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TCDS EASA.BA.015 Issue 23 Date: 30 Apr 2025



# TYPE-CERTIFICATE DATA SHEET

# **BALLONS CHAIZE HOT AIR BALLOONS**

Manned Free Hot Air Balloon

**Type Certificate Holder:** 

**BALLONS CHAIZE** 

CHEMIN DE MIRECOULY 07 100 ANNONAY FRANCE

For models: CS-Type; JZ-Type; JZX-Type; DC-Type, SW-Type, SSHAB-Type

Issue 13 18 September 2020
Issue 12 10 decembre 2019
Issue 11 12 April 2019
Issue 09 08 January 2019
Issue 08 11 July 2018
Issue 07 25 May 2018
Issue: 06 04 January 2017
Issue: 05 12 May 2016
Issue: 04 12 January 2015
Issue: 03, 4 July 2014
Issue: 02, 26 July 2013
Issue: 01, 25 October 2010
Issue: 13 18 September 2020
Issue: 23 30 April 2025
Issue 22 18 Sept 2024
Issue 21 11 July 2024
Issue 20 13 June 2024
Issue 19 01 Aug 2023
Issue 18 27 Apr 2022
Issue: 01, 25 October 2010
Issue 15 01 May 2021
Issue: 00, 6 April 2006

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#### SECTION 1 GENERAL, All Types and Variants

#### <u>I. General</u>

1. Data Sheet No: EASA.BA.015 Issue 23 Date: 30 Apr 2025

2. Type / Variant or Model

- Type: Ballons Chaize Hot Air Balloons

- Model, Variant: CS, JZ, JZX, SW, DC, SSHAB

3. Airworthiness Category: Normal

4. Type Certificate Holder: Ballons Chaize

Chemin de Mirecouly 07100 Annonay FRANCE

5. Manufacturer: Ballons Chaize

Chemin de Mirecouly 07100 Annonay

France

Former Manufacturers :

ALTISPH'AIR 14 rue des Bruyères 64140 MORLAAS

**FRANCE** 

ANNONAY AIR CONCEPT

7 rue Vidal

07100 ANNONAY

**FRANCE** 

BALLONS CHAIZE Annonay Air Concept Chemin des Falcons 07100 ANNONAY

**FRANCE** 

6. National DGAC-FR Certification Date : Refer to Sections 2 and 3

7. DGAC-FR Initial Application Date: Refer to Sections 2 and 3

8. EASA Application Date: Refer to Sections 2, 3 and 4

9. EASA Type Certification Date: Refer to Sections 2, 3 and 4

10. Certification History This EASA TCDS incorporates the data of 'Chaize JZ/JZX

Type' TC data sheet N°. 182, édition n° 7, dated April 2001

issued by the DGAC France and replaces it. The corresponding Certificat de Navigabilité de type N°. 182 initially issued by the DGAC France 7 December 1992 and

last amended 19 April 2001 is replaced by the TC

EASA.BA.015.

The CS-model, former DGAC France TC N°. 79 with its

TCDS N°. 152, was already part of the TCDS

EASA.BA.015 lss. 0

#### II. Certification Basis

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1. Reference Date for determining the applicable requirements:

Refer to Tables 2.1, 3.1 and 4.1 in Section 2 and 3

DGAC-FR Type Certificate Data Sheet No: for CS Type: N°. 152, Issue 8

for JZ Type N°. 182, Issue 7 for JZX Type N°. 182, Issue 7

3. Certification Basis: Refer to Tables 2.1, 3.1 and 4.1 in Section 2, 3 and 4:

- Conditions Techniques Générales CTG 015,

édition no. 1 of 27 October 1975,

marked (□)

 Conditions Techniques Générales CTG 015, édition no. 2 of 3 March 1980, and CTG 015/A introducing the requirements of FAR 31 Amdt. 4,

marked (□□)

 Certification Specifications and Acceptable Means of Compliance for Hot Air Balloons CS-31HB Amdt. 1 dated

5 December 2011 marked (□□□)

4. Airworthiness Requirements: Refer to Tables 2.1, 3.1 and 4.1 in Section 2 and 3:

- FAR 31 change 2;

Additional Technical Conditions, CTG 015 – Section I; Acceptable Means of Compliance, CTG 015 – Section II; Free Manned Balloons Certification, CTG 015 – Section

III;

Basic Technical Conditions, CTG 015 - Section IV

marked (○)
- CS 31HB Amdt. 1
marked (○○)

5. Special Conditions: None

6. Reversion and Exemptions: None

7. Equivalent Safety Findings: None

#### III. Technical Characteristics and Operational Limitations

I. Type Design Definition: Refer to Tables 2.1, 3.1 and 4.1 in Section 2, 3 and 4:

Description: Manned free hot-air balloon with the natural shape

envelope of 1 540 – 12000 m³ volume, vertical or horizontal construction with 12-32 gores. Parachute in top for control and rapid deflation. Option: Fast deflation system, Turning vents or Double layer. Single backed up, double or Triple burner as heater system. Conventional wicker baskets suspended beneath the envelope by stainless-steel cables and karabiners with a screw gate. Stainless steel, duralumin or titanium fuel cylinders and other equipment/instruments fixed on the inner side of the basket

wall.

Baskets can be fitted with a door option or harness option

3. Equipment: - Altimeter

Rate of climb/descent indicator

Melting link for the envelope overheating check

Fuel quantity gauge

4. Envelope: Refer to Section 2, 3 and 4, see Table 2.2, 3.2 or 4.2

5. Burner: Refer to Section 2, 3 and 4, see Table 2.3, 3.3 or 4.3

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6. Basket: Refer to Section 2, 3 and 4, see Table 2.4, 3.4 or 4.4

7. Mass: Minimum Landing Weight Refer to Section 2, 3 or 4

& Maximum take-off see Table 2.2, 3.2 or 4.2

mass:

8. Maximum Envelope Temperature: for CS Types (polyamide fabric): 120°C

for JZ Types (polyamide fabric): 120°C for JZX Types (polyester fabric): 130°C for DC Types (polyamide fabric): 120°C For SW (polyamide fabric): 120°C For SSHAB (polyamid fabric): 120°C

Minimum Flight Crew: 1 Pilot

10. Maximum number of persons on board: In accordance with approved Flight Manual

11. Other Limitations: - The balloon is approved for VFR-Day flight

Life limited parts – see Airworthiness Limitations Section (ALS) in the Maintenance Manual

#### IV. Operating and Service Instructions

Flight Manual: Manuel Utilisateur – Ballons Chaize, Rèf: Manuel-1401001, Version 07\_13, or later EASA approved revision,

Supplements concerning combinations with other manufacturer's parts:

- Supplément 4 - Base Cameron, Version 02\_00,or later EASA approved revision - Supplément 5 Base Kubíček, Version 01 05, or later EASA approved revision - Supplément 6 Base Lindstrand, Version 01\_04, or later EASA approved revision - Supplément 7 - Base Ultramagic, Version 01 05, or later EASA approved revision Base Thunder&Colt, - Supplément 8 Version 01 03, or later EASA approved revision - Supplément 9 - Base Raven, Version 01 02, or later EASA approved revision - Supplément 10 Base Sky Balloons, Version 01 02, or later EASA approved revision - Supplément 11 - Base Schroeder, Version 01 04, or later EASA approved revision - Supplément 14 Base LTL, Version 01\_03, or later EASA approved revision - Supplement JZ30 Lindstrand, Version 01\_00, or later EASA approved revision Version 01\_00, or later EASA approved revision - Supplement SW12000F28 – Ultramagic Version 01\_00, or later EASA approved revision - Supplement JZ34 K19L Shadow - Supplement SW6000 C5L MK32double Version 01 00, or later EASA approved revision - Supplement SW6000F24 Lindstrand Version 01 00, or later EASA approved revision Version 01 00, or later EASA approved revision - Supplement SW6000F24 B240T neo - Supplement SW6000F24 IX FB7 Version 01 00, or later EASA approved revision - Supplement SW8000 CB3004 Neo triple Version 01\_00, or later EASA approved revision - Supplement SW11000 C12S MK32 quad Version 01\_00, or later EASA approved revision - Suplement B380TT B340TT B310TT Version 01\_00, or later EASA approved revision - Suplement SW8000 K50TT8 Ignis Triple Version 01\_00, or later EASA approved revision - Suplement SW6000 Neo stratus CB3314 Version 01\_00, or later EASA approved revision

#### Other supplement

Supplément 12 – Option double peau, Version 01\_00, or later EASA approved revision
 Supplément 13 – Special Shape UNICORN, Version 01\_00, or later EASA approved revision
 Supplément 15 – Special Shape Petit Pricne, Version 01\_00, or later EASA approved revision

Maintenance Manual: Manuel de maintenance et instructions de suivi de navigabilité série: JZ/JZX/CS/DC/SW, Rèf: ManE-1307001, Version : 04\_2, or later EASA accepted revision Applicable to:

- 1. CS Type, JZ Type JZX Type and SW Type balloons (up to including s/n 231 and NG001 and up);
- 2. DC Type balloons (from s/n DC001 and up).

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3. SSHAB Type balloons (from s/n SSHAB-001 and up).

Maintenance supplement or Flight manual supplement for special shape balloon SSHAB are listed in Section 6

## V. Notes

- 1. Manufacturing confined to approved Part 21 Subpart F or Subpart G organisation (Commission Regulation (EU) No 748/2012 of 03/08/2012)
- 2. Two Fuel Cells approved for use at less per model
- 3. Combinations with other manufacturer's parts (bottom ends).
  - See approved AFM and related supplements

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# SECTION 2: CS-model definition and certification data

Table 2.1: Type Design

CS model definition is defined in Type Design Document MDL-1706001 initially approved as per approval date indicated in Table below or later EASA approved revision

Model	Type design document n°	Reference date	Airworthiness Requirements (see II.4)	Certification basis (see II.3)	Approval date
CS 1600 F12	MDL-1706001	1 July 1975	0		7 November 1975
CS 1600 F24	MDL-1706001	1 <sup>st</sup> November, 2003	0		March 2006
CS 1800 F12	MDL-1706001	1 January 1979	0		11 May 1979
CS 1800 F24	MDL-1706001	1 <sup>st</sup> November, 2003	0		March 2006
CS 2000 F12	MDL-1706001	1 July 1975	0		7 November 1975
CS 2000 F24	MDL-1706001	1 <sup>st</sup> November, 2003	0		March 2006
CS 2200 F12	MDL-1706001	1 January 1979	0		11 May 1979
CS 2200 F16	MDL-1706001	1 <sup>st</sup> November, 2003	0		March 2006
CS 2200 F24	MDL-1706001	1 <sup>st</sup> November, 2003	0		March 2006
CS 2200 F32	MDL-1706001	1 January 1979	0		11 May 1979
CS2500 F24	MDL-1706001	10 December 2019			December 2019
CS 3000 F16	MDL-1706001	1 January 1979	0		27 August 1981
CS 3000 F24	MDL-1706001	12 May 2016			12 May 2016
CS 3000 F32	MDL-1706001	1 <sup>st</sup> November, 2003	0		March 2006
CS3400 F24	MDL-1706001	18 Sept 2024	0		Sept 2024
CS 3700 F24	MDL-1706001	11 November 2016	00	000	November 2016
CS 4000 F16	MDL-1706001	1 January 1979	0		11 May 1979
CS 4000 F24	MDL-1706001	08 January 2019			January 2019
CS 4000 F32	MDL-1706001	1 <sup>st</sup> November, 2003	0		March 2006
CS 4500 F24	MDL-1706001	11 November 2016	00	000	November 2016
CS 5000 F24	MDL-1706001	13 April 2015	00	000	Aprill 2015
CS5500 F24	MDL-1706001	18 March 2018	00	000	April 2018

Table 2.2: Envelopes

Model	Type design document n°	Approval date	Volume [m³]	Gores [-]	MLM [kg]	MTOM [kg]
CS 1600 F12	MDL-1706001	7 November 1975	1 540	12	N/A	500
CS 1600 F24	MDL-1706001	March 2006	1 540	24	N/A	500
CS 1800 F12	MDL-1706001	11 May 1979	1 850	12	N/A	500
CS 1800 F24	MDL-1706001	March 2006	1 850	24	N/A	500
CS 2000 F12	MDL-1706001	7 November 1975	2 150	12	N/A	500
CS 2000 F24	MDL-1706001	March 2006	2 150	24	N/A	500
CS 2200 F12	MDL-1706001	11 May 1979	2 650	12	N/A	750
CS 2200 F16	MDL-1706001	March 2006	2 650	16	N/A	750
CS 2200 F24	MDL-1706001	March 2006	2 650	24	N/A	750
CS 2200 F32	MDL-1706001	11 May 1979	2 650	32	N/A	750
CS 2500 F24	MDL-1706001	10 Decembre 2019	2500	24	N/A	815
CS 3000 F16	MDL-1706001	27 August 1981	3 350	16	N/A	1 000
CS 3000 F24	MDL-1706001	May 2016	3030	24	N/A	1000
CS 3000 F32	MDL-1706001	March 2006	3 350	32	N/A	1 000
CS3400 F24	MDL-1706001	Sept 2024	3400	24	540	1100
CS 3700 F24	MDL-1706001	11 november 2016	3700m3	24	540	1260
CS 4000 F16	MDL-1706001	11 May 1979	4 250	16	N/A	1 100
CS4000 F24	MDL-1706001	08 January 2019	4000m3	24	600	1 100
CS 4000 F32	MDL-1706001	March 2006	4 250	32	N/A	1 100
CS4500 F24	MDL-1706001	11 November 2016	4550m3	24	700	1460
CS 5000 F24	MDL-1706001	12 May 2016	5 000	24	700	1 700
CS5500 F24	MDL-1706001	18 March 2018	5500m3	24	700	1850

Table 2.3: Burners

Model	Description	Applicable load frames (measures)	Drawing n°.	Certification basis	Approval date
Chaize 303	Double	900 x 600	303	CTG15	11 May 1979
Chaize 304	Single	640 x 615	304	CTG15	7 November 1975

Table 2.4: Baskets

DDEF-1409007 initially approved as per approval date indicated in Table above or later EASA approved revision. At the time of this TCDS, the current version of the DDEF is edition 2 revision 3

Model	Description [m]	Drawing n°.	Certification basis	Approval date	Option door	Option harness
A 100	1.10 x 1.10	DDEF-1409007	CTG 015A	18 Nov 2014	Х	X
A 101	1.10 x 1.10	DDEF-1409007	CTG 015A	18 Nov 2014	Х	Х
A 200	1.30 x 1.10	DDEF-1409007	CTG 015A 18 Nov 2014		Х	Х
A 201	1.10 x 1.30	DDEF-1409007	CTG 015A 18 Nov 2014		Х	Х
405	1.10 x 1.30	CHAIZE Doc. L-00- AX2093 R1	CTG 015A	14 Jan 2005	X	Х
A201 C	1.20 x 1.30	DDEF-1409007	CTG 015A	18 Nov 2014	Х	Х
A 300	1.50 x 1.10	DDEF-1409007	CTG 015A	18 Nov 2014	Х	Х
A 301	1.10 x 1.50	DDEF-1409007	CTG 015A	18 Nov 2014	Х	Х
A 302	1.10 x 1.50	DDEF-1409007	CTG 015A	18 Nov 2014	Х	Х
A 303 T	1.10 x 1.50	DDEF-1409007	CTG 015A	18 Nov 2014	Х	Х
A 401	1.30 x 1.70	DDEF-1409007	CTG 015A	18 Nov 2014	Х	Х
A 403	1.30 x 1.70	DDEF-1409007	CTG 015A	18 Nov 2014	Х	Х
A 403 T	1.30 x 1.70	DDEF-1409007	CTG 015A	18 Nov 2014	Х	Х
A501	1.50 x 2.00	DDEF-1409007	CTG 015A	G 015A 18 Nov 2014		Х
A 503	1.50 x 2.00	DDEF-1409007	CTG 015A	3 015A 18 Nov 2014		X
A 503 T	1.50 x 2.00	DDEF-1409007	CTG 015A	G 015A 18 Nov 2014		X
B240T	1.50x2.40	DDEF-1409007	CS31HB	01 May 2021	Х	X

Table 2.5: Approved combinations of envelopes and baskets for CS models

			Basket														
Enveloppe Model	A 100	A 101	A 200	A 201	A 201 C	405	A 300	A 301	A 302	A 303 T	A 401	A 403	A 403 T	A 501	A 503	A 503 T	B240T
CS 1600 F12	•	•							-					-	-		
CS 1600 F24	•	•															
CS 1800 F12	•	•	•	•					i	-				i	i		
CS 1800 F24	•	•	•	•					-					-	-		
CS 2000 F12			•	•	•	•			1	-				I	I		
CS 2000 F24			•	•	•	•											
CS 2200 F12			•	•	•	•	•	•	•	•							
CS 2200 F16			•	•	•	•	•	•	•	•							
CS 2200 F24			•	•	•	•	•	•	•	•							
CS 2200 F32			•	•	•	•	•	•	•	•				-	-		
CS2500 F24			•	•	•	•	•	•	•	•	•	•	•	I	I		
CS 3000 F16			•	•	•	•	•	•	•	•	•	•	•				
CS3000 F24			•	•	•	•	•	•	•	•	•	•	•				
CS 3000 F32			•	•	•	•	•	•	•	•	•	•	•				
CS3400F24			•	•	•	•	•	•	•	•	•	•	•				
CS3700 F24					•	•	•	•	•	•	•	•	•	•			
CS 4000 F16							•	•	•	•	•	•	•	•	•	•	
CS 4000 F24							•	•	•	•	•	•	•	•	•	•	
CS 4000 F32							•	•	•	•	•	•	•	•	•	•	
CS 4500 F24							•	•	•	•	•	•	•	•	•	•	•
CS 5000 F24											•	•	•	•	•	•	•
CS 5500 F24											•	•	•	•	•	•	•

Legend:

- combination approved combination not approved

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# SECTION 3: JZ/JZX-model definition and certification data

Table 3.1: Type Design

JZ model definition is defined in Type Design Document MDL-1706001 initially approved as per approval date indicated in Table below or later EASA approved revision.

Model	Type design document n°	Reference date	Airworthiness Requirements (see II.4)	Certification basis (see II.3)	Approval date
JZ 18 F12	MDL-1706001	June 2016	0		30 March 1993
JZ 18 F24	MDL-1706001	June 2016	0		11 June 1999
JZ 20 F12	MDL-1706001	June 2016	0		11 June 1999
JZ 20 F24	MDL-1706001	June 2016	0		11 June 1999
JZ 22 F12	MDL-1706001	June 2016	0		27 July 1994
JZ 22 F24	MDL-1706001	June 2016	0		11 June 1999
JZ 25 F12	MDL-1706001	June 2016	0		27 July 2009
JZ 25 F16	MDL-1706001	June 2016	0		30 March 1993
JZ 25 F24	MDL-1706001	June 2016	0		11 June 1999
JZ 25 F32	MDL-1706001	June 2016	0		11 June 1999
JZ 30 F16	MDL-1706001	June 2016	0		7 December 1992
JZ30 F24	MDL-1706001	January 2019	0		January 2019
JZ 30 F32	MDL-1706001	June 2016	0		11 June 1999
JZ34 F16	MDL-1706001	June 2016	0		3 January 2017
JZ 34 F24	MDL-1706001	June 2016	0		3 January 2017
JZ 35 F16	MDL-1706001	June 2016	0		27 July 1994
JZ 35 F32	MDL-1706001	June 2016	0		11 June 1999
JZ 40 F16	MDL-1706001	June 2016	0		7 December 1992
JZ 40 F24	MDL-1706001	April 2022	00	000	27 April 2022
JZ 40 F32	MDL-1706001	June 2016	0	00	11 June 1999
JZ45 F24	MDL-1706001	December 2019	0	00	10 December 2019
JZX 18 F12	MDL-1706001	June 2016	0	00	30 March 1993
JZX 18 F24	MDL-1706001	June 2016	0	00	11 June 1999
JZX 20 F12	MDL-1706001	June 2016	0	00	11 June 1999
JZX 20 F24	MDL-1706001	June 2016	0	00	11 June 1999
JZX 22 F12	MDL-1706001	June 2016	0	00	27 July 1994
JZX 22 F24	MDL-1706001	June 2016	0	00	11 June 1999
JZX 25 F12	MDL-1706001	June 2016	0	00	27 July 2009
JZX 25 F16	MDL-1706001	June 2016	0	00	30 March 1993
JZX 25 F24	MDL-1706001	June 2016	0	00	11 June 1999
JZX 25 F32	MDL-1706001	June 2016	0	0 00	
JZX 30 F16	MDL-1706001	June 2016	0 00		7 December 1992
JZX 30 F32	MDL-1706001	June 2016	0 00		11 June 1999
JZX 35 F16	MDL-1706001	June 2016	0 00		27 July 1994
JZX 35 F32	MDL-1706001	June 2016	0 00		11 June 1999
JZX 40 F16	MDL-1706001	June 2016	0 00		7 December 1992
JZX 40 F32	MDL-1706001	June 2016	0		11 June 1999

Table 3.2: Envelopes

Model	Type design document n°	Approval date	Volume [m³]	Gores [-]	MTOM [kg]
JZ 18 F12	MDL-1706001	4 January 2017	1 887	12	570
JZ 18 F24	MDL-1706001	4 January 2017	1 887	24	570
JZ 20 F12	MDL-1706001	4 January 2017	2 138	12	650
JZ 20 F24	MDL-1706001	4 January 2017	2 138	24	650
JZ 22 F12	MDL-1706001	4 January 2017	2 408	12	725
JZ 22 F24	MDL-1706001	4 January 2017	2 408	24	725
JZ 25 F12	MDL-1706001	4 January 2017	2 547	12	815
JZ 25 F16	MDL-1706001	4 January 2017	2 547	16	815
JZ 25 F24	MDL-1706001	4 January 2017	2 547	24	815
JZ 25 F32	MDL-1706001	4 January 2017	2 547	32	815
JZ 30 F16	MDL-1706001	4 January 2017	3 100	16	963
JZ30 F24	MDL-1706001	08 January 2019	3 100	24	963
JZ 30 F32	MDL-1706001	4 January 2017	3 100	32	963
JZ34 F16	MDL-1706001	4 January 2017	3400	16	1080
JZ 34 F24	MDL-1706001	4 January 2017	3400	24	1080
JZ 35 F16	MDL-1706001	4 January 2017	3 515	16	1 120
JZ 35 F32	MDL-1706001	4 January 2017	3 515	32	1 120
JZ 40 F16	MDL-1706001	4 January 2017	4 080	16	1 300*
JZ40 F24	MDL-1706001	4 April 2022	2080	24	1300
JZ 40 F32	MDL-1706001	4 January 2017	4 080	32	1 300*
JZ 45 F24	MDL-1706001	December 2019	4500	24	1460
JZX 18 F12	MDL-1706001	4 January 2017	1 887	12	570
JZX 18 F24	MDL-1706001	4 January 2017	1 887	24	570
JZX 20 F12	MDL-1706001	4 January 2017	2 138	12	650
JZX 20 F24	MDL-1706001	4 January 2017	2 138	24	650
JZX 22 F12	MDL-1706001	4 January 2017	2 408	12	725
JZX 22 F24	MDL-1706001	4 January 2017	2 408	24	725
JZX 25 F12	MDL-1706001	4 January 2017	2 547	12	815
JZX 25 F16	MDL-1706001	4 January 2017	2 547	16	815
JZX 25 F24	MDL-1706001	4 January 2017	2 547	24	815
JZX 25 F32	MDL-1706001	4 January 2017	2 547	32	815
JZX 30 F16	MDL-1706001	4 January 2017	3 100	16	963
JZX 30 F32	MDL-1706001	4 January 2017	3 100	32	963
JZX 35 F16	MDL-1706001	4 January 2017	3 515	16	1 120
JZX 35 F32	MDL-1706001	4 January 2017	3 515	32	1 120
JZX 40 F16	MDL-1706001	4 January 2017	4 080	16	1 300*
JZX 40 F32	MDL-1706001	4 January 2017	4 080	32	1 300*

 $<sup>^{\</sup>star}$  MTOM = 1 260 kg must not be exceeded with the baskets A 101, A 201, A 301, A 302 A 303 T

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Table 3.3: Burners

Model	Description	Applicable load frame measures [mm]	Drawing n°.	Certification basis	Approval date
T&C Mk II / Mk III	single	730 x 670	Colt 2 / Colt 3	CTG15	1991
T&C Mk II / Mk III	double	730 x 670	Colt 2 / Colt 3	CTG15	1991
T&C Mk II / Mk III	triple	1 000 x 1 000	Colt 2 / Colt 3	CTG15	1991

Table 3.4: Baskets

Model	Description [m]	Drawing n°.	Certification basis	Approval date.
A 100	1.10 x 1.10	DDEF-1409007	CTG 015A	18 November 2014
A 101	1.10 x 1.10	DDEF-1409007	CTG 015A	18 November 2014
A 200	1.30 x 1.10	DDEF-1409007	CTG 015A	18 November 2014
A 201	1.10 x 130	DDEF-1409007	CTG 015A	18 November 2014
A201 C	1.20 x 1.30	DDEF-1409007	CTG 015A	18 November 2014
405	1.10 x 1.30	CHAIZE Doc. L-00- AX2093 R1	CTG 015A	14 Jan 2005
A 300	1.50 x 1.10	DDEF-1409007	CTG 015A	18 November 2014
A 301	1.10 x 150	DDEF-1409007	CTG 015A	18 November 2014
A 302	1.10 x 150	DDEF-1409007	CTG 015A	18 November 2014
A 303 T	1.10 x 150	DDEF-1409007	CTG 015A	18 November 2014
A 401	1.30 x 170	DDEF-1409007	CTG 015A	18 November 2014
A 403	1.30 x 170	DDEF-1409007	CTG 015A	18 November 2014
A 403 T	1.30 x 170	DDEF-1409007	CTG 015A	18 November 2014
A501	1.50 x 2.00	DDEF-1409007	CTG 015A	18 November 2014
A 503	1.50 x 2.00	DDEF-1409007	CTG 015A	18 November 2014
A 503 T	1.50 x 2.00	DDEF-1409007	CTG 015A	18 November 2014
B240T	1.50x2.40	DDEF-1409007	CS31HB	01 May 2021

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Table 3.5: Approved combinations of envelopes and burners for JZ/JZX models

		Burner	
Envelope Model	T&C Mk II / Mk III single	T&C Mk II / Mk III double	T&C Mk II / Mk III triple
JZ 18 F12	•	•	
JZ 18 F24	•	•	
JZ 20 F12		•	
JZ 20 F24		•	
JZ 22 F12		•	
JZ 22 F24		•	
JZ 25 F12		•	
JZ 25 F16		•	
JZ 25 F24		•	
JZ 25 F32		•	
JZ 30 F16		•	
JZ30 F24		•	
JZ 30 F32		•	
JZ34 F16		•	•
JZ34 F24		•	•
JZ 35 F16		•	•
JZ 35 F32		•	•
JZ 40 F16		•	•
JZ 40 F24		•	•
JZ 40 F32		•	•
JZ45 F24		•	•
JZX 18 F12	•	•	
JZX 18 F24	•	•	
JZX 20 F12		•	
JZX 20 F24		•	
JZX 22 F12		•	
JZX 22 F24		•	
JZX 25 F12		•	
JZX 25 F16		•	
JZX 25 F24		•	
JZX 25 F32		•	
JZX 30 F16		•	
JZX 30 F32		•	
JZX 35 F16		•	•
JZX 35 F32		•	•
JZX 40 F16		•	•
JZX 40 F32		•	•

Legend: • combination approved combination not approved

Table 3.6: Approved combinations of envelopes and baskets for JZ/JZX models

Envelope Model			Basket													
- Iniouoi	A 100	A 101	A 200	405	A 201	A 300	A 301	A 302	A 303 T	A 401	A 403	A 403 T	A 501	A 503	A 503 T	B240T
17.40.540			,	-	-		_			-	-		,	-		
JZ 18 F12 JZ 18 F24	•	•														
	•	•														
JZ 20 F12 JZ 20 F24			•	•	•											
			•	•	•											
JZ 22 F12			•	•	•											
JZ 22 F24			•	•	•											
JZ 25 F12			•	•	•	•	•	•	•							
JZ 25 F16			•	•	•	•	•	•	•							
JZ 25 F24 JZ 25 F32			•	•	•	•	•	•	•							
			•	•	•	•	•	•	•							
JZ 30 F16 JZ30 F24			•	•	•	•	•	•	•	•	•	•				
JZ 30 F32			•	•	•	•	•	•	•	•	•	•				
			•	•	•	•	•	•	•	•	•	•				
JZ34F16			•	•	•	•	•	•	•	•	•	•				
JZ34F24			•	•	•	•	•	•	•	•	•	•				
JZ 35 F16						•	•	•	•	•	•	•				
JZ 35 F32						•	•	•	•	•	•	•				
JZ 40 F16						•	•	•	•	•	•	•	•	•	•	
JZ 40 F24						•	•	•	•	•	•	•	•	•	•	
JZ 40 F32						•	•	•	•	•	•	•	•	•	•	
JZ45F24						•	•	•	•	•	•	•	•	•	•	•
JZX 18 F12	•	•														
JZX 18 F24	•	•														
JZX 20 F12			•	•	•											
JZX 20 F24			•	•	•											
JZX 22 F12			•	•	•											
JZX 22 F24			•	•	•											
JZX 25 F12			•	•	•	•	•	•	•							
JZX 25 F16			•	•	•	•	•	•	•							
JZX 25 F24			•	•	•	•	•	•	•							
JZX 25 F32			•	•	•	•	•	•	•							
JZX 30 F16			•	•	•	•	•	•	•	•	•	•				
JZX 30 F32			•	•	•	•	•	•	•	•	•	•				
JZX 35 F16			•	•	•	•	•	•	•	•	•	•				
JZX 35 F32						•	•	•	•	•	•	•				
JZX 40 F16						•	•	•	•	•	•	•	•	•	•	
JZX 40 F32						•	•	•	•	•	•	•	•	•	•	

Legend:

• combination approved combination not approved

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## SECTION 4: DC-model definition and certification data

## Table 4.1: Type Design

DC model definition is defined in Type Design Document MDL-1706001 initially approved as per approval date indicated in Table below or later EASA approved revision

Model	Type design document n°	Reference date	Airworthiness Requirements (see II.4)	Certification basis (see II.3)	Approval date
DC 1800 F16	MDL-1706001	June 2016	00	000	4 July 2014
DC 2000 F16	MDL-1706001	June 2016	00	000	4 July 2014
DC 2200 F16	MDL-1706001	June 2016	00	000	4 July 2014

Table 4.2: Envelopes

Model	Type design document n°	Approval date	Volume [m³]	Gores [-]	MTOM [kg]	Min. Landing Mass [kg]
DC 1800	MDL-1706001	4 January 2016	1 800	16	600	260
DC 2000	MDL-1706001	4 January 2016	2 000	16	630	290
DC 2200	MDL-1706001	4 January 2016	2 200	16	680	340

Table 4.3: Burners

Model	Description	Applicable load frame measures [mm]	Drawing n°.	Certification basis	Approval date
Chaize 303	Double	900 x 600	303	CTG15	11 May 1979

Table 4.4: Baskets

Model	Description [m]	Drawing n°.	Certification basis	Approval date.
A 100	1.10 x 1.10	DDEF-1409007	CTG 015A	18 November 2014
A 101	1.10 x 1.10	DDEF-1409007	CTG 015A	18 November 2014
A 200	1.30 x 1.10	DDEF-1409007	CTG 015A	18 November 2014
A 201	1.10 x 1.30	DDEF-1409007	CTG 015A	18 November 2014
A201 C	1.20 x 1.30	DDEF-1409007	CTG 015A	18 November 2014
405	1.10 x 1.30	CHAIZE Doc. L-00- AX2093 R1	CTG 015A	14 Jan 2005
A 300	1.50 x 1.10	DDEF-1409007	CTG 015A	18 November 2014
A 301	1.50 x 1.10	DDEF-1409007	CTG 015A	18 November 2014
A 302	1.50 x 1.10	DDEF-1409007	CTG 015A	18 November 2014

Table 4.5: Approved combinations of envelopes and baskets for DC models

_		Basket						
Envelope Model	A 100	A 101	A 200	A 201	405	A 300	A 301	A 302
DC 1800	•	•	•	•	•	•	•	•
DC 2000	•	•	•	•	•	•	•	•
DC 2200	•	•	•	•	•	•	•	•

Legend:

- combination approved
- --- combination not approved

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## **SECTION 5: SW-model definition and certification data**

Table 5.1: Type Design

SW model definition is defined in Type Design Document MDL-1706001 initially approved as per approval date indicated in Table below or later EASA approved revision

Model	Type design document n°	Reference date	Airworthiness Requirements (see II.4)	Certification basis (see II.3)	Approval date
SW5500F24	MDL-1706001	18/09/2020	00	000	Sept 2020
SW6000F24	MDL-1706001	18/09/2020	00	000	Sept 2020
SW6000F28	MDL-1706001	18/09/2020	00	000	Sept 2020
SW7000F24	MDL-1706001	18/09/2020	00	000	Sept 2020
SW7000F28	MDL-1706001	18/09/2020	00	000	Sept 2020
SW8000F28	MDL-1706001	18/09/2020	00	000	Sept 2020
SW8500F28	MDL-1706001	13/06/2024	00	000	Jun 2024
SW9000F28	MDL-1706001	18/09/2020	00	000	Sept 2020
SW10000F28	MDL-1706001	18/09/2020	00	000	Sept 2020
SW11000F28	MDL-1706001	18/09/2020	00	000	Sept 2020
SW12000F28	MDL-1706001	18/09/2020	00	000	Sept 2020

Table 5.2: Envelopes

Model	Type design document n°	Approval date	Volume [m³]	Gores [-]	MTOM [kg]	Min. Landing Mass [kg]
SW5500F24	MDL-1706001	Sept 2020	5500m3	24	1850	880
SW6000F24	MDL-1706001	Sept 2020	6000m3	24	2100	960
SW6000F28	MDL-1706001	Sept 2020	6000m3	28	2100	960
SW7000F24	MDL-1706001	Sept 2020	7000m3	24	2500	1120
SW7000F28	MDL-1706001	Sept 2020	7000m3	28	2500	1120
SW8000F28	MDL-1706001	Sept 2020	8000m3	28	2800	1280
SW8500F28	MDL-1706001	June 2024	8500m3	28	2900	1360
SW9000F28	MDL-1706001	Sept 2020	9000m3	28	3000	1440
SW10000F28	MDL-1706001	Sept 2020	10000m3	28	3200	1650
SW11000F28	MDL-1706001	Sept 2020	11000m3	28	3600	1760
SW12000F28	MDL-1706001	Sept 2020	12000m3	28	4000	1920

Table 5.3: Approved combination of Burner with SW series

The burners compatibility is described in supplement to the HABFM manual in its latest revision

Manufacturer	Model or category	SW5500	SW6000 F24/F28	SW7000 F24/F28		SW8500 F28	SW9000 F28	SW10000 F28	SW11000 F28	SW12000 F28
Cameron	Double Stratus / Neo stratus	x	X							
Cameron	Triple Stratus / neo stratus		X	X	X	X	X			
	Quad Stratus /			X	X	Х	X	X	X	X

Kubiceck	Neo stratus Ignis Double	X	V					
	Ignis Triple Ignis Quad	X	X	X	X	X	X	X
ultramagic	MK32 triple MK21 quadruple	X				X	X	X

Legend: X combination approved

Table 5.4: Approved combination of Baskets with SW series

The Basket compatibility is described in supplement to the HABFM manual in its latest revision

	Model or category		SW6000 F24/F28	SW7000 F24/F28	BFM manu   <b>SW8000</b>   <b>F28</b>	SW9000 F28	SW10000 F28	SW11000 F28	SW12000 F28
Manufacturer	outogo.y	SW5500		12 11/120	SW8500 F28	. 20	. 20	. 20	120
Chaize	B240T	X	X						
	B310TT		Burner	Burner	Burner				
			Load	Load	Load				
			frame CB2050	frame CB2050	frame				
			CB2050 CB2250	CB2050 CB2250	CB2050 CB2250				
			CB2283	CB2283	CB2283				
			CB2303	CB2303	CB2303				
	B340TT		Burner	Burner	Burner	Burner	Burner		
			Load	Load	Load	Load	Load		
			frame	frame	frame	frame	frame		
			CB2418	CB2418	CB2418	CB2418	CB2418		
	B380TT			Burner	Burner	Burner	Burner	Burner	Burner
				Load	Load	Load	Load	Load	Load
				frame	frame	frame	frame	frame	frame
	G			CB2418	CB2418	CB2418	CB2418	CB2418	CB2418
Cameron	G	X							
	L		Burner						
Cameron			Frame						
			CB2505 CB2592						
Cameron	Н	Х	CDZ39Z						
Cameron		Λ			V	V	V	V	V
	K50TT8, K55X,				X	X	X	X	X
	K55X, K55TTA,								
Kubicek	K58HH,								
	K60 (sn400								
	and up)								
Kubicek	K60 (up to						Χ	Χ	Χ
Kubicek	sn399)								
Kubicek	K60X						X	X	X
	K55X				V	V	V	V	V
V.ubil-	K65TTA,				X	X	X	X	X
Kubicek	K70, K70TTA								
Kubicek	K80				Χ	Χ	X	X	X
Kubicek				-	-	-			
Kubicek	K85, K90, K100, K110						X	X	X
Ultramagic	C-5								

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C-7					
C-8	X				
C-9					
C-11					
C-12			X	X	X

Legend: X combination approved

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# SECTION 6: SSHAB-model definition and certification data

Table 6.1: Type Design

Model	Type design document n°	Reference date	Airworthiness Requirements (see II.4)	Certification basis (see II.3)	Approval date
Unicorn	MDL-1706001 V2.2 or latter approved DDEF-1809001	12/2018	0		7/09/2021
Petit Prince	MDL-1706001 V2.2 or latter approved DDEF-2109029	29/12/2021			29/12/2021

## Table 6.2: Envelopes

Model	Type design document n°	Approval date	Volume [m³]	Gores [-]	MTOM [kg]	Min. Landing Mass [kg]
Unicorn	MDL-1706001 V2.2 or latter approved DDEF-1809001	7/09/2021	2200	16	680	340
Petit Prince	MDL-1706001 V2.2 or latter approved DDEF-2109029	29/12/2021	2800	20	815	550

## Table 6.3: Approved combination of Burners and Baskets

The burners and basket compatibility is described in supplement to the HABFM manual in its latest revision

Model	Burner Compatibilty	Basket compatibility
Unicorn	Refer to DC2200 model in section 4	Refer to DC2200 model in section 4
Petit Prince	Refer to JZ30 model in section 3	Refer to JZ30 model in section 3

## **Table 6.4: Flight Manual and Maintenance supplement**

Model	Maintenance manual supplement	Flight manual supplement
Unicorn	Supplement 3	Supplement 13
Petit Prince	Supplement 3	Supplement 13