



GFA AD 535
(ISSUE 2)

GFA AIRWORTHINESS DIRECTIVE

ISSUE 2 of this AD corrects an administrative error relating to TYPE AFFECTED.

The serial number ranges were inadvertently transposed: ie Discus Serial no.s were applied to Ventus & vice versa. The rest of the AD remains unchanged.

- TYPE AFFECTED:** Discus bT serial numbers 120 to 160.
Ventus cT serial numbers 161 to 185
- SUBJECT:** Cracking of engine mounting pylon.
- BACKGROUND:** Cracks were found in the engine pylons of some aircraft within the groups of serial numbers listed above. Cracked pylons must be replaced or repaired.
- DOCUMENTATION:** Schempp-Hirth Technical Note 863-6 (Discus bT), Schempp-Hirth Technical Note 825-23 (Ventus cT) and LBA AD 2000-074 form part of this AD.
- ACTION REQUIRED:** As per attached Schempp-Hirth and LBA documents
- WEIGHT AND BALANCE:** Not affected.
- IMPLEMENTATION:** As per attached Schempp-Hirth and LBA documents.
- COMPLIANCE:** 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:

CHIEF TECHNICAL OFFICER AIRWORTHINESS



For and on behalf of:

THE GLIDING FEDERATION
OF AUSTRALIA



**Airworthiness
Directive
2000-074**

Luftfahrt-Bundesamt
Airworthiness Directive Section
Hermann-Blenk-Str. 26
38108 Braunschweig
Federal Republic of Germany

Schempp-Hirth

Effective Date: March 09, 2000

Affected:

Kind of aeronautical product:	Powered Sailplane
Manufacturer:	Schempp-Hirth, Kirchheim/Teck, Germany
Type:	Ventus-cT and Discus-bT
Models affected:	Ventus-cT and Discus-bT
Serial numbers affected:	Ventus-cT - S/N 161 up to 185; Discus-bT - S/N 120 up to 160
German Type Certificate No.:	825 and 863

Subject:

Engine mount - Cracks in the engine mount structure

Reason:

Cracks were found in the steel tubes of the engine mounting near the welding seams. The material used within a certain period was not sufficiently resistant against this vibration loads.

Action:

1. Inspect the steel tubes next to the welding seams of the lower engine mount for cracks. If cracks were found, the engine mount must be removed and returned to the manufacturer.
2. Replace the engine mount.

The actions must be done in accordance with the Technical Notes of the manufacturer.

Compliance:

Action 1 must be done before each flight.
Action 2 must be done on December 31, 2000 at latest.

Technical publication of the manufacturer:

Schempp-Hirth Technical Note No. 825-23 / 863-6 dated January 11, 2000 which becomes herewith part of this AD and may be obtained from Messrs.:

Schempp-Hirth
Flugzeugbau GmbH
Postfach 14 43

D- 73222 Kirchheim / Teck
Federal Republic of Germany
Phone: ++ 49 7021 7298-0
Fax: ++ 49 7021 7298-199

Accomplishment and log book entry:

Action to be accomplished by an approved service station and to be checked and entered in the log book by a licensed inspector.

Holders of affected aircraft registered in Germany have to observe the following:

As a result of the a.m. deficiencies, the airworthiness of the aircraft is affected to such an extent that after the expiry of the a.m. dates the aircraft may be operated only after proper accomplishment of the prescribed actions. In the interest of aviation safety outweighing the interest of the receiver in a postponement of the prescribed actions, the immediate compliance with this AD is to be directed

Instructions about Available Legal Remedies:

An appeal to this notice may be raised within a period of one month following notification. Appeals must be submitted in writing or registered at the Luftfahrt-Bundesamt, Hermann-Blenk-Str. 26, 38108 Braunschweig.

Enquiries regarding this Airworthiness Directive should be referred to Mr. Olaf Schneider, Airworthiness Directive Section at the above address,
fax-no. 0049 531/2355-720. Please note, that in case of any difficulty, reference should be made to the German issue!

SUBJECT: Engine mounting structure (pylon)

AFFECTED:

- Powered sailplane model Ventus-cT (ATC No. 825)
- S/N 161 through 185 –
- Powered sailplane model Discus-bT (ATC No. 863)
-S/N 120 through 160 -

URGENCY:

Action 1: Prior to each flight

Action 2: At the latest on December 31, 2000

REASON:

On some pylons cracks in the steel tubes next to welding seams were found - the material used within a certain period was not sufficiently resistant against vibrational loads. Such pylons must therefore be replaced or repaired.

ACTIONS:

1. Pylon inspection:

Check pylon tubes at the welding seams of the lower engine mount for cracks
- see also photographs enclosed.
If damage (cracking) is found, the pylon must be removed and returned to the manufacturer.

Note:

Attention is to be paid to the visual check
„Daily Inspection“ shown in the Flight Manual.

<u>Model</u>	<u>Page No.</u>	<u>Item to be checked</u>
Ventus-cT	32	4e)
Discus-bT	4.3.3	4f)

ACTIONS:

(ctd.)

2. Replacing the pylon

The pylon is to be replaced in accordance with the working instruction found on page 3 of the appendix to this TN.

WEIGHT:

Not affected

C/G POSITION:

Not affected

MATERIAL:

Refer to drawings

NOTE:

a) Action 1 may be accomplished by an experienced person.

b) Action 2 (engine mount / power plant installation)
to be accomplished by an approved service station and
to be checked and entered in the log book by a licensed
inspector.

Kirchheim/Teck, January 11, 2000

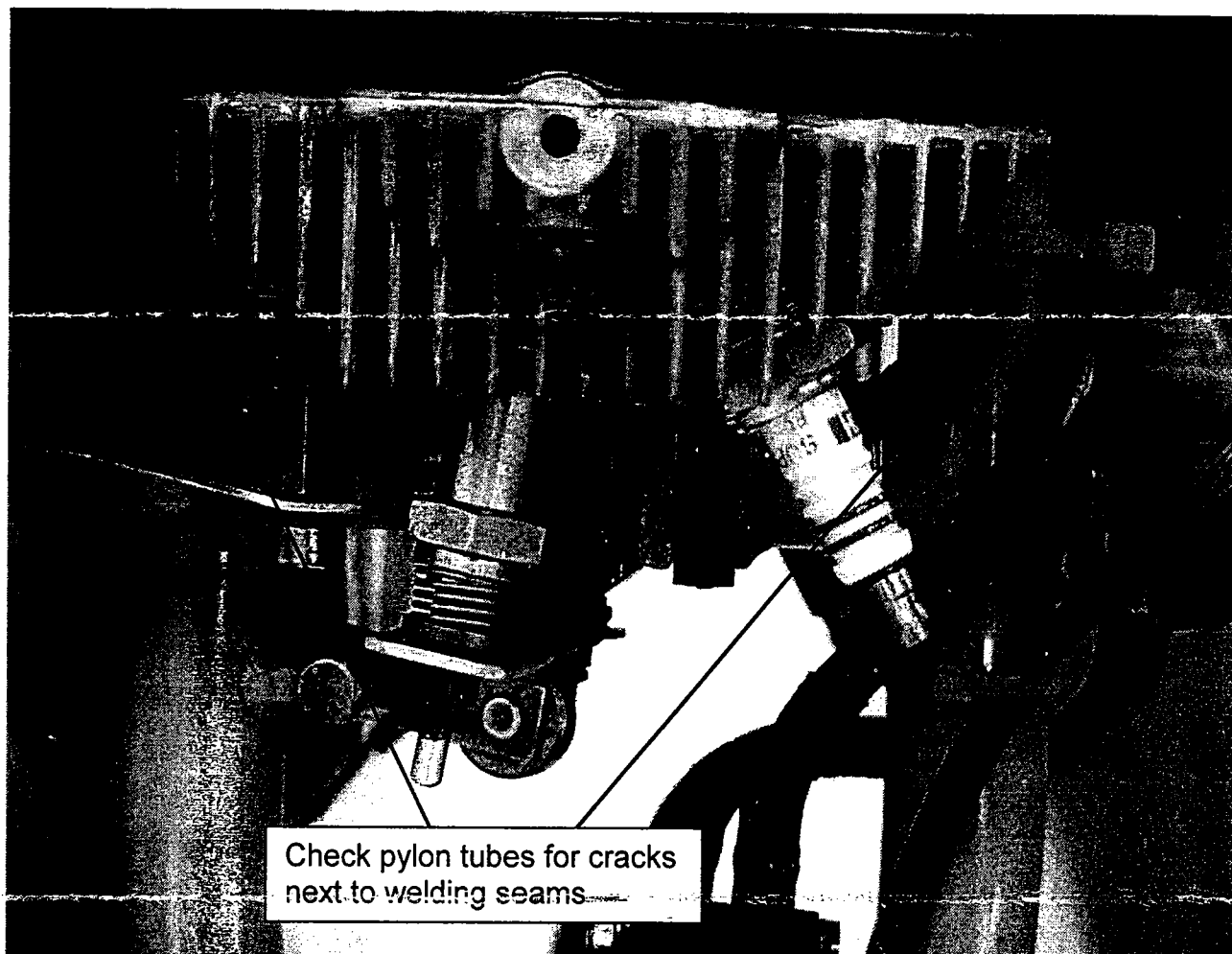
Issued:


(H. Treiber)

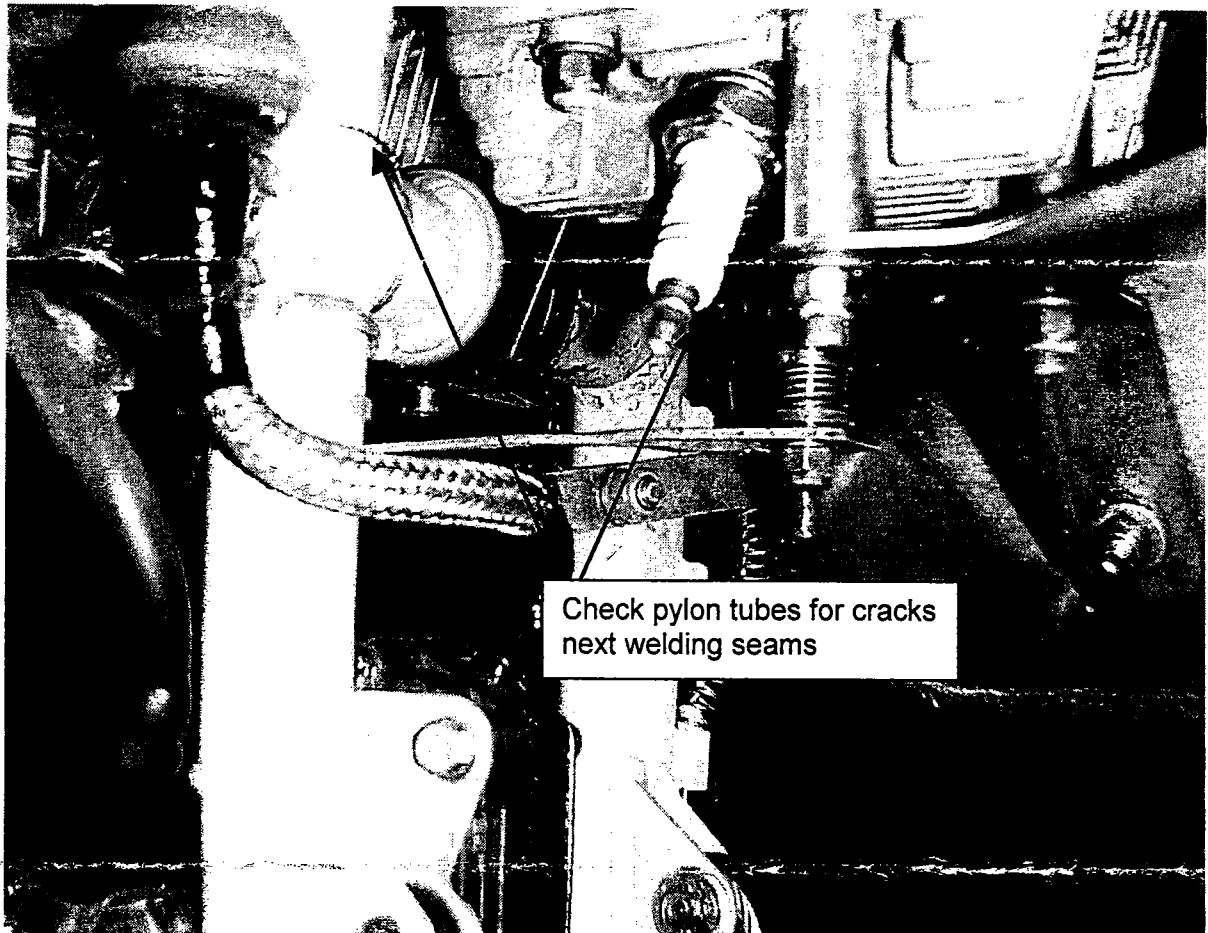
LBA-approved:

The German original of this Technical Note
has been approved by the LBA under the
date of 20 JAN. 2000
and is signed by. Mr. Fendt
The translation into English has been done
by best knowledge und judgement.

front view of pylon



rear view of pylon



Removal of the pylon

1. Remove power plant unit (engine with prop) in accordance with the relevant information of the Maintenance Manual:
Ventus cT, page 28
Discus bT, page 5.11
2. Disconnect cable actuating the de-compression valves at the lever on the pylon - soldering the cable strands prior to removal is recommended.
3. Remove diaphragm pump from engine mount
4. Disconnect upper end of telescoping spindle as given in the Maintenance Manual
Ventus-cT, page 31B (found in the appendix to this TN))
Discus-bT, page 5.6
5. Remove gas strut as given in the Maintenance Manual
Ventus cT, page 31C (found in the appendix to this TN)
Discus bT, page 5.7
6. Disconnect cable actuating the engine doors from pylon
7. Disconnect engine arresting wire from pylon
8. Measure depth of set screw on limit switch „extended“ and remove set screw.
9. Remove bolts attaching the pylon to the pivoting shaft

Installation of the pylon

Reverse preceding steps for re-installation.

Install power plant in accordance with the Maintenance Manual

Ventus cT, page 28A, 28B
Discus bT, page 5.12.1, 5.12.2.

3.13

Replacing the electrical spindle drive

- a) Remove front door on the port side of the engine compartment (by removing the hinge pin with the aid of a screw driver).
- b) Remove cotter pin from mounting bolt on the upper end of the spindle and turn out bolt.
- c) Disconnect wiring of spindle drive (tag wires for reference on reinstallation).
- d) Remove lower spindle mounting bolt (M8) and remove unit.

Reverse preceding steps when reinstalling the spindle drive.

Should it become necessary to re-adjust the pylon limit switches, refer to section 3.16.

IMPORTANT NOTE:

Should the spindle fail to extend due to a defect, then the upper bolt, connecting the spindle to the pylon, must be removed.

As this bolt cannot be withdrawn far enough, a small hole with a diameter of the bolt's head must be drilled through the wall of the engine compartment on its port side. This opening may remain open.

3.14 Replacing the pylon gas strut

1. Removal

- a) Remove cotter pin from bolt on upper end of gas strut, remove retaining clip from lower strut end.
- b) Slip special gas strut mounting tool onto upper gas strut end and retract power plant until the tool's lower end can be inserted into the groove for the retaining clip on the lower strut end.
- c) Push socket on gas strut end inwards and off the coupling ball with the aid of the special tool.
- d) Remove upper gas strut mounting bolt and take out strut.

2. Installation

- a) Extend power plant almost fully and bolt upper end of gas strut to engine pylon.
- b) Let rod socket rest against the bottom of the engine bay near engine stop block and
- c) Retract power plant until special gas strut mounting tool can be slipped onto both ends of gas strut.
- d) Extend power plant until the rod socket can be pressed onto the coupling ball at the bottom of the engine bay - then carefully remove the tool.
- e) Secure upper gas strut mounting bolt with a cotter pin and lower ball/socket connection with a retaining clip.

Sketch for manufacturing "special tool"

