

BRITISH MICROLIGHT AIRCRAFT ASSOCIATION

TYPE ACCEPTANCE DATA SHEET (TADS)

NO: BMO60 ISSUE: 3

TYPE MW5a

- (1) MANUFACTURER: Mr Michael Whittaker, Apple Tree Cottage, Churchfield Road, Clayton, Doncaster, DN5 7BZ (also the designer).
- (2) UK IMPORTER: N/A
- (3) CERTIFICATION: BCAR SECTION S, (in the modification state at the date of manufacture or modification of any example)
- (4) DEFINITION OF BASIC STANDARD: AI Master General Assembly (G1000 / Issue 1)
- (5) COMPLIANCE WITH THE MICROLIGHT DEFINITION

- | | |
|--------------------------------------|------------------------|
| (a) MTOW | 250 kg |
| (b) No. Seats | 1 |
| (c) Wing area | 11.2 m ² |
| (d) Maximum wing loading | 22.3 kg/m ² |
| (e) Permitted range of pilot weights | 55 - 100 kg |
| (f) Typical Empty Weight (ZFW) | 127 kg |
| (g) Span | 8.5m |
| (h) Constant Chord | 1.32m |

(6) POWER PLANTS

Designation	MW5a
Engine Type	Fuji Robin EC34PM upright
Reduction Gear	Aerotech toothed belt, 2.5:1
Exhaust System	Aerotech E3-1300-L01
Intake System	Conical Sponge silencer
Propeller Type	Newton laminated wood, fixed pitch
Propeller Dia x Pitch	52" x 25"
Noise Type Cert No.	37M issue 2
MAAN Approving	1415 issue 1

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(7) MANDATORY LIMITATIONS:

- | | |
|-------------------------|--|
| (A) Max Take-Off Weight | 250 kg |
| (B) CG Limits | <i>Aft limit</i> 16" aod
<i>FWD Limit</i> 12" aod |
| (C) CG datum | Wing leading edge |

Note: For fuller weight and balance information, see Annex A.

- | | | |
|---------------------------------|---------------|--------|
| (D) Cockpit Loadings | | Total |
| | Min | 55 kg |
| | Max | 100 kg |
| (E) Never Exceed Speed | 70 kn IAS | |
| (F) Manoeuvring Speed | 57 kn IAS | |
| (G) Permitted Manoeuvres | Non Aerobatic | |
| (H) Fuel Contents (Max Useable) | 20 litres | |

- (I) Power Plant See Table

Engine	Fuji Robin EC34 PM
Max RPM	7500
Max cont. RPM	6500
MAX EGT	1200 °F
Fuel Spec	83 MON or 90 RON minimum unleaded to BS(EN)228 or 97+ octane 4-star /MOGAS leaded fuel to BS 4040, or AVGAS 100LL.
Engine Oil Spec	non-detergent 2-stroke self mix
Fuel/Oil Mix	40:1

(8) INSTRUMENTS REQUIRED FOR TYPE ACCEPTANCE:

ASI	Altimeter	RPM	EGT	Compass
Required	Required	Required	Optional	Required

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(9) CONTROL DEFLECTIONS:

For rigging instructions see maintenance manual.

Note: MW5 control deflections are at the stabilator leading edge relative to the fuse-tube centreline.

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

10.1 Manuals approved for use with this aircraft.

- | | |
|--------------------------------------|---------|
| (a) Flight Manual FLTM/0008/MJM | 23.9.86 |
| (b) Maintenance Manual MANU/0007/MJM | Issue 1 |

10.2 The following limitations and values are to be placarded.


Empty Weight
Occupant weight limits.
Maximum Take-off weight
Fuel Capacity
Va, Vne.

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

None apply

(12) MINIMUM PERFORMANCE AT MAX TAKE-OFF WEIGHT

Rate of Climb:	400 fpm at 45 kn IAS.
Stall or Minimum Flying Speed:	32 kn IAS
Landing distance from 15m:	130m
Take-off distance to 15m:	182m (factored i.a.w. Section S issue 2)

BMAA Approval:		G B Gratton Chief Technical Officer	28 July 2004
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Issue History

- Issue 1 Initial Issue, signatory G B Gratton, 7 February 2000
- Issue 2 Re-issue to correct some data found inaccurate in service.
Signatory G B Gratton, 10 August 2000.
- Issue 3 Re-issue to correct propeller diameter and pitch information. Addition
of note in Section 10.
Signatory G B Gratton, 28 July 2004.

ANNEX A

WEIGHING INFORMATION

- | | |
|---------------------------|---|
| 1. CG Datum: | Wing leading edge |
| 2. Weighing attitude: | All three wheels on a level surface |
| 3. Mainwheel moment arm: | 17.25" aod ¹ |
| 4. Nosewheel moment arm: | 29.5" fod |
| 5. Fuel moment arm: | 17.25" aod |
| 6. crew moment arm: | 11.75" aod |
| 7. Minimum crew weight: | 55 kg |
| 8. Maximum crew weight: | 100 kg (reducible, not below 86kg, if required) |
| 9. Aft CG Limit: | 16" aod |
| 10. Fwd CG Limit: | 12" aod |
| 11. Maximum useable fuel: | 20 litres (14.4kg) |

(Illustrations on pages 5 and 6 are omitted from the electronic version of this TADS)

¹ Inspectors are advised to check moment arms.