

**DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION**

G11CE Revision 1 PZL-Swidnik S.A. PW-5 "Smyk" August 4, 1999
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TYPE CERTIFICATE DATA SHEET No. G11CE

This data sheet which is a part of Type Certificate No. G11CE 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 PZL-Swidnik S.A.
 Polish Aviation Works
 Al. Lotnikow Polskich 1
 21-045 Swidnik
 Poland

I. Model PW-5 "Smyk" (Utility Category), approved Nov. 30, 1998

<u>Airspeed Limits (C.A.S.)</u>	Max. speed limitations:		
		<u>Knots</u>	<u>km/h</u>
	V_{NE}	118.4	220
	Airbrake operating speed	118.4	220
	Maneuvering speed (V_A)	79.1	147
	Airplane Tow (V_T)	79.1	147
	Turbulent Air (V_{RA})	79.1	147
	Auto-winch Tow (V_W)	64.6	120

<u>C.G. Range</u>	Weight	C.G. range (Aft of Datum)
	660 lbs.(300 kg)	9.25 inches (23,5 cm)
	518 lbs.(235 kg)	16.14 inches (41 cm)

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
418.88lbs (190 kg)	56,8 / 22.36	23.66 / 60,1	61,7 % MSC	20,2 % MSC
414.47 lbs (185 kg)	59,2 / 32.31	23.86 / 60,6	64,7 % MSC	20,5 % MSC
396.83 lbs (180 kg)	60,2 / 23.70	24.09 / 61,2	66,0 % MSC	20,7 % MSC

NOTE: Values vary linearly between points

Load Limits (G)	at V_A	+5.3	-2.65
	at V_{NE}	+4.0	-1.5

Page No.	1	2	3	4
Rev. No.	1	-	1	1

<u>Datum</u>	Wing leading edge in the plane to wing fuselage connection.																		
<u>Leveling Means</u>	Wing leading edge (leveling point) and trailing edge upper surface.																		
<u>Maximum Take-Off Weight</u>	660 lbs. (300 kg)																		
<u>Empty Weight</u>	from 396.8 to 418.9 lbs. (from 180 to 190 kg)																		
<u>No. of Seats</u>	1 (at 9.84 to 14.17 inches) (at 25 to 36 cm) Pilot and parachute weight (Max.) 242 lbs. (110 kg) (Min.) 121 lbs. (55 kg)																		
<u>Equipment and Baggage Weight</u>	Baggage 11 lbs. (6.50 inches) (5 kg at 16,5 cm)																		
<u>Control Surface Movements</u>	<table border="0" style="margin-left: 20px;"> <tr> <td style="vertical-align: top;">Elevator</td> <td style="vertical-align: top;">Up</td> <td style="vertical-align: top;">25° + 1°</td> </tr> <tr> <td></td> <td style="vertical-align: top;">Down</td> <td style="vertical-align: top;">15° + 1°</td> </tr> <tr> <td style="vertical-align: top;">Rudder</td> <td style="vertical-align: top;">Right</td> <td style="vertical-align: top;">25° + 2°</td> </tr> <tr> <td></td> <td style="vertical-align: top;">Left</td> <td style="vertical-align: top;">25° + 2°</td> </tr> <tr> <td style="vertical-align: top;">Aileron</td> <td style="vertical-align: top;">Up</td> <td style="vertical-align: top;">26° + 1.5°</td> </tr> <tr> <td></td> <td style="vertical-align: top;">Down</td> <td style="vertical-align: top;">15° ± 1°</td> </tr> </table>	Elevator	Up	25° + 1°		Down	15° + 1°	Rudder	Right	25° + 2°		Left	25° + 2°	Aileron	Up	26° + 1.5°		Down	15° ± 1°
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<u>Weak Links for Towing</u>	<table border="0" style="margin-left: 20px;"> <tr> <td style="vertical-align: top;">Auto or Winch launching</td> <td style="vertical-align: top;">1460 lbs.</td> <td style="vertical-align: top;">700 daN</td> </tr> <tr> <td style="vertical-align: top;">Airplane tow</td> <td style="vertical-align: top;">1460 lbs.</td> <td style="vertical-align: top;">700 daN</td> </tr> </table>	Auto or Winch launching	1460 lbs.	700 daN	Airplane tow	1460 lbs.	700 daN												
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<u>Serial Numbers Eligible</u>	<p>The issuance of a U.S Standard Airworthiness Certificate for these aircraft is based on the provisions of FAR 21.183(d). Serial numbers 17.02.001 thru 17.12.006 are eligible for a U.S. Standard Airworthiness Certificate under type certificate G11CE on the basis of an Export Certificate of Airworthiness issued by the Republic of Poland General Inspectorate of Civil Aviation (GICA), stating the aircraft conforms to the Polish Type Certificate No. BG-194 and by the incorporation of the following applicable service bulletins: 1/PW-5/95, 3/PW-5/96, 6/PW-5/97, 6/PW-5/97/1, 7/PW-5/97 and 8/PW-5/97.</p> <p>Serial Numbers: 17.12.007 and subsequent are eligible for a U.S. Standard Certificate of Aiworthiness per “Import Requirements” below.</p> <p>Non-factory built units are not eligible.</p>																		
<u>Import Requirements</u>	<p>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 General Inspectorate of Civil Aviation (GICA), Poland, stating that the aircraft covered by this certificate has been examined, tested, and found to conform to the type design approved under Type Certificate No. G11CE and is in a condition for safe operation.</p> <p>The Type Certificate G11CE was issued pursuant to FAR 21.29 upon validation of the General Inspectorate of Civil Aviation 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).</p>																		

Certification Basis

JAR 22 Ch. 4 issued May 7, 1987 including amendments by Orange Paper 22/90/1 and 22/91/1, and amended as follows:

JAR 22.1545 amended to Orange Paper 22/94/1

JAR 22.1585 amended to Orange Paper 22/94/1

Polish Type Certificate Nr BG-194, issued March 10, 1994.

Date of application for U.S. type certificate; June 16, 1995.

Equipment

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

1. Model PW-5 approved Sailplane Flight Manual,
Ref. WSK PZL-Swidnik Documents No.:

PW-5/IWL/II/94 issue March, 1994 (from S/N 17.02.001 up to S/N 17.07.009).

PW-5/IWL/III/97 issue March, 1997 (from S/N 17.07.010 up to S/N 17.12.006).

PW-5/IWL/I/98 US issue June 15, 1998 (from S/N 17.12.007 and subsequent) or later approved revision.

2. Required equipment:
 - Airspeed Indicator (knots)
 - Altimeter (Feet)
 - Lap and shoulder straps
 - Magnetic direction indicator

NOTES

NOTE 1.

A current weight and balance report including list of equipment in certificated empty weight, and loading instructions, must be provided with each aircraft at the time of original airworthiness certification, and at all times thereafter.

NOTE 2.

Placards. All required placards as listed in the approved Airplane Flight Manual must be installed in the appropriate locations.

NOTE 3.

Instructions for Continued Airworthiness and Service Life Limits of components are contained in the WSK PZL-Swidnik Model PW-5 Maintenance Manual Doc. No.:

PW-5/IOT/II/94 (from S/N 17.02.001 up to S/N 17.12.006)

PW-5/IOT/I/98 US (from S/N 17.12.007 and subsequent) or later approved version.

Changes to the LIMITATIONS section must be FAA approved.

Manufacturer's service bulletins (and other manual material) which contain a statement that the document is approved by the exporting airworthiness authority of Poland the GICA, may be interpreted as FAA approved. These approvals pertain to the type design only.

Service bulletins classified as Mandatory by the GICA 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.

NOTE 4.

All external portions of the glider exposed to sunlight must be painted white. Other colors may be used on the wing tips and for the registration number, as described in the PW-5 maintenance Manual LIMITATION section.

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