



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2016-9433; Directorate Identifier 2016-NM-159-AD; Amendment 39-18901; AD 2017-11-02]

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 MD-90-30 airplanes. This AD was prompted by a report of cracking in a horizontal stabilizer rear spar cap. This AD requires repetitive inspections for any crack in the left and right side horizontal stabilizer rear spar upper caps, and repair or replacement if necessary. We are issuing this AD to address the unsafe condition on these products.

DATES: This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: For service information identified in this final rule, contact Boeing Commercial Airplanes, Attention: Contractual & Data Services (C&DS), 2600 Westminister Blvd., MC 110-SK57, Seal Beach, CA 90740-5600; telephone 562-797-1717; Internet <https://www.myboeingfleet.com>. You may view this 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. It is also available on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2016-9433.

Examining the AD Docket

You may examine the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2016-9433; 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 Docket 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: James Guo, Aerospace Engineer, Airframe Branch, ANM-120L, FAA, Los Angeles Aircraft Certification Office (ACO), 3960 Paramount Boulevard, Lakewood, CA 90712-4137; phone: 562-627-5357; fax: 562-627-5210; email: james.guo@faa.gov.

SUPPLEMENTARY INFORMATION:

Discussion

We issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 by adding an AD that would apply to all The Boeing Company Model MD-90-30 airplanes. The NPRM published in the Federal Register on December 5, 2016 (81 FR 87499). The NPRM was prompted by a report of cracking in an MD-90 horizontal stabilizer rear spar cap at station XE = +/-5.931. The NPRM proposed to require repetitive open hole eddy current high frequency (ETHF) or surface eddy current low frequency (ETLF) inspections for any crack in the left and right side horizontal stabilizer rear spar upper caps, and repair or replacement if necessary. We are issuing this AD to detect and correct

fatigue cracking of the horizontal stabilizer rear spar upper cap, which could adversely affect the structural integrity of the airplane.

Comments

We gave the public the opportunity to participate in developing this AD. The following presents the comments received on the NPRM and the FAA's response to each comment.

Support for the NPRM

Boeing stated that it supports the NPRM.

Request to Allow Installation of a Serviceable Spare as a Corrective Action

Delta Airlines requested that we allow installation of a qualified serviceable spare horizontal stabilizer as a corrective action in lieu of repairing or replacing the horizontal stabilizer. Delta noted that this type of corrective action has been approved as an alternative method of compliance (AMOC) for other ADs affecting the horizontal stabilizer.

We disagree with the request. While an AMOC has been previously granted to allow applicants to replace an unserviceable stabilizer with a serviceable stabilizer, each such AMOC approval required the applicant to demonstrate that they had a sufficient program in place to trace, document, inspect, and install the serviceable horizontal stabilizers. The details of such a program cannot be prescribed and documented within an AD. However, we will consider requests for approval of an AMOC under the provisions of paragraph (j) of this AD.

Explanation of Change to NPRM

We revised paragraph (g) of the proposed AD to refer to the compliance times of both table 1 and table 2 of paragraph 1.E., "Compliance," of Boeing Alert Service Bulletin MD90-55A018, dated June 29, 2016. The reference to table 2 had been inadvertently omitted from the proposed AD. Table 2 specifies the same compliance

times as table 1, but table 2 applies to the right side horizontal rear spar upper cap, while table 1 applies to the left side.

Conclusion

We reviewed the relevant data, considered the comments received, and determined that air safety and the public interest require adopting this AD with the change described previously, and minor editorial changes. We have determined that these minor changes:

- Are consistent with the intent that was proposed in the NPRM for correcting the unsafe condition; and
- Do not add any additional burden upon the public than was already proposed in the NPRM.

We also determined that these changes will not increase the economic burden on any operator or increase the scope of this AD.

Related Service Information under 1 CFR part 51

We reviewed Boeing Alert Service Bulletin MD90-55A018, dated June 29, 2016. The service information describes procedures for repetitive open hole ETHF or surface ETLF inspections for any crack in the left and right side horizontal stabilizer rear spar upper caps common to the elevator hinge fitting at station XE = +/-5.931, and repair or replacement. This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

Costs of Compliance

We estimate that this AD affects 105 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	8 work-hours X \$85 per hour = \$680 per inspection cycle	\$0	\$680 per inspection cycle	\$71,400 per inspection cycle

We estimate the following costs to do any necessary repairs or replacements that would be required based on the results of the inspection. We have no way of determining the number of aircraft that might need these actions:

On-condition costs

Action	Labor cost	Parts cost	Cost per product
Upper cap splice repair or replacement (each side)	368 work-hours X \$85 per hour = \$31,280	\$64,306	\$95,586

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):

2017-11-02 The Boeing Company: Amendment 39-18901; Docket No. FAA-2016-9433; Directorate Identifier 2016-NM-159-AD.

(a) Effective Date

This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

None.

(c) Applicability

This AD applies to all The Boeing Company Model MD-90-30 airplanes, certificated in any category.

(d) Subject

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

(e) Unsafe Condition

This AD was prompted by a report of cracking in a horizontal stabilizer rear spar cap at station XE = +/-5.931. We are issuing this AD to detect and correct fatigue cracking of the horizontal stabilizer rear spar upper cap, which could adversely affect the structural integrity of the airplane.

(f) Compliance

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

(g) Repetitive Open Hole Eddy Current High Frequency or Surface Eddy Current Low Frequency Inspections

Except as required by paragraph (i) of this AD, at the applicable times specified in table 1 or table 2 of paragraph 1.E., “Compliance,” of Boeing Alert Service Bulletin MD90-55A018, dated June 29, 2016: Do either an open hole eddy current high frequency (ETHF) or a surface eddy current low frequency (ETLF) inspection for any crack in the left and right side horizontal stabilizer rear spar upper caps common to the elevator hinge fitting at station XE = +/-5.931, in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin MD90-55A018, dated June 29, 2016. Repeat the inspection

thereafter at the time specified in tables 1 through 4, as applicable, of paragraph 1.E., “Compliance,” of Boeing Alert Service Bulletin MD90-55A018, dated June 29, 2016.

(h) Horizontal Rear Spar Upper Cap Splice Repair or Replacement

If any crack is found during any inspection required by paragraph (g) of this AD, repair or replace before further flight in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin MD90-55A018, dated June 29, 2016.

(i) Service Information Exception

Where Boeing Alert Service Bulletin MD90-55A018, dated June 29, 2016, specifies a compliance time “after the original issue date of this service bulletin,” this AD requires compliance within the specified compliance time after the effective date of this AD.

(j) 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 paragraph (k) of this AD. Information may be emailed to:

9-ANM-LAACO-AMOC-Requests@faa.gov.

(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, modification, or alteration 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. To be approved,

the repair method, modification deviation, or alteration deviation must meet the certification basis of the airplane, and the approval must specifically refer to this AD.

(4) For service information that contains steps that are labeled as Required for Compliance (RC), the provisions of paragraphs (j)(4)(i) and (j)(4)(ii) of this AD apply.

(i) The steps labeled as RC, including substeps under an RC step and any figures identified in an RC step, must be done to comply with the AD. If a step or substep is labeled “RC Exempt,” then the RC requirement is removed from that step or substep. An AMOC is required for any deviations to RC steps, including substeps and identified figures.

(ii) Steps not labeled as RC may be deviated from using accepted methods in accordance with the operator’s maintenance or inspection program without obtaining approval of an AMOC, provided the RC steps, including substeps and identified figures, can still be done as specified, and the airplane can be put back in an airworthy condition.

(k) Related Information

For more information about this AD, contact James Guo, Aerospace Engineer, Airframe Branch, ANM-120L, FAA, Los Angeles Aircraft Certification Office (ACO), 3960 Paramount Boulevard, Lakewood, CA 90712-4137; phone: 562-627-5357; fax: 562-627-5210; email: james.guo@faa.gov.

(l) 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 MD90-55A018, dated June 29, 2016.

(ii) Reserved.

(3) For Boeing service information identified in this AD, contact Boeing Commercial Airplanes, Attention: Contractual & Data Services (C&DS), 2600 Westminster Blvd., MC 110-SK57, Seal Beach, CA 90740-5600; telephone 562-797-1717; Internet <https://www.myboeingfleet.com>. You may view this referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA.

(4) You may view this 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.

(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 May 12, 2017.

Michael Kaszycki,
Acting Manager,
Transport Airplane Directorate,
Aircraft Certification Service.

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