

The technical content of this document is approved under the authority of DOA nr. UK.21J.0140 (C983)

8.13 DUO AIRCHAIR (TWO-SEAT SKYCHARIOT AND DUO AIRCHAIR MKII)

8.13.1 INTRODUCTION

This supplement shall be inserted in the Flight Manual, in Section 8: 'Supplements' with the revisions record sheet amended accordingly.

Information contained herein supplements, or in the case of conflict, supersedes that contained in the basic Flight Manual. For Limitations, Procedures, and Performance Data not contained in this supplement, consult the basic Hot Air Balloon Flight Manual.

Issue 9 of this supplement has six pages and incorporates previously approved data for the original Duo Airchair, CB8340 (also known as the Thunder & Colt Two-Seat Skychariot, SC3-100). Throughout the supplement the term "Airchair" is used to represent all three variants.

Supplement 7.13 (two pages) to Maintenance Manual Issue 10 is required to ensure continued airworthiness.

8.13.2 LIMITATIONS

8.13.2.2 Weather

1. The balloon must not be flown free in surface winds greater than 10 knots (5.1 m/sec).

8.13.2.9 Weight Range

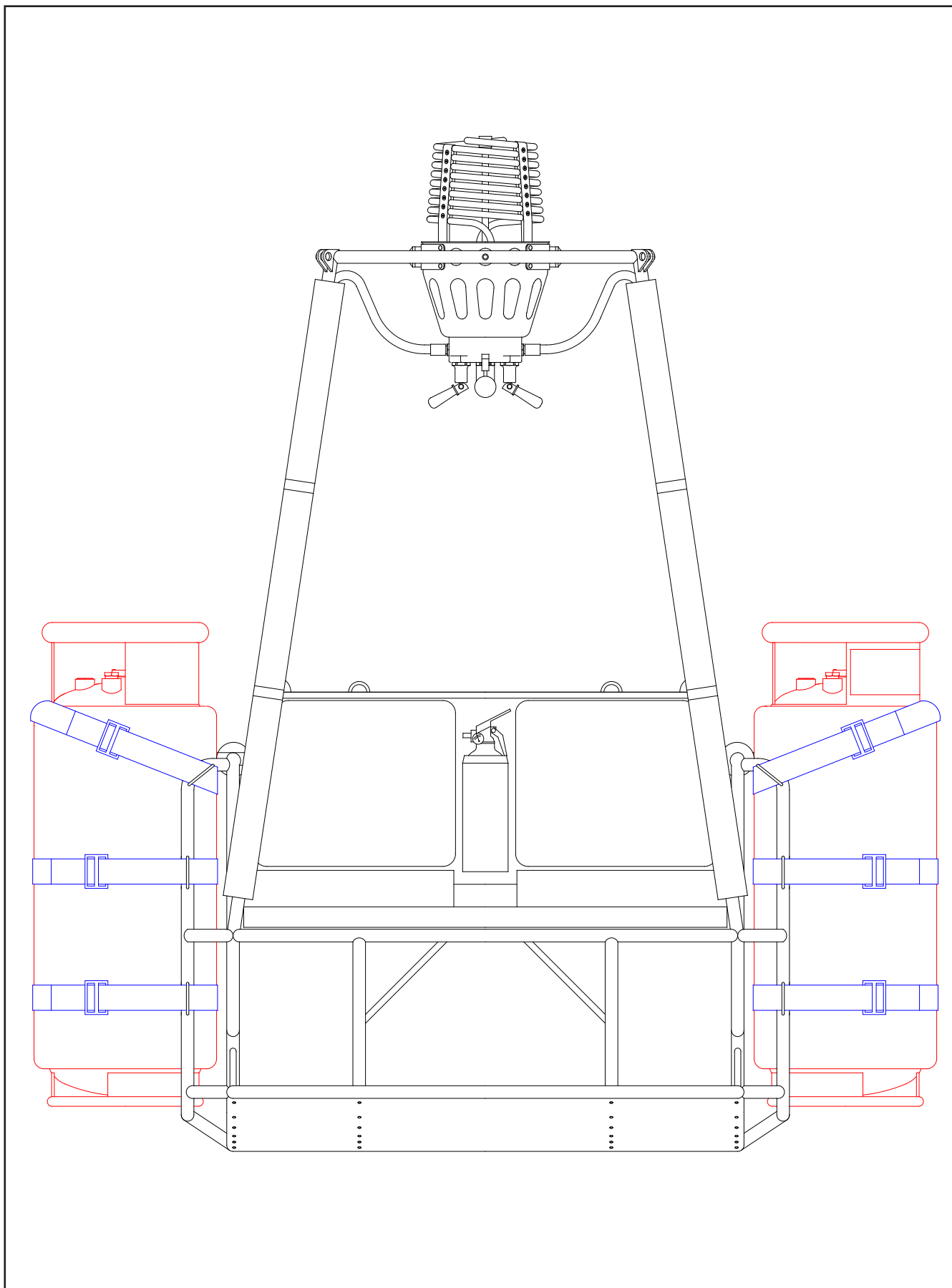
4. For balloons of 65,000 cu.ft and above, the Minimum Landing Mass (MLM) is 300 kg.

8.13.2.15 Baskets

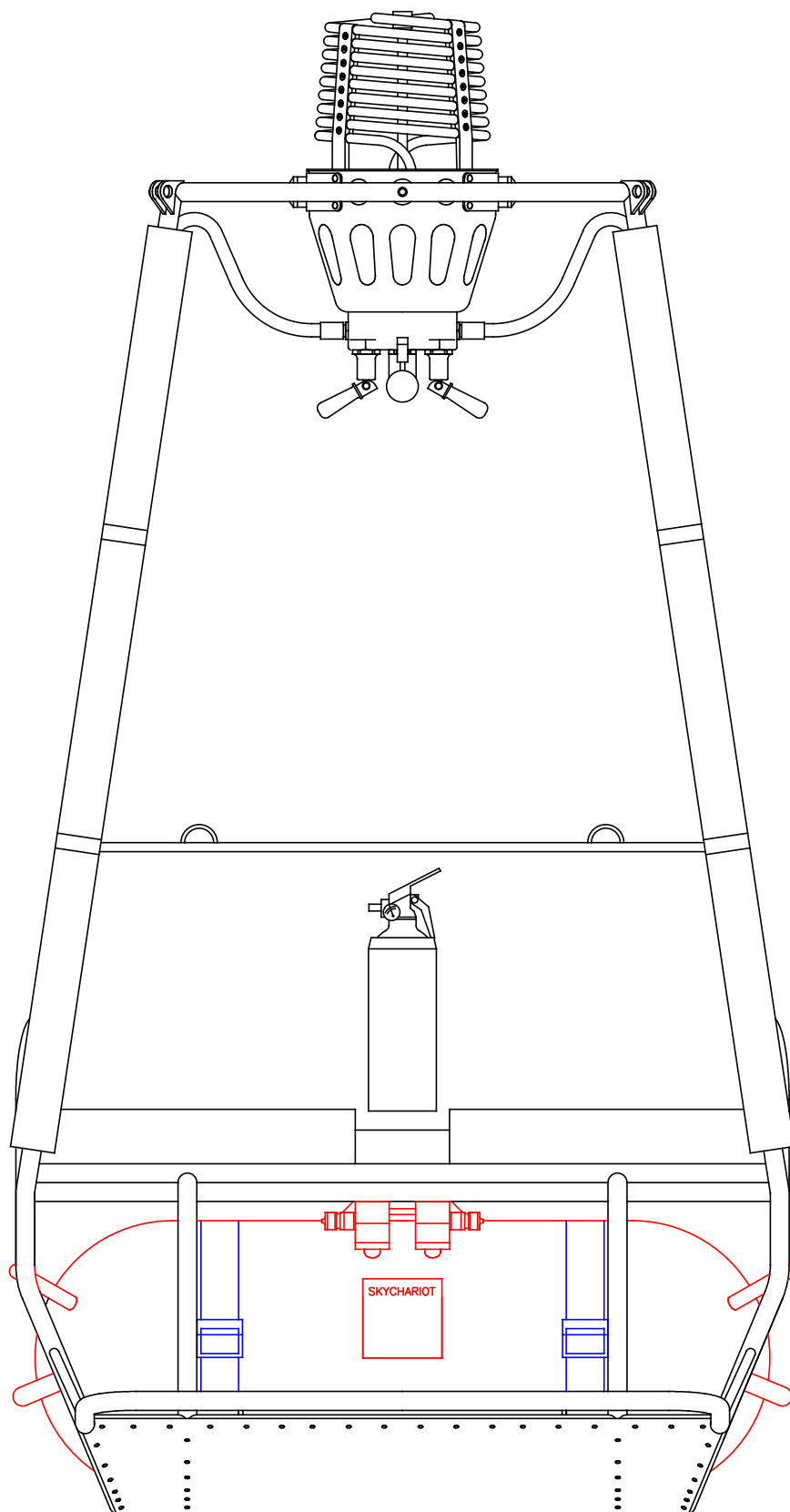
6. Balloons equipped with Airchairs must also be equipped with envelope turning vents to allow the airchair to be correctly orientated for landing.

8.13.2.16 Cylinders

2. For the Duo Airchair MKII (CB8700), each fuel cylinder must be attached with three straps as shown in Fig. 8.13.1.



▲ 8.13.1 Duo Airchair MkII General Arrangement



▲ Fig. 8.13.2: Two Seat Skychariot & Duo Skychariot General Arrangement

8.13.3 EMERGENCY PROCEDURES

No change.

8.13.4 NORMAL PROCEDURES

8.13.4.2 Preparation And Rigging

The burner should be rigged with the fuel gauges legible when seated in the airchair. The fuel hoses should be zipped inside the rear pole covers

Lay the Airchair on its back and attach the envelope.

Ground handling wheels (if fitted) should be removed before flight and secured in their storage locations under the passenger seat.

Additional cylinders may be fitted to the Two Seat Skychariot & Duo Skychariot (SC3-100 and CB8340) as described in Thunder and Colt flight manual (Issue 5) Supplement No 29.

8.13.4.3 Inflation

8.13.4.3.2 Hot Inflation

Hot inflation should be performed by standing beside the Airchair and operating the burner through the side of the frame. Allow the Airchair to come up as the envelope rises. The pilot should sit in the Airchair as soon as it is upright.

The passenger, if the pilot is to be accompanied, should take their seat as soon as practical after inflation.

8.13.4.3.3 Seat Belts

The seat belts should be fastened at all times.

The lap strap should be positioned low across the occupant's lap and tightened before the shoulder straps are tightened. Shoulder straps and crotch straps must be used if fitted.

8.13.4.5 Take-Off

Pre-Take-Off Check list

Fuel Fuel cylinder(s) firmly strapped to the frame.

Seat Belts Seat belts fastened.

The Airchair should be rotated, if necessary, using the turning vents so that the pilot is facing the direction of travel on take off.

8.13.4.7 Landing

At a height of about 65 feet (20m) rotate the balloon through 90° so that the Airchair is travelling sideways.

At a height of about 20 feet (6m) rotate the balloon through a further 90° so that the Airchair is travelling backwards.

Turn off the pilot lights.

On touchdown, the Airchair will probably tip over backwards and begin to drag like a sledge.

8.13.6 BALLOON AND SYSTEMS DESCRIPTION

8.13.6.5 Basket

8.13.6.5.6 Duo Airchair MKII

The Duo Airchair MKII is of tubular stainless steel welded construction. The load is carried from the burner frame with four load wires which are attached to the 'J' shaped frame using quicklinks.

Two standard vertical fuel cylinders are strapped to the ends of the frame.

The seat back is a leather or Cordura covered padded panel, which is attached to the frame with velcro. The seat base is made of a plywood base padded with foam, with leather or Cordura covering. The seat is fastened to the stainless steel frame.

A single or double burner may be fitted.

Ground handling wheels can be fitted to aid positioning and transportation.

The Airchair can be configured to accept standard Cameron flexi-corner burner frames in addition to the original frames (no bridge).

8.13.6.5.7 Duo Airchair (Thunder & Colt Duo Skychariot)

The Duo Airchair (Skychariot) is similar to the MKII but with a single horizontal cylinder fastened under the seat with two straps.

A single or double burner may be fitted.

8.13.7 BALLOON MAINTENANCE, HANDLING AND CARE

NOTE: The use - including handling, transportation and filling - of transportable gas cylinders manufactured prior to 2004 may be restricted by legislation (e.g. ADR, RID, ADN) in many countries unless the cylinder has been reassessed for conformity against accepted design/manufacturing standards (e.g. pi-marked).

The owner/operator of the cylinder is responsible for establishing if compliance is required and ensuring that compliance is maintained. Cameron Balloons Ltd. is unable to provide advice on this matter and local guidance should be sought in the country of operation.

8.13.9 EQUIPMENT LIST

Table 6: Baskets (additional)

Basket Cat.	Drawing Number	Basket Description*	Applicable Cylinders	Applicable Burner Frames (specific)*
B	SC3-100	Two Seat Skychariot	5	Duo Skychariot C2+/C3T (B2-75-B3T/8000), CB2203 (Fl), CB2308(Fl), CB2309(Fl), CB2410(Fl), CB2512, CB2515, CB2598(Fl), CB2857(Fl), CB8812, CB8813, CB8904, CB8910, CB8922, CB8927, CQ2070
B	CB8340	Duo Skychariot	5	
B	CB8700	Duo Airchair MKII	1, 2, 3	

* Key: Fl = Flexi-corner burner frame only

Table 7: Cylinders (additional)

Cylinder Category	Drawing Number	Cylinder Material	Cylinder Description
5	SC3-300	STAINLESS STEEL	H40
5	CB8414	STAINLESS STEEL	H40

8.13.9.3 Additional Equipment

8.13.9.3.1 Hand Fire Extinguisher

Hand fire extinguishers should conform to EN3 or an equivalent specification. The extinguisher should have a minimum capacity of 1 kg when using dry powder, or when the extinguishing means is other than dry powder be at least of comparable effect and capacity.