BRITISH MICROLIGHT AIRCRAFT ASSOCIATION

MICROLIGHT TYPE ACCEPTANCE DATA SHEET (TADS)

**NO: BM048  ISSUE: 2**

**TYPE:** Quicksilver MXL

1. **MANUFACTURER:** Individual aircraft are amateur constructed, BMAA is responsible for continued airworthiness.

   Current kit supplier is Quicksilver Aircraft, 27495 Diaz Road, CA 92590 Temecula, USA.

2. **UK IMPORTER:** No current UK importer.


4. **DEFINITION OF BASIC STANDARD:** As defined by this TADS BM048 and BMAA MAAN 1187.

5. **COMPLIANCE WITH THE MICROLIGHT DEFINITION**

   a. MTOW 262 kg
   b. No. Seats 1
   c. Maximum Wing Loading 15.67 kg/m²
   d. Vso nk
   e. Permitted range of pilot weights 55 - 90 kg
   f. Typical Empty Weight 143 kg
   g. ZFW + pilot + full fuel (24.5L) 251 kg

   (Weights given are without optional pod).
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(6) POWER PLANTS

<table>
<thead>
<tr>
<th>Designation</th>
<th>Quicksilver MXL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engine Type</td>
<td>Rotax 447 inverted</td>
</tr>
<tr>
<td>Reduction Gear</td>
<td>2.67:1 V-belt</td>
</tr>
<tr>
<td>Exhaust System</td>
<td>Rotax with after muffler</td>
</tr>
<tr>
<td>Intake System</td>
<td>K&amp;N filters</td>
</tr>
<tr>
<td>Propeller Type</td>
<td>Laminated wood, square tip</td>
</tr>
<tr>
<td>Propeller Dia x Pitch</td>
<td>66” x 34”</td>
</tr>
<tr>
<td>Noise Type Cert No.</td>
<td>45M issue 4</td>
</tr>
<tr>
<td>MAAN Approving</td>
<td>1187</td>
</tr>
</tbody>
</table>

(7) MANDATORY LIMITATIONS:

(A) Max Take-Off Weight 262 kg
(B) CG Limits 63” to 69.5” aft of datum
(C) CG datum Centre of steerable nosewheel axle.
(D) Cockpit Loadings
   Min  55 kg
   Max  90 kg
(E) Permanent Ballast none
(F) Typical Empty CG Position 79” aft of datum
(G) Never Exceed Speed 74 mph / 64 kn
(H) Manoeuvring Speed 62 mph / 54 kn
(I) Permitted Manoeuvres
   Maximum Bank angle 60°
   Non Aerobatic
   Normal acceleration limits, +4 / -2g
(J) Fuel Contents (Max Useable) 24.5 litres
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<table>
<thead>
<tr>
<th>(K)</th>
<th>Power Plant</th>
<th>See Table</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engine</td>
<td>Rotax 447</td>
<td>not used</td>
</tr>
<tr>
<td>Max RPM</td>
<td>6,900</td>
<td></td>
</tr>
<tr>
<td>MAX CHT</td>
<td>250°C</td>
<td></td>
</tr>
<tr>
<td>MAX EGT</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Fuel Spec</td>
<td>83 MON or 90 RON minimum unleaded to BS(EN)228 or 97+ octane 4-star or MOGAS leaded fuel to BS 4040</td>
<td></td>
</tr>
<tr>
<td>Engine Oil Spec</td>
<td>non-detergent 2-stroke self mix</td>
<td></td>
</tr>
<tr>
<td>Gearbox oil spec</td>
<td>n/a</td>
<td></td>
</tr>
<tr>
<td>Fuel/Oil Mix</td>
<td>50:1</td>
<td></td>
</tr>
<tr>
<td>Coolant Temperature</td>
<td>n/a</td>
<td></td>
</tr>
<tr>
<td>Oil</td>
<td>n/a</td>
<td></td>
</tr>
</tbody>
</table>

(8) INSTRUMENTS REQUIRED FOR TYPE ACCEPTANCE:

<table>
<thead>
<tr>
<th>ASI</th>
<th>Altimeter</th>
<th>RPM</th>
<th>CHT / EGT</th>
<th>Compass</th>
<th>Turn &amp; Slip</th>
<th>Fuel Pressure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required To 80mph</td>
<td>Required</td>
<td>Required</td>
<td>Twin CHT</td>
<td>Required</td>
<td>Optional</td>
<td>Optional</td>
</tr>
</tbody>
</table>

(9) CONTROL DEFLECTIONS:

| Elevator UP | 5” | Tailplane trim UP | None fitted |
| Pitch control DOWN | 7” | Tailplane trim DOWN | None fitted |
| Ailerons UP | 4” | Rudder LEFT | 11” |
| Ailerons Down | 3.5” | Rudder RIGHT | 11” |

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1 A Hall windmeter fitted to the tribar upright is acceptable.  
2 A wrist mounted altimeter is acceptable, so long as the requirement to wear one is placarded.

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

(10.1) MANUALS.
(11. Quicksilver owners manual
(12. Quicksilver build manual
(13. Rotax 447 engine manual

(14.1) PLACARDS

The following placards are to be fitted (although they may be combined or split as required):

| Stall Speed | 31 mph / 27 kn IAS |
| Never Exceed Speed | 74 mph / 64 kn |
| Manoeuvring speed | 62 mph / 54 kn |

| IGNITION - ON / OFF |
| FUEL - ON / OFF |
| MAXIMUM TOTAL WEIGHT: | 262 kg |
| MAXIMUM COCKPIT LOAD: | 90 kg |

AEROBATIC MANOEUVRES PROHIBITED
INTENTIONAL SPINNING PROHIBITED
BANKED MANOEUVRES NOT TO EXCEED 60° FROM HORIZON

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

See Annex A for modifications required for UK Type Acceptance.

(12) MINIMUM PERFORMANCE AT MAX TAKE-OFF WEIGHT

Rate of Climb: 670 fpm
Stall or Minimum Flying Speed: 31 mph / 27 kn IAS

BMAA Approval: 
G B Gratton
Chief Technical Officer
28 August 2001
BRITISH MICROLIGHT AIRCRAFT ASSOCIATION

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**NO: BM048 ISSUE: 2**

**Issue History**

Issue 1  Based upon MAAN 1187 issue 1, 20 Jul 94, Signatory W G Brooks, CTO

Issue 2  Re-issued following procurement of more detailed type information, and relocation of CG datum to reflect fitment of steerable nosewheel. Signatory G B Gratton, CTO.

**Illustration of Aircraft**
BRITISH MICROLIGHT AIRCRAFT ASSOCIATION
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ANNEX A
MODIFICATIONS REQUIRED FOR UK TYPE ACCEPTANCE

1 Fitment of steerable nosewheel

ANNEX B
WEIGHT AND BALANCE INFORMATION

1 MTOW: 262 kg
2 CG datum: Nosewheel axle centreline
3 Weighing attitude: Nosewheel just above ground. Weigh at mainwheels and skid
4 Mainwheel Moment Arm: 72.4 inches aft of datum
5 Skid moment arm: 176”
6 Fuel capacity: 24.5 litres
7 Fuel moment arm: 56.7” aft of datum
8 Maximum seat load: 90kg, reducible, not below 86kg, if required.
9 Minimum seat load: 55kg
10 Seat moment arm: 46” AoD
11 Fwd CG limit: 63” aft of datum
12 Aft CG limit: 69.5” aft of datum
The following faults have been found common, and special attention should be paid to them both in service, and particularly during the annual permit renewal inspection.

1. Ensure that all tubing is anodised, or if not some other equivalent level of corrosion protection has been provided.
2. Corrosion at terminations of plastic coated cables.
3. Exhaust system is clear of structure and fabric.
4. Ensure fuel lines are routed clear of the exhaust.
5. Ensure spoiler lines are not over-tightened (they will further tighten in flight, and this must be allowed for).
6. Corrosion in wing leading and trailing edge bolts.