

SERVICE BULLETIN 01/17

1st Issue

Publication Ref. Number: 159

Date: 19/Sep/2017

SUBJECT

Burner Hose Replacement

CATEGORY

Mandatory - Non repetitive

APPLICABILITY

All Ultramagic burners fitted with liquid fuel hoses compliant with Annex 1.
This SB is also applicable to airborne fuel manifolds assembled with same type of hose.
Organisations keeping spare hoses must check their stock.

BACKGROUND

Reports of small leaks on these hoses have been submitted to Ultramagic. The typical failure observed is of liquid fuel escaping at 5 - 10 mm from the hose end fitting through the outer rubber cover, causing also the freezing around the leak area. The rate of leakage observed is of a small but visible jet.

DEADLINE

If this SB is found applicable, accomplishment instructions must be executed **before next flight**.
Exception to this is acceptable only if:

- Pilot's pre-flight inspection is temporally appended with Annex 3 to this SB (this temporal amendment must be appropriately logged).
- and
- Flight(s) do(es) not take place beyond **3 months** after the date of this SB.

Under no circumstances may an affected hose continue to be used after 18/Dec/2017.

ACCOMPLISHMENT INSTRUCTIONS

Affected hoses must be replaced as per Annex 2.

Factory contact details:

ULTRAMAGIC, S.A.

E-mail: techinfo@ultramagic.com Phone: (+34) 93 804 22 02

Address: Aeròdrom Igualada-Òdena, s/n – 08700 Igualada (Barcelona, Spain)



Josep M Lladó Costa

DOA Head – Aeronautical Engineer

The content of this document has been approved under the privilege of the Design Organisation Approval nr. EASA.21J.351

ANNEX 1. HOSE IDENTIFICATION

SB01/17 is applicable to all airborne assemblies using 3/8" or 1/2" liquid fuel hoses which:

- are labelled with a white stripe and "**Vincke**" markings as shown in Fig.1 and
- have been **manufactured between 03/2014 and 04/2016** (see Fig.2) - refer to the manufacture date engraved to establish the date-



Fig.1 - Hose marking - See 'VINCKE' and hose type number: 1106 for 3/8" hose and 1108 for 1/2" hose



Fig.2 - Example of date of manufacture engraved on the hose fitting (UMmm/yyyy)

NOTE: The SB is NOT applicable to vapour hoses.

ANNEX 2. HOSE REPLACEMENT

This annex describes the procedure required for the safe replacement of affected liquid fuel hose(s) as compliance with SB01/17.

MATERIALS / EQUIPMENT REQUIRED:

- Spare hose (order new hoses as described in Annex 4)
- Leak detector fluid or soapy water
- Open-ended spanner, number(s) as required
- Suitable fuel cylinder, filled
- Protective gloves

PROCEDURE:

To replace a fuel hose, refer to figure 1 and proceed as follows:

1. Make sure that the burner and the fuel hose are disconnected from supply and vented.
2. Using an open-ended spanner, undo the liquid hose from the fuel intake.
3. If the new hose is provided with coupling for cylinder, go to step 7.
4. Using a set of open-ended spanners, undo and remove the existing coupling from the old hose. Scrap the sealing means (e.g. bonded washer or PTFE tape).
5. Check the general condition of the coupling, focusing on the thread for the fitting. Make sure it is clean and in good conditions. Otherwise replace the coupling.
6. Installing the coupling onto the new hose is the reverse procedure of removal. Make sure to use/apply the appropriate sealing means:
 - New bonded washer suitable for the thread size on BSP (parallel) threads
 - PTFE tape or Loctite 542/572 sealant for tapered threads.
7. Install the hose onto the burner inlet using the appropriate sealing means, as described in step 6.
8. Ensure that the hose to fuel post or intake joint is tight.
9. Pressure test the hose by connecting the fuel connector to a 7 Bar (100 psi) compressed air supply. Check the coupling between the cylinder and the hose and the joint between the hose and the burner inlet. The joints may be checked using soapy water or leak detector and watching for bubbles when pressure is applied. If any bubbles are observed, then there is a leak, which must be rectified before further burner use.

CAUTION: Affected hoses must be permanently withdrawn from service by means of mutilation, unless these are returned directly to Ultramagic. Mutilation should be accomplished in such a manner that the components become permanently unusable for their original intended use (generally by cutting the hose).

ANNEX 3. HOSE INSPECTION FOR TEMPORARY USE

The following inspection must be carried out by the Pilot before every flight in addition to the pre-flight inspection, when using hoses affected by this SB. This addition must be recorded in the aircraft logbook.

MATERIALS / EQUIPMENT REQUIRED:

- Leak detector fluid or soapy water
- Suitable fuel cylinder (filled)
- Protective gloves

SAFETY PRESCRIPTIONS:

- Conduct the inspection in a well ventilated area, free of ignition sources (e.g. engines, heaters, cigarettes, etc)
- Wear always suitable protective gloves

PROCEDURE:

1. Make sure the liquid output valve of the cylinder is closed.
2. Connect the hose to the cylinder.
3. Carefully open the liquid valve on the cylinder.
4. Check that the line is pressurized by reading the manometer on the burner. Pressure must fall within the pressure limits approved for operation.
5. Apply the leak detector or soapy water all along the hose, including fittings and the whole rubber segment, making sure not to spot any gas bubbles coming out.
6. Grab the rubber hose close to one end and warp it gently in different directions on the area adjacent to the fitting, looking again for leaks. Apply more leak detector or soapy water if necessary. Repeat the step on the opposite end of the hose.
7. Close the valve on the fuel cylinder.
8. Release the pressure and vent the circuit by opening the blast valve of the burner.
9. Disconnect the hose from the fuel cylinder
10. Repeat the whole process for all applicable hoses.
11. If no leaks nor damages are found, hose is considered airworthy. Otherwise the burner must be grounded until hose is replaced (see Annex 2).

ANNEX 4. REPLACEMENT HOSE ORDERING

Replacement hoses must be supplied by Ultramagic, accompanied with an EASA Form1. If no stock of spare hoses is hold, factory or any of its official representatives must be contacted.

When placing an order, P/N must be provided as per Table 1 below. Alternatively if P/N cannot be inferred, the following information must be provided per hose:

a) Overall **length** of the hose required as per Figure 3.

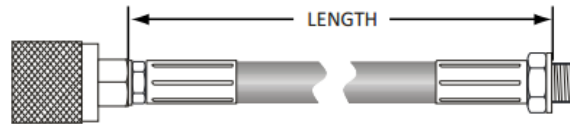


Fig.3 - Hose length measurement

b) The **model** and **serial number** of the **burner** to which the hose is assembled

c) The cylinder **coupling** Type (e.g. Rego, Tema 3000, etc)

d) For spare hoses or manifold hoses, the EASA Form1 Nr. supplied with the hose/assembly

TABLE 1 - HOSE P/N DETERMINATION

P/N	Burner Model	Hose Diam.	Cylinder Coupling	Length (see Fig.3)
H2-10-1111	MK-2/MK-10	3/8" (1106)	Rego (ACME)	2.5 m (Std)
H2-10-1121	MK-2/MK-10		Tema3000/Fastflat	
H2-10-1211	BMK-008		Rego (ACME)	
H2-10-1221	BMK-008		Tema3000/Fastflat	
H2-10-2111	MK-21/MK-32		Rego (ACME)	
H2-10-2121	MK-21/MK-32		Tema3000/Fastflat	
H2-10-2211	BMK-050		Rego (ACME)	
H2-10-2221	BMK-050		Tema3000/Fastflat	
H2-30-2111	MK-21/MK-32		Rego (ACME)	3.0 m
H2-30-2121	MK-21/MK-32		Tema3000/Fastflat	
H2-30-2211	BMK-050		Rego (ACME)	
H2-40-2121	MK-21/MK-32		Tema3000/Fastflat	2.8 m
H2-90-2111	N/A-manifold		Rego (ACME)	0.3 m
H2-00-1111	MK-2/MK-10			
H2-00-2111	MK-21/MK-32			
H2-00-2121	MK-21/MK-32			
H2-00-2211	BMK-050			
H2-00-2211	BMK-050			
H2-00-1211	BMK-008			
H3-10-2131	MK-21/MK-32	1/2" (1108)	Tema5000	2.5 m (Std)
H3-40-2121	MK-21/MK-32		Tema3000/Fastflat	2.8 m
H3-00-2121	MK-21/MK-32			Other (specify)

NOTE: If P/N is not know and cannot be inferred from the table above, contact Ultramagic.

NOTE: Table above provides P/N of bare hoses only. If coupling is found to require replacement, it must be ordered separately as per the Ultramagic Illustrated Parts Catalog.