

CIVIL AVIATION AUTHORITY – SAFETY REGULATION GROUP

MICROLIGHT TYPE APPROVAL DATA SHEET (TADS)

**NO: BM - 33 ISSUE: 3**

- TYPE: Chaser S 508
- (1) MANUFACTURER: Cosmik Aviation Ltd
- (2) UK IMPORTER: N/A
- (3) CERTIFICATION: BCAR Section S, Advance Issue, March 1983, as amended  
11 October 1988
- (4) DEFINITION OF BASIC STANDARD: CH-001 to CH-830: CH-03-BA Mod 08  
CH-831 on: CH-508 – GA Issue 1
- (5) COMPLIANCE WITH THE MICROLIGHT DEFINITION
- |  |                      |
|--|----------------------|
| (a) MTOW   | 220 kg               |
| (b) No. Seats  | 1                    |
| (c) Maximum Wing Loading                                 | 22 kg/m <sup>2</sup> |
| (d) V <sub>so</sub>                                      | 34 mph IAS           |
| (e) Permitted range of pilot weight                      | 55 – 90 kg           |
| (f) Typical Empty Weight (ZFW)                           | 110 kg               |
| (g) ZFW + 172 kg crew + 1 hr fuel<br>(litres / kg)       | N/A                  |
| (h) ZFW + 86 kg pilot + full fuel<br>(23 litres / 17 kg) | 213 kg               |
| (i) Max ZFW at initial permit issue                      | 117 kg               |

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(6) POWER PLANTS

Designation	<i>Chaser S 508</i>	<i>Chaser S 508</i>		
Engine Type	<i>Rotax 508</i>	<i>Rotax 508</i>		
Reduction Gear	<i>3:1</i>	<i>3:1</i>		
Exhaust System	<i>Rotax muffler, turned upwards</i>	<i>Rotax muffler, turned upwards</i>		
Intake System	<i>K &amp; N filter</i>	<i>K &amp; N filter</i>		
Propeller Type	<i>Cyclone semi- scimitar</i>	<i>GSC Tech II, 2 blade ground adjustable</i>		
Propeller Dia x Pitch	<i>62" x 35"</i>	<i>60" x 44"</i>		
Noise Type Cert No.	<i>120M Issue 2</i>	<i>120M Issue 3</i>		
AAN approving configuration	<i>21674</i>	<i>22977</i>		

(7) MANDATORY LIMITATIONS:

- (A) Max Take-Off Weight 220 kg
- (B) CG Limits N/A
- (C) CG datum N/A
- (D) Cockpit Loadings Min 55 kg  
Max 100 kg (including baggage)
- (E) Never Exceed Speed 108 mph  
(90 mph with Cosmik Aviation Ltd Modification 004)
- (F) Manoeuvring Speed 66 mph
- (G) Permitted Manoeuvres Non Aerobatic  
Normal acceleration limits, +4 / -2g
- (H) Fuel Contents (Max Useable) 23 litres

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(I) Power Plant See Table

Engine	Rotax 508			
Max RPM	8000			
MAX CHT	480°F			
MAX EGT	1650°F			
Fuel Spec	4-star or unleaded MOGAS fuel			
Engine Oil Spec	SAE 20W40 Multigrade			
Gearbox Oil Spec	SAE 140 EP			
Fuel/Oil Mix	N/A			
Coolant Temperature	N/A			
Oil Pressure	Min 0.2 bar			
Oil Temperature	Max 320°F			
Fuel Pressure	0.2 – 0.5 bar			

(8) INSTRUMENTS REQUIRED:

ASI	Altimeter	Oil Pressure	RPM	CHT / EGT	Compass	Fuel Pressure	VSI	Slip ball
Required (to 100 mph min.)	Required*	Indicator required	Optional	Optional	Optional	Optional	Optional	Optional

\* A wrist altimeter may be used provided that:

- (a) A cockpit placard states that “Wrist Altimeter Mandatory”, and
- (b) A wrist altimeter is part of the aircraft equipment.

(9) CONTROL DEFLECTIONS: N/A

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

10.1 Manuals approved for use with this aircraft.

- (a) Aerial Arts Ltd. Chaser S 508 Owner's Manual. CHAS508.doc Issue 2
- (b) Cyclone Airsports Ltd Chaser S 508 Owner's Manual. WP/Report/CHAS508.doc  
– Issue 1, 1<sup>st</sup> August 1989

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 (23 litres) and fuel type(s). See Annex D.

(d) Switches

See Annex D.

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

See Annex A.

Annual Bettsometer test is to be carried out to 1360 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: 900 fpm at 45 mph IAS.

Stall or Minimum Flying Speed: 34 mph IAS at MTOW / idle.

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Issue History

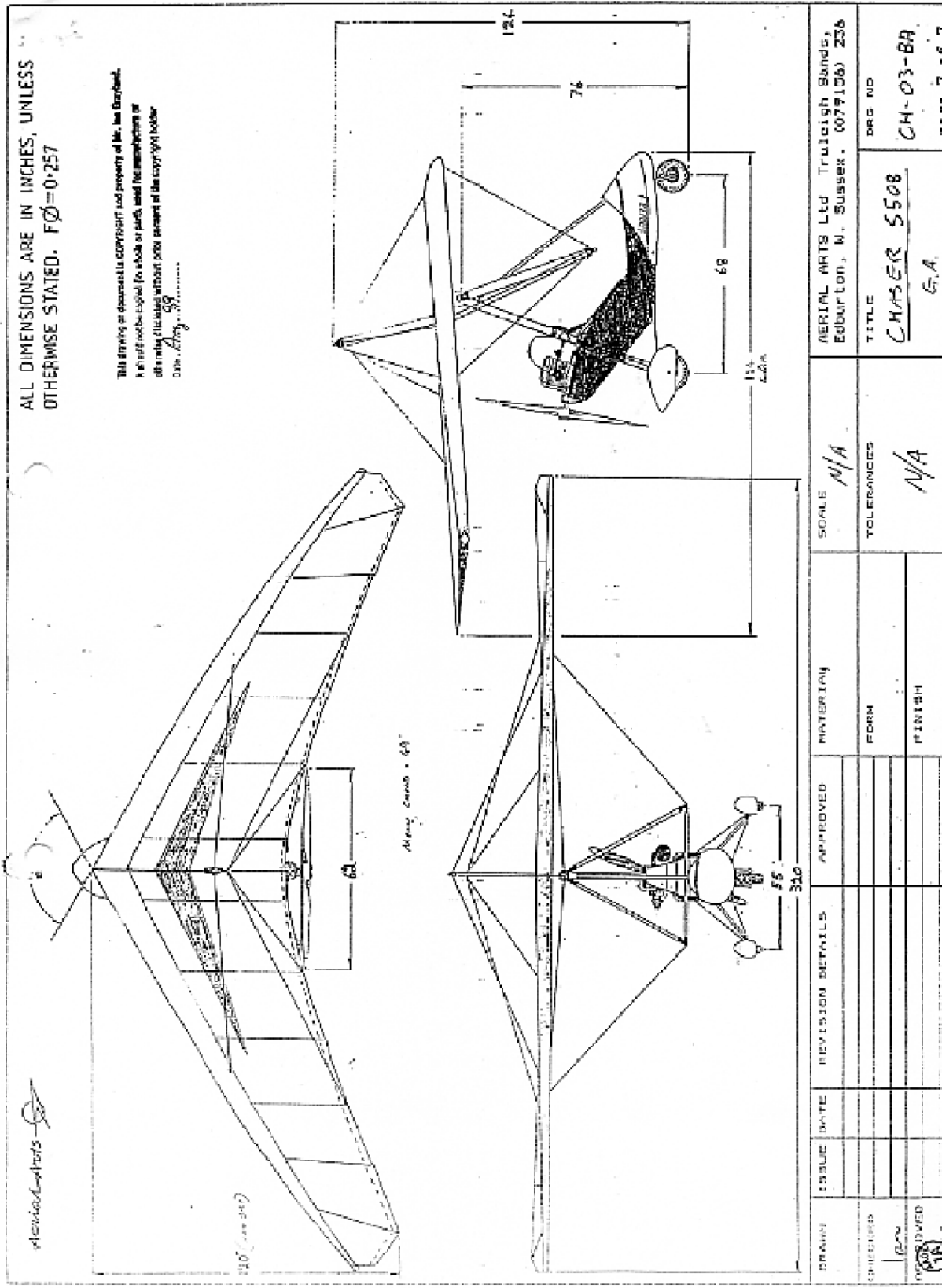
	<u>Issue No.</u>	<u>Reason and signatory</u>
1	07/09/89	Initial Issue. T R Woods
2	27/01/92	Alternative propeller added. A Carter
3	04/11/04	TADS updated to revised format and optional modifications added to Annex B.

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Illustration of Aircraft - 3 View



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ANNEX A – MANDATORY MODIFICATIONS / SERVICE BULLETINS /  
AIRWORTHINESS DIRECTIVES ETC:

1. Service Bulletin CH006 Issue 3, Hangpoint Inspection and Replacement (MPD 1995-011)
2. Service Bulletin CH 012, Replacement of Luff Lines (MPD 2000-001)

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.

1. Cosmik Aviation Ltd Modification 004, Reduction of  $V_{NE}$  to 90 mph
2. Cosmik Aviation Ltd Modification 006, Maximum Zero Fuel Weight and Baggage Allowance Clarification

ANNEX C

WEIGHING INFORMATION

Crew weights: Minimum 55 kg / maximum 90 kg

ANNEX D

EXAMPLE PLACARDS

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

<u>Chaser S Rotax 508 G-</u>	
Never Exceed Speed:	90 or 108 mph IAS (depending on mod state)
Manoeuvring Speed :	66 mph IAS
Empty Weight:	_____ kg *
Max Take-Off Weight:	220 kg
Minimum Cockpit Load:	55 kg
Maximum Cockpit Load:	100 kg (including baggage)
Aerobatics and deliberate spinning prohibited.	

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

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(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.

Max CHT	480°F
Max. EGT	1650°F
Max. RPM	8000
Max. Oil Temperature	320°F

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

Fuel 23 litres  
4 star or unleaded

(d) Switches

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

(e) Additional Placards

Adjacent to the fuel cock: ON FUEL OFF

When a fuel flow computer is used, the following placard must be fitted adjacent to the fuel flow display: NOT FOR PRIMARY FUEL MANAGEMENT

In line battery fuseholder to be labelled: 3 AMP FUSE

Adjacent to the hand throttle: OPEN THROTTLE CLOSE

Adjacent to the Ignition Switch in RED: ON IGNITION OFF

On the carburettor adjacent to the fuel cock in RED: ON FUEL OFF

On the undercarriage drag link tubes: NO STEP



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On the base tube adjacent to the baggage compartment:

BAGGAGE Max Weight \_\_\_ kg

(Placard figure to be 117 kg minus actual aircraft zero fuel weight or 10 kg if zero fuel weight is less than 107 kg.)

On the oil tank: OIL 2.5 litres SAE 20W40, Fill to mark on dipstick

Adjacent to tacho: WARNING – ZERO TACHO READING INDICATES LOW OIL PRESSURE

Adjacent to tacho test button: PRESS TO TEST TACHO

Adjacent to the mixture control: RICH MIXTURE LEAN