Airworthiness Directive

AD No.: 2020-0233

Issued: 27 October 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:
SCHEMPP-HIRTH FLUGZEUGBAU GmbH

Type/Model designation(s):
Duo Discus (powered) sailplanes

Effective Date: 10 November 2020

TCDS Number(s): EASA.A.025, EASA.A.074

Foreign AD: Not applicable

Supersedure: None

ATA 27 – Flight Controls – Airbrake End Stops / Bushings – Inspection / Replacement

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

Applicability:
Duo Discus sailplanes, serial number (s/n) 1 to 541 inclusive, except s/n 534;
Duo Discus C sailplanes, all s/n; and
Duo Discus T powered sailplanes, s/n 1 to 174.

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

Affected part: Air brake end stop plastic bushings (22 mm), and single (metal) end stops.

Serviceable part: Air brake end stop plastic bushing (32 mm) made of better material.

The applicable TN: Schempp-Hirth Technical Note (TN) 396-20 and TN 890-16, as applicable, both at Revision 1.

Reason:

Occurrences were reported of experiencing jerky extension of the airbrakes at very high air speeds, in some cases of which the airbrake blades interlocked. An increasing number of age-related damage was observed on a specific version (22 mm plastic bushes) of the airbrake end-stops.

This condition, if not corrected, could lead to blockage of the airbrakes, possibly resulting in reduced control of the (powered) sailplane.

To address this potential unsafe condition, Schempp-Hirth issued the applicable TN (original issue) to provide instructions to replace the affected parts with a new version bushing, made of better material.

Since PAD 20-119 was issued, it was discovered that early s/n sailplanes were equipped with a single metal end stop per airbrake. The applicable TN was revised accordingly. The PAD was revised to include those metal end stops in the definition of 'affected part' to ensure these are inspected.

For the reasons described above, this AD requires replacement of certain affected parts with serviceable parts. For other affected parts, this AD requires a one-time inspection for sufficient overlap and, depending on findings, accomplishment of applicable corrective action(s). This AD also prohibits (re)installation of affected parts.

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

Required as indicated, unless accomplished previously:

Replacement:

(1) For sailplanes with air brake end stop plastic bushings (22 mm) installed, within 3 months after the effective date of this AD, replace each affected part with a serviceable part, as defined in this AD, in accordance with the instructions of the applicable TN.

Inspection:

(2) For sailplanes with single air brake metal end stops installed, within 3 months after the effective date of this AD, inspect each affected part in accordance with the instructions of the applicable TN.

Corrective Action(s):

(3) If, during the inspection as required by paragraph (2) of this AD, insufficient overlap is found, before next flight, contact Schempp-Hirth for approved corrective action instructions and accomplish those instructions accordingly.

Credit:

(4) Modification of a (powered) sailplane, accomplished before the effective date of this AD in accordance with the instructions of the original issue of Schempp-Hirth TN 396-20 / TN 890-16, is an acceptable method to comply with the requirements of paragraph (1) of this AD for that (powered) sailplane.

Parts Installation:

(5) After modification of a (powered) sailplane as required by paragraph (1) of this AD, do not install any affected part on that (powered) sailplane.

Ref. Publications:

Schempp-Hirth TN 396-20 / TN 890-16 dated 29 June 2020 (published as a single document).

Schempp-Hirth TN 396-20 Revision 1 dated 18 September 2020, including the associated working instruction (Arbeitsanweisung).

Schempp-Hirth TN 890-16 Revision 1 dated 18 September 2020, including the associated working instruction (Arbeitsanweisung).

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. This AD was posted on 12 August 2020 as PAD 20-119, and republished as PAD 20-119R1 on 25 September 2020, for consultation until 09 October 2020. The Comment Response Document can be found in the EASA Safety Publications Tool, in the compressed (zipped) file attached to the record for this AD.

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. 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.