UNITED KINGDOM
CIVIL AVIATION AUTHORITY

BB 21
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Issue 5
Type: Cameron Balloons
Models: Z-31, Z-42, Z-69, Z-77, Z-90, Z-105, Z-120, Z-133, Z-140, Z-145, Z-150, Z-160, Z-180, Z-210, Z-225, Z-250, Z-275, Z-315, Z-350, Z-400, Z-425LW

TYPE CERTIFICATE DATA SHEET NO. BB 21

This data sheet which is part of CAA Type Certificate BB21, prescribes conditions and limitations under which the product for which the Type Approval was issued meets the airworthiness requirements of the United Kingdom Civil Aviation Authority

TYPE DESIGN ORGANISATION — Cameron Balloons Ltd.
St. John's Street
Bedminster
Bristol BS3 4NH

MANUFACTURER — Cameron Balloons Ltd.
St. John's Street
Bedminster
Bristol BS3 4NH

MODELS — Cameron Z-31, Z-42, Z-69, Z-77, Z-90, Z-105, Z-120, Z-133, Z-140, Z-145, Z-150, Z-160, Z-180, Z-210, Z-225, Z-250, Z-275, Z-315, Z-350, Z-400, Z-425L W Hot Air Balloons

Table 1

Type	Volume		Build Standard Refer to Aircraft Flight Manual Equipment List	Application Date
	cu.ft (cu.m)	Drawing		
Z-31	31 450 (890)	CB1462	CBL/TN/SAC/2203	07/05/02
Z-42	42 000 (1 190)	CB1463	CBL/TN/BEB/2262	05/03/03
Z-69	69 000 (1 954)	CB1465	CBL/TN/BEB/2363	04/08/04
Z-77	77 500 (2 195)	CB1342	CBL/TN/BEB/1753	24/05/99
Z-90	90 000 (2 549)	CB1340	CBL/TN/BEB/1681	16/04/99
Z-105	105 000 (2 974)	CB1345	CBL/TN/BEB/1752	14/07/99
Z-120	120 000 (3 398)	CB1348	CBL/TN/SAC/2187	12/04/02
Z-133	133 000 (3 767)	CB1349	CBL/TN/BEB/1939	02/06/00
Z-140	140 000 (3 965)	CB1477	CBL/TN/BEB/2178	21/02/02
Z-145	145 000 (4 106)	CB1350	CBL/TN/BEB/1891	06/04/00
Z-150	150 000 (4 248)	CB1473	CBL/TN/BEB/2164	15/11/01
Z-160	160 000 (4 531)	CB1351	CBL/TN/BEB/2166	07/08/00
Z-180	180 000 (5 098)	CB1352	CBL/TN/BEB/2175	30/01/02

Z-210	210 000 (5 947)	CB1353	CBL/TN/RWB/2090	23/04/01
Z-225	225 000 (6 372)	CB1459	CBL/TN/SAC/2185	29/07/02
Z-250	250 000 (7 080)	CB1459	CBL/TN/SAC/2186	02/04/02
Z-275	275 000 (7 788)	CB1467	CBL/TN/SAC/2252	24/02/03
Z-315	315 000 (8 920)	CB1468	CBL/TN/SAC/2188	19/04/02
Z-350	350 000 (9 912)	CB1469	CBL/TN/SAC/2256	04/03/03
Z-400	400 000 (11 328)	CB1471	CBL/TN/BEB/2335	18/03/04
Z-425LW	425 000 (12 036)	CB1502	CBL/TN/SAC/2284	25/06/03

Basket and burner — As listed in the Approved Aircraft Flight Manual Equipment List. In addition refer to build standards listed in Table 1.

Fuel — Commercial propane

Maximum envelope temperature — 120° C

Fuel system — Minimum two independent cylinders with provision to supply pilot lights (double burner), three such cylinders for triple burner, four such cylinders for a quadruple burner. Extra cylinders may be used. Refer to approved Flight Manual.

Maximum weight — The maximum take off mass of the balloon is the lesser of the figures given below or the weight calculated in accordance with the approved Flight Manual.

Balloon Type	Maximum weight (kg)	Balloon Type	Maximum weight (kg)
Z-31	285	Z-160	1 451
Z-42	381	Z-180	1 633
Z-69	626	Z-210	1 905
Z-77	703	Z-225	2 041
Z-90	816	Z-250	2 268
Z-105	952	Z-275	2 494
Z-120	1 088	Z-315	2 857
Z-133	1 206	Z-350	3 175
Z-140	1 270	Z-400	3 629
Z-145	1 315	Z-425LW	3 662
Z-150	1 361		

Minimum equipment — Minimum equipment and eligible equipment is listed in the approved Flight Manual.

Minimum crew — One (1) pilot.

Maximum occupants — Not to exceed maximum weight restriction and Flight Manual limitations (see Flight Manual).

Serial nos. eligible — All.

Data applicable to all models:

Maintenance and Inspection	Maintenance and inspection of these balloons must be carried out in accordance with Maintenance Schedule MS/BBAC/1-B for continued airworthiness. See Note 1.
Certification basis	Z-69 and Z-400 to CS31HB final CG9 draft 27/2/03. All other models to British Civil Airworthiness Requirements, Part 31, issue 1 dated 31/8/84, Appendix 1 to CAA letter ref 9/30/IPA dated 27/2/89.
Airworthiness Categories	UK: Private, Aerial work, Transport (Passenger)
Flight manual	Cameron Hot Air Balloon Flight Manual.
Note 1	For the purpose of maintenance and inspection a log book must be maintained with each hot air 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.

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