



## AIRWORTHINESS ADVICE NOTICE

**TYPE AFFECTED:** SZD-51-1 JUNIOR

**SUBJECT:** Miscellaneous reported defects and airworthiness information.

**BACKGROUND:** This AN records airworthiness information which is not mandatory but which is useful to know. This information includes Approved Modifications and brief descriptions of minor defects.

**APPROVED MODIFICATIONS:**

PZL Bielsko Bulletin BE-043/92 describes the allowable wear limits and servicing procedures for pushrods passing through guide rollers. This Bulletin forms part of this AN.

If elevator pushrod replacement is required, Approved Modification 2010-3 describes how this component may be produced locally. A separate approval is required for each aircraft where this Modification is to be used. Contact the GFA Airworthiness Office for further details.

**DEFECTS:**

1. The rudder fabric on one Junior was found to be defective, possibly due to the lack of a UV protective layer in the paint.

When inspecting Junior rudders the fabric must be inspected for separation from the structure and for general fabric degradation.

Should the rudder need recovering the surface finish should include a UV protective layer, and the rudder must have its mass balance checked. Note, when reading the mass balance figures from the Technical Service Manual (page 40), the figures given are a percentage of the total control surface weight "G".

2. Experience has shown that the locking washer on the connecting pin in the elevator connector may work loose allowing the control to be connected incorrectly as shown in Fig 1.

Should the locking washer be loose then the defect must be rectified before the next flight.

The defect may be rectified by either replacing the washer (the best option) or by cold forming the washer until the hole is between 5.980 & 5.990 mm diameter.

**SIGNED:**

CHIEF TECHNICAL OFFICER

For and on behalf of:

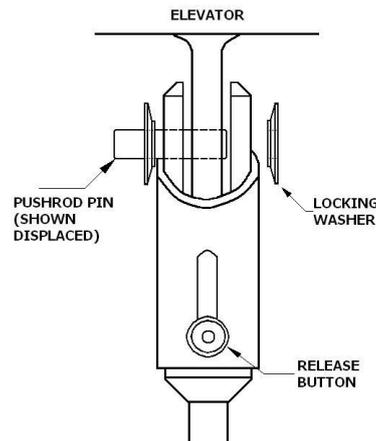
**THE GLIDING FEDERATION  
OF AUSTRALIA**

Cold forming should be carried out by either pressing the washer between flat plates or by placing a steel ball (approx 20 mm dia) on the hole and then tapping with a hammer. If using the steel ball method the washer should be turned over and the process repeated.

Before pressing the washer onto the pin, the pin diameter should be checked for correct sizing:- 5.992 to 6.000 mm dia.

NOTE: When cleaning the self aligning ball bearing the pin need not be pressed out of the washer. All necessary cleaning and lubrication of the bearing can be performed satisfactorily with the pin in place.

FIGURE 1.



3. The elevator pushrod is supported within the fuselage by two sets of rollers. Each set has three rollers arranged at 120 degrees around the rod. After prolonged service the rollers wear flats on the pushrod tube and permitted wear limits are shown in the attached bulletin BE 043/92. The pushrod's life may be extended by rotating the tube through 180 Degrees & reinstalling. Once wear has exceeded the permissible limits the tubing may be replaced in accordance with GFA Approved Modification 2010-3.

4. The glue attaching the canopy perspex to the frame has been known to fail on the Junior and other SZD manufactured sailplanes. One such example resulted in the full perspex departing the frame on a winch launch. The canopy was original, the glider a 1988 model. AWA 2015-3 was issued now cancelled. The glider had recently completed the manufacturers 3000-hour life extension inspection. Post examination showed a clean separation with little or no glue bonded to the perspex, the bulk remaining on the frame. The type certificate holder was advised but stated this was the first failure reported. It is highly recommended that canopies that are original as manufactured (the perspex never having been replaced) be regularly inspected for suspected glue failure. Any disbond identified must be repaired immediately.