

**BRITISH MICROLIGHT AIRCRAFT ASSOCIATION
MICROLIGHT TYPE ACCEPTANCE DATA SHEET (TADS)**

NO: BM064 ISSUE: 4

TYPE: Quicksilver MXL II

- (1) **MANUFACTURER:** Individual aircraft are amateur constructed, BMAA is responsible for continued airworthiness.

Current kit supplier is Quicksilver Aircraft, 27495 Diaz Road, CA 92590 Temecula, USA.
- (2) **UK IMPORTER:** No current UK importer.
- (3) **CERTIFICATION:** BCAR SECTION S, (in the modification state at the date of manufacture or modification of any example)
- (4) **DEFINITION OF BASIC STANDARD:** Quicksilver MXLII build manual as amended by this TADS.
- (5) **COMPLIANCE WITH THE MICROLIGHT DEFINITION**
- | | |
|--|-------------------------|
| (a) MTOW | 370 kg |
| (b) No. Seats | 2 |
| (c) Maximum Wing Loading | 22.42 kg/m ² |
| (d) V _{so} | 33 kt CAS |
| (e) Permitted range of pilot weights | 55 - 90 kg |
| (Min cockpit weight - seats at aft setting | 70 kg) |
| (f) Typical Empty Weight (ZFW) | 171 kg |
| (g) ZFW + 172kg crew + 1 hr fuel (22l) | 359 kg |
| (h) ZFW + 86kg pilot + full fuel (22l) | 273 kg |
| (i) Max allowed ZFW | 182 kg |

Note: There is a single example of this type in the UK, G-MWDZ should further examples be built, a HADS (Homebuilt Aircraft Data Sheet) will be issued based upon the contents of this TADS.

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(6) POWER PLANTS

Designation	Quicksilver MXL II Sport (1)	Quicksilver MXL II Sport (2)
Engine Type	Rotax 503-1V inverted	Rotax 503-1V inverted
Reduction Gear	Quicksilver belt reduction 2.66:1	Quicksilver belt reduction 2.66:1
Exhaust System	Rotax	Rotax
Intake System	none	none
Propeller Type	Canadian laminated wood square tip	Ivoprop 3 blade Ground Adjustable
Propeller Dia x Pitch	66" x 40"	64" x 13° at tip
Noise Type Cert No.	45M Issue 4	45M Issue 7
MAAN Approving	1063	1455

(7) MANDATORY LIMITATIONS:

(A) Max Take-Off Weight	370 kg
(B) CG Limits	54.3" to 62.5" aft of datum
(C) CG datum	Centre of steerable nosewheel axle.
(D) Cockpit Loadings	Pilot Passenger Total
	Min 55 kg 0 kg 55 kg
	(Min - seats at aft setting 70 kg)
	Max 90 kg 90 kg 180 kg
(E) Permanent Ballast	none
(F) Typical Empty CG Position	70" aft of datum
(G) Never Exceed Speed	72 mph / 63 kt IAS
(H) Manoeuvring Speed	72 mph / 63 kt IAS

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(I) Permitted Manoeuvres

Maximum Bank angle 60°.
Non Aerobatic
Normal acceleration limits, +4 / -2g

(J) Fuel Contents (Max Useable)

22 litres / 4.5 US gallons.

(K) Power Plant

Engine	Rotax 503-1V	<i>not used</i>
Max RPM	6,500	
MAX CHT	250°C	
MAX EGT	650°C if indicated	
Fuel Spec	83 MON or 90 RON minimum unleaded to BS(EN)228	
Engine Oil Spec	non-detergent 2-stroke self mix	
Gearbox oil spec	n/a	
Fuel/Oil Mix	50:1	
Coolant Temperature	n/a	
Oil	n/a	

(8) INSTRUMENTS REQUIRED FOR TYPE ACCEPTANCE:

ASI	Altimeter	RPM	CHT / EGT	Compass	Turn & Slip	Fuel Pressure
Required	Required	Required	Optional	Required	Optional	Optional

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(9) CONTROL DEFLECTIONS:

Elevator UP:	n/k	Tailplane trim UP:	n/k
Pitch control DOWN:	n/k	Tailplane trim DOWN	n/k
Ailerons UP:	n/k	Rudder LEFT:	n/k
Ailerons Down:	n/k	Rudder RIGHT:	n/k

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

The following placards are to be fitted (although they may be combined or split as required):-

Stall Speed 38 mph / 33 kt IAS	
Minimum Approach Speed 55 mph / 48 kt IAS	
Never Exceed Speed 72 mph / 63 kt IAS	(appropriate units to be used)
IGNITION - ON / OFF	
FUEL - ON / OFF	
MAXIMUM TOTAL WEIGHT:	370 kg
MINIMUM COCKPIT LOAD:	55 kg (70 kg - SEATS AT AFT SETTING)
MAXIMUM SEAT LOAD:	90 kg
MAXIMUM COCKPIT LOAD:	180 kg
REFER TO MANUAL FOR SEAT ADJUSTMENT	
AEROBATIC MANOEUVRES PROHIBITED	
INTENTIONAL SPINNING PROHIBITED	
BANKED MANOEUVRES NOT TO EXCEED 60° FROM HORIZON	

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

See Annex A for modifications required for UK Type Acceptance.

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(12) MINIMUM PERFORMANCE AT MAX TAKE-OFF WEIGHT

Rate of Climb: n/k

Stall or Minimum Flying Speed: 38 mph / 33 kt IAS

Issue History

- Issue 1 Based upon MAAN 1063 Issue 1, 27 Jan 99, Signatory G B Gratton, CTO
- Issue 2 Amended following CG range recommendations in MAAN 1455 Issue 1, 15 Aug 2000, Signatory G B Gratton, CTO
- Issue 3 Corrections to zero fuel weights, forward CG limit, placards and formatting, brought to light by MAAN 2402 Issue 1. 9 July 2012, Signatory B J Syson CTO
- Issue 4 Corrections to pilot loads and cockpit weights (and limitations placard) following deletion of MAAN 2402 from G-MWDZ. 13 June 2018, Signatory B J Syson CTO

Illustration of Aircraft



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ANNEX A
MODIFICATIONS REQUIRED FOR UK TYPE ACCEPTANCE

S173	The windshield must be reduced to extend no more than 6" / 150mm above the cockpit moulding along its entire length.
S337	Wing spar attachment brackets are to be changed to Quicksilver Inc. part PN20050 Revision C.
S626	Each outer positive wing cable is to be increased to a 4mm diameter steel cable assembly, manufactured to meet a tension of 2400lbf ultimate, to include attachment tangs.
S455	Aileron stops are to be set up to give correctly limited movement.
S1307	Harness Shoulder restraints are to be fitted.
S1541 - S1557	All Placards detailed in these TADS are to be fitted.

ANNEX B
WEIGHT AND BALANCE INFORMATION

- | | |
|-----------------------------|--|
| 1. MTOW: | 370 kg |
| 2. CG datum: | Nosewheel axle centreline |
| 3. Mainwheel Moment Arm: | 72 inches aft of datum |
| 4. Fuel capacity: | 22 litres |
| 5. Fuel moment arm: | 44" aft of datum |
| 6. Maximum total crew load: | 180 kg (90 kg max per seat) |
| 7. Minimum total crew load: | 55 kg (70 kg with seats at aft setting) |
| 8. Seat moment arm: | 44" aft of datum (forward setting)
48" aft of datum (aft setting) |
| 9. Fwd CG limit: | 54.3" aft of datum |
| 10. Aft CG limit: | 62.5" aft of datum |

Note: It is acceptable to placard a restricted range of seat movements in order to remain within CG limits, so long as CG limits can be remained within at all permitted seat loadings. In such a case, an appropriate aircraft logbook entry must also be made.