MICROLIGHT TYPE ACCEPTANCE DATA SHEET (TADS)

NO: BMO-57 ISSUE: 1

TYPE: "SOUTHERN FLYER"

(1) MANUFACTURER: C.W. Merriam, UK.

(2) UK IMPORTER: None, Type Specialist C.W. Merriam.

(3) CERTIFICATION BASIS: BCAR Section S requirements, listed in CAA document dated 19th June 1985, Ref 9/30/UL18 (Type Acceptance)

(4) DEFINITION OF BASIC STANDARDS: This TAD and MAAN 1254.

(5) DIMENSIONS/WEIGHT OF COMPLIANCE WITH MICROLIGHT DEFINITION

(a) Wing Area: 14.87 m² (160 ft²)
(b) Span: 9.75 m (32 ft)
(c) Standard Mean Chord: 1.95 m (6.4 ft)
(d) Dry Empty Weight: 143 kg (314 lb)
(e) Max Take-off Weight: 263 kg (578 lb)
(f) Wing Loading
   (Weight Empty/Wing Area): 9.6 kg/m² (2 lb/ft²)
   (Max Take-Off Weight/Wing Area): 17.6 kg/m² (3.6 lb/ft²)
(h) Number of Seats: One
(i) Established Maximum Power: 40 HP

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</th>
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<tbody>
<tr>
<td>1</td>
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<td>10/11/95</td>
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(6) POWER PLANTS

<table>
<thead>
<tr>
<th>Designation</th>
<th>Southern Flyer</th>
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<tbody>
<tr>
<td>Engine Type</td>
<td>Fuji Robin EC44PM.</td>
</tr>
<tr>
<td>Reduction Gear</td>
<td>TOOTH-BELT 2.42:1</td>
</tr>
<tr>
<td>Exhaust System</td>
<td>NICKLOW</td>
</tr>
<tr>
<td>Intake System</td>
<td>-</td>
</tr>
<tr>
<td>Propeller Type</td>
<td>WOOD PUSHER</td>
</tr>
<tr>
<td>Propeller Dia x Pitch</td>
<td>52&quot; X 32&quot;</td>
</tr>
<tr>
<td>Noise Type Cert No.</td>
<td>160M issue1</td>
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NOISE REQUIREMENT

<table>
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<tr>
<th>Registered Pre</th>
<th>1/4/86</th>
<th>1 Seat</th>
<th>2 Seat</th>
<th>BCAR Ref</th>
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<tbody>
<tr>
<td></td>
<td>80 dBA</td>
<td>84 dBA</td>
<td>N3-6.3 Iss 4</td>
<td></td>
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</table>

Registered Post 1/4/86 76 dBA 80 dBA N3-6.5 Iss 4

(7) MANDATORY LIMITATIONS: (*indicates when placarded)

* (A) Max Take-off Weight: 263kg (578lb)
* (B) Dry Empty Weight: 143kg (314lb)
(C) C G Limits (3-Axis Aircraft) See Paragraph (e)
(D) C G Datum: Leading edge of wing.
* (E) Cockpit Loadings: (Seat position fixed)
   Pilot and Baggage Maximum: 100kg (220lb)
   Pilot and Baggage Minimum: 55kg (121lb)
(F) Permanent Ballast, Weight and Position: Nil
(G) Empty C G: 28" aft of datum.
(H) Optimum CG location = 16" aft of datum.
(I) Maximum Aft C G Location = 17" aft of datum.
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(J) Maximum Fwd C G Location: 15" aft of datum.

* (K) Never-Exceed Speed: 60mph (52kt)

* (L) Manoeuvring Speed: 55mph (48kt)

(M) Permitted Manoeuvres: Aerobatics Prohibited

(N) Fuel Content (Max Usable): 20 litres

(O) Power Plant: See Table Below

### Power Plant

<table>
<thead>
<tr>
<th>Engine</th>
<th>Fuji Robin EC44PM</th>
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<tbody>
<tr>
<td>Max RPM</td>
<td>7000</td>
</tr>
<tr>
<td>MAX CHT</td>
<td>250 C</td>
</tr>
<tr>
<td>Fuel Spec</td>
<td>PETROL, Premium unleaded or 4 star.</td>
</tr>
<tr>
<td>Oil Spec</td>
<td>Self mix 2-STROKE OIL.</td>
</tr>
<tr>
<td>Fuel/Oil Mix</td>
<td>40:1</td>
</tr>
<tr>
<td>Max EGT</td>
<td>N/K</td>
</tr>
<tr>
<td>Oil Press</td>
<td>N/A</td>
</tr>
<tr>
<td>Oil Temp</td>
<td>N/A</td>
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</tbody>
</table>

(8) INSTRUMENTS REQUIRED FOR TYPE ACCEPTANCE:

<table>
<thead>
<tr>
<th>ASI</th>
<th>Altimeter</th>
<th>RPM</th>
<th>CHT</th>
<th>Compass</th>
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<tbody>
<tr>
<td>Not</td>
<td>Not</td>
<td>Not</td>
<td>Not</td>
<td>Req</td>
</tr>
</tbody>
</table>

(9) CONTROL DEFLECTIONS (3-Axis Systems):

Pitch Control: Up:- 38°, plus 2°, minus 2°
Down:- 23°, plus or minus 2°

Tailplane Trim: None

Ailerons: None

Rudder: Left:- 53°, plus or minus 2°
Right:- 58°, plus or minus 2°

Steering: N/A

Spoilers: Up only, 30°
(10) RIGGING DETAILS:

Dihedral: 5°
Washout at Tips: (Root ribs taken as zero reference):
6° + - 2° (+ - 1° difference each side)

Tailplane setting incidence relative to main plane: -3° degrees.

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

Southern Flyer Owners and operators manual.

(12) MANDATORY MODIFICATIONS, SERVICE BULLETINS, AIRWORTHINESS DIRECTIVES ETC:

None.

(13) MINIMUM PERFORMANCE AT MAXIMUM TAKE-OFF WEIGHT:

Rate of Climb: 550 ft/minute
Stalling Speed: 28mph (24kt)

NOTES:

1) GA Drawings and/or colour photographs illustrating the principal features of the aircraft submitted for type acceptance, shall be attached to, and form part of, this Data Sheet.
SOUTHERN FLYER MK1

USER'S DATA SHEET MANUAL