

Flight manual DG-1000S

0 Revisions

0.1 Record of revisions

Any revision of the present manual, except actual weighing data, must be recorded in the following table and in case of approved sections endorsed by the responsible airworthiness authority.

The new or amended text in the revised page will be indicated by a black vertical line in the right hand margin, and the Revision No. and the date will be shown on the bottom left hand of the page.

Rev. No.	Affected Pages/ section	Description	Issue Date	LBA Approval Date	Inserted Date Signature
1	0.3-0.5, 2.1, 2.9, 2.11, 4.5, 5.4, 6.3, 6.5, 6.10, 7.10	Manual revision TN 413/2	September 2003	Sept. 25. 2003	
2	0.3, 2.12, 3.2, 4.3	Manual revision TN 413/3	May 2004	May 10. 2004	
3	0.3, 0.5, 4.5, 7.6	Ballast box in the fin TN 413/4	June 2004	June 29. 2004	
4	0.3, 0.5, 3.2, 7.11	Canopies Gas-struts TN 413/6	October 2004	January 13. 2005	
5	0.3, 0.4, 2.7, 3.5, 4.1, 4.17	Manual revision TN 413/8	January 2005	February 22. 2005	

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0.2 List of effective pages

Section		page	issued	replaced/	replaced/
0		0.0	March 2002		
		0.1	see manual	amendments	
		0.2		"	
		0.3		"	
		0.4		"	
		0.5		"	
		0.6	March 2002		
1		1.1	"		
		1.2	"		
		1.3	"		
		1.4	"		
		1.5	"		
		1.6	"		
	2	App.	2.1	March 2002	Sept. 2003
"		2.2	"		
"		2.3	"		
"		2.4	"		
"		2.5	"		
"		2.6	"		
"		2.7	"	January 2005	
"		2.8	"		
"		2.9	"	Sept. 2003	
"		2.10	"		
"		2.11	"	Sept. 2003	
"		2.12	"	May 2004	
3		"	3.1	March 2002	
	"	3.2	"	May 2004	Oct. 2004
	"	3.3	"		
	"	3.4	"		
	"	3.5	"	January 2005	
4	"	4.1	March 2002	January 2005	
	"	4.2	"		
	"	4.3	"	May 2004	
	"	4.4	"		
	"	4.5	"	Sept. 2003	June 2004

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0.2 List of effective pages (cont.)

Section		Page	issued	replaced/	replaced/
4	App.	4.6	March 2002		
		4.7			
	"	4.8	"		
	"	4.9	"		
	"	4.10	"		
	"	4.11	"		
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	"	4.13	"		
	"	4.14	"		
	"	4.15	"		
	"	4.16	"		
	"	4.17	"	January 2005	
	"	4.18	"		
	"	4.19	"		
	"	4.20	"		
	"	4.21	"		
	"	4.22	"		
"	4.23	"			
"	4.24	"			
5	"	5.1	March 2002		
	"	5.2	"		
	"	5.3	"		
	"	5.4	"	Sept. 2003	
	App.	5.5	"		
		5.6	"		
		5.7	"		
6		6.1	March 2002		
		6.2	"		
		6.3	"	Sept. 2003	
		6.4	"		
		6.5	"	Sept. 2003	
		6.6	"		
		6.7	"		
		6.8	"		
		6.9	"		
		6.10	"	Sept. 2003	
		6.11	"		

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2.7 Manoeuvring load factors

The following load factors must not be exceeded:

Category		Utility	Aerobatic
at manoeuvring speed	V_A	+5,3 -2,65	+7,0 -5,0
at max. speed	V_{NE}	+4,0 -1,5	+7,0 -5,0
with airbrakes extended	V_{NE}	+3,5 0	+3,5 0

2.8 Flight crew

a) single seated, only permissible in the front seat

max. load in the front seat 110 kg (242 lbs.)

min. load in the front seat see placard in cockpit and weighing report page 6.7

b) two seated

Either the front seat or the rear seat may be designated as seat of the pilot in command.

If the rear seat is to be designated it must be assured that all necessary operating items and instruments are installed and that the pilot in command has sufficient training in flying safely from the rear seat.

max. cockpit load is 210 kg (463 lbs.) with a max. of 105 kg (231 lbs.) in the front seat or 110 kg (242 lbs.) in the front seat and 90 kg (198 lbs.) in the rear seat.

min. cockpit load in the front seat is the min. cockpit load see a) minus 40% of the load in the rear seat. This means that 10 kg (22 lbs.) in the rear seat replaces 4 kg (8.8 lbs.) missing cockpit load in the front seat.

With these loads, the C.G. range given under 6.8 will be kept in the limits if the empty weight C.G. is in its limits. See loading chart in sect. 6.8.

Caution:

With lower pilot weights lead ballast must be added to the seat.

Ballast put on the seat (lead ballast cushion) must be fastened at the safety belt anchor point.

Option: Provision for removable trim-ballast in the front cockpit see sect 7.15.1.

Note: For Australia the lower limit for the min. load in the cockpit should not exceed 66 kg (146 lbs.). A provision for removable ballast see sect. 7.15.1 is mandatory.

3.11 Emergency ground loop

If there is the risk of overshooting the landing strip you have to decide at least 40 m (130 ft) before the end of the field to execute a controlled ground loop:

- If possible turn into the wind!
- At the same time try to lift the tail by pushing the stick forward.

3.12 Emergency landing on water

From the experience with emergency water landing we know that it is likely that the sailplane will dive into the water, cockpit first.

Therefore an emergency landing on water should be the last choice. In the case of a water landing, however, extend the landing gear.

Recommended procedures :

On downwind leg of the landing pattern: Extend the landing gear, unlock the parachute harness (not the seat harness)

Touch down: With landing gear extended and airspeed as low as possible.

At point of touch-down: Use your left arm to protect your face against possible canopy fracture.

After touch down: Unfasten seat belt harnesses and undo parachute.

Leaving the cockpit under water: If the canopy has not fractured, opening the canopy may be possible only after the forward fuselage is almost completely filled with water.

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4 Normal procedures

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4.5.6 Flight in rain and thunderstorms

With light rain the stall speed and the sink rate increases slightly and the approach speed has to be increased.

Warning: Flights and especially winch launches in the vicinity of thunder storms should be avoided. Due to lightning discharge, carbon fibre structures may be destroyed.

4.5.7 Cloud flying

Cloud flying is only permitted without waterballast. Take care to fly smoothly and coordinated. It is prohibited to use a spin as a method for losing altitude in cloud. In case of emergency, pull out the dive brakes fully before exceeding a speed of 200 km/h and dive with max. 200 km/h (108 kts.) to leave the cloud.

Warning: Flying in or near thunderstorm-clouds is prohibited.