

**DEPARTMENT OF TRANSPORTATION  
FEDERAL AVIATION ADMINISTRATION**

G83EU Revision 2 DG Flugzeugbau GmbH LS 6-c  April 26, 2012
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**TYPE CERTIFICATE DATA SHEET No. G83EU**

This data sheet which is a part of Type Certificate no. G83EU 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. Rolladen-Schneider Flugzeugbau GmbH transferred TC G83EU to DG Flugzeugbau GmbH on July 18, 2006.

<b>I. Model LS 6-c (Utility Category), approved March 3, 1995.</b>
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<u>Airspeed Limits (I.A.S.).</u>	Maximum Airspeeds in Calm Air			
	Never Exceed (VNE)	km/h	kts	MPH
	0-6500 ft alt.	270	146	168
	6500-9800 ft alt.	257	139	160
	9800-13100 ft alt.	244	132	152
	13100-19700 ft alt.	219	118	136
	19700-26200 ft alt.	195	105	121
	26200-32800 ft alt.	173	93	107
	Never Exceed All Altitudes			
	Dive Brakes	270	146	168
	Landing Gear (VL)	270	146	168
	In Rough Air (VB)	190	103	118
	Maneuvering (VA)	190	103	118
	Aero Tow (VT)	190	103	118
	Winch Tow (VW)	140	76	87

C.G. Range. 250 mm (9.84 in) to 400 mm (15.75 in) aft of datum.

Datum. Leading edge of wing at root.

Empty Weight C.G. See Section 2 of the ROLLADEN-SCHNEIDER LS 6-c Maintenance Manual.

Leveling Means. Underside of fuselage boom placed horizontal.

Maximum Weight. 525 kg (1157 lbs) including water ballast.

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<u>No. of Seats.</u>	1, adjustable seat back, with seat location at station 615 mm (24.21 in) forward of datum.	
<u>Baggage.</u>	Maximum 5 kg (11 lbs) at station 200 mm (7.87 in) aft of datum. See Section 4 of the LBA-approved ROLLADEN-SCHNEIDER LS 6-c Flight Manual.	
<u>Ballast Fixed.</u>	Fixture for 3 ballast weights of 2.45 kg (5.5 lbs) each at station 1650 mm (64.96 in) forward of datum, compensating 5 kg (11 lbs) each at seat position.	
<u>Water Ballast.</u>	2 water bags per wing, max. 75 liters (19.81 US-gallons or 75 kg, 165.4 lbs) per wing at station 210 mm (8.27 in) aft of datum. Optional vertical tail fin tank, max. 5.5 liters (1.45 US-gallons or 5.5 kg, 12.1 lbs); when combined with a vertical tail fin battery box, max. 4.1 liters (1.08 US-gallons or 4.1 kg, 9 lbs), compensation 80% of C.G. forward movement due to wing water ballast or heavy pilots. See section 4 of the LBA-approved ROLLADEN-SCHNEIDER LS 6-c Flight Manual.	
<u>Control Surface Movements.</u>	Elevator	Up 25° to 30° Down 22° to 26°
	Rudder	To both sides 26° to 28°
	Aileron at flap position -5	Up 13° to 15° Down 10° to 15°
	Flaps with aileron in neutral position	Up 0° to 2° Down 18° to 20°
	Further details regarding permissible deflections of ailerons and flaps are given in the Maintenance Manual LS 6-c.	
	Dive brake with flap in "L" position	Up minimum average 150 mm (5.91 in)
<u>Rated Load for Winch and Aero Tow.</u>	Winch Tow	Maximum 825 kg (1819 lbs)
	Aero Tow	Maximum 670 kg (1477 lbs)
<u>Serial Nos. Eligible.</u>	See Import Requirements.	
<u>Certification Basis.</u>	<ol style="list-style-type: none"> <li>1. Code of Federal Regulations (CFR), 14CFR21, Effective February 1, 1965, Amendments 21-1 through 21-71.</li> <li>2. "Joint Airworthiness Requirements (JAR) for Sailplanes and Powered Sailplanes", JAR-22 through Change 4, Issued May 7, 1987; and the following requirements from FAA Advisory Circular 21.17-2, dated July 13, 1989: <ul style="list-style-type: none"> <li>22.177(b) Including AC 21.17-2 par. 6.c.(6)(i)(D)</li> <li>22.1545 Including AC 21.17-2 par. 6.c.(6)(iii)</li> </ul> </li> <li>3. The FAA Act of 1958 Section 611(b).</li> </ol>	
	LBA Type Certificate 357 dated 12 September 1991.	

Date of Application for U.S. Type Certificate: 1 November 1993.

The German Airworthiness Authority, the Luftfahrt-Bundesamt (LBA), originally type certificated this glider under its Type Certificate Number 357. The FAA validated this product under U.S. Type Certificate Number G83EU. 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.095.

#### 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. G83EU and to be in a condition for safe operation."

Model LS 6-c glider serial numbers 6261, 6288, 6306, 6308 and 6333 are eligible for U.S. Standard Airworthiness Certification when:

- 1) The FAA inspector is provided with the original Export Certificate of Airworthiness issued by the LBA which certifies the glider conforms to the foreign type certificate.
- 2) The glider has been modified in accordance with the LBA-approved ROLLADEN-SCHNEIDER Technical Bulletin 6028, dated February 28, 1995, and
- 3) The glider is found to be in condition for safe operation by the FAA inspector.

#### Equipment.

The required equipment for the kinds of approved operations must be installed and are listed in the ROLLADEN-SCHNEIDER LS 6-c Maintenance Manual which was LBA approved on October 15, 1994.

The equipment approved for the LS 6-c glider is listed on pages 12-1 through 12-3 of the ROLLADEN-SCHNEIDER LS6-c Maintenance Manual.

#### 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. Current weight and balance report including list of equipment in certificated empty weight, and loading instructions when necessary must be provided at the time of original certification.
- NOTE 2. The placards listed in the ROLLADEN-SCHNEIDER LS 6-c Maintenance Manual must be displayed in the locations defined.
- NOTE 3. Section 5 of the ROLLADEN-SCHNEIDER LS 6-c Maintenance Manual, titled "Airworthiness Limitations Section", is FAA-approved, and it specifies mandatory replacement times, structural inspection intervals, and related structural inspection procedures. These airworthiness limitations may not be changed without FAA approval.
- Flight Manual limitations may not be changed without FAA approval.
- NOTE 4. All external portions of the glider exposed to sunlight must be painted white. Other colors may be used for the wing tips, nose of fuselage and rudder.
- NOTE 5. Major 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 ROLLADEN-SCHNEIDER) repair methods approved by the FAA or by other methods approved by the FAA.
- NOTE 6. Factory manufactured 15 and 17.5 meter wing extensions are approved. Exchange of wing extensions permit 15 and 17.5 meter class operation. Name plate changes are not required.

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