DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

TS00002AT
Revision 2
Skycruiser
S1000

April 23, 2012

TYPE CERTIFICATE DATA SHEET NO. TS00002AT

This data sheet, which is a part of Type Certificate No. TS00002AT, 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: Skyship Services, Inc
2295 S. Hiawassee Road, Ste 411
Orlando, FL 32835

I. Model Sentinel 1000 Airship. (Normal Category), Approved October 22, 1993

Envelope	Volume	353,146 ft^3 (10,000 m^3)
	Maximum Pressure	3.2 in. H_2O
	Minimum Pressure	1.1 in. H_2O
Lifting Gas	Helium Gas	
Engine	Two (2) Porsche 930/67/A1/3 engines (Reduction Ratio 37:19)	
Fuel	100LL minimum grade aviation gasoline	
Oil	Mobil 1 5W-30 (winter, +10°C and below) Mobil 1 15W-40 (summer, +5°C and above)	
Engine Limits	Maximum continuous, 4,600 (FC) rpm: (235 hp) Takeoff (5 minutes), 5,200 (FMP) rpm: (255 hp) Maximum manifold pressure is 45.5 in Hg (Absolute) Maximum cylinder head temperature is 240° C	
Propeller and Propeller Limits	Two (2) Hoffmann HO-V 155 A-R/167EE Diameter, 66 in. No reduction allowed. Pitch settings at propeller tips:	
	Forward Cruise Variable	(FCV); 19° to 24°
	Forward Cruise	(FC); 22°
	Forward Max Power	(FMP); 17°
	Forward Fine	(FF); -2°
	Reverse	(R); -19°
Airspeed Limits	Maximum Operating Limit Speed (V_{MO})	50 knots IAS
	Design speed for maximum gust intensity (V_B)	45 knots IAS
C.G. Range	See FAA Approved Flight Manual	
Datum	Forward face of the engine room bulkhead, which is located at envelope station 103.00. All station measurements are shown in feet.	
Leveling Means	Inclinometer located on the left and right hand sides of the flight deck speaker boxes.	

Maximum Weights	Maximum operating weight	20,240 lb. (9,200 kg)
	Maximum suspended (car) weight	12,760 lb. (5,800 kg)
	Minimum operating weight	14,300 lb. (6,500 kg)
	Maximum static heaviness	770 lb. (350 kg)
	Maximum static lightness	440 lb. (200 kg)

Minimum Crew

One (1) pilot

No. Of Seats

Ten (10) seats including the pilot's seat. See the Airship Flight Manual for approved seating configurations.

Fuel Capacity

Total capacity 180 gal (682.2 liters)
Usable fuel 168 gal (635.2 liters)

Oil Capacity

Total capacity 4.4 gal (16.8 liters)
Usable oil 4.1 gal (15.5 liters)

Maximum Operating Altitude

5,000 ft AGL (above ground level)

Control Surface Movements

Total one-way travel each direction for each control surface is 23^{o} +/- 2^{o}

Vector System

The propulsor vector system travel is from $+110^{o}$ (nose up) to -80^{o} (nose down)

Serial Numbers Eligible

S1000-01 and subsequent

Certification Basis

FAR 21.17(b) through Amendment 21-68 dated August 10, 1990

Compliance with FAR 21.17(b) has been shown utilizing the provisions of Advisory Circular 21.17-1A dated October 30, 1992, Section 5. The airworthiness requirements met under this provision are the Airship Design Criteria (ADC), FAA P-8110-2, CHG 1, dated July 24, 1992, as amended by FAA letter dated October 20, 1993.

Application for Type Certificate dated January 11, 1991.

Type Certificate No. TS00002AT issued October 22, 1993.

Production Basis

None. Prior to original certification of each aircraft, an FAA representative must perform a detailed inspection for workmanship, materials and conformity with the approved technical data, and a check of the flight characteristics.

Equipment

The basis required equipment as prescribed in the applicable airworthiness requirements (see Certification Basis) must be installed in the aircraft for certification. In addition, the following equipment is also required:

FAA Approved Airship Flight Manual, FS-M-001, dated October 22, 1993, or later FAA approved revision.

WAI Sentinel 1000 Ground Handling Manual, MS-M-001, dated October 22, 1993, is to be made available to the operator's flight and ground crews.

Maintenance and Inspection

Maintenance and inspection of airship Serial Number S1000-01 must be carried out according to the Sentinel 1000 Recommended Maintenance Schedule, PD-M-001, dated May 1993. In accordance with FAR 21.50 and ADC paragraph 7.12, complete instructions for Continued Airworthiness must be submitted for approval prior to delivery of the first airship or issuance of a standard certificate of airworthiness, whichever occurs later.

NOTE 1. A current weight and balance report, together with a 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 71 lb. at station +6.88

NOTE 2. All placards required in the approved airship flight manual must be installed in the appropriate locations.

NOTE 3 Reserved.

NOTE 4. See Section 7 of the Sentinel 1000 Recommended Maintenance Schedule, PD-M-001, for a listing of life-limited parts.

NOTE 5 This type certificate retyped without technical changes on February 5, 2001.

NOTE 6 This type certificate was originally issued to Westinghouse Airship, Inc, in the US, on October 22, 1993. It was transferred to Global Skyship Industries, in the US, on August 7, 1997, to Skycruiser Corporation, in the US, on March 4, 2004 and to Skyship Services, Inc on April 23, 2012.

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