



THE GLIDING FEDERATION OF AUSTRALIA

GFA AD 340

## AIRWORTHINESS DIRECTIVE

ISSUE 1

TYPES AFFECTED:

All "Jantar" sailplanes i.e.

SZD-37X, SZD-37, SZD-38, SZD-38A, SZD-41, SZD-41-1,  
SZD-41A, SZD-41B, SZD-42, SZD-42-1, SZD-42-2, SZD-48,  
SZD-48-1, SZD-48-3 AND SZD-48-3M

SUBJECT:

Wing tip fore/aft freeplay allowance.

BACKGROUND:

PZL-Bielsko Service Bulletin BR 032/87 sets the limits and rectification procedures for excessive wing tip fore and aft movement.

This Bulletin is issued at a time when wing root pin wear, due in part to excessive wing tip movement is becoming an inservice problem on other types of sailplanes, not only Jantar.

ACTION:

Each Form 2

Check the freeplay in accordance with BR-032/87 (which forms part of this AD) and if necessary also carry out the rectification work outlined.

IMPLEMENTATION:

The GFA authorised inspector completing the Form 2 must note compliance with this AD by logbook entry.

WEIGHT AND BALANCE:

No Change

COMPLIANCE:

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

Issued by:

Chief Technical Officer,  
Airworthiness

For and on behalf of:

**GLIDING FEDERATION OF AUSTRALIA**

25.3.1988

SHEET 1 OF 1

B U L L E T I N No BR-032/87 "JANTAR"

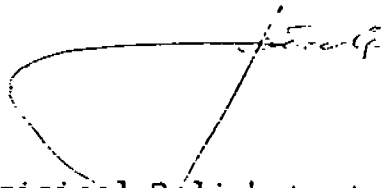
Ref : Compensation of plays in wing-to-fuselage connection  
/or middle wing-to-wingtip/ of "JANTAR" sailplanes  
family.

Way of introducing : Obligatory if "excessive" plays defined  
this Bulletin appear.

Elaborated in PDPS-TKS  
on 1987-10-12

Director of PDPS "PZL-Bielsko"

J.Cieśla, B. Sc.



This is the translation of original Polish text approved  
by C.A.C.A.

Translated by  
W.Stafiej, D. Sc.

1. Grounds for introducing this Bulletin.  
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The ball articulations in wing-to-fuselage connection /or middle wing-to-wingtip/ are exposed during the operation to the changing loadings which result the pressing /or lapping/ the contact surfaces.

As a consequence in the above mentioned connections the "excessive" plays may appear resulting the change of rigging slots between the wing and fuselage /middle wing and wingtip/ when the wingtip is loaded with a static force.

This Bulletin allows for compensation of the above plays by means of special washers fixed to the root ribs on the pivot side.

2. List of sailplanes covered with this Bulletin.  
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This Bulletin covers all the sailplanes of "Jantar" family i.e. :

SZD-37X, SZD-37, SZD-38, SZD-38A, SZD-41, SZD-41-1, SZD-41A, SZD-41B, SZD-42, SZD-42-1, SZD-42-2, SZD-48, SZD-48-1, SZD-48-3 and SZD-48-3M.

3. Description of changes introduced with this Bulletin.  
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On the places /found by means of measurements/ where the "excessive" plays appear the special compensating washer /one or both sides faced with or without the additional ring washer depending on location and value of a play/ should be fixed by means of screws /or screws for metal sheet/. The way of location the washer in respect to the pivot is shown on Fig.3.

4. List of enclosures.  
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Sketches Fig.1, Fig.2 and Fig.3 are enclosed to this Bulletin.

5. Procedures for compensation of the plays in the concerned connections.  
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5.1. On the rigged sailplane load the wing tip with about  $\pm 10$  daN force reciprocating forwards and backwards parallel to the chord plane. The opposite wing tip should be immobilized. Look for the play variation at the slot between wing and fuselage /middle-wing and wing-tip panels/.

The allowed slot increment on wing-to-fuselage connection should not exceed :

- 2 mm on the aerofoil nose
- 4 mm on the trailing point.

5.2. If the increment exceeds the above values it is necessary to measure the play to find in which points of fitting it becomes the maximum one. On this place the "test" insert made of thin metal sheet /0.2, 0.3 mm/ should be put on the pivot to find the required compensation value.

Make the test rigging to check the inserts for correct thickness /the necessary assembling plays must be obtained !/ and the correct sailplane geometry /the slots between the sailplane components should remain parallel ! It is allowed to compensate one as well as all the fitting points/.

5.3. On the places where the compensation is required /the pivots concerned/ the proper special washer /Fig.1/ should be assembled and if necessary the additional washer added /Fig.2/ so that :

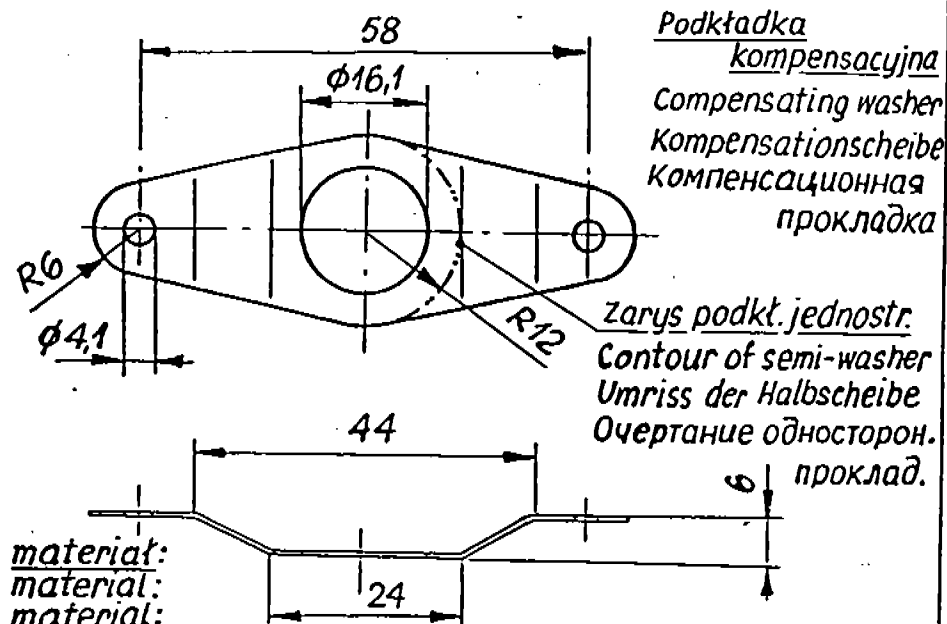
5.3.1. In case of only glass-fibre wall of the proper thickness, the compensating washer should be fixed by means of the screws with washer and nut /Fig.3, version a/.

5.3.2. In case of plywood rib or glass-fibre rib with wooden block the compensating washer should be fixed by means of screws for metal-sheet /Fig.3, version b/.

6. Final statements  
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The compensation of the "excessive" plays described in this Bulletin performs the user himself /the proper washers can be ordered in producer's factory or made on the base of enclosed sketches/. The completed compensation shall be noticed in the Saliplane Log Book, chapter "Maintenance Works" and accepted by the Authority.

- THE END -



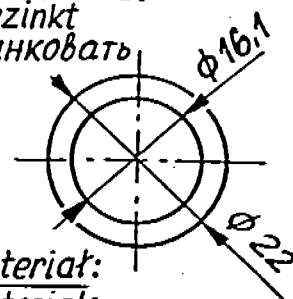
material:  
material:  
material:  
материал:

blacha, metal-sheet, Blech,  
пластинка:  $\pm 0,6$  mm  
w gat., sort, Sorte, сорт (20-N)

Fig.1.

cynkować  
zinc covered  
gezinkt  
цинковать

cynkować  
zinc covered  
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цинковать

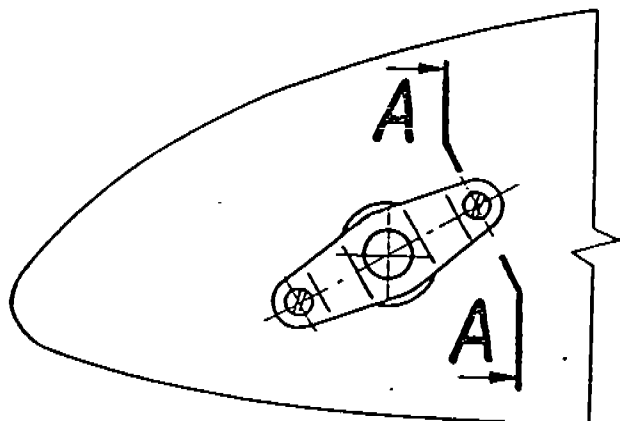


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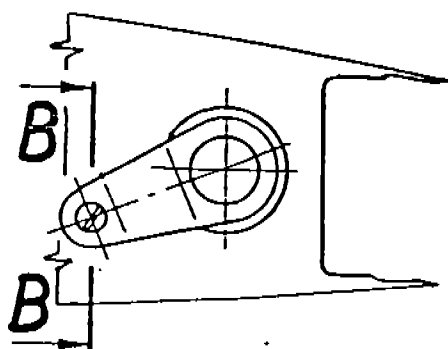
blacha, metal-sheet, Blech,  
пластинка:  $\pm 0,2; 0,4; 0,6$  mm.  
w gat., sort, Sorte, сорт (20-N)

Podkładka okrągła  
Round washer  
Rundscheibe  
Круглая шайба

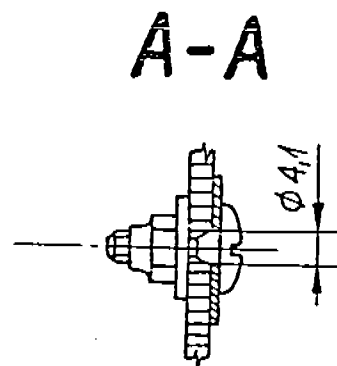
Fig.2.



"a"



"b"



B-B

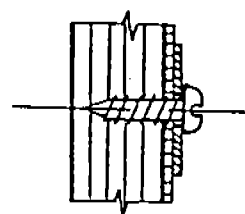


Fig.3.