



# LINDSTRAND BALLOONS

## FLIGHT MANUAL SUPPLEMENT NO. 3

### LINDSTRAND CLOUDHOPPER

#### SECTION 1 - OPERATIONAL LIMITATIONS

##### 1.1.6 Wind Speed

Add the following:

The maximum surface wind speed for take off and landing of the Lindstrand Balloons' Cloudhopper is 10 knots.

##### 1.5.1 Maximum Weight

TABLE 1

Add the following:

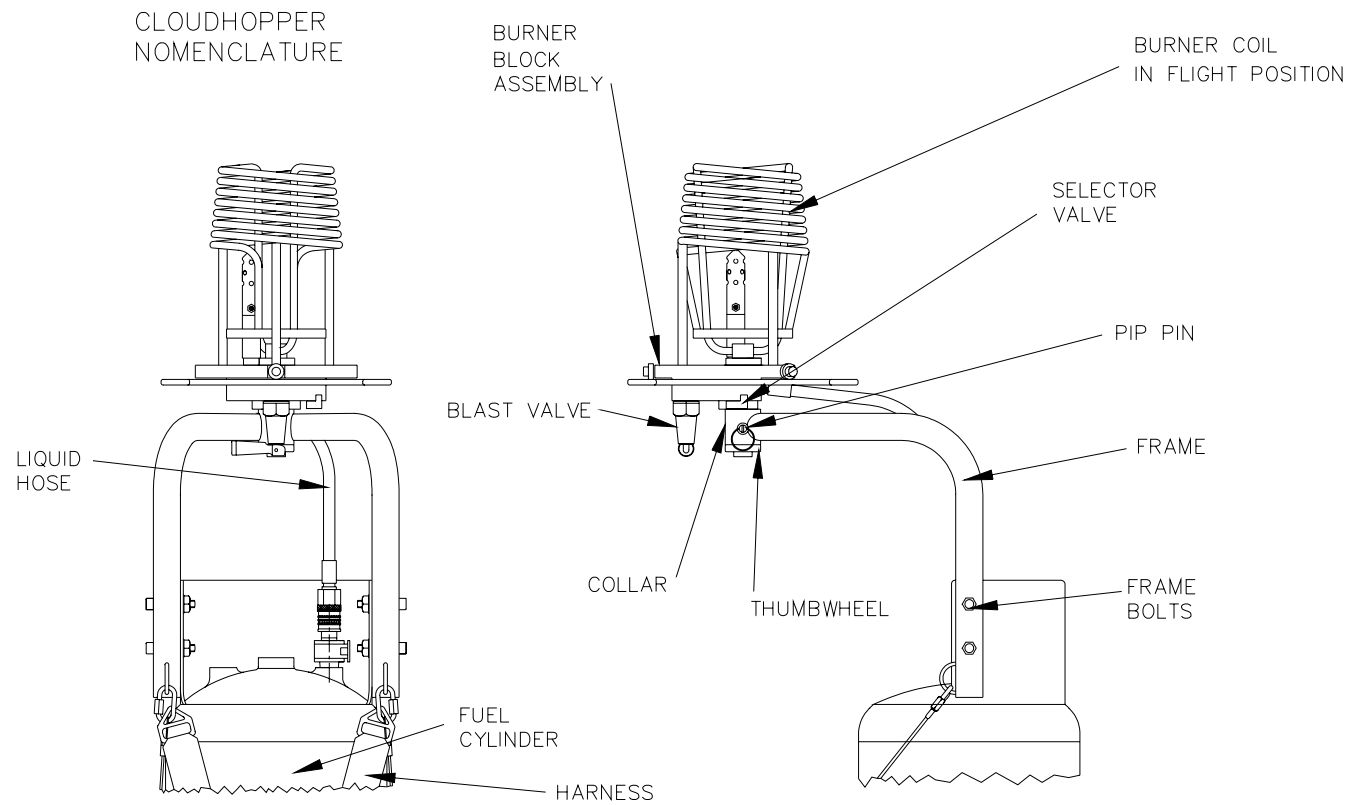
Balloon Type	Nominal Volume		FAI Class	Maximum Weight		Envelope Weight	
	cu.m.	cu.ft.		kg	lbs	kg	lbs
21A Cloudhopper	595	21,000	AX3	210	462	28	62
25A Cloudhopper	708	25,000	AX4	250	550	32	70
31A Cloudhopper	878	31,000	AX4	310	682	39	86
35A Cloudhopper	991	35,000	AX5	350	770	56	123

##### 1.5.2.1 Baskets

TABLE 2

Add the following:

BASKET NO.	BASKET SIZE	BASKET STYLE	ENVELOPE SIZE RANGE	EMPTY WEIGHT	
				KG	LBS
300	Cloudhopper	N/A	21 - 35	26	57





## SECTION 2 - NORMAL PROCEDURES

### 2.1.7 Clouthopper Procedures

#### 2.1.7.1 Assembly of the Clouthopper

The burner unit is stored during transportation in an inverted position within the load frame. To install the burner in the flight position, remove the pip pin from the main collar and unscrew the thumbwheel. Remove the burner block assembly from the frame, invert it and re-insert it into the opposite side of the collar. Rotate the burner unit until the alignment lug permits the burner assembly to be inserted fully into the collar. Replace the thumbwheel on the lower threaded portion and insert the pip pin through the hole in the collar. If the pip pin cannot be inserted completely through the collar, the burner unit is not correctly aligned.

Mount the load frame onto the fuel cylinder so that the burner unit is situated above the seat. Insert the four bolts through the appropriate holes in the lower legs of the frame and the matching holes in the sides of the fuel cylinder. Tighten the nuts on to the bolts. Connect the liquid feed hose on to the liquid withdrawal valve. First ensure that the main operating valve and the pilot light valve on the burner unit are off. Turn on the liquid supply valve on the top of the fuel cylinder. Check that each of the fuel connections are gas tight by looking, listening and smelling. If there are no leaks, open the pilot light valve by rotating the handle on the right hand side of the burner block. Ignite the pilot light and conduct a burner test in the normal manner. Once the burner test has been successfully completed, close the cylinder valve and vent all remaining fuel through the burner.

Lay the Clouthopper unit over so that it is lying on its side. Connect up each of the quicklinks, which are situated on the ends of the flying wire groups, on to the aluminium load ring. Ensure that none of the flying wires are crossed or twisted.

#### 2.1.7.2 Clouthopper Inflation

Cold and hot inflate the envelope, as described in Section 2.2. It is recommended that the main burner is used for hot inflations because the flame pattern is less susceptible to crosswinds. The main burner is selected by positioning the selector valve on "MAIN", engraved on the burner block. The liquid fire is selected by positioning the selector valve on "LF".

Once the balloon is inflated, have an assistant hold the Clouthopper frame down while the pilot sits on the seat. Secure the harness in place so that a strap is over each shoulder and the two lower straps pass through the legs. Tighten the straps until a comfortable, secure position is achieved.

#### 2.1.7.3 Pre Take-Off Checks

- (a) Crown line attached to aluminium ring.
- (b) Parachute tabs pulled and parachute OK.
- (c) No fabric damage above first 4 m.
- (d) Ripline attached to aluminium ring.
- (e) Flying wires straight and quicklink gates closed.
- (f) Pilot light flame strong and stable.
- (g) Fuel cylinder full.
- (h) Ignition - two sources present.
- (i) Instruments present and set.
- (j) Maps for flight path present.
- (k) Telephone number for retrieve.
- (l) Maximum weight conditions not exceeded.
- (m) Necessary paperwork present and correct.



#### 2.1.7.4 Flight Procedures

In addition to the procedures given in Section 2.3, the following procedures should be noted for flying Cloudhoppers:

##### 2.1.7.4.1 Pilot Orientation

The Cloudhopper bottom end can rotate independently of the envelope. This is achieved by the pilot reaching up and grasping either the edge of the aluminium ring or the flying wires, and rotating themselves in the desired direction. |

##### 2.1.7.4.2 Fuel Remaining

The remaining fuel may be discovered by looking upwards onto the reflective plate that is situated above the pilot's head. |  
The contents gauge can be seen in the reflection.

##### 2.1.7.4.3 Landing

Use the legs to absorb some of the downwards velocity if the wind conditions are light. If a fast landing is anticipated, do not attempt to use the legs. Let the bottom of the cylinder and seat absorb the landing impact and prepare for the resulting drag to be on the side.

It is most important that in any landing the pilot light has been extinguished and the parachute line is held in the hand.