

GFA AIRWORTHINESS DIRECTIVE

TYPE AFFECTED: Janus C: S/N 87 to 252 and 254 to 267.
Janus CM: S/N 1, 3 to 24 and 26 to 36.
Janus CT: S/N 1 to 6, 8 and 9.

Note: S/N with a stabilizer repair complying with drawing No. HM 05-30.050 are not affected.

SUBJECT: Elevator mass balance.

BACKGROUND: There is a possibility of high speed flutter which leads to severe damage to the tailplane.

DOCUMENTATION: Schempp-Hirth Technical Note No. 295-27, No. 809-15 which herewith becomes part of this AD.

ACTION REQUIRED:

1. Application of a speed limit placard.
2. Installation of mass balance according to TN.
3. Check of elevator deflections.
4. New weight and balance report.
5. Amendment of the Maintenance Manual.
6. Removal of speed limit placard upon accomplishment of actions 2 to 5.

WEIGHT AND BALANCE: Affected. Weighing and a new weight and balance report required.

COMPLIANCE: Action 1 must be performed prior to the next flight. It can be done by the owner / operator and has to be reported in the log book by an inspector rated for annual inspections.

Actions 2 to 6 must be performed by a GFA approved repair station. Exemptions are possible only by arrangement with the CTO(A). Compliance with actions 2 to 6 is mandatory before 31-December 1999.

The requirements of this GFA Airworthiness Directive are mandatory. This Directive is issued pursuant to the Rules and Regulations of the Gliding Federation of Australia.

SIGNED:

T. Geiger

CHIEF TECHNICAL OFFICER AIRWORTHINESS

For and on behalf of:

© THE GLIDING FEDERATION
OF AUSTRALIA

SUBJECT: Horizontal tailplane – elevator mass balance

AFFECTED:

Sailplane model	ATC No.	Affected serial numbers
Janus C	295	87 through 252 254 through 267

Powered sailplane model	ATC No.	Affected serial numbers
Janus CM	809	1, 3 through 24, 26 through 36
Janus CT	809	1 through 6, 8 and 9

Note:

Serial numbers featuring after repair a stabilizer complying with drawing No. HM 05 – 30.050 are not affected

URGENCY:

Action 1:

Prior to next flight

Action 2 and on:

Not later than December 31, 1999

REASON:

High speed flutter causing severe damage to the stabilizer

ACTIONS:

1. Application of a speed limiting placard

$$V_{\max} = 160 \text{ km/h} \text{ or } V_{\max} = 86 \text{ kt} \text{ or } V_{\max} = 99 \text{ mph}$$

to either ASI until accomplishment of action 2 and on.

2. Installation of mass balance on either elevator half pursuant working instructions found in the appendix to this Technical Note.
3. Checking of elevator deflections.
4. Establishment of a weight and balance report incl. load chart because of the tailplane's higher mass.

ACTIONS (ctd):

5. Amendments of the Maintenance Manual
(revised pages dated June 1999)

	Janus C	Janus CM	Janus CT	Title
Page	1 B	2 B	0.1.2	Record of revisions
Page	14	13	2.2.1	Hinge moments and weights
Model „Janus CT“: The list of effective pages is to be amended accordingly !				

6. Removal of speed limiting placard upon accomplishment of actions 2 through 5.

WEIGHT:

The mass of the tailplane is approx. 1.0 kg / 2.2 lb more

CENTER OF GRAVITY:

Slightly further aft

MATERIAL:

- 2 off Mass balance weights, 0.5 kg / 1.1 lb each
as per drawing No. HS 06 – 30.100
- 6 off Roll pins, Ø 2 x 15 (DIN 1481)
Carbon fiber cloth 200 g/m² diagonal 200 x 350 mm
Class fiber cloth No. 92110 diagonal 200 x 350 mm
- 100 g Resin and hardener (suitable for repair)

Supplier:

Schempp-Hirth
Flugzeugbau GmbH.
Krebenstrasse 25
D-73230 Kirchheim /Teck

NOTE:

Action 1 may be accomplished by the owner / operator or a skilled person and must be entered in the log book by a licensed inspector.

Action 2 and on must be accomplished by a certified repair station.

Kirchheim/Teck, June 30, 1999

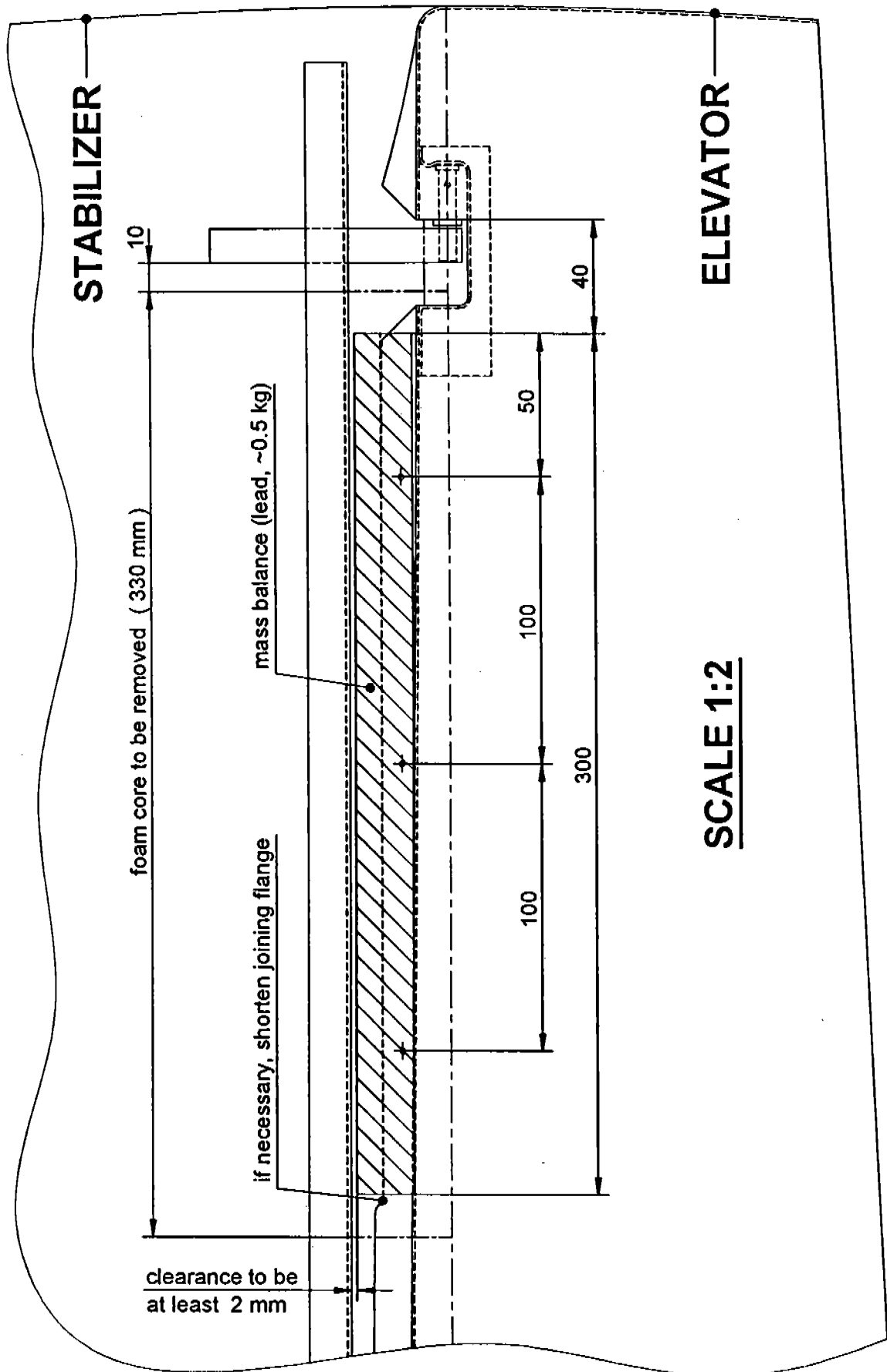
Issued:
(H. Treiber)

LBA-approved:

The German original of this Technical Note has been approved by the LBA under the date of
and is signed by Mr.
The translation into English has been done by best knowledge and judgement.

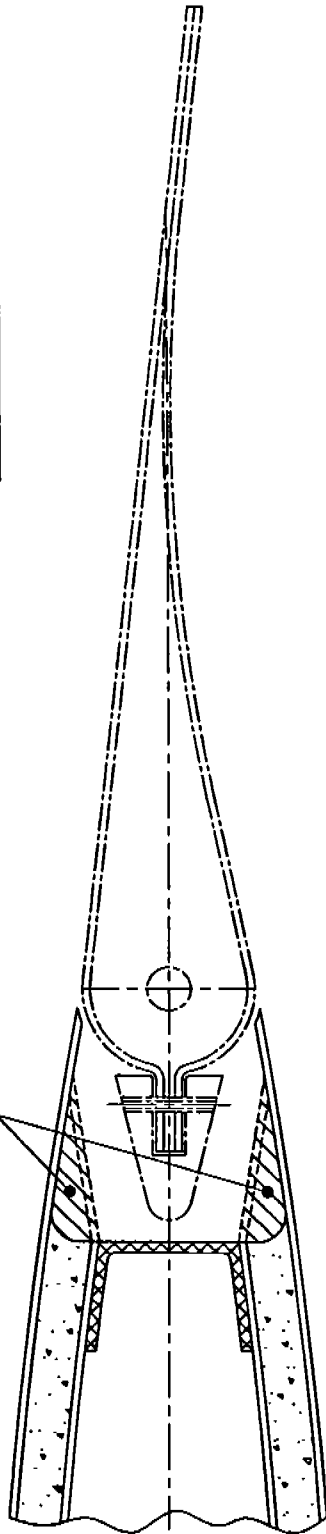
WORKING INSTRUCTIONS FOR INSTALLING ELEVATOR MASS BALANCE

1. Remove elevator halves.
2. Stabilizer
 - a) Remove glass cloth and foam core from shroud up to the web
- see also page 02 and 03.
 - b) Reinforce shroud and web by applying additional carbon/glass cloth layers – see page 03.
3. Mass balance
 - a) Fit mass balance weight to elevator halves; make sure that there is a clearance of at least 2 mm between lead and web – see page 02 and 03.
If necessary, shorten elevator joining flange ahead of the hinge.
 - b) Bond mass balance weight in place and install roll pins.
 - c) Check elevator for free travel and determine residual moment (revised values shown in the Maintenance Manual).
If required, fit and install further mass balance (inwards) as described above – for gaining more space follow step 2.) if necessary.
 - d) Check once more elevator for sufficient travel – if necessary, grind off balancing lead.
 - e) Determine residual moment and mass of elevator halves.
4. Reinstall elevator halves.
5. Check elevator for free travel and proper deflections within the permitted range.



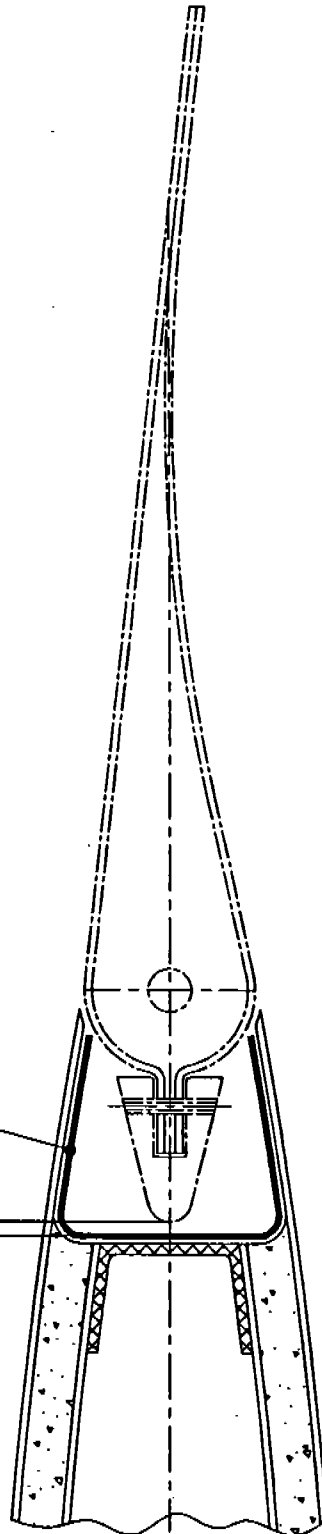
SCALE 1:1

glass cloth and foam
to be removed



reinforcement
1xCF200g/m² ✕ +1x92110✕

clearance at least 2 mm



32

4

mass balance
(~0.5 kg lead)

roll pin Ø2x14 (DIN 1481) - grind flush

