



TYPE-CERTIFICATE DATA SHEET

No. EASA.A.546

for
PS-28 Cruiser

Type Certificate Holder:

Czech Aircraft Group s.r.o.

Na Záhonech 212
686 04 Kunovice
CZECH REPUBLIC

For models: PS-28 Cruiser



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SECTION A: PS-28 CRUISER

A.I. General

1. Type/ Model/ Variant

1.1 Type PS-28 Cruiser

1.2 Model PS-28 Cruiser

1.3 Variant Not applicable

2. Airworthiness Category

Restricted

3. Manufacturer

Czech Sport Aircraft a.s.

Na Záhonech 212

686 04 Kunovice

CZECH REPUBLIC

Czech Aircraft Group s.r.o.

Na Záhonech 212

686 04 Kunovice

CZECH REPUBLIC

S/N C0418, S/N C0421, S/N C0646 and S/N C0648
and from S/N C0660 inclusive

4. EASA Type Certification

Application Date

31 March 2011

5. EASA Type Certification Date

16 April 2012

A.II. EASA Certification Basis

1. Reference Date for determining
the applicable requirements

27 June 2011

2. Airworthiness Requirements

Certification Specifications for Light Sport Aeroplanes
CS-LSA, Initial Issue, 27 June 2011

3. Special Conditions

None

4. Exemptions

None

5. (Reserved) Deviations

None

6. Equivalent Safety Findings

None

7. Environmental Protection

ICAO Annex 16, Chapter 10



A.III. Technical Characteristics and Operational Limitations

- | | | |
|----|------------------------|--|
| 1. | Type Design Definition | PS-28 Cruiser RTC Type Design - Report No. PS-REP-10-02-EN, Rev. 11, or later approved revisions |
| 2. | Description | Two-seat, low wing, single-engine, semi-monocoque structure, with tricycle landing gear |
| 3. | Equipment | PS-28 Cruiser RTC Type Design - Report No. PS-REP-10-02-EN, Rev. 11, or later approved revisions |

The minimum instruments and equipment list is shown in POH Section 2 – Limitations.

- | | | | |
|----|------------|-----------|---------------------|
| 4. | Dimensions | Span | 8.600 m |
| | | Length | 6.620 m |
| | | Height | 2.315 m |
| | | Wing Area | 12.3 m ² |

- | | | |
|----|--------------|-------------------------------|
| 5. | Engine | |
| | 5.1 Engine 1 | Rotax 912 S2
TC EASA.E.121 |

- | | |
|--------------|---|
| 5.2 Engine 2 | Rotax 912 ULS2
Certified as part of the aircraft |
|--------------|---|

- | | | |
|----|-------------|--|
| 6. | Limitations | |
|----|-------------|--|

Power	Max. Take-off: 73.5 kW at 5,800 rpm (max. 5 min) Max. continuous: 69 kW at 5,500 rpm Cruising (75 %): 51 kW at 5,000 rpm
Engine speed:	Max. Take-off: 5,800 rpm (max. 5 min) Max. continuous: 5,500 rpm Cruising (75 %): 5,000 rpm Idling: 1,400 rpm (minimum)
Oil pressure:	Minimum: 0.8 bar below 3,500 rpm Maximum: 7 bar cold engine starting Optimum: 2 – 5 bar above 3,500 rpm
Oil temperature:	Minimum: 50 °C Maximum: 130 °C Optimum: 90 – 110 °C
Cylinder Head Temperature (CHT):	Maximum: 135 °C
Coolant Temperature (CT):	Maximum: 120 °C *)



*) With the change to a new cylinder heads design (applicable for 912 ULS2 engines from S/N 6 781 410 inclusive and for 912 S2 engines from S/N 4 924 544 inclusive, or on all engines with type designation followed by suffix-01, or on all engines which have been later equipped with the new cylinder heads design of P/N 413185 at cylinder head position 2/3), no longer the Cylinder Head Temperature is measured, but the Coolant Temperature.

The Coolant Temperature is indicated on EMS-D120 screen further using the abbreviation „CHT“.

Exhaust gas temperature (EGT):

Nominal: 800 °C

Maximum: 850 °C

Max. take-off: 880 °C

Fuel pressure: Minimum: 0.15 bar

Maximum: 0.4 bar

Maximum: 0.5 bar **)

**) applicable only for fuel pumps from S/N 11.0036

7. Propeller

7.1 Propeller 1

KLASSIC 170/3/R

Certified as part of the aircraft

Number of blades 3

Diameter 1,712 mm +/- 3 mm

Sense of rotation: clockwise, in pilot's view

Pitch setting according AMM and POH

7.2 Propeller 2

Sensenich 3B0R5R68C

Certified as part of the aircraft

Number of blades 3

Diameter 1,727 mm

Sense of rotation: clockwise, in pilot's view

Pitch setting according AMM and POH

8. Fluids

8.1 Fuel:

MOGAS

European standards:

min. RON 95, EN 228 Super, EN 228 Super plus

US standard:

ASTM D 4814

Canadian standards:

min. AKI 91, CAN/CGSB-3.5 Quality 3

AVGAS 100 LL

8.2 Oil:

AeroShell Oil Sport Plus 4

SAE: 10W-40, API: SL



- 8.3 Coolant: ASTM D 3306, VW TL 774C
Mixing ratio coolant/water: 50/50
9. Fluid capacities:
- 9.1 Fuel: Total fuel quantity: 114 litres
Total usable fuel: 113 litres
- 9.2 Oil: Minimum 3.3 litres
Maximum 3.8 litres
- 9.3 Coolant system capacity: Approx. 2.5 litres
10. Airspeeds (IAS):
- | | | |
|-----------------------------|-----|--------------------|
| Never exceed speed | VNE | 138 kts (256 km/h) |
| Design manoeuvring speed | VA | 88 kts (163 km/h) |
| Maximum flap extended speed | VFE | 75 kts (139 km/h) |
| Stalling speed | VSO | 31 kts (57 km/h) |
11. Maximum Operating Altitude: 15,000 ft
12. Operation: VFR Day only
13. Maximum Weights:
- | | |
|--|--------|
| Maximum take-off and landing weight | 600 kg |
| Maximum fuel weight | 82 kg |
| Maximum baggage weight in rear fuselage | 18 kg |
| Maximum baggage weight in each wing locker | 10 kg |
| Maximum empty weight | 405 kg |
14. Centre of Gravity Range:
- Empty weight centre of gravity range: 28.5 to 29.5 % of MAC
427.5 to 442.5 mm of MAC
- Operating centre of gravity range: 28 to 35 % of MAC
420 to 525 mm of MAC
15. Datum: The datum (reference plane) for arms measuring is on the wing leading edge – rib No. 4.
16. Levelling Procedure: Placement of scales under each wheel.
Deflation of the nose tire and/or lowering or raising the nose strut to properly centre the bubble in the level.
17. Minimum Flight Crew: 1 (pilot)
18. Maximum Passenger Seating Capacity: 1
19. Baggage/Cargo Compartments: Max. 38 kg



A.IV. Operating and Service Instructions

PS-28 Cruiser Pilot's Operating Handbook (LTD+ avionics equipment) Rev. - issued on 2011-09-01, or later approved revisions	PS-POH-1-1-11
PS-28 Cruiser Pilot's Operating Handbook (6-pack avionics equipment) Rev. - issued on 2011-10-24, or later approved revisions	PS-POH-1-1-12
PS-28 Cruiser Pilot's Operating Handbook (SkyView system equipment) Rev. - issued on 2014-06-17, or later approved revisions	PS-POH-1-1-13
PS-28 Cruiser / SportCruiser Maintenance Manual Rev. 2 issued on 2011-11-08, or later approved revisions	CR-MM-1-0-00
PS-28 Cruiser / SportCruiser Instructions for Continued Airworthiness Rev. - issued on 2011-03-01, or later approved revisions	CR-ICA-1-0-00
PS-28 Cruiser / SportCruiser Aircraft Assembly Manual Rev. - issued on 2011-03-01, or later approved revisions	CR-AAM-0-0-00
PS-28 Cruiser / SportCruiser Wiring Manual (LTD+ avionics equipment) Rev. - issued on 2011-03-01, or later approved revisions	CR-WMA-1-0-00
PS-28 Cruiser / SportCruiser Wiring Manual (SkyView system equipment) Rev. 3 issued on 2014-09-18, or later approved revisions	CR-WMA-1-0-03
PS-28 Cruiser / SportCruiser Wiring Manual (6-pack avionics equipment) Rev. - issued on 2011-03-01, or later approved revisions	CR-WMA-1-0-04
PS-28 Cruiser / SportCruiser / PiperSport Illustrated Parts Catalogue Rev. - issued on 2010-12-12, or later approved revisions	CR-IPC-1-0-00



A.V. Notes

1. Optional installation of propeller Sensenich 3B0R5R68C in addition with after-muffler (Dwg. SE0490N) approved under Major-Change No. S-Z-0005 (EASA Approval No. 10047966).



SECTION ADMINISTRATIVE

IV. Acronyms & Abbreviations

None

V. Type Certificate Holder Record

TC Holder	Period
Czech Sport Aircraft a.s. Na Záhonech 212 686 04 Kunovice CZECH REPUBLIC	16 April 2012 – 16 January 2020
Czech Aircraft Group s.r.o. Na Záhonech 212 686 04 Kunovice CZECH REPUBLIC	Since 17 January 2020

VI. Change Record

Issue	Date	Changes	TC issue / date
Issue 01	16 April 2012	Initial Issue	Initial issue / 16 April 2012
Issue 02	31 January 2014	Propeller Sensenich 3B0R5R68C and after-muffler	Initial issue / 16 April 2012
Issue 03	21 November 2014	Installation of Dynon SkyView System	Initial issue / 16 April 2012
Issue 04	11 December 2015	Incorporation of new cylinder head design for Rotax 912 S2/ULS2 engine with CT monitoring	Initial issue / 16 April 2012
Issue 05	19 September 2019	Aircraft manufacturer change Correction of typo error in A.III 18.	Initial issue / 16 April 2012
Issue 06	17 January 2020	Change of TC holder (TC Transfer)	Issue 1 / 17 January 2020
Issue 07	15 June 2020	A.I.3 adding of S/N C0418	Issue 1 / 17 January 2020
Issue 08	09 February 2021	A.I.3 adding of S/N C0421	Issue 1 / 17 January 2020

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