European Union Aviation Safety Agency

Airworthiness Directive

AD No.: 2023-0116

Issued: 07 June 2023

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, or Annex Vb Part ML.A.301, as applicable, 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 Annex Vb Part ML.A.303, as applicable] or agreed with the Authority of the State of Registry [Regulation (EU) 2018/1139, Article 71 exemption].

Design Change Approval Holder's Name:
SCHEMPP-HIRTH FLUGZEUGBAU GmbH

Modification(s):
Arcus T and Arcus M powered sailplanes

Effective Date: 14 June 2023

EASA STC Number(s): EASA.A.532

Foreign AD: Not applicable

Supersedure: None

ATA 32 – Landing Gear – Electrical Landing Gear Control – Inspection / Modification

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Manufacturer(s):
Schempp-Hirth Flugzeugbau GmbH (Schempp-Hirth)

Applicability:
Arcus M powered sailplanes, serial numbers (s/n) 215 to 269 inclusive; and

Arcus T powered sailplanes, s/n 89 to 106 inclusive.

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

The TN: Schempp-Hirth Technical Note (TN) A532-11 (including Working Instructions).

Reason:
It has been determined that certain operation of the electrical landing gear may result in damage to the landing gear actuation lever and to landing gear misadjustment.

This condition, if not detected and corrected, could lead to failure of the landing gear, possibly resulting in damage to the powered sailplane and injury to occupants.

To address this potential unsafe condition, Schempp-Hirth published the TN, as defined in this AD,

providing instructions for inspection and modification of the landing gear control unit, and for updating of the Aircraft Flight Manual (AFM).

For the reason described above, this AD requires a one-time inspection of the landing gear, modification of the landing gear control unit, a firmware-update of the landing gear control unit and amendment of the applicable AFM.

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

Required as indicated, unless accomplished previously:

Inspection/Adjustment:

(1) Before next flight after the effective date of this AD, inspect the landing gear actuation lever and check the adjustment of the electrical landing gear (landing gear extension test) in accordance with the instructions of Actions 1 and 2 of the TN.

Corrective Action(s):

(2) If, during the inspection/check as required by paragraph (1) of this AD, any discrepancy, as identified in the TN, is detected, before next flight, accomplish the applicable corrective action(s) in accordance with the Working Instructions of the TN. Where the TN provides instructions to contact Schempp-Hirth for corrective actions, those corrective actions must be accomplished before next flight.

Modification:

(3) Within 90 days after the effective date of this AD, update the firmware of the landing gear control unit (LGCU) to version 4.33 in accordance with the instructions of Action 3 of the TN.

AFM Amendment:

(4) Concurrently with the modification as required by paragraph (3) of this AD, amend the applicable AFM in accordance with the instructions of Action 4 of the TN, inform all pilots and, thereafter, operate the powered sailplane accordingly.

Part(s) Installation:

(5) After modification of a powered sailplane as required by paragraph (3) of this AD, it is allowed to install any LGCU on that sailplane, provided that, before next flight after installation, it is determined that the firmware of that LGCU is updated, as applicable, to standard 4.33 or later. This can be accomplished in accordance with the instructions of SOTEC GmbH “Manual for operation and maintenance - Electrical landing gear Arcus-20”, version 3.0.

Ref. Publications:

Schempp-Hirth TN A532-11 original issue dated 04 May 2023, and related Working Instructions Revision 1 dated 26 May 2023.

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

SOTEC GmbH “Manual for operation and maintenance - Electrical landing gear Arcus-20”, version 3.0, dated 2023.

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 Safety 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. This may include reporting on the same or similar components, other than those covered by the design to which this AD applies, if the same unsafe condition can exist or may develop on an aircraft with those components installed. Such components may be installed under an FAA Parts Manufacturer Approval (PMA), Supplemental Type Certificate (STC) or other modification.

5. For any question concerning the technical content of the requirements in this AD, please contact: Schempp-Hirth Flugzeugbau GmbH, Krebenstrasse 25, 73230 Kirchheim / Teck, Germany, Telephone: +49 7021 7298-0, Fax: +49 7021 7298-199, Email: info@schempp-hirth.com.