GFA AD 534
(ISSUE 1)

CANCELLED 11.04.2017
REFER TYPE CERTIFICATE HOLDERS CURRENT DATA

GFA AIRWORTHINESS DIRECTIVE

TYPE AFFECTED:	Nimbus-3DT
SUBJECT:	Amendments to Maintenance Manual
BACKGROUND:	Schempp-Hirth Technical Note 847-8 contains amendments to the Maintenance Manual for this type. The amended pages include reference to an inspection program for extending the service life of the aircraft in stages to 12,000 hours.
DOCUMENTATION:	Schempp-Hirth Technical Bulletin 847-8 forms part of this AD.
ACTION REQUIRED:	Amend Maintenance Manual with the pages included in this AD. If inspection program for the service life extension is required, contact Schempp-Hirth Flugzeugbau, Postfach 14 43, D-73222 Kircheim unter Teck, Germany.
WEIGHT AND BALANCE:	Not affected.
IMPLEMENTATION:	Before next Form 2 inspection or before any repair or refinishing work is carried out.
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: Mike Valentine for CHIEF TECHNICAL OFFICER AIRWORTHINESS	For and on behalf of: THE GLIDING FEDERATION OF AUSTRALIA

0.1 Erfassung der Berichtigungen / Record of Revisions

Lfd.Nr. Rev.No.	Benennung Reference	Seite Page	Datum Date
8	Änderungsblatt Nr. 847-13 Erhöhung der Sollbruchstelle für die Bugkupplung Modification Bulletin No. 847-13 Higher weak link strengh for nose tow release	0.1.4 0.2.2 0.2.3 5.2.3 8.1.2	Mai 1991
9	Technische Mitteilung Nr. 847-2 Einstellung und Ruderausschläge - wahlweise bis Werk-Nr. 54 - serienmäßig ab Werk-Nr. 55 Technical Note No. 847-2 Rigging data and control surface deflection - optional for S/N 1 through 54 - standard for S/N 55 and up	0.2.1 2.1.2	Februar 1992
10	Technische Mitteilung Nr. 847-3 Spannweitenvergrößerung - wahlweise ab Werk-Nr. 2 Technical Note No. 847-3 Tip extensions for 25,6 m span - optional for S/N 2 and up	1.2.2 2.1.2 Diagr. 3	September 1992
11	Neufassung der Wartungsanweisung für L'Hotellier-Schnellverschlüsse, Ausgabe 03.94 Revised Maintenance Instruction for L'Hotellier ball and swivel joints, issue 03.94	0.2.2 0.2.3 3.1.2 9.1	April 1994
12	Technische Mitteilung Nr. 847-8 a) Prüfungsablauf zur Erhöhung der Betriebszeit auf 12.000 Stunden b) Ergänzung des Wartungshandbuches Technical Note No. 847-8 a) Inspection program for extending the service time up to 12.000 hours b) Supplements of the Maintenance Manual	0.3.1 2.2.1 2.4 3.3.1 3.3.2	Dezember 1999

MB: Modification Bulletin – Änderungsblatt
TN: Technical Note – Technische Mitteilung

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0.2.2	Dez. 1990	MB 847-6, - 12
0.2.3	Dez. 1990	MB 847-6, -7, -8, -12
0.3.1	Dez. 1999	TN 847-8
0.3.2	Dez. 1990	MB 847-6, -8, -12
0.3.3	Dez. 1990	MB 847-8, -12
1.1	Juni 1988	
1.2.1	Dez. 1990	MB 847-6, -7, -12
1.2.2	Sept.1992	TN-847-3
1.2.3	Juni 1988	
1.2.4	Juni 1988	
1.2.5	Juni 1988	
1.3.1	Juni 1988	
1.3.2	Juni 1988	
1.6	Dez. 1990	MB 847-6, -12
2.1.1	Juni 1988	
2.1.2	Febr.1992	MB 847-6, -12,TN 847-2, TN 847-3
2.2.1	Dez. 1999	MB 847-6, -12,TN 847-8
2.2.2	Juni 1988	
2.3	Juni 1988	
2.4	Dez. 1999	TN 847-8

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3.1.2	Apr. 1994	Rev. 11
3.1.3	Juni 1988	
3.2.1	Dez. 1990	MB 847-6, -12
3.2.2	Dez. 1990	MB 847-6, -12
3.2.3	Juni 1988	
3.2.4	Juni 1988	
3.3.1	Dez. 1999	TN 847-8
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4.3	Juni 1988	
5.1.1	Dez. 1990	MB 847-6, -12
5.1.2	Dez. 1990	MB 847-6, -12
5.1.3	Dez. 1990	MB 847-6, -12
5.2.1	Juni 1988	
5.2.2	Juni 1988	
5.2.3	Mai 1991	MB 847-13
5.3.1	Juni 1988	
5.3.2	Juni 1988	
5.4.1	Juni 1988	
5.4.2	Juni 1988	
5.5	Juni 1988	
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5.7	Juni 1988	
5.8.1	Juni 1988	
5.8.2	Juni 1988	
5.9	Juni 1988	
5.10	Juni 1988	
5.11	Juni 1988	

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0.3 Table of contents

2.2 Weights and hinge moments of control surfaces

After repair work or repainting, the hinge moments and weights of the "Nimbus-3DT" components must not exceed the following values:

Component	Weight	Residual moment
Rudder, with a mass balance of approx. 2.9 kg (6.39 lb)	4.50 - 5.85 kg 9.92 - 12.90 lb	-6.00 - 1.46 cmkg -0.43 - 0.11 ftlb
1 Elevator half without fitting	0.77 - 1.00 kg 1.70 - 2.20 lb	3.40 - 4.60 cmkg 0.25 - 0.33 ftlb
Flap	3.33 - 4.80 kg 7.34 - 10.58 lb	16.80 - 22.00 cmkg 1.22 - 1.59 ftlb
Inboard aileron	2.31 - 3.20 kg 5.09 - 8.05 lb	11.60 - 14.80 cmkg 0.84 - 1.07 ftlb
Mid aileron with a mass balance of approx. 1.5 kg (3.31 lb)	2.66 - 3.06 kg 5.86 - 6.75 lb	1.50 - 2.70 cmkg 0.11 - 0.20 ftlb
Outboard aileron with a mass balance of approx. 0.7 kg (1.54 lb)	2.20 - 2.53 kg 4.85 - 5.58 lb	2.60 - 3.60 cmkg 0.19 - 0.26 ftlb
Aileron on wing tip extension	0.14 - 0.22 kg 0.31 - 0.49 lb	0.30 - 0.40 cmkg 0.02 - 0.03 ftlb

If the values shown in the above table are exceeded, it will be necessary to add an additional balance weight forward of the hinge axis as follows:

1. After repair work - in the area of the repair.
2. After repainting - in the repainted area.

   After complete repainting - distributed along the whole length of the component (if there was no mass balance attached) or near or next to existing mass balance.

Exceeding the value in the above weight table because of additional mass balance is permissible up to 15 %, provided the residual moment remains within the tolerance.

2.4 Play in the wing attachment fittings

Tangential play (fore and aft movement) can occur through wear in the shims on the wing locating pins.

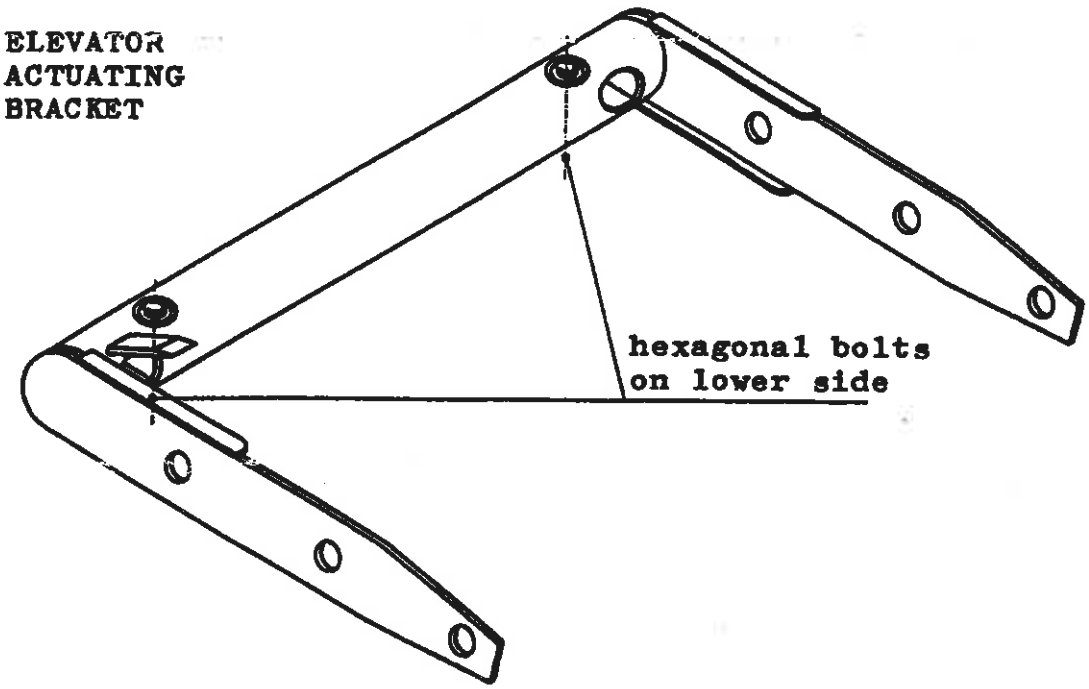
If the wing tips are free to move more than 30 mm (1.18 in.) or if play of the tip extensions is observed, further shims of a thickness of between 0.3 and 0.5 mm (0.01 to 0.02 in.) with an internal diameter of

17.95 mm (0.71 in.) for the inbd. wing panels,
13.95 mm (0.55 in.) for the outbd. wing panels and
9.95 mm (0.39 in.) for the tip extensions

should be added progressively up to the point where the panels (or tip extensions) rig well, but the play has been eliminated.

2.5 Play in the tailplane attachment bracket

If an excessive vertical play is found at the tips of the horizontal stabilizer, then the adjustable bushings of the elevator actuating bracket should be tightened such (using a 4 mm Allen key) that the tailplane will just slide onto its locating pins.



3.3 Special inspections of the airframe

Inspection program for the extension of the service time

1. General

The results of fatigue tests subsequently carried out on wing spar sections have demonstrated that the service time of GFRP/CFRP sailplanes and powered sailplanes may be extended to 12000 hours, if for each individual aircraft (in addition to the obligatory annual inspections) the airworthiness is demonstrated according to a special multi-step inspection program, particularly with regard to the service life.

2. Dates

When the sailplane (or the powered sailplane) has reached a service time of 6000 hours, an inspection must be done in accordance with the inspection program mentioned under chapter 3.

If the results of this inspection are satisfactory or if any defects found have been duly repaired, the service time of the sailplane (or powered sailplane) is extended by another 3000 hours to a total of 9000 hours (first step).

The afore-said inspection program must be repeated when the sailplane (or the powered sailplane) has reached a service time of 9000 hours.

If the results of this inspection are satisfactory or if any defects found have been duly repaired, the service time may be extended by another 1000 hours to 10000 hours (second step), after a further 1000 hour inspection to 11000 hours (third step), and finally - after another 1000 hour inspection - to 12000 hours (fourth step).

3. The respective inspection program may be obtained from Schempp-Hirth Flugzeugbau GmbH.

4. The inspections may only be accomplished by the manufacturer or by a certified repair station.

5. The results of the inspections are to be recorded in an inspection report, wherein comments are required for each inspection step.

   If the inspections are carried out by a certified repair station, a copy of the records must be sent to the manufacturer for evaluation.

6. The mandatory annual inspection is not affected by this regulation.