



BRITISH MICROLIGHT AIRCRAFT ASSOCIATION SERVICE BULLETIN

Reference: BMAA Service Bulletin 2447 issue 1
Title: Fitment of fuel primer bulb bypass
Applicability: Any BMAA-administered aircraft fitted with an approved fuel primer bulb installation
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Classification: Optional

1 Introduction

This Service Bulletin permits a bypass to be fitted around the fuel primer bulb on any BMAA-administered aircraft without seeking further approval. Note: this Service Bulletin does not permit a primer bulb to be fitted when it is not part of the approved design standard; nor does it approve a legacy fuel primer bulb installation that does not already have approval.

2 Details

Many BMAA-administered aircraft are fitted with fuel primer bulbs, which are used to prime the carburettor float chambers to ease starting. Fuel primer bulbs have been known to develop defects and become blocked. The purpose of a bypass is to provide a parallel route for the fuel to pass through. A one way valve is not normally¹ required in the bypass as, in practice, there is sufficient capacity in the bulb to supply any reverse flow in the bypass as well as priming the carburettor.

3 Action

- The location of the primer bulb must remain unchanged (as previously approved).
- The bypass must be from a suitable, flexible, fuel hose. It is recommended that the same, or very similar, hose to that originally fitted (i.e. as specified by the designer) is used. Note that there is no need for bypass hose to be fire-resistant as primer bulbs must not be located in an area that could be subject to engine fire conditions. Ensure that hoses are cut cleanly as slivers of hose are good for blocking fuel lines and carburettors.
- The bypass must be inserted into the fuel line around the primer bulb using two metal (not plastic) T-pieces. The hose must be secured to the T-piece at each connection (e.g. hose clamps). It is recommended that the same, or a very similar, method of securing to that originally fitted (i.e. as specified by the designer) is used. If necessary the bypass should be supported by cable ties.
- The installation must be inspected by a suitably qualified BMAA Inspector to ensure that the installation is in full accordance with this Service Bulletin, implemented to a satisfactory standard, and does not inadvertently introduce any hazard.
- A test of the primer bulb and a ground run at maximum power must be carried out (witnessed by the BMAA Inspector) to ensure that there are no leaks and that sufficient flow is maintained.
- Implementation details must be recorded in the airframe logbook and then signed off and dated by the BMAA Inspector using the words "Primer bulb bypass installed in full accordance with BMAA Service Bulletin 2447 Issue 1". Keep this Service Bulletin with the aircraft's Manual.

4 Contact Details

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¹ On some aircraft the primer bulb is located in parallel with an electric booster pump. In this case the primer bulb acts as a one way valve when the booster pump is operating, and a one way valve would have to be installed in a primer bulb bypass.