



## 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

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

**Czech Aircraft Group s.r.o.**

Na Záhonech 212

686 04 Kunovice

CZECH REPUBLIC

#### 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 <sup>2</sup>

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



20. Wheels and Tyres:
- Main wheel MHE51CZ (5 in)
  - Nose wheel WHLNW51CC.75R (5 in)
  - Tyre and tube Goodyear FLIGHT SPECIAL II - 5.00-5 in  
(or equivalent aircraft grade)
21. Lifetime limitations Refer to AMM, Section 2





#### **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
<b>Czech Sport Aircraft a.s.</b> Na Záhonech 212 686 04 Kunovice CZECH REPUBLIC	16 April 2012 – 16 January 2020
<b>Czech Aircraft Group s.r.o.</b> 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

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