

The Standard

AIRCRAFT LOG

ASA-SA-1

Font - Broadside

Paint Codes

Yellow PPG 902771 -

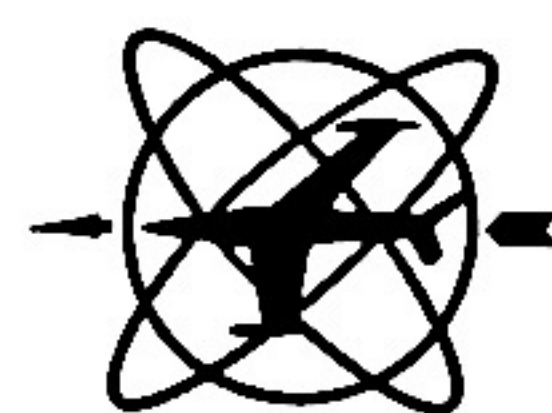
Red PPG 73589 -

New Red PPG 73589 - Del Fleet

Coca Cola Red

Take Can to PPG

When mixing more



The Standard

AIRCRAFT LOG

ASA-SA-1

Aircraft Record General Information

Manufacturer Me Manness Model RV-7A

Serial 001 Registration Number N731DM

Date of Manufacture _____

Engine(s) currently installed:

Manufacturer Lycomins Model IO-390-EXP Serial EL-107-80E

Manufacturer _____ Model _____ Serial _____

Propeller(s) currently installed:

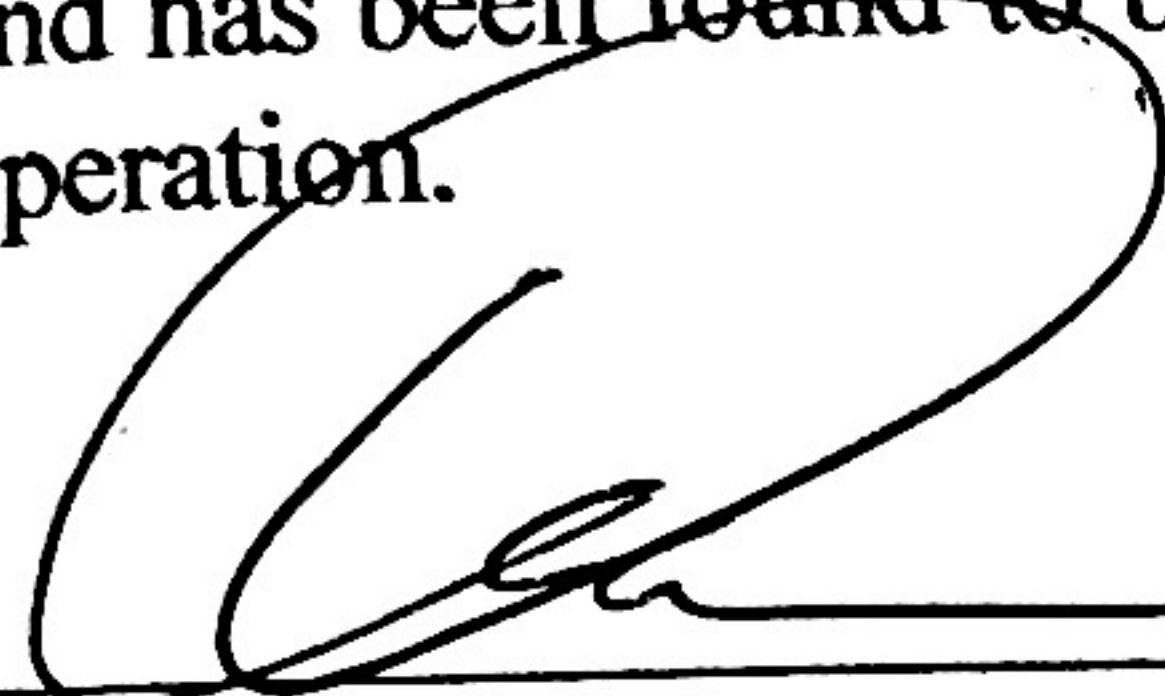
Manufacturer MT Model MTV-12B/183-59b

UB Model _____ Serial _____ Serial _____

Blade Model _____ Serial _____ Serial _____ Serial _____

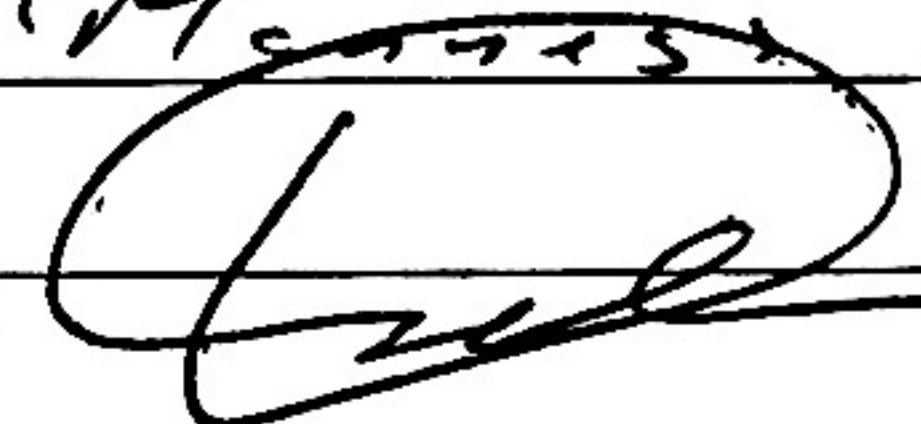
Blade Model _____ Serial _____ Serial _____ Serial _____

I certify this aircraft has been inspected in accordance with the scope and detail of Appendix D to Part 43 and has been found to be in a condition for safe operation.


David McManness / Builder

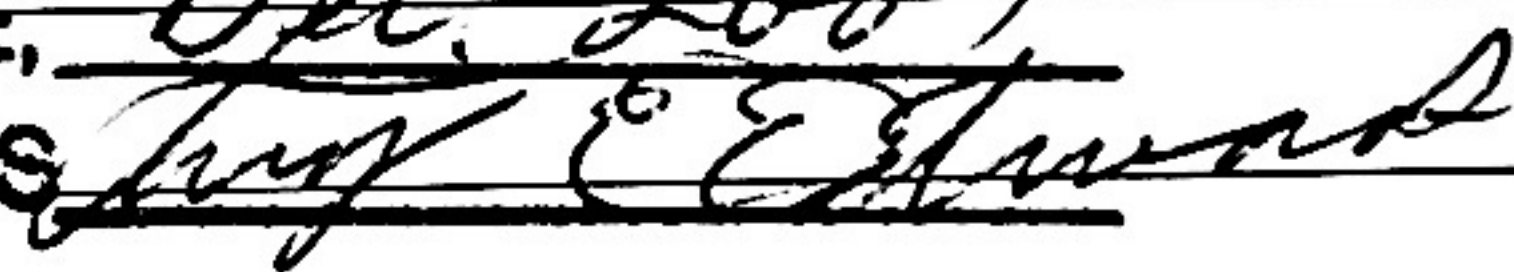
12-26-06
Date

Notes

I cert. by that I, David M. McManness, did build this Aircraft N731DM serial 001 

12/26/06

Total Time in Service
0, 00 hrs.

I FIND THAT THIS AIRCRAFT MEETS THE REQUIREMENTS FOR THE CERTIFICATION REQUESTED AND HAVE ISSUED A SPECIAL AIRWORTHINESS CERTIFICATE DATED 12/26/06 THE NEXT CONDITION INSPECTION IS DUE, Dec. 2007
TERRY E. EDWARDS 
DART-303003NM



11915 Airport Way, Suite 1, Broomfield, CO 80021 303-466-3771
Date: 12/26/2006 Aircraft Reg 731DM Flight Hobbs: 00.0

Tach: n/a

PTSN: 00.0

ETSN: 00.0

MX Hobbs: n/a

ACTT: 00.0

The following inspection was performed on N731DM before the test flight phase of certification: Inspected riveting of fuselage, wings, horizontal and vertical control surfaces, ailerons, flaps, elevators, and rudder. Inspected installation and routing of all control tubes, cables, electrical wiring and safeties where applicable. Inspected the complete installation of the engine and propeller assembly, routing and security of the electrical system, fuel and oil hoses, engine control cables, engine shock mounts, engine mount to firewall installation, baffling system, spinner assembly, and engine cowling installation. Inspected the complete landing gear and brake installation and operation of the brake system. Checked engine/magneto timing, pressure checked fuel system. Inspected instrument panel installation, routing and security of all electrical wiring, inspected seat and seat belt installation. Performed engine run up and magneto check. The following aircraft was inspected per guide lines using methods and practices AC43.13-1B & 2A. -----

----- END -----

Ben L. Watkins A&P527049467

or Repair

YEA

DAT

N731DM

Built from a Van's Aircraft quick build kit serial number 71442 by David M. McManness.

Panel built by Aerotronics, Inc., Billings, MT

Lycoming IO-390-EXP serial number EL-107-80E installed by builder.

MT propeller model MTV-12-B / 183-59b installed by builder.

Paint by Aircraft Refinishing, Meadow Lake Airport

David M. McManness / builder

Tests, Repairs and Alterations

(Rating and Certificate Number of Technician or Repair specific entries.)

YEAR:	RECORDING TACH	TODAY'S FLIGHT	TOTAL TIME IN	Description of Inspections, Tests, Repairs and Alterations (Entries must be entered with Name, Rating and Certificate Number of Technician or Repair specific entries.)
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I certify that the prescribed flight test hours have been completed and the aircraft is controllable throughout its normal range of speeds and throughout all maneuvers to be executed, has no hazardous operating characteristics or design features, and is safe for operation. The following aircraft operating data has been demonstrated during the flight testing: speeds Vso: 51k, Vx: 60k, Vy: 78k, and the weight 1639lb and CG location 82.15in at which they were obtained.

David McManness

Date

2-19-07

[illegible]

[illegible]

5/1/2007

Tach:

Swapped out Blue Mountain EFIS One with a loaner from BM. Flew a test flight to Chattanooga. Altitude, airspeed, GPS, ILS, Autopilot, and GPSS all appeared to operate correctly. Work performed by David McManness/Builder

~~David McManness~~

Date _____

5-1-07

cian or Repair

6/1/2007

Tach: 118

Replaced the left landing gear strut. Original strut was defective due to improper heat-treating. All work performed by David McManness/builder.

6-1-07

Description of Inspections, Tests, Repairs and Alterations

tries must be endorsed with Name, Rating and Certificate Number of Technician or Repair Facility. (See back pages for other specific entries.)

YF

I certify that the transponder test and inspection required by FAR 91.413 has been performed and found to comply with Part 43, Appendix F.

UNIT #1 GTX-337 S/N: 83722504

UNIT #2 S/N:

DATE: 5/11/07 A/C TIME: 106.1 (H)

N: 731 PM

SIGNED: [Signature]

AEROTRONICS, INC. C.R.S. NH2R031L

I certify that the altimeter, automatic pressure altitude reporting system and the static system test required by FAR 91.411 have been performed and found to comply with Appendix E of Part 43 of this chapter. The altimeter and automatic pressure reporting system have been tested to 20,000 feet. DATE: 5/11/07

N#: 731 PM

SIGNED: [Signature] A/C TIME: 106.1 (H)

AEROTRONICS, INC. C.R.S. NH2R031L

Aerotronics, Inc. CRS NH2R031L

- Following the installation and maintenance of the Air Data Computer and Altitude indicator in the Automatic Pressure Altitude Reporting System of the ATC
- Transponder where data correspondence error could be introduced, the integrated system has been tested, inspected and found to comply with paragraph (c), Appendix E, of Part 43 of Chapter 91.411.

Date: 5/11/07 A/C Time: 106.1 (H) Signed: [Signature]

[illegible]

[illegible]

2/28/2008

N731DM

Tach: 272

Replaced nose wheel tube - tire went flat during taxi.
 Inspected tire and bearings - greased wheel bearings.
 Work performed by David McManness/Builder

2.28.08

David McManness

Date

DATE

4/2/2008

N731DM

Tach: 280

Replaced Blue Mountain EFIS-1 Generation 3 with a
 new EFIS-1 Generation 4. Test flown and all systems
 appeared to be working correctly. Work performed by
 David McManness/Builder

4-2-2008

David McManness

Date

Operations
 Number of Technician or Repair

6/02/2008

N731DM

Tach: 294

Replaced right main tire and tube. Tire went flat after taxi. Replaced left tube for precautionary measure. Inspected and greased wheel bearings. Work performed by David McManness/Builder

David McManness

Date

6-2-08

15/08

N731DM

Tach: 374.5

Replaced nose wheel and tube. Cleaned, inspected and packed wheel bearings. Replaced wheel bolts and nuts. Work performed by David McManness/Builder

David McManness

Date

6/27/2008

N731DM

380.4 TT

Performed annual condition inspection: All systems, controls and hinge points inspected and lubed as required; Checked wheels, brakes, and packed bearings as required; C/W FAR 91.207(d), ELT per inspection; Inspected engine, compression readings 72, 72, 74, 74 warm, installed new upper sparkplugs; I certify that this aircraft was inspected per FAR 43, Appendix D and was determined to be in airworthy condition.

Builder Name: David M McManness

Certificate Number: 3253131

Signature: _____

4/1/09

N731DM

Tach: 400

Replaced alternator belt. Work performed by David McManness/Builder

David McManness (3253131)

Date

4-1-09

4/15/2009

N731DM

Tach: 409

Replaced Blue Mountain EFIS One Gen 4 with a factory new replacement unit (VIN 0309). Test flew new unit - All systems functioning properly. Work performed by David McManness/Builder

David McManness (3253131)

Date

4/15/09

6/18/08

N731DM

Tach: 420

Replaced nose wheel and tube. Cleaned, inspected and repacked wheel bearings. Replaced wheel bolts and nuts. Work performed by David McManness/Builder

David McManness(3253131)

Date

6-18-08

9/04/2009

N731DM

Tach: 471

Replaced Blue Mountain EFIS One with a Grand Rapids Technologies Horizon HX EFIS. Replaced panel with new panel built by Aerotronics in Billings. Work performed by Owner/Builder David McManness and Aerotronics. GRT AHRS calibrated to 25000 by Aerotronics. GRT, Dynon, and Garmin 327 IFR Pitot Static certified.

David McManness (3253131)

Date

9/04/2009

N731DM

Tach: 478

Problems with GRT Horizon EFIS. Replace with factory new unit. Flight tested. All systems functioning properly.

David McManness (3253131)

Date

9/18/09

N731DM

Tach: 498

Replaced both main gear tires and tubes. Cleaned, inspected and repacked wheel bearings. Replaced brake pads. Work performed by David McManness/Builder

David McManness(3253131)

Date

9-18-09

David McManness(3253131)

Date

Repair

YEAR:	RECORDING TACH TIME	TODAY'S FLIGHT	TOTAL TIME IN SERVICE
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Description of Inspections, Tests, Repairs and Alterations
Entries must be endorsed with Name, Rating and Certificate Number of Technician or Repair

DATE

I certify that the altimeter, automatic pressure altitude reporting system and the static system test required by FAR 91.411 have been performed and found to comply with Appendix E of Part 43 of this chapter. The altimeter and automatic pressure reporting system have been tested to 25,000 feet. DATE: 9/3/09 N#: A731DM

SIGNED: [Signature] A/C TIME: 471.07
AEROTRONICS, INC. C.R.S. NH2R031L

I certify that the transponder test and inspection required by FAR 91.413 has been performed and found to comply with FAR 43, Appendix F.

Unit: GTX-327 SN: 83722504

Date: 9/3/09 N#: 731DM

A/C Time: 471 Signature: [Signature]

AEROTRONICS, INC. C.R.S. NH2R031L

Aertronics, Inc. CRS NH2R031L

Following the installation and maintenance of the Air Data Computer and Altitude indicator in the Automatic Pressure Altitude Reporting System of the ATC Transponder, where data correspondence error could be introduced, the integrated system has been tested, inspected and found to comply with paragraph (c), Appendix E, of Part 43 of Chapter 91.411.
Date: 9/3/09 A/C Time: 471.07 Signed: [Signature]

YEAR:	RECORDING TACH	TODAY'S FLIGHT	TOTAL TIME IN	Description of Inspections, Tests, Repairs and Alterations	In or Repair
DATE	TII	Performed Altimeter, Encoder, Transponder and Static System Certifications as per attached form. N <u>731DM</u>			
		The Altimeter ^{AVC} and Static System tests required by FAA 91.411 have been performed. The Altimeter ^{AVC} has been tested to <u>20,000</u> ft.			
		Signed <u>[Signature]</u>			
		Date: <u>20 NOV 09</u>			
		FAA Approved Repair Station No. FDBR221K Freedom Avionics Company Rocky Mountain Metropolitan Airport Broomfield, CO 80021			
		ATC transponder tests & inspections required by FAR 91.413 were performed this date and found to comply with FAR 43, Appendix F.			
		Make _____ Model _____			
		S/N: _____			
		Details on file under Work Order No. <u>15437</u>			
		Date <u>20 NOV 09</u> Signature <u>[Signature]</u>			
		Freedom Avionics Company CRS No. FDBR221K Rocky Mountain Metropolitan Airport Broomfield, CO 80021			

05/19/2010

N731DM

5 TT

R&R TruTrak Digiflight II Autopilot. Warrantee replacement by TruTrack. SN 100504-8000-020-001 R&R Garmin SL-30 Nav Com. Warrantee repair for Mod AE. Ground checked and test flew airplane. All systems appear to be functioning properly. All work performed by David McManness/builder. Certificate Number: 3253131


David McManness

5-19-10
Date

10/05/11

N731DM

Tach: 819

Removed Garmin 300XL and replaced with Garmin 430. Work performed in AeroTronics shop aided by owner. Ground and flight tested for proper operation of GPS enroute and approaches, ILS approaches, VOR tracking. Work performed or overseen by David McManness/builder. Certificate Number: 3253131.

David McManness

Date

I certify that the altimeter, automatic pressure altitude reporting system and the static system tests required by FAR 91.411 have been performed and found to comply with Appendix E of Part 43 of this chapter. The altimeter and automatic pressure reporting systems have been tested

to: 20,000 feet. Date: 10-5-2011
Reg #: N731DM A/C Time: 819.7
Signed: Chad Hall
AEROTRONICS, INC CRS NH2R031L #1

Repairs and Alterations
and Certificate Number(s.)

Following the installation and maintenance of the Air Data Computer and Altitude indicator in the Automatic Pressure Altitude Reporting System of the ATC Transponder where data correspondence error could be introduced, the integrated system has been tested, inspected and found to comply with paragraph (c), Appendix E, of Part 43 of Chapter 91.411.

Date: 10-5-2011 Reg #: N731DM A/C Time: 819.7
Signed: Chad Hall
Aerotrionics, Inc. CRS NH2R031L #12

I certify that the transponder test and inspection required by FAR 91.413 has been performed and found to comply with FAR 43, Appendix F.

DATE

YEAR

the Automatic Pressure Altitude Reporting System of the A/C transponder where data correspondence error could be introduced, the integrated system has been tested, inspected and found to comply with paragraph (c), Appendix E, of Part 43 of Chapter 91.411.

Date: 10-5-2011 Reg # N731DM A/C Time: 819.7

Signed: [Signature]

Aerotrionics, Inc. CRS NH2R031L

#12

air

I certify that the transponder test and inspection required by FAR 91.413 has been performed and found to comply with FAR 43, Appendix F.

Unit GT7327 S/N 83722504

Date 10-5-2011 N# 731DM

A/C Time 819.7 Tach Signature [Signature]

AEROTRONICS, INC. C.R.S. NH2R031L

DATE

YEAR:

RECORDING
TACH
TIME

02/01/2012

N731DM

837 TT

Performed annual condition inspection: All systems, controls and hinge points inspected and lubed as required; Checked wheels, brakes, and packed bearings as required; replaced brake pads; C/W FAR 91.207(d), ELT per inspection; replaced ELT Battery (expires 3/18. Inspected engine, compression readings 76, 76, 73, 74, installed new upper sparkplugs; replaced all induction tube gaskets; fuel servo flowed and reinstalled; installed second heater muff; installed new carpet. I certify that this aircraft was inspected per FAR 43, Appendix D and was determined to be in airworthy condition.

Builder Name: David M McManness

Certificate Number: 3253131

David McManness

Date

07/17/12

N731DM

Tach: 906

Replaced nose wheel tube. Packed nose wheel bearings. Replaced both main gear tires and tubes. Packed main gear bearings. All work performed by David McManness/builder. Certificate Number: 3253131

David McManness

Date

pair

DATE

YEAR:

4/3/13

N731DM

Tach: 991.9

Performed annual condition inspection: All systems, controls and hinge points inspected and lubed as required; Checked wheels, brakes, and packed bearings as required; replaced brake pads; C/W FAR 91.207(d), ELT per inspection. Inspected engine, compression readings 77, 77, 78, 78, installed new upper and lower sparkplugs; replaced upper plug wires; replaced all induction tube gaskets; reamed exhaust guides; replaced front tube; replaced front wheel pant and gear leg fairing; replaced air inlet neoprene; painted plenum; installed flap retraction limit switch; installed new points in Slick Mag.

certify that this aircraft was inspected per FAR 43, Appendix D and was determined to be in airworthy condition.

9/2/13

N731DM

Tach: 1078

Installed Anti-Splat nose gear modification. Installed new nose gear fairing. Modified nose gear fairing hinge at engine cowl. Installed Anti-Splat crankcase vacuum kit. Packed main wheel bearings. Inspected brakes (all ok). All work performed by David McManness/builder. Certificate Number: 3253131

David McManness

Date

Technician or Repair

DATE

YEAR

Following the installation and maintenance of the Air Data Computer and Altitude indicator in the Automatic Pressure Altitude Reporting System of the ATC Transponder where data

Following the installation and maintenance of the Air Data Computer and Altitude indicator in the Automatic Pressure Altitude Reporting System of the ATC Transponder where data correspondence error could be introduced, the integrated system has been tested, inspected and found to comply with paragraph (c), Appendix E, of Part 43 of Chapter 91.411.

Date: 10/16/13 Reg #: N731DM A/C Time: 1089.0
Signed: [Signature] Aerotronics, Inc. CRS NH2R031L #12

I certify that the altimeter, automatic pressure altitude reporting system and the static system tests required by FAR 91.411 have been performed and found to comply with Appendix E of Part 43 of this chapter. The altimeter and automatic pressure reporting systems have been tested

to: 20,000 feet. Date: 10/16/13
Reg #: N731DM A/C Time: 1089.0
Signed: [Signature]
AEROTRONICS, INC CRS NH2R031L #1

I certify that the transponder test and inspection required by FAR 91.413 has been performed and found to comply with Part 43, Appendix F.

Unit: GTx 327 S/N: 83722504
Date: 10/16/13 A/C Time: 1089.0
Reg #: N731DM
Signature: [Signature]
AEROTRONICS, INC. C.R.S. NH2R031L #11

I certify that the static system test required by FAR 91.411, para (a) (2) has been performed and complies with para (a) App E of Part 43.

DATE: 9/16/14 A/C TIME: 1209.6H
Reg #: N731DM W/O#: 14AG065x
SIGNED: [Signature]
AEROTRONICS, INC. C.R.S NH2R031L #7

I certify that the transponder test and inspection required by FAR 91.413 has been performed and found to comply with Part 43, Appendix F

Unit: TT-31 S/N: 04789
Date: 9/16/14 A/C Time: 1209.6H
Reg #: N731DM
Signature: [Signature]
AEROTRONICS, INC. C.R.S. NH2R031L #11

TODAY'S
FLIGHT

TOTAL
TIME IN
SERVICE

Description of Inspections, Tests, Repairs and Alterations
Entries must be endorsed with Name, Rating and Certificate Number of Technician or Repair Facility. (See back pages for other specific entries.)

4/15/14 N731DM Tach: 1122

Performed annual condition inspection: All systems, controls and hinge points inspected and lubed as required; replaced main and nose tires and tubes; installed Anti-Splat Aero wheel bearing mods to nose and mains; replaced brake pads; C/W FAR 91.207(d), ELT per inspection; R&R Dynon D10A EFIS. EFIS repaired and calibrated by Dynon; replaced all SCAT/SCEET tubing. Performed Van's service bulletins 12-08-14 (wing attach bolt) and 14-01-31 (horizontal stabilizer - cracking).

I certify that this aircraft was inspected per FAR 43, Appendix D and was determined to be in airworthy condition.

BUILDER NAME: David M Mr Morgan 2252121 W A B.

4/15/14 N731DM Tach: 112

Performed annual condition inspection: Inspected engine, compression readings 79, 77, 75, 78, installed new upper spark plugs. Cleaned and gapped lower sparkplugs; cleaned/oiled air filter;

I certify that this aircraft was inspected per FAR 43, Appendix D and was determined to be in airworthy condition.

Builder Name: David M McManness 3253131

David McManness

Date _____

Date _____

0
3/7/15 N731DM Tach: 1278
- Performed annual condition inspection: All systems,
controls and hinge points inspected and lubed as
required; replaced brake pads; C/W FAR 91.207(d),
ELT per inspection; Performed Van's service bulletins
14-01-31 (horiz stab), 14-02-05 (elev spar), 14-12-22
(nose stop flange). 35 hours on rebuilt engine at cond
inspect. Replaced all spark plugs. Compression
readings 74,76,76,76.

I certify that this aircraft was inspected per FAR 43,
Appendix D and was determined to be in airworthy
condition.

Builder Name: David M McManness 3253131

0/10/15 N731DM Tach: 1416
Replaced ARTex ELT with ACK Model E-04 ELT.
2DC86 A6ADC FFBBFF. Battery Expires 7/20/2020.
Remote battery expires 10/2025. Alert battery expires
10/2025.

Replace CO detector with a new Flight Data System
GD-40 CO meter. The new unit will be tied to my new
G3X Touch EFIS.

All work performed by David McManness/builder.
Certificate Number: 3253131

2/1/15 N731DM Tach: 1420
Removed and replaced panel. Aerotronics
remanufactured my panel to accommodate a Garmin
G3X Touch and a Garmin GTN 650 Navigator.
Avionics installed and tested by Aerotronics. I have
collaborated the configuration and testing of all
avionics and radios. Also replaced Garmin 696 with a
new Garmin 796.

Following the installation and maintenance of the Air Data Computer and Altitude indicator in
the Automatic Pressure Altitude Reporting System of the ATC Transponder where data
correspondence error could be introduced, the integrated system has been tested, inspected and
found to comply with paragraph (c), Appendix E, of Part 43 of Chapter 91.411.

Date: 12/01/15 Reg #: N731 DM A/C Time: 1420.6 T

Following the installation and maintenance of the Air Data Computer and Altitude indicator in the Automatic Pressure Altitude Reporting System of the ATC Transponder where data correspondence error could be introduced, the integrated system has been tested, inspected and found to comply with paragraph (c), Appendix E, of Part 43 of Chapter 91.411.

Signed: 
Aerotronics, Inc CRS NH2R031L #12

Date: 12/04/15 Reg #: N 731 DM
A/C Time: 1420.6 T W/O #: 15D041x
Signed: Charles J. [Signature]

Unit: TRIG II 31 S/N: 04789
Date: 12/04/15 A/C Time: 1420.6 T
Reg #: N731DM

Signature Calvin J. [Signature]
AEROTRONICS, INC. C.R.S. NH2R031L #11

DING	TODAY'S FLIGHT	TOTAL TIME IN SERVICE	Design Entrances Facility
1	2	3	4

Tach: 1490

Tach: 1495

Removed TruTrak autopilot and controller. Removed all existing wiring. Replaced with Garmin GSA 28 servos, GMC 307 AFCS Mode Controller, GAD 27 Controller utilizing discrete input for TO/GA switch. Work performed by Aerotronics and David McManness/builder. Certificate Number: 3253131.

5 Technician or Repair

09/18/14 N731DM Tach: 1212

Replaced right wheel caliper O-ring. Bled brakes.

All work performed by David McManness/builder.
Certificate Number: 3253131

09/18/14 N731DM Tach: 1212

Installed Garmin GDL39 ADS-B receiver tied to
existing Garmin GPSMap 696.

Installed iLevil AW ADS-B receiver tied to GRT EFIS.

All work performed by David McManness/builder.
Certificate Number: 3253131

9/18/14 N731DM Tach: 1202

rotronics installed TRIG 31 1090es transponder.

0/10/14 N731DM Tach: 1224

Clean and gap all lower spark plugs. Check
ompression 79; 79; 79; 78.

All work performed by David McManness/builder.
Certificate Number: 3253131

ations										
umber of Technician or Repair										

3/7/16 N731DM Tach: 1444

Performed annual condition inspection: All systems,
controls and hinge points inspected and lubed as

Altimeter Test 20K

Work Order#: 18910

Make: Garmin

Model: GSU 25

Serial Number: 2SA002250

Altitude X 1000	ERROR	Tolerance (+/-) Feet
-1.0	11	20
0.0	12	20
0.5	10	20
1.0	12	20
1.5	13	25
2.0	13	30
3.0	13	30
4.0	14	35
6.0	14	40
8.0	14	60
10.0	13	80
12.0	13	90
14.0	14	100
16.0	15	110
18.0	15	120
20.0	14	130

Freedom Avionics Company
CRS#FDBR221K

Tested By:

Date:

PCW
2-8-18

meter Test

Registration Number: N731DM

Aircraft Make: McManness

Aircraft Model: RV-7A

SU 25

SA002250

Altitude In
Feet (Down)

	*		**
900	55	950	± Ft.
2,000	55	2,050	± Ft.
3,300	55	3,350	± Ft.
4,400	55	4,450	± Ft.
6,900	50	6,950	± Ft.
10,600	50	10,650	± Ft.
12,200	50	12,250	± Ft.
14,800	50	14,850	± Ft.
16,500	50	16,550	± Ft.
20,000	50		± Ft.

t.

sted By:

te:

PCW
2-8-18

Transponder and Static System
form. N *731DM*

ATC transponder tests & inspections required by
FAR 91.413 were performed this date and found
to comply with FAR 43, Appendix F.

Make *Trig* Model *TT31*

S/N: *04784*

Details on file under Work Order No. *18910*

Date *2/8/2018* Signature *[Signature]*
Freedom Avionics Company CRS No. FDBR221K
Rocky Mountain Metropolitan Airport

4/16/17

N731DM

Tach: 1618

Performed annual condition inspection: All systems, controls and hinge points inspected and lubed as required; replaced brake pads; C/W FAR 91.207(d), ELT per inspection; Performed Van's service bulletins 14-01-31 (horiz stab), 14-02-05 (elev spar), 16-03-28 – (wing aft spar); Performed 500 hr magneto inspection (new points, cond, cap rotor); Replaced all upper spark plugs. Compression readings 79,78,79,76.

I certify that this aircraft was inspected per FAR 43, Appendix D and was determined to be in airworthy condition.

Builder Name: David M McManness 3253131

5/4/2017

N731DM

Tach:1640

Replaced Air Filter with new K&N. Inspected air box for integrity. Inspected engine compartment. All work performed by David McManness/builder. Certificate Number: 3253131

9/11/2017

N731DM

Tach:1722

Removed Garmin GDL-39 and replaced with GDL-52R (ads-b). Hard wired GDL-39R to G3X and 796. Flight tested. *Removed iLevel ADS-B*

Replaced front tire and tube.

**All work performed by David McManness/builder.
Certificate Number: 3253131**

or Repair

10/23/2017

N731DM

Tach:1741

Replace main tires and tubes.

All work performed by David McManness/builder.

Certificate Number: 3253131

10/31/18

N731DM

Tach: 1757

Removed and Replaced Dynon D10A and D10. Sent to Dynon for trouble shooting and repair. Communication chip faulty. Test flew airplane to confirm proper repair and installation.

All work performed by David McManness/builder.

Certificate Number: 3253131

10/3/18

N731DM

Tach: 1775

Performed annual condition inspection: All systems, controls and hinge points inspected and lubed as required; ELT per inspection/test C/W FAR 91.207(d); Performed all Van's service bulletins including 14-01- (horiz stab), 14-02-05 (elev spar), 16-03-28 – (wing spar); left aft wing spar cracked. Repaired per 16-03-28. Replaced all upper spark plugs. Compression readings 79,79,78,74. Borescoped all cylinders. Replaced nose gear attach bolt. Replaced Dynon OAT probe.

Certify that this aircraft was inspected per FAR 43, appendix D and was determined to be in airworthy condition.

Builder Name: David M McManness 3253131

1 or Repair

Condition.

Builder Name: David M McManness 3253131

for Repair

3/11/2018

N731DM

Tach:1873

Replaced exhaust hangers – both sides. Compression
Test 79/79/78/75

All work performed by David McManness/builder.
Certificate Number: 3253131

7/14/2018

N731DM

Tach:1906

Replaced brake pads – both sides.

All work performed by David McManness/builder.
Certificate Number: 3253131

11/3/18

N731DM

Tach: 1917

Removed Electronic Ignition module and returned to
Lightspeed for testing and overhaul. Normal mods
performed. Reinstalled EI module, replaced one coil (3-
4) replaced all EI plug wires, replaced magnetic crank
sensor. Test flew airplane – EI performed as designed.

All work performed by David McManness/builder.
Certificate Number: 3253131

1/7/19

N731DM

Tach: 1929.5

Removed MT propeller. Installed New WW 74HRT
propeller (Hub # _____) (Blade Numbers 065,
066). Checked fit and blade runout.

Returned aircraft to Phase I flight testing, 5.0 hrs
required within the test box originally assigned. Initial
test flight this date found abnormal vibrations.

All work performed by David McManness/builder.
Certificate Number: 3253131

1/14/19

N731DM

Tach: 1935

Completed Phase I checkout of new prop. All performance factors, V speeds and flight regimens normal. Made corrections to Weight and Balance. Made corrections to POH for W&B, speeds and durations, V_x, V_y, V_{s0}, Best Glide. Propeller balanced but excessive vibration still existed. Returned propeller to WW for repair.

All work performed by David McManness/builder.
Certificate Number: 3253131

3/14/19

N731DM

Tach: 1935

Reinstalled original MT propeller and returned the aircraft to service while new WW 74HRT is repaired.

All work performed by David McManness/builder.
Certificate Number: 3253131

8/19

N731DM

Tach: 1948

performed annual condition inspection: All systems, controls and hinge points inspected and lubed as required; returned ELT to ACK for service. Reinstalled ELT with inspection/test C/W FAR 91.207(d); performed all Van's service bulletins including 14-01-1 (horiz stab), 14-02-05 (elev spar), 16-03-28 – (wing ft spar); Replaced all upper spark plugs. Compression readings 78,79,79,75. Borescoped all cylinders. Replaced nose gear attach bolt. Repaired #3 cylinder affle. Replaced Sky Tec starter.

certify that this aircraft was inspected per FAR 43, Appendix D and was determined to be in airworthy condition.

Builder Name: David M McManness 3253131

6/28/19

N731DM

Tach: 1990

Replaced main tires and tubes. Replaced brake pads.

All work performed by David McManness/builder. Certificate Number: 3253131

10/1/2020

N731DM

Tach:2058

performed annual condition inspection: All systems, controls and engine points inspected and lubed as required; replaced ELT battery. Reinstalled ELT with inspection/test C/W FAR 91.207(d); performed all Van's service bulletins including 14-01-31 (horiz stab), 14-02-05 (elev spar), 16-03-28 – (wing aft spar); Replaced all upper spark plugs. Compression readings 78,78,78,76. Borescoped all cylinders. Replaced nose gear attach bolt. Replaced mechanical fuel pump. Replaced nose wheel bearings. Replaced brake pads. Replaced propeller governor. Replaced fuel pump to servo fuel line. Replaced heater hose scat tubing. Cleaned sump screen. performed Magneto 500 hour inspection. New points/condenser.

Certify that this aircraft was inspected per FAR 43, Appendix D and was determined to be in airworthy condition.

All work performed by David McManness/builder. Certificate Number: 3253131

10/21/2020

N731DM

Tach:2106

Replaced all pitot static hose connectors. Replaced pitot / static lines into the Garmin GSU 25 ADAHRS.

All work performed by David McManness/builder. Certificate Number: 3253131

3/29/20

N731DM

Tach:2112

Removed and Replaced Dynon Manifold Pressure sensor.

All work performed by David McManness/builder. Certificate Number: 3253131

| | | | | | | | | | | | | | |

Altimeter Test 20K

Work Order#: 5257

Make: Garmin

Model: GSU 25

Serial Number: 25A002250

Altitude X 1000	ERROR	Tolerance (+/-) Feet
-1.0	15	20
0.0	15	20
0.5	15	20
1.0	15	20
1.5	15	25
2.0	15	30
3.0	15	30
4.0	15	35
6.0	20	40
8.0	20	60
10.0	15	80
12.0	20	90
14.0	20	100
16.0	25	110
18.0	25	120
20.0	35	130

Freedom Avionics Company
CRS#FDBR221K

Tested By: BW

Date: 10-21-20

meter Test

Registration Number: 731DM

Aircraft Make: VANS

Aircraft Model: RV7A

U 25

A002250

Altitude in Feet (Down)			
	*		**
900	50	950	± Ft.
2,000	50	2,050	± Ft.
3,300	50	3,350	± Ft.
4,400	50	4,450	± Ft.
6,900	50	6,950	± Ft.
10,600	50	10,650	± Ft.
12,200	50	12,250	± Ft.
14,800	50	14,850	± Ft.
16,500	50	16,550	± Ft.
18,000	50		± Ft.

±

ted By: BW

10-21-20



91.411 and part 43 Appendix
min GSU 25 S/N:25A002250,
er tests and inspections
performed on Trig TT31

ance with current regulations of the Federal Aviation
pplicable aircraft, or appliance maintenance manuals

Rusty Wallace CRS#FDBR221K

10/21/2020

N731DM

Tach: 2117

Replace pitot/static lines and couplers as need to pass pitot/static
test.

All work performed by David McManness/builder. Certificate
Number: 3253131

5/25/21

N731DM

Tach: 2168

Removed SL-30 radio and had it bench tested by Freedom
Avionics. Tested Okay.

Freedom Air Avionics, CRS# FDBR221K

October 21, 2020

31DM



FREEDOM AIR AVIONICS

The altimeter and static system tests required by FAR 91.411 and part 43 Appendix A have been performed. **Dynon D10A S/N:06352, Garmin GSU 25 S/N:25A002250,** have been tested and certified to **20K**. ATC Transponder tests and inspections required by FAR 91.413 and part 43 Appendix F were performed on **Trig TT31 N:04789**.

MAINTENANCE RELEASE: This aircraft, airframe or appliance was repaired and inspected in accordance with current regulations of the Federal Aviation Administration and is approved for return to service. All work was performed in accordance with applicable aircraft, or appliance maintenance manuals instructions. Pertinent details are on file at the repair station office. Work Order#:5257

Freedom Air Avionics

Rusty Wallace CRS#FDBR221K

10/21/2020

N731DM

Tach: 2117

Replace pitot/static lines and couplers as need to pass pitot/static test.

All work performed by David McManness/builder. Certificate Number: 3253131

5/25/21

N731DM

Tach: 2168

11-11:4 bench tested by Freedom

est.
All work performed by David McManness/builder. Certificate
Number: 3253131

5/25/21

N731DM

Tach: 2168

Removed SL-30 radio and had it bench tested by Freedom
Avionics. Tested Okay.

Removal and Replacement work performed by David
McManness/builder. Certificate Number: 3253131

/1/2021

N731DM

Tach:2147

Performed annual condition inspection: All systems, controls and
hinge points inspected and lubed as required. Performed all Van's
service bulletins including 14-01-31 (horiz stab), 14-02-05 (elev
spar), 16-03-28 – (wing aft spar); Replaced all upper spark plugs.
Compression readings 78,79,79,78. Borescoped all cylinders.
Replaced nose gear attach bolt. Replaced brake pads. Rotated main
gear tires. Cleaned sump screen. Dynamic balanced propeller
(0.04 ips).

certify that this aircraft was inspected per FAR 43, Appendix D
and was determined to be in airworthy condition.

All work performed by David McManness/builder. Certificate
Number: 3253131

/1/2021

N731DM

Tach:2147

Removed Garmin Audio Panel GMA340 and replaced with Garmin
GMA345 Audio Panel. Also added two Bose A-20 headsets.

&R Starter and Master Solenoids. Replaced both after
discovering corrosion on terminals of each unit. Replaced Starter
solenoid with White Rodgers Type 124 114111 Master with Lamar
K61-0029

Replace Dynon Kavlico oil/fuel pressure sensors to meet Vans SB-
0006

All work performed by David McManness/builder. Certificate
Number: 3253131

1 or Repair

6/10/21

N731DM

Tach: 2177

Removed and Replaced two Odyssey PC680 batteries.

All work performed by David McManness/builder. Certificate Number: 3253131

10/16/2021

N731DM

Tach: 2214

Replace brake pads and caliper O-rings

All work performed by David McManness/builder. Certificate Number: 3253131

11/27/2021

N731DM

Tach: 2244

Replace Main tires and tubes. Replace brake pads.

Remove and clean left fuel sump valve. Borescoped fuel tank. No debris found.

All work performed by David McManness/builder. Certificate Number: 3253131

ation of Inspections, Tests, Repairs
just be e
See back

Note: All altitudes are referenced at 29.92" barometric setting

* = Log difference reading in feet.

** = 125 feet Δ = 70% of ten evenly spaced check points ± 87 feet ±.

Tested By:

Date:

22-6-11
RW

Freedom Avionics Company
CRS#FDBR221K

19,900	-50	19,850	± Ft.
16,400	-50	16,350	± Ft.
14,700	-50	14,650	± Ft.
12,100	-50	12,050	± Ft.
10,500	-50	10,450	± Ft.
6,800	-50	6,750	± Ft.
4,300	-50	4,250	± Ft.

20,000	50	20,050	± Ft.
16,500	50	16,550	± Ft.
14,800	50	14,850	± Ft.
12,200	50	12,250	± Ft.
10,600	50	10,650	± Ft.
6,900	50	6,950	± Ft.
4,400	50	4,450	± Ft.
3,300	50	3,350	± Ft.

Altimeter Test 20K

Work Order#: 2022088

Make: Dynon

Model: D10A

Serial Number: 6352

Altitude X 1000	ERROR	Tolerance (+/-) Feet
-1.0	-15	20
0.0	-15	20
0.5	-10	20
1.0	-15	20
1.5	-20	25
2.0	-25	30
3.0	-25	30
4.0	-15	35
6.0	0	40
8.0	10	60
10.0	15	80
12.0	15	90
14.0	20	100
16.0	25	110
18.0	20	120
20.0	20	130

Freedom Avionics Company

CRS#FDBR221K

Tested By:

Date:

22-6-11
RW

CRS# FDBR221K

N731DM



FREEDOM AIR AVIONICS

Technician or Repair

The altimeter and static system tests required by FAR 91.411 and part 43 Appendix E have been performed. **Dynon D10A S/N:06352, Garmin GSU 25 S/N:25A002250,** have been tested and certified to **20K**. ATC Transponder tests and inspections required by FAR 91.413 and part 43 Appendix F were performed on **Trig TT31 S/N:04789.**

MAINTENANCE RELEASE: This aircraft, airframe or appliance was repaired and inspected in accordance with current regulations of the Federal Aviation Administration and is approved for return to service. All work was performed in accordance with applicable aircraft, or appliance maintenance manuals and instructions. Pertinent details are on file at the repair station office. Work Order#:20222088

Freedom Air Avionics

Rusty Wallace CRS#FDBR221K

CRS#FDBR221K

5/6/2022

N731DM

Tach: 2283.5

Performed annual condition inspection: All systems, controls and hinge points inspected and lubed as required. Performed all Van's service bulletins including 14-01-31 (horiz stab), 14-02-05 (elev spar), 16-03-28 – (wing aft spar) cleaned and dye pen test on rear spar rivets, all ok; Replaced all upper spark plugs. Compression readings 78,78,77,78. Borescoped all cylinders. Replaced nose gear attach bolt. Replaced nose axel bolt and nut.

I certify that this aircraft was inspected per FAR 43, Appendix D and was determined to be in airworthy condition.

All work performed by David McManness/builder. Certificate Number: 3253131

6/15/2022

N731DM

Tach: 2286.6

Revisited Van's SB16-03-28 on right wing. Smoking bottom right rivet. Cleaned and performed a dye penetrant inspection. No cracks found but opted to perform the addition of the new doubler per Van's instructions.

All work performed by David McManness/builder. Certificate Number: 3253131

10/23/2022

N731DM

Tach: 2339

Replaced brake pads. Inspected wheel bearings. Replace O-ring right caliper. Inspected break lines and topped off brake fluid.

All work performed by David McManness/builder. Certificate Number: 3253131

0/05/2022

N731DM

Tach:2337

Intermittent autopilot failure. Checked cables and connectors for corrosion – found none. Replaced Garmin G#X antenna - GA 57X GPS XM. Test flew airplane. Autopilot works as expected. Returned to service.

All work performed by David McManness/builder. Certificate Number: 3253131

05/15/2022

N731DM

03/13/2023

N731DM

Tach: 2369

Performed annual condition inspection: All systems, controls and hinge points inspected and lubed as required. Performed all Van's service bulletins including 14-01-31 (horiz stab), 14-02-05 (elev spar), 16-03-28 – (wing aft spar) ; Replaced all upper spark plugs. Compression readings 78,78,77,78. Borescoped all cylinders. Replaced nose gear attach bolt. Rotated tires. Replace rim through bolts all wheels.

certify that this aircraft was inspected per FAR 43, Appendix D and was determined to be in airworthy condition.

All work performed by David McManness/builder. Certificate Number: 3253131

1/08/2023

N731DM

Tach: 2437

performed SB0036 Service Bulletin. As part of the SB inspected for cracks. None found. Drilled and removed old hinge brackets. Drilled out trailing edge/spar rivets. Installed nested spar doubler and new hinge brackets. Did not need to install the repair doubler

All work performed by David McManness/builder. Certificate Number: 3253131

09/??/2023

N731DM

Tach: 24??

Installed new Garmin GHA-15. Flight tested. System works perfectly.

All work performed by David McManness/builder. Certificate Number: 3253131

4/19/24

N731DM

Tach: 2486

Replaced brake pads. Inspected wheels, rotors, wheel pants.

All work performed by David McManness/builder. Certificate Number: 3253131

06/01/2024 N731DM Tach: 2491
Performed annual condition inspection: All systems, controls and hinge points inspected and lubed as required. Performed all Van's service bulletins including 14-01-31 (horiz stab), 14-02-05 (elev spar), 16-03-28 - (wing aft spar) ;Replaced all upper spark plugs. Compression readings 79,80,80,76. Borescoped all cylinders. Rotated tires. Installed new brake pads - Cleveland Organic. New ELT Battery. Next due 4/19/29. Shake tested ELT. Replaced Fire Extinguisher. 500 hour Slick Mag inspection. New Points. Next due 3000 hrs.

I certify that this aircraft was inspected per FAR 43, Appendix D and was determined to be in airworthy condition.

All work performed by David McManness/builder. Certificate Number: 3253131

Description of Inspections, Tests, Repairs and Alterations
Entries must be endorsed with Name, Rating and Certificate Number of Technician or Repair Facility.

N# 731DM Transponder/Altimeter/Static Biennial Certification

This aircraft's Altimeter system and Altitude Reporting Equipment have been inspected and tested in accordance with FAR 43 appendix E & F, To

comply with 91.411

PILOT ALT P/N 55425 S/N 25A90225 Tested to 2200

C/P ALT. P/N - - - S/N - - - Tested to - - -

Encoder P/N D10A S/N 06352 Tested to 22000

The aircrafts ATC Transponder sys. has been inspected and tested ICW

FAR 43 Appendix F to Comply with 91.413.

Transponder: Tr's P/N TT 31 S/N 04784

✓ The Static system complies with CFR 23.1325. Leakage Ft/Min: 20

Notes: None

W.O.# 2503116564 Date: 3/11/25 Hours 25473

Inspector: David McManness

Front Range Transponder Svc.

11750 Airport Way Broomfield, CO 80021 303-469-1380 CRS F42R979Y

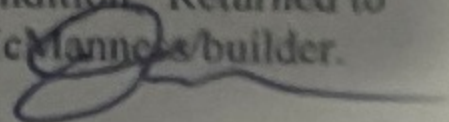
05/02/2025

N731DM

Tach: 2559

Performed annual condition inspection: All systems, controls and hinge points inspected and lubed as required. Performed all Van's service bulletins including 14-01-31 (horiz stab), 14-02-05 (elev spar), 16-03-28 - (wing aft spar); Replaced all upper spark plugs. Compression readings 78,79,80,78. Borescoped all cylinders. Replace brake pads with Rapco metallic pads and rotors, flushed brake lines, replaced master cylinders, filled with fresh hydraulic(brake) fluid. Replaced main tires and tubes. Next ELT batt due 4/19/29. Shake tested ELT.

I certify that this aircraft was inspected per FAR 43, Appendix D and was determined to be in airworthy condition. Returned to service. All work performed by David McManneess/builder.
Certificate Number: 3253131



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