



DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

**[Docket No. FAA-2024-2316; Project Identifier MCAI-2024-00381-G; Amendment
39-22854; AD 2024-19-12]**

RIN 2120-AA64

**Airworthiness Directives; DG Aviation GmbH (Type Certificate Previously Held by
DG Flugzeugbau GmbH) Gliders**

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule; request for comments.

SUMMARY: The FAA is adopting a new airworthiness directive (AD) for certain DG Aviation GmbH (type certificate previously held by DG Flugzeugbau GmbH) Model DG-400 gliders and all Model DG-500 Elan Orion, DG-500 Elan Trainer, DG-500/20 Elan, DG-500/22 Elan, DG-500M, DG-500MB, DG-800A, DG-800B, DG-808C, DG-1000M, DG-1000S, and DG-1000T gliders. This AD was prompted by a report of a broken rod end at the upper end of the elevator pushrod in the fin (vertical tail) of a DG Aviation GmbH Model DG-300 glider. Depending on the glider model, this AD requires revising your existing glider maintenance manual to incorporate new procedures for elevator control circuit free play adjustment, performing an operational check of the free play adjustment of the automatic elevator hook-up, accomplishing corrective actions as required, and replacing the elevator pushrod end with a new part. The FAA is issuing this AD to address the unsafe condition on these products.

DATES: This AD is effective [INSERT DATE 15 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of certain publications listed in this AD as of [INSERT DATE 15 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The FAA must receive comments on this AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to [regulations.gov](https://www.regulations.gov). Follow the instructions for submitting comments.

- Fax: (202) 493-2251.

- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.

- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

AD Docket: You may examine the AD docket at [regulations.gov](https://www.regulations.gov) under Docket No. FAA-2024-2316; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this final rule, the mandatory continuing airworthiness information (MCAI), any comments received, and other information. The street address for Docket Operations is listed above.

Material Incorporated by Reference:

- For DG Aviation GmbH material identified in this AD, contact DG Aviation GmbH, Otto-Lilienthal Weg 2/Am Flugplatz, 76646 Bruchsal, Germany; phone: +49 (0) 7251 36660-32; email: info@dg-aviation.de; website: [dg-aviation.de/en/dg-flugzeugbau/contact](https://www.dg-aviation.de/en/dg-flugzeugbau/contact).

- You may view this material at the FAA, Airworthiness Products Section, Operational Safety Branch, 901 Locust, Kansas City, MO 64106. For information on the availability of this material at the FAA, call (817) 222-5110. It is also available at [regulations.gov](https://www.regulations.gov) under Docket No. FAA-2024-2316.

FOR FURTHER INFORMATION CONTACT: Fred Guerin, Aviation Safety Engineer, FAA, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; phone: (206) 231-2346; email: fred.guerin@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

The FAA invites you to send any written data, views, or arguments about this final rule. Send your comments to an address listed under ADDRESSES. Include “Docket No. FAA-2024-2316; Project Identifier MCAI-2024-00381-G” at the beginning of your comments. The most helpful comments reference a specific portion of the final rule, explain the reason for any recommended change, and include supporting data. The FAA will consider all comments received by the closing date and may amend this final rule because of those comments.

Except for Confidential Business Information (CBI) as described in the following paragraph, and other information as described in 14 CFR 11.35, the FAA will post all comments received, without change, to [regulations.gov](https://www.regulations.gov), including any personal information you provide. The agency will also post a report summarizing each substantive verbal contact received about this final rule.

Confidential Business Information

CBI is commercial or financial information that is both customarily and actually treated as private by its owner. Under the Freedom of Information Act (FOIA) (5 U.S.C. 552), CBI is exempt from public disclosure. If your comments responsive to this AD contain commercial or financial information that is customarily treated as private, that

you actually treat as private, and that is relevant or responsive to this AD, it is important that you clearly designate the submitted comments as CBI. Please mark each page of your submission containing CBI as “PROPIN.” The FAA will treat such marked submissions as confidential under the FOIA, and they will not be placed in the public docket of this AD. Submissions containing CBI should be sent to Fred Guerin, Aviation Safety Engineer, FAA, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590. Any commentary that the FAA receives which is not specifically designated as CBI will be placed in the public docket for this rulemaking.

Background

The European Union Aviation Safety Agency (EASA), which is the Technical Agent for the Member States of the European Union, has issued EASA AD 2024-0126, dated July 2, 2024 (EASA AD 2024-0126) (also referred to as the MCAI), to correct an unsafe condition on the following DG Aviation GmbH sailplanes (gliders):

- Model DG-100G, DG-100G ELAN, DG-200, DG-200/17, DG-200/17C, DG-300, DG-300 ELAN, DG-300 Club ELAN, DG-300 ELAN ACRO, DG-300 Club ELAN ACRO, DG-400, DG-600, DG-600/18, DG-600M, and DG-600/18 M sailplanes and powered sailplanes, all serial numbers except those equipped with l’Hotellier connections of the elevator control.

- Model DG-500/22 ELAN, DG-500 ELAN Trainer, DG-500/20 ELAN, DG-500 ELAN ORION, DG-500 M, and DG-500 MB sailplanes and powered sailplanes, all serial numbers.

- Model DG-800 A, DG-800 B, DG-808C, DG-800 LA, DG-800 S, and DG-808 S sailplanes and powered sailplanes all serial numbers.

- Model DG-1000S, DG-1000T, DG-1000M, and DG-1000E sailplanes and powered sailplanes, all serial numbers.

The MCAI states an occurrence was reported of a broken rod end at the upper end of the elevator pushrod in the fin of a Model DG-300 sailplane. It was determined that the elevator play adjustment screw was screwed in too far, which caused jamming of the roller inside the funnel. Even with higher force, the roller could not be moved up to the front of the funnel; therefore, each time, when rigging and during normal operation, a bending force affected the rod end, causing fatigue failure. Further investigation revealed that a significant number of certain sailplane models were operated with the elevator play adjustment screw screwed in too far. It was also determined that because of its location, the elevator pushrod end damage could not be detected using visual or non-destructive testing to identify fatigue cracks. This condition, if not detected and corrected, could lead to loss of pitch control of the (powered) sailplane. Due to the similarity of design, all DG sailplanes in the applicability of the MCAI (if equipped with automatic hook-up) could be affected by the unsafe condition.

The MCAI requires a one-time operational check of the free play adjustment of the automatic elevator hook-up and, depending on the findings, replacement of the affected parts, and for a certain group of (powered) sailplanes, mandatory replacement of the rod end. The MCAI also requires following revised applicable Maintenance Manual tasks.

You may examine the MCAI in the AD docket at [regulations.gov](https://www.regulations.gov) under Docket No. FAA-2024-2316.

Material Incorporated by Reference under 1 CFR Part 51

The FAA reviewed the following material that specifies revising your existing glider maintenance manual and specifies procedures for accomplishing an operational check of the free play of the automatic elevator hook-up and installing new elevator pushrod ends and new elevator rollers and adjusting the free play, as applicable. These

documents are distinct since they apply to different glider models.

- DG Aviation GmbH Technical Note No. DG-SS-09, Doc. No. TMDG-SS-09 FE-29-01, Issue 01.f, dated March 5, 2024, for Model DG-400 gliders.

- DG Aviation GmbH Technical Note No. 500/17, Doc. No. TM500-17 FE-29-01, Issue 01.c, dated March 5, 2023, for Model DG-500 gliders.

- DG Aviation GmbH Technical Note No. 800/50, Doc. No. TM800-50 FE-29-01, Issue 01.c, dated March 5, 2024, for Model DG-800 gliders.

- DG Aviation GmbH Technical Note No. 1000/50, Doc. No. TM1000-50 FE-29-01, Issue 01.c, dated March 4, 2024, for Model DG-1000 gliders.

This material is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

FAA's Determination

These products have been approved by the aviation authority of another country and are approved for operation in the United States. Pursuant to the FAA's bilateral agreement with this State of Design Authority, it has notified the FAA of the unsafe condition described in the MCAI and material referenced above. The FAA is issuing this AD after determining that the unsafe condition described previously is likely to exist or develop on other products of the same type design.

AD Requirements

This AD requires accomplishing the actions specified in the material already described, except as discussed under "Differences Between this AD and the MCAI."

Differences Between this AD and the MCAI

The MCAI applies to Model DG-100G, DG-100G ELAN, DG-200, DG-200/17, DG-200/17C, DG-300, DG-300 ELAN, DG-300 Club ELAN, DG-300 ELAN ACRO, DG-300 Club ELAN ACRO, DG-600, DG-600/18, DG-600M, DG-600/18 M, DG-800

LA, DG-800 S, DG-808 S, and DG-1000E gliders, but this AD does not because these models do not have an FAA type certificate.

Justification for Immediate Adoption and Determination of the Effective Date

Section 553(b) of the Administrative Procedure Act (APA) (5 U.S.C. 551 *et seq.*) authorizes agencies to dispense with notice and comment procedures for rules when the agency, for “good cause,” finds that those procedures are “impracticable, unnecessary, or contrary to the public interest.” Under this section, an agency, upon finding good cause, may issue a final rule without providing notice and seeking comment prior to issuance. Further, section 553(d) of the APA authorizes agencies to make rules effective in less than thirty days, upon a finding of good cause.

An unsafe condition exists that requires the immediate adoption of this AD without providing an opportunity for public comments prior to adoption. The FAA has found that the risk to the flying public justifies forgoing notice and comment prior to adoption of this rule because operating a glider with the elevator play adjustment screw screwed in too far could lead to a loss of pitch control of the glider and loss of the ability to control the glider in flight or during landing. The FAA has determined that certain gliders will need an operational check within 3 months and immediate action if any discrepancy is found and certain other gliders will need replacement of an affected part within 3 months after the effective date of this AD. This compliance time is shorter than the time necessary for the public to comment and for publication of the final rule.

Accordingly, notice and opportunity for prior public comment are impracticable and contrary to the public interest pursuant to 5 U.S.C. 553(b).

In addition, the FAA finds that good cause exists pursuant to 5 U.S.C. 553(d) for making this amendment effective in less than 30 days, for the same reasons the FAA found good cause to forgo notice and comment.

Regulatory Flexibility Act

The requirements of the Regulatory Flexibility Act (RFA) do not apply when an agency finds good cause pursuant to 5 U.S.C. 553 to adopt a rule without prior notice and comment. Because the FAA has determined that it has good cause to adopt this rule without prior notice and comment, RFA analysis is not required.

Costs of Compliance

The FAA estimates that this AD affects 101 gliders of U.S. registry.

The FAA estimates the following costs to comply with this AD:

Estimated costs

Action	Labor Cost	Parts Cost	Cost per product	Cost on U.S. operators
Revise glider maintenance manual (Group 1 and Group 2 gliders)	1 work-hour x \$85 per hour = \$85	\$0	\$85	\$8,585
Perform operational check of the free play adjustment of the automatic elevator hook-up (Group 1 and Group 2 gliders)	1 work-hour x \$85 per hour = \$85	\$0	\$85	\$8,585
Replace the elevator pushrod end (Group 1 gliders)	2 work-hours x \$85 per hour = \$170	\$100	\$270	\$7,020 (26 gliders)

The FAA estimates the following costs to do any necessary elevator roller replacement (both Group 1 and Group 2 gliders) or elevator rod replacement (Group 2 gliders) that would be required based on the results of the operational check. The agency has no way of determining the number of gliders that might need these replacements:

On-condition costs

Action	Labor Cost	Parts Cost	Cost per product
Replace the elevator roller with a new one and adjust free play (Group 1 and Group 2 gliders)	2 work-hours x \$85 per hour = \$170	\$150	\$320
Replace the elevator pushrod end (Group 2 gliders)	2 work-hours x \$85 per hour = \$170	\$100	\$270

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs describes in more detail the scope of the Agency's authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: General requirements. Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

This AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

(1) Is not a "significant regulatory action" under Executive Order 12866, and

(2) Will not affect intrastate aviation in Alaska.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new airworthiness directive:

2024-19-12 DG Aviation GmbH (Type Certificate Previously Held by DG

Flugzeugbau GmbH): Amendment 39-22854; Docket No. FAA-2024-2316; Project Identifier MCAI-2024-00381-G.

(a) Effective Date

This airworthiness directive (AD) is effective [INSERT DATE 15 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

None.

(c) Applicability

This AD applies to the following:

(1) DG Aviation GmbH (type certificate previously held by DG Flugzeugbau GmbH) Model DG-400 gliders, all serial numbers, certificated in any category, except those with l'Hotellier connections of the elevator control installed; and

(2) DG Aviation GmbH (type certificate previously held by DG Flugzeugbau GmbH) Model DG-500 Elan Orion, DG-500 Elan Trainer, DG-500/20 Elan, DG-500/22

Elan, DG-500M, DG-500MB, DG-800A, DG-800B, DG-808C, DG-1000M, DG-1000S, and DG-1000T gliders, all serial numbers; certificated in any category.

(d) Subject

Joint Aircraft System Component (JASC) Code 2730, Elevator Control System.

(e) Unsafe Condition

This AD was prompted by a report of a broken rod end at the upper end of the elevator pushrod in the fin (vertical tail) of a DG Aviation GmbH DG-300 glider. The FAA is issuing this AD to detect and address the unsafe condition. The unsafe condition, if not addressed, could result in loss of pitch control of the glider.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Definitions

For the purposes of this AD the definitions in paragraphs (g)(1) through (5) of this AD apply.

(1) The “applicable technical note for your glider” is:

(i) Model DG-400 gliders: DG Aviation GmbH Technical Note No. DG-SS-09, Doc. No. TMDG-SS-09 FE-29-01, Issue 01.f, dated March 5, 2024.

(ii) Model DG-500 gliders: DG Aviation GmbH Technical Note No. 500/17, Doc. No. TM500-17 FE-29-01, Issue 01.c, dated March 5, 2023.

(iii) Model DG-800 gliders: DG Aviation GmbH Technical Note No. 800/50, Doc. No. TM800-50 FE-29-01, Issue 01.c, dated March 5, 2024.

(iv) Model DG-1000 gliders: DG Aviation GmbH Technical Note No. 1000/50, Doc. No. TM1000-50 FE-29-01, Issue 01.c, dated March 4, 2024.

(2) A “new elevator pushrod end” is an elevator pushrod with zero hours time-in-service (TIS) having a part number specified in the applicable technical note for your glider that has never been installed on any glider.

(3) A “new elevator roller” is an elevator roller with zero hours TIS having a part number specified in the applicable technical note for your glider that has never been installed on any glider.

(4) Group 1 gliders: Model DG-400 gliders.

(5) Group 2 gliders: Model DG-500 Elan Orion, DG-500 Elan Trainer, DG-500/20 Elan, DG-500/22 Elan, DG-500M, DG-500MB, DG-800A, DG-800B, DG-808C, DG-1000M, DG-1000S, and DG-1000T gliders.

(h) Required Actions

(1) Group 1 and Group 2 gliders: Within 3 months after the effective date of this AD, revise your existing glider maintenance manual in accordance with paragraph 1 of the Instructions in the applicable technical note for your glider.

(2) Group 1 and Group 2 gliders: Within 3 months after the effective date of this AD, accomplish an operational check of the free play adjustment of the automatic elevator hook-up in accordance with paragraph 2 of the Instructions in the applicable technical note for your glider.

(i) Group 1 gliders: If, during the operational check required by paragraph (h)(2) of this AD, any discrepancy as described in paragraph 2 of the Instructions in the applicable technical note for your glider is detected, before further flight, replace the elevator roller with a new elevator roller and adjust free play in accordance with paragraph 2 of the Instructions in the applicable technical note for your glider. Where the technical note for your glider specifies to “mark the removed rod end as [an] unserviceable part” this AD requires “removing that elevator pushrod end from service.” Where the technical note for your glider specifies “If a new rod end is needed, order it immediately at DG” this AD only requires “replacing the elevator pushrod end with a new elevator pushrod end.”

(ii) Group 2 gliders: If, during the operational check required by paragraph (h)(2) of this AD, any discrepancy, as described in paragraph 2 of the Instructions of the applicable technical note for your glider is detected, before further flight, replace either the elevator pushrod end or elevator roller or both, as applicable, with a new elevator pushrod end and new elevator roller and adjust the free play in accordance with paragraph 2 of the Instructions in the applicable technical note for your glider. Where the technical note for your glider specifies to “mark the removed rod end as [an] unserviceable part” this AD requires “removing that elevator pushrod end from service.” Where the technical note for your glider specifies “If a new rod end is needed, order it immediately at DG” this AD only requires “replacing the elevator pushrod end with a new elevator pushrod end.”

(3) Group 1 gliders: Within 3 months after the effective date of this AD, replace the elevator pushrod end with a new elevator pushrod end in accordance with paragraph 2 of the Instructions in the applicable technical note for your glider.

(i) Reporting Not Required

Although the Remarks section of the material specified in paragraph (g)(1) of this AD states to report “any damaged parts, false adjustment of the elevator control, or false installation of parts” and “If you find that airworthiness may be affected this has to be reported to the competent authority,” this AD does not require those actions.

(j) Special Flight Permit

Special flight permits are prohibited.

(k) Alternative Methods of Compliance (AMOCs)

The Manager, International Validation Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the

manager of the International Validation Branch, send it to the attention of the person identified in paragraph (l) of this AD and email to: AMOC@faa.gov. Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(l) Additional Information

For more information about this AD, contact Fred Guerin, Aviation Safety Engineer, FAA, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; phone: (206) 231-2346; email: fred.guerin@faa.gov.

(m) Material Incorporated by Reference

(1) The Director of the Federal Register approved the incorporation by reference (IBR) of the material listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this material as applicable to do the actions required by this AD, unless the AD specifies otherwise.

(i) DG Aviation GmbH Technical Note No. DG-SS-09, Doc. No. TMDG-SS-09 FE-29-01, Issue 01.f, dated March 5, 2024.

(ii) DG Aviation GmbH Technical Note No. 500/17, Doc. No. TM500-17 FE-29-01, Issue 01.c, dated March 5, 2023.

(iii) DG Aviation GmbH Technical Note No. 800/50, Doc. No. TM800-50 FE-29-01, Issue 01.c, dated March 5, 2024.

(iv) DG Aviation GmbH Technical Note No. 1000/50, Doc. No. TM1000-50 FE-29-01, Issue 01.c, dated March 4, 2024.

(3) For DG Aviation GmbH material identified in this AD, contact DG Aviation GmbH, Otto-Lilienthal Weg 2/Am Flugplatz, 76646 Bruchsal, Germany; phone: +49 (0) 7251 36660-32; email: info@dg-aviation.de; website: dg-aviation.de/en/dg-flugzeugbau/contact.

(4) You may view this material at the FAA, Airworthiness Products Section, Operational Safety Branch, 901 Locust, Kansas City, MO 64106. For information on the availability of this material at the FAA, call (817) 222-5110.

(5) You may view this material at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, visit www.archives.gov/federal-register/cfr/ibr-locations or email fr.inspection@nara.gov.

Issued on September 19, 2024.

Steven W. Thompson,
Acting Deputy Director, Compliance & Airworthiness Division,
Aircraft Certification Service.
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