



## Emergency Airworthiness Directive

**AD No.:** 2022-0242-E

**Issued:** 07 December 2022

Note: This Emergency 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 Approval Holder's Name:

SCHEMPP-HIRTH FLUGZEUGBAU GmbH

### Type/Model designation(s):

Nimbus-4, Duo Discus and Arcus (powered) sailplanes

**Effective Date:** 09 December 2022

**TCDS Number(s):** EASA.A.063, EASA.A.025, EASA.A.074 and EASA.A.532

**Foreign AD:** Not applicable

**Supersedure:** None

## ATA 27 – Flight Controls – Horizontal Tail Elevator U-Bracket – Inspection

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### Manufacturer(s):

Schempp-Hirth Flugzeugbau GmbH (Schempp-Hirth)

### Applicability:

Arcus, Duo Discus, Duo Discus C, Nimbus-4 and Nimbus-4D sailplanes, all serial numbers (s/n); and

Arcus M, Arcus T, Duo Discus T, Nimbus-4M, Nimbus-4T, Nimbus-4DM and Nimbus-4DT powered sailplanes, all s/n.

### Definitions:

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

**The TN:** Schempp-Hirth Technical Note (TN) 396-22 Revision 1, TN 380-3 Revision 1, TN 868-24 Revision 1, TN 890-18 Revision 1 and TN A532-10 original issue (all referencing Schempp-Hirth "Working instructions to TN 396-22, 380-3, 868-24, 890-18, A532-10"), as applicable.

**Groups:** Group 1 (powered) sailplanes are those whose operating time since the last replacement of the elevator U-bracket is 1 000 flight hours (FH) or more. If the elevator U-bracket has not been



replaced since the (powered) sailplane was manufactured, the total FH of the (powered) sailplane applies.

Group 2 (powered) sailplanes are those which are not Group 1.

#### **Reason:**

Occurrences were reported of finding cracks in the connecting tube of the elevator U-bracket of the horizontal tail of some (powered) sailplanes. Damage to the elevator U-bracket could compromise the stiffness of the elevator control system and of the attachment of the horizontal tail.

This condition, if not detected and corrected, could lead to failure of the elevator control system and horizontal tail attachment, possibly resulting in loss of control of the (powered) sailplane.

To address this potential unsafe condition, Schempp-Hirth published the TN, as defined in this AD, providing instructions for inspection and corrective action, and for updating of the Aircraft Flight Manual (AFM).

For the reason described above, this AD requires a one-time inspection of the elevator U-bracket and of the horizontal tail attachment on the vertical tail, and, depending on findings, accomplishment of applicable corrective action(s). This AD also requires amendment of the (powered) sailplane's applicable AFM.

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

Required as indicated, unless accomplished previously:

#### **Inspection:**

(1) For Group 1 (powered) sailplanes: Before next flight after the effective date of this AD, inspect the elevator U-bracket and the horizontal tail attachment on the vertical tail in accordance with the instructions of the TN.

#### **Corrective Action(s):**

(2) If, during the inspection as required by paragraph (1) of this AD, any damage, as specified in the TN, is found, before next flight, accomplish the applicable corrective action(s) in accordance with the instructions of the TN.

#### **AFM Amendment:**

(3) For Group 1 and Group 2 (powered) sailplanes: Before next flight after the effective date of this AD, amend the applicable AFM in accordance with the instructions of the TN, inform all pilots and, thereafter, operate the (powered) sailplane accordingly.

#### **Ref. Publications:**

Schempp-Hirth TN 396-22 original issue dated 08 September 2022, or Revision 1 dated 13 October 2022.

Schempp-Hirth TN 380-3 original issue dated 08 September 2022, or Revision 1 dated 13 October 2022.



Schempp-Hirth TN 868-24 original issue dated 08 September 2022, or Revision 1 dated 13 October 2022.

Schempp-Hirth TN 890-18 original issue dated 08 September 2022, or Revision 1 dated 13 October 2022.

Schempp-Hirth TN A532-10 original issue dated 08 September 2022.

The use of later approved revisions of the above-mentioned documents 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. The results of the safety assessment have indicated the need for immediate publication and notification, without the full consultation process.
3. Enquiries regarding this AD should be referred to the EASA Safety Information Section, Certification Directorate. E-mail: [ADs@easa.europa.eu](mailto: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, Kребenstrasse 25, 73230 Kirchheim / Teck, Germany, Telephone: +49 7021 7298-0, Fax: +49 7021 7298-199, Email: [info@schempp-hirth.com](mailto:info@schempp-hirth.com).

