



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2013-0597; Directorate Identifier 2013-CE-016-AD]

RIN 2120-AA64

Airworthiness Directives; Diamond Aircraft Industries GmbH Airplanes

AGENCY: Federal Aviation Administration (FAA), Department of Transportation (DOT).

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: We propose to adopt a new airworthiness directive (AD) for Diamond Aircraft Industries GmbH Models DA 42, DA 42 NG, and DA 42 M-NG airplanes. This proposed AD results from mandatory continuing airworthiness information (MCAI) originated by an aviation authority of another country to identify and correct an unsafe condition on an aviation product. The MCAI describes the unsafe condition as insufficient clearance between the rod end safety washer and the nose landing gear attachment lever causes the rod end to bend at each gear retraction sequence. We are issuing this proposed AD to require actions to address the unsafe condition on these products.

DATES: We must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

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.

For service information identified in this proposed AD, contact Diamond Aircraft Industries GmbH, N.A. Otto-Str.5, A-2700 Wiener Neustadt, Austria; telephone: +43 2622 26700; fax: +43 2622 26780; email: office@diamond-air.at; Internet: <http://www.diamondaircraft.com/contact/technical.php>. You may review copies of the referenced service information at the FAA, Small Airplane Directorate, 901 Locust, Kansas City, Missouri 64106. For information on the availability of this material at the FAA, call (816) 329-4148.

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 proposed AD, the MCAI, 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: Mike Kiesov, Aerospace Engineer, FAA, Small Airplane Directorate, 901 Locust, Room 301, Kansas City, Missouri 64106; telephone: (816) 329-4144; fax: (816) 329-4090; email: mike.kiesov@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

We invite you to send any written relevant data, views, or arguments about this proposed AD. Send your comments to an address listed under the ADDRESSES section. Include “Docket No. FAA-2013-0597; Directorate Identifier 2013-CE-016-AD” at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this proposed AD. We will consider all comments received by the closing date and may amend this proposed AD because of those comments.

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

Discussion

The European Aviation Safety Agency (EASA), which is the Technical Agent for the Member States of the European Community, has issued AD No.: 2013-0121, dated June 4, 2013 (referred to after this as “the MCAI”), to correct an unsafe condition for the specified products. The MCAI states:

An incident was reported where a Diamond DA 42 aeroplane experienced an un-commanded rudder input and yaw after landing gear retraction, followed by restricted rudder travel. This situation caused the pilot to misinterpret this as an engine power loss. The rudder restriction could be removed by extending the landing gear and an uneventful landing was made.

Subsequent investigation results showed that the rod end of the nose landing gear (NLG) actuator, Part Number (P/N) X11-0006/2, had broken, causing the actuator to block the nearby rudder steering linkage. This failure was likely a result of insufficient clearance between the rod end safety washer and the NLG attachment lever, causing the rod end to bend at each gear retraction sequence.

This condition, if not detected and corrected, could result in reduced control of the aeroplane.

Prompted by this event, Diamond Aircraft Industries (DAI) issued Mandatory Service Bulletin (MSB) 42-099 / MSB 42NG-035, including Work Instruction (WI) WI-MSB-42-099 / WI-MSB 42NG-035 (published as a single document), providing instructions to identify and modify the affected NLG actuators, which includes installation of a new rod end bearing and safety washer.

For the reasons described above, this AD requires an inspection to identify the affected NLG actuators, P/N X11-0006/2, and, if an affected unit is installed, modification of the actuator.

This AD also prohibits installation of any affected P/N X11-0006/2 NLG actuators that may be held as spares, unless they are modified.

Relevant Service Information

Diamond Aircraft Industries GmbH has issued Mandatory Service Bulletin MSB 42-099/1, MSB 42NG-035/1, dated May 3, 2013; and Work Instruction WI-MSB-42-099, WI-MSB 42NG-035, Revision 1, dated May 3, 2013. The actions described in this service information are intended to correct the unsafe condition identified in the MCAI.

EASA AD No.: 2013-0121 references MSB 42-099 / MSB 42NG-035, dated April 22, 2013, as the applicable service information. DAI subsequently revised this mandatory service bulletin to MSB 42-099/1, MSB 42NG-035/1, dated May 3, 2013, based on a change to the applicable P/N of the NLG actuator. This revision, MSB 42-099/1, MSB 42NG-035/1, dated May 3, 2013, is referenced in this NPRM.

FAA's Determination and Requirements of the Proposed 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 proposing this AD because we evaluated all information and determined the unsafe condition exists and is likely to exist or develop on other products of the same type design.

Costs of Compliance

We estimate that this proposed AD will affect 170 products of U.S. registry. We also estimate that it would take about .5 work-hour per product to comply with the basic requirements of this proposed AD. The average labor rate is \$85 per work-hour.

Based on these figures, we estimate the cost of the proposed AD on U.S. operators to be \$7,225, or \$42.50 per product.

In addition, we estimate that any necessary follow-on actions would take about 2.5 work-hours and require parts costing \$235, for a cost of \$447.50 per product. We have no way of determining the number of products that may need these actions.

According to the manufacturer, some of the costs of this proposed AD may be covered under warranty, thereby reducing the cost impact on affected individuals. We do not control warranty coverage for affected individuals. As a result, we have included all costs in our cost estimate.

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 proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would 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 this proposed regulation:

- (1) Is not a “significant regulatory action” under Executive Order 12866,
- (2) Is not a “significant rule” under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979),
- (3) Will not affect intrastate aviation in Alaska, and
- (4) 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.

List of Subjects in 14 CFR Part 39

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

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 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:

Diamond Aircraft Industries GmbH: Docket No. FAA-2013-0597; Directorate Identifier 2013-CE-016-AD.

(a) Comments Due Date

We must receive comments by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

None.

(c) Applicability

This AD applies to Diamond Aircraft Industries GmbH Models DA 42, DA 42 NG, and DA 42 M-NG airplanes, all serial numbers, certificated in any category.

(d) Subject

Air Transport Association of America (ATA) Code 32: Landing Gear.

(e) Reason

This AD was prompted by mandatory continuing airworthiness information (MCAI) originated by an aviation authority of another country to identify and correct an unsafe condition on an aviation product. The MCAI describes the unsafe condition as insufficient clearance between the rod end safety washer and the nose landing gear (NLG) attachment lever causes the rod end to bend at each gear retraction sequence. We are issuing this AD to detect and correct insufficient clearance between the rod end safety washer and the nose landing gear (NLG) attachment lever, which may cause the NLG actuator to break and possibly restrict rudder control, resulting in loss of control.

(f) Actions and Compliance

Unless already done, do the following actions as specified in paragraphs (f)(1) and (f)(2) of this AD:

(1) Within 100 hours time-in-service after the effective date of this AD or 6 calendar months after the effective date of this AD, whichever occurs first, inspect the NLG actuator to identify the part number (P/N) and serial number (S/N). If a NLG actuator P/N X11-0006/2 is installed with a S/N between 0001 and 0155 (inclusive), modify the actuator by replacing the NLG rod end bearing and safety washer with new

parts. Follow the INSTRUCTIONS section of Work Instruction WI-MSB-42-099, WI-MSB 42NG-035, Revision 1, dated May 3, 2013, as specified in the Accomplishments/Instructions paragraph of Mandatory Service Bulletin MSB 42-099/1, MSB 42NG-035/1, dated May 3, 2013.

(2) As of the effective date of this AD, do not install on any airplane a NLG actuator P/N X11-0006/2 with a S/N between 0001 and 0155 (inclusive), unless the actuator has been modified following the INSTRUCTIONS section of Work Instruction WI-MSB-42-099, WI-MSB 42NG-035, Revision 1, dated May 3, 2013, as specified in the Accomplishments/Instructions paragraph of Mandatory Service Bulletin MSB 42-099/1, MSB 42NG-035/1, dated May 3, 2013.

(g) Other FAA AD Provisions

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: Mike Kiesov, Aerospace Engineer, FAA, Small Airplane Directorate, 901 Locust, Room 301, Kansas City, Missouri 64106; telephone: (816) 329-4144; fax: (816) 329-4090; email: mike.kiesov@faa.gov. Before using any approved AMOC on any airplane 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.

(h) Related Information

Refer to MCAI European Aviation Safety Agency (EASA) AD No.: 2013-0121, dated June 4, 2013, for related information, which can be found in the AD docket on the Internet at <http://www.regulations.gov>. For service information related to this AD, contact Diamond Aircraft Industries GmbH, N.A. Otto-Str.5, A-2700 Wiener Neustadt, Austria; telephone: +43 2622 26700; fax: +43 2622 26780; email: office@diamond-air.at; Internet: <http://www.diamondaircraft.com/contact/technical.php>. You may review copies of the referenced service information at the FAA, Small Airplane Directorate, 901 Locust, Kansas City, Missouri 64106. For information on the availability of this material at the FAA, call (816) 329-4148.

Issued in Kansas City, Missouri on June 28, 2013.

Earl Lawrence,
Manager, Small Airplane Directorate,
Aircraft Certification Service

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