

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2008-0151; Directorate Identifier 2007-NM-347-AD; Amendment 39-15708; AD 2008-22-12]

RIN 2120-AA64

Airworthiness Directives; Boeing Model 727 Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: We are adopting a new airworthiness directive (AD) for all Boeing Model 727 airplanes. This AD requires repetitive inspections for any crack in the area of the elevator side fitting/hinge fitting joint and for any crack or elongation inside and outside of the holes in the clevis and in the lug, corrective actions if necessary, and other specified actions. This AD results from reports of elongated holes and cracks found in the lugs of the attachment fittings of the elevator quadrant upper support assembly at the tip of the vertical fin. We are issuing this AD to detect and correct damage to the aft attachment lugs of the elevator quadrant support assembly that could lead to failure of the lugs. This condition could accelerate wear elsewhere in the elevator control system, which could reduce the crew's ability to maintain safe flight.

DATES: This AD is effective December 17, 2008.

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of December 17, 2008.

ADDRESSES: For service information identified in this AD, contact Boeing Commercial Airplanes, P.O. Box 3707, Seattle, Washington 98124-2207; telephone 206-544-9990; fax 206-766-5682; e-mail DDCS@boeing.com; Internet <https://www.myboeingfleet.com>.

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 (telephone 800-647-5527) is the 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: Berhane Alazar, Aerospace Engineer, Airframe Branch, ANM-120S, FAA, Seattle Aircraft Certification Office, 1601 Lind Avenue SW., Renton, Washington 98057-3356; telephone (425) 917-6577; fax (425) 917-6590.

SUPPLEMENTARY INFORMATION:

Discussion

We issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 to include an airworthiness directive (AD) that would apply to all Boeing Model 727 airplanes. That NPRM was published in the Federal Register on February 8, 2008 (73 FR 7489). That NPRM proposed to require repetitive inspections for any crack in the area of the elevator side fitting/hinge fitting joint and for any crack or elongation inside and outside of the holes in the clevis and in the lug, corrective actions if necessary, and other specified actions.

Comments

We gave the public the opportunity to participate in developing this AD. We considered the comments received from the two commenters.

Support for the NPRM

Boeing concurs with the NPRM.

Request To Extend Compliance Time

FedEx requests that we extend the compliance time from 18 months to 30 months for doing the initial inspections of the side and hinge fittings of the elevator control quadrant upper support assembly. FedEx states that, prior to issuance of the AD, it will take immediate action to accomplish the inspections within the required timetable, but that the 18-month compliance time will likely cause FedEx to do the inspections outside of scheduled heavy maintenance. FedEx, therefore, requests an extension of the compliance time, so that it may accomplish the initial inspections for its entire fleet during its next scheduled C-check. FedEx states that it prefers to do the inspections at a maintenance facility during a scheduled heavy maintenance check because of the difficulty associated in providing safe and adequate access to the inspection areas, the availability of the requisite tooling, and the presence of skilled mechanics.

FedEx also requests that we extend the calendar time from 24 months to 30 months for doing the repetitive inspections. (The NPRM proposed accomplishing those inspections within 24 months, 4,000 flight hours, or 3,000 flight cycles, whichever occurs first.) FedEx states that an increase in calendar time should provide an equivalent level of safety because it operates its airplanes at a low, daily-utilization rate, thereby, keeping the flight cycle and flight hour count significantly below the proposed requirement, even after 30 months of calendar time has elapsed. FedEx also states that increasing the calendar time for the repetitive inspections in this way will allow FedEx to accomplish the inspections within its heavy maintenance schedule.

We disagree with the FedEx's request to extend the compliance times for the initial inspection and repetitive interval. In developing appropriate compliance times for these actions, we considered the urgency associated with the subject unsafe condition, the average utilization rate of the affected fleet, and the practical aspect of accomplishing the required actions within a period of time that

corresponds to the normal scheduled maintenance for most affected operators. Although FedEx did not submit any technical data to support its request, its airplane utilization rate might possibly support an extension in the compliance time. However, FedEx's airplane utilization rate might not be typical for most operators, and we believe that the required compliance times specified in the referenced service bulletins coincides with most operators' utilization rates. If FedEx's airplane utilization rate and maintenance program for the inspection area prove that the new compliance time would provide an acceptable level of safety, FedEx may apply for an AMOC according to the provisions in paragraph (i) of this AD. We have not changed the 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 the AD as proposed.

Costs of Compliance

We estimate that this AD affects 401 airplanes of U.S. registry. We also estimate that it takes about 2 work-hours per product to comply with this AD. The average labor rate is \$80 per work-hour. Based on these figures, we estimate the cost of this AD to the U.S. operators to be \$64,160, or \$160 per product, per inspection cycle.

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), 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.

You can find our regulatory evaluation and the estimated costs of compliance in the AD Docket.

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 AD:



2008-22-12 Boeing: Amendment 39-15708. Docket No. FAA-2008-0151; Directorate Identifier 2007-NM-347-AD.

Effective Date

(a) This airworthiness directive (AD) is effective December 17, 2008.

Affected ADs

(b) None.

Applicability

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

Unsafe Condition

(d) This AD results from reports of elongated holes and cracks found in the lugs of the attachment fittings of the elevator quadrant upper support assembly at the tip of the vertical fin. We are issuing this AD to detect and correct damage to the aft attachment lugs of the elevator quadrant support assembly that could lead to failure of the lugs. This condition could accelerate wear elsewhere in the elevator control system, which could reduce the crew's ability to maintain safe flight.

Compliance

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

Repetitive Inspections and Corrective/Other Specified Actions

(f) At the applicable compliance times specified in paragraph 1.E. of Boeing Special Attention Service Bulletin 727-55-0092, dated June 4, 2007, except as provided by paragraph (g) of this AD: Do the detailed inspection for any crack in the area of the elevator side fitting/hinge fitting joint, detailed inspections for elongation inside and outside of the holes in the clevis and in the lug, and high frequency eddy current (HFEC) inspections for any crack inside and outside of the holes in the clevis and in the lug, and do all the applicable corrective actions and other specified actions, by accomplishing all of the applicable actions specified in the Accomplishment Instructions of the service bulletin, except as provided by paragraph (h) of this AD. Repeat the inspections thereafter at the applicable intervals specified in paragraph 1.E. of the service bulletin. Accomplishing the repair or modification specified in Part 3 of the service bulletin terminates only the repetitive inspections specified in Part 2 of the service bulletin.

Exceptions to Compliance Times

(g) Where paragraph 1.E. of Boeing Special Attention Service Bulletin 727-55-0092, dated June 4, 2007, specifies counting the compliance time from ". . . the date on this service bulletin," this AD

requires counting the compliance time from the effective date of this AD. Where paragraph 1.E. of the service bulletin specifies a compliance time of ". . . 18 months . . ." or "24 months . . .," this AD requires a compliance time of 30 months.

Exception to Corrective Actions

(h) If any damage beyond the repair limits or any crack is found in the area of the elevator side fitting/hinge fitting joint during any inspection required by this AD, and Boeing Special Attention Service Bulletin 727-55-0092, dated June 4, 2007, specifies to contact Boeing for appropriate action: Before further flight, repair the crack using a method approved in accordance with the procedures specified in paragraph (i) of this AD.

Alternative Methods of Compliance (AMOCs)

(i)(1) The Manager, Seattle Aircraft Certification Office (ACO), FAA, ATTN: Berhane Alazar, Aerospace Engineer, Airframe Branch, ANM-120S, FAA, Seattle ACO, 1601 Lind Avenue, SW., Renton, Washington 98057-3356; telephone (425) 917-6577; fax (425) 917-6590; has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19.

(2) To request a different method of compliance or a different compliance time for this AD, follow the procedures in 14 CFR 39.19. Before using any approved AMOC on any airplane to which the AMOC applies, notify your appropriate principal inspector (PI) in the FAA Flight Standards District Office (FSDO), or lacking a PI, your local FSDO.

(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 an Authorized Representative for the Boeing Commercial Airplanes Delegation Option Authorization Organization who 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.

Material Incorporated by Reference

(j) You must use Boeing Special Attention Service Bulletin 727-55-0092, dated June 4, 2007, to do the actions required by this AD, unless the AD specifies otherwise.

(1) The Director of the Federal Register approved the incorporation by reference of this service information under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) For service information identified in this AD, contact Boeing Commercial Airplanes, P.O. Box 3707, Seattle, Washington 98124-2207; telephone 206-544-9990; fax 206-766-5682; e-mail DDCS@boeing.com; Internet <https://www.myboeingfleet.com>.

(3) You may review copies of the service information incorporated by reference at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington; or 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/code_of_federal_regulations/ibr_locations.html.

Issued in Renton, Washington, on October 9, 2008.
Ali Bahrami,
Manager, Transport Airplane Directorate,
Aircraft Certification Service.