DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

G14CE
Revision 1
DG Flugzeugbau GmbH
LS 8-a
LS 8-18
April 26, 2012

TYPE CERTIFICATE DATA SHEET NO. G14CE

This data sheet which is a part of Type Certificate no. G14CE 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 G14CE to DG Flugzeugbau GmbH on July 18, 2006.

I. Model LS 8-a (Utility Category), approved October 3, 2002.

Wing span 15 m (49.2 ft) with winglets.
Maximum mass of non-lifting parts 244 kg (538 lbs), may be higher according to LS8-a Flight Manual section 2.4 and Maintenance Manual chapter 2.

II. Model LS 8-18 (Utility Category), approved October 3, 2002.

Wing span 15 m (49.2 ft) with winglets or 18 m (59.1 ft) with outer wingtips with winglets.
Maximum mass of non-lifting parts 239 kg (527 lbs), may be higher according to LS8-18 Flight Manual section 2.4 and Maintenance Manual chapter 2.

III. DATA PERTINENT TO ALL MODELS:

Airspeed Limits (I.A.S.).

Maximum Airspeeds in Calm Air

Never Exceed (VNE)	km/h	kts	MPH
0-6500 ft alt.	280	151	174
6500-9800 ft alt.	266	144	165
9800-13100 ft alt.	253	137	157
13100-19700 ft alt.	227	122	141
19700-26200 ft alt.	202	109	126
26200-32800 ft alt.	179	97	111
32800-39400 ft alt	156	84	97
Never Exceed All Altitudes			
Dive Brakes	280	151	174
Landing Gear (VL)	280	151	174
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. 280 mm (11.02 in) to 400 mm (15.75 in) aft of datum.

Datum. Leading edge of wing at root.

Empty Weight C.G. Maintenance. See Section 2 of the ROLLADEN-SCHNEIDER LS 8-a or LS 8-18 Manual.

Leveling Means. Underside of fuselage boom placed horizontal.

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

No. of Seats. 1, adjustable seat back, with seat location at station 495 to 580 mm (19.49 to 22.83 in) forward of datum.

Baggage. 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 8-a or LS 8-18 Flight Manuals.

Ballast Fixed. 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.

Water Ballast. 2 integral water tanks per wing, max. 95 liters (25.10 US-gallons or 95 kg, 209.44 lbs) per wing at station 195 mm (7.68 in) aft of datum.
Possible vertical tail fin tank versions:
Slide-in 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);
Integral tank max. 12 liters (3.17 US-gallons or 12 kg, 26.46 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 8-a or LS 8-18 Flight Manuals.

Control Surface Movements.

Elevator	Up	28º to 30º
	Down	22º to 26º
Rudder	To both sides 26º to 30º	
Aileron	Up	26º to 30º
	Down	13º to 15º
Dive brake	Up	minimum average 150 mm (5.91 in)

Rated Load for Winch and Aero Tow.

Winch Tow	Maximum 825 kg (1819 lbs)
Aero Tow	Maximum 670 kg (1477 lbs)

Serial Nos. Eligible. See Import Requirements.

Certification Basis 1. Code of Federal Regulations (CRF), 14CRF21, Effective February 1, 1965,

Amendment 21-1 through 21-71.
2. "Joint Airworthiness Requirements (JAR) for Sailplanes and Powered Sailplanes", JAR-22 through Change 5, Issued October 28, 1995.
3. The FAA act of 1958 Section 611(b).
4. Alternate Means of Compliance; Joint Aviation Requirements (JAR) 22, Change 5, dated 28 October 1995; Rolladen Schneider LS-8 Series Certification Basis; Stalling Speed JAR 22.49 (b) (2) (ii); Finding No. ACE-01-05, dated July 9, 2001.

LBA Type Certificate 402 for LS 8-a originally dated 17 May 1996, for LS 8-18
dated 20 January 2000.

Date of Application for U.S. Type Certificate: 29 March 2000.

The German Airworthiness Authority, the Luftfahrt-Bundesamt (LBA), originally type certificated this glider under its Type Certificate Number 402. The FAA validated this product under U.S. Type Certificate Number G14CE. 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.047.

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. G14CE and to be in a condition for safe operation."

Model LS 8-a or LS 8-18 glider serial numbers 8096, 8100, 8154, 8155, 8211, 8212, 8216, 8219, 8213, 8220, 8221, 8230, 8231, 8234, 8236, 8272, 8288, 8292, 8296, 8302, 8319, 8325, 8334, 8335, 8337, 8341, 8342, 8344, 8345, 8347, 8355, 8367, 8371, 8374 to 8378, 8385, 8386, 8387, 8388, 8394, and 8405 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 LBA type certificate number 402.
2) The glider has been modified in accordance with the LBA-approved ROLLADEN-SCHNEIDER Technical Bulletin 8012, dated May 23, 2002, 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 following manuals:
ROLLADEN-SCHNEIDER LS 8-a Maintenance Manual which was LBA approved on May 17, 1996.
ROLLADEN-SCHNEIDER LS 8-18 Maintenance Manual which was LBA approved on January 20, 2000.

The equipment approved for the LS 8-a and LS 8-18 gliders are listed on pages 12-1 through 12-3 of the ROLLADEN-SCHNEIDER LS 8-a and LS 8-18 Mainteance Manuals.

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 8-a or LS 8-18 Maintenance Manuals must be displayed in the locations defined.

NOTE 3. Section 5 of the ROLLADEN-SCHNEIDER LS 8-a or LS 8-18 Maintenance Manuas, 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 meter winglets and 18 meter wing extensions for LS 8-18 are approved. Exchange of wing extensions permit 15 and 18 meter class operation. Name plate changes are not required.

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