

Type: H301 Libelle, H301B Libelle      Germ. Type Certificate No. 251  
Standard Libelle, Standard Libelle 201 B      Germ. Type Certificate No. 251  
Standard Libelle 203      Germ. Type Certificate No. 251  
Club Libelle 205      Germ. Type Certificate No. 304  
Kestrel      Germ. Type Certificate No. 276  
Glasflügel 604      Germ. Type Certificate No. 281  
BS 1

Subject: Weight and static moment of control surfaces.

Effectivity: All serial numbers of the types listed above.

Compliance: Amendment of manual up to 31.03.1996.

Reason: For certification of the types mentioned above flutter investigation had been done, but neither weight nor static moment of the control surfaces were defined. There is no urgency for immediate action, because until now there is no case of fluttering known for these types.  
Nevertheless in case of repair or repaint the procedure described in the manual amendment must be carried through.

Instructions: The new manual page enclosed must be added to the Flight- and Operations Manual.

Remarks: The manual amendment is to be done by a skilled person and must be supplemented to the list of contents.  
The accomplishment must be signed in the aircraft's log book by a licensed inspector.

This technical note and the manual amendments are available from:

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Grabenstetten, 10.12.95

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LBA approved



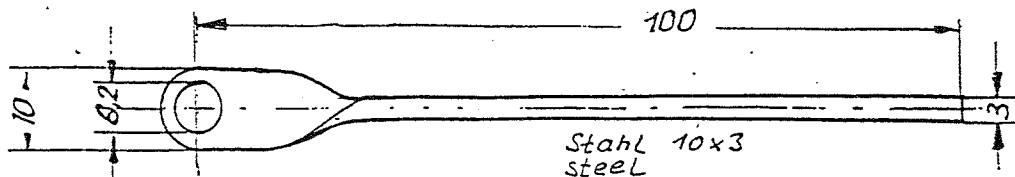
*U. Topp*

10. Jan. 1996

## Evaluation of control surface mass and static moment in case of repair or repaint

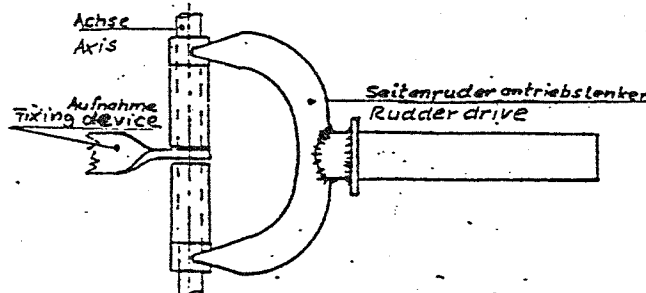
First check whether control surfaces already had been repaired or painted since manufacturing. Then balance control surfaces (rudder possibly including brake chute).

For balancing the static moments two fixing devices with holes  $\phi 6.2$  mm are needed (see sketch).



Choose spanwise position of the devices suspension points in a way that avoids extreme bending of the control surfaces. Then the trailing edge weight is evaluated with a suitable scale at the attachment point which has maximum flap chord. For correct measurement of the static moments make sure horizontal level of flap bearing and trailing edge.

To measure static moment of the rudder the fuselage sided part of the rudder control in the tail must be dismantled. For balancing first attach the rudder drive to the fixing device according to sketch and then fit the rudder.



Now evaluate the weight at the trailing edge with a scale as mentioned above.

When repair and/or paint was done control surface balancing according to this procedure must be repeated. Neither the weight nor the static moments may differ from the original data more than  $\pm 2\%$ !

Each time control surface weight and static moment measurement is done due to repair and/or paint the data must be filled in the table on the next page.



Mass and static moments of the control surfaces:

Control surfaces	Date of repair or repainting	Mass [kg]	Static moment [kg*cm]
Aileron-right			
Aileron-left			
Flap-right			
Flap-left			
Elevator-right			
Elevator-left			
Rudder incl. BC-chamber, without BC			
Aileron-right			
Aileron-left			
Flap-right			
Flap-left			
Elevator-right			
Elevator-left			
Rudder incl. BC-chamber, without BC			
Aileron-right			
Aileron-left			
Flap-right			
Flap-left			
Elevator-right			
Elevator-left			
Rudder incl. BC-chamber, without BC			

BC...Brake Chute