

CIVIL AVIATION AUTHORITY – SAFETY REGULATION GROUP

MICROLIGHT TYPE APPROVAL DATA SHEET (TADS)

NO: BM - 7 ISSUE: 4

TYPE	SIROCCO 377GB	
(1)	MANUFACTURER:	Aviasud Engineering/Midlands Ultralights Ltd (no longer trading) BMAA is responsible for ensuring continued airworthiness
(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:	Midland Ultralights Ltd GA Drawing No. 8000 Issue 1 dated 11 March 1995
(5)	COMPLIANCE WITH THE MICROLIGHT DEFINITION	
	(a) MTOW	238 kg
	(b) No. Seats	1
	(c) Maximum Wing Loading	17.01 kg/m ²
	(d) Permitted range of pilot weights	55 - 91 kg
	(e) Typical Empty Weight (ZFW)	137 kg
	(f) ZFW + 86 kg pilot + full fuel (20 litres / 14.4 kg)	237 kg
	(g) Max allowed ZFW at initial permit issue	138 kg

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(6) POWER PLANTS

Designation	Sirocco 377 GB		
Engine Type	Rotax 377 fan cooled Inverted		
Reduction Gear	Rotax 2.58:1		
Exhaust System	Rotax		
Intake System	Rotax side intake-muffler. K&N Filter		
Propeller Type	Midland Ultralights 2 blade wood, square tipped		
Propeller Dia x Pitch	57" x 32"		
Noise Type Cert No.	14M Issue 2		
AAN approving	18632(P) Addendum 1		

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(7) MANDATORY LIMITATIONS:

(A) Max Take-Off Weight	238 kg
(B) CG Limits	<i>Aft limit</i> 76.1” aft of datum <i>Fwd Limit</i> 71.4” aft of datum
(C) CG datum	Aircraft nose
(D) Cockpit Loadings	Min 55 kg Max 91 kg
(E) Never Exceed Speed	86 mph IAS
(F) Manoeuvring Speed	53 mph IAS
(G) Permitted Manoeuvres	Non Aerobatic, bank angle not exceeding 60° Normal acceleration limits, +4 / -2 g Flight is permitted only in ambient temperatures below 25°C
(H) Fuel Contents (Max Useable)	20 litres

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(I) Power Plant

Engine	Rotax 377	
Max RPM	6500	
Max CHT	250°C	
Max EGT	650°C	
Fuel Spec	83 MON or 90 RON minimum unleaded to BS(EN)228 or 97+ octane 4-star MOGAS leaded fuel to BS4040, or AVGAS 100LL	
Engine Oil Spec	2 stroke oil SAE 20	
Gearbox oil spec	API-GL5 or –GL6, SAE140EP or 85W-140EP	
Fuel/Oil Mix	50:1	
Max. Coolant Temp.	N/A	
Max. Oil Pressure	N/A	
Min. Oil Pressure	N/A	
Oil Temperature	N/A	

(8) Instruments Required:

ASI	Altimeter	RPM	EGT	Compass	Coolant temp	CHT	Fuel Pressure	VSI	Slip ball
Required	Required	Optional	Optional	Optional	Optional		Optional	Optional	Optional

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(9) CONTROL DEFLECTIONS:

Elevator UP:	135 mm ± 5 mm	Tailplane trim UP:	10 mm ± 1.5 mm
Elevator DOWN:	200 mm ± 5 mm	Tailplane trim DOWN	22 mm ± 1.5 mm
Spoilers UP:	150 mm ± 10 mm	Rudder LEFT:	250 mm ± 5 mm
Spoilers Down:	N/A	Rudder RIGHT:	250 mm ± 5 mm

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

10.1 Manuals approved for use with this aircraft.

- (a) Midland Ultralights Ltd Document Ref. 15 Sirocco 377GB Flight Manual
- (b) Manufacturer's engine manual

10.2 The following limitations 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)

See Annex D

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

See Annex A for required modifications.

(12) MINIMUM PERFORMANCE AT MAX TAKE-OFF WEIGHT

Rate of Climb:	800 fpm
Stall or Minimum Flying Speed:	27 mph IAS

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Issue History

<u>Issue No.</u>	<u>Reason and signatory</u>
1	27/05/85 Initial Issue W A Bevan
2	02/11/98 BMAA take over responsibility for continued airworthiness C J Whittaker
3	30/03/99 Mandatory Permit Directive MPD 1999-05 added C J Whittaker
4	08/07/03 Document revised to new format

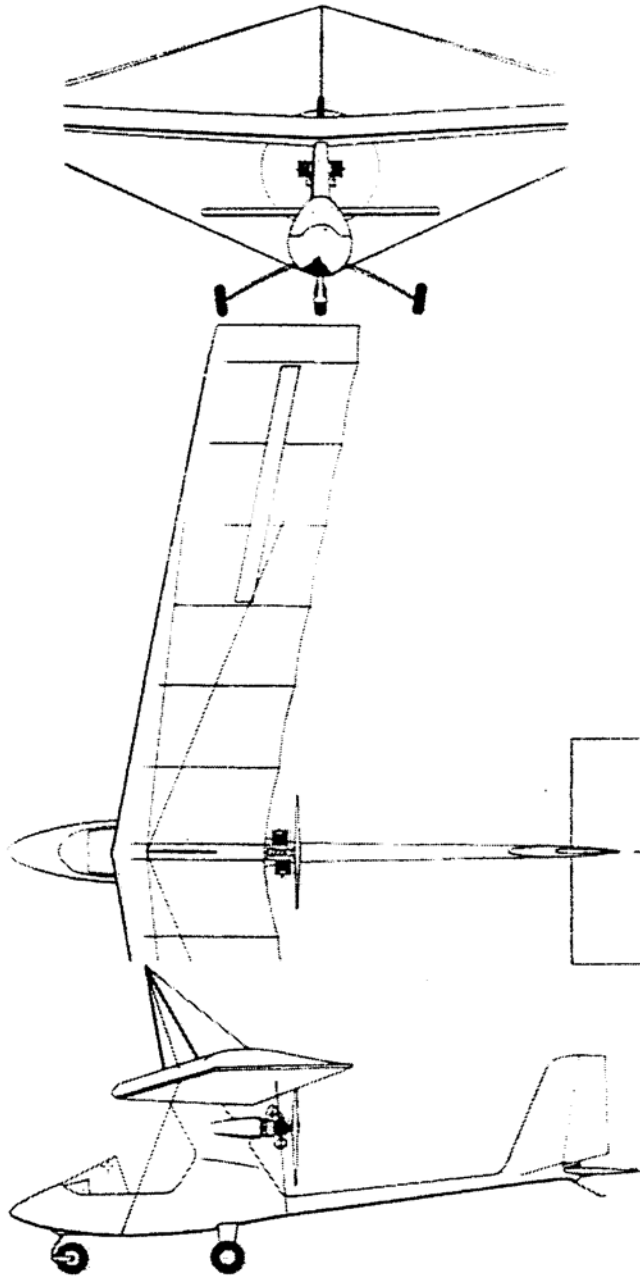
J Barratt

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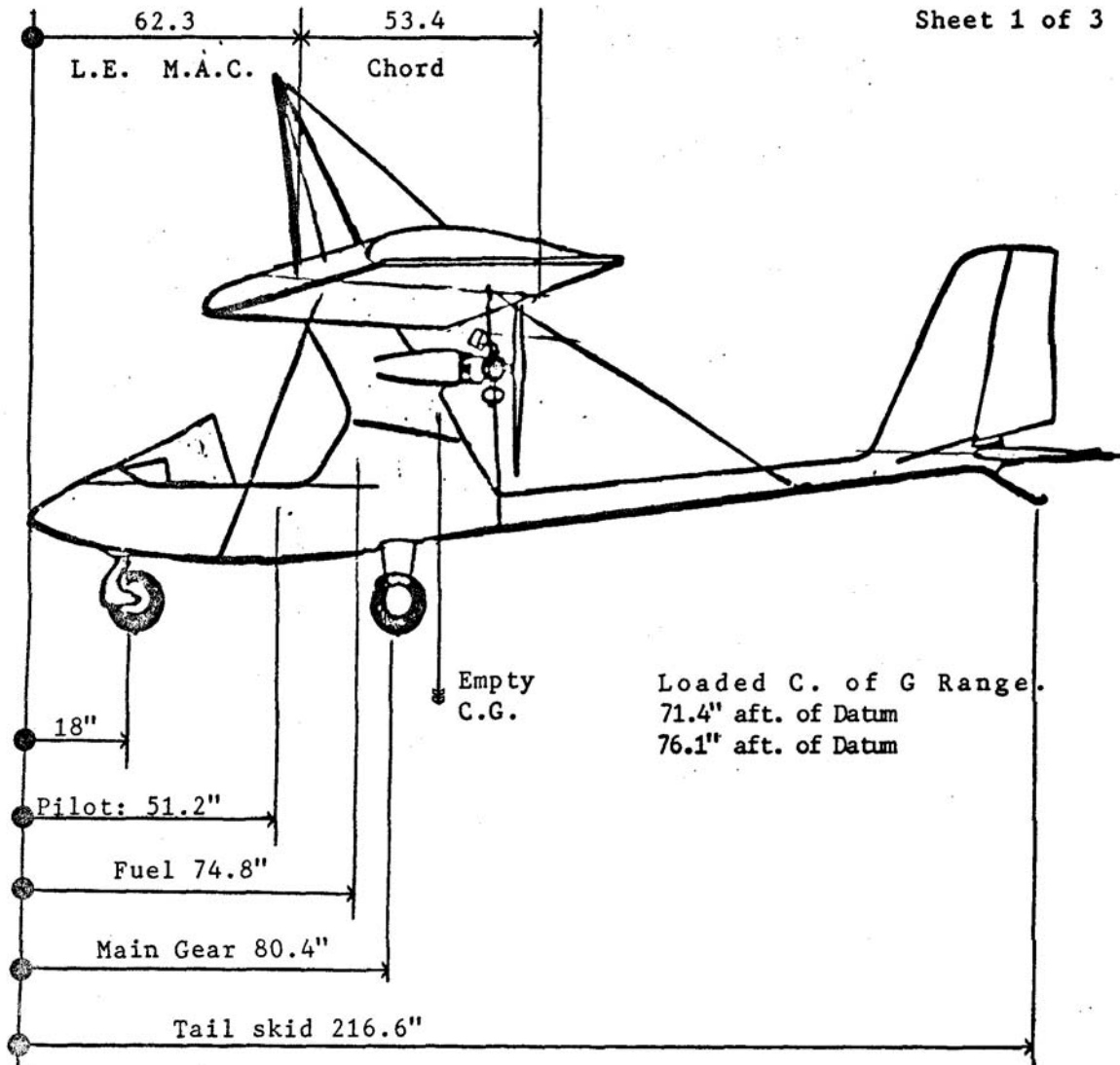
Illustration of Aircraft - 3 View



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ANNEX A – MANDATORY MODIFICATIONS

Mandatory Permit Directive MPD 1995-097 requires inspection of the elevator push rod control tube by a BMAA inspector at intervals of no more than 50 flying hours.

Mandatory Permit Directive MPD 1999-005 R1 requires that before flight, the stabilator and mountings are modified in accordance with MAAN 1336 or by an equivalent modification scheme approved by the BMAA or CAA.

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.

ANNEX C - WEIGHING INFORMATION

1. CG Datum: Aircraft nose (positive aft of datum)
2. Weighing attitude: Balances under each mainwheel and under the tailskid, tailskid raised so that nosewheel is just off the ground.
3. Mainwheel moment arm: 80.4” aft of datum
4. Tailskid moment arm: 216.6” aft of datum
5. Fuel moment arm: 74.8” aft of datum (20 litres maximum capacity)
6. Crew moment arm: N/A
7. Crew weights: Minimum 55 kg / maximum 91 kg (maximum reducible, not below 86 kg, if required).
8. Aft CG Limit: 76.1” aft of datum
9. Fwd CG Limit: 71.4” aft of datum

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ANNEX D - PLACARDS

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

Max take-off weight not to exceed 238 kg

CG limits between 71.4” and 76.1” AOD

Cockpit loadings must be between 55 and 91 kg

V_{NE} 86 mph IAS

V_A 53 mph IAS

Manoeuvres limited to non-aerobatic, bank angle not exceeding 60°

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

A placard showing the limitations for all the 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)

Max usable fuel contents 20 litres.

Fuel/oil ratio 50:1 2-stroke oil

Fuel specification: 83 MON or 90 RON minimum unleaded to BS(EN)228 or 97+ octane 4-star MOGAS leaded fuel to BS4040, or AVGAS 100LL

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ANNEX E - POINTS FOR SPECIAL ATTENTION

In service, the following points have been found to be commonly recurring problems, and Inspectors must give special attention to the following both during initial approval, and during later inspections.

1. Following cases of insufficient quality control in carrying out the modification, it must be ensured that MAAN1336 (modifications to tailplane) has been properly carried out.
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