CIVIL AVIATION AUTHORITY – SAFETY REGULATION GROUP

MICROLIGHT TYPE APPROVAL DATA SHEET (TADS)

NO: BM - 39 ISSUE: 2

TYPE

HORNET RS-ZA

(1) MANUFACTURER

Hornet Microlights Ltd, Perseverance Mill, Mill Street, Wibsey, Bradford, West Yorkshire, BD6 3HR (no longer trading)

BMAA is responsible for continued airworthiness

(2) UK IMPORTER

N/A

(3) CERTIFICATION

BCAR Section S Advance Copy March 1983
BCAR Section S Paper 11 October 1988

(4) DEFINITION OF BASIC STANDARD

Drawing APL5040

(5) COMPLIANCE WITH THE MICROLIGHT DEFINITION

(a) MTOW

390 kg

(b) No. Seats

2

(c) Maximum Wing Loading

25 kg / m²

(d) Permitted range of pilot weights

75 – 180 kg

(e) Typical empty weight

173.5 kg

(f) ZFW + 172 kg crew + 1hrs fuel

360.5 kg

(g) ZFW + 86 kg pilot + full fuel (45 litres, 32 kg)

291.5 kg

(h) Max allowed ZFW at initial permit issue¹

203 kg

¹ The maximum ZFW is the lower of [(a)-172kg-1hrs fuel], or [(a)-86kg-full fuel].

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(6) POWERPLANTS

<table>
<thead>
<tr>
<th>Designation</th>
<th>Hornet RS-ZA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engine Type</td>
<td>Rotax 532 Upright</td>
</tr>
<tr>
<td>Reduction Gear</td>
<td>Rotax Gearbox 2.58:1</td>
</tr>
<tr>
<td>Exhaust System</td>
<td>Rotax under-slung with after muffler</td>
</tr>
<tr>
<td>Intake System</td>
<td>Sponge filters</td>
</tr>
<tr>
<td>Propeller Type</td>
<td>Newton Type 28</td>
</tr>
<tr>
<td>Propeller Dia x Pitch</td>
<td>62” x 45”</td>
</tr>
<tr>
<td>Noise Type Cert. No.</td>
<td>122 Iss 2</td>
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<tr>
<td>AAN Approving</td>
<td>21977(P)</td>
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</tbody>
</table>

(7) MANDATORY LIMITATIONS

(A) Maximum Take-Off Weight 390 kg
(B) Cockpit Loadings
   Min 75 kg (side by side)
   Max 180 kg
(C) Never Exceed Speed 103 mph IAS
(D) Manoeuvring Speed 103 mph IAS
(E) Permitted Manoeuvres Non-aerobatic
(F) Fuel contents (max useable) 45 litres
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(G) Power Plant See Table below

<table>
<thead>
<tr>
<th>Engine</th>
<th>Rotax 532</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max RPM</td>
<td>6800</td>
</tr>
<tr>
<td>Max CHT</td>
<td>180 °C</td>
</tr>
<tr>
<td>Max EGT</td>
<td>650°C</td>
</tr>
<tr>
<td>Fuel Spec</td>
<td>83 MON or 90 RON minimum unleaded to BS(EN)228, or 97+ octane MOGAS leaded fuel to BS 4040, or AVGAS 100LL</td>
</tr>
<tr>
<td>Engine Oil Spec</td>
<td>self mixing 2-stroke</td>
</tr>
<tr>
<td>Gearbox Oil Spec</td>
<td>see Rotax handbook</td>
</tr>
<tr>
<td>Fuel / Oil Mix</td>
<td>50:1</td>
</tr>
<tr>
<td>Max Coolant Temp</td>
<td>80°C</td>
</tr>
<tr>
<td>Max Oil Pressure</td>
<td>N/A</td>
</tr>
<tr>
<td>Min Oil Pressure</td>
<td>N/A</td>
</tr>
<tr>
<td>Oil Temperature</td>
<td>N/A</td>
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</table>

(8) INSTRUMENTS REQUIRED

<table>
<thead>
<tr>
<th>ASI</th>
<th>Altimeter</th>
<th>RPM</th>
<th>EGT</th>
<th>Compass</th>
<th>Coolant Temp</th>
<th>CHT</th>
<th>Fuel Pressure</th>
<th>VSI</th>
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</thead>
<tbody>
<tr>
<td>Required</td>
<td>Required</td>
<td>Optional</td>
<td>Optional</td>
<td>Optional</td>
<td>Optional</td>
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</tbody>
</table>

(9) CONTROL DEFLECTIONS

Conventional weightshift controls.
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(10) PILOTS NOTES, MAINTENANCE MANUALS, REFERENCES:

10.1 Manuals approved for operators use with this aircraft

Hornet RS-ZA Owners Flight Manual

10.2 The following placards are to be fitted.

(a) Flight Limitations Placard (to be visible to the pilot)
See Annex D

(b) Engine Limitations Placard
See Annex D

(c) Fuel Limitations Placard
See Annex D

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

See Annex A for required modifications.

(12) MINIMUM PERFORMANCE AT MAX TAKE-OFF WEIGHT

Rate of Climb: 769 fpm at 50 mph IAS
Stall or minimum flying speed: 40 mph IAS
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Issue History

<table>
<thead>
<tr>
<th>Issue No.</th>
<th>Reason and signatory</th>
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<tbody>
<tr>
<td>1</td>
<td>13/03/90 Initial Issue W A Bevan</td>
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<tr>
<td>2</td>
<td>08/07/03 Document revised to new format</td>
</tr>
</tbody>
</table>

J Barratt
ANNEX A – MANDATORY MODIFICATIONS

None

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.

ANNEX C – WEIGHING INFORMATION

1. Weighing Attitude: Unimportant. Trike and wing may be weighed separately if required.
2. Crew Weights: Minimum 75 kg. Maximum 90 kg per seat. (Maximum reducible, not below 86kg, if required)
3. Fuel load: 45 litres
4. MTOW 390 kg
(a) Flight Limitations Placard (to be visible to pilot)

Max take-off weight not to exceed 390 kg
Cockpit loadings must be between 75 and 180 kg

V_{NE} 103 mph
V_{A} 103 mph
Non-aerobatic

(b) Engine Limitations Placard (to be located near to engine instruments)

A placard showing the limitations for all the 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.

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

A placard is to be fitted showing fuel capacity, fuel type(s), fuel : oil ratio (if relevant) and if MTOW can be exceeded with full fuel and 180kg cockpit weight, the fuel loads at MTOW for cockpit weights of 180kg / 170kg etc. at no more than 10kg intervals down to the maximum fuel load.
ANNEX E - POINTS FOR SPECIAL ATTENTION

In service, the following points have been found to be commonly recurring problems, and Inspectors must give special attention to the following both during initial approval, and during later inspections.

1. (blank)
2. (blank)
3. (blank)
4. (blank)
5. (blank)
6. (blank)
7. (blank)
8. (blank)
9. (blank)
10. (blank)