

DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

A13SO
Revision 7
EAGLE
(SEMCO)
Challenger
Mark V
C-7
February 26, 1998

TYPE CERTIFICATE DATA SHEET NO. A13SO

This data sheet, which is part of Type Certificate No. A13SO, 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: Eagle Balloons Corp.
4561 Prime Parkway
McHenry, IL 60050

I - Model Challenger Hot Air Balloon, Approved December 21, 1973

Air Heaters SEMCO Challenger Drawing No. 6
Fuel Propane, Butane or equivalent L.P. fuel
Maximum Weight 931 lbs. (this weight includes the canopy weight).
Maximum Allowable Envelope Temperature 250°F.
Fuel Capacity Four 40 pound fuel tanks.
Serial Nos. Eligible SEM 25 and subsequent.

II - Model Mark V Hot Air Balloon, Approved January 15, 1976

Air Heaters SEMCO Mark V Drawing No. 5
Fuel Propane, Butane or equivalent L.P. fuel
Maximum Weight 801 lbs. (this weight includes the canopy weight).
Maximum Allowable Envelope Temperature 250°F.
Fuel Capacity Two 40 pound fuel tanks.
Serial Nos. Eligible SEM 132 and subsequent.

III - Model C-7 Hot Air Balloon, Approved May 1, 1981

Air Heaters Eagle Heater/Burner Model No. 3225
Fuel Commercial LPG
Maximum Weight 1200 lbs. (this weight includes the canopy weight).
Maximum Allowable Envelope Temperature 250°F.
Fuel Capacity Four No. 43-U4-16 Worthington fuel tanks. (Minimum tanks two)
Serial Nos. Eligible E80701 and subsequent.

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Data Pertinent to All Models

Certification Basis	Part 31 of the Federal Aviation Regulations dated July 1, 1964, as amended by 31-1 and 31-2. Application for Type Certificate dated August 1, 1972. Type Certificate No. A13SO issued December 21, 1973.
Production Basis	None. Prior to original certification of each aircraft, an FAA representative must perform a detailed inspection for workmanship, materials, conformity with the approved technical data, and a check of the flight characteristics.
Export Eligibility	Balloon will be eligible for issuance of an Export Certificate of Airworthiness subject to compliance with Federal Aviation Regulation Part 21, Subpart L, Sections 21.321 thru 21.339. The applicable procedures are contained in Advisory Circular 21-2B.
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:

On Models Challenger and Mark V:

1. Burner Lighter or sparker.
2. Drag Rope - Minimum Diameter - 5/6 inch
Minimum Length - 200 feet
3. FAA Approved Balloon Flight Manual approved December 21, 1973 (Challenger), or later approved revision.
4. FAA Approved Balloon Flight Manual approved January 15, 1976 (Mark V), or later approved revision.

On Model C-7:

1. Burner Ignitors, minimum quantity (2)
2. 10" adjustable wrench, crescent type, minimum two (2)
3. 2 1/2 lb. UL Coast Guard approved ABC fire extinguisher
4. FAA Approved Balloon Flight Manual approved May 1, 1981, or later approved revision.

NOTE 1. Envelope maintenance check: Envelope material strength is adequate if material withstands without tearing or yielding, forty pounds tension uniformly distributed one inch crosswise to, and applied in the direction of, the weave. The envelope should be tested in several areas, with particular attention to the upper portion which is subject to higher operating temperatures.

NOTE 2. Eagle Kit # 82-1 is eligible on Model Challenger serial numbers SEM 25 and subsequent.

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