Spin Instruction

The glider can be made to enter a spin with in flight c.g. positions of 400 mm and more. With c.g. positions before this point, which is usually the case when flown by two occupants, some ballast must be carried in the tail for spinning. On accomplishment of the Technical Note no.4 ballast up to 12 dan can be carried at the bottom of the fin. This is sufficient for occupant weights of about twice 95 kg.

With spin ballast installed aerobatics are not allowed and the maximum speed $V_{\rm NE}$ is restricted to 200 km/h.

Check prior to take off:

- 1. Spin ballast at the tail removed?
- 2. In case of spin instruction: spin ballast properly fixed ?

ASK 21 - Flight Manual

Calculation of spin ballast

Definitions:

$$G_p = Empty weight$$
 (kp)

$$G_{n}$$
 = Spin ballast at the tail

$$G_{R} = (0.4 - r) =$$

Total

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$$G_B = \frac{\text{above total}}{4.929} = (kp)$$

Please note that all inserted weight data and the empty weight c.g. must be absolutely up to date.

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Example for determining spin ballast:

 $G_{p_1} = 88.2 \text{ kp}$ $G_{p_2} = 79.5 \text{ kp}$

 $G_R = 393 \text{ kp}$ r = 0.737 m

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88,2 • 1,617 = 142,62

79,5 • 0,480 = 38,16 0 • 0,150 = 0

393 • (0,4 - 0,737) 393 • - 0,337= - 132

393 • - 0,337= - 132,4 48,38

 $G_B = \frac{48,38}{4,929} = 9,81 \text{ kg}$

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