European Union Aviation Safety Agency

TYPE-CERTIFICATE
DATA SHEET

No. EASA.A.451

for

SZD-56 “Diana”

Type Certificate Holder

Avionic Spółka Jawna
Bolesław Kawik - Katarzyna Kawik

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POLAND

Models: SZD-56-1 “Diana”
SZD-56-2 “Diana-2” (Restricted Type Certificate)

Issue 04, 10/04/2026

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A.I. General

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2.	a) Type: b) Model: c) Variant:	SZD-56 “Diana” SZD-56-1 “Diana”
3.	Airworthiness Category:	Sailplane - Utility (U) Category
4.	Manufacturer:	1. Przedsiębiorstwo Doświadczalno-Produkcyjne Szybownictwa (PDPSz) „PZL - Bielsko” 2. Biuro Projektowe „B” Bogumił Bereś
5.	Polish CAA Certification Date:	23 June 1997 (TC No. BG-203)
6.	The EASA TC replaces Polish Type Certificate No. BG-203/1, which replaced the BG-203 on 05 February 2001, due to TC transfer from PDPSz “PZL-Bielsko” to Biuro Projektowe „B” Bogumił Bereś.	

A.II. Certification Basis

1.	Reference Date for determining the applicable requirements:	January 1995
2.	Airworthiness Requirements:	JAR-22, Change 4, issued on 7 May 1987, with Amendments up to No. 22/94/1 dated on 10 November 1994
3.	Special Conditions:	None
4.	Exemptions:	None
5.	Deviations:	None
6.	Equivalent Safety Findings:	None
7.	Requirements elected to comply:	None
8.	Environmental Standards:	None

A.III. Technical Characteristics and Operational Limitations

1. Type Design Definition: List of Drawings for sailplane SZD-56-1 “Diana”

2. Description:
Single-seat high-performance sailplane of 15-meter flapped class.
Cantilever mid-wing monoplane with T-shaped tail unit.
All composite carbon-aramid-epoxy structure.
Bipartite monocoque wing of multi-tapered contour and constant aerofoil section NN-27-13.
Wings mounted on fixed fuselage spar.
Plate airbrakes protruding only from upper surface.
Flaperons over the whole wing span.
Water ballast tanks in wings and fin.
Retractable main landing gear and fixed tail wheel.
Main wheel with drum brake and shock absorber.

3. Equipment:
Standard equipment:
- airspeed indicator,
- altimeter,
- compass,
- rate-of-climb indicator,
- towing hook,
- pilot safety belts (4-point),
- first aid kit.

4. Dimensions:

Span:	15,00 m
Wing area:	8,16 m^2
Aspect ratio:	27,57
Length:	6,88 m
Height:	1,35 m

5. Launching Hook: SZD-III P or TOST E85

6. Weak Links: Nominal strength: 677 daN (±10%)

7. Load Factors:

	+5,3 / -2,65	(up to V_A)
	+4,0 / -1,5	(up to V_{NE})
Flaps down deflected	+4,0	(up to V_{FE})
Airbrakes extended	+3,5	(up to V_{NE})

8. Air Speeds (IAS) :

Never Exceed Speed	V_{NE}	270 km/h
Manoeuvring Speed	V_A	195 km/h
Maximum permitted speeds:		
- flaps up (from -4° to 0°)	V_{FE}	270 km/h
- flaps down (over 0° up to +14°)	V_{FE}	175 km/h
- in rough air	V_{RA}	195 km/h
- in aero-tow	V_T	140 km/h

9. Operational Capability: Approved for VFR-day conditions.

10. Masses:

Max. mass with water ballast:	410 kg
Max. mass without water ballast:	297 kg
Empty mass:	182 kg

11. Centre of Gravity Range:

Empty glider with standard equipment:

Forward and Rearward Limits depend on empty glider mass and are shown in Flight Manual - point 2.5.

Centre of Gravity operational limits:

Forward limit:	105 mm aft of the datum (19,0 % MAC)
Rearward limit:	257 mm aft of the datum (45,0 % MAC)

MAC is 570,6 mm; 0% MAC is on the same coordinate along longitudinal axis as the datum.

12. Datum: Leading edge and wing-fuselage division plane intersection.

13. Levelling Means: Leading and trailing points of the root chord (670 mm) at the same level.

14. Control surface deflections:

Aileron:	- up	22°	±1°
	- down	12°	±1°
Elevator:	- up	34°	±1°
	- down	18°	±1°
Rudder:	- left	30°	±1°
	- right	33°	±1°
Flaps:	- up	4°	±1°
	- down	14°	±1°

15. Minimum Flight Crew: 1 pilot

16. Maximum Passenger Seating Capacity: No Passengers

17. Baggage/ Cargo Compartments: Refer to the Flight Manual

18. Lifetime Limitations: Refer to the Technical Service Manual

19. Other Limitations: The following is prohibited:

- night flying,
- cloud flying,
- flights in icing conditions,
- aerobatics,
- flights with water ballast at outside temperature below 0°C,
- winch launching.

A.IV. Operating and Service Instructions

1. Flight Manuals:

Polish	● *Instrukcja Użytkowania w Locie Szybowca SZD-56-1 „Diana”, wydanie II - wrzesień 2001*
English	● Flight Manual of Sailplane SZD-56-1 “Diana”, Issue II - September 2001

2. Maintenance Manuals:

Polish	● *Instrukcja Obsługi Technicznej Szybowca SZD-56-1 „Diana”, wydanie I - maj 1997*
English	● Technical Service Manual of Sailplane SZD-56-1 “Diana”, Issue I - May 1997

A.V. Notes:

1. This TCDS, Section A applies to the following S/N:
   X-147; X-152,
   561197001, 561101002, 561101003
2. All glider outside surfaces must be white painted. Neither registration number nor any colour marks on the wings and stabilizer upper surfaces are allowed

Section B: SZD-56-2 “Diana-2”

B.I. General

1.	Data Sheet No.:	EASA.A.451
2.	a) Type: b) Model: c) Variant:	SZD-56 “Diana” SZD-56-2 “Diana-2”
3.	Airworthiness Category:	Restricted Category Sailplane - Utility (U) Category
4.	Manufacturer:	1. Biuro Projektowe „B” Bogumił Bereś 2. Avionic Spółka Jawna, Bolesław Kawik - Leszek Matuszek
5.	Polish CAA Certification Application Date:	26 April 2004
6.	EASA Certification Application Date:	25 October 2011
7.	EASA Certification Date:	21 December 2015 The SZD-56-2 “Diana-2” model has got Restricted Type Certificate

B.II. Certification Basis

1.	Reference Date for determining the applicable requirements:	26 April 2004
2.	Airworthiness Requirements:	JAR-22, Amendment 7, dated 1 September 2003
3.	Special Conditions:	None
4.	Restrictions:	• Normal landing with water ballast is banned. In case of emergency landing with water ballast, an inspection is required. • Maximum crosswind component during take-off with water ballast – 5 m/s • Take-offs with water ballast from runway with high grass – prohibited • Operation is limited to holder of an appropriate valid license for sailplanes • Operation is limited to pilots who have accumulated more than 100 hours of flight experience on other flapped sailplanes.

5. Deviations: None

6. Equivalent Safety Findings:
   - JAR 22.201(g), 221(a) – CRI B-01 Stall and spin characteristics with water ballast asymmetry
   - JAR 22.473, 479, 485, 723, 731 – CRI C-01 Landing gear loads

7. Requirements elected to comply: None

8. Environmental Standards: None

B.III. Technical Characteristics and Operational Limitations

1. Type Design Definition: List of Drawings, Document No. 562-DSG-06, issued in December 2004, revision 1 dated 15.01.2005 or later approved revision.

2. Description: Single-seat high-performance sailplane of 15-meter flapped class.
Cantilever mid-wing monoplane with T-shaped tail unit.
All composite carbon-aramid-epoxy structure.
Bipartite monocoque wing of curvilinear contour and variable along span aerofoil section of KL-002-12*F/17 family, with winglets.
Wings mounted on fixed fuselage spar.
Plate airbrakes protruding only from upper surface.
Flaperons over the whole wing span.
Water ballast tanks in wings and fin.
Retractable main landing gear and fixed tail wheel.
Main wheel with drum brake and shock absorber.

3. Equipment: Standard equipment:
   - airspeed indicator,
   - altimeter,
   - compass,
   - rate-of-climb indicator,
   - towing hook,
   - pilot safety belts (4-point),
   - outside air temperature gauge.

4. Dimensions:

Span:	15,00 m
Wing area:	8,64 m^2
Aspect ratio:	26,04
Length:	6,88 m
Height:	1,35 m

5. Launching Hook: SZD-III A 56 or TOST E85

6. Weak Links: Nominal strength: 677 daN (±10%)

7. Load Factors:

	+5,3 / -2,65	(up to V_A)
	+4,0 / -1,5	(up to V_{NE})
Flaps down deflected (over +8° up to +28°)	+4,0 / 0,0	(up to V_{FE})
Airbrakes extended	+3,5 / -1,5	(up to V_{NE})

8. Air Speeds (IAS) :

Never Exceed Speed	V_{NE}	275 km/h
Manoeuvring Speed	V_A	198 km/h
Maximum permitted speeds:		
- flaps up (from -2° to +8°)	V_{FE}	275 km/h
- flaps down (over +8° up to +28°)	V_{FE}	212 km/h
- in rough air	V_{RA}	198 km/h
- in aero-tow	V_T	139 km/h

9. Operational Capability: Approved for VFR-day conditions.

10. Masses:

Max. mass with water ballast:	500 kg
Max. mass without water ballast:	297 kg
Max. mass for landing:	297 kg
Min. mass without water ballast:	237 kg

11. Centre of Gravity Range: Empty glider with standard equipment:
Forward and Rearward Limits depend on empty glider mass and are shown in Flight Manual - point 2.5.

Centre of Gravity operational limits:

Forward limit:	202 mm aft of the datum (19,0 % MAC)
Rearward limit:	362 mm aft of the datum (45,0 % MAC)

MAC is 615 mm; 0% MAC lies 85 mm aft of the datum.

12. Datum: Leading edge and wing-fuselage division plane intersection.

13. Levelling Means: Upper contour of the tail boom in horizontal position

14. Control surface deflections:

Aileron:	- up	18° ±1°
	- down	12° ±1°
Elevator:	- up	30° ±1°
	- down	27° ±1°
Rudder:	- left	30° ±1°
	- right	33° ±1°
Flaps:	- up	2° ±1°
	- down	28° ±1°

15. Minimum Flight Crew:	1 pilot
16. Maximum Passenger Seating Capacity:	No Passengers
17. Baggage/ Cargo Compartments:	Refer to the Flight Manual
18. Lifetime Limitations:	Refer to the Technical Service Manual
19. Other Limitations:	The following is prohibited: - night flying, - cloud flying, - flights in icing conditions, - aerobatics, - flights with water ballast at outside temperature below 0°C, - winch launching.

B.IV. Operating and Service Instructions

1. Flight Manuals:
   - Polish: ● *Instrukcja Użytkowania w Locie Szybowca SZD-56-2 „Diana-2”, wydanie II, lipiec 2015*
   - English: ● Flight Manual for a Sailplane SZD-56-2 “Diana-2”, Issue II, July 2015
2. Maintenance Manuals:
   - Polish: ● *Instrukcja Obsługi Technicznej Szybowca SZD-56-2 „Diana-2”, wydanie II, lipiec 2015*
   - English: ● Technical Service Manual for a Sailplane SZD-56-2 “Diana-2”, Issue II, July 2015

B.V. Notes:

1. This TCDS, Section B applies to S/N 5621yynnn, starting from 562105001
   where:
   yy - the year of the aircraft manufacture,
   nnn - the successive aircraft number.
2. All glider outside surfaces must be white painted. Neither registration number nor any colour marks on the wings and stabilizer upper surfaces are allowed

Administrative section

Acronyms

CRI	Certification Review Item
MAC	Mean Aerodynamic Chord
S/N	Aircraft Serial Number
VFR	Visual Flight Rules

Type Certificate Holder Record

1. since 2007 till 2017:
   Biuro Projektowe „B” Bogumił Bereś
   ul. Goleszowska 4/136
   43-308 Bielsko-Biała
   POLAND
2. since 2017 till 2022:
   Avionic Spółka Jawna, Bolesław Kawik - Leszek Matuszek
   ul. Stary Dwór 9
   43-436 Górki Wielkie
   POLAND

   According to the bilateral agreement, actions and obligations required from the TC Holder by paragraph 21.A.44 (Annex I to Commission Regulation (EU) No 748/2012) were undertaken by:
   Zakłady Lotnicze Margański & Mysłowski S.A. (DOA No. EASA.21J.117)
   ul. Strażacka 60
   43-300 Bielsko-Biała
   POLAND
3. since 2023:
   Avionic Spółka Jawna, Bolesław Kawik - Katarzyna Kawik
   ul. Stary Dwór 9
   43-436 Górki Wielkie
   POLAND

Change Record

Issue	Date	Changes
Issue 01	28 Mar 2007	Transfer from Polish Type Certificate No. BG-203/1 to the EASA Type Design
Issue 02	21 Dec 2015	The SZD-56-2 “Diana-2” model added
Issue 03	05 Apr 2017	Type Certificate transfer to the new TC Holder
Issue 04	10 Apr 2026	Change in the TC Holder name Removal of the SZD-56-2 prototype, S/N XB-01