifications. Inspected and lubricated all engine controls. Removed, cleaned, and inspected spark plugs and reinstalled to proper torque specifications. Replaced spark plug from the bottom of cylinder #4 with new UREM38S. Checked magneto timing to ensure they were at 25°. Checked torque of through bolts at the nose of the engine. Complied with AD2015-19-07 by visually inspecting fuel injector fuel lines and clamps between the fuel manifold and fuel injector nozzles. Next inspection due before AFTT 7215.2

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

Engine Date: 11/26/2025 Tail #: N38CF

A/C Make/Model: Diamond DA40

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

Engine S/N: RL-19203-51E Tach Time: 7,105.2 Total Time: 2,539.5

TSMO: 2,539.5

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 4560305

Engine Date: 1/12/2026 Tail #: N38CF

A/C Make/Model: Diamond DA40.

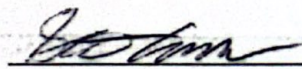
Engine Make: Lycoming Engine Model: IO-360-M1A

Engine S/N: RL-19203-51E Tach Time: 7150.6 TSMOH: 2575.4

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

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