



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2016-9570; Directorate Identifier 2016-NM-185-AD; Amendment 39-18866; AD 2017-09-04]

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 certain The Boeing Company Model 707 airplanes and Model 720 and 720B series airplanes. This AD was prompted by a determination that undetected web fatigue cracking caused by oil canning may exist in the aft pressure bulkhead web. This AD requires repetitive detailed inspections for any oil canning or cracking of the aft pressure bulkhead web, and corrective actions 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-2016-9570.

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-2016-9570; 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: George Garrido, Aerospace Engineer, Airframe Branch, ANM-120L, FAA, Los Angeles Aircraft Certification Office (ACO), 3960 Paramount Boulevard, Lakewood, CA 90712-4137; phone: 562-627-5232; fax: 562-627-5210; email: george.garrido@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 certain The Boeing Company Model 707 airplanes and Model 720 and 720B series airplanes. The NPRM published in the Federal Register on January 6, 2017 (82 FR 1627). The NPRM was prompted by a determination that undetected web fatigue cracking caused by oil canning may exist in the station 1440 aft pressure bulkhead web. The NPRM proposed to require repetitive detailed inspections for any oil canning or cracking of the station 1440 aft pressure bulkhead web, and corrective

actions if necessary. We are issuing this AD to detect and correct fatigue cracking of the aft pressure bulkhead web, which could grow in length and ultimately reduce the structural integrity of the web and lead to rapid decompression 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.

Request to Change Service Information Citation

Boeing requested that we spell out the full title of Boeing 707 Alert Service Bulletin A3543 instead of using the shortened "ASB A3543." Boeing pointed out that using the acronym "ASB" instead of spelling out "Alert Service Bulletin" is a change from past practices. Boeing stated that the "A" in front of the service bulletin number is short for "Alert" and doesn't require a new acronym. Boeing added that the shortened citation omitted the airplane model number, which should always be included when referring to service information.

We agree with the request. We have abbreviated the titles of service bulletins to simplify ADs in response to other AD comments. However, we did not intend to remove the airplane model number. Therefore, we have changed the citation throughout this final rule as requested.

Request to Clarify "Required for Compliance (RC) Exempt" Steps

Boeing requested that we change paragraph (j)(4)(ii) of the proposed AD to read "Steps not labeled as RC, or labeled as 'RC Exempt,' may be deviated from" Boeing stated that it intended to include the same treatment for steps labeled "RC Exempt" as for steps not labeled as RC. Boeing asserted that this needed to be explicitly stated in paragraph (j)(4)(ii) of the proposed AD, just as it is in paragraph (j)(4)(i) of the proposed AD.

We disagree because we find that this additional language is not necessary. As paragraph (j)(4)(i) of the proposed AD states, if a step is labeled “RC Exempt,” then the RC requirement is removed from that step. Therefore, steps labeled as “RC Exempt” are treated the same as those not labeled RC. We have not changed this AD in this regard.

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 707 Alert Service Bulletin A3543, dated September 15, 2016. The service information describes procedures for repetitive detailed inspections for any oil canning or cracking of the station 1440 aft pressure bulkhead web, and related corrective actions. 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 12 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 for oil canning	6 work-hours X \$85 per hour = \$510 per inspection cycle	\$0	\$510 per inspection cycle	\$6,120 per inspection cycle

We estimate the following costs to do any additional inspections that would be required based on the results of the initial inspection. These cost estimates are for one oil canning location. 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
Oil canning zone determination and inspection	1 work-hour X \$85 per hour = \$85	\$0	\$85
Detailed inspection and eddy current inspection for cracks	13 work-hours X \$85 per hour = \$1,105	\$0	\$1,105
High frequency eddy current inspection for crack location, length, and orientation	2 work-hours X \$85 per hour = \$170	\$0	\$170

We have received no definitive data that would enable us to provide cost estimates for certain corrective actions specified in this 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

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):

2017-09-04 The Boeing Company: Amendment 39-18866; Docket No. FAA-2016-9570; Directorate Identifier 2016-NM-185-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 the airplanes, certificated in any category, as identified in Boeing 707 Alert Service Bulletin A3543, dated September 15, 2016, and in paragraphs (c)(1) and (c)(2) of this AD.

(1) The Boeing Company Model 707-100 Long Body, -200, -100B Long Body, and -100B Short Body series airplanes; and Model 707-300, -300B, -300C, and -400 series airplanes.

(2) The Boeing Company Model 720 and 720B series airplanes.

(d) Subject

Air Transport Association (ATA) of America Code 53, Fuselage.

(e) Unsafe Condition

This AD was prompted by a determination that undetected web fatigue cracking caused by oil canning may exist in the station 1440 aft pressure bulkhead web. We are issuing this AD to detect and correct fatigue cracking of the aft pressure bulkhead web,

which could grow in length and ultimately reduce the structural integrity of the web and lead to rapid decompression of the airplane.

(f) Compliance

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

(g) Repetitive Inspections and Related Investigative and Corrective Actions

At the applicable time specified in paragraph 1.E., “Compliance,” of Boeing 707 Alert Service Bulletin A3543, dated September 15, 2016, except as required by paragraph (h)(1) of this AD: Do all applicable actions specified in paragraphs (g)(1), (g)(2), and (g)(3) of this AD, in accordance with the Accomplishment Instructions of Boeing 707 Alert Service Bulletin A3543, dated September 15, 2016, except as required by paragraph (h)(2) of this AD.

(1) Do a detailed inspection of the station 1440 aft pressure bulkhead web for any oil canning. Repeat the inspection at the applicable time specified in paragraph 1.E., “Compliance,” of Boeing 707 Alert Service Bulletin A3543, dated September 15, 2016.

(2) Do all applicable related investigative actions, including detailed, eddy current, and high frequency eddy current (HFEC) inspections. Repeat the applicable inspections thereafter at the applicable time specified in paragraph 1.E., “Compliance,” of Boeing 707 Alert Service Bulletin A3543, dated September 15, 2016.

(3) Do all applicable corrective actions at the applicable time specified in paragraph 1.E., “Compliance,” of Boeing 707 Alert Service Bulletin A3543, dated September 15, 2016.

(h) Service Information Exceptions

(1) Where Boeing 707 Alert Service Bulletin A3543, dated September 15, 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.

(2) Where Boeing 707 Alert Service Bulletin A3543, dated September 15, 2016, specifies to contact Boeing for repair instructions, and specifies that action as Required for Compliance (RC), this AD requires repair using a method approved in accordance with the procedures specified in paragraph (j) of this AD.

(i) Special Flight Permit

Special flight permits may be issued in accordance with sections 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 airplane can be repaired, but if any crack is found as identified in Boeing 707 Alert Service Bulletin A3543, dated September 15, 2016, concurrence by the Manager, Los Angeles Aircraft Certification Office (ACO), FAA, is required before issuance of the special flight permit.

(j) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Los Angeles 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) Except as required by paragraph (h) of this AD: For service information that contains steps that are labeled as 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 George Garrido, Aerospace Engineer, Airframe Branch, ANM-120L, FAA, Los Angeles Aircraft Certification Office (ACO), 3960 Paramount Boulevard, Lakewood, CA 90712-4137; phone: 562-627-5232; fax: 562-627-5210; email: george.garrido@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 707 Alert Service Bulletin A3543, dated September 15, 2016.

(ii) Reserved.

(3) For service information identified in this AD, 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>.

(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 April 24, 2017.

Paul Bernado, Acting Manager,
Transport Airplane Directorate,
Aircraft Certification Service.

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