

**DEPARTMENT OF TRANSPORTATION  
FEDERAL AVIATION ADMINISTRATION**

S00002SE  
Revision 5  
ABC  
A-1-50  
A-1-70, A-1-70G  
October 1, 2007

**TYPE CERTIFICATE DATA SHEET S00002SE**

This data sheet, which is part of Type Certificate No. S00002SE, prescribes conditions and limitations under which the product for which the type certificate was issued meets the airworthiness requirements of the Federal Aviation Regulations.

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

**I - Model A-1-50 Airship (Approved October 3, 1997)**

Envelope:                      Volume                              150,000 cu. ft.  
   Maximum Pressure                2.0 in. H<sub>2</sub>O  
   Minimum Pressure                1.3 in. H<sub>2</sub>O

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

Engine:                         Two (2) Lycoming Model IO-360-B1G6, Engine Type Certificate Data Sheet 1E10.

Fuel:                             100LL minimum grade aviation fuel.

Oil:                              See Engine Type Certificate Data Sheet 1E10.

Engine Limits:                Rated maximum continuous horsepower 180 @ 2700 r.p.m. Maximum cylinder head temperature: 500 degrees F.  
\* see note 4

Propeller and  
Propeller Limits:             Two (2) MT five bladed, laminated wood composite structure, epoxy-fiber glass cover, with metal tipping, Model No. MTV-25-(). Maximum allowable r.p.m.: 2700.  
\* see note 5

Airspeed Limits:              Maximum Level Flight Speed                      55 m.p.h. IAS  
   Maximum Operating Limit Speed                60 m.p.h. IAS  
   Design Speed for Maximum Gust Intensity    46 m.p.h. IAS

C.G.Range:                    See FAA approved Airship Flight Manual, Document 301030

Datum:                         Theoretical bow of the envelope. The theoretical bow is 26 inches aft of the nose mooring probe. All station measurements are shown in inches. Gondola datum is airship gore station 739.

Maximum Weights:           See FAA approved Airship Flight Manual, Document 301030

Minimum Crew:                1 Pilot

No. of Seats:                   9 (1 on right front seat, 5 on seat track seats and 3 on rear bench seat)

Fuel Capacity:                150.8 gallons (148 gallons usable)

Maximum Operating

Page No.	1	2	3	4
Rev. No.	4	5	4	4

Altitude: 10,000 feet  
 Serial Numbers Eligible: 101 through 106, 108 and on

**II - Model A-1-70 Airship (Approved March 25, 2005)**

Envelope:                   Volume                   170,000 cu. ft.  
                                   Maximum Pressure       2.0 in. H<sub>2</sub>O  
                                   Minimum Pressure       1.3 in. H<sub>2</sub>O

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

Engine:                    Two (2) Lycoming Model IO-360-B1G6, Engine Type Certificate Data Sheet 1E10.

Fuel:                       100LL minimum grade aviation fuel.

Oil:                         See Engine Type Certificate Data Sheet 1E10.

Engine Limits:            Rated maximum continuous horsepower 180 @ 2700 r.p.m. Maximum cylinder head temperature: 500 degrees F.  
                                   \* see note 4

Propeller and  
 Propeller Limits:         Two (2) MT five bladed, laminated wood composite structure, epoxy-fiber glass cover, with metal tipping, Model No. MTV-25-(). Maximum allowable r.p.m.: 2700.  
                                   \* see note 5

Airspeed Limits:         Maximum Level Flight Speed               55 m.p.h. IAS  
                                   Maximum Operating Limit Speed           60 m.p.h. IAS  
                                   Design Speed for Maximum Gust Intensity 46 m.p.h. IAS

C.G.Range:                See FAA approved Airship Flight Manual, Document 301030

Datum:                    Theoretical bow of the envelope. The theoretical bow is 26 inches aft of the nose mooring probe. All station measurements are shown in inches. Gondola datum is airship gore station 804.

Maximum Weights:        See FAA approved Airship Flight Manual, Document 301030

Minimum Crew:            1 Pilot

No. of Seats:             9 (1 on right front seat, 5 on seat track seats and 3 on rear bench seat)

Fuel Capacity:            150.8 gallons (148 gallons usable)

Maximum Operating  
 Altitude:                 10,000 feet

Serial Numbers Eligible: 101 through 106, 108 and on

**II - Model A-1-70G Airship (Approved April 7, 2006)**

Envelope:                   Volume                   170,000 cu. ft.  
                                   Maximum Pressure       2.0 in. H<sub>2</sub>O  
                                   Minimum Pressure       1.3 in. H<sub>2</sub>O

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

Engine:                    Two (2) Lycoming Model IO-360-B1G6, Engine Type Certificate Data Sheet 1E10.

Fuel:                       100LL minimum grade aviation fuel.

Oil:                         See Engine Type Certificate Data Sheet 1E10.

Engine Limits:	Rated maximum continuous horsepower 180 @ 2700 r.p.m. Maximum cylinder head temperature: 500 degrees F. * see note 4	
Propeller and Propeller Limits:	Two (2) MT five bladed, laminated wood composite structure, epoxy-fiber glass cover, with metal tipping, Model No. MTV-25-(). Maximum allowable r.p.m.: 2700. * see note 5	
Airspeed Limits:	Maximum Level Flight Speed	55 m.p.h. IAS
	Maximum Operating Limit Speed	60 m.p.h. IAS
	Design Speed for Maximum Gust Intensity	46 m.p.h. IAS
C.G.Range:	See FAA approved Airship Flight Manual, Document 301030	
Datum:	Theoretical bow of the envelope. The theoretical bow is 26 inches aft of the nose mooring probe. All station measurements are shown in inches. Gondola datum is airship gore station 804.	
Maximum Weights:	See FAA approved Airship Flight Manual, Document 301030	
Minimum Crew:	1 Pilot	
No. of Seats:	9 (1 on right front seat, 5 on seat track seats and 3 on rear bench seat)	
Fuel Capacity:	150.8 gallons (148 gallons usable)	
Maximum Operating Altitude:	10,000 feet	
Serial Numbers Eligible:	107	

### **Additional Pertinent Data**

Certification Basis:	FAR 21.17(b) effective September 9, 1992  Compliance with FAR 21.17(b) has been shown utilizing the provisions of Advisory Circular 21.17-1A, dated September 25, 1992. The airworthiness requirements met under this provision are the Airship Design Criteria (ADC), FAA P-8110-2, dated November 2, 1987, as amended by Change 1, dated July 24, 1992 and Change 2, dated February 6, 1995.  Application for Type Certificate dated June 29, 1995.  Type Certificate No. S00002SE issued October 3, 1997.	
Equipment:	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 301030  American Blimp Corporation Ground Handling Manual, 301001, Revision E, dated March 24, 2005, or later FAA-approved revisions is to be made available to the operator's flight and ground crews.	
Maintenance and Inspection	Maintenance and Inspection of this airship must be carried out in accordance with American Blimp Corporation Instructions for Continued Airworthiness, Document 301032, Revision 7, dated March 14, 2005, or later FAA-approved revisions.	

NOTE 1 All placards required in the FAA approved Airship Flight Manual 301030 must be installed in the appropriate locations.

- NOTE 2           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.)
- NOTE 3           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 16.8 lbs. at gondola station 237.5.
- NOTE 4           Lycoming Engine Data Sheet No. 1E10, provides information on the engine maximum oil temperatures and oil fuel pressure limitations.
- NOTE 5           MT propeller Data Sheet No. P14BO, provides information on the propeller diameter and rotational speed limitations.
- NOTE 6           Option: Installation of Model A-1-70 Lightsign per American Blimp Corporation Drawing "Lightsign Installation" Drawing Number 137000, Rev. B, dated January 13, 2006 or later FAA-approved revision. Operational Limitations: Operate per American Blimp Corporation Flight Manual Supplement AFMS-18, dated March 7, 2006, or later FAA-approved revision.

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