

MICROLIGHT TYPE APPROVAL DATA SHEET (TADS)

NO: BM-82 ISSUE: 2

- TYPE: **EV-97 Eurostar SL Microlight**
- (1) MANUFACTURER: Light Sport Aviation Ltd, Wycombe Air Park, Hangar 1, Booker, Marlow, Buckinghamshire, SL7 3DP
- (2) UK IMPORTER: N/A
- (3) CERTIFICATION: BCAR Section S Issue 6 dated May 2013
- (4) DEFINITION OF BASIC STANDARD: Build Standard Sheet included in Procedure P.01, "Control and Storage of Drawings" (Build Standard BSS/EUR/03)
- (5) COMPLIANCE WITH THE MICROLIGHT DEFINITION
- | | |
|--|---|
| (a) MTOW | 472.5 kg with ballistic recovery system |
| (b) No. Seats | 2 |
| (c) Maximum Wing Loading | 48.0 kg/m ² |
| (d) V _{so} | not exceeding 35 knots CAS |
| (e) Permitted range of pilot weights | 55 – 172 kg total |
| (f) Typical Empty Weight (ZFW) | 285.5 kg |
| (g) ZFW + 172 kg crew + 1 hr fuel
(14 litres / 10 kg) | 467.5 kg |
| (h) ZFW + 86 kg pilot + full fuel
(62 litres / 44.6 kg) | 416 kg |
| (i) Max ZFW at initial permit issue | 290.5 kg |

MICROLIGHT TYPE APPROVAL DATA SHEET (TADS)

NO: BM-82 ISSUE: 2

(6) POWER PLANTS

Designation	EV-97 Eurostar SL Microlight	
Engine Type	Rotax 912 UL	Rotax 912 UL
Reduction Gear	2.27:1	2.27:1
Exhaust System	Evektor	Evektor
Intake System	Rotax (K & N) Filter	Rotax (K & N) Filter
Propeller Type	Kievprop 273/1700	Woodcomp Klassic 170/3/R
Propeller Dia x Pitch	1702 mm dia 28° @ 350 mm radius	1700 mm dia 28° @ 350 mm radius
Maximum static rpm	4600	4600
Noise Type Cert No.	175M	175M
AAN approving configuration	AAN BMAA-1066	AAN BMAA-1066

(7) MANDATORY LIMITATIONS:

- (a) Max Take-Off Weight 472.5 kg
- (b) CG Limits
 - Aft limit 425 mm aft of datum
 - FWD Limit 270 mm aft of datum
- (c) CG datum Wing Leading Edge
- (d) Cockpit Loadings
 - Total
 - Min (occupant only) 55 kg
 - Max (occupants only) 172 kg
- (e) Never Exceed Speed 126 knots IAS
- (f) Manoeuvring Speed 88 knots IAS
- (g) Permitted Manoeuvres
 - Maximum bank angle 60°
 - Non Aerobatic
 - Normal acceleration limits, +4g / -2g
- (h) Fuel Contents (Max Usable) 62 litres

MICROLIGHT TYPE APPROVAL DATA SHEET (TADS)

NO: BM-82 ISSUE: 2

(I) Power Plant See Table

Engine	Rotax 912 UL
Max RPM	5800 for 5 minutes
Max Continuous RPM	4800 with Kievprop propeller 4800 with Woodcomp Klassic Propeller
MAX CHT	150°C (120°C if SB/EUR/006 has been implemented)
MAX EGT	N/A
Fuel Spec	90 RON minimum unleaded to EN228 AVGAS UL 91 AVGAS 100LL (not recommended for long term use)
Engine Oil Spec	API Class SF or SG, motor cycle oil with gear additives
Gearbox oil spec	N/A
Fuel/Oil Mix	N/A
Coolant Temperature	N/A
Oil Pressure	1.5 to 7 bar
Oil Temperature	50°C to 140°C
Fuel Pressure	0.15 to 0.4 bar

(8) INSTRUMENTS REQUIRED:

ASI	Altimeter	RPM	CHT	Compass	Oil temperature	Fuel Pressure	Oil pressure	Slip ball
0 to 160 knots	Required	0-7000 rpm	150°C	Required	150°C	0 – 1 bar	0 – 10 bar	Required

A stall warner is also fitted to the Port wing with an audible output which is activated at a minimum of 5 knots and a maximum of 10 knots above the stall (in landing and cruise configuration)

MICROLIGHT TYPE APPROVAL DATA SHEET (TADS)

NO: BM-82 ISSUE: 2

(9) CONTROL DEFLECTIONS:

Elevator UP:	25° ± 1°	Elevator trim tab UP:	5° ± 2°
Elevator DOWN:	20° ± 1°	Elevator trim tab DOWN	25° ± 5°
Ailerons UP:	20° ± 1°	Rudder LEFT:	30° ± 2°
Ailerons DOWN:	15° ± 1°	Rudder RIGHT:	30° ± 2°
1 st Notch Flap Down	15° ± 2°		
2 nd Notch Flap Down	30° ± 3°		
3 rd Notch Flap Down	50° ± 3°		

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

10.1 Manuals approved for use with this aircraft.

- (a) Pilot's Operating Handbook POH/EUR/02
- (b) Maintenance Manual GEN/EUR/04

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 Placards
See Annex D.
- (d) Switches
See Annex D.

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

See Annex A for required modifications.

MICROLIGHT TYPE APPROVAL DATA SHEET (TADS)

NO: BM-82 ISSUE: 2

(12) MINIMUM PERFORMANCE AT MAX TAKE-OFF WEIGHT

Rate of Climb: 750 fpm at 65 knots IAS.

Stall or Minimum Flying Speed: 29 knots IAS at MTOW / idle / full flap.

MICROLIGHT TYPE APPROVAL DATA SHEET (TADS)

NO: BM-82 ISSUE: 2

Issue History

<u>Issue No.</u>	<u>Reason and signatory</u>
1	08 May 2014 Initial Issue
2	27 May 2014 Annex C: Aft CG Limit was 425 mm aft of datum, Fwd CG Limit was 270 mm aft of datum.

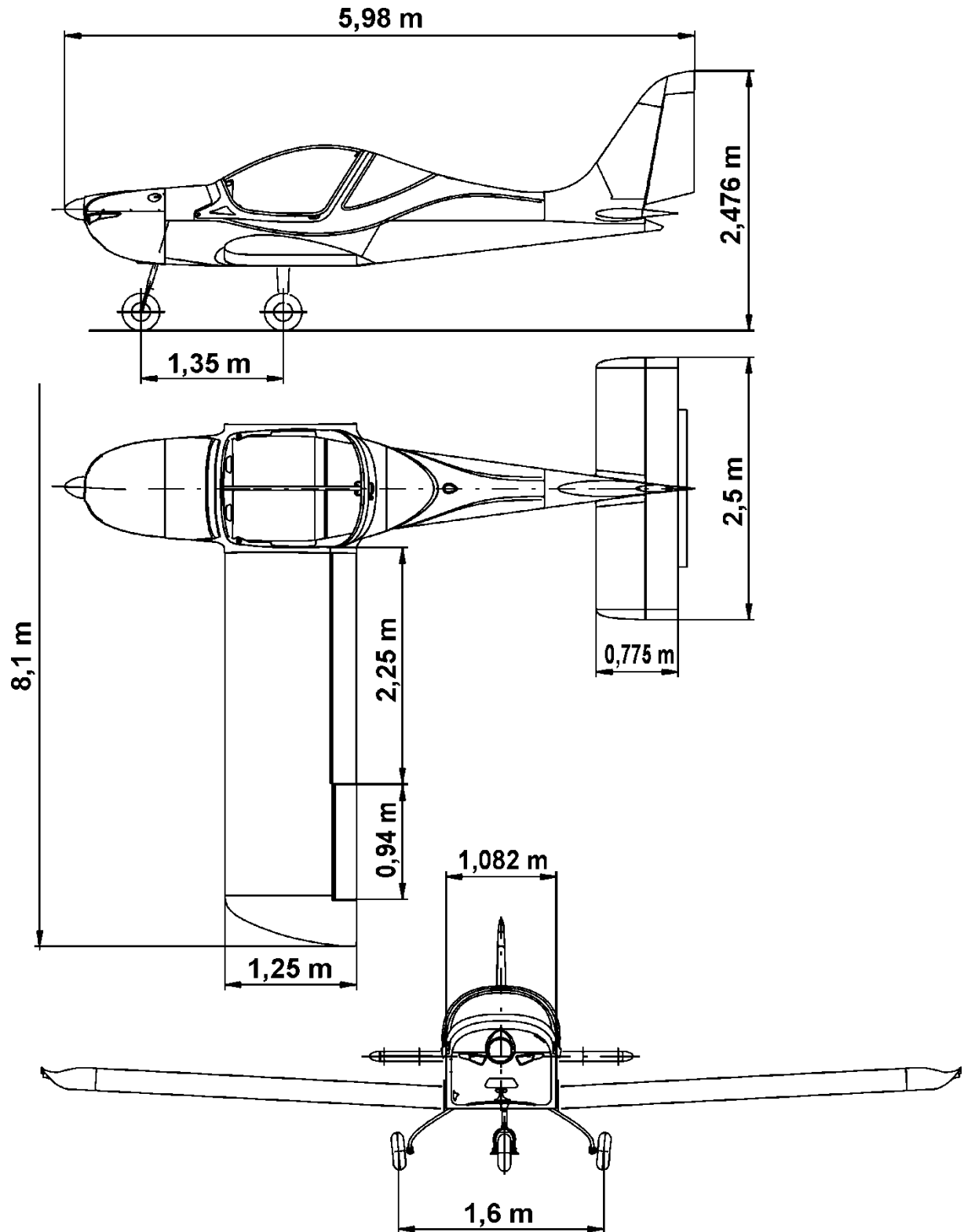


N J Davis

MICROLIGHT TYPE APPROVAL DATA SHEET (TADS)

NO: BM-82 ISSUE: 2

Illustration of Aircraft - 3 View



MICROLIGHT TYPE APPROVAL DATA SHEET (TADS)

NO: BM-82 ISSUE: 2

Illustration of Aircraft – Photograph



MICROLIGHT TYPE APPROVAL DATA SHEET (TADS)

NO: BM-82 ISSUE: 2

ANNEX A – MANDATORY MODIFICATIONS

None

ANNEX B - APPROVED OPTIONAL MODIFICATIONS

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

1. VSI	In work
2. Hourmeter	In work
3. Wheel Spats	In work
4. Panel Mount Radio & Intercom	In work
5. Transponder	In work
6. Engine coolant	Service Bulletin SB/EUR/006

ANNEX C - WEIGHING INFORMATION

1. CG Datum:	Wing Leading Edge
2. Weighing attitude:	Pilot's Canopy Edge Horizontal
3. Main wheel moment arm:	See Maintenance Manual for individual aircraft
4. Nose wheel moment arm:	See Maintenance Manual for individual aircraft
5. Fuel moment arm:	920 mm aft of datum
6. Crew moment arm:	500 mm aft of datum
7. Baggage moment arm	1270 mm aft of datum
8. Crew weights:	Minimum 55 kg / maximum 172 kg
9. Max baggage weight:	15 kg
10. Aft CG Limit:	410 mm aft of datum
11. Fwd CG Limit:	250 mm aft of datum

MICROLIGHT TYPE APPROVAL DATA SHEET (TADS)

NO: BM-82 ISSUE: 2

ANNEX D

EXAMPLE PLACARDS

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

AIRSPEEDS (IAS)	
V _{NE} (Never exceed speed)	126knots
V _A (Maximum manoeuvring speed)	88 knots
V _{FE} (Flaps extended max. speed)	70 knots
V _S (Stall speed, flaps extended)	29 knots

Flight limited to daytime VFR non-icing conditions.
Aerobatics and intentional spinning are prohibited.
This microlight aeroplane has not been approved to an internationally
recognised airworthiness standard.

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

ENGINE LIMITATIONS	
Maximum take-off (max. 5 minutes)	5800 rpm
Max. continuous	4800 rpm
Idle	approx. 1400 rpm
Max. CHT	150°C*
Max. oil temp.	140°C
Min. oil temp.	50°C
Min. oil pressure	1.5 bar
Max. oil pressure	7.0 bar
Minimum fuel pressure	0.15 bar
Maximum fuel pressure	0.4 bar

* 120°C if SB/EUR/006 has been implemented.

MICROLIGHT TYPE APPROVAL DATA SHEET (TADS)

NO: BM-82 ISSUE: 2

(c) Fuel Limitations Placard

To be located in the cockpit

FUEL and LOAD LIMITS	
Capacity 65 litres	
Unusable fuel 2.9 litres	
Maximum take-off weight	472.5 kg
Max. empty weight	290.5 kg
Actual empty weight	___ kg*
Max. baggage weight	15 kg
Min. total occupant weight	55 kg
Max. total occupant weight	172 kg
Cockpit Load incl. Baggage (kg)	Max. Fuel Load (litres)**
180	10
170	24
160	38
150	52
140 or less	Full fuel (65)

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

** Typical values shown for an empty weight of 285.5kg. Actual values to be entered following the most recent W&CG report for the aircraft.

To be located adjacent to the fuel filler

90 RON minimum MOGAS unleaded to EN 228
or AVGAS UL 91 or AVGAS 100LL
Prolonged use of 100LL should be avoided.

(d) Switches

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