Subject: Trim ballast for spin flights (spin ballast)

Serial number applicability: All sailplanes type ASK 21

Compliance: Optional, if this TN has been accomplished, the table “Spin Ballast” must be updated after each weight and balance procedure.

Reason: The sailplane ASK 21 may spin only with in flight C.G. of $r = 400$ mm and more. This TN describes the action to be accomplished in order to do spin training, two-seated, when the spin ballast is fitted.

The ASK 21 may then be used for spin training in order to counteract the fact that uncontrollable flight attitudes (wing dropping, incipient and full spins etc.) constitute a large part of the major accidents.

Action:

Installation
The spin ballast kit must be installed according to drawing L-339.10-S.32 Tr 2 (the same as for TN4). In addition to the details given in the drawing the following resin systems are also permissible: MGS L285 / H285 / H286 / H287 and L335 / H335 / H338 / H340 (curing time 15h at 60°C).

The following Manual pages must be exchanged against / or inserted as new ones with the revision status „TN 4a dated Nov.04“.

Flight Manual
Check Liste / 2 exchange
Page 10c insert
Page 10d request from the manufacturer (see below)
Page 11 exchange
Page 23 exchange
Page 26 exchange
Page 26b insert
Page 34 exchange

Maintenance Manual
Page 32 exchange
Page 34 exchange
Page 40a exchange
Page 46a exchange
Page 53 exchange
Page 56a exchange

Page 32 exchange
Page 34 exchange
Page 40a exchange
Page 46a exchange
Page 53 exchange
Page 59 exchange

Page 36 exchange
Page 38 exchange
Page 43 exchange
Page 49 - 53 exchange
Page 59 exchange

The FAA-approved US-edition of the manuals are different, therefore the following pages must be exchanged against / or inserted as new ones with the revision status „TN 4a dated Nov.06“. They contain the same information.

Flight Manual
Page 7 exchange
Page 14 -16 exchange
Page 21 exchange
Page 34 exchange
Page 34a insert
Page 36 exchange
Page 47a insert
Page 47b request from the manufacturer (see below)
Page 48 exchange

Instructions for Continuing Airworthiness
Page 36 exchange
Page 38 exchange
Page 43 exchange
Page 49 - 53 exchange
Page 59 exchange

The exchange must be documented in the „Amendments Record“ of the manuals.

Cockpit placard
Within the sight of the pilot the following placard must be affixed:

“Attention – Check spin ballast! Only use spin ballast for flights with two pilots!”

Must be either red letters on white ground or white letters on red ground.

One bolt M8 must be fitted into the instrument panel (from the back side) and secured by the flat self-locking nut. This must be located such that the securing nut and washer of the spin ballast - when the spin ballast is removed - can be fixed onto this bolt at the front of the instrument panel and thereby will cover entirely the text of the above placard.
Table Spin Ballast, FM page 10d (US: FM page 47b):
In order to obtain the above page 10d (US: page 47b) from the manufacturer, you have to send us the current weight and balance form and the equipment list. This step must be repeated for each updated weight and balance done.

Material and Drawings:
See drawing L-339.10-S.32 Tr 2 (same as for TN 4), in addition one hexagonal bolt M8x25 DIN 933-8.8 with cross hole for safety pin; and a flat self-locking nut which is used to fix this bolt at the instrument panel.

Mass and C.G.:
A new weight and balance procedure is required.

Notes:
The assembly works can be done by any appropriately licensed aviation repair station. Accomplishment of the required action has to be checked and entered in the sailplane's log, Flight and Maintenance Manual, and in the aircraft's inspection documents by a licensed aviation inspector.

The Manual pages may be exchanged by the owner/operator of the sailplane himself.

Poppenhausen, Nov.25, 2004

Alexander Schleicher
GmbH & Co.

By order
(M. Greiner)

The translation into English has been done by best knowledge and judgment; in any case of doubt the German original is controlling.

The German original of this Technical Note has been approved by the EASA on Dec.10, 2004 under Approval Number 2004-12058, signed by the LBA, signature by order: RONIG.