

## CYCLONE AX3 - SERVICE BULLETIN

**TITLE:** Main Beam Fatigue Failure                      **BULLETIN No:** 7 - Issue 3

**ISSUE DATE:** 6th JUNE 1996

**CLASSIFICATION:** This service bulletin has been classified as mandatory by the CAA.

**COMPLIANCE:** Before the next flight.

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### APPLICABILITY:

All Cyclone AX3 aircraft.

### INTRODUCTION:

The main beam is located under the seats and connects the lower cockpit tubes together. It is also the attachment point for the struts. The steel attachment bracket for the control stick is connected mid way along the main beam.

The main beam on AX3 microlights is constructed from an aluminium alloy tube over a solid alloy bar with a steel over sleeve at the centre section.

A main beam failed in flight due to fatigue cracking at the control stick holes; this aircraft had completed 2500 hours and was previously subject to various landing accidents after which the main beam had not been replaced.

A second case of main beam failure was found during routine inspection of an AX3 after 800 hours, the alloy tube was found to be cracked inside the steel tube. The solid inner beam was intact. The aircraft has been subject to several heavy landings during its life.

### ACTION:

THIS BULLETIN SUPERSEDES TWO PREVIOUS BULLETINS.

The life of the existing main beam is 200 hours. However, in order to keep aircraft flying until the new type main beams are available, the CAA have granted a concession. This implies that up until the 6th August 1996, the following action(s) must be carried out:

1. Up to 200 hours - No action required.
2. Between 200 and 600 hours - Inspect as detailed below and any requisite actions.
3. Over 600 hours - Replace main beam.

AFTER 6th AUGUST 1996 ALL EXISTING TYPE MAIN BEAMS MUST BE REPLACED AT 200 HOURS.

**INSPECTION:**

A dye-penetrant inspection of the main beam is required before return to service and subsequently every 100 hours. If signs of cracking are evident then the main beam must be replaced.

**MODIFICATION:**

A redesigned steel truss beam has been tried and tested and is in early production stages. We anticipate availability within two weeks from the date of this service bulletin. The new beam is designed to be interchangeable, lighter and stronger.

B. Sherlock - Managing Director  
For Cyclone Airsports Ltd t/a Pegasus Aviation.

Circulation: Cyclone AX3 owners.  
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BMAA Chief Technical Officer.  
PFA Chief Technical Officer.  
CAA x 2.  
Cyclone Airsports Records.