BRITISH MICROLIGHT AIRCRAFT ASSOCIATION

MICROLIGHT TYPE ACCEPTANCE DATA SHEET (TADS)

NO: BMO-15 ISSUE: 3

TYPE

TYPHOON/TRIPACER

Designations included: Typhoon/Tri-pacer; Typhoon/Tri-pacer 250
Typhoon Medium/Tri-pacer; Typhoon 180/Tri-pacer;
Typhoon S4/Tri-pacer 250; Typhoon/Tri-pacer EC-25-PS
Typhoon/Tri-pacer EC-34-PM; Typhoon S/Tri-pacer Mk II 447

(1) MANUFACTURER: Wing - Solar Wings Ltd
Trike - Ultrasport UK (now ceased trading)

(2) UK IMPORTER: N/A

(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 appendices)

(5) DIMENSIONS/WEIGHTS FOR COMPLIANCE WITH MICROLIGHT DEFINITION

(a) Wing area (inc canard area, excluding winglets): 15.4 to 16.6 m²
(b) Span: 10 to 10.6 m
(c) Standard Mean Chord: 1.54 to 1.57 m
(d) Dry Empty Weight: 91 to 100 kg
(e) Max Take-Off Weight: 250 kg
(f) Wing Loading (Weight Empty/Wing Area): 5.5 to 6.5 kg/m²
(g) Wing Loading (Max Take-Off Weight/Wing Area): 15.1 to 16.2 kg/m²
(h) Fuel Capacity: Depends on variant

DOCUMENT ISSUE STATUS

<table>
<thead>
<tr>
<th>Issue Number</th>
<th>Revision Reference</th>
<th>Date</th>
<th>Authorisation</th>
<th>Pages affected</th>
<th>Valid pages at this Issue number 3</th>
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<td>MAAN 1151</td>
<td>17/12/92</td>
<td>BMAA(2)</td>
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BMAA TADS BMO-15/3
# MICROLIGHT TYPE ACCEPTANCE DATA SHEET (TADS)

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### (6) POWER PLANTS

<table>
<thead>
<tr>
<th>Designation</th>
<th>Typhoon/ Tripacer</th>
<th>1</th>
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<tr>
<td>Engine Type</td>
<td>Fuji Robin EC34PM Inv</td>
<td>Fuji Robin EC25PS Inv</td>
<td>Rotax 447 Inv</td>
<td>Hiro 125 cc Upright</td>
<td>Fuji Robin EC34PM Up'r't</td>
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<td>Intake System</td>
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<td>Propeller Type</td>
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<td>Ultrasports 2 blade</td>
<td>Romain 2 blade</td>
<td>Hiro 2 blade Lam't'd wood</td>
<td>Fern, 2 blade Lam't'd wood</td>
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<tr>
<td>Propeller Dia x Pitch</td>
<td>60&quot; x 32&quot; Square tip</td>
<td>54&quot; x 27&quot; Round Tip</td>
<td>58&quot; x 39&quot; Semi Scimitar</td>
<td>52&quot; x 27&quot;</td>
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<tr>
<td>Engine Type</td>
<td>Fuji Robin EC34PM Inv</td>
<td>Fuji Robin EC34PM Inv</td>
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<td>Rotaflow</td>
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<td>Propeller Type</td>
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<td>Newton 2 blade</td>
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<tr>
<td>Propeller Dia x Pitch</td>
<td>54&quot; x 30&quot;</td>
<td>54&quot; x 30&quot;</td>
<td>54&quot; x 27&quot;</td>
<td>54&quot; x 32&quot;</td>
<td>54&quot; x 32&quot; or 60&quot; x 32&quot;</td>
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**Noise requirement:**

- 1 Seat: 80 dBA, 84 dBA
- 2 Seat: 84 dBA, 80 dBA
- BCAR Reference: N3-8, 4 Iss 4
(7) **MANDATORY LIMITATIONS:**  
* To be placarded  
*(a) Max Take-off Weight: 250 kg  
*(b) C G Limits: N/A  
*(c) C G Datum: N/A  
*(d) Cockpit Loadings:  
<table>
<thead>
<tr>
<th>Pilot or Ballast (min)</th>
<th>Front</th>
<th>Rear</th>
<th>Total</th>
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<tr>
<td></td>
<td>55 kg</td>
<td>55 kg</td>
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<td>Pilot or Ballast (max)</td>
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(e) Permanent Ballast, Weight and Position: None  

(f) Empty C G: N/A  

*(g) Never Exceed Speed: 47 knots (55 mph)  
*(h) Manoeuvring Speed:  
*(i) Manoeuvre Limitations: Non Aerobatic  
pitch < ± 30°  
roll < 60°  

*(j) Fuel Contents (Max Usable): 10-25 litres  

(k) Power Plant: See Table

<table>
<thead>
<tr>
<th>Engine</th>
<th>Fuji Robin EC25PS</th>
<th>Fuji Robin EC34PM</th>
<th>Rotax 447</th>
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<td>7000</td>
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<td>Max EGT</td>
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<td>Fuel Spec</td>
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<td>Coolant Temp</td>
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(8) INSTRUMENTS REQUIRED FOR TYPE APPROVAL:

<table>
<thead>
<tr>
<th>ASI</th>
<th>Altimeter</th>
<th>RPM</th>
<th>CHT</th>
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</table>

(9) CONTROL DEFLECTIONS (3-AXIS SYSTEMS): N/A

- Pitch Control: Up: - Down: -
- Tailplane Trim: Up: - Down: -
- Ailerons: Up: - Down: -
- Rudder: Left: - Right: -
- Steering: Left: - Right: -
- Spoilers

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

Not Available.

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

BMAA Inspectors Manual, BMAA Documents WS.003 and TS.002.
See also Appendix 1 of this document.

(12) MINIMUM PERFORMANCE AT MAX T/O WT

Rate of Climb: 522 ft/min (Using Fuji Robin EC34PM Engine).

Climb Speed:

Stall or Minimum Flying Speed: 28 mph
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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.

<table>
<thead>
<tr>
<th>Issue</th>
<th>Date</th>
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<td>18 Dec 1989</td>
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<td>3 BMAA</td>
<td>17 December 1993</td>
<td>P.F. Owen</td>
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Issue 2  Gear ratio of Hiro 125 cc corrected, was 1.358:1 plus minor editorial change to page 2 (now page 3 at Issue 3)

Issue 3  New format to record Issue status on page 1. Additional variants as BMAA MAAN 1106 & MAAN 1151, revising tabulation in Section 6
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Appendix 1

Additional Documentation

The Typhoon/Tripacer must satisfy the modification and inspection provisions set out in BMMA documents WS.003 and TS.002 (latest issue). The areas affected are as follows:

a) Modifications

S627  Non flexible coating.
S786  Safety helmet placard.
S901  Powerplant installation.
S967  Fuel tank (if installed above engine).
S993  Fuel lines.
S995  Fuel cock (if applicable).
S1141 Ignition switch wiring.
S1303 1) Airspeed indicator
S1303 2) Altimeter placard (where applicable).
S1541 Placards.

b) Inspection

S605  Welds on: engine supports, seat frame and front wheel assembly. Condition: axle bushes, keel plate - axle wire clearance, axle drag strut reinforcement.
S612  Cable Thimbles.
S623  Hang channels and trike attachments.
S626  Cable swages and rigging cables.
S627  Structural features, particularly: oversleeving of control frame uprights and cross bar. Top of seat frame. Wing nose catch.
S775  Windshield (where fitted).
S785  Safety harness/seat belt and attachments.
S901  Powerplant installation.
S925  b) Clearance between propeller and aircraft structure.
S951  Fuel system - vapour locks.
S959  Unusable fuel.
S967  Fuel tank installation.
S975  c) Fuel tank vents.
S1301 1) Installed equipment.

In addition, Inspectors must pay attention to the relevant 'Spotlight' and Defect Warning Reports in the BMMA Inspectors Manual.
Appendix 2

TYPHOOON wing with typical trike