
TYPE-CERTIFICATE DATA SHEET

UK.TC.BA.00014

for

Cameron R Series Rozière Balloons

-

Manned Free Rozière Balloons

Type Certificate Holder

CAMERON BALLOONS LTD.

St Johns Street

Bedminster

Bristol BS3 4NH

UNITED KINGDOM

UK.21J.0140

Model(s): R-77, R-77GB, R-90, R-200, R-210, R-270, R-450, R-550

Issue: 1

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Section 1 All Types and Variants

1. General (All Types and Variants)

1. Type / Variant or Model

a) Type:

Cameron R-Type.

b) Variant or Model:

Refer to sections 2 to 18

2. Type Certificate Holder

Cameron Balloons Ltd.

St Johns Street

Bedminster

Bristol BS3 4NH

United Kingdom

3. Manufacturer

Cameron Balloons Ltd.

St Johns Street

Bedminster

Bristol BS3 4NH

United Kingdom

4. Date of Application

Various, refer to sections 2 to 8

5. Approval date

Various, refer to sections 2 to 8

I. Certification Basis

2. Reference Date for determining the applicable requirements

Various, refer to sections 2 to 8

3. UK Certification Basis

Various, refer to sections 2 to 8

4. Airworthiness Standards

British Civil Airworthiness Requirements, Part 31 issue dated 31/8/84 (♦ in Table 1-17).

EASA CS 31HB Issue 1, Amendment 1 (€ in Table 1-17).

R-77 GB only, CS 31HB Issue 1, Amendment 1, plus CS31-GB.49 (c) & (d), CS31-GB.51 (b), CS31-GB.61, CS31-GB.72, (€+ in Table 1-17).

5. Special Conditions (SC)

None

6. Equivalent Safety Findings (ESF)

None

7. Deviations

None

II. Technical Characteristic and Operating Limitations

1. Type Design Definition:

Various, refer to sections 2 to 8

2. Description

Manned free Rozière balloon

2.1 Envelope

Natural shape envelope with between 24 and 80 gores with vertical load tapes. Manually operated valve, and chimney rip deflation systems.

Envelopes can be fitted with additional “top tent” balloon and / or second skin for insulation.

2.2 Baskets

Refer to Sections 2-8 and:

Cameron R-Type Flight Manual, CBL/TN/DAC/19, Issue D or later approved CAA revision.

or

Cameron Balloons Hot Air Balloon Flight Manual, and Supplements-Issue 10 or later approved CAA revision.

Note: Baskets must be in the categories listed for each variant in Sections 2-8 of this TCDS

2.3 Load Frame

Refer to Cameron R-Type Flight Manual, CBL/TN/DAC/19, Issue D or later approved CAA revision.

or

Cameron Balloons Hot Air Balloon Flight Manual, and Supplements-Issue 10 or later approved CAA revision.

Note: Load Frame must be listed as compatible with basket used.

2.4 Burner

Refer to Cameron R-Type Flight Manual, CBL/TN/DAC/19, Issue D or later approved revision.

2.5 Cylinders

Refer to Cameron R-Type Flight Manual, CBL/TN/DAC/19, Issue D or later approved revision.

or

Cameron Balloons Hot Air Balloon Flight Manual, and Supplements-Issue 10 or later approved revision.

3. **Minimum Equipment**

Refer to Cameron R-Type Flight Manual, CBL/TN/DAC/19, Issue D or later approved revision.

4. **Maximum Mass**

Refer to Sections 2-8.

5. **Minimum Crew**

One (Pilot)

6. **Occupants**

Not to exceed MTOM and Flight Manual Limitations. Refer to Cameron R-Type Flight Manual, CBL/TN/DAC/19, Issue D or later approved CAA revision.

7. **Life Limited parts**

Refer to Cameron R-Type Maintenance Manual, CBL/TN/FJD/2917, Issue A or later approved CAA revision.

8. **Permissible Lifting Gas**

Refer to Sections 2-9.

III. **Operating and Service Instructions**

1. Cameron R-Type Flight Manual, CBL/TN/DAC/19, Issue D or later approved revision.
2. Cameron R-Type Maintenance Manual, CBL/TN/FJD/2917, Issue A or later approved revision.

IV. **Notes**

1. For the purpose of maintenance and inspection a log book must be maintained with each R-Type balloon envelope. If the burner, basket, instruments and/or cylinders are interchanged, they must be listed in the log book of each envelope with which they are used.
2. Throughout this document the term "basket" applies to either a hot air balloon basket or R-Type Gondola

Section 2 **R-77**

Manned free Rozière balloon. Natural shape, 24 gores, 24 vertical loadtapes. The envelope general assembly is defined by drawing CB973. The definition is listed in Table 2.1.

Permissible Lifting Gas: Helium (He)

Table 2.1: R-77; Definitions, Limitations and Eligible Equipment

Model	Drawing	Volume: Gas		Max. Fill (%)	MTOM (kg)	Max. permitted Free lift at Take-off (kg)	Burner Cat.	Basket Cat.	Approval Date
		ft ³	m ³						
R-77	CB973	77 000	2 180	100	2 270	45	B, C	C, D, E, F	18-08-1992 ♦

Section 3 **R-77GB**

Manned free Rozière balloon, able to be converted to a free gas balloon. Natural shape, 24 gores, 24 vertical loadtapes. The envelope general assembly is defined by drawing CB1779. The definition is listed in Table 2.1.

Permissible Lifting Gas: Helium (He) When flown in Rozière Balloon configuration
Helium (He) or Hydrogen (H₂) When flown in gas balloon configuration.

Table 3.1: R-77GB; Definitions, Limitations and Eligible Equipment

Model	Drawing	Volume: Gas		Max. Fill (%)	MTOM (kg)	Max. permitted Free lift at Take-off (kg)	Burner Cat.	Basket Cat.	Approval Date
		ft ³	m ³						
R-77GB	CB1779	77 700	2 180	100	2 270	45	B, C	C, D, E, F, G	XX-XX-2021 €+

Section 4 **R-90**

Manned free Rozière balloon. Natural shape, 24 gores, 24 vertical loadtapes. The envelope general assembly is defined by drawing CB 1411. The definition is listed in Table 3.1.

Permissible Lifting Gas: Helium (He)

Table 4.1: R-90; Definitions, Limitations and Eligible Equipment

Model	Drawing	Volume: Gas		Max. Fill (%)	MTOM (kg)	Max. permitted Free lift at Take-off (kg)	Burner Cat.	Basket Cat.	Approval Date
		ft ³	m ³						
R-90	CB1411	90 000	2 549	100	2 654	52	B, C	C, D, E, F	24-07-2002 ♦

Section 5 **R-200**

Manned free Rozière balloon. Natural shape, 32 gores, 32 vertical loadtapes. The envelope general assembly is defined by drawing CB 1153. The definition is listed in Table 4.1.

Permissible Lifting Gas: Helium (He)

Table 5.1: R-200; Definitions, Limitations and Eligible Equipment

Model	Drawing	Volume: Gas		Max. Fill (%)	MTOM (kg)	Max. permitted Free lift at Take-off (kg)	Burner Cat.	Basket Cat.	Approval Date
		ft ³	m ³						
R-200	CB1153	200 000	5 664	75	4 423	82	B, C	C, D, E, F	02-02-1996 ♦

Section 6 **R-210**

Manned free Rozière balloon. Natural shape, 32 gores, 32 vertical loadtapes. The envelope general assembly is defined by drawing CB 1193. The definition is listed in Table 5.1.

Permissible Lifting Gas: Helium (He)

Table 6.1: R-210; Definitions, Limitations and Eligible Equipment

Model	Drawing	Volume: Gas		Max. Fill (%)	MTOM (kg)	Max. permitted Free lift at Take-off (kg)	Burner Cat.	Basket Cat.	Approval Date
		ft ³	m ³						
R-210	CB1193	210 000	5 947	75	4 644	86	B, C	C, D, E, F	11-12-1996 ♦

Section 7 **R-270**

Manned free Rozière balloon. Natural shape, 72 gores, 72 free loadtapes. The envelope general assembly is defined by drawing CB 1292. The definition is listed in Table 7.1.

Permissible Lifting Gas: Helium (He)

Table 7.1: R-450; Definitions, Limitations and Eligible Equipment

Model	Drawing	Volume: Gas		Max. Fill (%)	MTOM (kg)	Max. permitted Free lift at Take-off (kg)	Burner Cat.	Basket Cat.	Approval Date
		ft ³	m ³						
R-450	CB1292	450 000	12 744	50	6 495	120	B, C	C, D, E, F	23-04-1998 ♦

Section 8 **R-450**

Manned free Rozière balloon. Natural shape, 72 gores, 72 free loadtapes. The envelope general assembly is defined by drawing CB 1292. The definition is listed in Table 7.1.

Permissible Lifting Gas: Helium (He)

Table 8.1: R-450; Definitions, Limitations and Eligible Equipment

Model	Drawing	Volume: Gas		Max. Fill (%)	MTOM (kg)	Max. permitted Free lift at Take-off (kg)	Burner Cat.	Basket Cat.	Approval Date
		ft ³	m ³						
R-450	CB1292	450 000	12 744	50	6 495	120	B, C	C, D, E, F	23-04-1998 ♦

Section 9 **R-550**

Manned free Rozière balloon. Natural shape, 80 gores, 80 free loadtapes. The envelope general assembly is defined by drawing CB 1720. The definition is listed in Table 8.1.

Permissible Lifting Gas: Helium (He)

Table 9.1: R-550; Definitions, Limitations and Eligible Equipment

Model	Drawing	Volume: Gas		Max. Fill (%)	MTOM (kg)	Max. permitted Free lift at Take-off (kg)	Burner Cat.	Basket Cat.	Approval Date
		ft ³	m ³						
R-550	CB1720	550 000	15 574	60	9 726	170	B, C	C, D, E, F	05-04-2016 €

Section 10 Administration

I. Acronyms and Abbreviations

Acronym / Abbreviation	Definition
CAA	Civil Aviation Authority
Dwg	Drawing
EASA	European Union Aviation Safety Authority
MLM	Minimum Landing Mass
MTOM	Maximum Take-Off Mass
Vol	Volume

II. Type Certificate Holder Record

TCH Record	Period
Cameron Balloons Ltd St Johns Street Bedminster Bristol BS3 4NH UNITED KINGDOM	Present. No changes.

III. Amendment Record

TCDS Issue No.	TCDS Issue Date	Changes	TC Issue No.	TC Issue Date
1	02 September 2021	This certificate supersedes EASA.BA.028. All Technical data except R-77GB taken from EASA.BA.028 Issue 1	1	02 September 2021

IV. Type Certificate Holder Record

TCH Record	Period
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V. Amendment Record

TCDS Issue No.	TCDS Issue Date	Changes	TC Issue No.	TC Issue Date
1	02 September 2021	Initial	1	02 September 2021

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