

DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

AS1NM
Revision 9
American Blimp Co., LLC
A-60, A-60+,A-60R
November 26, 2012

TYPE CERTIFICATE DATA SHEET AS1NM

This data sheet which is a part of Type Certificate No. AS1NM prescribes conditions and limitations under which the product for which the Type Certificate was issued meets the airworthiness requirements of the Federal Aviation Regulations.

Type Certificate Holder:: American Blimp Co., LLC
1900 N.E. 25th Avenue, Suite 5
Hillsboro, Oregon 97124

I. - Model A-60 Airship (Approved May 18, 1990)

Envelope: Volume 60,000 cu. ft. (A-60)
Maximum Pressure 2.0 in. H₂O
Minimum Pressure 1.0 in H₂O

Lifting Gas: Use of helium gas only as a lifting gas.

Engine: Two (2) Limbach type L2000 engines.

Fuel 100LL minimum grade aviation gasoline.

Oil: SAE 20W-50 API service or better.

Engine Limits*: Maximum continuous, 2600 r.p.m.
Takeoff, (1 min.), 2900 r.p.m.
Maximum cylinder head temperature, 421°F
*See note 4.

Propeller and
Propeller Limits*: Two (2) MT two-bladed, wooden, fixed pitch propellers.
Model No. MT 150 RD 80-1A
*See note 5.

Airspeed Limits: Design Maximum Level Flight Speed 60 m.p.h. IAS
Maximum Operating Limit Speed 55 m.p.h. IAS
Design Speed for Max. Gust Intensity 43 m.p.h. IAS

C. G. Range: See FAA approved Flight Manual

Datum: Theoretical bow of the envelope. The theoretical bow is 22 inches aft of the nose mooring probe. All station measurements are shown in inches. Gondola datum is airship station 521.0

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<u>Maximum Weights:</u>	Maximum airship EQ weight	4,394 lbs.
	Maximum gondola weight	3,000 lbs.
	Maximum static heaviness	250 lbs.
<u>Minimum Crew:</u>	1 Pilot	
<u>No. of Seats:</u>	5 (2 at gondola station 49.0, 3 at gondola station 103.0)	
<u>Fuel Capacity:</u>	70.5 gallons (69.0 gallons usable)	
<u>Oil Capacity:</u>	2.6 quarts per engine.	
<u>Maximum Operating Altitude:</u>	10,000 ft.	
<u>Serial Nos. Eligible:</u>	001 and on.	

II. - Model A-60+ (Approved November 29, 1991)

<u>Envelope:</u>	Volume	68,000 cu. ft. (A-60+)
	Maximum Pressure	2.0 in. H ₂ O
	Minimum Pressure	1.0 in. H ₂ O
<u>Lifting Gas:</u>	Use of helium gas only as a lifting gas.	
<u>Engine:</u>	Two (2) Limbach type L2000 engines.	
<u>Fuel:</u>	100LL minimum grade aviation gasoline.	
<u>Oil:</u>	SAE 20W-50 API service or better.	
<u>Engine Limits*:</u>	Maximum continuous, 2600 r.p.m. Takeoff, (1 min.), 2900 r.p.m. Maximum cylinder head temperature, 421°F *See note 4.	
<u>Propeller and Propeller Limits*:</u>	Two (2) MT two-bladed, wooden, fixed pitch propellers. Model No. MT 150 RD 80-1A *See note 5.	
<u>Airspeed Limits:</u>	Design Maximum Level Flight Speed	60 m.p.h. IAS
	Maximum Operating Limit Speed	55 m.p.h. IAS
	Design Speed for Max. Gust Intensity	43 m.p.h. IAS
<u>C. G. Range:</u>	See FAA approved Flight Manual.	
<u>Datum:</u>	Theoretical bow of the envelope. The theoretical bow is 22 inches aft of the nose mooring probe. All station measurements are shown in inches. Gondola datum is airship station 528.0	

<u>Maximum Weights:</u>	Maximum airship EQ weight	4,394 lbs.
	Maximum gondola weight	3,000 lbs.
	Maximum static heaviness	250 lbs.
<u>Minimum Crew:</u>	1 Pilot	
<u>No. of Seats:</u>	5 (2 at gondola station 49.0, 3 at gondola station 103.0)	
<u>Fuel Capacity:</u>	70.5 gallons (69.0 gallons usable)	
<u>Oil Capacity:</u>	2.6 quarts per engine.	
<u>Maximum Operating Altitude:</u>	10,000 ft.	
<u>Serial Nos. Eligible:</u>	005 and on. Serial Numbers 001 through 004 are eligible if Service Bulletin 21 has been incorporated	

III. - Model A-60R (Approved December 22, 2004)

<u>Envelope:</u>	Volume	68,000 cu. ft. (A-60+)
	Maximum Pressure	2.0 in. H ₂ O
	Minimum Pressure	1.0 in H ₂ O
<u>Lifting Gas:</u>	Use of helium gas only as a lifting gas.	
<u>Engine:</u>	Two (2) Rotax type 912F3 engines.	
<u>Fuel:</u>	Minimum RON 90 or Minimum AKI 87 Autogas or 100LL minimum grade aviation gasoline.	
<u>Oil:</u>	See Engine Type Certificate Data Sheet E00051EN.	
<u>Engine Limits*:</u>	Maximum continuous, 5500 r.p.m. Maximum takeoff, (1 min.), 5800 r.p.m. Maximum cylinder head temperature, 300°F *See note 4.	
<u>Propeller and Propeller Limits*:</u>	Two (2) MT two-bladed, wood composite, constant speed reversing propellers. Model No. MT V-21-A-C-R(M)CRLD175-05 *See note 5.	
<u>Airspeed Limits:</u>	Design Maximum Level Flight Speed	60 m.p.h. IAS
	Maximum Operating Limit Speed	60 m.p.h. IAS
	Design Speed for Max. Gust Intensity	43 m.p.h. IAS
<u>C. G. Range:</u>	See FAA approved Flight Manual.	
<u>Datum:</u>	Theoretical bow of the envelope. The theoretical bow is 22 inches aft of the nose mooring probe. All station measurements are shown in inches. Gondola datum is airship station 528.0	

<u>Maximum Weights:</u>	Maximum airship EQ weight	4,394 lbs.
	Maximum gondola weight	3,000 lbs.
	Maximum static heaviness	350 lbs.
<u>Minimum Crew:</u>	1 Pilot	
<u>No. of Seats:</u>	5 (2 at gondola station 49.0, 3 at gondola station 103.0)	
<u>Fuel Capacity:</u>	70.5 gallons (69.0 gallons usable)	
<u>Oil Capacity:</u>	6.4 pints per engine.	
<u>Maximum Operating Altitude:</u>	6,000 ft.	
<u>Serial Nos. Eligible:</u>	019, 021 and on. Serial Numbers 001 through 018 and 020 are eligible if Service Bulletin 127 has been incorporated	

DATA PERTINENT TO ALL MODELS

<u>Certification Basis:</u>	FAR 21.17(b) effective March 13, 1987
	Compliance with FAR 21.17(b) has been shown utilizing the provisions of 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.
	Application for Type Certificate dated May 11, 1987.
	Type Certificate No. AS1NM issued May 18, 1990.
<u>Production Basis:</u>	Production Certificate No. : PC-701NM.
<u>Equipment:</u>	The basic required equipment as prescribed in the applicable airworthiness regulations (see Certification Basis) must be installed in the aircraft for certification.
	In addition to the above required equipment, the following equipment is also required:
	Latest FAA-approved Airship Flight Manual, Document 301006 for the A-60 and A-60+ and document 301047 for the A-60R.
	American Blimp Corporation Ground Handling Manual, 301001, Rev. E, dated November 23, 2004, or later FAA-approved revisions is to be made available to the operator's flight and ground crews.
<u>Maintenance and Inspection:</u>	Maintenance and Inspection of this airship must be carried out according to American Blimp Corporation Maintenance Manual 301-003, Rev. 14, dated October 19, 2004, or later FAA-approved revision.

- NOTE 1 Current Weight and Balance Report together with list of equipment included in certificated empty weight, and loading instructions when necessary, must be provided for each aircraft at the time of original certification. The certificated empty weight must include unusable fuel of 9.0 lbs. at gondola station 126.0.
- NOTE 2 All placards required in the approved Airship Flight Manual must be installed in the appropriate locations.
- NOTE 3 Reserved
- NOTE 4 Limbach Engine Data Sheet No. 4597, dated March 20, 1984, provides information on the engine maximum oil temperatures and oil and fuel pressure limitations.
- Rotax Engine Data Sheet No. E00051EN, provides information on the engine maximum oil temperatures and oil and fuel pressure limitations.
- NOTE 5 MT propeller Data Sheet No. 32.110/12, dated April 16, 1987, provides information on the propeller diameter and rotational speed limitations. Propeller must be painted in accordance with CAA AIC 62/1992 in a gloss white and gloss black pattern
- MT propeller Data Sheet No. P16BO, Rev. 1, dated Oct 20, 2004, provides information on the propeller diameter and rotational speed limitations. Propeller must be painted in accordance with CAA AIC 62/1992 in a gloss white and gloss black pattern
- 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.)

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