



GFA AD-639
(ISSUE 1)

GFA AIRWORTHINESS DIRECTIVE

- TYPE AFFECTED:** SZD 50-3 PUCHACZ. ALL Serial No's.
- SUBJECT:** Rudder lower attachment. Inspection/ Replacement of securing nut.
- BACKGROUND:** During flight the rudder became disconnected on a SZD-50-3. It is thought that this was the result of an incorrect nut having been fitted to the bottom hinge bolt. In 1981, PZL Bielsko Bulletin BK-06/50-3/81- was issued requiring the use of a castellated nut and cotter pin to secure this bolt in lieu of a self locking nut but due to oversight the change was not applied to the Technical Service Manual.
- DOCUMENTATION:** The EASA has issued Emergency AD EAD2006-0243-E, and Allstar PZL has issued Mandatory Bulletin BE-058/SZD-50-3/2006. A copy of the MB is attached & forms part of this AD.
- ACTION REQUIRED:** Before Next Flight after the effective date of this AD: Inspect & if necessary replace the rudder attachment parts in accordance with MB BE-058/SZD-50-3/2006. Concurrently, update the Technical Service Manual in accordance with the above MB. If required, pages for the maintenance manual, can be obtained from office@szd.com.pl
- WEIGHT AND BALANCE:** Negligible.
- IMPLEMENTATION:** The EFFECTIVE DATE of this AD is 01 September 2006.
The inspection and manual update may be carried out by holder of a current GFA Daily Inspector rating, any type, or higher authority.
If replacement of the nut is required this must be carried out by the holder of a current GFA Form II inspector's rating, any type, or higher authority. After replacement and safetying, an independent inspection should be performed by a person holding a GFA Daily Inspector rating or higher authority.
- 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 Inc.

SIGNED:

John G Viney

SENIOR TECHNICAL OFFICER AIRWORTHINESS



For and on behalf of:

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OF AUSTRALIA INC.

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<p><u>1. SUBJECT OF THIS BULLETIN</u></p> <p>1.1. Herewith, an inspection of the nut securing the rudder bottom hinge is introduced.</p> <p>1.2. The revision to the Technical Service Manual is introduced.</p> <p><u>2. GROUNDS FOR ISSUANCE OF THIS BULLETIN</u></p> <p>On one PUCHACZ glider, in the take-off phase, the rudder slipped out of its hinges and separated from the glider. The cause might be unscrewing of the fastening the bottom hinge castellated nut, not secured with the cotter pin, or unscrewing of the employed self-locking nut. Comparison between the design documentation and the Technical Service Manual revealed that no revision concerning the exchange of the self-locking nut to the secured with cotter pin castellated nut has been done to the Manual. The castellated nut is used in production from the Fact. No B-967. Also, the Bulletin No BE-06/50-3/81 SZD-50-3 "Puchacz" introducing the exchange of the self-locking nut with the castellated one on operated already Fact. Nos up to B-966 has been issued. The non modified entry in the Technical Service Manual may cause that in an inspection and disassembly of the rudder, instead of a castellated nut with cotter pin, a self-locking nut may be used to secure the rudder bottom hinge.</p> <p><u>3. LIST OF FACTORY NOS COVERED WITH THIS BULLETIN</u></p> <p>This Bulletin concerns all gliders of the SZD-50-3 "PUCHACZ" model.</p> <p><u>4. DESCRIPTION OF MODIFICATION</u></p> <p>4.1, Check by visual inspection the nut securing the lower hinge – see Fig. A. This one must be of the hexagon, castellated model (1) with the visible cotter pin (2).</p> <p>4.2 In case of nut different from this one specified under item 4.1, proceed as follows:</p> <ul style="list-style-type: none"> - undo the nut, - disassemble the rudder from hinges, - clean the opening for a cotter pin, one located in the bottom, threaded portion of the rudder pin, - grease the hinge bolts 14 and 15, as well as the pins 16 – Technical Service Manual, Fig. 8 or 7/2 (see item 4.3), - re-assemble the rudder on a vertical fin, - install the 6 mm diameter, 1.5 mm thick steel washer - screw on the M6 aircraft thin, castellated nut - install the 1.6 mm diameter cotter pin 		

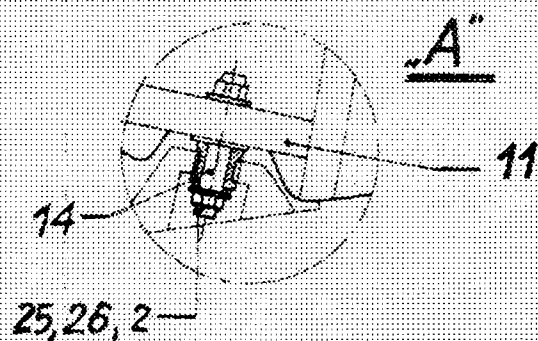
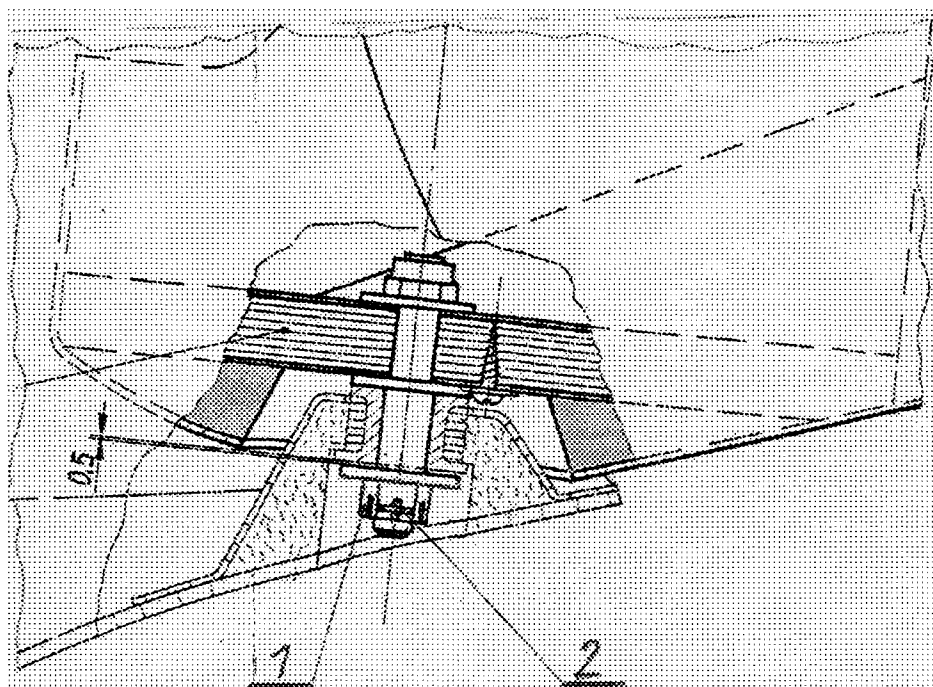
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<p>4.3 Make the revisions to the glider Technical Service Manual:</p> <p>4.3.1. In the issue III, September 1980 and in the issue IV, May 1981, for the gliders equipped with the a.m. Manuals</p> <ul style="list-style-type: none">- in item 2.1 "Disassembling and assembling of rudder" replace the first portion of the sentence " For disassembling remove the self-locking nut 2" with "For disassembling remove the cotter pin 26, unscrew the castellated nut 2",- in the legend to Fig. 8 – Rudder control system and assembly<ul style="list-style-type: none">▪ in item 2 cancel the word "self-locking" and insert "castellated"▪ add item "25 – washer"▪ add item "26 – cotter pin"- in the detail "A", Fig. 8, side to the reference 2 add 25 and 26 (see Fig. B of the Bulletin) <p>4.3.2. In the issue I/JAR-22, November 1994, for the gliders equipped with this Manual, replace pages 0.1; 0.3; 2.16 and 2.17 with pages 0.1a; 0.3a; 2.16a and 2.17a respectively.</p> <p><u>5. PARTS NECESSARY FOR THE MODIFICATION</u></p> <p>In necessity of a nut exchange – the M6 aircraft thin, castellated nut and the 1.6 mm diameter cotter pin can be purchased at Allstar PZL Glider, or substituted with the analogous aircraft model.</p> <p><u>6. LIST OF ENCLOSURES</u></p> <p>Pages 0.1a; 0.3a; 2.16a; 2.17a of the Technical Service Manual issue I/JAR-22, November 1994.</p> <p><u>7. FINAL CONCLUSIONS</u></p> <p>7.1 Entry on the compliance with this Bulletin is to be done at appropriate position in a Glider Log Book.</p> <p>7.2 In the Technical Service Manual issue III, September 1980 and issue IV, May 1981, the revisions introduced with this Bulletin should be indicated on the concerned page with the vertical line on the left hand side of the revised text, and with subsequent revision No – 54, these must be recorded also in the "RECORD OF REVISIONS" of the concerned Manual.</p> <p>7.3 The operator is introducing this Bulletin at his own cost.</p>		

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