



TYPE-CERTIFICATE DATA SHEET

EASA.E.216

for
Sauer 2100 Series Engines

Type Certificate Holder
Sauer Flugmotoren GmbH
Nieder-Olmer-Str. 16
55270 Ober-Olm
Germany

For Models:
Sauer S 2100-1-()



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I. General

1. Type / Models

S 2100 / S 2100-1-() (see notes)

2. Type Certificate Holder

Sauer Flugmotorenbau GmbH
Nieder-Olmer-Str. 16
55270 Ober-Olm
Germany

3. Manufacturer

Sauer Flugmotorenbau GmbH
Nieder-Olmer-Str. 16
55270 Ober-Olm
Germany

4. Date of Application

25 January 1980

Note: The application was made to LBA Germany before EASA had been established according to German national procedures.

5. EASA Type Certification Date

19 March 1987

Note: Sauer S 2100 had been certified by LBA Germany (TC/TCDS 4608) prior to EASA existence. This TCDS replaces LBA TCDS No 4608.

II. Certification Basis

1. EASA Certification Basis

1.1. Airworthiness Standards

JAR-22 Change 2 dated September 13. 1982, Subpart H

1.2. Special Conditions (SC)

None

1.3. Equivalent Safety Findings (ESF)

None



1.4. Deviations

None

1.5. Environmental Protection

None (not required for piston engines)

III. Technical Characteristics

1. Type Design Definition

Type Design Definition in accordance with parts list S 2100-1 of 26 March 2003 for Sauer 2100(*)
(*) = or later approved revisions

2. Description

Four-stroke, four-cylinder air-cooled boxer engine with dual magneto ignition.

Displacement: 2136 cm³
Bore / stroke: 90mm / 84mm
Compression ratio: 8,6 : 1
Gear ratio: none
Accessories: according to Operators Manual

3. Equipment

As stated in the Operators Manual.

4. Dimensions

Model		Sauer S 2100-1- AS0 /AS1	Sauer S 2100-1- SS0 /SS1
Overall Length	mm	590	600
Overall Height	mm	320	320
Width	mm	780	780

5. Dry Mass

Depending on engine model: 69 kg to 76 kg (without exhaust and air baffles)

6. Ratings

Take-Off Power for 5 minutes: 59 kW at 3000 rpm
Max. continuous Power: 54 kW at 2700 rpm



Note: The performance value specified above correspond to minimum values defined under the conditions of ICAO or ARDC standard atmosphere.

7. Control System

The engine models Sauer S 2100-1-AS0/AS1/SS0/SS1 are equipped with dual synchronized or single diaphragm carburetors with throttle control, a mechanical fuel pump and a contactless magneto ignition.

8. Fluids (Fuel, Oil, Additives)

See Operators and Maintenance Manual for approved fluids.

9. Aircraft Accessory Drives

See Operators Manual

IV. Operating Limitations

1. Temperature Limits

- | | |
|--|-------|
| 1.1 Maximum Cylinder Head Temperature: | 230°C |
| 1.2. Maximum Oil Inlet Temperature: | 120°C |

2. Speed Limits

- | | |
|-----------------------|----------|
| 2.1. Take-off: | 3000 rpm |
| 2.2. max. continuous: | 2700 rpm |
| 2.3. max. permitted: | 3200 rpm |

3. Pressure Limits

3.1 Oil Pressure

- | | |
|-------------------|-------------|
| Idle: | min. 1 bar |
| Normal operation: | 2 – 4,5 bar |
| Cold engine: | max 4,5 bar |

V. Operating and Service Instructions

1. Betriebshandbuch S 2100-1-AS0/AS1, Ausgabe 01.03.2003(*)
2. Betriebshandbuch S 2100-1-SS0/SS1, Ausgabe 26.03.2003(*)
3. Reparaturhandbuch und Ersatzteilkatalog für Motor 2100, Ausgabe 01.03.2003(*)

(*) = or later approved revisions



VI. Notes

1. The suitability and allowable operating ranges of an engine for use in a specific aircraft/propeller combinations are to be demonstrated during the aircraft certification. Subsequent design control associated with these factors is the responsibility of the aircraft manufacturer.
2. For the permitted engine operating hours refer to the relevant operating instructions.
3. The installation of a secondary ignition System Sauer (part list issue 1 of 31.07.2003) is possible according to TM 14, dated 10.02.1999(*).
4. The system of engine designation of the engines produced since March 1998 is defined in TM/SB 15C(*). This designation system S 2100-()-() replaces the old designations SS 2100 H1S/ SA 2100 H1S used before 01.03.1998.

(*) or later approved revisions



SECTION: ADMINISTRATIVE

I. Acronyms and Abbreviations

n/a

II. Type Certificate Holder Record

n/a

III. Change Record

Issue	Date	Changes	TC issue
Issue 01	18 February 2021	Initial Issue of EASA TCDS converted from LBA TC DE4608, incorporating change from hydraulic valve tappets to standard mechanical valve tappets (EASA Major Change Approval 10072600)	Initial Issue, 18 February 2021

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