

Issued on behalf of the UK CAA by the BMAA, UK CAA organisation approval ref. DAI/8909/84

TYPE: **VL-3TE-916**

- (1) MANUFACTURER: Airmasters UK Ltd
Airfield Farm
Sulby
Northampton
NN6 6EZ
Approval Ref: DAI/9972/21
- (2) UK IMPORTER: N/A
- (3) CERTIFICATION: BCAR Section S Draft Issue 9
Air Navigation (Amendment) Order 2021/879 art.10(c) (August 19, 2021) microlight definition up to 600kg.
- (4) DEFINITION OF BASIC STANDARD: Top drwg. no. VL-3-000000-00
- (5) COMPLIANCE WITH THE MICROLIGHT DEFINITION:
- | | |
|---|--|
| (a) MTOW | 600 kg |
| (b) No. Seats | 2 |
| (c) Maximum Wing Loading | 60.9 kg/m ² |
| (d) V _{so} | 45 knots CAS |
| (e) Permitted range of pilot weights | 0-110 kg (each)
(min cockpit load 55kg) |
| (f) Typical Empty Weight (ZFW) | 370 kg |
| (g) ZFW + 200 kg crew + 15kg fuel | 585 kg |
| (h) ZFW + 100 kg pilot + full fuel
(160 litres / 115.2 kg) | 585 kg |
| (i) Max ZFW at initial permit issue | 385 kg |

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(6) POWER PLANTS:

Designation	VL-3TE-916
Engine Type	Rotax 916iS A
Reduction Gear	2.54:1
Exhaust System	Rotax
Intake System	Rotax
Propeller Type	DUC Tiger 4 blade VP, constant speed
Propeller Dia x Pitch	1.66m
Min. take-off engine speed, full throttle	4800 rpm
Target take-off engine speed, full throttle, static	5500 rpm max. MAP 43 in.Hg
Noise Type Cert No.	N/A
AAN approving configuration	AAN-BMAA-1158

(7) MANDATORY LIMITATIONS:

- | | | |
|-----|------------------------------|---|
| (a) | Max Take-Off Weight | 600 kg |
| (b) | CG Limits | AFT limit 478 mm aft of datum
FWD Limit 330 mm aft of datum |
| (c) | CG datum | Wing leading edge root |
| (d) | Cockpit Loadings | 200kg max. total
Min (occupant only) 55 kg
Max (occupants only) 110 kg per seat |
| (e) | Never Exceed Speed, V_{NE} | 183 knots IAS |
| (f) | Manoeuvring Speed, V_A | 103 knots IAS |
| (g) | Flap Limiting Speed V_{FE} | 70 knots IAS (LAND – 3)
70 knots IAS (MID – 2)
81 knots IAS (T/O – 1) |
| (h) | Permitted Manoeuvres | Maximum bank angle 60°
Non Aerobatic
Normal accel. limits no flaps +4g / -2g
Normal accel. limits with flaps +2g/-0g |
| (i) | Fuel Contents (Max Usable) | 2 x 60 = 117 litres (Max Usable)
2 x 70 = 137 litres (Max Usable)
2 x 80 = 157 litres (Max Usable) |

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(j) Power Plant See Table

Engine	Rotax 916iS A*
Max RPM	5800 rpm for 5 minutes
Max Continuous RPM	5500 rpm
MAX Coolant	120 °C
MAX EGT	950 °C
Fuel Spec	95 RON minimum unleaded to EN228 Super or Super Plus AVGAS 100LL, UL91, UL94 (Unleaded preferred – see engine manual)
Engine Oil Spec	RON 451, SAE 5W-50 (See engine manual)
Oil Pressure	Normal 2-5 bar above 3500rpm Min 0.8 bar below 3500 rpm Max 7 bar
Oil Temperature	50 °C to 120 °C
Fuel Pressure	Airbox pressure plus 2.9 to 3.2 bar (2.5 to 3.5 bar for 3 secs Max after power change)
Manifold Pressure	60 hPa to 1800 hPa (1.77 to 53.15 inHg)

*Non-01 engines also accepted.

(k) Retractable landing gear
 Operating Speed, V_{LO} 81 knots IAS
 Extended Speed, V_{LE} 81 knots IAS

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(8) INSTRUMENTS REQUIRED:

ASI	Altimeter	Slip Indicator	Engine RPM	Fuel Pressure (relative to MAP)	Oil Pressure	Oil Temperature
0 to 210 knots (min)	Required	Required	0-7000 rpm	0 – 4 bar	0 – 10 bar	50 - 140 °C

Coolant Temperature	EGT Temperature	Manifold Pressure	Manifold Temperature	Fuel Quantity	Stall Warning System
50 - 130 °C	1050 °C	0 – 55 inHG	85 °C	Required per tank	Required

A voltmeter and compass are recommended.

If LiFePO₄ battery is fitted, a voltmeter must be fitted or displayed on EFIS.

An electronic Carbon Monoxide detector is required to comply with CAA Safety Directive SD-2024/001v3 or later.

(9) CONTROL DEFLECTIONS:

Elevator UP:	14° ±1°	Takeoff Flap Down (1)*	15° ±1°
Elevator DOWN	20° ±1°	Mid Flap Down (2)*	37° ±1°
Ailerons UP:	28° ±1°	Full Flap Down (3)*	55° ±1°
Ailerons DOWN:	17° ±1°	Rudder LEFT:	30° ±1°
Elevator trim tab, tab up	30° ±2°	Rudder RIGHT:	30° ±1°
Elevator trim tab, tab down	38° ±2°		

**measured from the ground*

(10) PILOT'S NOTES, MAINTENANCE MANUALS REFERENCES:

10.1 Manuals approved for use with this aircraft.

- (a) Pilot's Operating Handbook
POH/VL3/001, latest issue.
- (b) Maintenance Manual
Maintenance Manual MM/VL3/001 latest issue.
Engine, propeller, parachute system and other fitted equipment manufacturer's
Operating and Maintenance Manuals as appropriate to fitted powerplant and
equipment, at their current issues.

10.2 The following placards are to be fitted:

- (a) Flight Limitations Placard (to be visible to pilot)
Contains airspeed, manoeuvring and loading limitations. See Operator's Manual.

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- (b) Engine Limitations Placard (to be located near to engine instruments)
A placard showing the limitations for all indicated engine parameters is to be mounted close to the engine instruments. Also, main limitations are to be shown as coloured markers (red for danger, amber for caution) on the instrument displays. See Operator's Manual.
- (c) Occupant Warning Placard (to be visible to both occupants)
See Operator's Manual.
- (d) Fuel Filler Placard (to be located adjacent to the fuel filler cap)
A placard is to be fitted showing fuel capacity and fuel types. See Operator's Manual.
- (e) Fuel Load Vs Cockpit Load (to be visible to both occupants)
See Operator's Manual.
- (f) Parachute Warning Placards (to be located on the exterior of the aircraft)
Placards complying with BCAR Section S Issue 8 must be fitted. See Operator's Manual.
- (g) Secondary Control Markings
Choke, cabin heat, trim, flaps, fuel shut-off: see Operator's Manual. Other secondary controls are to be placarded as per the associated Operator's Manual or normal aviation practice (if not detailed in associated Operator's Manual).
- (h) ASI Markings
See Operator's Manual.
- (i) Switches
All switches are to be marked with function and sense (up=on, down=off).
- (j) Fuses and Circuit Breakers
All fuses and circuit breakers are to be marked with function and rating.
- (k) Fireproof Metal Plate
Showing the aircraft nationality and registration marks (e.g. G-ABCD) on the LH side of the fuselage at the rear.
- (l) LiFePO4 Battery
If fitted, placards warning of fitment of LiFePO4 battery and use of only charger suitable for LiFePO4 battery to be fitted next to battery terminals.

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(11) MANDATORY MODIFICATIONS / SERVICE BULLETINS / AIRWORTHINESS DIRECTIVES ETC:

See Annex A for required modifications.

(12) MINIMUM PERFORMANCE AT MAX TAKE-OFF WEIGHT:

Rate of Climb: 1358 fpm at 92 knots **IAS**.

Stall or Minimum Flying Speed: 47 knots **IAS** at MTOW / idle / full flap / gear down
56 knots **IAS** at MTOW / idle / no flaps / gear up

Issue History

<u>Issue No.</u>		<u>Reason and signatory</u>
1	24 September 2026	Initial Issue Approved for issue by R S Mott BMAA Chief Technical Officer
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Illustration of Aircraft - 3 View

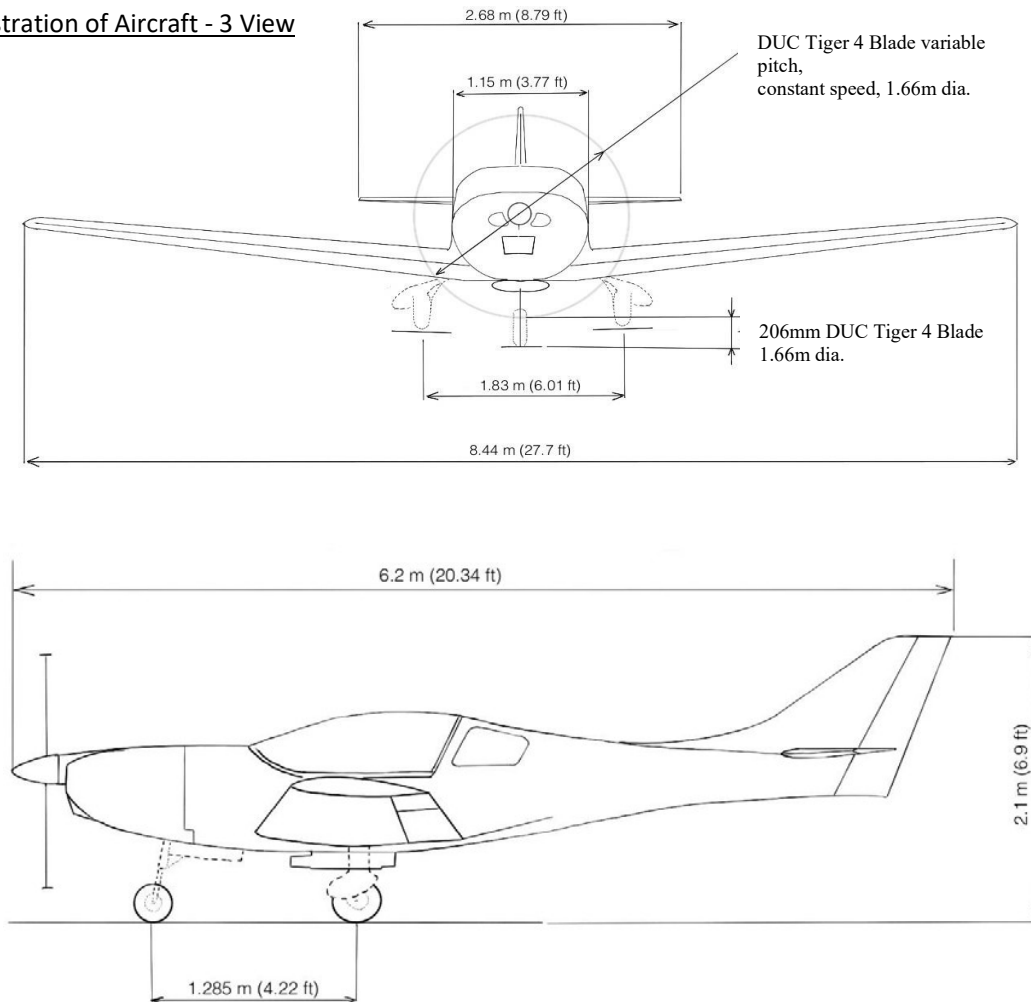


Illustration of Aircraft – Photograph



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ANNEX A – MANDATORY MODIFICATIONS/SERVICE BULLETINS/AIRWORTHINESS DIRECTIVES ETC.

Mandatory Options:

One additional stall strip installed on the left (port) wing
BPRS
AoA Stall Warner with audio alarm

PLACARDS

Warning placard in the cockpit visible to occupants “Occupant Warning - This aircraft has not been flight tested for recovery from unintentional spins”

Warning note in the aircraft Operator's Manual to say that the aircraft has not been flight tested for recovery from unintentional spins.

Parachute occupant warning

Fuel consumption, rpm and power setting for both optimum range and endurance (as per BCAR S Draft Issue 9).

For Latest Bulletins – See

www.airmasters.co.uk

<https://service.jmbaircraft.com/>

(if necessary, request access by contacting certification@jmbaircraft.com)

ANNEX B - APPROVED OPTIONAL MODIFICATIONS

The installation of all optional modifications is to be inspected by an inspector from an Organisation approved by the CAA for the purpose and an entry made in the appropriate logbook(s). Note that other approved modifications may exist which are not listed here.

Mod	Description
1	Garmin GTN650, Avionics set – GPS/NAV/COMM/VOR
2	Garmin GAD29/GAD27, Avionics interface
3	Garmin GTR205 VHF radio
4	Garmin GMA245 Audio panel
5	Garmin GTX45R Transponder
6	Garmin GHA15 Height advisor
7	Garmin GDU460 Primary Flight Display and EIS
8	Garmin GSU25C ADAH

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9	AT-1 Air Avionics Traffic Detection
10	ELT
11	Turn and Slip (mechanical)
12	Landing light
13	Tail light
14	Cockpit light
15	Garmin Autopilot
16	USB power supply
17	12v socket
18	Backup battery
19	Compass
20	Strobe & Nav lights
21	Camera
22	Aveo air vent
23	Interior leather upholstery
24	Aero classic tyres (HD)
25	Baggage bay door
26	Baggage bay cover
27	Elevator control rod cover

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ANNEX C - WEIGHING INFORMATION

- | | |
|---------------------------|---|
| 1. CG Datum: | Wing leading edge at the wing root |
| 2. Weighing attitude: | cockpit fuselage edges horizontal |
| 3. Main wheel moment arm: | 670 mm aft of datum |
| 4. Nose wheel moment arm: | (-)635 mm fwd of datum |
| 5. Fuel moment arm: | 283 mm aft of datum |
| 6. Crew moment arm: | 750 mm aft of datum |
| 7. Baggage moment arm | 1535 mm aft of datum |
| 8. Crew weights: | Minimum 55 kg / maximum 110 kg per seat |
| 9. Max baggage weight: | 15 kg |
| 10. Aft CG Limit: | 478 mm aft of datum* |
| 11. Fwd CG Limit: | 330 mm aft of datum* |

****CG locations apply with retracted undercarriage***

- | | |
|---|-----------------|
| 12. JMB weighing station front moment arm | (-)513 mm AoD** |
| 13. JMB weighing station rear moment arm | 3592 mm AoD** |

*****See POH***

ANNEX D – POINTS FOR SPECIAL ATTENTION

None at this issue