

**BRITISH MICROLIGHT AIRCRAFT ASSOCIATION**

**MICROLIGHT TYPE ACCEPTANCE DATA SHEET (TADS)**

**NO: BMO-31 ISSUE: 2**

**TYPE: TEMAN MONO-FLY**

- (1) **MANUFACTURER:** Teman Aircraft Inc, USA (plans)  
Assembly by private individuals.
- (2) **UK IMPORTER:** -
- (3) **CERTIFICATION BASIS:** BCAR Section S requirements listed in CAA document dated 17th January 1986, ref: 9/30/UL18
- (4) **DEFINITION OF BASIC DESIGN STANDARD:** Not available (but see appendix)
- (5) **DIMENSIONS/WEIGHTS FOR COMPLIANCE WITH MICROLIGHT DEFINITION**

- (a) Wing area (inc canard area, excluding winglets): 11.43 m<sup>2</sup>
- (b) Span: 9.37 m
- (c) Standard Mean Chord: 1.22 m
- (d) Dry Empty Weight: 168 kg
- (e) Max Take-Off Weight: 283 kg
- (f) Wing Loading (Weight Empty/Wing Area): 14.7 kg/m<sup>2</sup>
- (g) Wing Loading (Max Take-Off Weight/Wing Area): 24.76 kg/m<sup>2</sup>
- (h) Fuel Capacity: 20 litres  
(including 1 litre unusable)

**DOCUMENT ISSUE STATUS**

Issue Number	Revision Reference	Date	Authorisation	Pages affected	Valid pages at this Issue number 1 <b>2</b>	
					Page No.	Page Issue
1	New MAAN 1073	23.11.93	BMAA <i>P.F.O.</i>	All new		
<b>2</b>	<i>447 Engine MAAN 1165</i>	<i>24/3/94</i>	<i>WOBMAA</i>	<i>1,2,3,4,5</i>	1 2 3 4 5 6 7	<b>2 2 2 2 2 1 1</b>

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(6) POWER PLANTS

Designation	Teman Mono-Fly	1	<i>Teman Mono-fly</i>	2	3	4	5
Engine Type	Rotax 377 Upr't		<i>Rotax 447</i>				
Reduction Gear/ratio	2.58:1		<i>2.58:1</i>				
Exhaust System	Rotax		<i>ROTAX</i>				
Intake System	-						
Propeller Type	Newton wood sq tip		<i>NEWTON</i>				
Propeller Dia x Pitch	51" x 44"		<i>54" x 44"</i>				
Noise Type Cert. No.	109M Issue 2		<i>109M</i>				
			<i>ISSUE 2</i>				

Designation		6	7	8	9	10
Engine Type						
Reduction Gear/ratio						
Exhaust System						
Intake System						
Propeller Type						
Propeller Dia x Pitch						
Noise Type Cert. No.						

Noise requirement:

	1 Seat	2 Seat	BCAR Reference
Registered Pre 1/4/86	80 dBA	84 dBA	N3-6, 3 Iss 4
Registered Post 1/4/86	76 dBA	80 dBA	N3-6, 4 Iss 4

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(7) MANDATORY LIMITATIONS: (\* indicates which are placarded)

- \*(a) Max Take-off Weight: 283 kg
- \*(b) C G Limits: 252 mm to 372 mm aft of datum
- (c) C G Datum: Wing leading edge
- \*(d) Cockpit Loadings
 

	<u>Front</u>	<u>Rear</u>	<u>Total</u>
Pilot or Ballast (min)	65 kg	- kg	65 kg
Pilot or Ballast (max)	90 kg	- kg	90 kg
- (e) Permanent Ballast, Weight and Position: Not fitted.
- (f) Empty C G: 670 mm aft of datum
- \*(g) Never Exceed Speed: 60 mph
- \*(h) Manoeuvring Speed: 60 mph
- \*(i) Manoeuvre Limitations: Aerobatics prohibited. Roll <60° bank  
Pitch <+/- 30°
- \*(j) Fuel Contents (Max Usable): 19 litres
- (k) Power Plant: See Table below

ENGINE	Rotax 377 <i>AND</i> <i>ROTAX 447</i>			
Max RPM	6800			
Max CHT	250°C			
Max EGT	-			
Fuel Spec	92 Oct (min) Petrol/oil			
Engine Oil Spec	Self mix 2 stroke			
Gearbox Oil Spec	SAE 140 EP (or Accepted alternative)			
Fuel/Oil Mix	50:1			
Oil Pressure	N/A			
Oil Temp	N/A			
Coolant Temp	N/A			

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(8) INSTRUMENTS REQUIRED FOR TYPE ACCEPTANCE:

<u>ASI</u>	<u>Altimeter</u>	<u>RPM</u>	<u>CHT</u>	<u>Compass</u>	<u>EGT</u>	<u>Slip Indicator</u>
Required 0 to >70 mph or equivalent	Required Wrist type acceptable	Required	Required	N/A	N/A	Required

(9) CONTROL DEFLECTIONS (3-AXIS SYSTEMS):

<u>Pitch Control</u>	Up: 21°	Down: 15°
<u>Tailplane Trim</u>	Up: N/A	Down: N/A
<u>Ailerons</u>	Up: 44°	Down: 24°
<u>Rudder</u>	Left: 26°	Right: 26°
<u>Steering</u>	Left: 10°	Right: 10°
<u>Spoilers</u>	N/A	

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

MAAN 1073

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

See Appendix 1

(12) APPROVED OPTIONAL MODIFICATIONS

See Appendix 1

(13) MINIMUM PERFORMANCE AT MAX T/O WEIGHT:

Rate of Climb: 500 ft/minute (377) 600 fpm (447)  
Climb Speed: 40 mph  
Stall or Minimum Flying Speed: 30 mph (idle power)

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Note: Drawings and/or colour photographs illustrating the principal features of the aircraft described herein, shall be attached to, and form part of, this Data Sheet.

<u>Issue</u> <u>Authorisation</u>	<u>Date</u>	<u>BMAA</u>
1 BMAA	26 Nov. 1993	P. F. Owen
2 BMAA	24/3/94	W. C. Brown

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APPENDIX 1.

a) Modifications:

1) **Required modifications:**

i) Fire resistant fuel line must be fitted and routed as far as possible on the opposite side of the engine to the exhaust.

ii) The wiring for the ignition switch must be fire resistant adjacent to the engine, so that in the event of an engine fire, the engine can be stopped.

iii) The original design of wing strut attachment brackets is to be modified to ensure satisfactory strength.

The design of this modification is considered individually for each affected aircraft by the BMAA, and is satisfactory for the aircraft listed below:

Teman Mono-Fly G-MMJX (modification described in submission to BMAA from M Ingleton dated 5/12/91).

2) **Approved optional modifications:**

i) G-MMJX: Modified joy-stick replacing earlier yoke (Ref: submission from M Ingleton ref: 14039201).

ii) G-MMJX: New fuel tank installation, using original mountings (Ref: submission from Ingleton ref: 14039201).

b) Inspection:

The following standard inspection points are applicable to the Teman Mono-Fly:

i) Inspect brackets for cracks or deformation of fixing holes.

ii) Check bolts for corrosion.

iii) Ensure that engine flexible mounts have not corroded and that the failure of any or mounting could neither cause a serious engine misalignment nor hazardous reduction of propeller clearance.

iv) Propeller bolts are to be checked for correct quality and shank length.

v) Ensure that fuel tank is stable in its location, and cannot chafe.

vi) Ensure that fuel tank pick-up tube cannot rise clear of fuel.

vii) Ensure that fuel tank vent discharges clear of the aircraft structure.

viii) The suitability, function and safe installation of equipment installed is to be checked.

In addition, Inspectors must pay attention to the relevant "Spotlight" and Defect Warning reports in the BMAA Inspectors' Manual.

Note:

Due to the existence of more than one design of wing spar, each design is investigated to ensure satisfactory strength. The wing spar design has been investigated and found to be satisfactory on the aircraft listed below:

Teman Mono-Fly G-MMJX (Ref: wing spar analysis submission by M Ingleton dated 16/5/91).

Not to scale

