

**DEPARTMENT OF TRANSPORTATION****Federal Aviation Administration****14 CFR Part 39**

[Docket No. FAA-2008-0989; Directorate Identifier 2008-CE-029-AD; Amendment 39-15727; AD 2008-23-06]

RIN 2120-AA64

**Airworthiness Directives; DG Flugzeugbau GmbH Models DG-1000S and DG-1000T Gliders**

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Final rule; request for comments.

**SUMMARY:** We are adopting a new airworthiness directive (AD) for the products listed above. This AD results from mandatory continuing airworthiness information (MCAI) issued by the aviation authority of another country to identify and correct an unsafe condition on an aviation product. The MCAI describes the unsafe condition as:

1. The bolt of a bearing stand which is the pivot for a bell crank failed in a DG-500 ELAN Trainer. As the cause of the failure it is suspected that the nut fixing the bell crank had become loose. As the design is similar in the DG-1000 up to ser. no. 10-109 analogous instructions have to be executed for the DG-1000.
2. During aerobatics a suspension of the airbrake control hook up in the wing root failed. Therefore the suspension shall be reinforced.

This AD requires actions that are intended to address the unsafe condition described in the MCAI.

**DATES:** This AD becomes effective November 26, 2008.

On November 26, 2008, the Director of the Federal Register approved the incorporation by reference of certain publications listed in this AD.

We must receive comments on this AD by December 8, 2008.

**ADDRESSES:** You may send comments by any of the following methods:

- *Federal eRulemaking Portal:* Go to <http://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:* U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue, SE., Washington, DC 20590, between 9 a.m.

and 5 p.m., Monday through Friday, except Federal holidays.

**Examining the AD Docket**

You may examine the AD docket on the Internet at <http://www.regulations.gov>; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Office (telephone (800) 647-5527) is in the **ADDRESSES** section. Comments will be available in the AD docket shortly after receipt.

**FOR FURTHER INFORMATION CONTACT:** Greg Davison, Glider Program Manager, 901 Locust, Room 301, Kansas City, Missouri 64106; telephone: (816) 329-4130; fax: (816) 329-4090.

**SUPPLEMENTARY INFORMATION:**

**Discussion**

The European Aviation Safety Agency (EASA), which is the Technical Agent for the Member States of the European Community, has issued AD No.: 2007-0316R1-E, dated March 13, 2008, corrected March 14, 2008 (referred to after this as "the MCAI"), to correct an unsafe condition for the specified products. The MCAI states:

1. The bolt of a bearing stand which is the pivot for a bell crank failed in a DG-500 ELAN Trainer. As the cause of the failure it is suspected that the nut fixing the bell crank had become loose. As the design is similar in the DG-1000 up to ser. no. 10-109 analogous instructions have to be executed for the DG-1000.
2. During aerobatics a suspension of the airbrake control hook up in the wing root failed. Therefore the suspension shall be reinforced.

The MCAI requires you to check the torque of the nut, which fixes bellcrank 5St19 to the bolt, and replace the bolt if the torque is too low; install an additional bracket; check the suspension of the airbrake control hook ups in the wing roots for any damage; reinforce the suspensions of the airbrake control hookups in the wing roots; and repair any damage found. You may obtain further information by examining the MCAI in the AD docket.

**Relevant Service Information**

DG Flugzeugbau GmbH has issued the following:

- Technical Note No. 1000/12, corrected January 7, 2008;
- Working instruction No. 1 for TN1000/12, dated November 30, 2007;
- Working instruction No. 2 for TN1000/12, dated November 30, 2007;
- Working instruction No. 3 for TN1000/12, corrected January 28, 2008;

- Working instruction No. 4 for TN1000/12, dated November 29, 2007;
- Working instruction No. 5 for TM1000/12, dated December 5, 2007;
- Section 4.4.2 of Maintenance Manual for the Glider DG-1000S, Issued: March 2002; and
- Section 4.4.2 of the Maintenance Manual for the Motorglider DG-1000T, Issued: June 2005.

The actions described in this service information are intended to correct the unsafe condition identified in the MCAI.

**FAA's Determination and Requirements of the AD**

This product has been approved by the aviation authority of another country, and is approved for operation in the United States. Pursuant to our bilateral agreement with this State of Design Authority, they have notified us of the unsafe condition described in the MCAI and service information referenced above. We are issuing this AD because we evaluated all information provided by the State of Design Authority and determined the unsafe condition exists and is likely to exist or develop on other products of the same type design.

**Differences Between This AD and the MCAI or Service Information**

We have reviewed the MCAI and related service information and, in general, agree with their substance. But we might have found it necessary to use different words from those in the MCAI to ensure the AD is clear for U.S. operators and is enforceable. In making these changes, we do not intend to differ substantively from the information provided in the MCAI and related service information.

We might have also required different actions in this AD from those in the MCAI in order to follow FAA policies. Any such differences are described in a separate paragraph of the AD. These requirements take precedence over those copied from the MCAI.

**FAA's Determination of the Effective Date**

An unsafe condition exists that requires the immediate adoption of this AD. The FAA has found that the risk to the flying public justifies waiving notice and comment prior to adoption of this rule because this condition, if not corrected, may cause excessive bending loads, leading to premature failure of the bolt and loss of control. Due to overstress during aerobatics, a mounting of the airbrake control hookup in the wing root may fail. This condition, if not corrected, may lead to failure of the

airbrake control system. Therefore, we determined that notice and opportunity for public comment before issuing this AD are impracticable and that good cause exists for making this amendment effective in fewer than 30 days.

#### Comments Invited

This AD is a final rule that involves requirements affecting flight safety, and we did not precede it by notice and opportunity for public comment. We invite you to send any written relevant data, views, or arguments about this AD. Send your comments to an address listed under the **ADDRESSES** section. Include "Docket No. FAA-2008-0989; Directorate Identifier 2008-CE-029-AD" at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this AD. We will consider all comments received by the closing date and may amend this AD because of those comments.

We will post all comments we receive, without change, to <http://www.regulations.gov>, including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive about this AD.

#### 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.

We are 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

We determined that 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;
- (2) Is not a "significant rule" under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979); and
- (3) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

We prepared a regulatory evaluation of the estimated costs to comply with this AD and placed it in the AD docket.

#### List of Subjects in 14 CFR Part 39

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

#### Adoption of 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 AD:

**2008-23-06 DG Flugzeugbau GmbH:**  
Amendment 39-15727; Docket No. FAA-2008-0989; Directorate Identifier 2008-CE-029-AD.

#### Effective Date

- (a) This airworthiness directive (AD) becomes effective November 26, 2008.

#### Affected ADs

- (b) None.

#### Applicability

- (c) This AD applies to Models DG-1000S and DG-1000T gliders with the following serial numbers (SN), certificated in any category:

- (1) *Group 1:* SN 10-1 through 10-102 and 10-106 through 10-108.
- (2) *Group 2:* SN 10-1 through 10-83, 10-85 through 10-87, 10-89 through 10-91, 10-93, and 10-94.

#### Subject

- (d) Air Transport Association of America (ATA) Code 27: Flight Controls.

#### Reason

- (e) The mandatory continuing airworthiness information (MCAI) states:

"1. The bolt of a bearing stand which is the pivot for a bell crank failed in a DG-500 ELAN Trainer. As the cause of the failure it is suspected that the nut fixing the bell crank had become loose. As the design is similar

in the DG-1000 up to ser. no. 10-109 analogous instructions have to be executed for the DG-1000."

"2. During aerobatics a suspension of the airbrake control hook up in the wing root failed. Therefore the suspension shall be reinforced."

The MCAI requires you to check the torque of the nut, which fixes bellcrank 5St19 to the bolt, and replace the bolt if the torque is too low; install an additional bracket, check the suspension of the airbrake control hook ups in the wing roots for any damage; reinforce the suspensions of the airbrake control hook ups in the wing roots; and repair any damage found.

#### Actions and Compliance

(f) Unless already done, do the following actions in accordance with DG Flugzeugbau GmbH Technical Note No. 1000/12, corrected January 7, 2008; DG Flugzeugbau GmbH Working instruction No. 1 for TN1000/12, dated November 30, 2007; DG Flugzeugbau GmbH Working instruction No. 2 for TN1000/12, dated November 30, 2007; DG Flugzeugbau GmbH Working instruction No. 3 for TN1000/12, corrected January 28, 2008; DG Flugzeugbau GmbH Working instruction No. 4 for TN1000/12, dated November 29, 2007; DG Flugzeugbau GmbH Working instruction No. 5 for TM1000/12, dated December 5, 2007; Section 4.4.2 of Maintenance Manual for the Glider DG-1000S, Issued: March 2002; and Section 4.4.2 of the Maintenance Manual for the Motorglider DG-1000T, Issued: June 2005, except for the addition of the placard requirement stated in paragraph (f)(2)(i) of this AD:

(1) For Group 1 Gliders:

(i) Before further flight as of November 26, 2008 (the effective date of this AD), inspect the torque of the nut which fixes bellcrank 5St19 to the bolt following Working instruction No. 1. If the measured torque is 3 Nm (2.2 ft-lb.) or higher, increase the torque to 12 Nm (9 ft-lb.).

(ii) If, as a result of the torque inspection required by paragraph (f)(1)(i) of this AD, you find the torque was less than 3 Nm (2.2 ft-lb.), before further flight, replace the bolt according to Working instruction No. 2. In such a case, within 7 days after the torque inspection, send a note by e-mail to [design@dg-Flugzeugbau.de](mailto:design@dg-Flugzeugbau.de) informing DG Flugzeugbau of the bolt replacement.

(iii) Within the next 90 days after November 26, 2008 (the effective date of this AD), install an additional bracket following Working instruction No. 3.

(2) For Group 2 Gliders:

(i) Before further flight as of November 26, 2008 (the effective date of this AD), install a placard in the pilot's clear view which states: "Aerobatic maneuvers are prohibited." This placard must be removed and aerobatics reinstated once the airbrake control hook-up mountings have been reinforced or replaced following Working instruction No. 4 or 5.

(ii) Before further flight as of November 26, 2008 (the effective date of this AD), visually inspect the mountings of the airbrake control hook ups in the wing roots for any damage and inspect the overcenter locking moment following Technical Note No. 1000/12.

(iii) If, as a result of the inspections of the mountings of the airbrake control hook ups and the overcenter locking moment required by paragraph (f)(2)(ii) of this AD, you find any damage (visual cracks and/or moment force measures below 50 N (11 lbs.)), repair the damage following Working instruction No. 5. If damage is detected on only one wing, repair only the damaged wing. You must reinforce the undamaged wing as instructed in paragraph (f)(2)(iv) of this AD.

(iv) If you do not find any damage (no cracks or the measured overcenter locking movement is within the specified tolerance) as a result of the inspections of the mountings of the airbrake control hook ups and the overcenter locking moment required by paragraph (f)(2)(ii) of this AD, within the next 90 days after November 26, 2008 (the effective date of this AD), reinforce the mountings of the airbrake control hook ups in the wing roots following Working instruction No. 4.

#### FAA AD Differences

**Note:** This AD differs from the MCAI and/or service information as follows:

(1) This AD requires the installation of a placard for Group 2 gliders that states aerobatic maneuvers are prohibited, which is to be removed when the airbrake control hook-up mountings have been reinforced or replaced. The MCAI does not require installation of a placard.

(2) DG Flugzeugbau GmbH Technical Note No. 1000/12, corrected January 7, 2008, states that instructions 1 and 4 may be executed by the owner. By FAA regulations, this AD requires all affected gliders to have the required actions done by an appropriately-rated mechanic.

(3) The MCAI refers to the term "suspension;" the technical note instead uses the term "mounting." This AD uses the term

"mounting" for consistency with the technical note.

#### Other FAA AD Provisions

(g) The following provisions also apply to this AD:

(1) *Alternative Methods of Compliance (AMOCs):* The Manager, Standards Office, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. Send information to ATTN: Greg Davison, Glider Program Manager, FAA, Small Airplane Directorate, 901 Locust, Room 301, Kansas City, Missouri 64106; telephone: (816) 329-4130; fax: (816) 329-4090. Before using any approved AMOC on any glider to which the AMOC applies, notify your appropriate principal inspector (PI) in the FAA Flight Standards District Office (FSDO), or lacking a PI, your local FSDO.

(2) *Airworthy Product:* For any requirement in this AD to obtain corrective actions from a manufacturer or other source, use these actions if they are FAA-approved. Corrective actions are considered FAA-approved if they are approved by the State of Design Authority (or their delegated agent). You are required to assure the product is airworthy before it is returned to service.

(3) *Reporting Requirements:* For any reporting requirement in this AD, under the provisions of the Paperwork Reduction Act (44 U.S.C. 3501 *et seq.*), the Office of Management and Budget (OMB) has approved the information collection requirements and has assigned OMB Control Number 2120-0056.

#### Related Information

(h) Refer to MCAI European Aviation Safety Agency (EASA) AD No.: 2007-0316R1-E, dated March 13, 2008, corrected March 14, 2008; DG Flugzeugbau GmbH

Technical Note No. 1000/12, corrected January 7, 2008; DG Flugzeugbau GmbH Working instruction No. 1 for TN1000/12, dated November 30, 2007; DG Flugzeugbau GmbH Working instruction No. 2 for TN1000/12, dated November 30, 2007; DG Flugzeugbau GmbH Working instruction No. 3 for TN1000/12, corrected January 28, 2008; DG Flugzeugbau GmbH Working instruction No. 4 for TN1000/12, dated November 29, 2007; DG Flugzeugbau GmbH Working instruction No. 5 for TM1000/12, dated December 5, 2007; Section 4.4.2 of Maintenance Manual for the Glider DG-1000S, Issued: March 2002; and Section 4.4.2 of the Maintenance Manual for the Motorglider DG-1000T, Issued: June 2005, for related information.

#### Material Incorporated by Reference

(i) You must use the service information specified in Table 1 of this AD to do the actions required by this AD, unless the AD specifies otherwise.

(1) The Director of the Federal Register approved the incorporation by reference of this service information under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) For service information identified in this AD, contact DG Flugzeugbau GmbH, Otto-Lilienthal-Weg 2, 76646 Bruchsal, Federal Republic of Germany; telephone: +49 (0) 7251 3020140; Fax: +49 (0) 7251 3020149; E-Mail: [dirks@dg-flugzeugbau.de](mailto:dirks@dg-flugzeugbau.de).

(3) You may review copies at the FAA, Central Region, Office of the Regional Counsel, 901 Locust, Room 506, Kansas City, Missouri 64106; or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: <http://www.archives.gov/federal-register/cfr/ibr-locations.html>.

TABLE 1—MATERIAL INCORPORATED BY REFERENCE

Service Bulletin No.	Page	Date
(i) DG Flugzeugbau GmbH Technical Note No. 1000/12 .....	1 through 2 .....	Corrected January 7, 2008.
(ii) DG Flugzeugbau GmbH Working instruction No. 1 for TN1000/12 .....	1 of 1 .....	November 30, 2007.
(iii) DG Flugzeugbau GmbH Working instruction No. 2 for TN1000/12 .....	1 of 1 .....	November 30, 2007.
(iv) DG Flugzeugbau GmbH Working instruction No. 3 for TN1000/12 .....	1 through 2 .....	Corrected January 28, 2008.
(v) DG Flugzeugbau GmbH Working instruction No. 4 for TN1000/12 .....	1 through 6 .....	November 29, 2007.
(vi) DG Flugzeugbau GmbH Working instruction No. 5 for TM1000/12 .....	1 through 3 .....	December 5, 2007.
(vii) Section 4.4.2 of Maintenance Manual for the Glider DG-1000S .....	Cover 4.4, 4.5 .....	Issued: March 2002. Issued: March 2002. Issued: March 2002.
(viii) Section 4.4.2 of the Maintenance Manual for the Motorglider DG-1000T ..	Cover 4.4, 4.5 .....	Issued: June 2005. Issued: December 2005. Issued: December 2005.

Issued in Kansas City, Missouri, on October 28, 2008.

**James E. Jackson,**

Acting Manager, Small Airplane Directorate,  
Aircraft Certification Service.

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**BILLING CODE 4910-13-P**