

**COMANDO DA AERONÁUTICA
DEPARTAMENTO DE PESQUISAS E DESENVOLVIMENTO
CENTRO TÉCNICO AEROESPACIAL**

TYPE CERTIFICATE DATA SHEET Nº EB-2003T01

Type Certificate Holder:

AMERICAN BLIMP CORPORATION

1900 NE 25th Avenue, Suite 5

Hillsboro, OR - 97124

USA

EB-2003T01

Sheet 01

AMERICAN BLIMP

A-1-50

AIRSHIP

February 2003

This data sheet, which is part of Type Certificate No. 2003T01, prescribes conditions and limitations under which the product, for which the Type Certificate was issued, meets the airworthiness requirements of the Brazilian Aeronautical Regulations.

I - Model A-1-50 Airship, approved 13 February 2003.

ENVELOPE

Capacity (Volume): 4 247 m³ (150 000 ft³)

Maximum Pressure: 50.8 mm (2.0 in) H₂O

Minimum Pressure: 33.0 mm (1.3 in) H₂O

LIFTING GAS

The airship is to be inflated with laboratory grade (99.9% purity) Helium gas only.

ENGINE

Two (2) Textron-Lycoming model IO-360-B1G6, tractor mounted, four stroke, horizontally opposed, normally aspirated, fuel injected, air cooled, with starters and alternators. See EM 8207-03.

FUEL

100LL minimum grade aviation fuel.

OIL

See Engine EM 8207-03.

ENGINE LIMITS

Rated maximum continuous: 180 hp at 2 700 rpm. See Note 5.

PROPELLER AND PROPELLER LIMITS

Two (2) MT-Propellers model MTV-25-1-D-C-R(M)/CR 165-06, five-blades, laminated wood composite structure, epoxy-fiber glass cover, with metal tipping, constant speed, fully reversing. See EH 2003T02 and Note 6.

AIRSPEED LIMITS (IAS)

Maximum operating limit speed: 96.5 km/h (60 mph)

Maximum level flight speed: 88.5 km/h (55 mph)

Design speed for max. gust intensity: 74.0 km/h (46 mph)

C. G. RANGE

See Brazilian approved Airship Flight Manual, Document 301030.

| | |
|-----------------------------------|--|
| DATUM | Theoretical bow of the envelope. The theoretical bow is 660.4 mm (26 in) aft of the nose mooring probe. All station measurements are shown in millimeters (in). Gondola datum is airship gore station 18 770.6 mm (739 in). |
| MAXIMUM WEIGHT | See Brazilian approved Airship Flight Manual, Document 301030. |
| MINIMUM CREW | One (1) pilot. |
| NUMBER OF SEATS | Ten (10). |
| FUEL CAPACITY | 570 liters (150.8 gallons), [560 liters (148.0 gallons) usable]. |
| OIL CAPACITY | 7.6 liters (8.0 quarts) per engine. |
| MAXIMUM OPERATING ALTITUDE | 3 048 m (10 000 ft). |
| S/N'S ELIGIBLE | S/N 001 and subsequent. A Certificate of Airworthiness for Export endorsed as noted under "Import Eligibility" must be submitted for each individual airship for which application for a Brazilian Certificate of Airworthiness is made. |
| IMPORT ELIGIBILITY | A Brazilian Certificate of Airworthiness may be issued on the basis of an FAA Export Certificate of Airworthiness (or a third country Export Certificate of Airworthiness, in case of used aircraft imported from such country), including the following statement: "The airship covered by this certificate has been inspected, tested and found to be in conformity with the Brazilian approved type design as defined by the Brazilian Type Certificate no. 2003T01 and is in condition of safe operation". The CTA Report H.10-2130-01, dated 10 Feb. 2003 or further revisions, contains the Brazilian requirements for the acceptance of these airplanes. (See note 4) |
| CERTIFICATION BASIS | RBHA 21, paragraph 21.17(b), effective 20 July 1993. Compliance with RBHA 21.17(b) has been shown utilizing the provisions of the airworthiness requirements established by the "Airship Design Criteria" (ADC), FAA document P-8110-2, dated 02 November 1987, as amended by change 1, dated 24 July 1992 and change 2, dated 06 February 1995. Application for Type Certificate dated 30 August 2002. |
| REQUIRED EQUIPMENT | The basic required equipment as prescribed in the applicable airworthiness regulations (See Certification Basis) must be installed in the airship for certification. In addition to the above required equipment, the following, equipment is also required: |

**REQUIRED EQUIPMENT
(Cont.)**

Latest CTA approved Brazilian Airship Flight Manual, issued for the applicable airship serial numbers, Document 301030.
American Blimp Corporation Ground Handling Manual, Document 301001, revision C, dated 02 September 1998 or later FAA approved revisions, which is to be made available to the operator's flight and ground crews.

NOTES:

- NOTE 1:** Weight and balance. Current Weight and Balance Report, together with List of Equipment included in the certificated empty weight, interior arrangement and loading instructions, when necessary, must be provided for each airship at the time of the original certification. The certificated empty weight and corresponding center of gravity locations must include unusable fuel of 6.3 kg (14.0 lb) at gondola station 6 032.5 mm (237.5 in).
- NOTE 2:** Markings and placards. The airship operation must be in accordance with the CTA approved Brazilian Airship Flight Manual, document 301030. All placards required in the CTA approved Brazilian Airship Flight Manual must be installed in the airship. See "ABC" SB n° 119.
- NOTE 3:** Continuing Airworthiness. Maintenance and inspection of this airship must be carried out in accordance with American Blimp Corporation Instructions for Continued Airworthiness, document 301032, rev. 4, dated 03 April 2002, or later FAA approved revisions.
- NOTE 4:** The differences of the Brazilian airships in relation to the basic FAA type design are summarized below:
1. The Brazilian Airship Flight Manual;
2. Markings and placards.
- NOTE 5:** Textron Lycoming type certificate data sheet EM 8207-03 provides information on the engine limitations.
- NOTE 6:** MT Propeller type certificate data sheet EH 2003T02 provides information on the propeller limitations.
- NOTE 7:** The Auxiliary Power Unit (Generator System) is limited to non-flight safety electrical services whose failure or malfunction will pose no safety hazard (e.g. advertising lighting, etc.)

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