

CIVIL AVIATION AUTHORITY – SAFETY REGULATION GROUP

MICROLIGHT TYPE APPROVAL DATA SHEET (TADS)

NO: BM-1 ISSUE: 8

- TYPE: Puma Sprint
- (1) MANUFACTURER: Medway Microlights, Burrow Lane, Middle Stoke, Rochester, Kent, ME9 9RN
- (2) UK IMPORTER: N/A
- (3) CERTIFICATION: BCAR Section S: Advance issue, March 1983
- (4) DEFINITION OF BASIC STANDARD: S.I. 1000 Issue A and Schedules
- (5) COMPLIANCE WITH THE MICROLIGHT DEFINITION
- | | |
|--------------------------------------|-------------------------|
| (a) MTOW | 336 kg |
| (b) No. Seats | 2 |
| (c) Maximum Wing Loading | 20.08 kg/m ² |
| (d) V _{so} | 48 kph IAS |
| (e) Permitted range of pilot weights | 75 - 90 kg per seat. |
| (f) Typical Empty Weight (ZFW) | 138 kg |
| (g) ZFW + 172 kg crew + 1 hr fuel | |
| (Fuji Robin – 20 litres / 14.5 kg) | 324.5 kg |
| (Rotax 447 - 16 litres / 11 kg) | 321 kg |
| (h) ZFW + 86 kg pilot + full fuel | |
| (25 litres / 18 kg) | 242 kg |
| (i) Max ZFW at initial permit issue | |
| (Fuji Robin) | 149.5 kg |
| (Rotax 447) | 153 kg |

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(6) POWER PLANTS

Designation	Puma Sprint	Puma Sprint	Puma Sprint	
Engine Type	Fuji Robin EC44PM EC442PM	Fuji Robin EC44PM EC442PM	Rotax 447	
Reduction Gear	Nicklow Toothed Belt 2.62:1	Nicklow Tooth Belt	2.58:1 Rotax	
Exhaust System	Mainair	Nicklow	Rotax less after muffler	
Intake System				
Propeller Type	Mainair	Nicklow	Cyclone	
Propeller Dia x Pitch	62" x 27"	58" x 36"	62" x 32"	
Noise Type Cert No.	M1 Issue 1	M1 Issue 2	M1 Issue 2	
AAN approving configuration	18509	18953	18954	

(7) MANDATORY LIMITATIONS:

(A) Max Take-Off Weight	336 kg												
(B) CG Limits	N/A												
(C) CG datum	N/A												
(D) Cockpit Loadings	<table> <tr> <td></td> <td>Front</td> <td>Rear</td> <td>Total</td> </tr> <tr> <td>Min</td> <td>75kg</td> <td>-</td> <td>75 kg</td> </tr> <tr> <td>Max</td> <td>90 kg</td> <td>90 kg</td> <td>180 kg</td> </tr> </table>		Front	Rear	Total	Min	75kg	-	75 kg	Max	90 kg	90 kg	180 kg
	Front	Rear	Total										
Min	75kg	-	75 kg										
Max	90 kg	90 kg	180 kg										
(E) Never Exceed Speed	76 mph												
(F) Manoeuvring Speed	57 mph												
(G) Permitted Manoeuvres	30° Nose up / 30° nose down Non Aerobatic Normal acceleration limits, +4 / 0g												
(H) Fuel Contents (Max Useable)	25 litres												

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(I) Power Plant

Engine	Fuji Robin EC44PM EC442PM	Rotax 447		
Max RPM	6500	6250		
MAX CHT	N/A	N/A		
MAX EGT	N/A	N/A		
Fuel Spec	Regular Mogas			
Engine Oil Spec	2 Stroke Oil	2 Stroke Oil		
Gearbox oil spec				
Fuel/Oil Mix	40:1	50:1		
Coolant Temperature				
Oil Pressure	N/A	N/A		
Oil Temperature	N/A	N/A		
Fuel Pressure				

(8) INSTRUMENTS REQUIRED:

ASI	Altimeter	RPM	CHT / EGT	Compass	Coolant temp	Fuel Pressure	VSI	Slip ball
Winter 0- 110 mph	Required		N/A	Required				

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(9) CONTROL DEFLECTIONS: N/A

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

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

10.1 Manuals approved for use with this aircraft.

(a) S.I. report R8 Issue 1 with Appendix for Rotax 447 Engine where applicable

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.

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- (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: 355 fpm

Stall or Minimum Flying Speed: 32 mph

Issue History

<u>Issue No.</u>	<u>Date</u>	<u>Reason and signatory</u>
1	12/07/1984	Initial issue
2	02/01/1986	Alternative Powerplant installations
3	04/09/1986	Minor corrections
4	21/11/1986	Addition of noise certification
5	15/06/1989	Revised format including additional information
6	21/11/1994	Change to Medway Microlights as Manufacturer
7	05/08/2003	Re-issue using new format JC Barratt
8	15/06/2006	Correction to aircraft weights and pilots weights under section 5. J Barratt

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Photograph of Aircraft - 3 View



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ANNEX A – MANDATORY MODIFICATIONS

1. SB No 004 Introduces the Fuji Robin EC442Pm engine providing that the engine is fitted with the heavier crankshaft
Compliance with SB No 004 is Mandatory of the EC442PM engine is fitted
2. 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.

None.

ANNEX C - WEIGHING INFORMATION

1. CG Datum: N/A
2. Weighing attitude: N/A
3. Main wheel moment arm: N/A
4. Nose wheel 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 75 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

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ANNEX D - EXAMPLE PLACARDS

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

	[Type] [Engine] [Registration]
Never Exceed Speed:	76 mph IAS
Manoeuvring Speed :	57mph IAS
Stall Speed:	28 mph IAS
Best climb speed:	34 IAS
Best glide speed:	32 IAS
Pitch Limits:	30° nose down, 30° nose up.
Bank angle limits:	+/- 60°
Maximum Stall entry rate:	1 kn/s
Normal Acceleration Limits:	+4 / 0g
Empty Weight:	138 kg *
Max Take-Off Weight:	336 kg
Minimum Cockpit Weight:	75 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)

FUEL	
Capacity __ Litres	
(50:1 2 Stroke oil / do not add oil)	
Cockpit Weight (kg)	Max. Fuel Load (litres)
180	
170	
....	
.... Or below	Full fuel
Regular MOGAS	

(d) Switches

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