



BRITISH MICROLIGHT AIRCRAFT ASSOCIATION SERVICE BULLETIN

Reference: BMAA Service Bulletin 2613 issue 1
Title: Shadow lift-strut cracking
Applicability: All Shadow B/BD, C/CD and D/DD Series aircraft
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Classification: Essential, Advisory Service Bulletin

1 Introduction

This Service Bulletin is to advise owners of BMAA Shadow aircraft of the potential for cracks at the top of the lift struts in the region shown in figure 1.

2 Details

A very serious crack was found in the top of a lift strut on a Shadow that is currently being operated as a single-seat deregulated (SSDR) Microlight. See Figure 2.



Figure 1: top of lift strut and wing attachment



Figure 2: large crack on lift strut

Although the lift strut on this SSDR does not appear to be entirely standard, cracking has also been observed on a standard lift strut. See Figure 3.

It is suspected that cracking of the top of the lift strut is primarily due to trailing with the lift struts attached to the wings, rather than due to flight loads.

However, once cracks have started they can grow under flight loads, and once long enough will cause catastrophic in-flight failure.

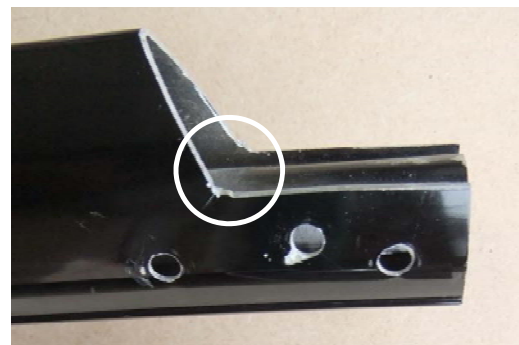


Figure 3: cracks on lift strut

3 Action

Carefully inspect the lift struts for cracks as part of every Daily inspection. If any cracking is found do not fly the aircraft and report to the BMAA Technical Office - for our information and a technical assessment. If repairs are necessary to a Shadow with a Permit to Fly, these must be approved by the Technical Office.

Note: The technical content of this document is approved by the BMAA, UK CAA organisation approval ref. DAI/8909/84.