

BRITISH MICROLIGHT AIRCRAFT ASSOCIATION

MICROLIGHT TYPE ACCEPTANCE DATA SHEET (TADS)

**NO: BM062 ISSUE: 2**

TYPE Whittaker MW4

- (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: Drawing MW4-1-1, General Assembly
- (5) DIMENSIONS/WEIGHT FOR COMPLIANCE WITH MICROLIGHT DEFINITION
- (a) Wing area (inc canard area, excluding winglets): 10.13 m<sup>2</sup>
  - (b) Span: 7.9 m<sup>2</sup>
  - (c) Standard Mean Chord: 1.28 m
  - (d) Dry Empty Weight (standard aircraft): 102 kg
  - (e) Max Take-Off Weight: 215 kg
  - (f) Wing Loading (Weight Empty/Wing Area): 9.9 kg/m<sup>2</sup>
  - (g) Wing Loading (Max Take-Off Weight/Wing Area): 21.22kg/m<sup>2</sup>
  - (h) Fuel Capacity (minimum usable): 22 litres

(6) POWER PLANTS

Designation	MW4	
Engine Type	Fuji Robin EC34PM air cooled	
Reduction Gear	2.67:1 V-belt	
Exhaust System	Nicklow	
Intake System	Air filter only	
Propeller Type	Newton 2 blade wood fixed	
Propeller Dia x Pitch	54" x 36"	
Noise Type Cert No.	47M issue 1	
Approving MAAN	1345 issue 1	

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- (7) MANDATORY LIMITATIONS: \* To be placarded
- (A) Max Take-off Weight: 215 kg \*
- (B) CG Limits: 12" to 15" aft of datum
- (C) CG datum: Wing leading edge
- (D) Cockpit Loadings:
- |                                    | Front | Rear | Total   |
|------------------------------------|-------|------|---------|
| Pilot and Baggage or Ballast (Min) | 55kg  | -    | 55kg *  |
| Pilot and Baggage (Max)            | 95 kg | -    | 95 kg * |
- (E) Permanent Ballast, Weight and Position: none
- (F) Empty CG: Approx 86.24" AOD
- (G) Never Exceed Speed: 72 mph \*
- (H) Manoeuvring Speed: 72 mph \*
- (I) Permitted Manoeuvres: Non Aerobatic. \*  
Bank angle not exceeding 60° \*  
Pitch attitude not exceeding  $\pm 45^{\circ}$ \*
- (J) Fuel Contents (Max Useable): 22 litres\*

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(K) Power Plant

Engine	Fuji Robin EC34 PM	
Max RPM	7000	
MAX CHT	250°C	
MAX EGT		
Fuel Spec	Petroleum Spirit, minimum 90 RON or 83 MON	
Engine Oil Spec	2 Stroke Oil	
Gearbox oil spec	n/a - belt drive	
Fuel/Oil Mix	40:1	

(L) Maximum crosswind limit, 12 knots component perpendicular to runway.

(8) INSTRUMENTS REQUIRED FOR TYPE ACCEPTANCE:

ASI	Altimeter	RPM	CHT	EGT	Compass
Required	Required	optional (recommended)	optional (recommended)	optional	optional

(9) CONTROL DEFLECTIONS:

Elevator UP	18°	Elevator Trim	n/a
Elevator DOWN	18°		
Ailerons UP	20°	Rudder LEFT	20°
Ailerons DOWN	20°	Rudder RIGHT	20°

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

Maintain to BMAA Schedule MMS1 & Fuji engine manual

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No pilots notes exist; MW5 manual may be used for handling and inspection advice.

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

None apply.

(12) MINIMUM PERFORMANCE AT MAX TAKE-OFF WEIGHT

Rate of Climb: 400 fpm  
Best Climb Speed: 50 mph IAS  
Stall or Minimum Flying Speed: 38 mph IAS  
Distance, in still air, to 15m height: 175 m (factor for conditions using CAA GA Safety Leaflet 7B)

BMAA Approval:		G B Gratton Chief Technical Officer	10 August 2000
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Issue History

- Issue 1 Issued for type acceptance. Signatory G B Gratton, CTO, 7 Feb 2000.
- Issue 2 Issued including full W&CG data. Signatory G B Gratton, CTO, 10 Aug 2000.
- Issue 3

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Illustration of Aircraft



Annex A

Mandatory Modifications required for Type Acceptance

None apply.

Annex B

Approved Optional Modifications from the plans standard

None apply.

Annex C

Weighing Information

- |                          |   |
|--------------------------|---|
| 1. CG Datum:             | Wing leading edge   |
| 2. Weighing attitude:    | All 3 wheels on a level surface.  |
| 3. Mainwheel moment arm: | 17.5" aft of datum  |
| 4. Nosewheel moment arm: | 24" fwd of datum  |
| 5. Fuel moment arm:      | 18" aft of datum  |
| 6. Pilot moment arm:     | 14" aft of datum  |
| 7. Crew weights:         | Minimum 55 kg / maximum 95 kg<br>(maximum reducible, not below 86 kg, if required). |
| 8. Aft CG Limit:         | 15" aft of datum  |
| 9. Fwd CG Limit:         | 12" aft of datum  |

