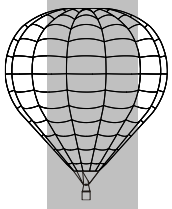


S29 CAMERON "BOTTOM ENDS"

SUPPLEMENT 29

'CAMERON' BASKET, BURNERS AND CYLINDERS WITH ULTRAMAGIC ENVELOPES

The technical content of this document is approved under the authority of the DOA, ref.: EASA.21J.351.

29.1 GENERAL INFORMATION

The information contained here in this document, supplements or supersedes the basic manual only in the areas listed. For limitations, procedures and performance information not contained in this supplement, consult the basic Ultramagic Flight Manual.

This supplement is issued to cover additional actions to be taken to safely and efficiently use Cameron baskets, burners and cylinders with Ultramagic envelopes.

29.2 LIMITATIONS

29.2.2 Meteorological Limitations

The balloon must not be flown in meteorological conditions which could give rise to erratic winds and gusts of 10 knots (5.1 m/s) above the mean wind speed.

29.2.5 Fuel

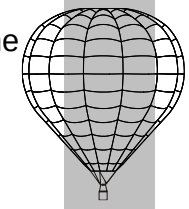
The fuel pressure must never exceed the safe working pressure of 15 bar (218 psi). The table below is to be followed:

	Balloons < 340,000 ft³ (9630 m³)	Balloons > 340,000 ft³	Balloons > 340,000 ft³ using Shadow, Scirocco or Stratus burners
MAX fuel Pressure	15 bar (215 psi)	15 bar (215 psi)	15 bar (215 psi)
MIN fuel Pressure	3 bar (44 psi)	7 bar (102 psi)	5.5 bar (80 psi)

CAUTION: *Care should be exercised if the fuel pressure is below 5.5 bar (80 psi)*

29.2.15 Other manufacturers equipment

The burners and baskets manufactured by Cameron which may be used in combination with Ultramagic envelopes are listed in section 29.8.



The equipment must be identifiable as an FAA type certified vehicle with the applicable Type Certificate Data Sheets B1GL, B2GL, B3GL, B4GL and/or B1EU.

29.3 EMERGENCY PROCEDURES

29.3.2 Substitute - Pilot Light Failure

If a pilot light is extinguished for any reason, it should be relit.

Each burner unit is fitted with a pilot light, single burners having two independent pilot lights. All burners will operate with one failed pilot light. The failed pilot light should be turned off and a landing made as soon as possible.

On double burners or pairs of burners the crossflow valve, if fitted, should be opened to ensure reliable ignition of both burners from the remaining pilot light. If the pilot light fails on the single unit of a triple burner then control should be maintained on another burner.

If all pilot lights fail the following procedure should be adopted.

1. Shut off all fuel supplies at the cylinder valve.

2. Lock one whisper burner valve (Shadow and Sirocco burners) fully open.

3. Partially open the fuel supply to this burner at the cylinder valve, to permit a small amount of fuel to enter the burner.

4. Light the burner with a match or other igniter.

WARNING – do not use the igniter built into the burner, as it will not ignite the fuel.

5. Fully open the fuel supply to the burner, using the cylinder liquid valve to control the flight of the balloon.

6. Partially close the cylinder liquid valve to a fractional setting, regulating the burner to maintain a pilot setting.

7. land as soon as possible.

Note- Do not leave one cylinder providing the pilot setting, with main fuel taken from another, because prolonged restricted flow of liquid will cause freezing of the valves.

Add- 3.4.1 Crossflow Valve leak (Shadow and Stratus burner only) –

Close the two blast valves connected by the crossflow valve.

Transfer control to the whisper burners or burners not connected by the crossflow valve. Land as soon as possible.

Note- Crossflow valve leaks are only evident with the main burner operating.

If a fuel leak cannot be controlled, shut off all fuel including pilot light and brief passengers for a hard landing. (Section 3.7)

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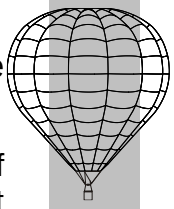


Note- If the main fuel hoses are removed from the support rod covers they are long enough to reach fuel cylinders at the opposite end of the basket.

CAUTION- Care should be taken when operating with the fuel hoses outside of the support rod covers, as the liquid fuel pressure can cause the hose to deflect when the blast or whisper valve is operated. This may change the direction of the burner and flame.

29.4 NORMAL PROCEDURES.

29.4.5.2 Rigging the basket and burner.

Cameron burner frames are similar to Ultramagic.
Assembly is therefore similar to that of an Ultramagic and the same checks should be carried out.

29.5 LOADING

No change

29.6 BALLOON AND SYSTEM DESCRIPTION.

29.6.2.2 Burner and burner frame.

Refer to applicable Cameron Flight Manual approved for use in the USA as listed on TCDS B1GL, B2GL, B3GL, B4GL, B1EU.

29.6.2.3 Basket

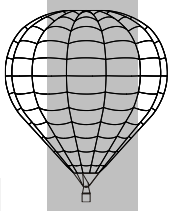
Refer to applicable Cameron Flight Manual approved for use in the USA as listed on TCDS B1GL, B2GL, B3GL, B4GL, B1EU.

29.6.2.4 Fuel Cylinders

Refer to applicable Cameron Flight Manual approved for use in the USA as listed on TCDS B1GL, B2GL, B3GL, B4GL, B1EU.

29.7 BALLOON MAINTENANCE, HANDLING AND CARE.

Refer to applicable Cameron Maintenance Manual approved for use in the USA as listed on TCDS B1GL, B2GL, B3GL, B4GL, B1EU.



29.8 OTHER MANUFACTURERS EQUIPMENT.

29.8.3 (Add the following)

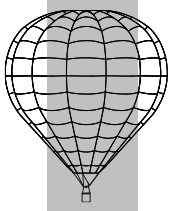
CAMERON
BASKETS BURNERS and CYLINDERS

Basket Size (cm)	Type	Empty Mass (kg)	Dwg. Nr	UM Envelope size Range
112 x 112	Open	45	CB300-2,CBUS300-2,CB310-1A,CB8000,CB8005,CB8010,CB8016	31 - 65
112 x 124	Open	60	CB300-3,CBUS300-3,CB300-4,CBUS300-4,CB300-2A,CB301-2,CBUS301-2, CB301-7,CBUS301-7,CB310-2A,CB8001,CB8006,CB8012,CB8017	56 - 77
112 x 147	Open	65	CB300-3A, CB301-3, CBUS301-3, CB301-8, CB310-3A, CB8002, CB8007, CB8013, CB8018, CB8021	56 – 105
122 x 157	Open	70	CB300-4A, CB301-4, CBUS301-4, CB301-6, CBUS301-6, CB310-4A, CB8003, CB8008, CB8014, CB8019, CB8022	77 - 160
122 x 189	Open	95	CB303, CB308, CB3022	120 - 160
135 x 195	P	100	CB300-5, CBUS300-5, CB302-4, CBUS302-4, CB310-5A	120 - 180
144 x 230	ST	165	CB302-1, CB302-3, CBUS302-3, CB991	160 - 210
170 x 236	ST	180	CB862	160 - 250
170 x 282	ST	185	CB3084	210 - 250
170 x 266	DT	195	CB302-2, CBUS302-2, CB754, CB860	180 - 275
170 x 305	DT	225	CB3004	210 - 425
170 x 347	DT	245	CB3042	250 - 425

Burner Type	Mass (kg)	Dwg. Nr	UM Envelope size range
Mk4 Single	17	CB391, CBUS391	42 - 90
Mk4 Double	24	CB392, CBUS392, CB371	42 - 160
Mk4 Super Double	24	CB579, CBUS579, CB579-1/-2	42 - 160
Mk4 Super Triple	44	CB663, CB663-1/-2, CB2081-1/-2	120 – 315[2]
Mk4 Super Quad	55	CB616, CB2083-1/-2	180 – 425
Mk3 Double	23	CB205	56 – 160
Mk4 Single Shadow	17	CB2130-1, CB2130-2	31 – 90
Mk4 Shadow Ultra Double	24	CB2075-1/-2, CBUS10011	42 – 210[1]
Mk4 Shadow Ultra Triple	44	CBUS10012	120 – 315[2]
Mk4 Shadow Ultra Quad	55	CBUS10013	180 - 500
Stratus Single	17	CB8710, CB8711, CB8712, CB8713	25 – 90
Stratus Double	24	CB8720, CB8721	56 – 180
Stratus Triple	44	CB8730, CB8731, CB8732, CB8733, CB8734, CB8735	145 – 300[2]
Stratus Quad	52	CB8740, CB8741, CB8742, CB8743	210 – 425
Sirocco Double	24	CB2702, CB2832, CBUS10014, CBUS10017	56 – 160
Sirocco Triple	46	CB2703, CB2833, CBUS10015, CBUS10018	105 - 300[2]
Sirocco Quad	55	CB2704, CB2834, CBUS10016, CBUS10019	250 – 425
Stratus Neo Single	17	CB4111	25 – 90
Stratus Neo Double	24	CB4112	56 – 210[1]
Stratus Neo Triple	44	CB4113	145 – 300[2]
Stratus Neo Quad	52	CB4114	180 - 450

[1] Not exceeding a MTOM of 2,041 kg
[2] Not exceeding a MTOM of 2,857 kg

Cylinder Type	Empty Mass (kg)	Fuel Capacity (kg)	Basket range
Worthington	14	20	All
CB 497	16	20	All
CB 599	17	22	All
CB 426	22	28	All



CB 959	25	36	All
CB 2380S	13	29	All
CB 2383S	14	37	All
CB 2385S	10	23	All
CB 2387S	13	27	All
CB 2900	21	23	All
CB 2901	23	30	All
CB 2902	24	27	All
CB 2903	27	36	All

- **See General Notes below**

Notes :

- Dimensions of the basket are external in the base.
- ST means Single Partition and DT Double Partition.
- UM envelope sizes are given in thousands of cubic feet, so 65 mean 65.000 ft³.

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