

MINISTÉRIO DA AERONÁUTICA
DEPARTAMENTO DE PESQUISA E DESENVOLVIMENTO
CENTRO TECNICO AEROESPACIAL

TYPE CERTIFICATE DATA SHEET Nº EA-9503

CERTIFICATE HOLDER:

AMERICAN BLIMP CORPORATION
1900 NE 25th Avenue, Suite 5
HILLSBORO, OREGON 97124
U.S.A.

EA - 9503

Page 1

AMERICAN BLIMP
CORPORATION

AIRSHIPS MODELS
A-60 AND A-60+

September 1995

I - MODEL A-60 AIRSHIP approved September 15, 1995.

ENVELOPE

Volume	1,699 cu.m. (60,000 cu. ft.)
Maximum Pressure	2.0 in H ₂ O
Minimum Pressure	1.0 in H ₂ O

LIFTING GAS

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

ENGINE

Two (2) Limbach type L2000 engines.

FUEL SPECIFICATION

100LL minimum grade aviation gasoline.

OIL

SAE 20W-50 API service SE or better.

ENGINE LIMITS

Maximum continuous	2600 rpm
Takeoff (1 minute)	3000 rpm
Maximum Cylinder head temperature	216°C (421°F)
See Note 4.	

PROPELLER

Two (2) MT two-bladed, wooden, fixed pitch propellers
Model N° MT 150 RD 80-1A.
See Note 5.

AIRSPEED LIMITS

Design Maximum Level Flight Speed	88.5 km/h	55mph)
Maximum Operating Limit Speed	88.5 km/h	55mph)
Design Speed for Max. Gust Intensity	69.2 km/h	43mph)

C.G. RANGE

See Brazilian approved Flight Manual.

DATUM

Theoretical bow of the envelope. The theoretical bow is 558.8 mm (22 in) aft of the nose mooring probe. All station measurements are shown in millimeters (in). Gondola datum is airship station 13,233.4 mm (521.0 in).

**MAXIMUM OPERATING
ALTITUDE**

2,225 m (7,300 feet).

MAXIMUM WEIGHTS

Maximum airship EQ weight	1,993.0 kg (4,394 lbs)
Maximum gondola weight	1,360.8 kg (3,000 lbs)
Maximum static heaviness	113.4 kg (250 lbs)

MINIMUM CREW

one (1) pilot.

PASSENGERS

5
Two (2) at gondola station +1244.6 mm (+49.0 in), and Three (3)
at gondola station +2616.2 mm (+103.0 in)

FUEL CAPACITY

266.8 liters (70.5 Gallons) [261.1 liters (69.0 Gallons) usable].

OIL CAPACITY

2.7 liters (2.6 quarts) per engine.

**SERIAL NUMBERS
ELIGIBLE**

S/N 001 and subsequent.

II - MODEL A-60+ AIRSHIP approved September 15, 1995.

ENVELOPE

Volume	1,925 cu.m (68,000 cu. ft.)
Maximum Pressure	2.0 in H ₂ O
Minimum Pressure	1.0 in H ₂ O

LIFTING GAS

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

ENGINE

Two (2) Limbach type L2000 engines.

FUEL SPECIFICATION

100LL minimum grade aviation gasoline.

OIL

SAE 20W-50 API service SE or better.

ENGINE LIMITS

Maximum Continuous	2600 rprn
Takeoff (1 minute)	3000 rpm
Maximum Cylinder head temperature	216°C (421°F)
See Note 4.	

PROPELLER

Two (2) MT two-bladed, wooden, fixed pitch propellers
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AIRSPEED LIMITS

Design Maximum Level Flight Speed	88.5 km/h	55mph)
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Design Speed for Max. Gust Intensity	69.2 km/h	43mph)

C.G. RANGE

See Brazilian approved Flight Manual.

DATUM

Theoretical bow of the envelope. The theoretical bow is 558.8 mm (22 in) aft of the nose mooring probe. All station measurements are shown in millimeters (in). Gondola datum is airship station 13,411.2 mm (528.0 in).

**MAXIMUM OPERATING
ALTITUDE**

2,225 m (7,300 feet).

MAXIMUM WEIGHTS

Maximum airship EQ weight	1,993.0 kg (4,394 lbs)
Maximum gondola weight	1,360.8 kg (3,000 lbs)
Maximum static heaviness	113.4 kg (250 lbs)

MINIMUM CREW

one (1) pilot.

PASSENGERS

5
Two (2) at gondola station +1244.6 mm (+49.0 in), and Three (3)
at gondola station +2616.2 mm (+103.0 in)

FUEL CAPACITY

266.8 liters (70.5 Gallons) [261.1 liters (69.0 Gallons) usable].

OIL CAPACITY

2.75 liters (2.6 quarts) per engine.

**SERIAL NUMBERS
ELIGIBLE**

S/N 005 and subsequent.

DATA PERTINENT TO ALL MODELS

SERIAL NUMBERS ELIGIBLE

A FAA Certificate of Airworthiness for Export, endorsed as noted under Import Requirements, must be submitted for each individual Airship for which application for a Brazilian Airworthiness Certificate is made.

IMPORT REQUIREMENTS

A Brazilian Airworthiness Certificate must be issued in the basis of the Airworthiness Certificate for Exportation issued by the FAA, including the following statement: "The airship covered by this Certificate has been inspected, tested and found to comply with the Brazilian approved type design as defined by the CTA Type Certificate Nr 9503, and is in condition for safe operation".

CERTIFICATION BASIS

RBHA Part 21. paragraph 21.17(b), effective July 20, 1993. Compliance with RBHA 21.17(b) has been shown utilizing the provisions of the FAA Advisory Circular 21.17-1 dated September 30, 1987, section 5. The Airworthiness requirements met under this provision are the "Airship Design Criteria (ADC), FAA P-8110-2, dated November 2, 1987, as amended by FAA letter dated January 10, 1989.

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:

The CTA approved Brazilian Airship Flight Manual issued for the applicable airship serial numbers, Document 301-006.

American Blimp Corporation Ground Handling Manual, Document 301-001, original issue, dated May 18, 1990 or later CTA approved revisions, which are to be made available to the operator's flight and ground crew.

NOTE 1.

Current Weight and Balance Report, 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 4.1 kg (9.0 lbs) at gondola station 3200 mm (126.0 in).

NOTE 2.

Airship operation must be in accordance with the CTA approved Brazilian Airship Flight Manual. All placards required in either the CTA approved Brazilian Airship Flight Manual or the Certification Basis must be installed in the airship. Portuguese placards shall be in accordance with the CTA letter N° 407/FDH/IFI, dated December 12, 1994.

NOTE 3.

RESERVED.

NOTE 4.

Limbach Engine Data Sheet N° 4597, dated March 20, 1984, provides information on the engine maximum oil temperatures and oil and fuel pressure limitations.

NOTE 5.

MT propeller Data Sheet N° 32.110/12, dated April 16, 1987, provides information on the propeller diameter and rotational speed limitations.

NOTE 6.

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.)

SILOMAR CAVALCANTE GODINHO - Ten.-Cel.-Av.
Chefe da Divisão de Homologação Aeronáutica

Brig.-do-Ar REGINALDO DOS SANTOS
Diretor Interino do CTA