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Technical Note 10-1/91

Type: Sailplane PHOEBUS  
Version: A1, B1, B2, C, C2  
Applicability: all serial numbers  
Subject: mass balance of the horizontal tail surface

Reason(s): In the maintenance manual under paragraph 2.9. "Inspection for the increase of service time" and under Section 3, horizontal tail, no. 16, it is not explained in which way the required balancing capacity of the mass balance can be checked. This is to be made up for herewith.

Actions: The wording "Check for balancing capacity of 80%" under section 3 no. 16 shall be replaced by:

The balancing capacity is to be checked as follows:

Clamp the pivot cross joint in a vertical position so that the horizontal tail surface is freely turnable about its axis of rotation.

Attach an additional mass of  $m_2 = 615$  g at the thickest point of the balancing weight, i.e. at a distance of  $a = 405$  mm from the axis of rotation.

With the additional mass attached, the balancing weight may no longer move upwards from its horizontal position.

Sufficient mass balance can be achieved by using a longer fixing rod. In this case, however, attention is to be paid to the fact that the additional mass to be attached may be only  $m_2 = 615 \times 405/a$ , with "a" being the new distance of the thickest point of the balancing weight from the axis of rotation.

Special case: For sailplanes certificated in France, a higher mass balance is prescribed. Thus the manufacturer has equipped them with longer fixing rods. For these sailplanes the distance is  $a = 490$  mm and the additional mass to be attached for the mass balance check is  $m_2 = 300$  g. For the rest the check is to be carried out analogously to the procedure for normal Phoebus sailplanes.

Stuttgart, 23.10.1991

signed: Prof. Dr. Richard Eppler

LBA-approved:

The German original of this Technical Note was approved by the LBA on October 06, 1992, and has been signed by Mr. Kopp.

The translation has been accomplished to our best knowledge and judgement. In case of doubt, the German original is authoritative.