

**Subject:** Position of empty weight C.G.  
**Effectivity:** Sailplane LS1, version f, optional  
**Reason:** Change of empty weight C.G. position by fixing trim weight near tailskid.

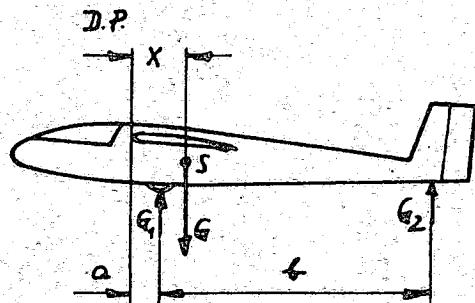
- Instructions:**
1. Weigh C.G. in initial state. Calculate maximum permissible trim weight as suggested under remarks.
  2. Take rudder off, watch sequence of washers at lower bearing.
  3. Trim lead weight and fix weight according to drawing LS1-f ZR-11, Edition 6.8.76.
  4. Mount rudder, watch correct sequence of washers.
  5. Weigh C.G. in new configuration. Be sure that C.G. is within range, check maximum useful load and maximum permissible weight of "non lifting parts".

**Weight and Balance:** Maximum rearward empty weight C.G. position according to LS1-f Flight Manual, page 7, Edition 1.7.74. may in no case be exceeded, as minimum useful load increases.

**Remarks:** Performance should be checked by inspector and signed in logbook and Flight Manual, page 17.

Material may be purchased from maker.

Rough calculation of maximum trim weight  $G_B$  as follows:



$G$  = empty weight  
 $G_B$  = trim weight  
 $Y_{max}$  = maximum permissible rearward C.G. position  
 $a$  = distance of wheel axle from datum point  
 $b$  = distance of wheel axle from load on tail skid

$$(G + G_B) \times (Y_{max} - a) = (G_2 + G_B) \times b$$

$$G_B = \frac{G \cdot (Y_{max} - a) - G_2 \cdot b}{Y_{max} - a - b}$$

Rolladen Schneider OHG 9.8.76  
Sailplane Division

*Günter Lehner*