

# SERVICE INFORMATION

## NO. SI 42NG-081

**NOTE:** SI's are used only:  
1) To distribute information from DAI to our customers.  
2) To distribute applicable information/documents from our suppliers to our customers with additional information.  
Typically there is no revision service for SI's. Each new information or change of that will be sent along with a new SI.

### I. TECHNICAL DETAILS

#### 1.1 Airplanes affected:

All DA 42 NG and DA 42 M-NG airplanes

#### 1.2 Subject:

FAA Airworthiness Directive No. 2016-22-06

ATA-Code: 22-00

#### 1.3 Reason:

FAA issued Airworthiness Directive No. 2016-22-06 mandating inspections of the auto pilot bridle clamps in the pitch and roll control system at certain airplane serial numbers due to possible cracks. If cracked autopilot bridle cable are identified the replacement of the autopilot bridle cable clamps with an improved design is mandated.

#### 1.4 Information:

For detailed technical information refer to FAA Airworthiness Directive No. 2016-22-06 which is applicable without any further additions or restrictions.

### II. OTHERS

FAA Airworthiness Directive No. 2016-22-06 is attached to this Service Information.

In case of doubt contact Diamond Aircraft Industries GmbH.

[Federal Register Volume 81, Number 208 (Thursday, October 27, 2016)]

[Rules and Regulations]

[Pages 74664-74666]

From the Federal Register Online via the Government Publishing Office [www.gpo.gov]

[FR Doc No: 2016-25657]

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## **DEPARTMENT OF TRANSPORTATION**

### **Federal Aviation Administration**

#### **14 CFR Part 39**

**[Docket No. FAA-2016-9318; Directorate Identifier 2016-CE-031-AD; Amendment 39-18695; AD 2016-22-06]**

**RIN 2120-AA64**

#### **Airworthiness Directives; Diamond Aircraft Industries GmbH Airplanes**

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

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

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**SUMMARY:** We are adopting a new airworthiness directive (AD) for all Diamond Aircraft Industries GmbH Models DA 40 NG, DA 42 NG, and DA 42 M-NG airplanes. 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 cracked autopilot bridle cable clamps. We are issuing this AD to correct the unsafe condition on these products

**DATES:** This AD is effective November 16, 2016.

The Director of the Federal Register approved the incorporation by reference of certain publications listed in this AD as of November 16, 2016.

We must receive comments on this AD by December 12, 2016.

**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 AD, contact Diamond Aircraft Industries GmbH, N.A. Otto-Straße 5, A-2700 Wiener Neustadt, Austria, telephone: +43 2622 26700; fax: +43 2622 26780; email: [office@diamond-air.at](mailto:office@diamond-air.at); Internet: <http://www.diamondaircraft.com>. You may view this

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. It is also available on the Internet at <http://www.regulations.gov> by searching for locating Docket No. FAA-2016-9318.

## **Examining the AD Docket**

You may examine the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2016-9318; 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:** 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](mailto:mike.kiesov@faa.gov).

## **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. 2016-0190, dated September 26, 2016 (referred to after this as "the MCAI"), to correct an unsafe condition for the specified products. The MCAI states:

During an inspection of the pitch and roll control system of an aeroplane, cracked autopilot bridle cable clamps were discovered. Over[hyphen]torqueing has been determined as a possible reason for the cracking.

This condition, if not corrected, could lead to detachment of the clamps from the control system, possibly resulting in reduced control of the aeroplane.

To address this potential unsafe condition, Diamond Aircraft Industries (DAI) issued Recommended Service Bulletins DAI RSB 40NG[hyphen]048, DAI RSB 42NG[hyphen]059 and DAI RSB 42NG[hyphen]059 Revision 1. Later DAI issued Mandatory Service Bulletins DAI MSB 40NG[hyphen]048 Revision 1 and DAI MSB 42NG[hyphen]059 Revision 2 (referred to as 'the applicable SB' in this AD) to provide inspection instructions. DAI also improved the clamp material in a redesign

For the reasons described above, this AD requires repetitive inspections of the auto pilot bridle cable clamps, and replacement of clamps with redesigned clamps if cracks are found.

You may examine the MCAI on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2016-9318.

## **Related Service Information Under 1 CFR Part 51**

Diamond Aircraft Industries GmbH has issued Mandatory Service Bulletin MSB 40NG-048/1, dated September 9, 2016, Work Instruction WI-MSB 40NG-048, Revision 1, dated September 9,

2016, Mandatory Service Bulletin MSB 42NG-059/2, dated September 9, 2016, and Work Instruction WI-MSB 42NG-059, Revision 2, dated September 9, 2016. In paired combinations, the mandatory service bulletins and work instructions describe procedures for inspecting the autopilot bridle cable clamps and replacing the clamps with redesigned clamps if cracks are found on the applicable airplane models. This service information 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 of this AD.

### **FAA's Determination and Requirements of This 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.

### **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 cracked autopilot bridle cable clamp could cause detachment of the clamps from the control system and result in reduced control. 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-2016-9318; Directorate Identifier 2016-CE-031-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.

### **Costs of Compliance**

We estimate that this AD will affect 78 products of U.S. registry. We also estimate that it will take about 1 work-hour per product to comply with the basic inspection requirement of this AD. The average labor rate is \$85 per work-hour.

Based on these figures, we estimate the cost of this AD on U.S. operators to be \$6,630, or \$85 per product.

In addition, we estimate that any necessary follow-on replacement actions will take about 1 work-hour and require parts costing \$41 per autopilot bridle cable clamp. There are a total of 4 clamps per airplane. This AD requires replacing 2 clamps at a time, for a cost of \$167 per product. We have no way of determining the number of products that may need these actions.

## **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 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.

## **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:



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**2016-22-06 Diamond Aircraft Industries GmbH:** Amendment 39-18695; Docket No. FAA-2016-9318; Directorate Identifier 2016-CE-031-AD.

**(a) Effective Date**

This airworthiness directive (AD) becomes effective November 16, 2016.

**(b) Affected ADs**

None.

**(c) Applicability**

This AD applies to the following Diamond Aircraft Industries GmbH model airplanes certificated in any category.

- (1) Model DA 40 NG: Serial numbers 40.N260 through 40.N314;
- (2) Model DA 42 NG: Serial numbers 42.N150 through 42.N223; and
- (3) Model DA 42 M-NG: Serial numbers 42.MN035 through 42.MN052.

**(d) Subject**

Air Transport Association of America (ATA) Code 22: Autopilot.

**(e) Reason**

This AD was prompted by mandatory continuing airworthiness information (MCAI) issued by the aviation authority of another country to identify and correct an unsafe condition on an aviation product. We are issuing this AD to detect and correct cracked autopilot bridle cable clamps, which could cause detachment of the clamps from the control system and could result in reduced control.

**(f) Actions and Compliance**

Unless already done, do the following actions.

- (1) Within the next 25 hours time-in-service (TIS) after November 16, 2016 (the effective date of this AD) or within the next 3 months after November 16, 2016 (the effective date of this AD), whichever occurs first, and repetitively thereafter at intervals not to exceed 200 hours TIS, inspect each autopilot bridle cable clamp, part numbers (P/Ns) D41-2213-10-53 and D41-2213-10-54. Do the inspections following the INSTRUCTIONS section of Diamond Aircraft Industries GmbH (DAI) Work Instruction WI-MSB 40NG-048, Revision 1, dated September 9, 2016, as specified in the Accomplishments/Instructions paragraph of DAI Mandatory Service Bulletin MSB 40NG-048/1, dated September 9, 2016, and the INSTRUCTIONS section of DAI Work Instruction WI-MSB 42NG-059, Revision 2, dated September 9, 2016, as specified in the Accomplishments/Instructions paragraph of DAI Mandatory Service Bulletin MSB 42NG-059/2, dated September 9, 2016, as applicable.

Note 1 to paragraph (f)(1) of this AD: The European Aviation Safety Agency (EASA) AD No. 2016-0190, dated September 26, 2016, and the DAI service bulletins referenced in paragraph (f)(1) of this AD allow the compliance time for the initial inspection of each autopilot bridle cable clamp to be extended from within the 25 hours time-in-service or within the next 3 months, whichever occurs first, to 200 hours TIS or 12 months, whichever occurs first, as long as the autopilot is deactivated. This AD does not allow for this extension.

(2) If a crack is found in either autopilot bridle cable clamp during any inspection required in paragraph (f)(1) of this AD, before further flight, replace both autopilot bridle cable clamps with improved design autopilot bridle cable clamps, P/Ns D41-2213-10-53\_01 (or higher) and P/N D41-2213-10-54\_01 (or higher). Do the replacements following the INSTRUCTIONS section of DAI Work Instruction WI-MSB 40NG-048, Revision 1, dated September 9, 2016, as specified in the Accomplishments/Instructions paragraph of DAI Mandatory Service Bulletin MSB 40NG-048/1, dated September 9, 2016, and the INSTRUCTIONS section of DAI Work Instruction WI-MSB 42NG-059, Revision 2, dated September 9, 2016, as specified in the Accomplishments/Instructions paragraph of DAI Mandatory Service Bulletin MSB 42NG-059/2, dated September 9, 2016, as applicable.

(3) Installing improved design autopilot bridle cable clamps, P/N D41-2213-10-53\_01 (or higher) and P/N D41-2213-10-54\_01 (or higher) terminates the repetitive inspections required in paragraph (f)(1) of this AD.

(4) As of November 16, 2016 (the effective date of this AD), do not install autopilot bridle cable clamps, P/Ns D41-2213-10-53 and D41-2213-10-54.

#### **(g) Credit for Actions Done Following Previous Service Information**

This AD allows credit for doing only the initial inspection action required in paragraph (f)(1) of this AD if done before November 16, 2016 (the effective date of this AD), following DAI Recommended Service Bulletin RSB 40NG-048, dated August 24, 2016, and DAI Recommended Service Bulletin RSB 42NG-059, dated June 30, 2016, or DAI Recommended Service Bulletin RSB 42NG-059, Revision 1, dated August 24, 2016, as applicable.

#### **(h) 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.

(3) Reporting Requirements: For any reporting requirement in this AD, a federal agency may not conduct or sponsor, and a person is not required to respond to, nor shall a person be subject to a penalty for failure to comply with a collection of information subject to the requirements of the Paperwork Reduction Act unless that collection of information displays a current valid OMB Control Number. The OMB Control Number for this information collection is 2120-0056. Public reporting for this collection of information is estimated to be approximately 5 minutes per response, including the time for reviewing instructions, completing and reviewing the collection of information. All

responses to this collection of information are mandatory. Comments concerning the accuracy of this burden and suggestions for reducing the burden should be directed to the FAA at: 800 Independence Ave. SW., Washington, DC 20591, Attn: Information Collection Clearance Officer, AES-200.

**(i) Related Information**

Refer to MCAI EASA AD No. 2016-0190, dated September 26, 2016, DAI Recommended Service Bulletin RSB 40NG-048, dated August 24, 2016, DAI Recommended Service Bulletin RSB 42NG-059, dated June 30, 2016, and DAI Recommended Service Bulletin RSB 42NG-059, Revision 1, dated August 24, 2016, for related information. You may examine the MCAI on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2016-9318.

**(j) Material Incorporated by Reference**

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

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

(i) Diamond Aircraft Industries GmbH Mandatory Service Bulletin MSB 40NG-048/1, dated September 9, 2016.

(ii) Diamond Aircraft Industries GmbH Work Instruction WI-MSB 40NG-048, Revision 1, dated September 9, 2016.

(iii) Diamond Aircraft Industries GmbH Mandatory Service Bulletin MSB 42NG-059/2, dated September 9, 2016.

(iv) Diamond Aircraft Industries GmbH Work Instruction WI-MSB 42NG-059, Revision 2, dated September 9, 2016.

(3) For Diamond Aircraft Industries GmbH service information identified in this AD, contact Diamond Aircraft Industries GmbH, N.A. Otto-Straße 5, A-2700 Wiener Neustadt, Austria, telephone: +43 2622 26700; fax: +43 2622 26780; email: [office@diamond-air.at](mailto:office@diamond-air.at); Internet: <http://www.diamondaircraft.com>.

(4) You may view this 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. It is also available on the Internet at <http://www.regulations.gov> by searching for locating Docket No. FAA-2016-9318.

(5) You may view this service information that is incorporated by reference 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>.

Issued in Kansas City, Missouri on October 17, 2016.

Pat Mullen,  
Acting Manager, Small Airplane Directorate,  
Aircraft Certification Service.