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## **DEPARTMENT OF TRANSPORTATION**

### **Federal Aviation Administration**

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

**[Docket No. FAA-2005-20860; Directorate Identifier 2005-NM-043-AD; Amendment 39-14131; AD 2005-12-15]**

**RIN 2120-AA64**

#### **Airworthiness Directives; Bombardier Model DHC-8-400 Series Airplanes**

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

**ACTION:** Final rule.

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**SUMMARY:** The FAA is adopting a new airworthiness directive (AD) for certain Bombardier Model DHC-8-400 series airplanes. This AD requires revising the Airworthiness Limitation section of the Instructions for Continued Airworthiness of the Dash 8 400 Series (Bombardier) Maintenance Requirements Manual to reduce the life limits of the main landing gear (MLG) orifice support tube, upper bearing, and piston plug; and to reduce the threshold for initiating repetitive detailed inspections for cracking of the engine isolator brackets. This AD is prompted by the discovery of fatigue failures, during type certification fatigue testing, at the engine isolator bracket and at the orifice support tube, upper bearing, and piston plug in the shock strut assembly of the MLG, which are principal structural elements. We are issuing this AD to prevent the development of cracks in these principal structural elements, which could reduce the structural integrity of the engine installation and the MLG. Reduced structural integrity of the engine installation could result in separation of the engine from the airplane, and reduced structural integrity of the MLG could result in collapse of the MLG.

**DATES:** This AD becomes effective July 20, 2005.

The incorporation by reference of certain publications listed in the AD is approved by the Director of the Federal Register as of July 20, 2005.

**ADDRESSES:** For service information identified in this AD, contact Bombardier, Inc., Bombardier Regional Aircraft Division, 123 Garratt Boulevard, Downsview, Ontario M3K 1Y5, Canada.

*Docket:* The AD docket contains the proposed AD, comments, and any final disposition. You can examine the AD docket on the Internet at <http://dms.dot.gov>, or in person at the Docket Management Facility office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The Docket Management Facility office (telephone (800) 647-5227) is located on the plaza

level of the Nassif Building at the U.S. Department of Transportation, 400 Seventh Street SW., room PL-401, Washington, DC. This docket number is FAA-2005-20860; the directorate identifier for this docket is 2005-NM-043-AD.

**FOR FURTHER INFORMATION CONTACT:** George Duckett, Aerospace Engineer, Airframe and Propulsion Branch, ANE-171, FAA, New York Aircraft Certification Office, 1600 Stewart Avenue, Suite 410, Westbury, New York 11590; telephone (516) 228-7325; fax (516) 794-5531.

**SUPPLEMENTARY INFORMATION:** The FAA proposed to amend 14 CFR part 39 with an AD for certain Bombardier Model DHC-8-400 series airplanes. That action, published in the Federal Register on April 6, 2005 (70 FR 17354), proposed to require revising the Airworthiness Limitation section of the Instructions for Continued Airworthiness of the Dash 8 400 Series (Bombardier) Maintenance Requirements Manual to reduce the life limits of the main landing gear (MLG) orifice support tube, upper bearing, and piston plug; and to reduce the threshold for initiating repetitive detailed inspections for cracking of the engine isolator brackets.

### **Explanation of Change to Applicability**

We have revised the applicability of the proposed AD to identify model designations as published in the most recent type certificate data sheet for the affected models.

### **Comments**

We provided the public the opportunity to participate in the development of this AD. No comments have been submitted on the proposed AD or on the determination of the cost to the public.

### **Conclusion**

We have carefully reviewed the available data and determined that air safety and the public interest require adopting the AD with the change described previously. We have determined that this change will neither increase the economic burden on any operator nor increase the scope of the AD.

### **Costs of Compliance**

There are about 93 airplanes of the affected design in the worldwide fleet. This AD will affect about 21 airplanes of U.S. registry. The actions will take about 1 work hour per airplane, at an average labor rate of \$65 per work hour. Based on these figures, the estimated cost of the AD for U.S. operators is \$1,365, or \$65 per airplane.

### **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 have 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. See the ADDRESSES section for a location to examine the regulatory evaluation.

## **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 airworthiness directive (AD):

# AIRWORTHINESS DIRECTIVE



Aircraft Certification Service  
Washington, DC

U.S. Department  
of Transportation  
**Federal Aviation  
Administration**

*We post ADs on the internet at "www.faa.gov"*

The following Airworthiness Directive issued by the Federal Aviation Administration in accordance with the provisions of Title 14 of the Code of Federal Regulations (14 CFR) part 39, applies to an aircraft model of which our records indicate you may be the registered owner. Airworthiness Directives affect aviation safety and are regulations which require immediate attention. You are cautioned that no person may operate an aircraft to which an Airworthiness Directive applies, except in accordance with the requirements of the Airworthiness Directive (reference 14 CFR part 39, subpart 39.3).

**2005-12-15 Bombardier, Inc. (Formerly de Havilland, Inc.):** Amendment 39-14131. Docket No. FAA-2005-20860; Directorate Identifier 2005-NM-043-AD.

## Effective Date

- (a) This AD becomes effective July 20, 2005.

## Affected ADs

- (b) None.

## Applicability

- (c) This AD applies to Bombardier Model DHC-8-400 series airplanes, certificated in any category; serial numbers 4001, and 4003 through 4094 inclusive.

**Note 1:** This AD requires revision to a certain operator maintenance document to include a new replacement time. Compliance with this replacement time is required by 14 CFR 91.403(c). For airplanes that have been previously modified, altered, or repaired in the areas addressed by this replacement time, the operator may not be able to accomplish the replacement described in the revision. 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 (g) of this AD. The request should include a description of changes to the required replacement time that will ensure the continued damage tolerance of the affected structure. The FAA has provided guidance for this determination in Advisory Circular (AC) 25-1529.

## Unsafe Condition

- (d) This AD was prompted by the discovery of fatigue failures, during type certification fatigue testing, at the engine isolator bracket and at the orifice support tube, upper bearing, and piston plug in the shock strut assembly of the main landing gear (MLG), which are principal structural elements. We are issuing this AD to prevent the development of cracks in these principal structural elements, which could reduce the structural integrity of the engine installation and MLG. Reduced structural integrity of the engine installation could result in separation of the engine from the airplane, and reduced structural integrity of the MLG could result in collapse of the MLG.

## **Compliance**

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

## **Revisions to Airworthiness Limitation (AWL) Section**

(f) Within 30 days after the effective date of this AD, revise the AWL section of the Instructions for Continued Airworthiness of the Dash 8 400 Series (Bombardier) Maintenance Requirements Manual, PSM 1-84-7, by doing the actions specified in paragraphs (f)(1) and (f)(2) of this AD.

(1) Reduce the life limits of the MLG orifice support tube having part number (P/N) 46117-1, upper bearing having P/N 46114-1, and piston plug having P/N 46137-1, by inserting Dash 8 400 Series (Bombardier) Temporary Revision ALI-28, dated December 11, 2003, into the AWL section. Thereafter, except as provided in paragraph (g) of this AD, no alternative life limits may be approved for the MLG orifice support tube, upper bearing, or piston plug.

(2) Incorporate structural inspection tasks 712001F102 and 712003F102 to reduce the threshold for initiating repetitive detailed inspections for cracking of the engine isolator brackets by inserting Dash 8 400 Series (Bombardier) Temporary Revision ALI-37, dated March 30, 2004, into the AWL section. Thereafter, except as provided in paragraph (g) of this AD, no alternative structural inspection threshold may be approved.

## **Alternative Methods of Compliance (AMOCs)**

(g) The Manager, New York Aircraft Certification Office, FAA, has the authority to approve AMOCs for this AD, if requested in accordance with the procedures found in 14 CFR 39.19.

## **Related Information**

(h) Canadian airworthiness directive CF-2004-19, dated September 21, 2004, also addresses the subject of this AD.

## **Material Incorporated by Reference**

(i) You must use Dash 8 400 Series (Bombardier) Temporary Revision ALI-28, dated December 11, 2003; and Dash 8 400 Series (Bombardier) Temporary Revision ALI-37, dated March 30, 2004; to the Dash 8 400 Series (Bombardier) Maintenance Requirements Manual, to perform the actions that are required by this AD, unless the AD specifies otherwise. The Director of the Federal Register approves the incorporation by reference of these documents in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. To get copies of the service information, contact Bombardier, Inc., Bombardier Regional Aircraft Division, 123 Garratt Boulevard, Downsview, Ontario M3K 1Y5, Canada. To view the AD docket, go to the Docket Management Facility, U.S. Department of Transportation, 400 Seventh Street SW., room PL-401, Nassif Building, Washington, DC. To review copies of the service information, go to the National Archives and Records Administration (NARA). For information on the availability of this material at the NARA, call (202) 741-6030, or go to [http://www.archives.gov/federal\\_register/code\\_of\\_federal\\_regulations/ibr\\_locations.html](http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html).

Issued in Renton, Washington, on June 7, 2005.

Michael J. Kaszycki,

Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.

[FR Doc. 05-11695 Filed 6-14-05; 8:45 am]

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