

THE GLIDING FEDERATION OF AUSTRALIA

**GFA AD 426**  
(ISSUE 1)

## GFA AIRWORTHINESS DIRECTIVE

**TYPE AFFECTED:** L13 Blanik and L13 A1 Blanik All serial numbers.

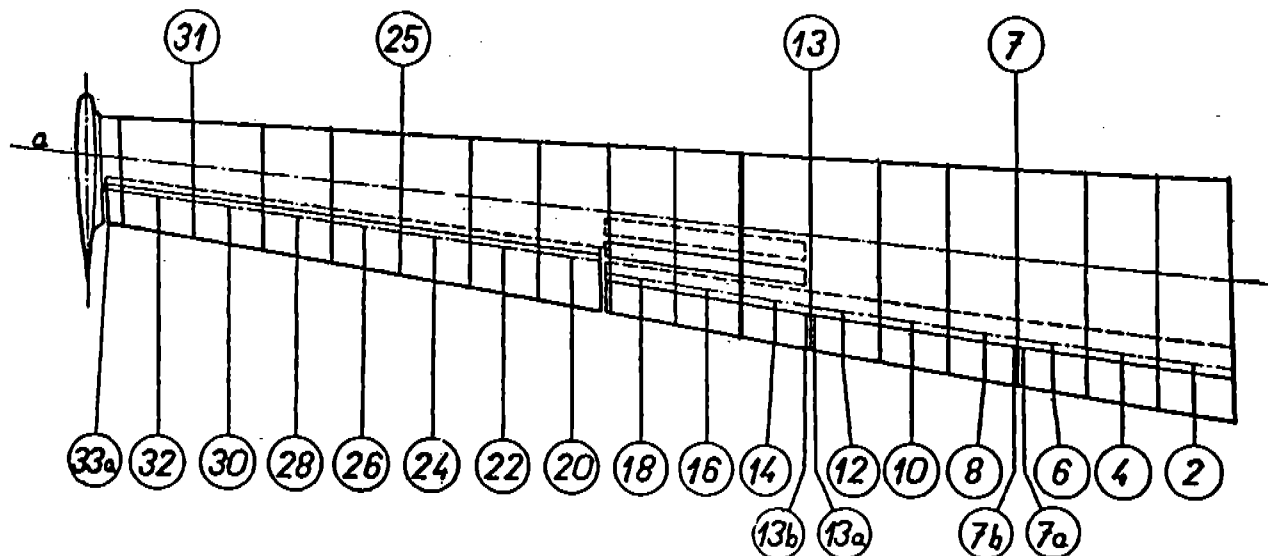
**SUBJECT:** Cracking of wing Ribs.

**BACKGROUND:** During a routine inspection cracking was noted in the flange of the wing rib and the stiffeners at the flush skin joint at station 13.

Further inspection of other Blaniks showed that 7 out of 9 inspected gliders had cracking of some degree at this station. Inspection of the ribs at other stations with flush skin joints also showed minor cracking at station 7.

The Flush Joints at Stations 25 and 31 are the same detail design as stations 7 and 13 and so are possible cracking sites.

FIGURE 1  
LOCATION OF FLUSH SKIN JOINTS



The extent of the cracking was such that the worst wing was very near to failure.

**DOCUMENTATION:** Aviation and General Engineering Report 941 Issue 2.

**SIGNED:**

CHIEF TECHNICAL OFFICER AIRWORTHINESS

For and on behalf of:

THE GLIDING FEDERATION  
OF AUSTRALIA

**ACTION REQUIRED: 1. BEFORE NEXT FLIGHT AND AT EACH FORM 2.**

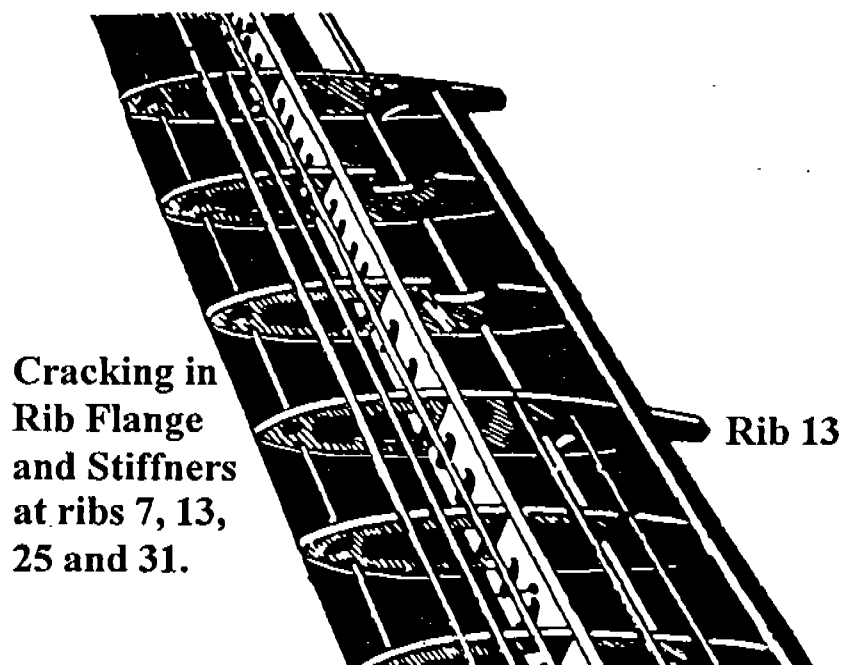
The top and bottom flanges of the rib and the stringers at Station 13 must be inspected for cracks.

Inspection of the top flange can be done by removing the lower inspection panel in the dive brake recess and looking upwards and forward with the aid of a torch. It may be necessary to view between the dive brake blade and the wing skin to see far enough forward. Partial removal of the dive brake may aid viewing.

Inspection of the lower flange requires the use of an inspection mirror as well as a torch.

It is of vital importance that care is taken while performing these inspections as the cracks may only be visible from a narrow field of view even if they are quite severe.

On both upper and lower surfaces the skin junction must be pressed in using finger pressure to ascertain relative movement. Cracking will show up as relative movement of the abutting skins and there will be noises with the movement as the fracture surfaces click past each other. (Note: even without cracking there may still be a small amount of relative movement.)



Cracking may also be detected by shining a torch at the junction and observing for light on the inside of the wing.

**2. AT EACH FORM 2 INSPECTION.**

The wing must be inspected at stations 7, 25 and 31 for cracks in the wing rib flanges and the stringers.

It will be necessary to use an Econscope or similar device to perform these inspections and so your RTO/A should be contacted well in advance to book the econoscope.

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**RECTIFICATIONS:**

Depending on the degree of damage found the glider will need to be repaired in accordance with the following schedule.

No stiffener cracked more than 12 mm. No rib flange cracks.	Inspect every 50 hours.
Any stiffener cracked in excess of 12 mm. No rib flange cracks	Inspect every 50 hours. Repair within 100 hours.
Any stiffener cracked in excess of 12 mm. Any rib flange cracks not more than 30 mm.	Repair within 50 hours.
No stiffener cracked more than 12 mm. Any rib flange cracks not more than 30 mm.	Inspect every 50 hours. Repair within 100 hours.
No stiffener cracked more than 12 mm. Any rib flange cracks more than 30 mm but less than 60 mm.	Repair within 50 hours.
Total damage found exceeding the above levels.	Repair before next flight.

**REPAIRS:**

A suggested repair scheme is available from Aviation and General Engineering as Engineering Order 9401 for which a kit of parts is also available.

All repair schemes must be in accordance with AC43.13-2A or approved by an appropriate Engineer.

**WEIGHT AND BALANCE:** Not affected.

**IMPLEMENTATION:**

Inspection for cracks must be performed by the persons rated for Maintenance Release Issue: Metal.

Repairs must be performed by persons rated Major Repairs: Metal (GFA) or have the appropriate CAA approvals (see MOSP Part 3 46-8 (5) for certification procedure)..

**COMPLIANCE:**

The requirements of this GFA Airworthiness Directive are mandatory. This Directive is issued pursuant to the Rules and Regulations of the Gliding Federation of Australia.