TYPE-CERTIFICATE

DATA SHEET

EASA.AS.511

for

CAMERON D-SERIES HOT AIR AIRSHIPS

Type Certificate Holder:
CAMERON BALLOONS Ltd

St Johns Street
Bedminster
Bristol BS3 4NH
UNITED KINGDOM

For models: D-Series

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SECTION 1: GENERAL (ALL TYPES AND VARIANTS)

I. General

1.	Data Sheet No: EASA.AS.511	Issue 1 Date: 20 January 2017
2.	Type / Variant or Model	
	(a) Type:	Cameron D-Series.
	(b) Variant or Model:	Refer to Section 2
3.	Airworthiness Category:	Normal
4.	Type Certificate Holder:	**CAMERON BALLOONS LTD.** St Johns Street Bedminster Bristol BS3 4NH UNITED KINGDOM
5.	Manufacturer:	**CAMERON BALLOONS LTD.** St Johns Street Bedminster Bristol BS3 4NH UNITED KINGDOM
6.	National certification date:	Various, refer to Section 2
7.	CAA Application date:	Various, refer to Section 2
8.	CAA Recommendation date:	-
9.	EASA Certification date:	13 February 1981

II. Certification Basis

1.	Reference Date for determining the applicable requirements:	Various, refer to Section 2
2.	UKCAA Type Certificate Data Sheet No.:	Various, refer to Section 2
3.	UKCAA Type Certification Basis:	Various, refer to Section 2
4.	Airworthiness Requirements:	*Paper 696 dated 27 January 1978 (◊ in Table 1)* *Working draft of British Airworthiness Requirements for Powered Hot Air Airships Issue 4 dated 13 January 1976 (BAR) (§ in Table 1).* *BAR issue 2 and Paper 696 dated 27 January 1978 (‡ in Table 1)* *British Civil Airworthiness Requirements Part 31 issue 2 12 May 2003.*
5.	Special Conditions:	None
6.	Reversion and Exemptions:	None
7.	Equivalent Safety Findings:	None

III. Technical Characteristics and Operational Limitations

1.	Type Design Definition:	Refer to Section 2
2.	Description:	2.1 Envelope Simple streamlined envelope with rectangular rip panel for deflation. Empennage inflated by propeller slipstream. Rudder is integral fabric with actuation by pulling lines. 2.2 Gondola Welded tubular steel framework open gondola with two seats (occasional three for D-96). Engine at rear with pusher propeller. Burner is single for smaller sizes, double for D-96.
3.	Equipment:	Equipment is listed in the Approved Cameron Balloons D Type Airship Flight and Maintenance Manual-Issue 7th Oct 2016 or later approved EASA revision.
4.	Envelope:	Refer to Section 2 and Approved Cameron Balloons D Type Airship Flight and Maintenance Manual-Issue 7th Oct 2016 or later approved EASA revision.
5.	Burner:	Refer to Section 2 Approved Cameron Balloons D Type Airship Flight and Maintenance Manual-Issue 7th Oct 2016 or later approved EASA revision.
6.	Gondola:	Approved Cameron Balloons D Type Airship Flight and Maintenance Manual-Issue 7th Oct 2016 or later approved EASA revision.
7.	Mass:	Refer to Section 2 Note: MTOM = Maximum Take-Off Mass, MLM =Minimum Landing Mass.
8.	Envelope Temperature:	The envelope temperature must not exceed 120°C (250°F).
9.	Minimum Crew:	One (Pilot).
10.	Maximum Occupants:	Not to exceed maximum take off mass and limitations. Refer to Approved Cameron Balloons D Type Airship Flight and Maintenance Manual-Issue 7th Oct 2016 or later approved EASA revision.
11.	Fuel:	Commercial Propane.
12.	Other Limitations:	A minimum of two independent cylinders with provision to supply pilot lights are required. Extra cylinders may be used.

IV. Operation and Service Instructions

1. Approved Cameron Balloons D Type Airship Flight and Maintenance Manual - Issue 7th Oct 2016 or later approved EASA revision.

V. Notes

Note 1) For the purpose of maintenance and inspection a log book must be maintained with each hot air airship envelope. If the burner, gondola, instruments and/or cylinders are interchanged, they must be listed in the log book of each envelope with which they are used.

SECTION 2: Cameron D Series (38 000 - 96 000 ft³)

CAA UK Type Certificate Data Sheet reference: *BAS 8*
The definitions of all variants (models) are listed in Table1.

Table 1 Cameron D Type Definitions, Limitations and Eligible Equipment

Model (Variant)	Vol. (ft^3)	Vol. (m^3)	Dwg.	MTOM (kg)	Engine	Propeller	Approval Date	
D-38	38 000	1075	CB144	344	Fuji Robin 250cc 2-stroke	Hiway Hang Gliders 54" dia., 54" pitch	13-02-81	◊
D-50	50 000	1415	CB350	453	Fuji Robin 250cc 2-stroke or Cuyuna 430cc 2-stroke	Hiway Hang Gliders 54" dia., 54" pitch or Cuyuna 54" dia. x 26" pitch	29-09-81	‡
D-77	77 000	2180	CB9015	699	Polini Thor 250	Helix H40F 3-blade 1.3m dia.	20-01-17	
D-96	96 000	2720	CB117	810	1600cc Volkswagen type 126A	Hoffman HO14-183100LD	20-08-86	§

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