

Manual amendments

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Instructions for continued airworthiness**0 Airworthiness limitations****0.1 Repairs:**

Repair or replace damaged parts prior to next flight. Follow the instructions of the DG-800S repair manual for all airframe repairs. Repairs outside the scope of the DG-800S repair manual and major repairs must be accomplished at a certified repair station or by a certified mechanic rated for composite aircraft structure work in accordance with DG repair methods.
Use only genuine parts for all repairs.

0.2 Life time of the airframe

The maximum allowable operating time for composite sailplanes is 12000 flight hours. Therefore inspection according to sect. 2.4 of this manual has to be executed at 3000 h, 6000 h and every 1000 hours following thereafter.

0.3 Life time of components

- a) The fabric straps of the safety harness have to be exchanged after 12 years.
- b) other components:
All other components such as tow hook, wheels, gas struts, control system parts, bolts, pins etc. have no life time limitation, but should be replaced when worn, damaged or disqualified by excessive corrosion.

0.4 Service time, maintenance documents

Follow the instructions of the respective manufacturer.

- a) Tow release:
Operating Manual for Safety Tow Releases Series: Europa G 88
Safety Tow Release Date of Issue: February 1989

and if installed:
Operating Manual for Tow Releases Series: E 85 Nose Tow Release
Date of Issue: March 1989
- b) safety harness: instructions of the manufacturer
- c) minimum instrumentation: instructions of the manufacturer.

1.9 Massbalance and weights of control surfaces

After repairs or repainting the control surfaces weights and moments should not exceed the following limits.

Control surface	Weight		Moment		Spring balance reading see instructions below	
	kg (lbs.)	max. min.	kg cm (lbs.in.)	max. min.	kg (lbs.)	max. min.
Rudder (with massbal.)	2.95 (6.50)	2.55 (5.62)	3.57 (3.10)	1.93 (1.68)	0.179 (0.365)	0.097 (0.214)
Elevator (without pushrod)	1.9 (4.19)	1.5 (3.31)	5.1 (4.43)	4.0 (3.47)	0.381 (0.840)	0.298 (0.657)
without wing parting						
Flaperon	5.71 (12.59)	3.60 (7.94)	10.99 (9.54)	9.27 (8.05)	0.90 (1.984)	0.76 (1.675)
with wing parting						
Flaperon (inboard wing)	5.14 (11.33)	3.50 (7.72)	10.37 (9.00)	8.66 (7.52)	0.85 (1.874)	0.71 (1.565)
Flaperon (wing tip)	0.57 (1.26)	0.40 (0.88)	0.69 (0.60)	0.55 (0.48)	0.105 (0.231)	0.083 (0.183)

Note: Before any changes to the massbalance weights are made, contact the DG Flugzeugbau factory.

Method for determining control surface moments**Rudder**

Disconnect rudder cables, lay the fuselage on its side so that the fin is horizontal. Attach (by tape) a spring balance to the lower end of the rudder 200 mm (7.9 in.) behind the hinge axis.

Elevator

Hang the elevator friction free on its hinge points (pushrod disconnected) and attach the spring balance to the trailing edge in the middle 134 mm (5.3 in.) behind the hinge axis.

Flaperons (inboard wings)

Hang the flaperon friction free on its hinge points (pushrods disconnected) and attach the spring balance at the inboard end 122 mm (4.8 in.) behind the hinge axis.

Caution: Use the procedure described in sect. 4.8.

Flaperon (wing tips)

see inboard wing, at 66 mm (2.6 in.) at the parting.

4.2 Replacement of control circuit cables

The following cable connections are approved:

3.2 mm dia. control cable construction 7x19 with Nicopress-sleeves 28-3-M Copper and tool No. 51-M850 or 63-V-XPM or 64-CGMP where the M groove is to be used. The above applies to the rudder cables and the tow release cable.

The cable for the rudder pedal adjustment and the fin tank valve are 1.6 mm dia. control cable construction 7x7 with Nicopress-sleeves 28-1C Copper and the C groove for tool 64-CGMP should be used.

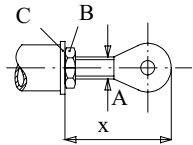
Attachment of the Nicopress sleeves should only be done using the respective tool. All the procedures and checks noted by the tool manufacturers should be followed.

Please refer to aircraft inspection and repair FAA AC 43.13-1 A.

Note: Control cables according to MIL-W-83420 I/A (was MIL-W-1511A) or ISO 202(was LN 9374) should be used.

4.3 Adjustment and servicing of the control circuit

- a) In all cases, new self locking nuts DIN 985.8 should be used.
- b) Bolts which are not secured with locking nuts have to be secured with Loctite 243. Before installing the bolt clean the thread and the inside thread see section 4.8. Apply only 1 drop of Loctite on the bolt thread. Too much Loctite may cause damage when you try to loosen the bolt again.
- c) With all adjustment work, it should be ensured that the rod ends are not screwed out too far from the pushrod - see sketch below for allowable max. distances for the two sizes used.



A	max. of x	
	mm	inch
M 6	36	1.4
M 8	60	2.36

Note: All lock nuts (B) are secured by a spring washer (C) DIN 6798 I. Be careful not to loose that washer!