

# BGA glider data sheet - DG 500 Trainer (18 meter un-flapped)

Data source: Manufacturer's flight & maintenance manuals Date of issue: 1995

Manufacturer: Glaser-Dirks Flugzeugbau GmbH Web site dgflugzeugbau.de

UK Agent: UK Agent: Navboys Web site [www.Navboys.com](http://www.Navboys.com) Tel:- 01264 981934

Link to mandatory mods: <http://www.dg-flugzeugbau.de/tech-mitteilungen-e.html>

## Weighing Data:

	Kg	Pounds
Max weight (take off & landing)	615	1356
BGA concession non-aerobatic max weight (dry) [+3%]	633	1397
Max weight in baggage compartment	15	33
Max weight of non lifting components (everything except wings)	435	959
BGA concession non-aerobatic max weight of non lifting components [+5%]	457	1007
Max front pilot (seat load)	110	242
Max combined front and rear pilot weights (seat loads)	210	463

mm Inches

	mm	Inches
Forward C of G limit (aft of datum)	185	7.28
Aft C of G limit (aft of datum)	480	18.9
Front pilot position (forward)	1350	53.15
Rear pilot position (forward)	240	9.45

## Control deflections in mm

	Up	Down	Distance - hinge to measuring point	Max free play
Ailerons	75 ± 3	38 ± 3	144	± 1.5
Elevator	99 ± 1	91 ± 1	227	± 2
Rudder	Left & Right 217 to 212		420	1 top hinge

The aileron free play is measured at the aileron root with the stick locked. The elevator play is measured at the stick with the elevator locked.

Also, with both ailerons locked (central) the maximum free play at the stick is ± 2 mm.

Controls weights	Moments & Moments cm Kg	Weights Kg
Rudder	7 - 10	4.4 - 5.1
Elevator	13 - 16	4.3 - 5.1
Ailerons	5 - 7	4.0 - 5.0

**Weighing** Longitudinal datum: Wing root LE. Horizontal datum: Top of rear fuselage 1000: 33 tail down. The fin battery weighs 4,3 kg & is 5306mm aft of datum. The 4 nose ballast weights weigh 2,16 kg (4.76 lb) each and are 2455mm forward of datum, each reduces min front cockpit load by 3.7 kg (8.16 lb).

## Maximum speeds

	Knots	Kph
VNE	146	270
Rough air	111	205
Manoeuvre	111	205

	Knots	Kph
Aerotow	111	205
U/C down	111	140
Winch / auto tow	76	205

VNE at altitude			
Altitude - feet	Meters	Knots	Kph
0 - 6600	0 - 2 000	146	270
6600 - 10 000	2 - 3 000	138	256
10 000 - 13 000	3 - 4 000	131	243
13 000 - 16 000	4 - 5 000	124	230
16 000 - 20 000	5 - 6 000	117	218

## Notes :-

Max winch weak link: 1000 Kg (black)

Wing oscillating frequency approximately 150 cycles per minute.

Tyre pressures Nose wheel 2.5 bar, 36 psi. Main wheel 2,5 bar, 36 psi. Tail wheel 4 bar, 58 psi

Semi aerobatic ("utility") & cloud flying permitted without water (+5,3, -2,65 G at V<sub>A</sub> & +4 & -1.4 G at V<sub>NE</sub>).

Aerobatic (Inverted flight) +7, -5 G at all speed without water ballast.

Max 3,5 G with airbrakes extended in all configurations.

Replace the elevator rubber cord (bungee) every 5 years. Hydraulic disk brake - replace the brake fluid every 4 years with DOT 3, DOT 4 or SAE J 1703 fluid. Annual leak check of wheel brake system - hold full brake for 2 minutes.

German (LBA) Type certificate number 348. Retracting U/C (with disk brake) & water ballast are options.

This sheet compiled by: Tim Macfadyen Date: 24 Sept 2002

Updated 18 Oct 2021: UK agent changed