

Approved by EASA under Approval Number EASA.BA.A.01000
on
10 April 2006

8.11 LINDSTRAND CLOUDHOPPER WITH CAMERON ENVELOPES

8.11.1 INTRODUCTION

Issue 1 of this supplement has six pages.

There are no additional continued airworthiness instructions associated with this supplement.

This supplement was originally approved by UK.CAA as Supplement 23 to Flight Manual Issue 9 on 21 July 2003.

8.11.2 LIMITATIONS

8.11.2.2 Weather

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

8.11.2.18 Equipment Interchangeability

1. The burners and baskets manufactured by Lindstrand Balloons which may be used in combination with Cameron envelopes are listed in Section 8.11.9 of this supplement.

8.11.3 EMERGENCY PROCEDURES

8.11.3.11 Pilot Light Failure

8.11.3.11.1 Liquid Fire As Pilot Light

If a liquid fire which has a 90° ball valve is fitted to the burner, then this can be turned on and adjusted to give a 1 m (3 ft) high flame. This flame can then be used as the pilot light for the main burner until an emergency landing is completed. If the liquid fire valve is the toggle action type, then the toggle valve should be opened fully and the cylinder valve which is supplying the fuel should be adjusted until the resulting flame is 1.5 m (5 ft) in length. The alternative fuel system or burner should then be used to supply fuel to the main burner. In a double burner, cross-ignition will occur.

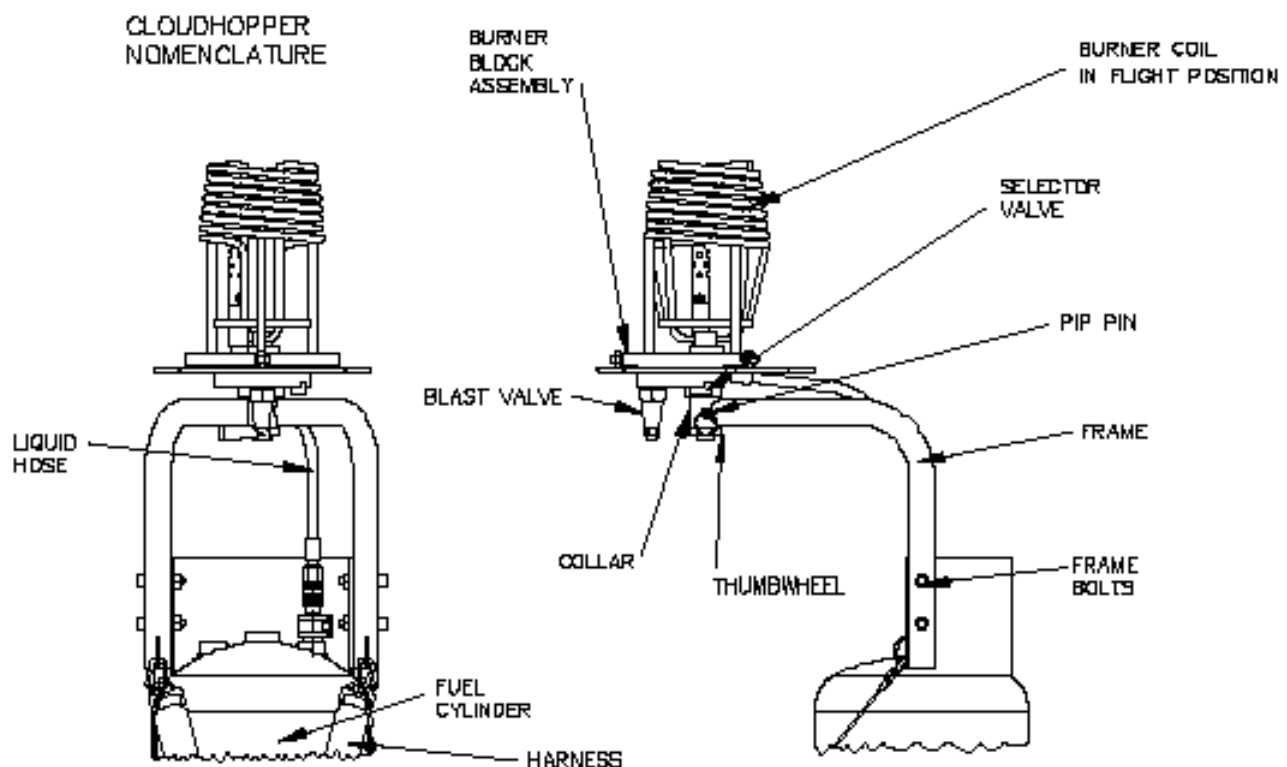
8.11.3.11.2 Second Burner As Pilot Light

In a similar manner to using the liquid fire as a pilot light, in a single burner with a dual fuel system (the minimum requirement) or a double burner system, the “second” burner can be used as a pilot light for the first. If the main blast valve for the burner is a ball valve action with no spring return system fitted, then the ball valve should be opened sufficiently to achieve a flame length of 1 m (3 ft). The flame should be ignited using a hand igniter such as matches or gas lighter. The other burner can then be used normally to achieve a controlled landing as soon as possible.

If the main blast valve for the burner is a toggle action type of valve, then the procedure is similar to that described above for the liquid fire. The blast valve should be opened fully and the cylinder valve adjusted so that the resulting flame is 1 m (3 ft) in length. The other burner should be used as normal to achieve a landing.

8.11.3.11.3 Partially Open Valves

In any of the above procedures, which include a valve being half opened to achieve a low fuel flow rate, it should be noted that this procedure will cause cooling of the valve which is partially open. This cooling effect will eventually result in freezing of the valve and is not recommended for prolonged periods. The technique should only be used in an emergency and even then, a landing should be made as soon as possible.



▲ Lindstrand Cloudhopper

8.11.4 NORMAL PROCEDURES

8.11.4.3 PREPARATION AND RIGGING

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 Cloudhopper 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.

8.11.4.4 INFLATION

Cold and hot inflate the envelope. 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 Cloudhopper 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.

8.11.4.6 CONTROL IN FLIGHT

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.

8.11.4.6.3 Fuel Management

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.

8.11.4.7 Landing

Use the legs to absorb some of the downward 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.

8.11.5 WEIGHT CALCULATIONS

No change.

8.11.6 BALLOON AND SYSTEMS DESCRIPTION**8.11.6.3 BURNER**

Refer to applicable Lindstrand Flight Manual.

8.11.6.4 FUEL CYLINDERS

Refer to applicable Lindstrand Flight Manual.

8.11.6.5 BASKET

Refer to applicable Lindstrand Flight Manual.

8.11.7 BALLOON MAINTENANCE, HANDLING AND CARE

Refer to the applicable Lindstrand Flight Manual.

8.11.9 EQUIPMENT LIST

8.11.9.2 Equipment List

Tables 11 and 12 list the Lindstrand baskets and fuel cylinders which may be used with Cameron envelope types.

Table 11 - Lindstrand Fuel Cylinders

Cylinder Category	Cylinder Material	Cylinder Model
6	STAINLESS STEEL	V30

Table 12 - Lindstrand Baskets

Basket Category	Basket Model	Applicable Cylinders
A	Lindstrand Cloudhopper	6

Intentionally Blank Page