

Subject: Inspection and stiffening of the rudder nose.

Effectivity: ASW 15, serial numbers 15001 to 15183.

Accomplishment: To April 15<sup>th</sup> 1973.

Reason: Despite the fact that the modification according to Techn. Note N° 3 was properly installed, at the 1973 South African Gliding Championships a rudder jamming was observed. The pilot could manage a successful emergency landing.

The reason for the jamming was a deformation of the rudder nose between the reinforcing ribs per T.N. 3 because of great heat. The deformation was great enough to cause interference between the rudder nose and the shroud of the fin.

Instructions: 1. Inspect the gap between the fin and the rudder to determine if the gap is the size indicated on drawing No. 1.

If the gap is too narrow or a deformation of the rudder nose is found, the rudder nose must be heated with an electric heat-blower. To do this, the rudder must be installed on the fin and fully deflected to the right. The other areas surrounding the deformed area should be protected with wood or foam to prevent the inadvertent deflection of heat and possible damage to these other areas. The hot and therefore deformable nose is bent inward (see drawing No. 2) until the gap is sufficient. After cooling checking is again necessary.

2. The rudder can now be removed from the fin and the reinforcement according to proposal A (poplar or lime tree wood) or proposal B (balsa + FRP) installed according to drawing 150 36/37 Bl. 33. Glue joints must be well prepared and sanded. Afterwards the new parts and the gluejoints must be preserved by a suitable paint.

Now the rudder can again be installed on the fin. Check, if the new nose does not interfere with the spar of the fin at full deflection to the left. Also watch the upper fitting.

Material: Poplar or lime tree wood, or balsa + FRP according to drawing 150 36/37 Bl. 33.

Weight and balance: The modification is neglectable in this point because of its small weight of about 150 grams (1/3 lb.).

Sheet N° 2

Number of sheets: 4

ASW 15

Technical Note

N° 10

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Remarks: The derigging of the rudder is started with the hinge and then the push pull rod is unlinked.

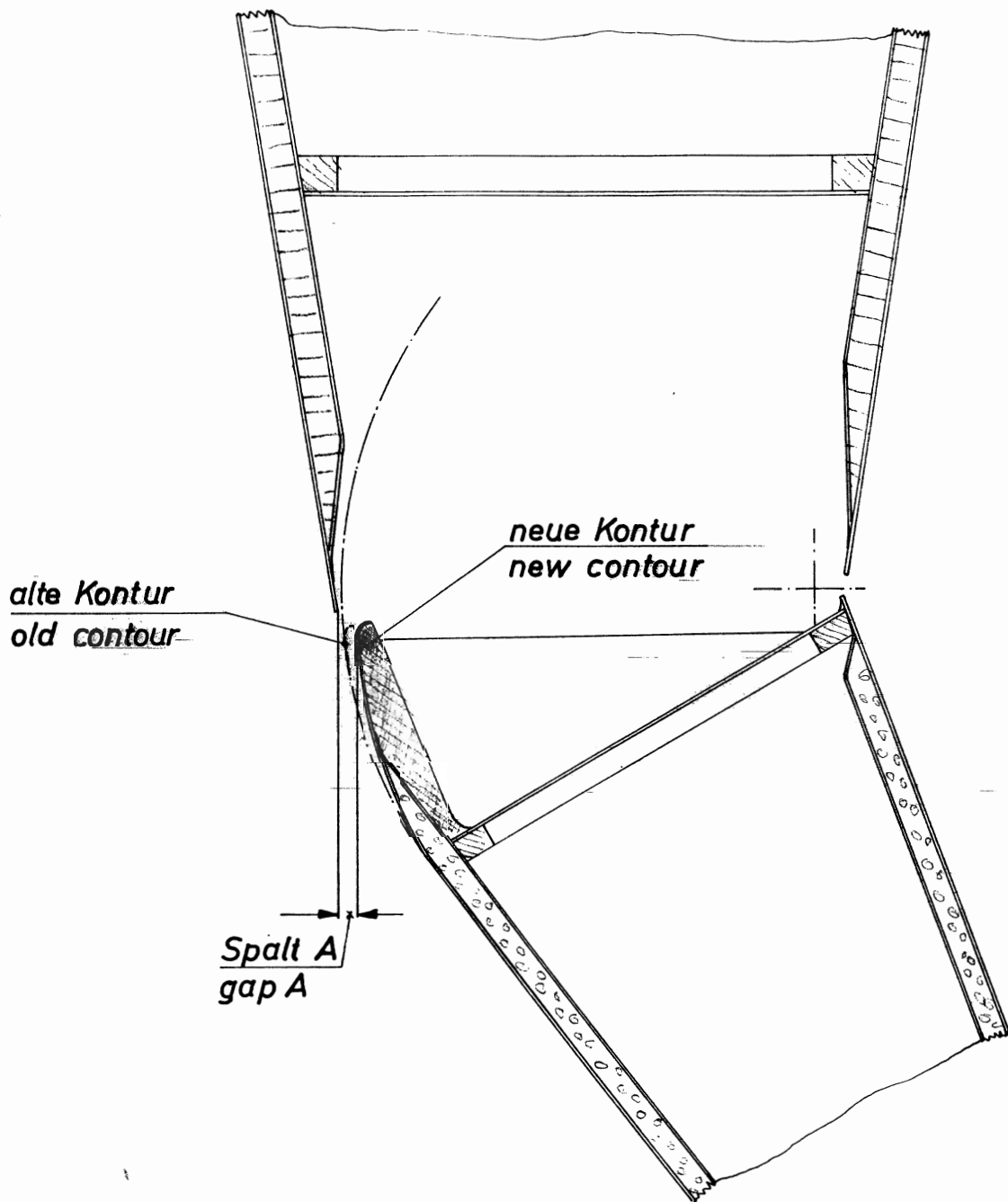
Drawings: Drawing No. 150 36/37 Bl. 33 ist specially made for this T.N. 10. It is available at the Schleicher factory.

Poppenhausen, the 30<sup>th</sup> of January 1973

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Skizze 1 (drawing N° 1)



Spalt "A" hat eine Breite von 2 - 3 mm am unteren Gelenk und verjüngt sich auf  $1 \div 2$  mm am oberen Ende des Seitenleitwerks.

Gap "A" is  $3/32$ " wide on the lower hinge and is tapered to  $1/16$ " width at the upper end of the vertical tail.

Skizze 2 (drawing N° 2)

Holz; Balsaholz  
oder Schaumstoff  
als Wärmeschutz

wood, balsa or  
styrofoam as  
heatprotection

Heiße Luft  
hot air

Holz, Balsa oder Schaum  
wood, balsa or styrofoam

