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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2013-0348; Directorate Identifier 2013-CE-005-AD; Amendment 39-17439; AD 2013-08-21]

RIN 2120-AA64

Airworthiness Directives; Diamond Aircraft Industries Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule; request for comments.

SUMMARY: We are adopting a new airworthiness directive (AD) for Diamond Aircraft Industries Model DA 40 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 chafing between the charge air tubing and the engine firewall that may cause a hole in the charge air tubing, which could result in loss of charged air pressure with consequent loss of engine power and loss of control. We are issuing this AD to require actions to address the unsafe condition on these products.

DATES: This AD is effective May 21, 2013.

The Director of the Federal Register approved the incorporation by reference of certain publications listed in the AD as of May 21, 2013.

We must receive comments on this AD by June 17, 2013.

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-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 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.

SUPPLEMENTARY INFORMATION:

Discussion

The European Aviation Safety Agency (EASA), which is the Technical Agent for the Member States of the European Community, has issued EASA AD 2013-0018, dated January 21, 2013 (referred to after this as "the MCAI"), to correct an unsafe condition for the specified products. The MCAI states:

An occurrence of loss of engine charge air pressure was reported, which prompted an in-flight Engine Control Unit warning. The investigation results identified that chafing caused a hole in the charge air tubing where it touched the engine firewall. Further investigation results identified other DA 40 NG aeroplanes with chafing marks in this area.

To prevent chafing between the charged air tube and engine firewall, DAI issued Recommended SB 40NG-011 to replace the charged air elbow hose between the turbocharger and intercooler with an aluminium tube to improve the durability of the charged air system.

After issuance of SB 40NG-011, an additional occurrence of a hole in a charge air tube was reported, apparently caused by chafing. The results of the subsequent investigation revealed that the improved design cannot assure the necessary clearance between the charged air tubing and surrounding parts.

This condition, if not corrected, could lead to loss of charged air pressure, possibly resulting in loss of engine power and reduced control of the aeroplane.

To address this unsafe condition, DAI issued Mandatory SB 40NG-18, providing instructions to inspect the charged air tubing from the turbocharger to the intercooler and replacement of affected parts with an improved design.

For the reasons described above, this AD requires repetitive inspections of charged air tubing for the presence of the chafing marks and, depending on findings, replacement of damaged tubing, or installation of improved design tubing.

You may obtain further information by examining the MCAI in the AD docket.

Relevant Service Information

Diamond Aircraft Industries GmbH has issued Mandatory Service Bulletin 40NG-018/1, dated November 20, 2012. 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.

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 there is only one airplane on the U.S. registry affected by this unsafe condition, and the required modification has been completed on the specific airplane. Therefore, we determined that notice and opportunity for public comment before issuing this AD are unnecessary 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-2013-0348; Directorate Identifier 2013-CE-005-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 1 product of U.S. registry. We also estimate that it would take about 2 work-hours per product to comply with the basic requirements of this AD. The average labor rate is \$85 per work-hour. Required parts would cost about \$1,381 per product.

Based on these figures, we estimate the cost of the AD on U.S. operators to be \$1,551, or \$1,551 per product.

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:



2013-08-21 Diamond Aircraft Industries: Amendment 39-17439; Docket No. FAA-2013-0348; Directorate Identifier 2013-CE-005-AD.

(a) Effective Date

This airworthiness directive (AD) becomes effective May 21, 2013.

(b) Affected ADs

None.

(c) Applicability

This AD applies to the following Diamond Aircraft Industries GmbH airplanes, certificated in any category:

- (1) Model DA 40 NG airplanes serial numbers 40.N001 through 40.N084; and
- (2) Model DA 40 NG airplanes, all serial numbers, that have been converted from the Model DA 40 D.

(d) Subject

Air Transport Association of America (ATA) Code 81: Turbocharging.

(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 chafing between the charge air tubing and the engine firewall that may cause a hole in the charge air tubing and could result in loss of charged air pressure with consequent loss of engine power and loss of control.

(f) Actions and Compliance

Unless already done, do the actions specified in paragraphs (f)(1) through (f)(6).

(1) Initially within the next 50 hours time-in-service (TIS) after May 21, 2013 (the effective date of this AD) or within the next 60 days after May 21, 2013 (the effective date of this AD), whichever occurs first, and repetitively thereafter at intervals not to exceed 50 hours TIS inspect, the charged air tubing from the turbocharger to the intercooler for chafing marks following the Accomplishments/Instructions section of Diamond Aircraft Industries GmbH Mandatory Service Bulletin 40NG-018/1, dated November 26, 2012.

(2) If chafing marks are found on the charged air tubing during any inspection required in paragraph (f)(1) of this AD, before further flight, replace the charged air tubing with an airworthy part or modify the airplane with the improved design parts as specified in paragraph (f)(3) of this AD. Follow the Instructions section of Diamond Aircraft Industries GmbH Work Instruction WI-MSB-40NG-018, Revision 1, dated November 26, 2012, as specified in the Accomplishments/Instructions

section of Diamond Aircraft Industries GmbH Mandatory Service Bulletin 40NG-018/1, dated November 26, 2012. If you choose to replace with an airworthy part instead of modifying the airplane as specified in paragraph (f)(3) of this AD, you must continue the repetitive inspections required in paragraph (f)(1) of this AD until the modification required in paragraph (f)(3) of this AD.

(3) Within the next 200 hours TIS after May 21, 2013 (the effective date of this AD) or within the next 12 months after May 21, 2013 (the effective date of this AD), whichever occurs first, unless already done as the corrective action specified in paragraph (f)(2) of this AD, modify the airplane with the improved design parts. Follow the Instructions sections Diamond Aircraft Industries GmbH Work Instruction WI-MSB-40NG-018, Revision 1, dated November 26, 2012, as specified in the Accomplishments/Instructions section Diamond Aircraft Industries GmbH Mandatory Service Bulletin 40NG-018/1, dated November 26, 2012.

(4) Modification of the airplane with improved design parts as specified in paragraph (f)(3) of this AD terminates the repetitive inspection requirements in paragraph (f)(1) of this AD.

(5) After the modification specified in paragraph (f)(3) of this AD, do not install charge air elbow hose part number (P/N) SNS5X-O-60-72-90 °, charge air tube P/N D44-8126-00-05, or charge air hose P/N D44-8122-00-10 on any airplane.

(6) After May 21, 2013 (the effective date of this AD), Diamond Aircraft Industries GmbH Recommended Service Bulletin 40NG-011, dated February 28, 2012, is no longer valid, and any actions following Diamond Aircraft Industries GmbH Recommended Service Bulletin 40NG-011, dated February 28, 2012, are prohibited.

(g) Credit for Actions Accomplished in Accordance With Previous Service Information

If, before May 21, 2013 (the effective date of this AD), you performed the actions in the Accomplishments/Instructions section of Diamond Aircraft Industries GmbH Mandatory Service Bulletin 40NG-018, dated November 22, 2012, you met the requirements of paragraphs (f)(1), (f)(2), and (f)(3) of this AD.

(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 European Aviation Safety Agency (EASA) AD 2013-0018, dated January 21, 2013; and Diamond Aircraft Industries GmbH Mandatory Service Bulletin 40NG-018, dated November 22, 2012, for related information.

(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 the AD specifies otherwise.

(i) Diamond Aircraft Industries GmbH Mandatory Service Bulletin 40NG-018/1, dated November 26, 2012.

(ii) Diamond Aircraft Industries GmbH Work Instruction WI-MSB-40NG-018, Revision 1, dated November 26, 2012.

(3) For Diamond Aircraft Industries GmbH service information identified in 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>.

(4) You may view this service information at 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.

(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 April 15, 2013.

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