

**DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION**

G18CE
Revision 1
Zakład Szybowcowy „Jeżów”
PW-6U
March 6, 2008

TYPE CERTIFICATE DATA SHEET No. G18CE

This data sheet, which is a part of Type Certificate No. G18CE 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: Zakład Szybowcowy „Jeżów”
Henryk Mynarski
Ul. Długa 93
58-521 Jeżów Sudecki
Poland

Type Certificate Holder Record: PZL-Swidnik S.A. transferred TC G18CE to Zakład Szybowcowy „Jeżów” Henryk Mynarski on April 10, 2007

I. Model PW-6U (Utility Category), approved January 7, 2004

Airspeed Limits (I.A.S.)

	[knots]	[mph]	[km/h]
V _{NE} (Never Exceed)	141	162	261
V _{RA} (Rough Air Speed)	89	102	165
Airbrake Operating Speed	Whole airspeed range. See Flight Manual Section 4.5.3.		
V _A (Maneuvering speed)	89	102	165
V _T (Max. Aerotowing Speed)	89	102	165
V _W (Max. Winch Launch Speed)	65	75	120

V _{NE} Speed Limit versus Altitude	[knots]	[mph]	[km/h]
0 - 3000 m (9843 ft)	141	162	261
4000 m (13123 ft)	135	156	250
5000 m (16404 ft)	132	153	245
6000 m (19685 ft)	130	150	240
7000 m (22966 ft)	127	147	235
8000 m (26247 ft)	121	141	225
9000 m (29528 ft)	119	137	220
10000 m (32808 ft)	116	134	215
11000 m (36089 ft)	113	131	210
12000 m (39370 ft)	111	127	205

Page No.	1	2	3	4	5
Rev. No.	1	0	0	0	0

C.G. Range (for flight)

Forward limit: 7.02 inches from root chord leading edge
(17% of Mean Standard Chord)

Aft limit: 16.77 inches from root chord leading edge
(42% of Mean Standard Chord)

Empty Weight C.G. Range

Empty glider weight	C.G. ranges [inches / cm]		C.G. location in respect to Mean Standard Chord (MSC)	
	Front	Rear	Front	Rear
750 lbs (340 kg)	25.89 / 65.75	26.34 / 66.90	64.4 % MSC	65.5 % MSC
772 lbs (350 kg)	25.31 / 64.30	26.06 / 66.20	62.9 % MSC	64.8 % MSC
794 lbs (360kg)	24.51 / 62.25	25.83 / 65.60	60.9 % MSC	64.2 % MSC

NOTE: Values vary linearly between points. See Section 7 of the Maintenance Manual.

Maneuvering Load Limits (G)

At V_A +5.3 / -2.65

At V_{NE} +4.0 / -1.5

Datum

Wing leading edge in the plane to wing fuselage connection.

Leveling Means

Wing leading edge (leveling point) and trailing edge upper surface.

Maximum Take-Off Weight

1204 lbs (546 kg)

Empty Weight

Minimum 750 lbs (340 kg) to Maximum 794 lbs (360 kg)

Minimum Crew

One pilot. Solo operation may be conducted only from the front seat.

No. of Seats

2 (Front pilot 41.73 inches / 106 cm from root chord leading edge)
(Rear pilot 4.61 inches / 11.7 cm from root chord leading edge)

Maximum Baggage Weight

Baggage 11 lbs. (15.75 inches / 40 cm from root chord leading edge)

Control Surface Movements

Elevator Up $28^\circ \pm 2^\circ$
Down $19^\circ \pm 1^\circ$

Rudder Right $33^\circ \pm 2^\circ$
Left $33^\circ \pm 2^\circ$

Aileron Up $26^\circ \pm 2^\circ$
Down $13^\circ \pm 1^\circ$
Neutral $0^\circ \pm 0.5^\circ$

Air Brake Gap

Gap between upper surface of wing and lower edge of brake plate: 0.59 inch \pm .039 inch / 15 mm \pm 1 mm.

Weak Links for Towing

Winch launching: 2408 lbf / 1072 daN

Airplane tow: 2408 lbf / 1072 daN

Serial Numbers Eligible

Serial numbers 78.01.03 and subsequent without incorporated service bulletin BS-78-02-04 are eligible for a U.S. Standard Airworthiness Certificate under type certificate G18CE on the basis of an Export Certificate of Airworthiness issued by the Republic of Poland Civil Aviation Office (CAO), stating:

- The aircraft conforms to Polish Type Certificate No. BG-213
- The incorporation of service bulletin BS-78-02-04
- The incorporation of service bulletin BS-78-04-07

Serial Numbers, cont'd

Serial Numbers: 78.03.04 and subsequent with incorporated service bulletin BS-78-02-04 are eligible for a U.S. Standard Certificate of Airworthiness under type certificate G18CE on the basis of an Export Certificate of Airworthiness issued by the Republic of Poland Civil Aviation Office stating:

- The aircraft conforms to Polish Type Certificate No. BG-213
- The incorporation of service bulletin BS-78-02-07

Non-factory built units is not eligible for a U.S. type certificate. Specified serial numbers are eligible per "Import Requirements" below.

Import Requirements

A U.S. Standard Airworthiness Certificate may be issued on the basis of a Certificate of Airworthiness for Export, endorsed by a representative of the Poland Civil Aviation Office (CAO) containing the following statement:

"The glider covered by this certificate has been examined, tested, and found to comply with the type design approved under FAA Type Certificate No. G18CE and is in a condition for safe operation."

FAA Type Certificate G18CE was issued pursuant to FAR 21.29 upon validation of the Civil Aviation Office of the Republic of Poland's certification of compliance with the certification basis, and in accordance with the standard airworthiness certificate provisions of FAR 21.183(c).

Certification Basis

- 1) JAR 22, Change 5, issued October 28, 1995
- 2) JAR 22.785(e)(f), Seat and Restraint System, Change 6, dated September 26, 2000
- 3) JAR 22.788, Head Rests, Change 6, dated September 26, 2000
- 4) Polish Type Certificate BG-213 issued September 11, 2000
- 5) Date of application for U.S. type certificate: June 27, 2001
- 6) FAA Type Certificate No. G18CE issued December 22, 2003
- 7) 14 CFR 21 effective February 1, 1965 including Amdt 21-1 through 21-84
- 8) 14 CFR 23.785(g), Amdt 23-49, effective March 11, 1996
- 9) 14 CFR 91.205 (VFR equipment requirements) effective September 30, 1963, Amdts 91-1 through 91-251.

Equipment

The basic required equipment as prescribed in the applicable airworthiness regulations (see Certification Basis) must be installed in the glider for certification. In addition, the following basic equipment and instruments are required:

1. PW-6U Sailplane Flight Manual, Ref. PZL-Świdnik S.A. Documents No. PW-6U / IUL / I / 03 US M, approved by the Republic of Poland Civil Aviation Office (CAO) on November 18, 2003.

Equipment, cont'd

2. Other required basic equipment and instruments:

Day VFR:

- a) Two airspeed indicators (knots)
- b) Two altimeters (feet and pressure scale in inches of Hg)
- c) Magnetic compass (in the forward cockpit)
- d) Total energy variometer (in the forward cockpit)
- e) Automatic or manual parachute when performing aerobatics
- f) Four-piece safety harness (symmetrical), 2 sets
- g) Towing hooks Nose: E085
 C.G.: G-88 Europa
- h) Communication transceiver
- i) Power supply unit

Cloud flying (day):

- j) Turn and bank indicator with slip ball

Service Information

“Service Bulletins, structural repair manuals, vendor manuals, glider flight manuals, and overhaul and maintenance manuals that contain a statement that the documents are approved by the exporting airworthiness authority, CAO of Poland, are accepted by the FAA and are considered FAA approved. These approvals pertain to the type design only.”

Service bulletins classified as “Mandatory” by the CAO of Poland are identified to that effect but are only mandatory in the U.S. when subject to an Airworthiness Directive issued by the FAA.

Available Documents for the PZL Swidnik model PW-6U:

1. PW-6U Maintenance Manual, Ref PZL-Świdnik S.A. Document No. PW-6U / IOT / I / 03 US M, CAO approved on November 18, 2003.
2. PW-6U Sailplane Flight Manual, Ref. PZL-Świdnik S.A. Documents No. PW-6U / IUL / I / 03 US M, approved by the Republic of Poland Civil Aviation Office (CAO) on November 18, 2003.
3. Service Bulletin BS-78-02-04, Automatic Elevator Connection to Control System.
4. Service Bulletin BS-78-02-07, Installation of the Roeger Hook.
5. See Section 4 of the Maintenance Manual for a list of independently approved components and their maintenance documents.

NOTES:

NOTE 1. A current weight and balance report including a list of equipment identified with the certificated empty weight as well as loading instructions when necessary, must be provided with each aircraft at the time of original airworthiness certification and at all times thereafter.

NOTES, cont'd

NOTE 2. All required placards as listed in the approved Sailplane Flight Manual must be installed in the appropriate locations. A complete listing of placards is found in the Instructions for Continued Airworthiness (Maintenance Manual).

The following placards must be displayed in clear view of the pilot:

- I. "THE MARKINGS AND PLACARDS INSTALLED IN THIS GLIDER CONTAIN OPERATING LIMITATIONS WHICH MUST BE COMPLIED WITH WHEN OPERATING THIS GLIDER IN THE UTILITY CATEGORY. OTHER OPERATING LIMITATIONS WHICH MUST BE COMPLIED WITH WHEN OPERATING THIS GLIDER IN THIS CATEGORY ARE CONTAINED IN THE GLIDER FLIGHT AND MAINTENANCE MANUALS."
- II. "Vne vs Altitude" placard must be located near the airspeed indicators.

NOTE 3. Instructions for Continued Airworthiness (Maintenance and Inspections) are specified in the Maintenance Manual, Document No. PW-6U / IUL / I / 03US M, latest issue. This manual specifies mandatory replacement times and operating limitations and may not be changed without FAA approval.

NOTE 4. The following procedures are prohibited:

- Night flying
- Flying into known icing conditions
- Aerotowing using the C.G. hook
- Winch launching using the nose hook

NOTE 5. All external portions of the glider exposed to sunlight must be painted white using a non-yellowing coating. It is prohibited to paint or apply color markings on the top surfaces of wings, fuselage, and control surfaces. It is prohibited to paint or apply any markings except those painted by the manufacturer and considered when the control surfaces are balanced.

NOTE 6. Major structural repairs must be accomplished at FAA certificated repair stations rated for composite aircraft structure work, in accordance with PZL-Swidnik S.A. repair methods which are approved by the FAA.

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