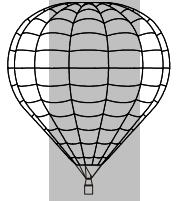


Supplement 50 MK-32 RANGE OF BURNERS

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



50.1 General Information

This supplement details the instructions and limitations necessary to ensure the safe operation, maintenance and continued airworthiness of the Ultramagic MK-32 range of Burners.

The section indexes on this supplement are preceded with the §50.X, and the suffix is kept in line with the Ultramagic Flight Manual. The content of this supplement replaces or appends the information contained on the Flight Manual for the scope to which this supplement is intended.

The MK-32 range of burners is available in double, triple and quad variants. All the variants are provided with the usual burner functions. In addition, the liquid valve (also known as whisper, quiet or silent valve) is provided with a handle design which allows the simultaneous operation of the main and liquid valves with a single hand. When operating both handles simultaneously, the output power is approximately doubled. Note that this feature does not prevent the normal - isolated- operation of the liquid fire.

The double burner variant of the MK-32 is shown in Figure 1 below, which displays a hybrid burner with liquid pilot light assembly (RH) and vapour pilot light assembly with dedicated fuel hose (LH).

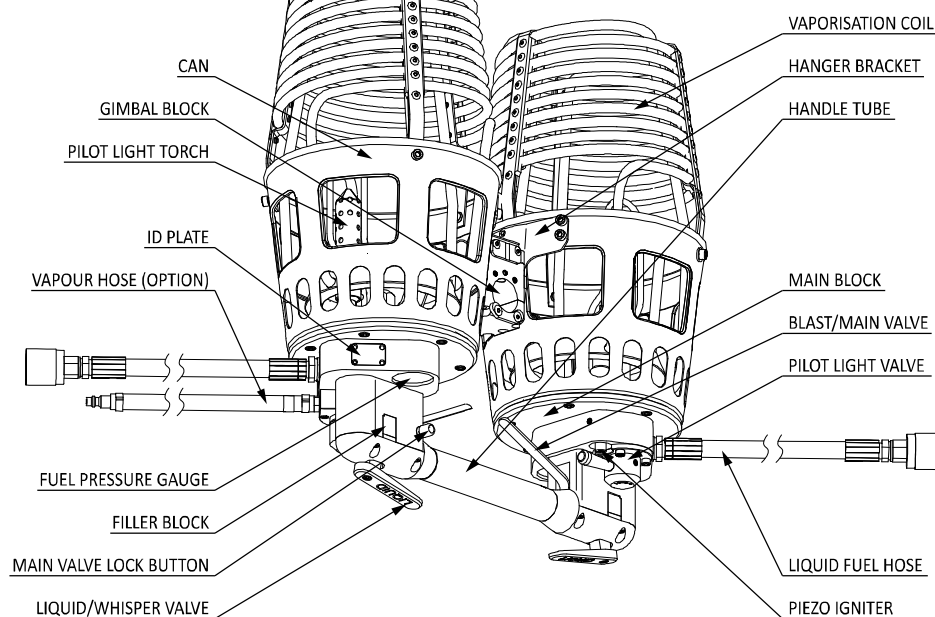
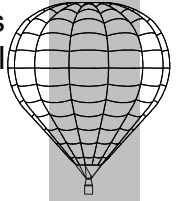


Figure 1

S 5 0 M K - 3 2 B U R N E R S E R I E S

The main blast and liquid valves are a squeeze action type. The pilot valve is rotary action. The burner is assembled to the burner frame using a Centre Gimbal (refer to Flight Manual Section 6.2.2.5).



50.1.5 Identification of parts

Burner model and s/n can be found engraved over a Stainless Steel metal plate riveted to the main valve block. Note that each individual burner pot has a unique serial number.

50.2 Operational Limitations

50.2.5 Fuel (Add the following)

Maximum cylinder pressure allowed for the use of the burner is 15 bar (218 psi). Note that this maximum pressure may be used where a large pressure drop off is expected during initial flight operation. For general operational use, a maximum pressure of 12 bar (174 psi) should be maintained.

50.2.12 Minimum Burner Requirements

Mk-32 Burner Variant	Envelope Size Range [1000 ft ³]	Envelope Size Range [m ³]
Double	56 – 225	1590 – 6370
Triple	120 – 315	3400 – 8920
Quadruple	180 – 550	5100 – 15574

Maximum Altitude

The maximum allowable altitude for safe burner operation is 18,000 ft (5500 m).

50.3 Emergency Procedures

50.3.2 Pilot Light failure

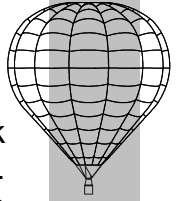
50.3.2.3 Double, triple or quadruple burner unit (replace)

1. Continue the flight with another burner while trying to re-ignite.
2. If further pilot lights fail, or the repeated attempts to re-light are unsuccessful, follow 3.2.1 on the Flight Manual.

On burner units fitted with main valve locking button, such button can now be used to maintain lit the main blast.

50.4 Normal Procedures

50.4.5 Preparing the aerostat for flight (Add the following)



Use of the Hydraulic actuator

If the optional hydraulic actuator is to be used, push and remove the filler block from its slot in the burner valve block and replace it with the hydraulic actuator. The hydraulic control handle is used to fire the main blast, alternatively to the default main blast handle.

The hydraulic actuator can be left assembled permanently, although it is recommended to replace it with the filler block on the burner for road transportation, stowing the actuator and handle in a protected place.

CAUTION: Avoid operating the hydraulic control handle whenever the actuator is not installed in the burner.

50.4.5.3 *Testing the burner* (Add the following)

Burners fitted with Main Valve Lock button (Optional assembly): Check the system to engage and release the valve as expected.

Burners fitted with Double Action valve (Optional assembly): When the burner is fire-tested, check the handle to respond with a correct two-stage opening of the main and whisper/liquid outlet.

50.5 Loading

No change.

50.6 Balloon and Systems Description

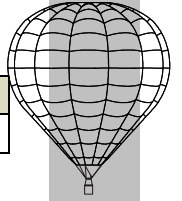
50.6.2.2.1 *General* (Add the following)

MK-32 may optionally be fitted with a main valve locking button (shown in Fig.1) similar to the device on the Powerplus burner family, that permits the main blast handle to stay open. Such locking is triggered by pushing the button while main handle is squeezed, and is released with a subsequent gentle squeeze of the same handle.

Burner can also be fitted with an optional double action system, which incorporates a double stage movement on the main blast handle. Initial handle squeezing results in the nominal standard main blast opening, while further squeezing additionally opens the liquid jet (whisper). Second stage is noticed by a slight increase in the force to open the valve.

50.6.3 Dimensions and weights (Burner and Frame)

	Double	Triple	Quad
Mass	23.5 kg (52 lbs)	33 kg (72 lbs)	41.5 kg (92 lbs)



50.7 Balloon Maintenance, Handling and Care

Refer to the latest approved Ultramagic Maintenance Manual and its Supplement Nr.23.

50.8 Other Manufacturers Equipment

No change.