

SUPPLEMENT 13

'RAVEN-AEROSTAR' BASKET, BURNERS AND CYLINDERS WITH ULTRAMAGIC EQUIPMENT

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

13.1 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 Raven - Aerostar baskets, burners and cylinders with Ultramagic envelopes.

13.2 LIMITATIONS

13.2.6 Loading

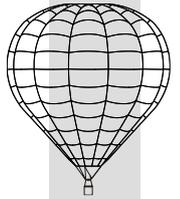
The maximum take off mass is limited by certain basket types as shown in the following table. This figure must not be exceeded or the limit determined with the use of the load chart in Flight Manual section 5.2, whichever is the lower.

Envelope Volume(m³)	Basket Type	MTOM (Kg)
900	ELS & ELSS	363
1600	ELS & ELSS	522
1600	RWS	500
1850	ELS&ELSS	522
1850	RWS	560
1850	CW , CW-AFX & RWS	636
2200	ELS & ELSS	545
2200	RWSW, RWSW-AFX, CW, CW-AFX & RWS	652
2550	ELS & ELSS	545
2550	RWSW, RWSW-AFX, CW, CW-AFX, CWS & RWS	750
3000	RWSW, RWSW-AFX, CW, CW-AFX, CWS & RWS	818
3400 - 3700	CWS & RWS	909
3400 - 3700	RB5 & RB6	1011
3700 - 5100	CWS	909
3700 - 5100	RB5	1045
3700 - 5100	RB6	1136
3700 - 5100	RB8	1204
6000	RB6	1272
6000	RB8	1568
7000	RB6, RB8, TWX & NC5	1516
5100-7000	RB12	1564
7700	RB12	1723

13.2.15 Other manufacturers equipment

The burners, baskets and cylinders manufactured by Raven – Aerostar which may be used in combination with Ultramagic envelopes are listed in section 13.8

The equipment must be identifiable as an FAA type certified vehicle with the applicable Type Certificate Data Sheet A15CE.



13.3 EMERGENCY PROCEDURES

13.3.2 Pilot Light Failure

Ensure that the pilot light valves are turned on at the cylinder and the burner and attempt to relight the pilot light with the igniter.

If after two to three attempts the pilot light cannot be re-lit then carry out the following procedure.

Open the metering valve to allow a slow fuel flow and immediately ignite to provide a temporary pilot light.

Land as soon as possible.

If no re-light at all is possible prepare for an emergency landing, see Section 3.7 Emergency landing.

13.4 NORMAL PROCEDURES

13.4.5.4 Envelope Attachment to Raven - Aerostar bottom ends

See figure 1. for envelope attachment for 2 point attachment bottom ends.

See figure 2. for envelope attachment for 4 point attachment bottom ends.

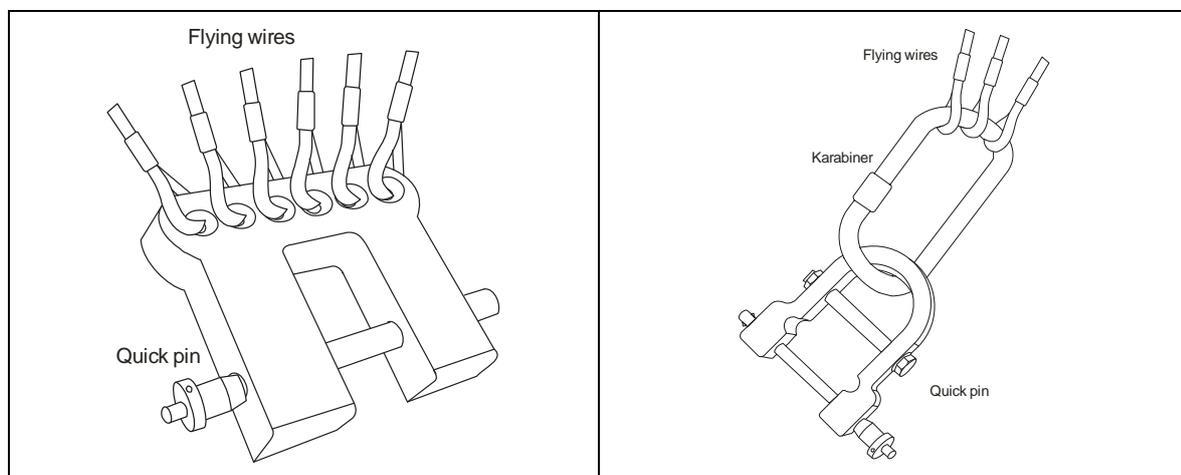
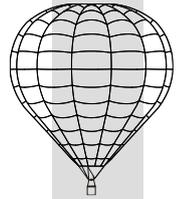


Figure 1

Figure 2



13.5 LOADING

No change

13.6 BALLOON AND SYSTEMS DESCRIPTION

Refer to applicable Raven-Aerostar Flight Manual approved for use in the USA as listed on TCDS A15CE.

13.7 BALLOON MAINTENANCE, HANDLING AND CARE

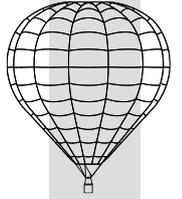
Refer to applicable Raven – Aerostar Maintenance Manual for use in the USA as listed on TCDS A15CE.

13.8 OTHER MANUFACTURERS EQUIPMENT

13.8.3 (Add the following table)

<u>RAVEN - AEROSTAR BASKETS</u>			
Basket Size (cm)	Type	Empty Mass (kg)	UM Envelope size range
102 X 80	ELS	40	65-90
121 X 80	ELSS	54	65-90
122 X 107	RWS, RWSW & RWSX-AFX	60	77-105
145 X 119	CW & CW-AFX	95	65-140
168 X 119	CWS	101	90 - 180
173 X 119	RB5	132	130 - 180
178 X 127	RB6	148	130 - 250
193 x 127	TWX	148	130 - 250
231 X 127	RB8	179	160 - 250
230 x 160	NC5	175	160 - 250
246 x 141	RB12	193	180 - 275

<u>RAVEN - AEROSTAR BURNERS and CYLINDERS</u>			
Burner Type		Mass (kg)	UM Envelope size range
Aurora S	Single	11	31 - 90
HPIII S	Single	12	65 - 105
HPIII D	Dual	21	65 - 180
HPIII T	Triple	30	160 - 275
HP6D/HP5D	Double	21	56 - 250
HP6S/HP5S	Single	12	56 - 105
HP6E/HP5E	Double	22	56 - 250
HP6T	Triple	30	160 - 250



Cylinder Type	Full Mass (kg)	Fuel capacity (US gallons at 85% fill)	Basket range
15 gallons stainless steel (V-15)	50.5	15	Refer to applicable Aerostar - Raven Flight Manual
18 gallons stainless steel (V-18)	57.5	18	Refer to applicable Aerostar - Raven Flight Manual
20 gallons stainless steel (H-20)	63.0	20	Refer to applicable Aerostar - Raven Flight Manual
23.5gallons stainless steel (V-23)	74.0	23.5	Refer to applicable Aerostar - Raven Flight Manual
25 gallons stainless steel (H-25)	79.3	25	Refer to applicable Aerostar - Raven Flight Manual
10 gallons aluminum (V-10)	35	10	Refer to applicable Aerostar – Raven Flight Manual

- See General Notes below

Notes :

- Dimensions of the basket are external in the base.
- UM envelope sizes are given in thousands of cubic feet, so 65 mean 65.000 ft³.

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