TYPE CERTIFICATE DATA SHEET

No. EASA.BA.020

for
Aérophile 5500

Type Certificate Holder
Aérophile SAS

17 rue Vasco da Gama
75015 Paris
France

For Model: AÉROPHILE 5500
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SECTION 1: AÉROPHILE 5500

I. General

1. Type AÉROPHILE 5500
2. Airworthiness Category Standard
3. Type Certificate Holder AÉROPHILE SAS
   17 rue Vasco da Gama
   75015 Paris, France
4. Manufacturer AÉROPHILE SAS
   17 rue Vasco da Gama
   75015 Paris, France
5. Type Certification Application Date to DGAC-FR: 23 June 1993
6. State of Design Authority EASA
7. Type Certificate Date DGAC-FR: 30 May 2001
8. Type Certificate N° EASA: EASA.BA.020 (from 26 November 2012)
   (DGAC-FR: 192, until TCDS No. 192, Issue 2, May 2005)
9. EASA Type Certificate Date 28 September 2003, in accordance with CR (EU)
   1702/2003, Article 2, 3., (a), (i), 2nd bullet, 1st indented bullet.

II. Certification Basis

1. Reference Date for determining the applicable requirements 23 June 1993
2. Certification Basis Defined by DGAC-France letter 54340/SFACT/N.AG,
   dated 13 December 1993
3. Airworthiness Requirements Airworthiness Requirements for General Technical
   Conditions for free manned balloons, issue 015/A, dated
   3 March 1980, completed with Complementary Technical
   Conditions 015/A (FAR 31 Amdt. 3 and 4, differences
   notified)
4. Special Conditions none
5. Deviations none
6. Equivalent Safety Findings §31.27 (c): Gondola
   Explanation: the free-fall test has been replaced by
   calculation on finite elements and overload test, under
   the control of a certified body
   §31.49 (c): Discharge valve
   Explanation: Equivalent safety findings adjusted on flow
   of valve by means of lateral opening.
7. Exemptions [grandfathered] [Ausnahmen [bestandsgeschützt]]
   §31.17: Climb
   Explanation: Not required as this balloon is tethered
   §31.51: Ballast
   Explanation: Not required as this balloon is tethered
   §31.85 (c): Compass
   Explanation: Not required as this balloon is tethered.

III. Technical Characteristics and Operational Limitation

1. Type Design Definition Drawing list for tethered gas balloon type
   AÉROPHILE 5500, Issue July 2000, DGAC-France approved
   30 May 2001, or later approved revisions.
2. Description/ Dimensions

Stationary, manned tethered gas balloon for passenger flights

2.1 Envelope
Spherical envelope of approx. 5 500 m³ total volume consisting of 46 vertical envelope gores, from serial number 015 onwards the total volume is approx. 5 932 m³ and from s/n 037 onwards optional approx. 6 100 m³, both with 48 gores; coated PES-fabric; load transfer by net and lines; electrically vented ballonet in lower part of the envelope; automatically and manually controllable over pressure valve; rip panel; emergency opening; optional internal lighting system

2.2 Gondola
- Two- or four-part gondola with octagonal gangway, aluminium frame construction, side walls with canvas cover; or,
- Eight-part gondola with circular gangway, aluminium-fibre reinforced plastic construction (FRP)
  - Outer diameter : 590 cm
  - Inner diameter : 420 cm
  - Height : 260 or 320 cm
  - Inner height of gondola wall : 110 cm

Note: Manufacturer’s identification plate is located on the load ring.

3. Equipment

1. Envelope pressure gauge with high alarm
1. Envelope thermometer
1. Dynamometer in the tether system
1. Wind speed anemometer
1. Rate of climb indicator
1. Altimeter
1. Navigation light

4. Ground facilities

Stationary cable winch, electric-hydraulic ascent/descent device, with emergency back-up unit for the provision of hydraulic and electrical energy.

<table>
<thead>
<tr>
<th>Winch type</th>
<th>Maximum unspooled tether cable length</th>
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<tbody>
<tr>
<td>Metalliance TR99001</td>
<td>150 m</td>
</tr>
<tr>
<td>Metalliance TR2000</td>
<td>300 m</td>
</tr>
<tr>
<td>Hydrotechnics, s/n 50-31667-6-97</td>
<td>150 m</td>
</tr>
</tbody>
</table>

5. Occupants

Maximum: 31
Minimum: 1

6. Maximum Mass

5 650 kg

Permitted range of cable force (measured by the load cell in the tether system):

Maximum: 48 000 N when gondola rests on the ground
Minimum: 4 000 N with gondola loaded and lifted

7. Life-limited Parts

see Maintenance Manual
V. Notes

1. Manufacturing is confined to industrial production.
2. Certified for commercial passenger flights.
3. For each balloon a "Certificate of Conformity" for the winch and the gondola with its suspension system issued by a qualified entity must be at hand when the statement of conformity is issued. In this certificate it must be stated that the parts comply with the type design definition.
4. Additional operational equipment and procedures according to the determinations of the ascent permit.
5. From year of manufacture 2005 onwards No 192MOD050302 (including subsequent revisions) the master drawing list AEROPHILE 5500 No AERO5500PNF01, Issue 6, 22 March 2012 and subsequent issues are mandatory.
6. When applying 192MOD050303 (including subsequent revisions the master drawing list AEROPHILE 5500 No AERO5500PNF01, Issue 6, 22 March 2012 and subsequent issues are mandatory.
7. When applying optional modification No 192MOD080320A (including subsequent revisions) the master drawing list AEROPHILE 5500 No AERO5500PNF01, Issue 6, 22 March 2012 and subsequent issues are mandatory.
8. When applying the technical note No TN192MOD120220A (including subsequent revisions) the master drawing list AEROPHILE 5500 No AERO5500PNF01, Issue 6, 22 March 2012 and subsequent issues are mandatory. This Technical Note is applicable to S/N 019 or higher.
9. When applying optional modification No 192MOD1100307A (including subsequent revisions) the master drawing list AEROPHILE 5500 No AERO5500PNF01, Issue 6, 22 March 2012 and subsequent issues are mandatory.

* * *
SECTION: ADMINISTRATIVE

I. Acronyms and Abbreviations
DGAC-FR  Direction Générale l'Aviation Civile, France
PES  Polyethylene

II. Type Certificate Holder Record

<table>
<thead>
<tr>
<th>II.1 Type Certificate Holder</th>
<th>Period</th>
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<tr>
<td>AÉROPHILE S.A.</td>
<td>from 21 May 1996</td>
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<tr>
<td>19 rue du Connétable</td>
<td></td>
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<tr>
<td>F-60500 Chantilly, France</td>
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<tr>
<td>AÉROPHILE S.A.</td>
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<td>106 avenue Félix Faure</td>
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<tr>
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<tr>
<td>106 avenue Félix Faure</td>
<td></td>
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<tr>
<td>75015 Paris, France</td>
<td></td>
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<tr>
<td>AÉROPHILE SAS</td>
<td>since 01 June 2022</td>
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<tr>
<td>17 rue Vasco da Gama</td>
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<td>75015 Paris, France</td>
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III. Change Record

<table>
<thead>
<tr>
<th>Issue</th>
<th>Date</th>
<th>Changes</th>
<th>TC issue</th>
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<tr>
<td>Issue 1</td>
<td>26 Nov 2012</td>
<td>Initial issue of EASA TCDS</td>
<td>26 November 2012</td>
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<tr>
<td>Issue 2</td>
<td>15 Jan 2024</td>
<td>SECTION 1:</td>
<td>15 January 2024</td>
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<td>- I.3/4: Change to TC holder address</td>
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<td>- I.6: State of Design Authority added</td>
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<td>- I.9: legal reference to EASA Type Certification Date added</td>
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<td>- II.7: reference to ‘grandfathering’ added</td>
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<td>SECTION: ADMINISTRATIVE: added</td>
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<td>All pages: EASA TCDS format updated</td>
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