# Airworthiness Directive

**AD No.: 2020-0029**

**Issued: 17 February 2020**

Note: This Airworthiness Directive (AD) is issued by EASA, acting in accordance with Regulation (EU) 2018/1139 on behalf of the European Union, its Member States and of the European third countries that participate in the activities of EASA under Article 129 of that Regulation.

This AD is issued in accordance with Regulation (EU) 748/2012, Part 21.A.3B. In accordance with Regulation (EU) 1321/2014 Annex I, Part M.A.301, the continuing airworthiness of an aircraft shall be ensured by accomplishing any applicable ADs. Consequently, no person may operate an aircraft to which an AD applies, except in accordance with the requirements of that AD, unless otherwise specified by the Agency [Regulation (EU) 1321/2014 Annex I, Part M.A.303] or agreed with the Authority of the State of Registry [Regulation (EU) 2018/1139, Article 71 exemption].

**Design Approval Holder's Name:**
SAUER FLUGMOTORENBAU GmbH

**Type/Model designation(s):**
S 1800 and S 2100 engines

Effective Date: 02 March 2020

TCDS Number(s): DE 4590 and DE 4608

Foreign AD: Not applicable

Supersedure: None

## ATA 72 – Engine – Mechanical Fuel Pump Spacer – Replacement

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**Manufacturer(s):**
Sauer Flugmotorenbau GmbH

**Applicability:**
S 1800-1-( ) and S 2100-1-() engines, all configurations, all serial numbers, if equipped with BCD lever fuel pump Part Number (P/N) 05 200 401B.

These engines are known to be installed on, but not limited to, Scheibe SF 25 C, Fournier RF 5 and Diamond H 36 powered sailplanes.

**Definitions:**
For the purpose of this AD, the following definitions apply:

**The SB:** Sauer Flugmotorenbau GmbH Technische Mitteilung/Service Bulletin (TM/SB) 31.

**Affected part:** Mechanical fuel pump spacer P/N 05 200 410.

**Serviceable part:** Mechanical fuel pump spacer P/N 05 200 410B.

## Reason:

An occurrence was reported where the mechanical fuel pump delivered insufficient fuel pressure. Subsequent investigation determined that the fuel pump lever had insufficient clearance in the spacer between fuel pump and engine case. This resulted in increased friction, leading to abrasion on the eccentric wheel that drives the fuel pump lever.

This condition, if not corrected, could lead to reduced power output of the engine, possibly resulting in reduced control of the powered sailplane.

To address this potential unsafe condition, Sauer Flugmotorenbau GmbH reviewed the manufacturing process of the spacer and issued the SB, introducing a new part to increase clearance.

For the reason described above, this AD requires replacement of the affected part with a serviceable part.

## Required Action(s) and Compliance Time(s):

Required as indicated, unless accomplished previously:

**Modification**:

(1) Within 3 months after the effective date of this AD, modify the engine by replacing the affected part with a serviceable part in accordance with the instructions of the SB.

**Inspection:**

(2) Concurrent with the modification as required by paragraph (1) of this AD, inspect the eccentric ring on the crankshaft for wear in accordance with the instructions of the SB.

**Corrective Action(s):**

(3) If, during the inspection as required by paragraph (2) of this AD, the eccentric ring shows excessive wear, as defined in the SB, before next flight, replace the eccentric ring with a serviceable part in accordance with the instructions of the SB.

**Parts Installation**:

(4) From the effective date of this AD, do not install an affected part on any engine.

## Ref. Publications:

Sauer Flugmotorenbau GmbH TM/SB 31 original issue dated 06 February 2020.

The use of later approved revisions of the above-mentioned document is acceptable for compliance with the requirements of this AD.

## Remarks:

1. If requested and appropriately substantiated, EASA can approve Alternative Methods of Compliance for this AD.

2. Based on the required actions and the compliance time, EASA have decided to issue a Final AD with Request for Comments, postponing the public consultation process until after publication.

3. Enquiries regarding this AD should be referred to the EASA Programming and Continued Airworthiness Information Section, Certification Directorate. E-mail: ADs@easa.europa.eu.

4. Information about any failures, malfunctions, defects or other occurrences, which may be similar to the unsafe condition addressed by this AD, and which may occur, or have occurred on a product, part or appliance not affected by this AD, can be reported to the EU aviation safety reporting system.

5. For any question concerning the technical content of the requirements in this AD, please contact: Sauer Flugmotorenbau GmbH, Nieder-Olmer-Str. 16, 55270 Ober-Olm, Telephone: +49 (0)6136 89377, E-mail: mm@sauer-flugmotorenbau.de.