



**GFA AD-627**  
(ISSUE 1)

**GFA AIRWORTHINESS DIRECTIVE**

**TYPE AFFECTED:** Nimbus-2C. Serial No's.166, 177 through 181, 185 through 236.  
Mini Nimbus-HS7, Mini Nimbus B & C, All Serial No's.

**SUBJECT:** Failure of flap drive mechanism in fuselage.

**BACKGROUND:** During a Daily Inspection of a Mini Nimbus C a failure in the flap actuating mechanism was found. Subsequent investigation showed that the torsion drive lever had failed at the weld joint. The same system is employed in the Nimbus-2 C and Mini Nimbus.

**DOCUMENTATION:** The LBA has issued AD-2005-239. Schempp-Hirth has issued Technical Note No. 286-35/328-13, and an Appendix to that TN which includes drawing HS5-10.065/3 for the Nimbus-2C, and drawing HS7-10.083/1. for the Mini Nimbus. These documents are attached to and form part of this AD.

**ACTION REQUIRED:** Carry out reinforcement of the Flap Torsional Drive in accordance with Technical Note No 286-35/328-13 and its Appendix.

**MATERIAL:** Steel plate to German Spec 1.7734.4. Steel type ASTM 4130 0.4" thick may be substituted. If you have difficulty obtaining this material please contact the GFA for assistance.

**WEIGHT AND BALANCE:** Nil effect

**IMPLEMENTATION:** At the next Form 2 Inspection but not later than 31 December 2005. This work must be carried out by a person holding a CASA welding authority, or approved by the GFA in writing.

**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:

*John G. Vorey*  
SENIOR TECHNICAL OFFICER AIRWORTHINESS



For and on behalf of:

THE GLIDING FEDERATION  
OF AUSTRALIA

**SUBJECT:** Flap drive mechanism in the fuselage

**AFFECTED:** **Sailplane (TC-No. 286)**

Variant: Nimbus-2C, Serial Nos: 166, 177 through 181 and 185 through 236

**Sailplanes (TC-No. 328)**

Model: Mini Nimbus-HS7, all serial numbers

Variants: Mini Nimbus B, all serial numbers  
 Mini Nimbus C, all serial numbers

**URGENCY:** At the occasion of the next annual inspection but not later than December 31, 2005

**REASON:** During the daily check after assembling a Mini Nimbus C a failure in the flap actuating circuit was found.  
 An investigation showed that the lever at the torsional drive in the fuselage failed at the weld.  
 Because of the equal design of the torsional drive the sailplane Nimbus-2C is affected too.

**ACTIONS:** The reinforcement of the flap drive is accomplished in accordance with the following drawing and with the appendix to the Technical Note.

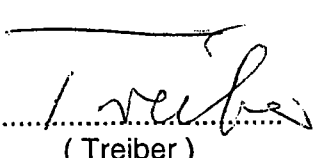
Type series	Drawing No.	Title
Nimbus-2C	10.065/3	Reinforcement flap drive
Mini Nimbus HS7 Mini Nimbus B mini Nimbus C	HS7 - 10.083/1	Reinforcement flap drive

**MATERIAL:** See drawing No. 10.065/3 resp. HS7 - 10.083/1

**WEIGHT:** No alteration  
**C/G POSITION:** No alteration

**REMARK:** The action must be accomplished by a certified repair station and entered in the log book.

Kirchheim/Teck, 24.06.2005

Issued:   
 (Treiber)

**LBA-approved:**

The German original has been approved by the LBA under the date of **29 JUN 2005** and is signed of by Mr.

**Blume**  
 The translation into English has been done by best knowledge and judgment.

**EASA approved on:**

**1. July 2005**  
 under Approval No.: **2005-6054**

**WORK INSTRUCTIONS**

1. a) Remove cover behind spar-cut out of the fuselage (only Mini Nimbus HS7 and variants).  
Shorten the gas strut so far until no tension is on the gas strut-arresting cable.
- b) Then remove arresting cable of the gas strut at the forward connection.  
Then the gas strut is without load too.

Nimbus-2C:

- c) Now remove the gas strut guide tube from the torsional flap drive lever.

Mini Nimbus HS7 and type series:

- c) Now remove at the gas strut and arresting cable from the torsional flap drive lever.

2. a) Cut or untie the rubber cable around the torsional flap drive tube and the aft wing suspension tube of the steel frame work.
- b) Turn the torsional flap drive so that the U-shape fitting at the lever can be pulled through the cut-out in the slot of the baggage compartment floor.
- c) Move torsional flap drive sideways to pull it clear from the fuselage.

3. a) Check visually the weld at the lever to the torsional flap drive.  
Reweld if necessary.

Nimbus-2C:

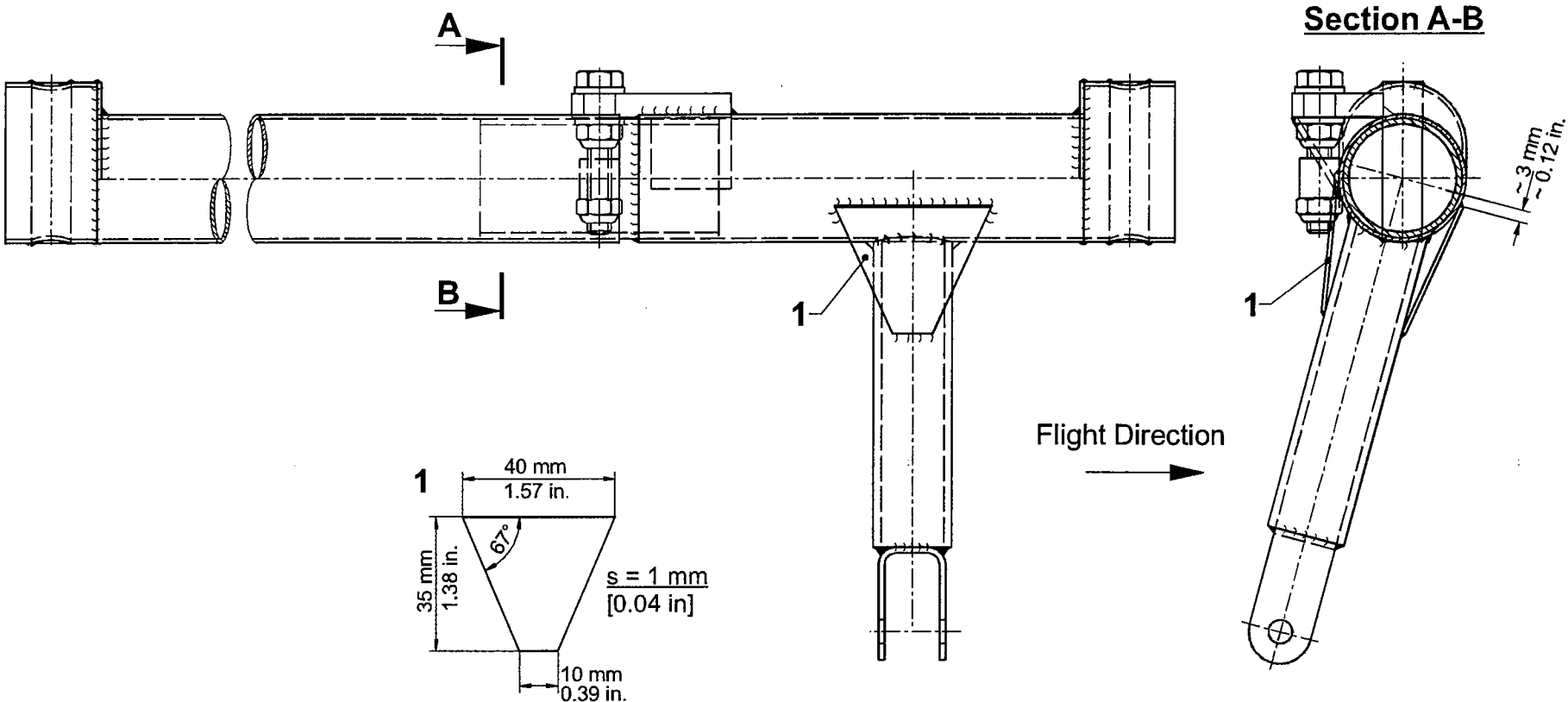
- b) Weld reinforcement plates according to drawing No. 10.065/3, see page 02 of this appendix.

Mini Nimbus HS7 and type series:

- b) Weld reinforcement plates according to drawing No. HS7-10.083/1, see page 03 of this appendix.

- c) Protect surface against corrosion and paint.

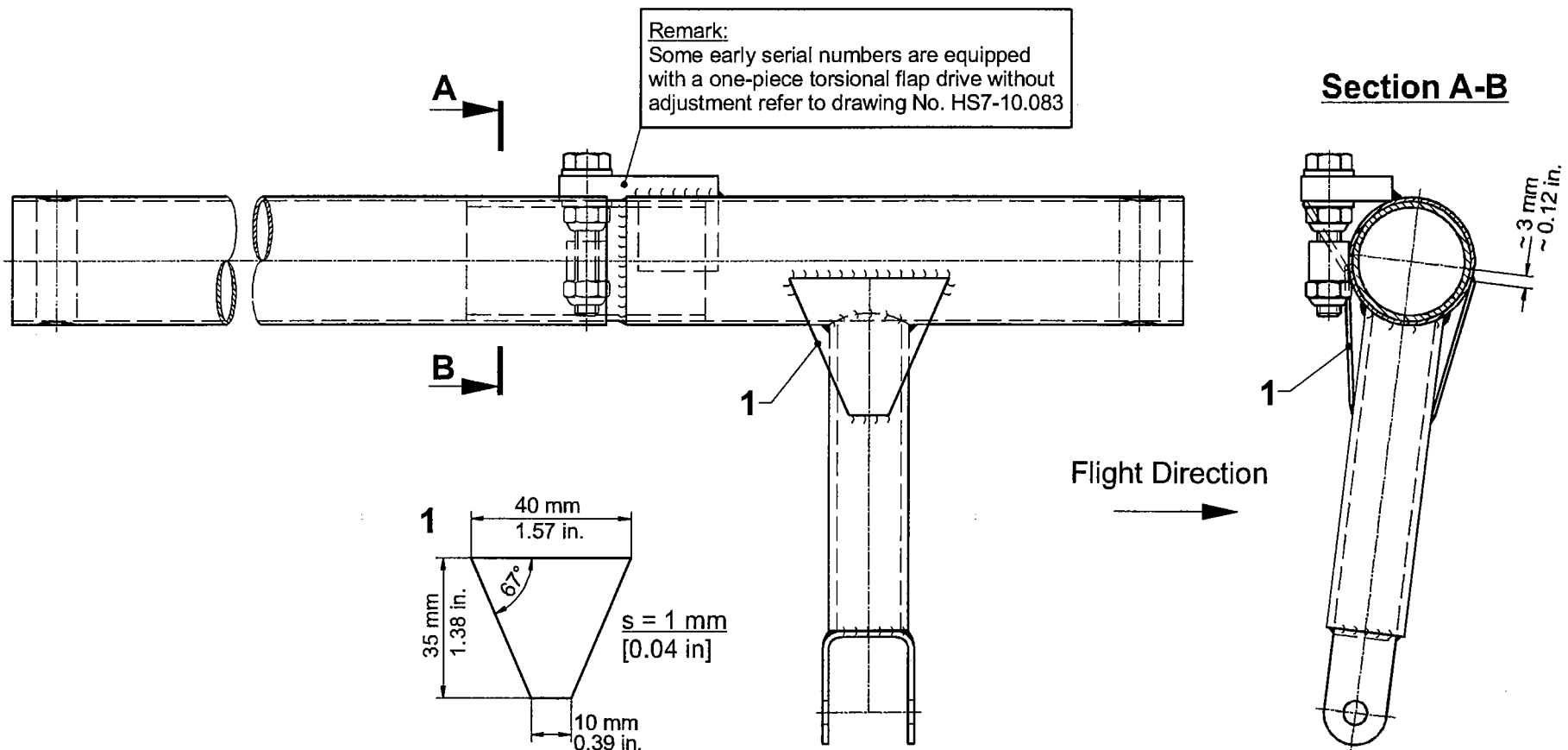
4. Installation of the torsional flap drive, the gas strut (resp. for the Nimbus-2C the gas strut-guide tube) and arresting cable and the fitting of the rubber cable in reverse order, see item 2 and 1.



GRUNDWERKSTOFFE		Schweißzusatzwerkstoff	Schweißverfahren
Werkstoff 1	Werkstoff 2		
1.7734 1.7214 VCL 125 St 35 St 37 St 52	1.7734 1.7214 VCL 125 St 35 St 37 St 52	1.7734.2	WIG
Kontrollverfahren:		Sichtprüfung	

## TN 286-35

1	2	Steel plate				40x35x1		1.7734.4								
Teil	Stück	Benennung				Abmessung		Werkstoff (Norm)		Anmerkung (Zeichn.-Nr.)						
286		Maßstab 1:1		ALLOMENTOLERANZEN DIN 7168-n						Feinmaß		Abmaß	SCHEMP-P-HIRTH Flugzeugbau GmbH Kirchheim/Teck			
				H18 0 H11		OTHER 8 H13 ±0.2	OTHER 30 H13 ±0.3	OTHER 120 H13 ±0.6	OTHER 400 H13 ±0.6					OTHER 1000 H13 ±1.2	OTHER 2000 H13 ±2	OTHER 4000 H13 ±3
2005		Tag		Name		Baumuster						Zeichn. Nr. HS5-10.065/3				
gez.		20.06.		Poetzsch		Nimbus-2C								Flap torsional drive		
gepr.																
gepl.																
FÜR DIESE LIEFERUNG BEHALTEN WIR UNS ALLE RECHTE VOR. INBESONDERE HEHNSCH WIR DAFÜR AUCH URHEBERRECHTLICHEN UND WETTBEWERBSRECHTLICHEN SCHUTZ IN ANSPRUCH.												ALL RIGHTS RESERVED IN RESPECT OF THIS DOCUMENT. WE OFFICIALLY CLAIM PROTECTION UNDER COPYRIGHT REGULATIONS AND UNFAIR COMPETITION LAW.				



GRUNDWERKSTOFFE		Schweißzusatzwerkstoff	Schweißverfahren
Werkstoff 1	Werkstoff 2		
1.7734	1.7734	1.7734.2	WIG
1.7214	1.7214		
VCL 125	VCL 125		
St 35	St 35		
St 37	St 37		
St 52	St 52		
Kontrollverfahren:		Sichtprüfung	

## TN 328-13

1	2	Steel plate				40x35x1		1.7734.4							
Teil	Stück	Benennung				Abmessung		Werkstoff (Norm)		Anmerkung (Zeichn.-Nr.)					
328		Maßstab		ALLGEMEINTOLERANZEN DIN 7165-m						Paßmaß		Nameß		SCHEMP-P-HIRTH Flugzeugbau GmbH Kirchheim/Teck	
		1:1													