



GFA AIRWORTHINESS DIRECTIVE

TYPE AFFECTED: Glasfluegel Kestrel, all serial numbers.

SUBJECT: Airbrake actuating shaft.

BACKGROUND: Deformation and cracking of the airbrake actuating shaft have been found, caused by the locking forces of the airbrake control.

DOCUMENTATION: Luftfahrt-Bundesamt (LBA) Airworthiness Directive No 2002-051 and Streifeneder Technical Note No 401-26 form part of this AD.

ACTION REQUIRED:

Action 1: Visually inspect the area of the weld between the actuating lever and the torsion shaft. To be carried out **before further flight**. If no cracking or deformation are detected, the aircraft may be returned to service.

Action 2: Insert page into flight manual requiring the above visual inspection to be carried out at each annual inspection. The manual amendment is to be carried out **before 31 March 2002**.

Action 3: If cracking or deformation is found as a result of Action 1, the aircraft **must not be flown** until a repair is carried out.

NOTES:

1. All actions are to be carried out in accordance with Streifeneder Technical Note No 401-26.
2. If welding is required, it must be carried out in accordance with Section 6.11 of the Manual of Standard Procedures Part 3.

WEIGHT AND BALANCE: Not affected.

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:

SENIOR TECHNICAL OFFICER AIRWORTHINESS

For and on behalf of:

THE GLIDING FEDERATION
OF AUSTRALIA



**Airworthiness
Directive
2002-051**

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

Glasflügel

Effective Date: March 07, 2002

Affected:

Kind of aeronautical product:	Sailplane
Manufacturer:	Streifeneder, Grabenstetten, Germany
Type:	Kestrel
Models affected:	Kestrel
Serial numbers affected:	all
German Type Certificate No.:	276

Subject:

Flight Controls - airbrakes actuation shaft

Reason:

Deformation and cracks caused by incorrect locking forces of the airbrake control

Action / Compliance:

1. Visually check the area of the welding seam between actuation lever and torsion shaft: before next flight.
2. Insert page into the flight manual (repeat the visually check at each annual inspection): until March 31, 2002
3. If damage is found during inspection of action 1. or 3. the effected assembly must repaired before the next flight

The actions must be done in accordance with the instructions of the manufacturers Service Bulletin.

Technical publication of the manufacturer:

Streifeneder Technical Note No. 401-26 dated November 22, 2001 which becomes herewith part of this AD can be obtained from Messrs.:

Hansjörg Streifeneder
Glasfaser-Flugzeug-Service GmbH
Hofener Weg
D-72582 Grabenstetten / Germany

Phone: ++ 49 7382 / 1032

Fax: ++ 49 7382 / 1629

e-mail: streifly@aol.com

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

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

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.

An appeal to this notice may be raised within a period of one month following notification. Appeals are to be raised with the Luftfahrt-Bundesamt, Hermann-Blenk-Str. 26, 38108 Braunschweig, in writing or for the purpose of drawing up minutes.

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: Airbrakes actuation shaft

Affected: Kestrel

Accom-

plishment:

1. Prior to next flight
2. Insertion to handbook pg. 27d until March 31, 2002
3. Check at every annual inspection
4. In case of visible deformation or cracks, repair according to added instruction

Reason:
shaft

Deformation and cracks caused by incorrect locking forces of the airbrake control

Action

1. Visually check the area of the welding seam between actuation lever and torsion shaft
2. Insert page 27d into the flight manual
3. Visually check the area mentioned in step 1 at each annual inspection
4. If damage is found during completion of step 1 or 3, the airbrake actuation shaft must be immediately removed. The welding seam area must be thoroughly cleaned and all paint removed. In case of visible deformation, the actuation lever must be heated and returned to the original position. Visible cracks may only be welded by a licensed aircraft welder within a licensed and appropriately equipped aircraft maintenance organisation. Afterwards no. 4 must be properly welded in accordance with drawing no. 401-56-3-1.
Welding joints must be done with the WIG-inert protective atmosphere welding system with welding material 1.7734.2. Finally the actuation shaft must be finished with primer and paint RAL 7003. After assembly, you must check that both airbrakes are completely locked and past the over center. This can be done by visually inspection through the hole in the root rib both airbrake actuators must be positioned against their stops.
At the same time the airbrake handle should be in the detent. The force needed to lock and unlock the spoilers should not be more than 20 daN (44lb). If the forces are too high, the length of the control rod in the fuselage may need to be adjusted.

Material: See drawing no. 401-56-3-1

Weight and
balance:

not affected

Remarks:

Correct accomplishment of all steps must be checked and certified in the aircraft logbook together with the aircraft's total flight time by a licensed inspector. Welding material and handbook insert pg. 27d are available from:

Hansjörg Streifeneder
Glasfaser-Flugzeug-Service GmbH
Hofener Weg
D-72582 Grabenstetten
Telefon 07382 / 1032 Fax 07382 / 1629
e-mail: streifly@aol.com

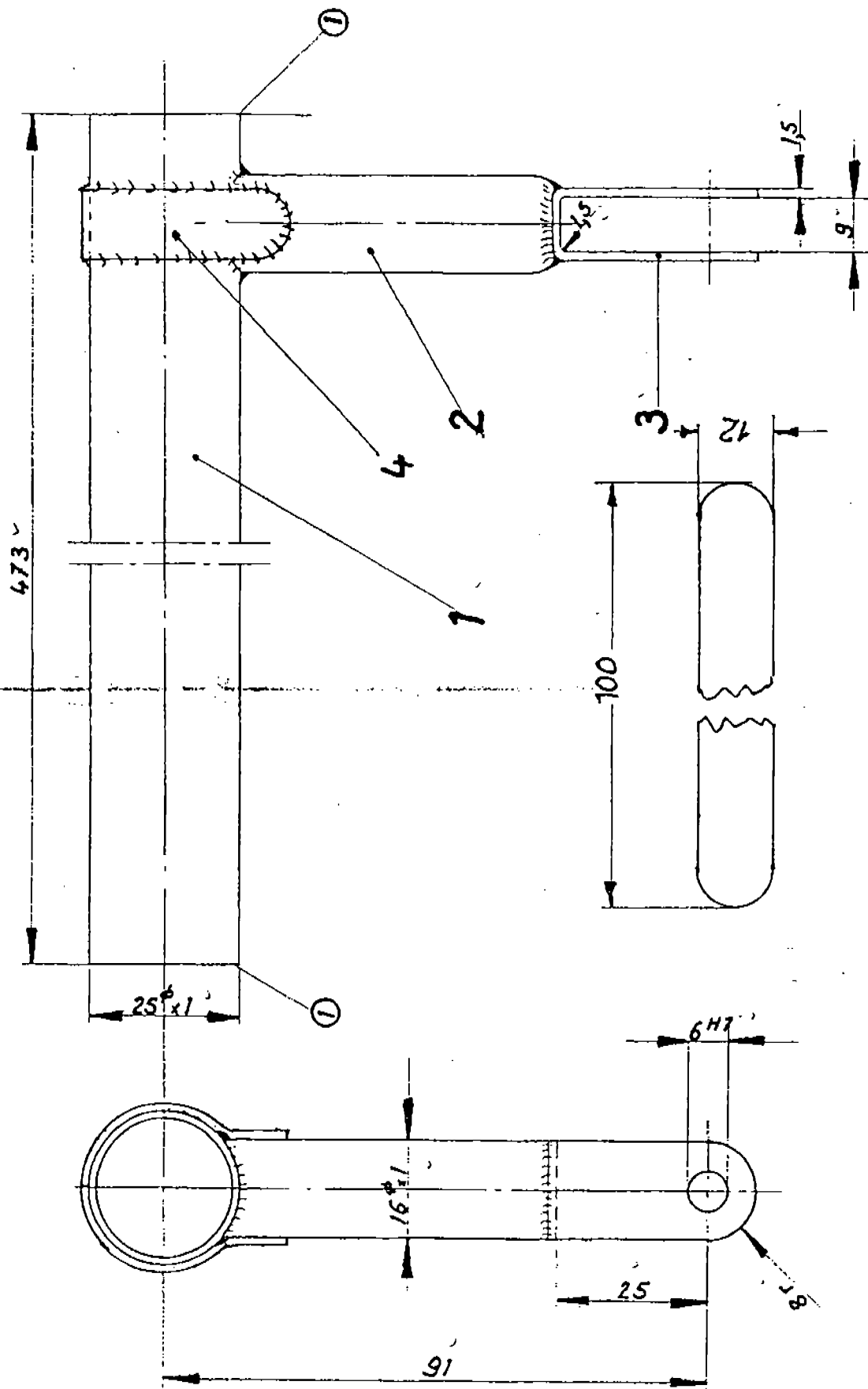
Grabenstetten, den 22.11.2001

Fa. Glasfaser-Flugzeug-Service GmbH

H. Streifeneder
Hansjörg Streifeneder

The German original of this technical note has been approved by the Luftfahrt Bundesamt under the date of 19. DEZ. 2001 and is signed by H. Kopp
The translation into English has been done by best knowledge and judgement.

At every annual inspection, check the welding joint area of the airbreak actuation lever on the torsion tube according to TN 401-26.



		all dimensions in mm	
4 (1x) Strengthening	4 (1x) Verstärkung	1.7734.4	12x1x100
3 (1x) U-shaped metal piece	3 (1x) U-Blech	1.7214.4	16x15x75
2 (1x) tube	2 (1x) Rohr	1.7214.9	16x1x56
1 (1x) tube	1 (1x) Rohr	St 35.BK	25x1x473

① Steckhülsen nicht dargestellt connector not shown



1:1

BK - Antriebswelle
 Air brake actuating shaft

401-56-3-1

4.2.1971

Hammel

SUMMARY OF TECHNICAL NOTES AND LBA-AIRWORTHINESS DIRECTIVES

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Model: Kestrel					Type Certificate No.: 276
LBA-AD-No. Date	TN-No. Date	affected: variants serial Nos. (S/N) part-Nos. (P/N)	Subject	Urgency	
	401-1 13.10.70	Standard on S/N 28 and up	Hard core foam in wing shell instead of balsa wood: See drawing No. 401-50-2	improvement in construction	
	401-2 02.09.70	Standard on S/N 25 and up	Airbrakes on lower wing surface omitted, brakes on upper wing surface enlarged: See drawing No. 401-56-17; 201-56-35	improvement in construction	
	401-3 13.10.70	Standard on S/N 33 and up	Aileron construction without balsa wood: See drawing No. 401-54-11; 201-54-2	improvement in construction	
	401-4 13.10.70	S/N 22 through 25	Improved canopy lock (by claws): See drawing No. 401-14-1	easier locking	
	401-5 04.09.70	Standard on S/N 26 and up	Tilt-up canopy (center section) with bolt- on GRFP aft section: See drawing No. 401-14-10	easier handling improved fit	
	401-6 04.09.70	Standard on S/N 26 and up	Fuselage/wing fillets: See Drawing No. 401-48-4	aerodynamic improvement	
	401-7 02.09.70	Standard on S/N 26 and up	Aft GRFP canopy section	improved roll rate	
	401-8 13.10.70	Standard on S/N 28 and up	Aileron/flap superimposing linkage: See Drawing No. 401-47-9; 401-48-75 and rigging data 401-1-5	improved aero- dynamics, better stick force characteristics	
	401-9 18.10.70	Standard on S/N 28 and up	Improved airfoil section for horizontal tailplane, anti-flettner tab, trim spring: See drawing No. 401-48-89; 401-33-7	improvement in construction	
			Hard core foam in stabilizer instead of balsa wood, elevator halves constructed as pure GRFP lay-up: See drawing No. 401-33-20; 401-33-21		

SUMMARY OF TECHNICAL NOTES AND LBA-AIRWORTHINESS DIRECTIVES

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Model: Kestrel		Type Certificate No.: 276			
LBA-AD-No. Date	TN-No. Date	affected: variants serial Nos. (S/N) part-Nos. (P/N)	Subject	Urgency	
74-323/4 12.11.74	401-10 26.11.74	All S/N	1) Inspection of rudder cables in the area of the S-shaped guides on the rudder pedals 2) Replacement if damage is discovered	After every 100 h and on the occasion of the annual survey	
	401-11 12.02.74	All S/N regist. ... in the FRG	Anti collision markings - various colour variations. Supersedes TN No. 401-11 dated 01.05.1971 allowing one colour only.	01.07.1971	
	401-12 29.02.72		Different glass cloth for shear web: See drawing No. 401-52-5, Note 1 for alterations	Improvement in construction	
	401-14 06.02.75	Standard on S/N 101 and up	Reinforced spar stubs and reinforced stub fittings	Max. weight of nonlifting parts increased from 239kg to 250kg	
79-233	401-15 28.08.74	Standard on S/N 96 and up	Modification of the torque tube actuating the airbrakes: See drawing No. 401-52-5	Smoother control	
	401-16 20.02.79	S/N 25 and up	Airbrake actuating system inside the wing	Exchange of the rod ends until 15.06.1979	
88-266	401-17 29.07.81	All S/N	Increase of the service time	Prior to reaching 3000 h, at latest until 31.03.1982	
84-11	401-18 09.01.84	All S/N	Venting of water ballast bags	Amendment of the flight manual on page 14	
86-221	401-19	All S/N	Rudder yoke	Replacement of the yoke latest 31.03.1987	

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Model: Kestrel		Type Certificate No.: 276			
LBA-AD-No. Date	TN-No. Date	affected: variants serial Nos. (S/N) part-Nos. (P/N)	Subject	Urgency	
87-83	401-20 24.03.87	All S/N	Rudder control cables	Replacement after 500 h Use of a bracket as per drawing No. 301-33-4 permissible	
	401-21 26.0490		Elevator actuating bracket		
	401-22 09.05.90		Tow releases: Use of model "E 85" as substitute for model "E 72/E 75" permissible		
96-133	401-24	All S/N	Laminat on spar tip metal fitting	every anual insp. 31.03.1996 Visual check prior to the next flight	
	401-25	All S/N	Control surface weight and static balance		
	401-26	All S/N	Modification of the torque tube-operating Lever actuating the airbrakes		
96-139					