[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2013-0206; Directorate Identifier 2012-NM-068-AD]

RIN 2120-AA64

Airworthiness Directives; The Boeing Company Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: We propose to adopt a new airworthiness directive (AD) for all The Boeing Company Model 727 airplanes. This proposed AD was prompted by reports of spanwise cracks and corrosion in the wing center box upper skin and rear spar upper chord between left buttock line (LBL) 70.50 and right buttock line (RBL) 70.50 at body station (STA) 870. This proposed AD would require repetitive inspections of the wing center box for cracking around certain fastener rows on the rear spar upper chord horizontal flange; for certain airplanes, repetitive inspections for cracking of the rear spar upper chord radius; for certain other airplanes, repetitive inspections for damage, cracking, and corrosion of the pressure seal; and repair if necessary. We are proposing this AD to detect and correct cracking and corrosion of the upper skin and rear spar upper chord of the wing center box, which could result in loss of the airplane wing and consequent loss of control of the airplane.

DATES: We must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

• Federal eRulemaking Portal: Go to http://www.regulations.gov. Follow the instructions for submitting comments.

• Fax: 202-493-2251.

• Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

• Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this proposed AD, contact Boeing Commercial Airplanes, Attention: Data & Services Management, P. O. Box 3707, MC 2H-65, Seattle, WA 98124-2207; telephone 206-544-5000, extension 1; fax 206-766-5680; Internet https://www.myboeingfleet.com. You may review copies of the referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Ave SW., Renton, WA. 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 proposed AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Office (phone: 800-647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT: Berhane Alazar, Aerospace Engineer, Airframe Branch, ANM-120S, FAA, Seattle Aircraft Certification Office, 1601 Lind Avenue SW., Renton, WA 98057-3356; phone: (425) 917-6577; fax: (425) 917-6590; email: berhane.alazar@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

We invite you to send any written relevant data, views, or arguments about this proposal. Send your comments to an address listed under the ADDRESSES section. Include "Docket No. FAA-2013-0206; Directorate Identifier 2012-NM-068-AD" at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this proposed AD. We will consider all comments received by the closing date and may amend this proposed AD because of those comments.

We will post all comments we receive, without change, to http://www.regulations.gov, including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive about this proposed AD.

Discussion

We have received reports of spanwise cracks and corrosion in the wing center box upper skin and rear spar upper chord between LBL 70.50 and RBL 70.50 at STA 870. The crack sizes ranged from 0.125 inches to 12 inches. The airplanes had accumulated between 31,679 and 61,359 total flight hours and between 17,754 and 58,796 total flight cycles. Analysis has shown that the cracks are a result of stress corrosion. This condition, if not detected and corrected, could result in loss of the airplane wing and consequent loss of control of the airplane.

Relevant Service Information

We reviewed Boeing Special Attention Service Bulletin 727-57-0187, dated March 8, 2012. For information on the procedures and compliance times, see this service information at http://www.regulations.gov by searching for Docket No. FAA-2013-0206.

Related Rulemaking

AD 2005-05-19, Amendment 39-14008 (70 FR 12120, March 11, 2005; corrected March 17, 2005 (70 FR 13074)), requires repetitive detailed inspections to detect cracking, corrosion, minor surface defects, and existing stop-drilled repairs of cracks in the upper and lower chords of the front and rear spars of the wing; and repair if necessary. Those required actions are for locations between buttock line 70.5 and the wing tip (i.e., left and right wings). This proposed AD would require actions between the LBL 70.5 and RBL 70.5 of the rear spar upper chord and upper skin at STA 870 (i.e., center wing).

FAA's Determination

We are proposing this AD because we evaluated all the relevant information and determined the unsafe condition described previously is likely to exist or develop in other products of the same type design.

Proposed AD Requirements

This proposed AD would require accomplishing the actions specified in the service information described previously, except as discussed under "Differences Between the Proposed AD and the Service Information."

The phrase "related investigative actions" might be used in this proposed AD. "Related investigative actions" are follow-on actions that: (1) are related to the primary actions, and (2) are actions that further investigate the nature of any condition found. Related investigative actions in an AD could include, for example, inspections.

In addition, the phrase "corrective actions" might be used in this proposed AD. "Corrective actions" are actions that correct or address any condition found. Corrective actions in an AD could include, for example, repairs.

Differences Between the Proposed AD and the Service Information

Boeing Special Attention Service Bulletin 727-57-0187, dated March 8, 2012, specifies to contact the manufacturer for instructions on how to repair certain conditions, but this proposed AD would require repairing those conditions in one of the following ways:

• In accordance with a method that we approve; or

• Using data that meet the certification basis of the airplane, and that have been approved by the Boeing Commercial Airplanes Organization Designation Authorization (ODA) whom we have authorized to make those findings.

Costs of Compliance

We estimate that this proposed AD affects 98 airplanes of U.S. registry. We estimate the following costs to comply with this proposed AD:

Estimated costs

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Inspection	67 work-hours X $85 per hour = $5,695 per inspection cycle	$0	$5,695 per inspection cycle	$558,110 per inspection cycle

We have received no definitive data that would enable us to provide cost estimates for the on-condition actions specified in this proposed 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

We determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would 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 this proposed regulation:

(1) Is not a "significant regulatory action" under Executive Order 12866,

(2) Is not a "significant rule" under the 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.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 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):

The Boeing Company: Docket No. FAA-2013-0206; Directorate Identifier 2012-NM-068-AD.

(a) Comments Due Date

We must receive comments by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

None.

(c) Applicability

This AD applies to all The Boeing Company Model 727, 727C, 727-100, 727-100C, 727-200, and 727-200F series airplanes, certificated in any category.

(d) Subject

Joint Aircraft System Component (JASC)/Air Transport Association (ATA) of America Code 57, Wings.

(e) Unsafe Condition

This AD was prompted by reports of spanwise cracks and corrosion in the wing center box upper skin and rear spar upper chord between left buttock line (LBL) 70.50 and right buttock line (RBL) 70.50 at body station (STA) 870. We are issuing this AD to detect and correct cracking and corrosion of the upper skin and rear spar upper chord of the wing center box, which could result in loss of the airplane wing and consequent loss of control of the airplane.

(f) Compliance

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

(g) Repetitive Inspections

Except as specified in paragraph (h) of this AD, at the applicable time specified in paragraph 1.E., "Compliance," of Boeing Special Attention Service Bulletin 727-57-0187, dated March 8, 2012: Inspect the wing center box between LBL 70.50 and RBL 70.50, at STA 870, as specified in paragraphs (g)(1), (g)(2), (g)(3), (g)(4), and (g)(5) of this AD, as applicable, in accordance with the Accomplishment Instructions of Boeing Special Attention Service Bulletin 727-57-0187, dated March 8, 2012. Repeat the inspections thereafter at the applicable times specified in paragraph 1.E., "Compliance," of Boeing Special Attention Service Bulletin 727-57-0187, dated March 8, 2012. If any crack, corrosion, or damage is found during any inspection required by this AD, before further flight, repair using a method approved in accordance with the procedures specified in paragraph (i) of this AD.

(1) Do a high frequency eddy current (HFEC) or detailed inspection for cracking around the forward fastener row in the rear spar upper chord horizontal flange.

(2) Do a low frequency eddy current inspection for cracking around the aft fastener row in the rear spar upper chord horizontal flange.

(3) Do a detailed or HFEC inspection for cracking in the rear spar upper chord radius.

(4) Do a detailed or HFEC inspection for cracking in the upper skin around the forward fastener row common to the rear spar upper chord horizontal flange.

(5) Do a detailed inspection for damage, cracking, and corrosion in the pressure seal.

(h) Exception to the Service Information

Boeing Special Attention Service Bulletin 727-57-0187, dated March 8, 2012, specifies compliance times "after the original issue date of this service bulletin."

However, this AD requires compliance within the specified compliance times "after the effective date of this AD."

(i) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Seattle 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. Information may be emailed to: 9-ANM-Seattle-ACO-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 required by this AD if it is approved by the Boeing Commercial Airplanes Organization Designation Authorization (ODA) that has been authorized by the Manager, Seattle ACO, to make those findings. For a repair method to be approved, the repair must meet the certification basis of the airplane, and the approval must specifically refer to this AD.

(j) Related Information

(1) For more information about this AD, contact Berhane Alazar, Aerospace Engineer, Airframe Branch, ANM-120S, FAA, Seattle Aircraft Certification Office, 1601 Lind Avenue SW., Renton, WA 98057-3356; phone: (425) 917-6577; fax: (425) 917-6590; email: berhane.alazar@faa.gov.

(2) For service information identified in this AD, contact Boeing Commercial Airplanes, Attention: Data & Services Management, P. O. Box 3707, MC 2H-65, Seattle,

WA 98124-2207; telephone 206-544-5000, extension 1; fax 206-766-5680; Internet https://www.myboeingfleet.com. You may review copies of the referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Ave SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221.

Issued in Renton, Washington, on February 28, 2013.

Ali Bahrami,
Manager,
Transport Airplane Directorate,
Aircraft Certification Service.

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