

## XS wing aileron close out

**Applicability:** XS wings despatched between the beginning of January 2002 and the end of March 2002.

### Introduction

It has been established that a batch of XS wings included some which had the aileron close out fitted too far aft, and subsequently trimmed in line with the lower skin trailing edge. The result of this is that the depth of the aileron close out finishes up less than it should be, and, in the worst case, limits the aileron movement to be less than the specified limits. Figure 1 illustrates this effect - note that the error is variable and the figure is not to scale.

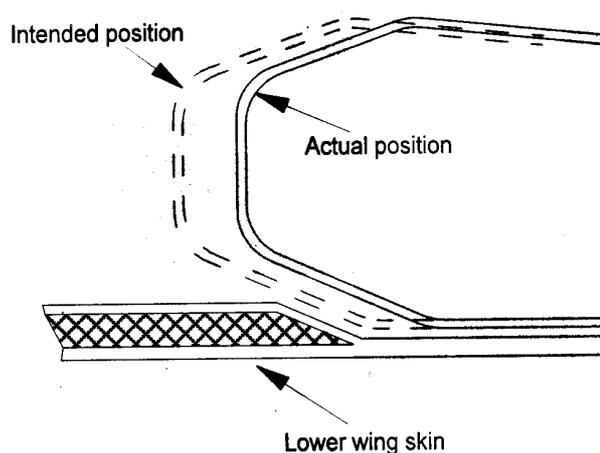


Fig 1. Sectional view showing mispositioned aileron close out.

### Action

Measure the distance from the trailing edge of the lower skin / aileron close out, taking the distance to the very beginning of the radius, as shown in figure 2. It is suggested that this is done with a rule held vertically, watching for the point where a clearance starts to appear below the rule. This is because the radius is quite generous and it is a little difficult to establish the beginning of the radius. The nominal distances are given in figure 2.

If the results of your check show the close out too far aft by more than 3mm (1/8"), carry out the following procedure.

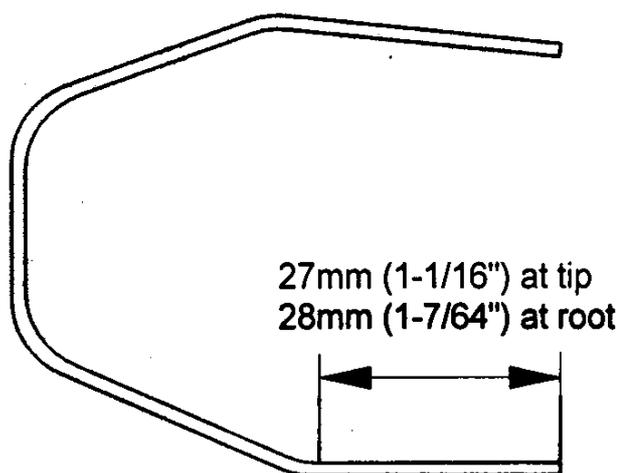


Fig 2. Correct position of aileron close out.



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### **Step 1.**

To remove the incorrectly positioned aileron close-outs, play gentle heat into the close-out aimed at the bonded joint, and carefully prise it away from the wing using a bluntish wedge, like a blunt wood chisel or even a used wallpaper scraper. Take your time so that you don't damage the skin.

Clean off the remaining Araldite 420 as well as you can, then scuff sand the bond flange.

### **Step 2**

Scuff and clean the close-out bond surface (the side with a cut away at each end). The cut away ends provide the means to align the close-out with the wing skin. The remaining lip is to be trimmed away after cure, using the wing skin as a guide. It was this cut away that was trimmed incorrectly and caused the error on your wings. Make sure you apply the correct close-out to the appropriate wing - they are slightly tapered.

### **Step 3**

Apply a mixture of Araldite 420 and flox to the bond surface of one of the parts and join the two parts together, aligning the cut away edge with the wing skin. Clamp them together at several points along the length. A couple of stiff straight edges would be an advantage here to avoid quilting.

Wipe away any excess adhesive, making sure that you don't accidentally glue the clamps or your straight edges in place.

After cure, trim the lip of the close-out back to the wing skin.