

SOLAR WINGS LTD

SERVICE BULLETIN

no. 0032

Date 22/08/91

SUBJECT : Q-Wing and Quasar wing trailing edge

MODELS AFFECTED :
All Pegasus Q-Wings, Quasar Wings.
(n.b. the Q2/Quasar2 wing is of a different design and does not apply.)

CLASSIFICATION :
The CAA have classified this bulletin as Mandatory

COMPLIANCE :
Before next flight.

PURPOSE :
A Pegasus Q-Wing aircraft, used for training with 500 hours total airframe time, suffered a failure of the centre section sail seam at the trailing edge. The failure proceeded up to the kingpost hole, which is reinforced with webbing. The trailing edge was still held together by the keel pocket. The effect on the aircraft in flight was to reduce the trim speed to 40mph; a safe landing was made.

The reason for the failure was abrasion of the centre section seam stitching caused by the fin tube (See attached figs 1-3). The fin tube passes below the sail trailing edge. In the example which failed, the fin tube anodising was worn away in the region of the sail trailing edge.

The service department at the factory has never seen such abrasion before despite completely stripping 200 wings during permit renewals.

The aircraft in question had been left rigged for much of its three year life, and also left rigged outside all day between flights. The loads required to produce abrasion against the fin tube are negative loads together with lateral movement. These loads are generated when parked, during taxi, takeoff and landing roll, and possibly when left rigged in a draughty area.

There was also considerable fading of the sail from ultra-violet light exposure, which may have been a contributory factor.

SOLAR WINGS LTD

SERVICE BULLETIN

no. 0032

ate 22/08/91

INSPECTION:

The area in question is at the trailing edge of the sail immediately above the fin tube. It should be inspected before the next flight, and every 50 hours. The wing should be de-rigged if possible. The sail is slack in this condition and can be inspected more easily. Open the wings out slightly, and look inside the fin via the zipped access. Pull the sail sideways to expose the stitching above the fin tube. Examine the fin tube for wear on its top surface and the sail trailing edge for stitching abrasion.

If there is **ANY SIGN OF ABRADED OR BROKEN STITCHING, SOLAR WINGS MODIFICATION 0082 MUST BE CARRIED OUT BEFORE FURTHER FLIGHT.**

PREVENTION :

If there is positively no stitching damage, then modification 0084 can be implemented, in which a protective patch SW-90095 is placed over the stitching to protect it from damage. The area should still be inspected every 50 hours.

RECTIFICATION:

If any stitching, particularly at the trailing edge, is damaged, modification 0082 must be carried out by Solar Wings, or a Solar Wings approved facility before further flight.

The modification involves removal of the sail from the airframe and unpicking the keel pocket at the trailing edge. The centre section seam is re-sewn in the critical area, and a reinforcing patch is sewn in place. The technical log must be signed when the work is completed.

Any aircraft coming to the factory for permit renewal will automatically have this modification carried out.

CIRCULATION:

If the aircraft is no longer in your possession, please pass this bulletin on to the present owner.

New owners : Please contact the factory at the following address so that any further information can be sent directly to you.

Aircraft Records,
Solar Wings Ltd,
56, George Lane,
Marlborough,
Wiltshire, SN8 4BY.
Telephone 0672-515066
Facsimile 0672-514492.

Signed :



(Chief Designer)

date : 22/8/91.

Fig 1

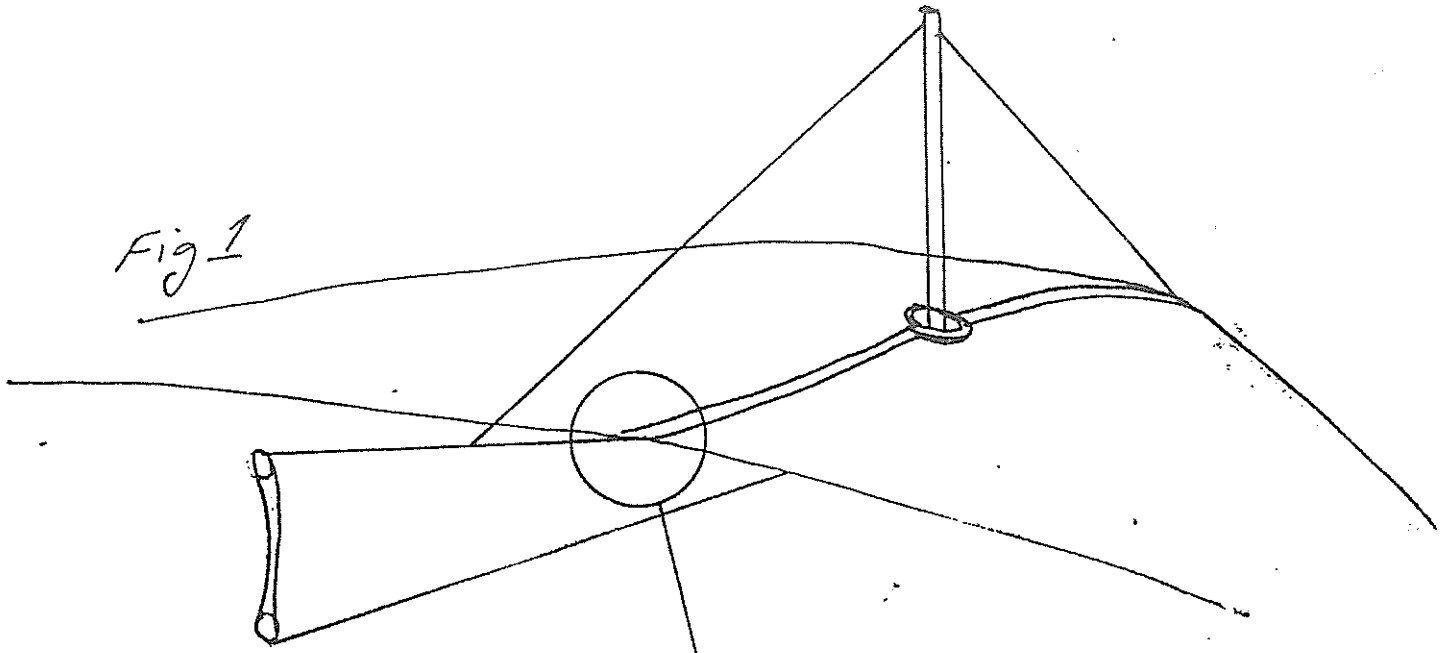


Fig 2

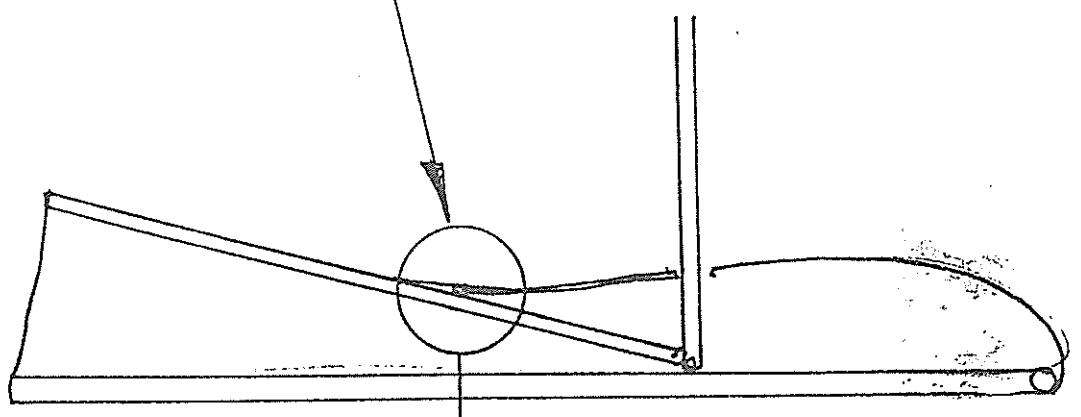


Fig 3.

