



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2013-0703; Directorate Identifier 2013-NM-004-AD]

RIN 2120-AA64

Airworthiness Directives; Bombardier, Inc. Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: We propose to adopt a new airworthiness directive (AD) for certain Bombardier, Inc. Model DHC-8-102, -103, -106, -201, -202, -301, -311, and -315 series airplanes. This proposed AD was prompted by a report of a pilot commanding an in-flight engine shut down in response to a low oil pressure warning indication. Further investigation revealed the mounting studs in the engine mounted alternating current (AC) generator mounting plate were pulled out of position and the threaded interface in the plate was corroded. This proposed AD would require repetitive inspections for discrepancies on certain AC generator mounting adapters, and replacing discrepant adapters with serviceable ones. This proposed AD would also require revising the maintenance program to incorporate a repetitive task specified in certain temporary revisions. We are proposing this AD to detect and correct corrosion in the AC generator mounting plate, which could result in a gap between the AC generator and the generator mounting plate, and cause loss of engine oil and consequent engine failure.

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, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this proposed AD, contact Bombardier, Inc., Q-Series Technical Help Desk, 123 Garratt Boulevard, Toronto, Ontario M3K 1Y5, Canada; telephone 416-375-4000; fax 416-375-4539; email thd.qseries@aero.bombardier.com; Internet <http://www.bombardier.com>. You may review copies of the referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221.

Examining the AD Docket

You may examine the AD docket on the Internet at <http://www.regulations.gov>; or in person at the Docket Operations office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this proposed AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Operations 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: Assata Dessaline, Aerospace Engineer, Avionics and Flight Test Branch, ANE-172, FAA, New York Aircraft Certification Office, 1600 Stewart Avenue, Suite 410, Westbury, New York 11590; telephone (516) 228-7301; fax (516) 794-5531.

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-2013-0703; Directorate Identifier 2013-NM-004-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 based on 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 proposed AD.

Discussion

Transport Canada Civil Aviation (TCCA), which is the aviation authority for Canada, has issued Canadian Airworthiness Directive, CF-2012-29, dated November 22, 2012 (referred to after this as the Mandatory Continuing Airworthiness Information, or “the MCAI”), to correct an unsafe condition for the specified products. The MCAI states:

An incident has been reported on the DHC-8 aeroplane of a pilot commanded in-flight engine shut down in response to a[n] engine low oil pressure warning indication.

Further investigation revealed the mounting studs in the engine mounted AC generator mounting plate were pulled out of position and the threaded interface in the plate corroded. This resulted in a gap between the AC generator and the generator mounting plate, leading to the loss of engine oil and the ensuing illumination of the associated engine low oil pressure warning indication.

To ensure the integrity of the affected units, Part I of this [TCCA] AD mandates an [general visual and mechanical] inspection of the affected AC generator mounting adapters part numbers (P/N) 31708-500 or 31708-501, and, as applicable, replacement with new or serviceable mounting plates.

Part II of this [TCCA] AD mandates the incorporation of a repeat Maintenance Review Board (MRB) inspection applicable to the replacement of the AC generator mounting adapters P/Ns 31708-510 or 31708-511 only.

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

Relevant Service Information

Bombardier has issued the following service information:

- Bombardier Service Bulletin 8-24-88, dated December 13, 2011.
- de Havilland Dash 8 Series 100 Temporary Revision MRB-153, dated July 10, 2012, Part 1 Section 2–Systems, of the de Havilland Dash 8 Series 100 Maintenance Program Manual PSM 1-8-7 MRB Report.
- de Havilland Dash 8 Series 200 Temporary Revision MRB 2-31, dated July 10, 2012, Part 1 Section 2–Systems of the de Havilland Dash 8 Series 200 Maintenance Program Manual PSM 1-82-7 MRB Report.
- de Havilland Dash 8 Series 300 Temporary Revision MRB 3-162, dated July 10, 2012, Part 1 Section 2–Systems of the de Havilland Dash 8 Series 300 Maintenance Program Manual PSM 1-83-7 MRB Report.

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

FAA’s Determination and Requirements of This 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 the State of Design Authority, we have been notified of the unsafe condition described in the MCAI and service information referenced above. We are proposing this AD because we evaluated all pertinent information and determined an unsafe condition exists and is likely to exist or develop on other products of the same type design.

This AD requires revisions to certain operator maintenance documents to include new actions (e.g., inspections). Compliance with these inspections is required by 14 CFR 91.403(c). For airplanes that have been previously modified, altered, or repaired in the areas addressed by these actions, the operator may not be able to accomplish the inspections described in the revisions. In this situation, to comply with 14 CFR 91.403(c), the operator must request approval for an alternative method of compliance according to paragraph (j)(1) of this AD. The request should include a description of changes to the required inspections that will ensure the continued operational safety of the airplane.

Costs of Compliance

Based on the service information, we estimate that this proposed AD would affect about 88 products of U.S. registry. We also estimate that it would take about 5 work-hours per product to comply with the basic requirements of this proposed AD. The average labor rate is \$85 per work-hour. Required parts would cost about \$4,000 per product. Where the service information lists required parts costs that are covered under warranty, we have assumed that there will be no charge for these parts. As we do not control warranty coverage for affected parties, some parties may incur costs higher than estimated here. Based on these figures, we estimate the cost of the proposed AD on U.S. operators to be \$389,400, or \$4,425 per product.

We have received no definitive data that would enable us to provide cost estimates for the on-condition actions specified in this proposed 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 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.

We prepared a regulatory evaluation of the estimated costs to comply with this proposed 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.

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:

Bombardier, Inc.: Docket No. FAA-2013-0703; Directorate Identifier 2013-NM-004-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 Bombardier, Inc. Model DHC-8-102, -103, -106, -201, -202, -301, -311, and -315 series airplanes; certificated in any category; serial numbers 019 through 672 inclusive.

(d) Subject

Air Transport Association (ATA) of America Code 24, Electrical Power.

(e) Reason

This AD was prompted by a report of a pilot commanding an in-flight engine shut down in response to a low oil pressure warning indication. Further investigation revealed the mounting studs in the engine mounted alternating current (AC) generator mounting plate were pulled out of position and the threaded interface in the plate corroded. We are issuing this AD to detect and correct corrosion in the AC generator mounting plate, which could result in a gap between the AC generator and the generator mounting plate, and cause loss of engine oil and consequent engine failure.

(f) Compliance

You are responsible for having the actions required by this AD performed within the compliance times specified, unless the actions have already been done.

(g) Inspection and Removal of AC Generator Mounting Adaptor

Within 6,000 flight hours or 36 months or when the AC generator is removed for service, whichever occurs first, after the effective date of this AD: Do a general visual inspection and a mechanical inspection for discrepancies (i.e., damage, corrosion, and failed mechanical inspection) on AC generator mounting adaptors having P/N 31708-500

and P/N 31708-501, in accordance with the Accomplishment Instructions of Bombardier Service Bulletin 8-24-88, dated December 13, 2011. If any discrepancy (i.e., damage, corrosion, or failed mechanical inspection) is found, before further flight replace the AC generator mounting adapter with a serviceable mounting adapter having P/N 31708-510, P/N 31708-511, P/N 31708-500, or 31708-501, in accordance with the Accomplishment Instructions of Bombardier Service Bulletin 8-24-88, dated December 13, 2011.

(1) For in-service mounting adapters that have P/N 31708-500 or P/N 31708-501, repeat the general visual and mechanical inspection thereafter at intervals not to exceed 6,000 flight hours or 36 months after the most recent inspection or when the AC generator is removed for service, whichever occurs first.

(2) For airplanes having AC generator mounting adapters that have P/N 31708-500 or 31708-501: Within the later of the times specified in paragraphs (g)(2)(i) and (g)(2)(ii) of this AD, replace the AC generator mounting adapter with a new AC generator mounting adapter having P/N 31708-510 or 31708-511.

(i) Before the accumulation of 120 months on the part.

(ii) Within 12 months or 2,000 flight hours or when the generator is removed from service, whichever occurs first, after the effective date of the AD.

(h) Airplane Maintenance Program Revision

For airplanes having AC generator mounting adapters that have P/N 31708-510 or 31708-511: Within 30 days after the effective date of this AD, revise the airplane maintenance program by incorporating MRB Task 2420/14 in the applicable maintenance program manual specified in paragraph (h)(1), (h)(2), or (h)(3) of this AD. The initial

compliance time for MRB Task 2420/14 is prior to the accumulation of 10,000 total flight hours or within 60 months since installation of the part, whichever occurs first.

(1) For Model DHC-8-102, -103, and -106 airplanes: de Havilland Dash 8 Series 100 Temporary Revision MRB-153, dated July 10, 2012, Part 1 Section 2–Systems, of the de Havilland Dash 8 Series 100 Maintenance Program Manual PSM 1-8-7 MRB Report.

(2) For Model DHC-8-201 and -202 airplanes: de Havilland Dash 8 Series 200 Temporary Revision MRB 2-31, dated July 10, 2012, Part 1 Section 2–Systems of the de Havilland Dash 8 Series 200 Maintenance Program Manual PSM 1-82-7 MRB Report.

(3) For Model DHC-8-301, -311, and -315 airplanes: de Havilland Dash 8 Series 300 Temporary Revision MRB 3-162, dated July 10, 2012, Part 1 Section 2–Systems of the de Havilland Dash 8 Series 300 Maintenance Program Manual PSM 1-83-7 MRB Report.

(i) No Alternative Actions or Intervals

After accomplishing the revision required by paragraph (h) of this AD, no alternative actions (e.g., inspections) or intervals may be used, unless the actions and intervals are approved as an AMOC in accordance with the procedures specified in paragraph (j)(1) of this AD.

(j) Other FAA AD Provisions

The following provisions also apply to this AD:

(1) Alternative Methods of Compliance (AMOCs): The Manager, New York Aircraft Certification Office (ACO), ANE-170, 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 ACO, send it to ATTN: Program Manager, Continuing Operational Safety, FAA, New York ACO, 1600 Stewart Avenue, Suite 410, Westbury, New York 11590; telephone 516-228-7300; fax 516-794-5531. 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. The AMOC approval letter must specifically reference this AD.

(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 ensure the product is airworthy before it is returned to service.

(k) Related Information

(1) Refer to Mandatory Continuing Airworthiness Information (MCAI) Canadian Airworthiness Directive CF-2012-29, dated November 22, 2012, and the service information specified in paragraphs (l)(1)(i) through (l)(1)(iv) of this AD, for related information.

(i) Bombardier Service Bulletin 8-24-88, dated December 13, 2011.

(ii) de Havilland Dash 8 Series 100 Temporary Revision MRB-153, dated July 10, 2012, Part 1 Section 2–Systems, of the de Havilland Dash 8 Series 100 Maintenance Program Manual PSM 1-8-7 MRB Report.

(iii) de Havilland Dash 8 Series 200 Temporary Revision MRB 2-31, dated July 10, 2012, Part 1 Section 2–Systems of the de Havilland Dash 8 Series 200 Maintenance Program Manual PSM 1-82-7 MRB Report.

(iv) de Havilland Dash 8 Series 300 Temporary Revision MRB 3-162, dated July 10, 2012, Part 1 Section 2–Systems of the de Havilland Dash 8 Series 300 Maintenance Program Manual PSM 1-83-7 MRB Report.

(2) For service information identified in this AD, contact Bombardier, Inc., Q-Series Technical Help Desk, 123 Garratt Boulevard, Toronto, Ontario M3K 1Y5, Canada; telephone 416-375-4000; fax 416-375-4539; email thd.qseries@aero.bombardier.com; Internet <http://www.bombardier.com>. You may review copies of the referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221.

Issued in Renton, Washington, on August 21, 2013.

Stephen P. Boyd,
Acting Manager,
Transport Airplane Directorate,
Aircraft Certification Service.

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