Sheet 1 Number of Sheets 2	A S W 1 9 Technical Note No. 2	Alexander Schleicher Segelflugzeugbau 6416 Poppenhausen

Kind — Airworthiness Directive

Subject — Stiffening of rudder surface panels

Effectivity — All ASW 19 gliders with rudder without upper horn type mass balance (S/N 19019 through 19037, 19040 and 19042 through 19044).

Accomplishment — Till December, 1976

Prior to modification, Airworthiness Directive LTA 76 - 258 (max. speed reduced to 230 km/h, 143 mph or 124 knots) must be regarded.

Reason — Oscillations of the rudder control circuit have been noticed at about max. speed on days with very high temperatures.
The airflow passing by the rudder surfaces induced " panel flutter " of the rudder surface panels.

Instructions — According to drawing 190.38.51 with amendment dated 2nd September, 1976, two stringers made of FRP are glued to the inside of the rudder panels.
The rudder is opened at its forward glue joint by use of a metal saw blade between the hinges.
It can now be opened so far that the glue joints for the stringers can be sanded. Remove the Nylon " tear - off - cloth " off the glue - joint area of the prefabricated stringers and glue these to the inside of the rudder using following mixture :
100 parts in weight EPIKOTE 162
38 parts in weight EPIKURE 113
15 parts in weight AEROSIL.
The same mixture is used to glue the saw blade cut together again.
Make provisions (by use of small wood pieces) that the glue gap will be neither narrower nor wider than the saw blade cut.
Prior to rigging of the rudder to the fin the static balance of the rudder (see pages 29 and 34 of the Operations Manual) must be checked. If necessary, the max. allowed value or less must be obtained by sanding off surplus paint at the trailing edge or mass balance has to be increased at the nose.
In any case a careful use of the glue for the stringers is recommended.

Material — Prefabricated FRP - stringers 190.38.0152
and 190.38.0153
from the Schleicher Company.
Glue mixture as mentioned above.

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Weight and Balance

The influence of increase in weight (about 60 grams) to the C. of G. of the whole sailpane is neglectable, whereas the determination of the static balance of the rudder is very important.

Remarks

1. The modification according to this TN can be performed by the manufacturer or an approved repair station.
2. It is possible to ask the manufacturer for a modified rudder in order to keep the time of interruption in use of the sailplane low. For that one has to consult with the manufacturer first.
3. The execution of the modification according to this TN has to be documented in the log book.
4. Airworthiness Directive LTA 76 - 258 is no longer valid after this modification that means the max. allowed speed is 250 km/h again.

Drawings

Drawing 190.38.S1 got an amendment dated 2nd September, 1976

Poppenhausen, 6th September, 1976

ALEXANDER SCHLEICHER
Segelflugzeugbau
Gerhard Waibel
(Gerhard Waibel)

German Original approved by the LBA on 8th September, 1976
signed : F r i e ß