[Federal Register Volume 78, Number 47 (Monday, March 11, 2013)]
[Rules and Regulations]
[Pages 15281-15283]
From the Federal Register Online via the Government Printing Office [www.gpo.gov]
[FR Doc No: 2013-05196]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2011-0909; Directorate Identifier 2011-NM-027-AD; Amendment 39-17374; AD 2013-05-02]

RIN 2120-AA64

Airworthiness Directives; The Boeing Company Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: We are adopting a new airworthiness directive (AD) for all The Boeing Company Model DC-9-81 (MD-81), DC-9-82 (MD-82), DC-9-83 (MD-83), DC-9-87 (MD-87), and MD-88 airplanes. This AD was prompted by reports of cracks of the hinge bearing lugs of the center section ribs of the horizontal stabilizer. This AD requires repetitive high frequency eddy current (HFEC) inspections for cracking of the left and right rib hinge bearing lugs of the aft face of the center section of the horizontal stabilizer; measuring crack length and blending out cracks; and replacing the horizontal stabilizer center section rib, if necessary. We are issuing this AD to detect and correct cracking in the hinge bearing lugs of the horizontal stabilizer center section ribs, which could result in failure of the lugs, and consequent inability of the horizontal stabilizer to sustain the required limit loads and loss of control of the airplane.

DATES: This AD is effective April 15, 2013.

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in the AD as of April 15, 2013.

ADDRESSES: For service information identified in this AD, contact Boeing Commercial Airplanes, Attention: Data & Services Management, 3855 Lakewood Boulevard, MC D800-0019, Long Beach, CA 90846-0001; telephone 206-544-5000, extension 2; fax 206-766-5683; Internet https://www.myboeingfleet.com. You may review copies of the referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, Washington. 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 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 address for the Docket Office (phone: 800-647-5527) is Document Management Facility, U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

FOR FURTHER INFORMATION CONTACT: Roger Durbin, Aerospace Engineer, Airframe Branch, ANM-120L, FAA, Los Angeles Aircraft Certification Office (ACO), 3960 Paramount Boulevard, Lakewood, CA 90712-4137; phone: 562-627-5233; fax: 562-627-5210; email: roger.durbin@faa.gov.

SUPPLEMENTARY INFORMATION:

Discussion

We issued a supplemental notice of proposed rulemaking (SNPRM) to amend 14 CFR part 39 to include an airworthiness directive (AD) that would apply to the specified products. That SNPRM published in the Federal Register on September 11, 2012 (77 FR 55773). The original NPRM (76 FR 53346, August 26, 2011) proposed to require repetitive high frequency eddy current (HFEC) inspections for cracking of the left and right rib hinge bearing lugs of the aft face of the center section of the horizontal stabilizer; measuring crack length and blending out cracks; and replacing the horizontal stabilizer center section rib, if necessary. The SNPRM proposed to specify the corrective actions for airplanes on which cracking is found during the inspections of the blendout required by paragraphs (h)(1) and (j)(1) of the SNPRM.

Comments

We gave the public the opportunity to participate in developing this AD. The following presents the comments received on the proposal (77 FR 55773, September 11, 2012) and the FAA's response to each comment. One representative of Boeing concurred with the contents of the proposed rule.

Request To Revise Paragraphs (h)(1)(ii) and (j)(1)(ii) of SNPRM (77 FR 55773, September 11, 2012)

Another representative of Boeing requested that we revise paragraphs (h)(1)(ii) and (j)(1)(ii) of the SNPRM (77 FR 55773, September 11, 2012). Those paragraphs specify that if any cracking is found during any inspection of the blendout to do a replacement. The commenter requested that we specify either doing a repair or a replacement.

We disagree with the request To revise paragraphs (h)(1)(ii) and (j)(1)(ii) of this AD to allow a repair as an option to the replacement. Providing a repair option would allow a blendout repair for cracking found in a rib with a blendout repair already accomplished. The intent of the AD is to allow only one blendout repair before the rib must be replaced. No change has been made to the AD in this regard.

Request To Permit Rib Replacement Using Structural Repair Manual

American Airlines (American) stated that paragraphs (h)(2) and (j)(2) of the SNPRM (77 FR 55773, September 11, 2012) would require replacing the horizontal stabilizer rib in accordance with a method approved by the FAA. American stated that the rib replacement is not a type design change, and this action should be allowed to be accomplished with approved type design data and the structural repair manual (SRM) without the need for FAA approval.

We partially agree. Although we have determined that rib replacement using the SRM is acceptable, we cannot refer to the SRM without revision levels and dates as a method of compliance because doing so violates Office of the Federal Register regulations for approving materials that are incorporated by reference. We will consider approving a global AMOC allowing rib replacement using the SRM.

Conclusion

We reviewed the relevant data, considered the comments received, and determined that air safety and the public interest require adopting the AD as proposed–except for minor editorial changes. We have determined that these minor changes:

- Are consistent with the intent that was proposed in the SNPRM (77 FR 55773, September 11, 2012) for correcting the unsafe condition; and
- Do not add any additional burden upon the public than was already proposed in the SNPRM (77 FR 55773, September 11, 2012).

Interim Action

We consider this AD interim action since investigation is ongoing and no terminating action has been developed yet. The manufacturer is currently developing a modification that will address the unsafe condition identified in this AD. Once this modification is developed, approved, and available, we may consider additional rulemaking.

Costs of Compliance

We estimate that this AD affects 668 airplanes of U.S. registry.
We estimate the following costs to comply with this AD:

Estimated Costs

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Inspection	6 work-hours × $85 per hour = $510 per inspection cycle	$0	$510	$340,680

We have received no definitive data that would enable us to provide labor cost estimates for the on-condition actions (blendout repair(s) or replacement of center section rib(s)) specified in this AD. However, we have been advised that replacement parts would be $14,500 per horizontal stabilizer rib crack repair kit.

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

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),

(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 airworthiness directive (AD):

2013-05-02 The Boeing Company: Amendment 39-17374; Docket No. FAA-2011-0909; Directorate Identifier 2011-NM-027-AD.

(a) Effective Date

This AD is effective April 15, 2013.

(b) Affected ADs

None.

(c) Applicability

This AD applies to The Boeing Company Model DC-9-81 (MD-81), DC-9-82 (MD-82), DC-9-83 (MD-83), DC-9-87 (MD-87), and MD-88 airplanes, certificated in any category, as identified in Boeing Alert Service Bulletin MD80-55A069, dated January 19, 2011.

(d) Subject

Air Transport Association (ATA) of America Code 55, Stabilizers.

(e) Unsafe Condition

This AD was prompted by reports of cracks of the hinge bearing lugs of the center section ribs of the horizontal stabilizer. We are issuing this AD to detect and correct cracking in the hinge bearing lugs of the horizontal stabilizer center section ribs, which could result in failure of the lugs, resulting in the inability of the horizontal stabilizer to sustain the required limit loads and consequent loss of control of the airplane.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Inspection of Horizontal Stabilizer Ribs Made From 7075-T7351 Material

For Group 1 airplanes, as identified in Boeing Alert Service Bulletin MD80-55A069, dated January 19, 2011: Before the accumulation of 23,000 total flight cycles, or within 4,383 flight cycles after the effective date of this AD, whichever occurs later, do a high frequency eddy current (HFEC) inspection for cracking of the left and right rib hinge bearing lugs of the aft face of the center section of the horizontal stabilizer, in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin MD80-55A069, dated January 19, 2011. For any crack-free lug, repeat the inspection thereafter at intervals not to exceed 8,200 flight cycles.

(h) Repair and Replacement for Cracking of 7075-T7351 Material

If, during any inspection required by paragraph (g) of this AD, any crack is found: Before further flight, measure the length of the crack between the points specified in Boeing Alert Service Bulletin MD80-55A069, dated January 19, 2011. Do the action in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin MD80-55A069, dated January 19, 2011.

(1) If the crack length between points 'A' and 'B' is less than or equal to 0.15 inch and the crack length between points 'C' and 'D' is less than or equal to 0.05 inch: Before further flight, blend out the crack, in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin MD80-55A069, dated January 19, 2011. Within 15,600 flight cycles after doing the blendout, do an HFEC inspection of the blendout on the center section rib hinge bearing lug for cracking, in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin MD80-55A069, dated January 19, 2011.

(i) If no cracking is found, repeat the inspection thereafter at intervals not to exceed 3,900 flight cycles.

(ii) If cracking is found during any inspection of the blendout, before further flight, do the replacement required by paragraph (h)(2) of this AD, and do the inspections required by paragraph (h)(2) of this AD at the times specified in paragraph (h)(2) of this AD.

(2) If the crack length between points 'A' and 'B' is greater than 0.15 inch or the crack length between points 'C' and 'D' is greater than 0.05 inch: Before further flight, replace the horizontal stabilizer center section rib with a new horizontal stabilizer center section rib, using a method approved in accordance with the procedures specified in paragraph (l) of this AD. Repeat the inspection required by paragraph (g) of this AD one time before the accumulation of 23,000 total flight cycles on the new horizontal stabilizer center section rib, and thereafter at intervals not to exceed 11,300 flight cycles.

(i) Inspection of Horizontal Stabilizer Ribs Made From 7050-T7451 Material

For Group 2 airplanes, as identified in Boeing Alert Service Bulletin MD80-55A069, dated January 19, 2011: Before the accumulation of 23,000 total flight cycles, or within 4,383 flight cycles after the effective date of this AD, whichever occurs later, do an HFEC inspection for cracking of the left and right rib hinge bearing lugs of the aft face of the center section of the horizontal stabilizer, in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin MD80-55A069, dated January 19, 2011. For any crack-free lug, repeat the inspection thereafter at intervals not to exceed 11,300 flight cycles.

(j) Repair and Replacement for Cracking of 7050-T7451 Material

If, during any inspection required by paragraph (i) of this AD, any crack is found: Before further flight, measure the length of the crack between the points specified in, and in accordance, with the Accomplishment Instructions of Boeing Alert Service Bulletin MD80-55A069, dated January 19, 2011.

(1) If the crack length between points 'A' and 'B' is less than or equal to 0.15 inch and the crack length between points 'C' and 'D' is less than or equal to 0.05 inch: Before further flight, blendout the crack, in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin MD80-55A069, dated January 19, 2011. Within 15,600 flight cycles after doing the blendout, do an HFEC inspection of the blendout on the center section rib hinge bearing lug for cracking, in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin MD80-55A069, dated January 19, 2011.

(i) If no cracking is found, repeat the inspection thereafter at intervals not to exceed 5,800 flight cycles.

(ii) If cracking is found during any inspection of the blendout, before further flight, do the replacement required by paragraph (j)(2) of this AD, and do the inspections required by paragraph (j)(2) of this AD at the times specified in paragraph (j)(2) of this AD.

(2) If the crack length between points 'A' and 'B' is greater than 0.15 inch or the crack length between points 'C' and 'D' is greater than 0.05 inch: Before further flight, replace the horizontal stabilizer center section rib with a new horizontal stabilizer center section rib, using a method approved in accordance with the procedures specified in paragraph (l) of this AD. Repeat the inspection required by paragraph (i) of this AD one time before the accumulation of 23,000 total flight cycles on the new horizontal stabilizer center section rib, and thereafter at intervals not to exceed 11,300 flight cycles.

(k) No Reporting Requirement

Although Boeing Alert Service Bulletin MD80-55A069, dated January 19, 2011, specifies to submit certain information to the manufacturer, this AD does not include that requirement.

(l) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Los Angeles Aircraft Certification Office (ACO), 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 manager of the ACO, send it to the attention of the person identified in the Related Information section of this AD.

(2) 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.

(3) An AMOC that provides an acceptable level of safety may be used for any repair required by this AD if it is approved by the Boeing Commercial Airplanes Organization Designation Authorization (ODA) that has been authorized by the Manager, Los Angeles ACO, to make those findings. For a repair method to be approved, the repair must meet the certification basis of the airplane and 14 CFR 25.571, Amendment 45, and the approval must specifically refer to this AD.

(m) Related Information

For more information about this AD, contact Roger Durbin, Aerospace Engineer, Airframe Branch, ANM-120L, FAA, Los Angeles Aircraft Certification Office (ACO), 3960 Paramount Boulevard, Lakewood, CA 90712-4137; phone: 562-627-5233; fax: 562-627-5210; email: roger.durbin@faa.gov.

(n) 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) Boeing Alert Service Bulletin MD80-55A069, dated January 19, 2011.

(ii) Reserved.

(3) For service information identified in this AD, contact Boeing Commercial Airplanes, Attention: Data & Services Management, 3855 Lakewood Boulevard, MC D800-0019, Long Beach, California 90846-0001; telephone 206-544-5000, extension 2; fax 206-766-5683; Internet https://www.myboeingfleet.com.

(4) You may view this service information at FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, Washington. For information on the availability of this material at the FAA, call 425-227-1221.

(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 Renton, Washington, on February 22, 2013.

Jeffrey E. Duven,

Acting Manager, Transport Airplane Directorate,

Aircraft Certification Service.