



# THE GLIDING FEDERATION OF AUSTRALIA

BUILDING 130, WIRRAWAY ROAD, ESSENDON AIRPORT, VICTORIA 3041.

## AIRWORTHINESS DIRECTIVE GLIDERS/POWERED SAILPLANES

GFA/AD 234

Slingsby 23

Scheibe 2

Issue 1

Date 9.8.1982

Sheet 1 of 3

TYPE AFFECTED: ALL SLINGSBY T61A, B, C, & D.  
ALL SCHEIBE SF25 and SF28 powered sailplanes.

SUBJECT: Wing root fittings.  
Introduction of an inspection procedure to ensure flight safety by maintaining full bearing engagement between the rigging pin and lower spar lugs.

BACKGROUND: A fatal accident which occurred in 1980 has recurred on a Scheibe Falke in May 1982 due to insufficient engagement between bottom lugs and pin.

ACTION REQUIRED: Inspection to be carried out before next flight and at each subsequent re-rigging of the aircraft.

(1) Before next flight

- (a) Check part number of rigging pin.
- (b) 1. With the main rigging pin pulled fully upwards by means of the Tee handle, such that the safety pin is hard against the lower face of the top boom lug fitting, establish that the plain untapered portion of main pin shank protrudes below the port bottom boom lug fitting.  
  
2. If difficulty is encountered in establishing para (b) 1. inspection due to poor access, the wings must be removed and port wing inspected in accordance with para (b) 1.
- (c) Should no plain untapered shank be visible protruding below the port bottom boom lug fitting the aircraft shall not fly until the cause has been established and rectified.
- (d) Establish whether more than one safety pin hole exists in the main pin. If more than one safety pin hole exists the aircraft must not be flown until the correct hole has been established by compliance with inspection to para. (b) 1 or (b) 2 and the redundant hole made unusable.

CONSEQUENTIAL LIMITATIONS:

- 1. Neither aerobatic flight nor winch launching are permitted on gliders fitted with:
  - a) Pins number 653B-51-S14 unless modified to have an end radii less than 3mm.
  - b) Pins having bottom end radii greater than 3mm.
  - c) Pins having more than one locking pin hole or locking pin holes greater than 1/8" dia.
  - d) Locking pins constructed from less than 12G (.104) piano wire (spring steel).



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### CONSEQUENTIAL LIMITATIONS (contd)

2. Aerobatic flight is permitted with aircraft fitted with pins T61-20-66 Issue 3.
3. When aerobatic flight and winch launching are permitted it is strongly recommended that an accelerometer limited to 3.5g max. is fitted.

Results of this inspection to be entered into the sailplane log book,  
any operational limitations to be clearly placarded in the cockpit.

### (2) AFTER RE-ASSEMBLY OF THE SAILPLANE

- (a) Accomplish the inspection contained in para (b) 1 or (b) 2. Extreme care must be exercised when aligning the male/female lug fittings to ensure that female fittings are not splayed during mainplane rigging, following inspection to (b) 2.
- (b) Should no plain untapered shank be visible protruding below the port bottom boom lug the aircraft shall not fly until the cause has been established and rectified.
- (c) Contact the GFA/CTOA if any of the following conditions are found:
  1. Pin fails to protrude through bottom lug.
  2. An additional safety pin hole exists.
  3. Any damage likely to have a detrimental effect upon the airworthiness of the aircraft.

### (3) MAINTENANCE RELEASE ENDORSEMENT.

Maintenance Release to be endorsed on Part 1, "Inspect wing root fittings to AD. 234 following dismantle and re-assembly).

### IMPLEMENTATION

- (1) Before flight inspection to be carried out by GFA glider inspector endorsed for C. of A. on type.
- (2) Daily inspection following re-assembly to be carried out by GFA glider inspector endorsed for C. of A. on type.

### COMPLIANCE:

The requirements of this Airworthiness Directive are mandatory. This Directive is issued pursuant to Air Navigation Regulations under delegated authority of the Secretary of the Department of Aviation.

M.P. BURNS.  
CHIEF TECHNICAL OFFICER AIRWORTHINESS  
GLIDING FEDERATION OF AUSTRALIA

<u>Aircraft:</u>	<u>Slingsby T61A Falke G-AYZW</u>	
Date and time (GMT):	21 March 1982 at 1500 hrs	
Location:	Portmoak Airfield	
Type of flight:	Private	
Persons on board:	Crew - 2	Passengers - Nil
Injuries:	Crew - Nil	Passengers - N/A
Nature of damage:	Damage to starboard wing root fitting, main rigging pin and elevator control rod	
Commander's Licence:	Private Pilot's Licence	
Commander's total flying experience:	1,316 hours (of which 86 hours were on type)	

\*

The aircraft was being flown on a type rating test and following an unsuccessful air restart during which the aircraft was dived to a speed of 90 kts a second attempt was made from approximately 1,300 feet. The aircraft was dived to approximately 95 kts but again the engine failed to start and a pull-out, thought to be about 2½ to 3g, was made with the intention of completing a glide landing at the airfield. Immediately following the pull-out it was apparent that the control column could not be moved forward and since the aircraft had rapidly assumed an over the vertical attitude, the control column was pulled back and the aircraft completed the looping manoeuvre. After the second pull-out the combined efforts of both pilots was required to return the control column to a near vertical position. The aircraft was recovered to a normal attitude at a height of approximately 300 feet and an immediate landing was made downwind in a field with the captain using both hands on the control column while the other pilot operated the spoilers.

In examination after landing the crew found that the metal fitting of the starboard spar root had collapsed forcing the main spar connecting the pin down onto the elevator control rod thus impeding its movement.