LINDSTRAND BALLOONS LTD

MAINTENANCE MANUAL SUPPLEMENT NO. 1

LINDSTRAND SUPER SINGLE BURNER

SECTION 1 - INTRODUCTION

This supplement describes the Maintenance requirements for the Lindstrand Jetstream Super Single Burner.

SECTION 2 - DEFINITION

The general configuration of the burner may be seen in fig. 1.

SECTION 3 - OVERVIEW

3.1 General

The Jetstream Super Single Burner is based upon the existing Jetstream Double Burner but differs in that only one unit is provided. However, all the primary functions i.e. main burners, liquid fire burners, pilot lights, fuel feeds, pressure gauges and piezo igniters are duplicated such that essentially two independant burner systems are provided within a single unit

3.2 Main Vapourising Coil

One coil is fitted and is common to both main burners valves (see item (3) Fig. 1). The coil construction and function is as described in Section 3.4.1.

3.3 Liquid Fire Valves

The design and function of the two liquid fire valves are as described in Section 3.4.1.2. (see item (11) Fig. 1)

3.4 Main Burner Valves

The function and operation of the two main burner valves are similar to that described in section 3.4.1.2. The valve bonnets are smaller in diameter and have a different external profile. The valve handle design is significantly different in that squeeze grip controls are fitted instead of the more familiar toggle handle (see item (19) fig. 2).

The squeeze grips are recessed into a 'T' bar handle which also acts as the main means of manouvering the burner.

3.5 Pilot Light Valve and Regulator

The design and function of the two pilot light valves and regulators are as described in section 3.4.1.3 (see item (10) fig 1).

3.6 High Voltage Ignitition System

Two piezo igniter assemblies are fitted. The design and function are as detailed in section 3.4.1.4 (See item (5) fig. 1).

3.7 Pressure Gauges

Two pressure gauges are fitted. The gauges are completely isolated from each other and as such monitor the fuel pressure only in the fuel circuit to which it is dedicated.

The design and function of the gauge is as detailed in section 3.4.1.5. (See item (9) fig. 1).

3.8 Liquid Fire Nozzle

Two liquid fire nozzles are situated inside the can (see items (4) fig. 1). The design and function of the nozzle is as detailed in section 3.4.1.6.

3.9 Main Burner Block

A tapered circular valve block is mounted below the burner can. The block is so designed that two independant and isolated fuel distribution circuits are provided.

SECTION 4 - PREVENTATIVE MAINTENANCE

4.1 Storage and Handling

Storage and handling requirements are similar to those defined in Section 4.5.1.

4.2 General Cleaning

See Section 4.5.2.

4.3 Jet Blockages

See Section 4.5.3.

SECTION 5 - REPAIR AND MAINTENANCE

5.1. General

The major serviceable items within the single burner are identical to those described in section 5.4 with the exception that some units are fitted in slightly different locations and access to the main burner valves requires removal of the burner 'T' bar handle. Repair and maintenance of the burner is therefore as described in Section 5.4 with the following exceptions.

5.2 Main Valves

The numbers indicated in brackets ( ) thus, refer to the ballooned item numbers on figures 1 and 2 of this supplement.

To remove the Main Valves proceed as follows:-

Using a 5mm AF Allen Key, undo and remove the two hexagon drive cap head screws (21) fig. 1.
Lift away the handle (12) fig. 1.

Turn the burner over so that the valve block is bottom most. Carefully remove the 4 off keep plates (14) fig. 2. from the handle post (13) fig 2.

Remove the two pivot pins (16) fig 2, using a suitable narrow probe accessed through the two holes in the side of the handle post (13) Fig. 2.

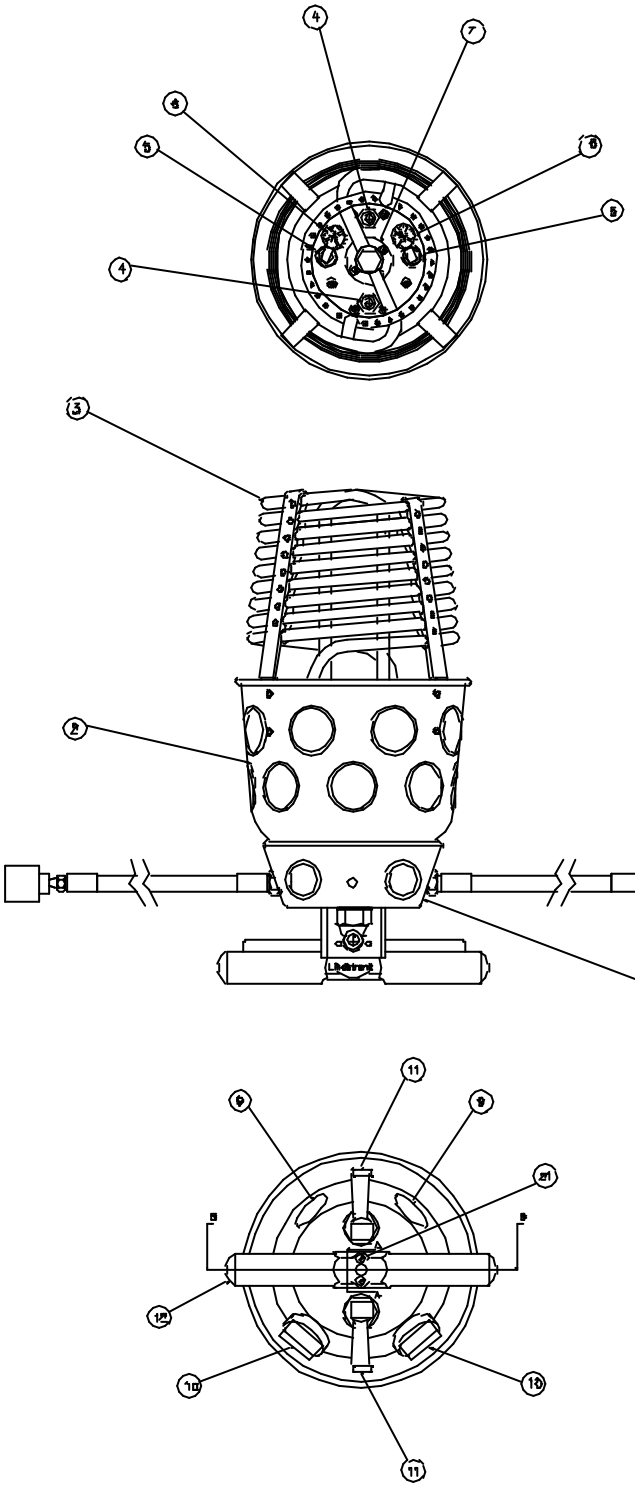
Lift away the handle post. Note that the two main valve squeeze triggers (19) and (20) will lift away with the handle post. Remove the pivot pin (17) fig 2 from the handle post (13) fig 2, using a narrow probe accessed from the central hole in the side of the handle post. The squeeze triggers (19) and (20) fig 2 may now be lifted away.

Undo the two main valves (15) fig 2 using a 28 mm AF open ended spanner and remove from the valve block.

Further valve maintenance is as described in Section 5.4.2.2. of the Maintenance Manual.

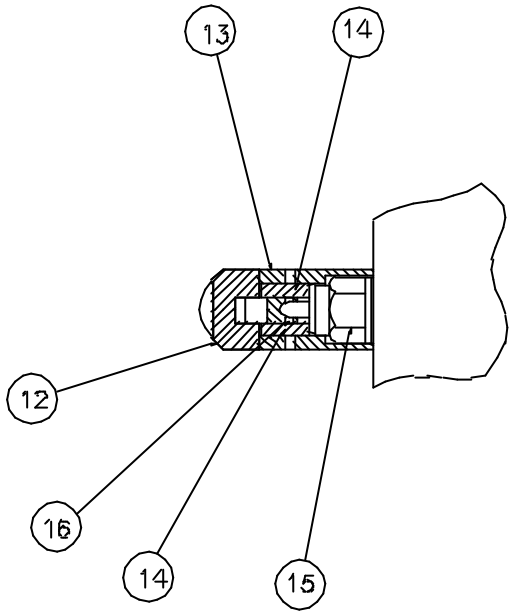
Re-assembly is generally the reversal of the dismantling process taking care to aligne the dowels in the handle (12) with the dowel holes in the handle post (13). Apply Loctite 222 to the cap head screw threads (21) prior to re-assembly.

Figure 1
SUPER SINGLE BURNER CONFIGURATION



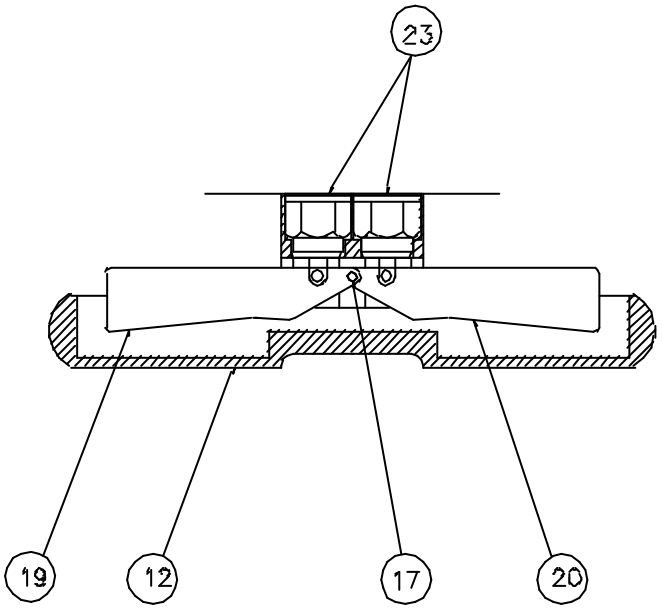
1 VALVE BLOCK ASSY.
2 BURNER CAN.
3 COIL ASSY.
4 LIQUID FIRE JET ASSY.
5 IGNITER ASSY.
6 PILOT LIGHT ASSY.
7 COIL MOUNTING BOSS.
9 PRESSURE GAUGE.
10 PILOT VALVE AND REGULATOR ASSEMBLY.
11 LIQUID FIRE VALVE.
12 HANDLE.
21 HEX DRIVE CAP HEAD SCREW.

Figure 2
ASSEMBLY DETAILS OF HANDLE AND MAIN VALVES.



SECTION A–A ON FIG 1.

12 HANDLE.
13 HANDLE POST.
14 KEEP PLATE.
15 MAIN VALVE ASSY.
16 PIVOT PIN SHORT.
17 PIVOT PIN LONG.
19 MAIN VALVE TRIGGER (LH).
20 MAIN VALVE TRIGGER (RH).
23 COPPER SEALING WASHER.



SECTION B–B ON FIG.1