

CIVIL AVIATION AUTHORITY – SAFETY REGULATION GROUP

MICROLIGHT TYPE APPROVAL DATA SHEET (TADS)

NO: BM-8 ISSUE: 4

- TYPE: Hybred 44 XL
- (1) MANUFACTURER: Medway Microlights, Burrows Lane, Middle Stoke,
Rochester, Kent, ME 3 9RN
- (2) UK IMPORTER: N/A
- (3) CERTIFICATION: Section S Issue: Advance Copy March 1983 List of Section
S Blue Papers and Additional CAA Requirements: NIL
- (4) DEFINITION OF BASIC STANDARD: Design Specification Report 2 Issue 1
- (5) COMPLIANCE WITH THE MICROLIGHT DEFINITION
- | | |
|------------------------------------------------------------|-------------------------|
| (a) MTOW | 342 kg |
| (b) No. Seats | 2 |
| (c) Maximum Wing Loading | 19.61 kg/m ² |
| (d) V _{so} | 22 kts IAS |
| (e) Permitted range of pilot weights | 55 – 90 kg per seat. |
| (f) Typical Empty Weight (ZFW) | 147 kg |
| (g) ZFW + 172 kg crew + 1 hr fuel
(16 litres / 11.5 kg) | 330.5 Kg |
| (h) ZFW + 86 kg pilot + full fuel
(20 litres / 14.5 kg) | 247.5 kg |
| (i) Max ZFW at initial permit issue | 150 kg |

CIVIL AVIATION AUTHORITY – SAFETY REGULATION GROUP

MICROLIGHT TYPE APPROVAL DATA SHEET (TADS)

NO: BM-8 ISSUE: 4

(I) Power Plant See Table

Engine	Fuji Robin EC 44 PM Inverted	Rotax 447 Inverted		
Max RPM	6500	6250		
MAX CHT	-	-		
MAX EGT	-	-		
Fuel Spec	4-star /MOGAS leaded fuel to BS 4040			
Engine Oil Spec	Filtrate 2 Stroke	2 Stroke		
Gearbox oil spec				
Fuel/Oil Mix	32:1	50:1		
Coolant Temperature				
Oil Pressure	-	-		
Oil Temperature	-	-		
Fuel Pressure				

(8) INSTRUMENTS REQUIRED:

ASI	Altimeter	RPM	CHT / EGT	Compass	Coolant temp	Fuel Pressure	VSI	Slip ball
(to 100 mph min.)	Required			Required				

(9) CONTROL DEFLECTIONS: N/A

Elevator UP:	±	Tailplane trim UP:	±
Elevator DOWN:	±	Tailplane trim DOWN:	±
Ailerons* UP:	±	Rudder LEFT:	±
Ailerons* Down:	±	Rudder RIGHT:	±

Pitch control Pitch - Control bar 22 ins rear from front Strut.

Ailerons Roll - Control Bar 28 ¼" left and right of aircraft axis.

CIVIL AVIATION AUTHORITY – SAFETY REGULATION GROUP

MICROLIGHT TYPE APPROVAL DATA SHEET (TADS)

NO: BM-8 ISSUE: 4

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

10.1 Manuals approved for use with this aircraft.

(a) Owners Instruction Manual No. M1 Issue 1

10.2 The following placards are to be fitted:-

(a) Flight Limitations Placard (to be visible to pilot)

See Annex D.

(b) Engine Limitations Placard (to be located near to engine instruments)

See Annex D.

(c) Fuel Limitations Placard (to be located near to filler cap)

A placard is to be fitted showing fuel capacity (litres), fuel type(s), fuel:oil ratio (if relevant) and if MTOW can be exceeded with full fuel and maximum cockpit weight, the fuel loads at MTOW for cockpit weights of 180kg / 170kg / 160kg etc. at 10kg intervals down to the maximum fuel load. An example is shown at Annex D.

(d) Switches

See Annex D.

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

See Annex A for required modifications.

Annual Bettsometer test is to be carried out to 1150 grammes with wing sails fitted and tensioned to flight. Test must be to both upper and lower surfaces.

(12) MINIMUM PERFORMANCE AT MAX TAKE-OFF WEIGHT

Rate of Climb: 440 ft/min

Stall or Minimum Flying Speed: 22 kt

CIVIL AVIATION AUTHORITY – SAFETY REGULATION GROUP

MICROLIGHT TYPE APPROVAL DATA SHEET (TADS)

NO: BM-8 ISSUE: 4

Issue History

<u>Issue No.</u>		<u>Reason and signatory</u>
1	28/06/85	Initial Issue W A Bevan
2	28/10/86	Addition of noise information W A Bevan
3	05/08/88	Alternative propeller with Fuji engine and addition of Rotax 447 engine W A Bevan
4	17/02/04	Addition of optional major modifications and MPD for upper torso restraint.

J C Barratt

CIVIL AVIATION AUTHORITY – SAFETY REGULATION GROUP

MICROLIGHT TYPE APPROVAL DATA SHEET (TADS)

NO: BM-8 ISSUE: 4

Illustration of Aircraft - 3 View



CIVIL AVIATION AUTHORITY – SAFETY REGULATION GROUP

MICROLIGHT TYPE APPROVAL DATA SHEET (TADS)

NO: BM-8 ISSUE: 4

ANNEX A – MANDATORY MODIFICATIONS

1. MPD 2001-006 Upper Torso Restraint for Passengers

ANNEX B - APPROVED OPTIONAL MODIFICATIONS

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

<u>Mod</u>	<u>Description</u>
MM3	Introduces a Newton 62” diameter x 36” pitch wooden propeller and Operator Handbook Supplement No. 1, Issue 1.
MM4	Introduce Rotax engine with Typhoon wing
MM13	Electric Carburettor Heater

ANNEX C

WEIGHING INFORMATION

1. CG Datum: N/A
2. Weighing attitude: N/A
3. Mainwheel moment arm: N/A
4. Nosewheel moment arm: N/A (units) (direction) of datum
5. Fuel moment arm: N/A (units) (direction) of datum
6. Crew moment arm: N/A (units) (direction) of datum
7. Crew weights: Minimum 55 kg / maximum 90 kg
(maximum reducible, not below 86 kg, if required).
8. Aft CG Limit: N/A (units) (direction) of datum
9. Fwd CG Limit: N/A (units) (direction) of datum

CIVIL AVIATION AUTHORITY – SAFETY REGULATION GROUP

MICROLIGHT TYPE APPROVAL DATA SHEET (TADS)

NO: BM-8 ISSUE: 4

ANNEX D

EXAMPLE PLACARDS

(a) Flight Limitations Placard (to be visible to pilot)

<u>[Type] [Engine] [Registration]</u>	
Never Exceed Speed:	57 kts IAS
Manoeuvring Speed :	57 kts IAS
Stall Speed:	22 kts IAS
Best climb speed:	45 kts IAS
Best glide speed:	40 kts IAS
Pitch Limits:	30° nose down, 30° nose up.
Bank angle limits:	+/- 60°
Maximum Stall entry rate:	1 kt/s
Normal Acceleration Limits:	+4 / 0g
Empty Weight:	147 kg *
Max Take-Off Weight:	342 kg
Minimum Cockpit Weight:	55 kg
Maximum Cockpit Weight:	90 kg in each seat.*
Aerobatics and deliberate spinning prohibited.	

* This must match the most recent W&CG report for the aircraft.

(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. This requirement need not be complied with for limitations shown as coloured markers (red for danger, amber for caution) on the instrument displays.

(c) Fuel Limitations Placard (to be located near to filler cap)

<u>FUEL</u>	
Capacity __ Litres	
(50:1 2 Stroke oil / do not add oil)	
<u>Cockpit Weight (kg)</u>	<u>Max. Fuel Load (litres)</u>
180	
170	
....	
... Or below	Full fuel
4-star MOGAS leaded fuel to BS 4040	

(d) Switches

All switches are to be marked with function and sense (up=on, down=off).