

DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

AS2EU Revision 4 Skycruiser Skyship 500HL March 4, 2004

TYPE CERTIFICATE DATA SHEET NO. AS2EU

This data sheet, which is a part of Type Certificate No. AS2EU, 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: Skycruiser Corporation
161 Tcom Drive
Elizabeth City, NC 27909

I. Model Skyship 500HL (Normal Category), approved July 3, 1990

Engine	Two (2) Porsche 930/01/A1/3 (Reduction Ratio 37:19)												
Fuel	100/100LL grade aviation gasoline												
Engine Limits	For take-off (5 min) at 5900 rpm (204hp) For continuous operation, 4400 rpm (150hp)												
Propeller and Propeller Limits	Two (2) Hoffman HO-V 155 A-R Number of blades = 5 Propeller diameter = 1372mm (54in.) Pitch settings at propeller tip: <table> <tr> <td>Forward Cruise (FC)</td> <td>=</td> <td>26° ± 1°</td> </tr> <tr> <td>Forward Max Power (FMP)</td> <td>=</td> <td>16° ± 1°</td> </tr> <tr> <td>Forward Fine (FF)</td> <td>=</td> <td>3° ± 1°</td> </tr> <tr> <td>Reverse (R)</td> <td>=</td> <td>-25° ± 1°</td> </tr> </table>	Forward Cruise (FC)	=	26° ± 1°	Forward Max Power (FMP)	=	16° ± 1°	Forward Fine (FF)	=	3° ± 1°	Reverse (R)	=	-25° ± 1°
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Forward Max Power (FMP)	=	16° ± 1°											
Forward Fine (FF)	=	3° ± 1°											
Reverse (R)	=	-25° ± 1°											
Airspeed Limits (IAS)	(V _{mo}) Maximum Operating 50 knots (V _{ra}) Rough Air 45 knots (V _{mc}) Minimum Control 10 knots												
C.G. Range	Reference Airship Flight Manual Page 2-6 Fig. 2-1 for variation due to Helium fill												
Datum	Forward face of the engine room bulkhead, 25.25 meters aft of the nose cone F.P.												
Leveling Means	Inclinometer located on the lefthand side of the speaker box.												
Weights	Maximum Weight 6090 Kg Maximum Car Weight 3769 Kg												

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Envelope and Ballonets	Envelope Gross Volume	6666 Cubic Meters
	Maximum Envelope Pressure	2.55 inches W.G.
	Minimum Envelope Pressure (in hangar)	0.8 inches W.G.
	Maximum Ballonet Differential Pressure	0.7 inches W.G.
	Ballonet Volume	27% of envelope gross volume
Minimum Crew	Two (2); Pilot and co-pilot	
Maximum Number of Seats	Seven (7), including two crew seats.	

DATA PERTINENT TO ALL MODELS

Serial Numbers Eligible 500-03HL and subsequent

Note: Serial numbers 500-03HL through 500-06HL were manufactured in the United Kingdom (UK) under UK CAA manufacturing approval authority. Serial numbers 500-07HL and subsequent will be manufactured in the US under FAA manufacturing approval authority.

Import Requirements (Requirements apply to serial numbers 500-03HL through 500-06HL only):

The United Kingdom Certificate of Airworthiness for Export endorsed as noted under "Import Requirements" must be submitted for each individual aircraft, serial numbers 500-03HL through 500-06HL, for which application for certification is made.

To be considered eligible for operation in the United States, aircraft serial numbers 500-03HL through 500-06HL manufactured under this type certificate must be accompanied by a certificate of airworthiness for export or certifying statement endorsed by the exporting foreign civil airworthiness authority which states (in the English language): This aircraft conforms to its U.S. type design (type certificate number AS2EU) and is in a condition for safe operation.

The U.S. airworthiness certification basis for aircraft type certificated under FAR Section 21.29 and exported by the country of manufacture is FAR Sections 21.183(c) or 21.185(c).

The U.S. airworthiness certification basis for aircraft type certificated under FAR Section 21.29 exported from countries other than the country of manufacture (e.g., third party country) is FAR Sections 21.183(d) or 21.183(b).

Certification Basis FAR 21.17(b) and 21.29 effective February 1, 1965, including Amendments 21-1 through 21-60. Compliance with FAR 21.17(b) has been shown using the provisions of Advisory Circular 21.17-1, Section 5, paragraph a. The airworthiness requirements met under this provision are FAA Document FAA P-8110-2, Airship Design Criteria, dated November 2, 1987.

Application for Type Certificate dated June 27, 1989.

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, CAA and FAA-approved Flight Manual, DR/A1/120, as appropriately amended in relation to the actual modification standard of the airplane, is required.
Production Basis	None. Prior to original certification of each aircraft, serial numbers 500-07HL and subsequent, 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.
Maintenance and Inspection	Service bulletins, structural repair manuals, vendor manuals, aircraft flight manuals, and overhaul and maintenance manuals dated prior to February 2, 1994, which contain a statement that the document is CAA approved, are accepted by the FAA and are considered FAA approved. Any revision to maintenance, inspection and repair manuals dated February 2, 1994, or later, must be approved by the FAA.

NOTES

Note 1.	An approved seat belt must be provided for each seat.
Note 2.	Not approved for flight in Instrument Meteorological Conditions (IMC) unless compliance is shown with the requirements of Airship Design Criteria FAA-P-8110-2, paragraph 6.7.
Note 3.	<u>Airworthiness Limitations</u> Chapter 5 of the Skyship 500HL Maintenance Manual dated September 12, 1990, specifies mandatory replacement times, structural inspection intervals and related structural procedures, and operation checks. These airworthiness limitations may not be changed without FAA approval.
Note 4.	This type certificate was originally issued to Airship Industries, UK, on June 27, 1989. It was transferred to Slingsby Aviation Ltd, in the UK, on September 24, 1990, to Westinghouse Airships, Inc., in the US, on February 2, 1994, to Global Skyship Industries, in the US, on August 7, 1997, and to Skycruiser Corporation, in the US, on March 4, 2004.

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