



**TYPE CERTIFICATE DATA SHEET Nº EP-2020T03**

Type Certificate Holder:

**Allstar PZL Glider Sp. z o.o.**  
ul. Cieszyńska 325  
43-300 Bielsko-Biała  
**Poland**

**EP-2020T03  
Sheet 01**

**ALLSTAR PZL  
GLIDER**

**SZD-55-1**

**27 March 2020**

This data sheet, which is part of Type Certificate No. 2020T03, prescribes conditions and limitations under which the product, for which the Type Certificate was issued, meets the airworthiness requirements of the Brazilian Aeronautical Regulations.

**I - Model SZD-55-1 (Utility Category), approved 27 March 2020.**

<b>AIRSPPEED LIMITS (IAS)</b>		km/h
	Winch Launching, C.G. Hook ( $V_W$ )	145
	Aerotowed Flight ( $V_T$ )	155
	Never Exceed - Smooth Air ( $V_{NE}$ )	255
	Never Exceed - Gust Conditions ( $V_{RA}$ )	195
	Maneuvering ( $V_A$ )	195
	Airbrake Operation	255
	Undercarriage Operation ( $V_{LO}$ )	255
<b>CG RANGE</b>	Allowed range of in-flight sailplane: Front Limit: 28.31 cm (19.0% MAC) Rear Limit: 44.12 cm (42.0% MAC) See Note 1 and Flight Manual for additional information	
<b>DATUM</b>	Wing leading edge at wing root rib	
<b>LEVELING MEANS</b>	Root rib horizontal	
<b>MEAN AERODYNAMIC CHORD</b>	0.6874 m	
<b>MAXIMUM WEIGHT (Mass)</b>	In-flight without water ballast	350 kg
	In-flight with water ballast	500 kg
<b>MINIMUM CREW</b>	One (pilot)	
<b>NUMBER OF SEATS</b>	One	
<b>MAXIMUM BAGGAGE</b>	5 kg (luggage compartment before the spar)	

**CONTROL SURFACE MOVEMENTS**

Elevator:	Up 30° ±1°	Down 20° ±1°
Rudder:	Right 35° -3°	Left 35° -3°
Aileron:	Up 31.5° ±1°	Down 14.5° ±1°
	Aileron up and down deflections measured in reference to the neutral position. At this setting (neutral setting) both ailerons deflected symmetrically down 2.5°	
Airbrake	180.0 mm ±3 mm (measured in reference to wing top surface)	

**S/N'S ELIGIBLE**

- 551190001 to 551199110;
- 551A04001 and on.

Remarks:

- S/Ns like 551Ayyynn may also be wrote as 551.A.yy.nnn;
- S/Ns wrote as 551.A.yy.nnn may have a "W" at the end (551.A.yy.nnnW);
- S/Ns that starts with "X-" are prototypes and NOT eligible;
- S/N 551194072 is NOT eligible (wings come from prototype aircraft);
- S/N 551198105XM is NOT eligible (another model, not validated in Brazil).

**IMPORT ELIGIBILITY**

A Brazilian Certificate of Airworthiness may be issued on the basis of on an ULC Export Certificate of Airworthiness (or a third country Export Certificate of Airworthiness, in case of used aircraft imported from such country), including the following statement:

"The aircraft covered by this certificate has been inspected, tested and found to be in conformity with the Brazilian approved type design as defined by the Brazilian Type Certificate no. 2020T03 and is in condition of safe operation".

**CERTIFICATION BASIS**

Brazilian Type Certificate No. 2020T03 issued on 24 March 2020 based on the RBAC 21.29, 21.17(b) and Joint Airworthiness Requirements for Sailplanes and Powered Sailplanes (JAR 22), Change 4, issued, issue 07 May 1987.

<b>Special Conditions:</b>	None
<b>Exemptions:</b>	None
<b>Equivalent Safety Findings:</b>	None
<b>Environmental Standards:</b>	ICAO Annex 16

**REQUIRED EQUIPMENT**

The basic required equipment, as prescribed in the applicable airworthiness regulations (see Certification Basis) must be installed in the airplane.

Standard equipment:

- Airspeed indicator with stall warning device LUN 1107-8;
- Altimeter W-10S or W-12S
- Variometer WRs-5D
- Variometer WRs-30C
- Turn indicator EZS-3 or EZS-4
- Compass KI-13A or BS-1
- Compensator KWEC-2
- Nose towing hooks TOST E85
- C.G. towing hook TOST G88

- REQUIRED EQUIPMENT (CONT.)**
- Complete set of safety harness J5-00-00
  - Seat cushion
  - Remark: The glider may be equipped alternatively with C.G. tow hook (installed on landing gear), with nose tow hook (in front of control column), or both.

**NOTES:**

- NOTE 1** Weight and balance. A weight and balance report, listing all equipment included in the empty weight, must be supplied with each glider.  
 Maximum fuselage load is determined individually for each plane, basing on results of sailplane weighing with standard equipment, and given in Flight Manual.  
 Pilots of weight below 60 kg must use the corrective ballast as specified in Flight Manual.  
 The allowed range of C.G. positions of empty sailplane with standard equipment depends on the mass of empty plane and it is specified in diagrams in Flight Manual.  
 C.G. position is measured in respect to Datum Point. Datum Point is the leading edge at the wing/fuselage partition plane. The leading edge of MAC is 15.25 cm aft in reference to Datum Point.  
 The weighing is to be performed at such glider attitude that the leading edge and trailing edge of the wing cross-section at the levelling point are leveled.  
 Information on the allowed sailplane load and its distribution, ensuring that the allowed in-flight weight and C.G. position will be maintained, are contained in the Flight Manual.  
 When determining the allowed load conditions, the crew with back parachute has been assumed. While flying without the parachute, pilot shall use the back cushion of 8 cm thickness. When using parachute of thickness different from 8.0 cm, the cushion thickness should be correct appropriately.
- NOTE 2** Markings and placards. All required marking and placards are listed in the SZD-55-1 Technical Service Manual and must be displayed.
- NOTE 3** Continuing Airworthiness. See SZD-55-1 Technical Service Manual for inspections, life limited components and other requirements for continued airworthiness.
- NOTE 4** The differences of the Brazilian airplanes in relation to the basic ULC type design are summarized below:  
 1. The Brazilian Airplane Flight Manual cover page must be included.  
 2. Only altimeters which present barometric setting units of “mbar” or “hpa” may be installed.
- NOTE 5** All parts exposed to sun radiation, except the areas for markings and registration, must have a white color surface
- NOTE 6** Cross wind component verified in take-off and landing: 5 m/s
- NOTE 7** Limit maneuvering load factors:  
 - At  $V_A$  speed: +5.3 g  
 - At  $V_G$  speed: -2.65 g  
 - At  $V_{NE}$  speed: +4.7 g
- NOTE 8** Allowed aerobatic maneuvers and recommended entry speeds:
- | Maneuver            | Speed (km/h) | Maneuver      | Speed (km/h) |
|---------------------|--------------|---------------|--------------|
| Normal loop         | 160 – 180    | Climbing turn | 180 – 195    |
| Stall turn          | 160 – 180    | Lazy eight    | 170 – 185    |
| Half roll half loop | 90 – 100     | Spin          | -            |

**NOTE 8 (CONT.)** Remark: Aerobatics allowed only without water ballast (wing and fuselage tanks)

**NOTE 9** Safety link:  
While aerotowed or winch-launched, shall be used the safety link of  $600\pm 50$  daN rated strength, according to the dwg No 551.04.05, or other approved safety link with rated strength not exceeding 650 daN.

**NOTE 10** Other limitations:  
- Night flying not allowed.  
- Flights with water ballast at temperature below  $0^{\circ}\text{C}$  (273 K) not allowed.  
- Winch-launched take-off allowed only with C.G. hook installed on landing gear.

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São José dos Campos, 27 March 2020.

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**Subject: SZD-55-1– TCDS**

Ref.: EP-2020T03, SEI no. 4189448.

1. In attention to the document referred above, ANAC hereby issues the TCDS no. EP-2020T03.
2. This TCDS is available at ANAC website: <https://sistemas.anac.gov.br/certificacao/Produtos/EspecificacaoOrgE.asp>

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Documento assinado eletronicamente por **Mário Igawa, Gerente-Geral de Certificação de Produtos Aeronáuticos**, em 30/03/2020, às 14:23, conforme horário oficial de Brasília, com fundamento no art. 6º, § 1º, do [Decreto nº 8.539, de 8 de outubro de 2015](#).



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