



Notification of a Proposal to issue an Airworthiness Directive

PAD No.: 21-038

Issued: 09 March 2021

Note: This Proposed Airworthiness Directive (PAD) 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.

In accordance with the EASA Continuing Airworthiness Procedures, the Executive Director is proposing the issuance of an EASA Airworthiness Directive (AD), applicable to the aeronautical product(s) identified below.

All interested persons may send their comments, referencing the PAD Number above, to the e-mail address specified in the 'Remarks' section, prior to the consultation date indicated.

Design Approval Holder's Name:

M&D FLUGZEUGBAU GmbH & Co. KG

Type/Model designation(s):

AVO 68-v "Samburo" powered sailplanes

Effective Date: [TBD - standard: 14 days after AD issue date]

TCDS Number(s): EASA.A.252

Foreign AD: Not applicable

Supersedure: This AD supersedes EASA AD 2018-0219 dated 12 October 2018.

ATA 27 – Flight Controls – Elevator Mass Balance and Balance Fittings – Inspection / Replacement

Manufacturer(s):

M&D Flugzeugbau GmbH & Co. KG, formerly Alpha-Werke Flugzeugbau, Firma Nitsche Flugzeugbau GmbH, Aircraft Philipp GmbH

Applicability:

AVO 68-R, AVO 68-R 100, AVO 68-R 115, AVO 68-s and AVO 68-v "Samburo" powered sailplanes.

Definitions:

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

Affected part: Elevator mass balance fittings.

Serviceable part: An affected part that is new (not previously installed), or that, prior to installation, has passed an inspection (no defects found) in accordance with the instructions of the Mandatory Service Bulletin (MSB).

Improved part: Elevator mass balance having Part Number AVo68-03.05.16.

The MSB: M&D Flugzeugbau GmbH MSB 808-18 Revision 04.



The modification MSB: M&D Flugzeugbau GmbH MSB 808-33.

Groups: Group 1 powered sailplanes are those which do not have an improved part installed.
Group 2 powered sailplanes are those which have an improved part installed.

Reason:

Occurrences were reported of finding cracks on horizontal stabiliser/elevator mass balance fittings on an AVO 68 powered sailplane. Subsequent investigation identified manufacturing and dimensioning deficiencies to be a possible cause of crack initiation and growth.

This condition, if not detected and corrected, could lead to detachment of a balance mass, possibly resulting in damage to, and/or reduced longitudinal control of, the powered sailplane.

To address this potential unsafe condition, Aircraft Philipp GmbH issued SB 808-18 (later revised) to provide inspection instructions and the Luftfahrt-Bundesamt (LBA) of Germany issued LTA (AD) 2001-371 (later revised), requiring a one-time inspection of affected parts and, depending on findings, replacement. After LBA Germany LTA/AD 2001-371/2 was issued, additional occurrences of cracking were reported. Prompted by these findings, M&D Flugzeugbau GmbH, the current design approval holder, issued the MSB to provide inspection instructions and EASA issued AD 2018-0219, superseding LBA Germany LTA/AD 2001-371/2, to require repetitive visual inspections of the affected parts and, depending on findings, replacement.

Since that AD was issued, M&D Flugzeugbau GmbH developed the improved part and issued the modification MSB.

For the reasons described above, this AD retains the requirements of EASA AD 2018-0219, which is superseded, and requires replacement of each affected part with an improved part.

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

Required as indicated, unless accomplished previously:

Repetitive Inspection(s):

- (1) For Group 1 powered sailplanes: Within 14 days or 5 flight hours (FH), whichever occurs first after 26 October 2018 [the effective date of EASA AD 2018-0219] and, thereafter, at intervals not to exceed 25 FH, visually inspect each affected part in accordance with the instructions of the MSB.

Note 1: The inspections as required by paragraph (1) of this AD can be accomplished by the pilot-owner in accordance with the provisions of paragraph ML.A.801(b)(3), of Regulation (EU) No 1321/2014.

Corrective Action(s):

- (2) If, during any inspection as required by paragraph (1) of this AD, any crack is detected, before next flight, replace the affected part with a serviceable part in accordance with the instructions of the MSB.



- (3) Replacement of each affected part on a powered sailplane with an improved part in accordance with the instructions of the modification MSB is an acceptable alternative method to comply with the requirements of paragraph (2) of this AD for that powered sailplane.

Replacement:

- (4) For Group 1 powered sailplanes: Unless already accomplished as specified in paragraph (3) of this AD, within 12 months after the effective date of this AD, replace each affected part with an improved part in accordance with the instructions of the modification MSB.

Terminating Action:

- (5) Replacement of an affected part on a powered sailplane as required by paragraph (2) of this AD does not constitute terminating action for the repetitive inspections as required by paragraph (1) of this AD for that powered sailplane.
- (6) Replacement of each affected part on a powered sailplane, as specified in paragraph (3) of this AD, or as required by paragraph (4) of this AD, as applicable, constitutes terminating action for the repetitive inspections as required by paragraph (1) of this AD for that powered sailplane.

Part(s) Installation:

- (7) It is allowed to install on a powered sailplane an elevator mass balance, provided it is an improved part, as defined in this AD, as required by paragraph (7.1) or (7.2) of this AD, as applicable.
- (7.1) For Group 1 powered sailplanes: After the replacement as specified in paragraph (3) of this AD, or as required by paragraph (4) of this AD, as applicable.
- (7.2) For Group 2 powered sailplanes: From the effective date of this AD.

Ref. Publications:

M&D Flugzeugbau GmbH MSB 808-18 Revision 04 dated 10 October 2018.

M&D Flugzeugbau GmbH MSB 808-33 original issue dated 17 February 2021.

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

Remarks:

1. This Proposed AD will be closed for consultation on 06 April 2021.
2. Enquiries regarding this PAD should be referred to the EASA Safety Information Section, Certification Directorate. E-mail: ADs@easa.europa.eu.
3. Information about any failures, malfunctions, defects or other occurrences, which may be similar to the unsafe condition addressed by this PAD, and which may occur, or have occurred on a product, part or appliance not affected by this PAD, 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 PAD 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.

4. For any question concerning the technical content of the requirements in this PAD, please contact: M&D Flugzeugbau GmbH & Co.KG, Streeker Str. 5b, D-26446 Friedeburg, Germany, Telephone: +49 4465 97878 0, Fax: +49 4465 97878 99, Website: www.md-flugzeugbau.de, E-mail: info@md-flugzeugbau.de.

