DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

		B04CE
		Revision 2
	BALÓNY KUBÍČEK spol. s r.o.	
BB17GP	BB17XR	BB20
BB20E	BB20GP	BB20XR
BB22	BB22E	BB22N
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		April 7, 2011

TYPE CERTIFICATE DATA SHEET No. B04CE

This Data Sheet, which is part of Type Certificate No. B04CE 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

BALÓNY KUBÍČEK spol. s r.o.
Francouzská 81
602 00 Brno
CZECH REPUBLIC

I - Model BB17GP, Manned Free Balloon, Approved April 7, 2011

Envelope

BB17GP, drawing 52-052860.
Volume: 59 900 cu. ft., (1700 m^3).
Gores: 16.
Max. Diameter: 48 ft. (14.5 m).
Total Height: 55 ft. (16.8 m).

Burner

IGNIS 2 units (double burner), drawing 84-053115.00, 84-053128.00

Baskets

K10, K11, K12, K12A, K13, K13S.

Fuel

Commercial LPG or Propane.

Maximum Weight

1090 lbs. (495 kg) or the weight limited by ambient conditions according to Balloons Flight Manual, whichever is lesser.

Allowable Envelope Temperature

1. Never exceed: 248 °F (124 °C) – polyester fabric
   230 °F (110 °C) – nylon fabric
2. Maximum continuous: 248 °F (124 °C) – polyester fabric
   230 °F (110 °C) – nylon fabric

Minimum Crew

One (1) Pilot.

Maximum Occupancy

See Data Pertinent to All Models - Baskets.

Fuel Capacity	At least two cylinders, See Data Pertinent to All Models - Fuel Cylinders
Serial No's Eligible	1 and up.

II - Model BB17XR, Manned Free Balloon, Approved April 7, 2011

Envelope	BB17XR, drawing 53-053660 Volume: 59 900 cu. ft., (1700 m^3). Gores: 16. Max. Diameter: 45 ft. (13.7 m). Total Height: 62 ft. (19.0 m).
Burner	IGNIS 2 units (double burner), drawing 84-053115.00, 84-053128.00
Baskets	K10, K11, K12, K12A, K13, K13S.
Fuel	Commercial LPG or Propane.
Maximum Weight	1090 lbs. (495 kg) or the weight limited by ambient conditions according to Balloons Flight Manual, whichever is lesser.
Allowable Envelope Temperature	1. Never exceed: 248 °F (124 °C) – polyester fabric 230 °F (110 °C) – nylon fabric 2. Maximum continuous: 248 °F (124 °C) – polyester fabric 230 °F (110 °C) – nylon fabric
Minimum Crew	One (1) Pilot.
Maximum Occupancy	See Data Pertinent to All Models - Baskets.
Fuel Capacity	At least two cylinders, See Data Pertinent to All Models - Fuel Cylinders
Serial No's Eligible	1 and up, except 362.

III - Model BB20, Manned Free Balloon, Approved April 7, 2011

Envelope	BB20, drawing 50-050020. Volume: 71 200 cu. ft., (2000 m^3). Gores: 12. Max. Diameter: 51 ft. (15.4 m). Total Height: 51 ft. (15.4 m).
Burner	IGNIS 2 units (double burner), drawing 84-053115.00, 84-053128.00
Baskets	K10, K11, K12, K12A, K13, K13S, K15.
Fuel	Commercial LPG or Propane.
Maximum Weight	1389 lbs. (630 kg) or the weight limited by ambient conditions according to Balloons Flight Manual, whichever is lesser.
Allowable Envelope Temperature	1. Never exceed: 248 °F (124 °C) – polyester fabric 230 °F (110 °C) – nylon fabric 2. Maximum continuous: 248 °F (124 °C) – polyester fabric 230 °F (110 °C) – nylon fabric
Minimum Crew	One (1) Pilot.

Maximum Occupancy	See Data Pertinent to All Models - Baskets.
Fuel Capacity	At least two cylinders, See Data Pertinent to All Models - Fuel Cylinders
Serial No's Eligible	1 and up.

IV - Model BB20E, Manned Free Balloon, Approved April 7, 2011

Envelope	BB20E, drawing 53-053630 Volume: 71 200 cu. ft., (2000 m^3). Gores: 12. Max. Diameter: 53 ft. (16.2 m). Total Height: 52 ft. (15.9 m).
Burner	IGNIS 2 units (double burner), drawing 84-053115.00, 84-053128.00
Baskets	K10, K11, K12, K12A, K13, K13S, K15.
Fuel	Commercial LPG or Propane.
Maximum Weight	1389 lbs. (630 kg) or the weight limited by ambient conditions according to Balloons Flight Manual, whichever is lesser.
Allowable Envelope Temperature	1. Never exceed: 248 °F (124 °C) – polyester fabric 230 °F (110 °C) – nylon fabric 2. Maximum continuous: 248 °F (124 °C) – polyester fabric 230 °F (110 °C) – nylon fabric
Minimum Crew	One (1) Pilot.
Maximum Occupancy	See Data Pertinent to All Models - Baskets.
Fuel Capacity	At least two cylinders, See Data Pertinent to All Models - Fuel Cylinders
Serial No's Eligible	1 and up

V - Model BB20GP, Manned Free Balloon, Approved April 7, 2011

Envelope	BB20GP, drawing 52-052740. Volume: 71,000 cu. ft., (2000 m^3). Gores: 24. Max. Diameter: 51 ft. (15.4 m). Total Height: 59 ft. (17.9 m).
Burner	IGNIS 2 units (double burner), drawing 84-053115.00, 84-053128.00
Baskets	K10, K11, K12, K12A, K13, K13S, K15.
Fuel	Commercial LPG or Propane.
Maximum Weight	1609 lbs. (730 kg) or the weight limited by ambient conditions according to Balloons Flight Manual, whichever is lesser.
Allowable Envelope Temperature	1. Never exceed: 248 °F (124 °C) – polyester fabric 230 °F (110 °C) – nylon fabric 2. Maximum continuous: 248 °F (124 °C) – polyester fabric 230 °F (110 °C) – nylon fabric

Minimum Crew	One (1) Pilot.
Maximum Occupancy	See Data Pertinent to All Models - Baskets.
Fuel Capacity	At least two cylinders, See Data Pertinent to All Models - Fuel Cylinders
Serial No's Eligible	1 and up.

VI - Model BB20XR, Manned Free Balloon, Approved April 7, 2011

Envelope	BB20XR, drawing 52-054140 Volume: 71 200 cu. ft., (2000 m^3). Gores: 20 Max. Diameter: 47 ft. (14,4 m) Total Height: 67 ft. (20,3 m)
Burner	IGNIS 2 units (double burner), drawing 84-053115.00, 84-053128.00
Baskets	K10, K11, K12, K12A, K13, K13S, K15, K17.
Fuel	Commercial LPG or Propane.
Maximum Weight	1609 lbs. (730 kg) or the weight limited by ambient conditions according to Balloons Flight Manual, whichever is lesser.
Allowable Envelope Temperature	1. Never exceed: 248 °F (124 °C) – polyester fabric 230 °F (110 °C) – nylon fabric 2. Maximum continuous: 248 °F (124 °C) – polyester fabric 230 °F (110 °C) – nylon fabric
Minimum Crew	One (1) Pilot.
Maximum Occupancy	See Data Pertinent to All Models - Baskets.
Fuel Capacity	At least two cylinders, See Data Pertinent to All Models - Fuel Cylinders
Serial No's Eligible	1 and up

VII - Model BB22, Manned Free Balloon, Approved April 7, 2011

Envelope	BB22, drawing 52-053310. Volume: 78,300 cu. ft., (2200 m^3). Gores: 12. Max. Diameter: 57 ft. (17.5 m). Total Height: 53 ft. (16.2 m).
Burner	IGNIS 2 units (double burner), drawing 84-053115.00, 84-053128.00
Baskets	K10, K11, K12, K12A, K13, K13S, K15.
Fuel	Commercial LPG or Propane.
Maximum Weight	1609 lbs. (730 kg) or the weight limited by ambient conditions according to Balloons Flight Manual, whichever is lesser.
Allowable Envelope Temperature	1. Never exceed: 248 °F (124 °C) – polyester fabric 230 °F (110 °C) – nylon fabric 2. Maximum continuous: 248 °F (124 °C) – polyester fabric 230 °F (110 °C) – nylon fabric

Minimum Crew	One (1) Pilot.
Maximum Occupancy	See Data Pertinent to All Models - Baskets.
Fuel Capacity	At least two cylinders, See Data Pertinent to All Models - Fuel Cylinders.
Serial No's Eligible	1 and up.

VIII - Model BB22E, Manned Free Balloon, Approved April 7, 2011

Envelope	BB22E, drawing 53-053620 Volume: 78 300 cu. ft., (2200 m^3). Gores: 12. Max. Diameter: 55 ft. (16.7 m). Total Height: 54 ft. (16.5 m).
Burner	IGNIS 2 units (double burner), drawing 84-053115.00, 84-053128.00
Baskets	K10, K11, K12, K12A, K13, K13S, K15.
Fuel	Commercial LPG or Propane.
Maximum Weight	1498 lbs. (680 kg) or the weight limited by ambient conditions according to Balloons Flight Manual, whichever is lesser.
Allowable Envelope Temperature	1. Never exceed: 248 °F (124 °C) – polyester fabric 230 °F (110 °C) – nylon fabric 2. Maximum continuous: 248 °F (124 °C) – polyester fabric 230 °F (110 °C) – nylon fabric
Minimum Crew	One (1) Pilot.
Maximum Occupancy	See Data Pertinent to All Models - Baskets.
Fuel Capacity	At least two cylinders, See Data Pertinent to All Models - Fuel Cylinders
Serial No's Eligible	1 and up

IX - Model BB22N, Manned Free Balloon, Approved April 7, 2011

Envelope	BB22N, drawing 52-050034. Volume: 78,300 cu. ft., (2200 m^3). Gores: 24. Max. Diameter: 53 ft. (16.2 m). Total Height: 53 ft. (16.2 m).
Burner	IGNIS 2 units (double burner), drawing 84-053115.00, 84-053128.00
Baskets	K10, K11, K12, K12A, K13, K13S, K15.
Fuel	Commercial LPG or Propane.
Maximum Weight	1609 lbs. (730 kg) or the weight limited by ambient conditions according to Balloons Flight Manual, whichever is lesser.
Allowable Envelope Temperature	1. Never exceed: 248 °F (124 °C) – polyester fabric 230 °F (110 °C) – nylon fabric 2. Maximum continuous: 248 °F (124 °C) – polyester fabric

230 °F (110 °C) – nylon fabric

Minimum Crew — One (1) Pilot.

Maximum Occupancy — See Data Pertinent to All Models - Baskets.

Fuel Capacity — At least two cylinders, See Data Pertinent to All Models - Fuel Cylinders.

Serial No's Eligible — 1 and up.

X - Model BB22Z, Manned Free Balloon, Approved April 7, 2011

Envelope — BB22Z, drawing 52-053300.
Volume: 78,300 cu. ft., (2200 m^3).
Gores: 24.
Max. Diameter: 53 ft. (16.2 m).
Total Height: 53 ft. (16.2 m).

Burner — IGNIS 2 units (double burner), drawing 84-053115.00, 84-053128.00

Baskets — K10, K11, K12, K12A, K13, K13S, K15.

Fuel — Commercial LPG or Propane.

Maximum Weight — 1609 lbs. (730 kg) or the weight limited by ambient conditions according to Balloons Flight Manual, whichever is lesser.

Allowable Envelope Temperature
1. Never exceed: 248 °F (124 °C) – polyester fabric
230 °F (110 °C) – nylon fabric
2. Maximum continuous: 248 °F (124 °C) – polyester fabric
230 °F (110 °C) – nylon fabric

Minimum Crew — One (1) Pilot.

Maximum Occupancy — See Data Pertinent to All Models - Baskets.

Fuel Capacity — At least two cylinders, See Data Pertinent to All Models - Fuel Cylinders.

Serial No's Eligible — 1 and up.

XI - Model BB26, Manned Free Balloon, Approved April 7, 2011

Envelope — BB26, drawing 52-053325.
Volume: 92,500 cu. ft., (2600 m^3).
Gores: 12.
Max. Diameter: 57 ft. (17.5 m).
Total Height: 57 ft. (17.4 m).

Burner — IGNIS 2 units (double burner), drawing 84-053115.00, 84-053128.00

Baskets — K11, K12, K12A, K13, K13S, K15, K16, K17, K18, K22.

Fuel — Commercial LPG or Propane.

Maximum Weight — 1852 lbs. (840 kg) or the weight limited by ambient conditions according to Balloons Flight Manual, whichever is lesser.

Allowable Envelope — 1. Never exceed: 248 °F (124 °C) – polyester fabric

Temperature	230 °F (110 °C) – nylon fabric 2. Maximum continuous: 248 °F (124 °C) – polyester fabric 230 °F (110 °C) – nylon fabric
Minimum Crew	One (1) Pilot.
Maximum Occupancy	See Data Pertinent to All Models - Baskets.
Fuel Capacity	At least two cylinders, See Data Pertinent to All Models - Fuel Cylinders.
Serial No's Eligible	1 and up.

XII - Model BB26E, Manned Free Balloon, Approved April 7, 2011

Envelope	BB22E, drawing 53-053610 Volume: 92 500 cu. ft., (2600 m^3). Gores: 12. Max. Diameter: 58 ft. (17.6 m). Total Height: 57 ft. (17.5 m).
Burner	IGNIS 2 units (double burner), drawing 84-053115.00, 84-053128.00
Baskets	K11, K12, K12A, K13, K13S, K15, K16, K17, K18, K22.
Fuel	Commercial LPG or Propane.
Maximum Weight	1609 lbs. (730 kg) or the weight limited by ambient conditions according to Balloons Flight Manual, whichever is lesser.
Allowable Envelope Temperature	1. Never exceed: 248 °F (124 °C) – polyester fabric 230 °F (110 °C) – nylon fabric 2. Maximum continuous: 248 °F (124 °C) – polyester fabric 230 °F (110 °C) – nylon fabric
Minimum Crew	One (1) Pilot.
Maximum Occupancy	See Data Pertinent to All Models - Baskets.
Fuel Capacity	At least two cylinders, See Data Pertinent to All Models - Fuel Cylinders
Serial No's Eligible	1 and up

XIII - Model BB26N, Manned Free Balloon, Approved April 7, 2011

Envelope	BB26N drawing 51-050027. Volume: 92,500 cu. ft., (2600 m^3). Gores: 24. Max. Diameter: 56 ft. (17.2 m). Total Height: 57 ft. (17.4 m).
Burner	IGNIS 2 units (double burner), drawing 84-053115.00, 84-053128.00
Baskets	K11, K12, K12A, K13, K13S, K15, K16, K17, K18, K22.
Fuel	Commercial LPG or Propane.

Maximum Weight	1852 lbs. (840 kg) or the weight limited by ambient conditions according to Balloons Flight Manual, whichever is lesser.
Allowable Envelope Temperature	1. Never exceed: 248 °F (124 °C) – polyester fabric 230 °F (110 °C) – nylon fabric 2. Maximum continuous: 248 °F (124 °C) – polyester fabric 230 °F (110 °C) – nylon fabric
Minimum Crew	One (1) Pilot.
Maximum Occupancy	See Data Pertinent to All Models - Baskets.
Fuel Capacity	At least two cylinders, See Data Pertinent to All Models - Fuel Cylinders.
Serial No's Eligible	1 and up.

XIV- Model BB26Z, Manned Free Balloon, Approved April 7, 2011

Envelope	BB26Z drawing 52-053305. Volume: 92,500 cu. ft., (2600 m^3). Gores: 24. Max. Diameter: 56 ft. (17.2 m). Total Height: 57 ft. (17.4 m).
Burner	IGNIS 2 units (double burner), drawing 84-053115.00, 84-053128.00
Baskets	K11, K12, K12A, K13, K13S, K15, K16, K17, K18, K22.
Fuel	Commercial LPG or Propane.
Maximum Weight	1852 lbs. (840 kg) or the weight limited by ambient conditions according to Balloons Flight Manual, whichever is lesser.
Allowable Envelope Temperature	1. Never exceed: 248 °F (124 °C) – polyester fabric 230 °F (110 °C) – nylon fabric 2. Maximum continuous: 248 °F (124 °C) – polyester fabric 230 °F (110 °C) – nylon fabric
Minimum Crew	One (1) Pilot.
Maximum Occupancy	See Data Pertinent to All Models - Baskets.
Fuel Capacity	At least two cylinders, See Data Pertinent to All Models - Fuel Cylinders.
Serial No's Eligible	1 and up.

XV- Model BB30N, Manned Free Balloon, Approved April 7, 2011

Envelope	BB30N drawing 51-050041. Volume: 106,800 cu. ft., (3000 m^3). Gores: 24. Max. Diameter: 60 ft. (18.4 m). Total Height: 62 ft. (18.8 m).
Burner	IGNIS 2 units (double burner), drawing 84-053115.00, 84-053128.00
Baskets	K11, K12, K12A, K13, K13S, K15, K16, K17, K18, K22.

Fuel	Commercial LPG or Propane.
Maximum Weight	2083 lbs. (945 kg) or the weight limited by ambient conditions according to Balloons Flight Manual, whichever is lesser.
Allowable Envelope Temperature	1. Never exceed: 248 °F (124 °C) – polyester fabric 230 °F (110 °C) – nylon fabric 2. Maximum continuous: 248 °F (124 °C) – polyester fabric 230 °F (110 °C) – nylon fabric
Minimum Crew	One (1) Pilot.
Maximum Occupancy	See Data Pertinent to All Models - Baskets.
Fuel Capacity	At least two cylinders, See Data Pertinent to All Models - Fuel Cylinders.
Serial No's Eligible	1 and up.

XVI - Model BB30Z, Manned Free Balloon, Approved April 7, 2011

Envelope	BB30Z drawing 52-052640. Volume: 106,800 cu. ft., (3000 m^3). Gores: 24. Max. Diameter: 59 ft. (18.0 m). Total Height: 60 ft. (18.4 m).
Burner	IGNIS 2 units (double burner), drawing 84-053115.00, 84-053128.00
Baskets	K11, K12, K12A, K13, K13S, K15, K16, K17, K18, K22.
Fuel	Commercial LPG or Propane.
Maximum Weight	2083 lbs. (945 kg) or the weight limited by ambient conditions according to Balloons Flight Manual, whichever is lesser.
Allowable Envelope Temperature	1. Never exceed: 248 °F (124 °C) – polyester fabric 230 °F (110 °C) – nylon fabric 2. Maximum continuous: 248 °F (124 °C) – polyester fabric 230 °F (110 °C) – nylon fabric
Minimum Crew	One (1) Pilot.
Maximum Occupancy	See Data Pertinent to All Models - Baskets.
Fuel Capacity	At least two cylinders, See Data Pertinent to All Models - Fuel Cylinders.
Serial No's Eligible	1 and up.

XVII - Model BB34Z, Manned Free Balloon, Approved April 7, 2011

Envelope	BB34Z, drawing 53-052880. Volume: 121,000 cu. ft., (3400 m^3). Gores: 24 Max. Diameter: 62 ft. (18.9 m) Total Height: 63 ft. (19.3 m)

Burner	IGNIS 2 units (double burner), drawing 84-053115.00, 84-053128.00
Baskets	K13, K13S, K15, K16, K17, K18, K22.
Fuel	Commercial LPG or Propane.
Maximum Weight	2291 lbs. (1040 kg) or the weight limited by ambient conditions according to Balloons Flight Manual, whichever is lesser
Allowable Envelope Temperature	1. Never exceed: 248 °F (124 °C) – polyester fabric 230 °F (110 °C) – nylon fabric 2. Maximum continuous: 248 °F (124 °C) – polyester fabric 230 °F (110 °C) – nylon fabric
Minimum Crew	One (1) Pilot.
Maximum Occupancy	See Data Pertinent to All Models - Baskets.
Fuel Capacity	At least two cylinders, See Data Pertinent to All Models - Fuel Cylinders.
Serial No's Eligible	1 and up.

XVIII- Model BB37N, Manned Free Balloon, Approved November 04, 2009

Envelope	BB37N, drawing 51-050048. Volume: 131,700 cu. ft., (3700 m^3). Gores: 24. Max. Diameter: 65 ft. (19.7 m). Total Height: 66 ft. (20.0 m).
Burner	IGNIS 2 units (double burner), drawing 84-053115.00, 84-053128.00
Baskets	K13, K15, K16, K17, K18, K22, K25P, K32T.
Fuel	Commercial LPG or Propane.
Maximum Weight	2535 lbs. (1150 kg) or the weight limited by ambient conditions according to Balloons Flight Manual, whichever is lesser.
Allowable Envelope Temperature	1. Never exceed: 248 °F (124 °C) – polyester fabric 230 °F (110 °C) – nylon fabric 2. Maximum continuous: 248 °F (124 °C) – polyester fabric 230 °F (110 °C) – nylon fabric
Minimum Crew	One (1) Pilot.
Maximum Occupancy	See Data Pertinent to All Models - Baskets.
Fuel Capacity	At least two cylinders, See Data Pertinent to All Models - Fuel Cylinders.
Serial No's Eligible	1 and up.

XIX- Model BB37Z, Manned Free Balloon, Approved November 04, 2009

Envelope	BB37Z, drawing 52-053315. Volume: 131,700 cu. ft., (3700 m^3).

	Gores: 24. Max. Diameter: 65 ft. (19.7 m). Total Height: 66 ft. (20.0 m).
Burner	IGNIS 2 units (double burner), drawing 84-053115.00, 84-053128.00
Baskets	K13, K15, K16, K17, K18, K22, K25P, K32T.
Fuel	Commercial LPG or Propane.
Maximum Weight	2535 lbs. (1150 kg) or the weight limited by ambient conditions according to Balloons Flight Manual, whichever is lesser.
Allowable Envelope Temperature	1. Never exceed: 248 °F (124 °C) – polyester fabric 230 °F (110 °C) – nylon fabric 2. Maximum continuous: 248 °F (124 °C) – polyester fabric 230 °F (110 °C) – nylon fabric
Minimum Crew	One (1) Pilot.
Maximum Occupancy	See Data Pertinent to All Models - Baskets.
Fuel Capacity	At least two cylinders, See Data Pertinent to All Models - Fuel Cylinders.
Serial No's Eligible	1 and up.

XX - Model BB40Z, Manned Free Balloon, Approved November 04, 2009

Envelope	BB40Z, drawing 53-053640. Volume: 142,400 cu. ft., (4000 m^3). Gores: 24. Max. Diameter: 65 ft. (19.9 m). Total Height: 67 ft. (20.5 m).
Burner	IGNIS 2 units (double burner), drawing 84-053115.00, 84-053128.00 IGNIS 3 units (triple burner), drawing 84-053115.00, 84-053241.00
Baskets	K13, K15, K16, K17, K18, K22, K25P, K32T.
Fuel	Commercial LPG or Propane.
Maximum Weight	2885 lbs. (1310 kg) or the weight limited by ambient conditions according to Balloons Flight Manual, whichever is lesser.
Allowable Envelope Temperature	1. Never exceed: 248 °F (124 °C) – polyester fabric 230 °F (110 °C) – nylon fabric 2. Maximum continuous: 248 °F (124 °C) – polyester fabric 230 °F (110 °C) – nylon fabric
Minimum Crew	One (1) Pilot.
Maximum Occupancy	See Data Pertinent to All Models - Baskets.
Fuel Capacity	At least two cylinders for double burner, at least three cylinders for triple burner, See Data Pertinent to All Models - Fuel Cylinders.
Serial No's Eligible	1 and up.

XXI- Model BB42Z, Manned Free Balloon, Approved November 04, 2009

Envelope	BB42Z, drawing 52-052950. Volume: 151,300 cu. ft., (4200 m^3). Gores: 24. Max. Diameter: 67 ft. (20.3 m). Total Height: 68 ft. (20.7 m).
Burner	IGNIS 2 units (double burner), drawing 84-053115.00, 84-053128.00 IGNIS 3 units (triple burner), drawing 84-053115.00, 84-053241.00
Baskets	K16, K17, K18, K22, K25P, K32T.
Fuel	Commercial LPG or Propane.
Maximum Weight	3109 lbs. (1410 kg) or the weight limited by ambient conditions according to Balloons Flight Manual, whichever is lesser.
Allowable Envelope Temperature	1. Never exceed: 248 °F (124 °C) – polyester fabric 230 °F (110 °C) – nylon fabric 2. Maximum continuous: 248 °F (124 °C) – polyester fabric 230 °F (110 °C) – nylon fabric
Minimum Crew	One (1) Pilot.
Maximum Occupancy	See Data Pertinent to All Models - Baskets.
Fuel Capacity	At least two cylinders for double burner, at least three cylinders for triple burner, See Data Pertinent to All Models - Fuel Cylinders.
Serial No's Eligible	1 and up.

XXII- Model BB45N, Manned Free Balloon, Approved April 7, 2011

Envelope	BB45N, drawing 52-050455. Volume: 160,200 cu. ft., (4500 m^3). Gores: 24. Max. Diameter: 68 ft. (20.7 m). Total Height: 69 ft. (21.1 m).
Burner	IGNIS 2 units (double burner), drawing 84-053115.00, 84-053128.00 IGNIS 3 units (triple burner), drawing 84-053115.00, 84-053241.00 IGNIS 4 units (quad burner), drawing 84-056000.00, 84-056001.00
Baskets	K22, K25P, K32T, K32TT, K40Y, K50TT.
Fuel	Commercial LPG or Propane.
Maximum Weight	3351 lbs. (1520 kg) or the weight limited by ambient conditions according to Balloons Flight Manual, whichever is lesser.
Allowable Envelope Temperature	1. Never exceed: 248 °F (124 °C) – polyester fabric 230 °F (110 °C) – nylon fabric 2. Maximum continuous: 248 °F (124 °C) – polyester fabric 230 °F (110 °C) – nylon fabric
Minimum Crew	One (1) Pilot.
Maximum Occupancy	See Data Pertinent to All Models - Baskets.

Fuel Capacity	At least two cylinders for double burner, at least three cylinders for triple burner, at least four cylinders for quad burner, See Data Pertinent to All Models - Fuel Cylinders.
Serial No's Eligible	1 and up.

XXIII- Model BB45Z, Manned Free Balloon, Approved April 7, 2011

Envelope	BB45Z, drawing 52-053320. Volume: 160,200 cu. ft., (4500 m^3). Gores: 24. Max. Diameter: 68 ft. (20.7 m). Total Height: 69 ft. (21.1 m).
Burner	IGNIS 2 units (double burner), drawing 84-053115.00, 84-053128.00 IGNIS 3 units (triple burner), drawing 84-053115.00, 84-053241.00 IGNIS 4 units (quad burner), drawing 84-056000.00, 84-056001.00
Baskets	K22, K25P, K32T, K32TT, K40Y, K50TT.
Fuel	Commercial LPG or Propane.
Maximum Weight	3351 lbs. (1520 kg) or the weight limited by ambient conditions according to Balloons Flight Manual, whichever is lesser.
Allowable Envelope Temperature	1. Never exceed: 248 °F (124 °C) – polyester fabric 230 °F (110 °C) – nylon fabric 2. Maximum continuous: 248 °F (124 °C) – polyester fabric 230 °F (110 °C) – nylon fabric
Minimum Crew	One (1) Pilot.
Maximum Occupancy	See Data Pertinent to All Models - Baskets.
Fuel Capacity	At least two cylinders for double burner, at least three cylinders for triple burner, at least four cylinders for quad burner,, See Data Pertinent to All Models - Fuel Cylinders.
Serial No's Eligible	1 and up.

XXIV- Model BB51Z, Manned Free Balloon, Approved April 7, 2011

Envelope	BB51Z, drawing 53-053430. Volume: 181,500 cu. ft., (5100 m^3). Gores: 24. Max. Diameter: 71 ft. (21.6 m). Total Height: 73 ft. (22.1 m).
Burner	IGNIS 2 units (double burner), drawing 84-053115.00, 84-053128.00 IGNIS 3 units (triple burner), drawing 84-053115.00, 84-053241.00 IGNIS 4 units (quad burner), drawing 84-056000.00, 84-056001.00
Baskets	K25P, K32T, K32TT, K40Y, K50TT.
Fuel	Commercial LPG or Propane.
Maximum Weight	3726 lbs. (1690 kg) or the weight limited by ambient conditions according to Balloons Flight Manual, whichever is lesser.

Allowable Envelope Temperature	1. Never exceed: 248 °F (124 °C) – polyester fabric 230 °F (110 °C) – nylon fabric 2. Maximum continuous: 248 °F (124 °C) – polyester fabric 230 °F (110 °C) – nylon fabric
Minimum Crew	One (1) Pilot.
Maximum Occupancy	See Data Pertinent to All Models - Baskets.
Fuel Capacity	At least two cylinders for double burner, at least three cylinders for triple burner, at least four cylinders for quad burner, See Data Pertinent to All Models - Fuel Cylinders.
Serial No's Eligible	1 and up.

XXV- Model BB60N, Manned Free Balloon, Approved April 7, 2011

Envelope	BB60N, drawing 51-050643. Volume: 213,600 cu. ft., (6000 m^3). Gores: 32. Max. Diameter: 75 ft. (22.9 m). Total Height: 77 ft. (23.6 m).
Burner	IGNIS 2 units (double burner), drawing 84-053115.00, 84-053128.00 IGNIS 3 units (triple burner), drawing 84-053115.00, 84-053241.00 IGNIS 4 units (quad burner), drawing 84-056000.00, 84-056001.00
Baskets	K25P, K32T, K32TT, K40Y, K50TT.
Fuel	Commercial LPG or Propane.
Maximum Weight	4277 lbs. (1940 kg) or the weight limited by ambient conditions according to Balloons Flight Manual, whichever is lesser.
Allowable Envelope Temperature	1. Never exceed: 248 °F (124 °C) – polyester fabric 230 °F (110 °C) – nylon fabric 2. Maximum continuous: 248 °F (124 °C) – polyester fabric 230 °F (110 °C) – nylon fabric
Minimum Crew	One (1) Pilot.
Maximum Occupancy	See Data Pertinent to All Models - Baskets.
Fuel Capacity	At least two cylinders for double burner, at least three cylinders for triple burner, at least four cylinders for quad burner, See Data Pertinent to All Models - Fuel Cylinders.
Serial No's Eligible	1 and up.

XXVI- Model BB60Z, Manned Free Balloon, Approved April 7, 2011

Envelope	BB60Z, drawing 53-053000. Volume: 213,600 cu. ft., (5950 m^3). Gores: 24. Max. Diameter: 77 ft. (23.4 m). Total Height: 74 ft. (22.7 m).
Burner	IGNIS 2 units (double burner), drawing 84-053115.00, 84-053128.00 IGNIS 3 units (triple burner), drawing 84-053115.00, 84-053241.00

	IGNIS 4 units (quad burner), drawing 84-056000.00, 84-056001.00
Baskets	K25P, K32T, K32TT, K40Y, K50TT.
Fuel	Commercial LPG or Propane.
Maximum Weight	4277 lbs. (1940 kg) or the weight limited by ambient conditions according to Balloons Flight Manual, whichever is lesser.
Allowable Envelope Temperature	1. Never exceed: 248 °F (124 °C) – polyester fabric 230 °F (110 °C) – nylon fabric 2. Maximum continuous: 248 °F (124 °C) – polyester fabric 230 °F (110 °C) – nylon fabric
Minimum Crew	One (1) Pilot.
Maximum Occupancy	See Data Pertinent to All Models - Baskets.
Fuel Capacity	At least two cylinders for double burner, at least three cylinders for triple burner, at least four cylinders for quad burner, See Data Pertinent to All Models - Fuel Cylinders.
Serial No's Eligible	1 and up.

XXVII- Model BB70Z, Manned Free Balloon, Approved April 7, 2011

Envelope	BB70Z, drawing 53-052990. Volume: 249,200 cu. ft., (7000 m^3). Gores: 24. Max. Diameter: 81 ft. (24.8 m). Total Height: 81 ft. (24.6 m).
Burner	IGNIS 3 units (triple burner), drawing 84-053115.00, 84-053241.00 IGNIS 4 units (quad burner), drawing 84-056000.00, 84-056001.00
Baskets	K25P*, K32T*, K32TT, K40Y, K50, K50TT, K60, K70, K80. (*eligible for balloon of serial numbers up to 639).
Fuel	Commercial LPG or Propane.
Maximum Weight	5071 lbs. (2300 kg) or the weight limited by ambient conditions according to Balloons Flight Manual, whichever is lesser.
Allowable Envelope Temperature	1. Never exceed: 248 °F (124 °C) – polyester fabric 230 °F (110 °C) – nylon fabric 2. Maximum continuous: 248 °F (124 °C) – polyester fabric 230 °F (110 °C) – nylon fabric
Minimum Crew	One (1) Pilot.
Maximum Occupancy	See Data Pertinent to All Models - Baskets.
Fuel Capacity	At least three cylinders for triple burner, at least four cylinders for quad burner, See Data Pertinent to All Models - Fuel Cylinders.
Serial No's Eligible	1 and up.

XXVIII - Model BB85Z, Manned Free Balloon, Approved April 7, 2011

Envelope	BB85Z, drawing 52-052850. Volume: 302,600 cu. ft., (8500 m^3). Gores: 28. Max. Diameter: 87 ft. (26.6 m). Total Height: 87 ft. (26.5 m).
Burner	IGNIS 3 units (triple burner), drawing 84-053115.00, 84-053241.00 IGNIS 4 units (quad burner), drawing 84-056000.00, 84-056001.00
Baskets	K40Y, K50, K50TT, K60, K70, K80.
Fuel	Commercial LPG or Propane.
Maximum Weight	6217 lbs. (2820 kg) or the weight limited by ambient conditions according to Balloons Flight Manual, whichever is lesser.
Allowable Envelope Temperature	1. Never exceed: 248 °F (124 °C) – polyester fabric 230 °F (110 °C) – nylon fabric 2. Maximum continuous: 248 °F (124 °C) – polyester fabric 230 °F (110 °C) – nylon fabric
Minimum Crew	One (1) Pilot.
Maximum Occupancy	See Data Pertinent to All Models - Baskets.
Fuel Capacity	At least three cylinders for triple burner, at least four cylinders for quad burner, See Data Pertinent to All Models - Fuel Cylinders.
Serial No's Eligible	1 and up

XXIX - Model BB100Z, Manned Free Balloon, Approved April 7, 2011

Envelope	BB100Z, drawing 50-054100. Volume: 353,100 cu. ft., (10000 m^3). Gores: 28. Max. Diameter: 89 ft. (27 m). Total Height: 92 ft. (28.15 m).
Burner	IGNIS 4 units (quad burner), drawing 84-056000.00, 84-056001.00
Baskets	K60, K70, K80.
Fuel	Commercial LPG or Propane.
Maximum Weight	7055 lbs. (3200 kg) or the weight limited by ambient conditions according to Balloons Flight Manual, whichever is lesser.
Allowable Envelope Temperature	1. Never exceed: 248 °F (124 °C) – polyester fabric 230 °F (110 °C) – nylon fabric 2. Maximum continuous: 248 °F (124 °C) – polyester fabric 230 °F (110 °C) – nylon fabric
Minimum Crew	One (1) Pilot.
Maximum Occupancy	See Data Pertinent to All Models - Baskets.
Fuel Capacity	At least four cylinders, See Data Pertinent to All Models - Fuel Cylinders.
Serial No's Eligible	1 and up

XXX - Model BB120P, Manned Free Balloon, Approved April 7, 2011

Envelope	BB100Z, drawing 50-054120. Volume: 423,800 cu. ft., (12000 m^3). Gores: 28. Max. Diameter: 95 ft. (28.96m). Total Height: 102 ft. (31 m).
Burner	IGNIS 4 units (quad burner), drawing 84-056000.00, 84-056001.00
Baskets	K60, K70, K80.
Fuel	Commercial LPG or Propane.
Maximum Weight	8150 lbs. (3700 kg) or the weight limited by ambient conditions according to Balloons Flight Manual, whichever is lesser.
Allowable Envelope Temperature	1. Never exceed: 248 °F (124 °C) – polyester fabric 230 °F (110 °C) – nylon fabric 2. Maximum continuous: 248 °F (124 °C) – polyester fabric 230 °F (110 °C) – nylon fabric
Minimum Crew	One (1) Pilot.
Maximum Occupancy	See Data Pertinent to All Models - Baskets.
Fuel Capacity	At least four cylinders, See Data Pertinent to All Models - Fuel Cylinders.
Serial No's Eligible	1 and up

DATA PERTINENT TO ALL MODELS

Certification Basis	The regulations (unless otherwise stated) are Title 14 of the Code of Federal Regulations (14 CFR) Part 31 dated July 1, 1964, as amended through Amendment 31-7 effective May, 24, 1996. Application for Type Certificate dated November 25, 2005. Equivalent Safety Items: Equivalent levels of safety finding made per the provisions of 14 CFR Part 21.21(b)(1) for: ELOS ACE-07-13: 14 CFR §31.47(d) Amendment 31-7, Burners; Refer to FAA memorandum dated December 18, 2007, applicable to IGNIS 2 units (double burner) and IGNIS 3 units (triple burner) only.
Import Requirements	The FAA can issue a U.S. airworthiness certificate based on an NAA Export Certificate of Airworthiness (Export C of A) signed by a representative of the Civil Aviation Authority of the Czech Republic (CAA-CZ) on behalf of the European Community. The Export C of A should contain the following statement: 'The aircraft covered by this certificate has been examined, tested, and found to comply with U.S. airworthiness regulations 14 CFR Federal Aviation Regulations Part 31, U.S. Type Certificate No. B04CE and to be in a condition for safe operation.'
Validation Basis	Type certificate B04CE issued March 20, 2008.

The applicable airworthiness requirements for a U.S. certification under 14 CFR 21 section 21.29 identified above were established considering the airworthiness requirements applied by the responsible exporting Czech-Republic civil aviation authority under the Bilateral Aviation Agreement (BAA) authorized by the Agreement between the Government of the Czech-Republic and the Government of the United States of America, including the Operating Procedure and the interim working agreement between the Government of the United States of America and the European Aviation Safety Agency (EASA) per FAA Order 8110.52.

Type Certificate B04CE was issued pursuant to the certification by the CAA-CZ and EASA that the BB Balloon Models BB20GP, BB22, BB22N, BB22Z, BB26, BB26N, BB26Z, BB30N, BB30Z, BB34Z, BB37N, BB37Z, BB42Z, BB45N, BB45Z, BB51Z, BB60N, BB60Z, BB70Z complies with the above requirements.

EASA issued EASA Type Certificate No. BA.003, as described in EASA TCDS No. EASA.BA.003 Issue 6.

Equipment

In addition to the basic equipment required by the certification basis, the following equipment is also required:

1) Lighter or similar ignition device (striker, matches or equivalent).
2) Fire extinguisher.
3) The Approved BALÓNY KUBÍČEK spol. s r.o. US Flight Manual B.0105 (for balloons of serial numbers up to 639)
4) The Approved BALÓNY KUBÍČEK spol. s r.o. US Flight Manual B.2105 (for balloons of serial numbers 640 and higher).

Maintenance and Inspection

Maintenance and inspection must be carried out in accordance with the BALÓNY KUBÍČEK spol. s r.o. Flight Manual B.0105 dated Sep 04, 2007, Revision 0, or later issue, and BALÓNY KUBÍČEK spol. s r.o. Maintenance Manual B.0205 dated Jan 10, 2008, Revision 0, or later issue (for balloons of serial number up to 639) or BALÓNY KUBÍČEK spol.s r.o. Maintenance Manual B.2205 dated Jun 30, 2009, Revision 0, or later issue (for balloons of serial number 640 and up) .

Service Information

Each of the documents listed below must state that it is approved by the European Aviation Safety Agency (EASA) or – for approvals made before December 12, 2005 – by the Civil Aviation Authority of the Czech Republic (CAA-CZ).

- Service bulletins,
- Structural repair manuals,
- Vendor manuals,
- Balloon flight manuals, and
- Overhaul and maintenance manuals.

The FAA accepts such documents and considers them FAA-approved for type design data only unless one of the following conditions exists:

- The documents change the limitations, performance, or procedures of the FAA approved manuals; or

• The documents make an acoustical or emissions changes to this product's U.S. type certificate as defined in 14 CFR § 21.93.

The FAA uses the post type validation procedures to approve these documents. The FAA may delegate on case-by-case to EASA to approve on behalf of the FAA for the U.S. type certificate. If this is the case it will be noted on the document.

Baskets

(See Note 4 for model applicability.)

Basket	Size	Drawing	Max. occupancy
K10	33 in x 46 in x 43 in	61-050097	4
K11	39 in x 46 in x 43 in	61-054200	4
K12	46 in x 46 in x 43 in	61-050556	5
K12A	46 in x 46 in x 41 to 45 in	61-050586	5
K13	39 in x 49 in x 43 in	61-045300	4
K13S	37 in x 50 in x 43 in	62-054450	3
K15	46 in x 49 in x 43 in	61-050111	5
K16	46 in x 55 in x 43 in	61-050125	6
K17	46 in x 57 in x 41 to 45 in	61-054400	6
K18	46 in x 61 in x 43 in	61-050135	7
K22	49 in x 70 in x 43 in	62-052680	8
K25P	49 in x 82 in x 43 in	62-052650	9
K32T	49 in x 95 in x 43 in	62-053050	10
K32TT	63 in x 98 in x 43 in	62-054950	10
K40Y	64 in x 98 in x 43 in	62-052090	12
K50	63 in x 118 in x 43 in	62-054500	14
K50TT	63 in x 118 in x 43 in	62-054900	14
K60	67 in x 138 in x 43 in	62-054600	18
K70	67 in x 157 in x 43 in	62-054800	22
K80	67 in x 177 in x 43 in	62-054850	26

Basket optional equipment

The following optional equipment can be fitted in the baskets:

• Door – for baskets K17, K22, K25P, K32T, K40Y, K50, K50TT, K60, K70, K80
• Passenger seat – for baskets K15, K16, K17, K18, K22, K25P, K32T, K32TT, K40Y, K50, K50TT, K60, K70, K80
• Inner removable partitions – for baskets K25P, K32T, K32TT, K40Y, K50, K50TT, K60, K70, K80, not applicable if Y-shaped inner compartments are fitted

Fuel Cylinders

(The approved types of fuel cylinders for use on all models.)

Manufacturer	Type	Weight	
		Empty (lb)	Full (lb)
Schroeder Fire Balloons	VA50	33	80
	VA70	40	107
Cameron Balloons	Worthington (CB250)	31	75
	CB497	35	75
	CB599	44	90
	CB2088	48	110
	CB426	48	112
	CB959	55	135
	CB2385	24	75
	CB2387	31	90

	CB2380	29	93
	CB2383	33	114
	CB2900	46	96
	CB2901	51	117
	CB2902	53	133
	CB2903	60	139
Linstrand Balloons	V20	31	75
	V30	40	106
	V40	44	132
	T30	22	88
Thunder & Colt	V20	31	75
	V30	40	106
	V40	44	132

NOTES:

NOTE 1

Each manned free balloon must have an individual registration number. An individual envelope is eligible for a Standard Airworthiness Certificate when mated with its approved combination of basket and burner assembly. Change to an eligible combination must be endorsed by log book entry by the pilot in command, or by an FAA certificated repairman.

NOTE 2

For the purpose of maintenance and inspection, operation records (log books) must be maintained with each manned free balloon envelope.

If burner, basket, instruments and/or tanks are interchanged, separate log books must be maintained for each component or group of components which are always used together. The Flight and Maintenance Manual must be presented to an FAA certificated repair station during annual inspections, for verification of components being inspected.

NOTE 3

Annual maintenance inspections should be carried out in accordance with the inspection schedule contained within the BALÓNY KUBÍČEK spol. s r.o. Maintenance Manual B.0205. or BALÓNY KUBÍČEK spol. s r.o. Maintenance Manual B.2205

NOTE 4

The only approved configurations of envelope, basket, and burner are specifically identified within each model section.

-End-