

Kind : LBA Airworthiness Directive AD-Note no. 78 -

Subject : Safety measures for inspection hole cover in fuselage.

Effectivity : All ASW 20s. serial numbers 20 001 through 20113, except 20111.

Accomplishment : The modifications according to this TN 4a or 4b must be done for the next annual inspection. In the meantime the inspection hole - in accordance with the above AD- Note - must be carefully taped whenever the ASW 20 is operated.

Reason : During a cross country flight with an ASW 20 the inspection hole cover which was not taped was lifted up during a pullup into a strong thermal and was, subsequently, pulled into the fuselage by the attached bungee. There it jammed temporarily the aileron and flap control.

Instructions : TN 4a :  
By means of a plywood ring shield ( P/N 200.11.0127 ) the hole of which is narrower than the smallest width of the inspection hole cover it is prevented that the cover can get into the fuselage.

Prior to glueing in the plywood ring all the glue joints must be well fitted and sanded.  
A mixture of  
100 parts in weight of Epikote 162  
38 parts in weight of Epikure 113,  
thickened by 10 - 15 parts in weight of Aerosil,  
may be used as a glue. However, it may be as well used Aerodux or a two-component epoxy glue ( like UHU-plus )

For the cover itself or the bungee no modification is necessary.  
See drawing on sheet 4 of this TN.

After the installation the plywood ring shield and the sanded areas around it are preserved by paint or epoxy resin.

*This method  
used* →

TN 4b :

According to drawing 200.11.S10 the inspection hole cover belonging to the aircraft is modified such that a stiff steel skeet spring is attached to the rear and a turnlock to the other end.

For that, first, the metal parts are made according to drawings

200.11.0055  
200.11.0056  
200.11.0057.

It is a bit difficult to drill the  $\varnothing$  16 mm hole of the lower part in a line with the conical hole of the upper surface of the cover. It is advisable first to drill a  $\varnothing$  8 mm hole through the whole cover and then to bore the  $\varnothing$  16 mm hole from the lower side and the conical sink from the upper side. The cover must be properly fixed in a stiff drilling machine. The washer ( 1,5 mm thick,  $\varnothing$  16/8 ) is used as a bearing in the FRP.

When assembling the turnlock the nuts are adjusted such that some friction between lock and FRP is produced.

The bungee and the opening pin are removed.

It will be necessary to shape the interior edge of the inspection hole so that spring and lock may move easily. A small carving in the middle ( 1/2 mm deep ) will help to keep the lock in the middle position.

Material : See drawings.

Weight and balance : Influence neglectable.

- Notes :
1. The modification according to TN 4b is effected in the series production as of serial number 20 114.
  2. Modification kits for TN 4a or TN 4b are available at the Schleicher company.
  3. The modifications according to this TN can be done by the owner of the sailplane himself, but subsequently must be approved by an authorized repair station and must be certified in the log book.

4. Even after the modification of the inspection hole cover it should be taped because flight tests experienced much noise and rattle which are felt to be uncomfortable.  
Besides a considerable aerodynamic improvement is noticed by taping this cover.

Drawings :

The following drawings were new made for this TN :

200.11.S10  
200.11.0055  
200.11.0056  
200.11.0057.

Poppenhausen, September 11, 1978

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The German original of this TN is approved by LBA under the date of 20.10.1978 and is signed by Frieß.

In any case of doubt the German text is authoritative.

