

**DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION**

G32EU
DG Flugzeugbau GmbH
DG-100
Revision 1
February 06, 2012

TYPE CERTIFICATE DATA SHEET NO. G32EU

This data sheet which is a part of type certificate No. G32EU prescribes conditions and limitations under which the product for which the type certificate was issued meets the airworthiness requirements of the Federal Aviation Regulations.

Type Certificate Holder: DG Flugzeugbau GmbH
 Otto-Lilienthal-Weg 2
 D 76646 Bruchsal
 Germany

Type Certificate Holder Record: Glaser-Dirks Flugzeugbau GmbH transferred TC G32EU to DG Flugzeugbau GmbH on
 July 30, 1996

I - Model DG-100 approved July 14, 1976.

Airspeed limits (I.A.S.)	Never exceed (Vne)	260 km/h.	162 mph	140 kts
	Max. speed in rough air (Vb)	260 km/h.	162 mph	140 kts
	Maneuvering (Va)	165 km/h.	103 mph	89 kts
	On aero-tow (Vt)	165 km/h.	103 mph	89 kts
	On winch tow (Vw)	130 km/h.	81 mph	70 kts
	Landing gear extended	165 km/h.	103 mph	89 kts
	Spoilers	260 km/h.	162 mph	140 kts
C.G. range	7.86 in. to 14.37 in. (199.6 mm to 365 mm) aft of datum.			
Empty weight C.G. range	See Flight Manual.			
Datum	Wing leading edge at wing root.			
Leveling means	Slope of rear top surface of fuselage boom between stations 100 to 3.67 tail down (See Flight manual, Service Manual, Page 20).			
Maximum weight	418 kg. (922 lb.) including water ballast.			
No. of seats	One adjustable seatback pilot's C.G. range most forward at 117 kg. (258 lb.) payload 492 mm (19.4 in.) most rearward at 75 kg. (165 lb.) payload 537 mm (21.1 in.)			
Ballast Fixed	Station 1171 mm; 46.1 in. forward of datum (See Flight Manual) Max. 6.6 kg. (14.6 lb.)			
Water Ballast	Two water ballast tanks at station 200 mm (7.9 in.), each 10 1/2 gal., 40 kg. (88 lb.) or 26 gal., 50 kg. (110 lb.)			
Baggage	30 kg. (66 lb.) at station 230 mm (9.1 in.) aft of datum.			
Control surface movements	Stabilizer	Up	139 ± 2 mm (5.5 ± 1/16 in.) up from datum	
		Down	66 ± 2 mm (2.6 ± 1/16 in.) up from datum	
		Neutral	87 ± 2 mm (3.4 ± 1/16 in.) up from datum	

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See Service Manual for measuring datum line location.

Measuring distance from hinge line: 181 mm (7.3 in.)

Rudder To either side 243 ± 10 mm ($9.6 \pm 3/8$ in.)
Measuring distance from hinge line: 460 mm (18.1 in.)

Aileron Up 102 ± 5 mm ($4.0 \pm 3/16$ in.)
Down 46 ± 5 mm ($1.8 \pm 3/16$ in.)
Measuring distance from hinge line: 188 mm (7.4 in.)

Spoilers Out 140 mm min. ($5.5 \pm 3/16$ in.)
In 0 mm

Trim Tab At neutral (stab neutral) tab control is 3 mm (1.8 in.) from full aft trim position.

Weak Link for (Rated Load on) Winch & Aero Two.

500 kg. (1100 lb.)

Serial Nos. eligible

See Import Requirements.

Certification basis

FAR 21.23 and FAR 21.29 effective February 1, 1965.
Type Certificate No. G32EU issued July 14, 1976.
Date of Application for Type Certificate: October 3, 1975.

The German Airworthiness Authority, the Luftfahrt-Bundesamt (LBA), originally type certificated this glider under its Type Certificate Number 301/DG-100. The FAA validated this product under U.S. Type Certificate Number G32EU. Effective September 28, 2003, the European Aviation Safety Agency (EASA) began oversight of this product on behalf of Germany. The EASA TCDS number is EASA.A.239.

Validation Basis

Type Certificate was issued in accordance to FAR 21.29(a)(1) in validation of the Luftfahrt-Bundesamt (LBA) certification of compliance with the Federal Republic of Germany Glider Airworthiness Requirements (LFS) dated February 1966.

Required Equipment

The basic required equipment as prescribed in the applicable airworthiness regulations (as listed in Flight Manual) must be installed in the glider for standard airworthiness certification. In addition the following equipment must be installed:

1. Instruments (non-cloud flying)
 - (a) Airspeed indicator
 - (b) Altimeter
 - (c) Magnetic compass
2. Additional instruments for cloud flying
 - (a) Turn and slip indicator
 - (b) Variometer
3. DG-100 Flight Manual (Containing Flight and Service Manual), approved by the Luftfahrt-Bundesamt.

Import Requirements

The FAA can issue a U.S. airworthiness certificate based on a German Airworthiness Authority Export Certificate of Airworthiness (Export C of A) signed by a representative of the Luftfahrt-Bundesamt (LBA) on behalf of the European Community. The Export C of A should contain the following statement: "The aircraft covered by this certificate has been examined, tested, and found to conform to the type design approved under U.S. Type Certificate No. G32EU and to be in a condition for safe operation."

Service Information

Each of the documents listed below must state that it is approved by the European Aviation Safety Agency (EASA) or – for approvals made before September 28, 2003 – by the German Airworthiness Authority (LBA).

- Service bulletins
- Structural repair manuals
- Vendor manuals
- Aircraft flight manuals
- Overhaul and maintenance manuals

The FAA accepts such documents and considers them FAA-approved for type design data unless one of the following conditions exist:

- The documents change the limitations, performance, or procedures of the FAA approved manuals.

The FAA uses the post type validation procedures to approve these documents. The FAA may delegate case-by-case approval to EASA on behalf of the FAA for the U.S. type certificate. If this is the case it will be noted on the document.

NOTES

NOTE 1. Weight: Current weight and balance report including the list of equipment in certificated empty weight, and loading instructions when necessary must be provided at the time of original certification.

- NOTE 2. A. The following placards and markings must be displayed in full view of the pilot:
- (1) Maximum airspeeds

Never exceed (Vne)	260 km/h.	162 mph	140 kts
In rough air (Vb)	260 km/h.	162 mph	140 kts
Maneuvering (Va)	165 km/h.	103 mph	89 kts
On aero-tow (Vt)	165 km/h.	103 mph	89 kts
On winch tow (Vw)	130 km/h.	81 mph	70 kts
Landing gear extended	165 km/h.	103 mph	89 kts
Spoilers	260 km/h.	162 mph	140 kts
 - (2) Gross weight 418 kg. (922 lb.) including water ballast.
If the pilot's weight with the parachute is below 75 kg. (165 lb.) ballast weight must be installed in the trim weight holder or in the seat. (See Flight Manual).
 - (3) Operating Limitations
The sailplane must be operated in compliance with the operating limitations as stated in the form of markings, placards and Flight Manual.
Cloud flying is only permitted when the following instruments are installed:
airspeed indicator, altimeter, magnetic compass, turn and slip indicator and variometer.

Approved aerobatics maneuvers

Maneuver	Recommended entry speed
Looping, chandelle, stall turn	170 km/h. 106 mph 92 kts
Spin	Use slow deceleration

 Maximum load factor - at maneuvering speed: +5.3/-2.65 at never exceed speed: +4.0/-1.5

All aerobatics maneuvers including spins must be accomplished in accordance with the approved DG-1000 Flight Manual.

Night flying is prohibited.
- B. Other markings or placards
- | | |
|-----------------------|---------------------------------|
| Near the tow coupling | Rated load 500 kg (1100 lb.) |
| Above the main wheel | 2.5 Kg/cm ² (36 psi) |
| Above the tail wheel | 2.0 Kg/cm ² (28 psi) |

- NOTE 3. Inspections, Maintenance, Repairs and Repainting must be accomplished in accordance with DG Flugzeugbau GmbH (or Glaser-Dirks) DG-100 Flight Manual, Service Manual Section.
- NOTE 4. For painting exterior surfaces use only two component paints with ultra-violet protection as listed in Repair Manual.
- NOTE 5. Major structural repairs must be accomplished at FAA certificated repair stations rated for composite aircraft structure work or by a certified mechanic, in accordance with DG Flugzeugbau GmbH (or Glaser-Dirks) repair methods approved by FAA.

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