

THE GLIDING FEDERATION OF AUSTRALIA INC.

BUILDING 130, WIRRAWAY ROAD, ESSENDON AIRPORT, VICTORIA 3041. PHONE +61 (0) 3 9379 7411, FAX +61 (0) 3 9379 5519. A.B.N. 99 008 560 263

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AIRWORTHINESS ALERT 2005-1. SZD-50-3 PUCHACZ

Last weekend a failure occurred in the elevator control circuit of a Puchacz which resulted in total loss of elevator control from the front cockpit. Fortunately the aircraft was being flown dual, and the instructor in the rear seat was able to land the glider safely. Had the failure occurred during solo flight, or with an inexperienced person in the rear, the outcome could have been serious indeed.

On inspection it was found that the rear rod end bearing of the pushrod which connects the front and rear control columns had broken at the point where the threaded portion enters the locknut. The pushrod was therefore completely detached from the rear control column. (See photos)

As the rear portion of this pushrod is partially exposed in the rear cockpit it is very possible that it could have been inadvertently stepped on during entry or exit, bending the rod.

The rod end which failed has a keyway cut in it for securing the locking tab and it appears a fatigue crack started from the bottom of this keyway. It also seems that the material may be of poor quality, and the parts are undergoing laboratory investigation at the moment to determine this.

Although the aircraft was fully inspected no other rod ends with a keyway were found.

Before further flight:

- 1. The pushrod connecting the front & rear control columns is to be examined critically. This is the pushrod which runs down the left side of the cockpit. Remove both rod ends from the pushrod and inspect the threaded area for bending or cracks using a 10X magnifier.
- 2. Notify GFA without delay of the results of this inspection whether cracks found or not.
- 3. Inspect all other rod ends in the control circuits. Any rod ends with a keyway are to be removed and inspected as in item 1, and their locations advised to GFA immediately.
- 4. Any suspect rod ends must be replaced before further flight.

The above actions are to be performed by, or under the supervision of, a person holding a current GFA Airworthiness Authority endorsed for Inspection for issue of a Maintenance Release or higher. Please report the findings directly to the GFA Airworthiness office: Fax (03) 9379-5519, Phone (03) 9379-7411 or e-mail stoair@gfa.org.au