

LAA/AWA/15/02 rev1.
23rd March 2015

British Gliding Association Concerns about Kaurit Glue

A recent structural failure in the tail area of a Jodel aircraft, which may have led to the aircraft losing directional control shortly after a landing, has focussed our attention on the fact that glue jointed structures on many aircraft operating within the LAA's fleet may be over half a century old and, as such, need regular inspections.

This structural failure has been discussed in the March 2015 issue of Safety Spot, a downloadable version can be found [HERE](#).

In February 2015 the British Gliding Association's (BGA) Technical Committee (TC) decided, after the discovery of a serious glue failure in a Schleicher K8's fin attachment during the required five yearly glue inspection, to require an additional full and detailed inspection of all glued wood joints in gliders at (or before) the next annual inspection, regardless of when the last scheduled inspection was completed. The BGA TC also decided to increase the frequency of these specific inspections from five to three years.



Fig. 2 A closer look at the failed glue joint reveals that the actual failure appears to have occurred along the wood-activator joint (not shown); the resinous joint appears still to be functional. (Courtesy of BGA).



Fig. 1 This is a picture showing an inverted K8 fin; note that a very light pressure applied to the bottom rib reveals the failed glue joint. A complete failure of this joint could lead to the loss of the fin and compromise elevator control. (Picture courtesy of BGA)

Most of the glue failures discovered in BGA gliders, and there have been a number, have been found on gliders that were initially assembled using Kaurit® two-part glue. This type of Urea-Formaldehyde glue, is still extensively used throughout industry (in many applications) but is less used today within wooden aircraft construction or repairs where Phenol-Resorcinol glues (Aerodux®) are more widely used. Kaurit® has a pinkish tinge when dry.

It has been suggested by LAA Inspectors that some Jodel flight control surfaces were made using Kaurit® although experience shows that the majority were assembled using either Casein® (White in colour - milk phosphoprotein base.) or Aerolite® (Greenish tinge in colour - another Urea-Formaldehyde base.).

Useful information can be sourced from the recently published BGA Bulletin (042/07/2004 issue 4) which can be downloaded [HERE](#).

An early (1994) Avions Pierre Robin Service Bulletin suggesting checks in the structure of the Jodel tail area, SB 128 Rev 3, can be downloaded [HERE](#).