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## **SECTION 1 GENERAL, BB Type Design**

### **I. General**

- |                                  |   |
|----------------------------------|---|
| 1. Data Sheet No: EASA.BA.003    | Issue Date: February 08, 2005   |
| 2. Type / Variant or Model       |   |
| (a) Type:                        | BB  |
| (b) Variant or Model:            | BB  |
| 3. Airworthiness Category:       | Normal  |
| 4. Type Certificate Holder:      | BALÓNY KUBÍČEK spol. s r.o.<br>Francouzská 81<br>602 00 Brno                |
| 5. Manufacturer:                 | Kubíček spol. s r.o.<br>Francouzská 81<br>602 00 Brno (S/N 1-140)           |
|                                  | BALÓNY KUBÍČEK spol.s r.o.<br>Francouzská 81<br>602 00 Brno (S/N141 and up) |
| 6. National Certification Date:  | March 10, 1993, CAA CZ TC No. 93-01   |
| 7. CAA Application Date:         | July 8, 1992  |
| 8. CAA Recommendation Date:      | ---   |
| 9. EASA Type Certification Date: | February 08, 2005   |

### **II. Certification Basis**

- |  |  |
|--|--|
| 1. Reference Date for determining the applicable requirements: | July 8, 1992   |
| 2. CAA CZ Type Certificate Data Sheet No                       | TC 93-01   |
| 3. CAA CZ Certification Basis:                                 | As per item 4 below  |
| 4. Airworthiness Requirements:                                 | FAR Part 31 - Manned Free Ballons, Amdt. 31-4 dated September 11, 1980 for: <ul style="list-style-type: none"><li>- Envelopes: BB12, BB16, BB20, BB22, BB26, BB30, BB37, BB45, BB60</li><li>- Baskets: K7, K10, K12, K12A, K15, K16, K18</li><li>- Burners: H3, H3-D, HB2, H4, KOMET DUO to S/N 104 including</li></ul> FAR Part 31 - Manned Free Ballons, Amdt. 31-7 dated April 24, 1996 for: <ul style="list-style-type: none"><li>- Envelopes: BB30Z, BB20 GP, BB42Z, BB70Z</li><li>- Baskets: K40Y, K32T, K25P, K22</li><li>- Burners: KOMET DUO from S/N 105, KOMET TRIO</li></ul> |

5. Special Conditions: None
6. Reversion and Exemptions: None
7. Equivalent Safety Findings: FAR 31.47 (d) endurance test for KOMET DUO burner from S/N 105

### **III. Technical Characteristics and Operational Limitations**

1. Type Design Definition: Drawing documentation No. 50001.00, Revision (n), dated July 30, 2004, or later EASA approved revision.
2. Description: The free hot-air balloon with the natural shaped envelope of 1200 to 7000 m<sup>3</sup> volume, horizontal (O-type, Z-type) or vertical form (N-type) with 8, 12, 24 or 32 gores in accordance with the envelope size and type. The parachute, Smart Vent or Lite Vent (previous name Smart Vent +) is used for closing of the vent opening. As option, the envelope can be equipped with rotation vent. The single backuped, double or triple burner is the heat source for the envelope. The basket is cane-work connected with the envelope by means of stainless-steel wires and carabiners with a screw gate. Preference of the basket and burner type should be provide with respect to the envelope size. Stainless, dural or titanium fuel cylinders (approved models are listed in the approved Flight Manual) fixed in the basket, the equipment and instruments are fixed on the inner side of the basket.
3. Equipment:
- Altimeter
  - Variometer
  - Thermometer for internal envelope measuring
  - Melting link for the envelope overheating check
  - Fuel quantity gauge
  - Double fire equipment
  - Dropline
  - Fire extinguisher
  - Heat-resistant cloth
  - First aid kit
4. Envelope:
- |        |                            |
|--------|----------------------------|
| BB12   | 1200 m <sup>3</sup> Volume |
| BB16   | 1600 m <sup>3</sup> Volume |
| BB20   | 2000 m <sup>3</sup> Volume |
| BB20GP | 2000 m <sup>3</sup> Volume |
| BB22   | 2200 m <sup>3</sup> Volume |
| BB26   | 2600 m <sup>3</sup> Volume |
| BB30   | 3000 m <sup>3</sup> Volume |
| BB30Z  | 3000 m <sup>3</sup> Volume |
| BB37   | 3700 m <sup>3</sup> Volume |
| BB42Z  | 4250 m <sup>3</sup> Volume |
| BB45   | 4500 m <sup>3</sup> Volume |
| BB60   | 6000 m <sup>3</sup> Volume |
| BB70Z  | 7000 m <sup>3</sup> Volume |

5. Burner:
- |            |                 |
|------------|-----------------|
| H3         | single backedup |
| H3-D       | double          |
| HB2        | double          |
| KOMET DUO  | double          |
| H4         | triple          |
| KOMET TRIO | triple          |
6. Basket:
- |      |   |
|------|---|
| K7   | 0.85 x 0.85 m, Height 1.10 m                |
| K10  | 0.85 x 1.00 m, Height 1.10 m                |
| K12  | 1.16 x 1.16 m, Height 1.10 m                |
| K12A | 1.16 x 1.16 m, Height 1.10 m                |
| K15  | 1.16 x 1.25 m, Height 1.10 m                |
| K16  | 1.16 x 1.40 m, Height 1.10 m                |
| K18  | 1.16 x 1.55 m, Height 1.10 m                |
| K22  | 1.25 x 1.79 m, Height 1.10 m                |
| K25P | 1.25 x 2.08 m, Height 1.10 m (P-Partition)  |
| K32T | 1.25 x 2.41 m, Height 1.15 m (T-Partition)  |
| K40Y | 1.63 x 2.50 m, Height 1.15 m (Y- Partition) |
7. Mass
- Maximum take-off weight:
- |         |         |
|---------|---------|
| BB12    | 370 kg  |
| BB16    | 450 kg  |
| BB20    | 600 kg  |
| BB20 GP | 700 kg  |
| BB22    | 700 kg  |
| BB26    | 800 kg  |
| BB30    | 900 kg  |
| BB30Z   | 900 kg  |
| BB37    | 1100 kg |
| BB42Z   | 1350 kg |
| BB45    | 1450 kg |
| BB60    | 1650 kg |
| BB70Z   | 2200 kg |
8. Envelope temperature:
- In accordance with the used fabric as follows:
- Lückenhaus fabric max. 110 °C
  - Carrington fabric max. 110 °C
  - Kubíček fabric max. 124 °C
9. Minimum Flight Crew: 1 Pilot
10. Maximum number of person on board: In accordance with approved Flight Manual
11. Other Limitations: The balloon is approved for Day VFR flight.

#### **IV. Operating and Service Instructions**

1. Letová příručka pro horkovzdušný balón (č. dokumentu: B.0101) issue 6 or later EASA approved revision
2. Flight manual for use with the hot air balloon (document No.: B.0102) issue 6 or later EASA approved revision
3. Flughandbuch für Heißluftballon (Dokument-Nr.: B.0103) issue 6 or later EASA approved revision
4. Příručka pro údržbu horkovzdušného balónu (č. dokumentu: B.0201) issue 5 or later approved revision
5. Maintenance manual for use with the hot air balloon (document No.: B.0202) issue 5 or later approved revision

#### **V. Notes**

1. Applicable range of balloon parts or equipment from the other manufacturers – see the Optional Bulletin No. BB/22b-1.