



GFA AIRWORTHINESS DIRECTIVE

- TYPE AFFECTED:** SZD-50-3 PUCHACZ:- All aircraft up to Serial No B-2207 and serial No's 503199327, 503A04001, 503A05002 & 503A05003
- SUBJECT:** Flight Controls: Inspection / replacement of airbrake intermediate (Vee shaped) bellcrank mounting bolt & lockwasher.
- REASON:** Experience has shown that the mounting bolt in the right wing may become loose resulting in an inability to retract the airbrake on that wing. The left wing can be similarly affected although no instances of difficulty have been reported so far.
- DOCUMENTATION:** The EASA has produced EAD 2007-0275-E, and ALLSTAR PZL has produced Service Bulletin No BE-059/SZD-50-3/2007 PUCHACZ which is attached & forms part of this AD.
- ACTION REQUIRED:** In accordance with the above SB carry out the following actions.
ACTION 1. BEFORE FURTHER FLIGHT:- Inspect both wings for loose bolts securing the intermediate bellcranks. If any loose bolts are found, ***PRIOR TO THE NEXT FLIGHT*** BOTH M8x34 bolts must be replaced using M8x32 bolts, and the lockwashers must be replaced with locktabs. If no loose bolts are found, the aircraft may be returned to service provided that the inspection is repeated every 100 flying hours or 12 months whichever occurs first, until Action 2 has been accomplished.
ACTION 2. Unless performed as a result of Action 1, during the next 1000 hour inspection the M8x34 bolts must be replaced with M8x32 bolts and the split washers replaced with locktabs. It may be found more convenient to accomplish this at the next Form II.
- WEIGHT AND BALANCE:** Negligible.
- IMPLEMENTATION:** Inspections may be performed by the holder of a GFA Daily Inspector FRP, or higher maintenance authorization.
Replacement of the bolts may be performed by the holder of a GFA Maintenance Authority rated for Replacement of Components and Minor Repairs FRP, or higher authorization.
- 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:


SENIOR TECHNICAL OFFICER AIRWORTHINESS



For and on behalf of:

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<p>1. SUBJECT OF BULLETIN.</p> <p>1.1. Mandatory inspection of bolt of airbrake intermediate lever in wings. 1.2. Replacing washer and bolt mentioned above.</p> <p>2. GROUNDS OF ISSUANCE OF THIS BULLETIN.</p> <p>During pre-flight check in one of SZD-50-3 glider, it has been found impossible to fully retract/close the air brake on right hand wing, regardless from retracting successfully air brake on left hand wing and the brake lever in a cockpit locked in 'CLOSED' position. In glider inspection, unscrewing of the bolt, fastening an intermediate lever in air brake control from its seat has been found, regardless from having this locked with spring-lock washer. Further inspection detected, that bolt of intermediate lever in air brake control in left wing had been loosen too, regardless from securing this by spring-lock washer. Probable reason for bolt loosening are vibrations, excited by the intermediate lever hitting against its bumper, when retracting the air brake.</p> <p>3. LIST OF FACTORY NO'S COVERED BY BULLETIN.</p> <p>This Bulletin concerns all gliders of the SZD-50-3 "PUCHACZ" model up to serial no B-2207 and serial numbers 503199327, 503A04001, 503A05002, 503A05003.</p> <p>4. BOLT INSPECTION.</p> <p>The bolt's head, washer and lever's console are visible through hole of pushrod (6) in a wall of airbrake box. Following actions must be performed:</p> <p>4.1 Extend airbrakes. 4.1.1. Illuminate interior of the wing. 4.2. Inspect visually tightening of the bolt. A gap between bolt's head and washer, or this between lever console and washer, considered an evidence of bolt loosening and indicating possibility of further unscrewing, is not acceptable. On left hand wing, using a mirror for inspection would be helpful.</p> <p>5. RESULTS OF INSPECTION.</p> <p>5.1. If no loosen bolt has been detected, a glider can be operated normally. Inspection in accordance with point 4 of this Bulletin must be repeated as periodic work during annual/ (100 hours) check. Replacement of spring-lock-, with tab washers as well as replacement of M8x34 bolts with M8x32 bolts, according to point 6 of this Bulletin must be accomplished during the closest main (1000 hour) overhaul (or at earlier repair).</p> <p>5.2. If a loosen bolt has been detected, glider must be considered non-airworthy, and replacement of the spring-lock washers with tab washers, as well as M8x34 bolts with M8x32 bolts must be done in both wings, according to point 6 of this Bulletin.</p>		

6. REPLACING OF BOLTS AND WASHERS.

Replacing of bolts and washers must be performed by certified maintenance organization.

- 6.1. De-rig the wing.
- 6.2. Cut a hole in upper skin of the wing, according to Fig. 1.
- 6.3. Screw out and remove bolt M8x34, remove also spring-lock washer and spacer washers (5).
- 6.4. Screw in bolt M8x32 (3), with a tab washer (4) as a locking device, inserting also spacer washers (5) on their place.
- 6.5. Bend a tab of the tab washer (4) on the lever console (2) as shown in "D" view. Bend tab washer on the bolt (3) head, at arbitrary selected position.
- 6.6. After ensuring that assembling has been performed correctly, and bolt reliably locked by tab washer bent, repair the hole in wing skin according to Repair Manual of the glider.

7. PARTS NECESSARY FOR REPLACEMENT.

- 7.1. Tab washers can be purchased from Allstar PZL Glider, or similar can be used, for example FABORY no. 51540 M8. Washer's tab is to be cut to 15 mm.
- 7.2. Bolt M8x32 must be purchased from Allstar PZL Glider.

8. FINAL CONCLUSIONS.

- 8.1 Replacing of bolts and washers in accordance with point 6 of current bulletin is to be recorded at appropriate position in a Glider Log Book.
- 8.2. For gliders verified during inspection as in point 5.1, introduce following revisions in Technical Service Manual (TSM):
 - 8.2.1. In TSM issue III, september 1980 and issue IV, may 981 in point 3.4. in column 'Maintenance work' in rows 'After every 100 flying hours' and 'On the end of flying season or before the prolonged hangaring' add 'Bulletin BE-059/SZD-50-3/2007'.
 - 8.2.2. In TSM issue I/JAR-22, may 1994 in point 15.7 in column 'Maintenance work' in row 'After every 100 flying hours' add 'Bulletin BE-059/SZD-50-3/2007'.
 - 8.2.3. Introduced revisions must be recorded in Record of Revisions in TSM..
 - 8.2.4. After replacing bolts and washers according to point 6 of current bulletin, cancel revisions recorded according to points 8.2.1. or 8.2.2. Cancellation must be recorded in Record of Revisions in TSM.
- 8.3. If loosen bolt is detected, Operator of the glider is requested to notify Allstar PZL Glider on this fact, specifying: Serial Number of glider, total flight time, number of landings, and Operator/Owner data.
- 8.4. The operator is introducing this Bulletin at his own cost.

9. DESCRIPTION OF FIG. 1.

- 1- intermediate lever in airbrake control system
- 2- lever's console
- 3- M8x32 bolt
- 4- tab washer
- 5- 8,5x1 washer
- 6- pushrod

Fig. 1. Bolt and washer replacing.

