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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. 2000–NM–181–AD; Amendment 39–12182; AD 2001–08–05]

RIN 2120–AA64

Airworthiness Directives; Bombardier Model DHC–7–100, –101, –102, and –103 Series Airplanes

AGENCY: Federal Aviation Administration, DOT.

ACTION: Final rule.

SUMMARY: This amendment adopts a new airworthiness directive (AD), applicable to certain Bombardier Model DHC–7–100, –101, –102, and –103 series airplanes, that requires inspecting the endcaps of the main landing gear selector valve for leaks of hydraulic oil and, if leaks are detected, replacing the leaking endcaps or the entire selector valve. This amendment also requires eventual replacement or rework of certain selector valves, which would terminate the repetitive inspections. This amendment is prompted by a report of the collapse of the main landing gear due to an external leak of hydraulic oil in the landing gear selector valve, resulting from a fracture of the endcap. The actions specified by this AD are intended to prevent leaks of hydraulic oil from the main landing gear selector valve, which could result in the collapse of the main landing gear.

DATES: Effective May 29, 2001.

The incorporation by reference of certain publications listed in the regulations is approved by the Director of the Federal Register as of May 29, 2001.

ADDRESSES: The service information referenced in this AD may be obtained from Bombardier, Inc., Bombardier Regional Aircraft Division, 123 Garratt Boulevard, Downsview, Ontario M3K 1Y5, Canada. This information may be examined at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington; or at the FAA, New York Aircraft Certification Office, 10 Fifth Street, Third Floor, Valley Stream, New York; or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

FOR FURTHER INFORMATION CONTACT: James E. Delisio, Aerospace Engineer, ANE–171, FAA, New York Aircraft Certification Office, 10 Fifth Street, Third Floor, Valley Stream, New York 11581; telephone (516) 256–7521; fax (516) 568–2716.

SUPPLEMENTARY INFORMATION: A proposal to amend part 39 of the Federal Aviation Regulations (14 CFR part 39) to include an airworthiness directive (AD) that is applicable to certain Bombardier Model DHC–7–100, –101, –102, and –103 series airplanes was published in the **Federal Register** on October 12, 2000 (65 FR 60595). That action proposed to require inspecting the endcaps of the main landing gear selector valve for leaks of hydraulic oil and, if leaks are detected, replacing the leaking endcaps or the entire selector valve. That action also proposed to require eventual replacement or rework of certain selector valves, which would terminate the repetitive inspections.

Comments

Interested persons have been afforded an opportunity to participate in the making of this amendment. No comments were submitted in response to the proposal or the FAA's determination of the cost to the public.

Explanation of Change to Final Rule

Since the issuance of the proposed rule, the FAA has received information from an operator indicating that replacement of the existing aluminum endcaps with stainless steel endcaps having part number (P/N) 52982, on a main landing gear selector valve having P/N 57420–5, is the same terminating action as that specified in paragraph (c)(2) of the final rule. The FAA has determined that this is accurate information and has changed the final rule to specify that such replacement constitutes terminating action for the repetitive inspections required by paragraph (a) of the final rule. Paragraphs (b)(1) and (c)(2) of the final rule have been revised for clarification.

Conclusion

After careful review of the available data, the FAA has determined that air safety and the public interest require the adoption of the rule with the changes described previously. The FAA has determined that these changes will neither increase the economic burden on any operator nor increase the scope of the AD.

Cost Impact

The FAA estimates that 32 airplanes of U.S. registry will be affected by this AD, that it will require 1 work hour per airplane to accomplish the inspection, and that the average labor rate is $60 per work hour. Based on these figures, the cost impact of the inspection on U.S. operators is estimated to be $1,920, or $60 per airplane.

The FAA also estimates that it will require 5 work hours per airplane to rework or replace the main landing gear selector valve and that the average labor rate is $60 per work hour. Based on these figures, the cost impact of the rework or replacement on U.S. operators is estimated to be $9,600 or $300 per airplane.

The cost impact figures discussed above are based on assumptions that no operator has yet accomplished any of the requirements of this AD action, and that no operator would accomplish those actions in the future if this AD were not adopted. The cost impact figures discussed in AD rulemaking actions represent only the time necessary to perform the specific actions actually required by the AD. These figures typically do not include incidental costs, such as the time required to gain access and close up, planning time, or time necessitated by other administrative actions.

Should an operator elect to replace the endcaps and perform the optional repetitive inspections prior to replacing the main landing gear selector valve, it would take approximately 1 work hour per airplane to conduct each inspection. Based on these figures, the cost impact of the optional repetitive inspections is estimated to be $60 per inspection per airplane.

Regulatory Impact

The regulations adopted herein 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. Therefore, it is determined that this final rule does not have federalism implications under Executive Order 13132.

For the reasons discussed above, I certify that this action (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. A final evaluation has been prepared for this action and it is contained in the Rules Docket. A copy of it may be obtained from the Rules Docket at the location provided under the caption **ADDRESSES**.

List of Subjects in 14 CFR Part 39

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

Adoption of the Amendment

Accordingly, pursuant to the authority delegated to me by the Administrator, the Federal Aviation Administration amends part 39 of the Federal Aviation Regulations (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. Section 39.13 is amended by adding the following new airworthiness directive:

2001–08–05 Bombardier, Inc. (Formerly de Havilland, Inc.): Amendment 39–12182. Docket 2000–NM–181–AD.

Applicability: Model DHC–7–100, –101, –102, and –103 series airplanes, serial numbers 003 through 113 inclusive; certificated in any category.

Note 1: This AD applies to each airplane identified in the preceding applicability provision, regardless of whether it has been modified, altered, or repaired in the area subject to the requirements of this AD. For airplanes that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must request approval for an alternative method of compliance in accordance with paragraph (d) of this AD. The request should include an assessment of the effect of the modification, alteration, or repair on the unsafe condition addressed by this AD; and, if the unsafe condition has not been eliminated, the request should include specific proposed actions to address it.

Compliance: Required as indicated, unless accomplished previously.

To prevent the collapse of the main landing gear due to leaks of hydraulic oil from the main landing gear selector valve, accomplish the following:

Inspection

(a) Within 100 flight cycles after the effective date of this AD, perform a general visual inspection of both endcaps of the main landing gear selector valve for the presence of hydraulic oil, in accordance with the Accomplishment Instructions of Bombardier Alert Service Bulletin A7–32–103, dated September 3, 1999. If no hydraulic oil is detected on either endcap, repeat the inspection at intervals not to exceed 400 flight hours until the requirements of paragraph (c) of this AD are accomplished.

Note 2: For the purposes of this AD, a general visual inspection is defined as: ''A visual examination of an interior or exterior area, installation, or assembly to detect obvious damage, failure, or irregularity. This level of inspection is made under normally available lighting conditions such as daylight, hangar lighting, flashlight, or drop-light, and may require removal or opening of access panels or doors. Stands, ladders, or platforms may be required to gain proximity to the area being checked.''

Replacement or Modification

(b) If any hydraulic oil is detected on either endcap: Prior to further flight, perform the actions specified in either paragraph (b)(1) or (b)(2) of this AD.

(1) Replace the existing aluminum endcaps (on the selector valve), part number (P/N) 34629, with new stainless steel endcaps having P/N 52982, in accordance with the Accomplishment Instructions of Bombardier Alert Service Bulletin A7–32–103, dated September 3, 1999. For main landing gear selector valves having P/N 57420–5, replacement of the endcaps terminates the repetitive inspection requirements of this AD.

(2) Replace the main landing gear selector valve with a valve having P/N 57420–5A, in accordance with the Accomplishment Instructions of Bombardier Alert Service Bulletin A7–32–103, dated September 3, 1999.

Note 3: Use care when removing the endcaps, so that the internal components do not fall on the ground and get damaged.

(c) Within 12 months after the effective date of this AD: Perform the actions specified in either paragraph (c)(1) or (c)(2) of this AD, in accordance with the Accomplishment Instructions of Bombardier Alert Service Bulletin A7–32–103, dated September 3, 1999. Accomplishment of either paragraph (c)(1) or (c)(2) terminates the repetitive inspection requirements of this AD.

(1) If a main landing gear selector valve having P/N 57420–1 or 57420–3 is installed, remove it and replace it with a valve having P/N 57420–5A.

(2) If a main landing gear selector valve having P/N 57420–5 is installed, remove it and replace it with a valve having P/N 57420–5A or modify the valve to the P/N 57420–5A configuration (Modification 7/2742). For main landing gear selector valves having P/N 57420–5, replacement of the endcaps, as specified in paragraph (b)(1) of this AD, terminates the repetitive inspection requirements of this AD.

Alternative Methods of Compliance

(d) An alternative method of compliance or adjustment of the compliance time that provides an acceptable level of safety may be used if approved by the Manager, New York Aircraft Certification Office (ACO), FAA. Operators shall submit their requests through an appropriate FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager, New York ACO.

Note 4: Information concerning the existence of approved alternative methods of compliance with this AD, if any, may be obtained from the New York ACO.

Special Flight Permits

(e) Special flight permits may be issued in accordance with §§ 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate the airplane to a location where the requirements of this AD can be accomplished.

Incorporation by Reference

(f) The actions shall be done in accordance with Bombardier Alert Service Bulletin A7–32–103, dated September 3, 1999. This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies may be obtained from Bombardier, Inc., Bombardier Regional Aircraft Division, 123 Garratt Boulevard, Downsview, Ontario M3K 1Y5, Canada. Copies may be inspected at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington; or at the FAA, New York Aircraft Certification Office, 10 Fifth Street, Third Floor, Valley Stream, New York; or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

Note 5: The subject of this AD is addressed in Canadian airworthiness directive CF–99–31, dated December 21, 1999.

Effective Date

(g) This amendment becomes effective on May 29, 2001.

Issued in Renton, Washington, on April 12, 2001.

Donald L. Riggin,

Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.

[FR Doc. 01–9666 Filed 4–20–01; 8:45 am]

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