TYPE: **Thruster T600T 450Kg** (450kg Airframe powered by Rotax 582)

(1) **MANUFACTURER:** Thruster Aircraft (UK)  
**Continued Support:** Thruster Aircraft LLP  
North Hanger  
Wickenby Airfield  
Langworth, Lincs  
LN3 5AX

(2) **UK IMPORTER:** -NA-

(3) **CERTIFICATION:** BCAR Section S Issue 2

(4) **DEFINITION OF BASIC STANDARD:**  
Mod TAS001 Issue 1 dated 18 April 1995. Master Drawing List form F20 Issue 1 dated 2 January 1997, Mod TAS 020 and 023

(5) **COMPLIANCE WITH THE MICROLIGHT DEFINITION**

(a) **MTOW** 450 kg

(b) **No. Seats** 2

(c) **Maximum Wing Loading** 28.68 kg/m²

(d) **Vso** 30.5 kn CAS

(e) **Permitted range of seat loading** 55-86 kg per seat

(f) **Typical Empty Weight (ZFW)** 240 kg

(g) **Max ZFW + 172 kg crew + 1 hr fuel** (21litres /15 kg) 450 kg

(h) **Max ZFW + 86 kg pilot + full fuel** (21litres /15 kg) 350 kg

(i) **Max ZFW at initial permit issue** 263 kg

*Note: It is the Pilot’s responsibility that the aircraft is not flown outside the permitted MTOW*
(6) POWER PLANTS

<table>
<thead>
<tr>
<th>Designation</th>
<th>T600T 450</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engine Type</td>
<td>Rotax 582 2V DCDI</td>
</tr>
<tr>
<td>Reduction Gear</td>
<td>3:1</td>
</tr>
<tr>
<td>Exhaust System</td>
<td>ROTAX Double 90</td>
</tr>
<tr>
<td>Intake System</td>
<td>Twin Air Filter</td>
</tr>
<tr>
<td>Propeller Type</td>
<td>Brolga 68&quot; 3Blade</td>
</tr>
<tr>
<td>Propeller Dia x Pitch</td>
<td>68&quot; @ 16 deg</td>
</tr>
<tr>
<td>Noise Type Cert No.</td>
<td>44 Iss 17</td>
</tr>
<tr>
<td>AAN approving configuration</td>
<td>28050</td>
</tr>
</tbody>
</table>

(7) MANDATORY LIMITATIONS:

(a) Max Take-Off Weight 450 kg
(b) CG Limits
   Aft Limit: 501mm Aft of datum
   FWD Limit: 415mm Aft of datum @ MTOW 450kg
(c) CG datum Front Leading Edge Spar
(d) Cockpit Loadings
   Min: Port 55 kg Starboard 55 kg Total 110 kg
   Max: Port 86 kg Starboard 86 kg Total 172 kg
(e) Never Exceed Speed 80 KIAS
(f) Manoeuvring Speed 60 KIAS
(g) Permitted Manoeuvres
   30° Nose up / 30° nose down
   Non Aerobatic
   Normal acceleration limits, +4 / -2g
(h) Fuel Contents (Max Useable) 49.7 Litres
(i) Power Plant (see Table below)
<table>
<thead>
<tr>
<th>Engine</th>
<th>Rotax 582 2V DCDI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max RPM</td>
<td>6500</td>
</tr>
<tr>
<td>MAX CHT</td>
<td>-NA-</td>
</tr>
<tr>
<td>MAX EGT</td>
<td>650C(1200F)</td>
</tr>
<tr>
<td>Fuel Spec</td>
<td>83 MON or 90 RON minimum unleaded to BS(EN)228 or 97+ octane 4-star /MOGAS leaded fuel to BS 4040, or AVGAS 100LL.</td>
</tr>
<tr>
<td>Engine Oil Spec</td>
<td>Super Two Stroke To TSCT (min)</td>
</tr>
<tr>
<td>Gearbox oil spec</td>
<td>API-GL5 or GL6 or SAR 140 EP or 85W 140 EP</td>
</tr>
<tr>
<td>Fuel/Oil Mix</td>
<td>50:1</td>
</tr>
<tr>
<td>Coolant Temperature</td>
<td>80°C (175°F) Max</td>
</tr>
<tr>
<td>Oil Pressure</td>
<td>-NA-</td>
</tr>
<tr>
<td>Oil Temperature</td>
<td>-NA-</td>
</tr>
<tr>
<td>Fuel Pressure</td>
<td>-NA-</td>
</tr>
</tbody>
</table>

(8) INSTRUMENTS REQUIRED:

<table>
<thead>
<tr>
<th>ASI</th>
<th>Altimeter</th>
<th>RPM</th>
<th>CHT / EGT</th>
<th>Compass</th>
<th>Coolant temp</th>
<th>Fuel Pressure</th>
<th>VSI</th>
<th>Slip ball</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 to 100 KIAS</td>
<td>0-20,000</td>
<td>0-8000</td>
<td>-NA-</td>
<td>Optional</td>
<td>0-240°F/0-120°C</td>
<td>Optional</td>
<td>Optional</td>
<td>Optional</td>
</tr>
</tbody>
</table>

(9) CONTROL DEFLECTIONS:

| Elevator UP: | 30° ± 2° | Tailplane trim UP: | -NA- |
| Elevator DOWN: | 30° ± 2° | Tailplane trim DOWN | -NA- |
| Ailerons* UP: | 40° ± 2° | Rudder LEFT: | 25° ± 2° |
| Ailerons* Down: | 30° ± 2° | Rudder RIGHT: | 25° ± 2° |
(10) PILOT'S NOTES, MAINTENANCE MANUALS REFERENCES:

10.1 Manuals approved for use with this aircraft.

(a) POH 210-073, Rotax Engine Operator Manual

10.2 The following placards are to be fitted:-

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

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

(c) Fuel Limitations Placard (to be located near the filler cap)
    See Annex D

(d) Switches
    See Annex D

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

   See Annex A for required modifications.

   Annual Bettsometer test is to be carried out to 1320 grammes with wing sails fitted and tensioned to flight. Test must be to both upper and lower surfaces.

(12) MINIMUM PERFORMANCE AT MAX TAKE-OFF WEIGHT

   Rate of Climb:  480 fpm at 50 KIAS.

   Stall or Minimum Flying Speed:  35 KIAS at 450kg MTOW / idle.
Issue History

<table>
<thead>
<tr>
<th>Issue No.</th>
<th>Reason and signatory</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>20/10/00 Initial Issue</td>
</tr>
<tr>
<td>2</td>
<td>20/11/07 Editorial Corrections A J MAXWELL</td>
</tr>
<tr>
<td>3</td>
<td>05/05/12 Editorial Corrections, Corrections to Cockpit Loading, Control Deflections, AAIB Safety action addition of “Area Of Special Attention” ANNEX E A LOVE</td>
</tr>
</tbody>
</table>

Illustration of Aircraft - 3 View
ANNEX A – MANDATORY MODIFICATIONS

1. 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.

<table>
<thead>
<tr>
<th>Thruster Mod</th>
<th>Date</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>TAS 010</td>
<td>10/07/1997</td>
<td>Ultralam Wing Skins</td>
</tr>
<tr>
<td>TAS 013</td>
<td>02/12/1997</td>
<td>Ivo Prop Installation</td>
</tr>
<tr>
<td>TAS 018</td>
<td>29/09/1997</td>
<td>Disabled Person Mod “Crip Kit”</td>
</tr>
<tr>
<td>TAS 026</td>
<td>01/03/2004</td>
<td>Lever for existing Bungee Trim System</td>
</tr>
<tr>
<td>TAS 030</td>
<td>01/03/2004</td>
<td>Carburettor Inlet Heater</td>
</tr>
<tr>
<td>TAS 031</td>
<td>01/03/2004</td>
<td>Wing Strobe Lights</td>
</tr>
<tr>
<td>TAS 033</td>
<td>01/03/2004</td>
<td>Roll Trim Bias</td>
</tr>
<tr>
<td>TAS 034</td>
<td>01/03/2004</td>
<td>Battery Isolator Switch</td>
</tr>
<tr>
<td>TAS 035</td>
<td>01/03/2004</td>
<td>Extended Control Colum Stick (Training Aid)</td>
</tr>
<tr>
<td>TAS 037</td>
<td>01/03/2004</td>
<td>Wider Nose Wheel</td>
</tr>
</tbody>
</table>

ANNEX C

WEIGHING INFORMATION

1. CG Datum: Front of Leading Edge Spar Tube
2. Weighing attitude: Wings Level Fuse Tube Horizontal
3. Mainwheel moment arm: 31.5mm Aft of datum
4. Tailwheel moment arm: 4075mm Aft of datum
5. Fuel moment arm: 1030 mm Aft of datum
6. Crew moment arm: a) 423 mm Aft of datum (Forward Seat Position)  
                   b) 448 mm Aft of datum (Mid Seat Position)  
                   c) 473 mm Aft of datum (Rear Seat Position)
7. Crew weights: Minimum 55 kg / maximum 90 kg
8. Aft CG Limit: 501 mm Aft of datum
9. Fwd CG Limit: 415 mm Aft of datum
EXAMPLE PLACARDS

(a) Flight Limitations Placard (to be visible to pilot)

1. On cockpit fascia

```
OPERATIONAL LIMITATIONS
THE AIRCRAFT MUST BE OPERATED IN
COMPLIANCE WITH THE OPERATING
LIMITATIONS STATED IN THE FORM OF
PLACARD MARKINGS AND MANUALS.
NO AEROBATIC MANOEUVRRES
INCLUDING SPINS ARE PERMITTED
```

2. Adjacent to fuel cock

```
FUEL

↑

OFF
```

3. Adjacent to ignition switch on Instrument panel

```
RUN

↑

↓

STOP
```

4. On cockpit fascia adjacent to A.S.I.

```
VA 60Kt / VNE 80Kt
```

5. Adjacent to Fuel pump switch on Instrument panel

```
FUEL PUMP

ON

↑

↓

OFF
```
6. On Keeltube at rear of Engine [Port and Starboard]

   DANGER PROPELLER ARC

7. On roof Panel adjacent to Trim Cord

   ELEVATOR TRIM
   PULL ←▔ NOSE UP

8. On cockpit fascia adjacent to RPM gauge

   MAX RPM
   6500

9. On cockpit fascia

   C of G LIMITS
   0.389m TO 0.501m AOD
   COCKPIT LOADING
   MAX 172KG
   MTOW 450KG

10. On cockpit fascia

   WARNING
   IT IS THE RESPONSIBILITY OF THE PILOT IN COMMAND TO ENSURE THAT THE C OF G AND MTOW ARE WITHIN OPERATIONAL LIMITS

11. On cockpit fascia

<table>
<thead>
<tr>
<th>COCKPIT LOAD (kg)</th>
<th>ALLOWABLE FUEL (LITRES)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

[Note: This Placard is completed by Thruster Air Services for each individual Aircraft prior to its release.]

12. On cockpit fascia

   NO SMOKING
   FASTEN SEATBELTS
13. Adjacent to EGT gauge on Instrument panel

| MAX EGT 650°C | MAX EGT 1200°F |

14. Adjacent to Water Temp. gauge on Instrument panel

| MAX WATER TEMP 80°C | MAX WATER TEMP 175°F |

* The Placard displayed will be either Metric or Imperial units dependant on the scaling of the Gauge fitted.

15. On cockpit fascia.

CLASSIFICATION

SMALL LIGHT AEROPLANE

16. One of the following, Fuel Tank adjacent to filler cap

| FUEL GRADE: RON 90 MIN | FUEL GRADE: RON 90 MIN |
| FUEL OIL MIX 50:1 | FUEL ONLY |
| CAPACITY 50 LITRES | CAPACITY 50 LITRES |
| USEABLE | USEABLE

17. On seat rail adjacent to Throttle lever both Port and Starboard.

POWER ON

| POWER ON |
| ↑ |
| ↓ |
| POWER OFF |

18. On cockpit fascia.

AIRCRAFT TYPE......T600T(450Kg)......

REGISTRATION..........................

Ser No. ..........................
EMPTY WEIGHT:

..............Kg  Weighing Date .............
19. On cockpit fascia adjacent to Push Start Switch

   PUSH
   START

20. All switches are to be marked with functional and sense (up = on, down = off)

ANNEX E
Areas For Special Attention During Inspections

1. Carburettor Heating System to minimise risk of Carburettor Icing. An accident caused by Carburettor Icing has been reported which was due in part to the Electric Carburettor Heating system being fitted on the inlet of the Carburettor rather than the outlet in the vicinity of the butterfly valve. Check that the installation is correct and operational.