

DEPARTMENT OF TRANSPORTATION**Federal Aviation Administration****14 CFR Part 39**

[Docket No. FAA-2009-0571; Directorate Identifier 2009-NM-004-AD]

RIN 2120-AA64

Airworthiness Directives; Boeing Model 777 Series 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 Boeing Model 777 series airplanes. This proposed AD would require inspections for scribe lines in the skin along lap joints, butt joints, certain external doublers, and the large cargo door hinges; and related investigative and corrective actions if necessary. This proposed AD results from reports of scribe lines found at lap joints and butt joints, around external doublers, and at locations where external decals had been cut. We are proposing this AD to detect and correct scribe lines, which can develop into fatigue cracks in the skin. Undetected fatigue cracks can grow and cause sudden decompression of the airplane.

DATES: We must receive comments on this proposed AD by August 10, 2009.

ADDRESSES: You may send comments 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:** U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue, SE., Washington, DC 20590, 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, Washington 98124-2207; telephone 206-544-5000, extension 1; fax 206-766-5680; e-mail me.boecom@boeing.com; 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 or 425-227-1152.

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 (telephone 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, Washington 98057-3356; telephone (425) 917-6577; fax (425) 917-6590.

SUPPLEMENTARY INFORMATION:**Comments Invited**

We invite you to send any written relevant data, views, or arguments about this proposed AD. Send your comments to an address listed under the **ADDRESSES** section. Include "Docket No. FAA-2009-0571; Directorate Identifier 2009-NM-004-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 a report indicating that scribe lines have been found by one operator on one Model 777 airplane. On this airplane, scribe lines were found around the edges of the area where a large decal had been installed. The operator believed that the scribe lines were made when the decal was removed. No cracks were found at the scribe line locations. On other airplane models, scribe lines appear to have been made when sealant was removed as part of preparation of the airplane for repainting, and in some cases resulted in significant cracking. Although no

such cracking has been found on Model 777 airplanes, fatigue cracks can develop in the skin at scribe line locations and have been found on some airplane models. Such fatigue cracks, if not corrected, could grow large and cause sudden decompression of the airplane.

Related ADs

This proposed AD is similar to two existing ADs. AD 2006-07-12, amendment 39-14539 (71 FR 16211, March 31, 2006), applies to Boeing Model 737-100, -200, -200C, -300, -400, and -500 series airplanes. AD 2007-19-07, amendment 39-15198 (72 FR 60244, October 24, 2007), applies to all Boeing Model 757-200, -200PF, and -200CB series airplanes. Those ADs require inspections to detect scribe lines in the fuselage skin at certain lap joints, butt joints, external repair doublers, and other areas; and related investigative/corrective actions if necessary. Those actions resulted from reports of fuselage skin cracks adjacent to the skin lap joints on airplanes that had scribe lines.

Relevant Service Information

We have reviewed Boeing Alert Service Bulletin 777-53A0054, dated August 7, 2008. The service bulletin describes procedures for exploratory detailed inspections to detect scribe lines in affected lap joint and butt joint locations, external repair doubler locations, and large cargo door hinges. The service bulletin specifies removing paint and sealant from affected areas before the initial exploratory inspection. The compliance time for the exploratory inspections is 15,000, 32,000, or 45,000 total flight cycles (depending on the inspection location).

The service bulletin specifies related investigative and corrective actions. The related investigative actions include performing repetitive detailed, high frequency eddy current, or ultrasonic inspections of the scribe lines to detect cracks, and the corrective actions include repairing scribe lines and cracks. The service bulletin specifies to repair cracks before further flight.

The service bulletin specifies repairing scribe lines before further flight, except when a limited return to service (LRTS) program for qualifying scribe lines would allow return to service for a limited period before scribe lines are repaired. The LRTS program includes repetitive inspections to detect cracks where scribe lines are found. To qualify for an LRTS program, scribe lines must meet certain criteria based on their depth and location. The service bulletin specifies final repair by using the structural repair manual or

contacting Boeing for instructions, which would eliminate the need for the repetitive inspections of the LRTS program. The repetitive intervals for the LRTS program range from 1,200 to 5,000 flight cycles, depending on the depth and location of the scribe lines and the configuration of the airplane.

The service bulletin notes that certain inspections would not be required under the following conditions:

- The airplane had never been stripped or repainted.
- The area under the wing-to-body fairings had never been stripped or repainted.
- For each repair, the airplane had never been stripped or repainted since the repair was installed.
- No sealant had been removed except in accordance with the specified sealant removal processes as given in Appendix A of the service bulletin.
- No fillet seal exists at a certain lap joint or was previously removed from that lap joint.

The service bulletin specifies submitting inspection results to Boeing. The service bulletin also provides procedures for addressing scribe lines

detected before the initial inspection threshold.

FAA's Determination and Requirements of This Proposed AD

We are proposing this AD because we evaluated all relevant information and determined the unsafe condition described previously is likely to exist or develop in other products of the same type design. 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 Service Bulletin." This proposed AD would also require sending the results of the exploratory inspections to Boeing.

Differences Between the Proposed AD and Service Bulletin

Where the note below Table 6 in paragraph 1.E., "Compliance," of Boeing Alert Service Bulletin 777-53A0054, dated August 7, 2008, specifies to "contact Boeing for inspection requirements for operation beyond 60,000 total flight-cycles after first repaint," this AD proposes to require

contacting the FAA for inspection requirements for those airplanes.

Where the service bulletin specifies contacting the manufacturer for instructions on how to repair certain conditions, this proposed AD would require repairing those conditions in one of the following ways:

- Using a method that we approve; or
- Using data that meet the certification basis of the airplane, and that have been approved by an Authorized Representative for the Boeing Commercial Airplanes Delegation Option Authorization Organization whom we have authorized to make those findings.

Costs of Compliance

We estimate that this proposed AD would affect 129 airplanes of U.S. registry. The following table provides the estimated costs for U.S. operators to comply with this proposed AD. A work-hour estimate is not available for the inspection for an external repair doubler since the inspection required can be different depending on the in-service repair history of the airplane. This inspection affects up to 129 U.S.-registered airplanes.

TABLE—ESTIMATED COSTS

Action	Work hours	Average labor rate per hour	Parts	Cost per product	Number of U.S.-registered airplanes	Fleet cost
Exploratory Inspection	9 to 34	\$80	None	\$720 to \$2,720	129	\$92,880 to \$350,880.

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), 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.

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 AD:

Boeing: Docket No. FAA-2009-0571; Directorate Identifier 2009-NM-004-AD.

Comments Due Date

- (a) We must receive comments by August 10, 2009.

Affected ADs

(b) None.

Applicability

(c) This AD applies to Boeing Model 777 series airplanes, certificated in any category, as identified in Boeing Alert Service Bulletin 777-53A0054, dated August 7, 2008.

Subject

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

Unsafe Condition

(e) This AD results from reports of scribe lines found at lap joints and butt joints, around external doublers, and at locations where external decals had been cut. We are issuing this AD to detect and correct scribe lines, which can develop into fatigue cracks in the skin. Undetected fatigue cracks can grow and cause sudden decompression of the airplane.

Compliance

(f) You are responsible for having the actions required by this AD performed within the compliance times specified, unless the actions have already been done.

Inspection

(g) At the applicable times specified in paragraph 1.E., "Compliance," of Boeing Alert Service Bulletin 777-53A0054, dated August 7, 2008, except as provided in paragraphs (h) and (j) of this AD, do detailed exploratory inspections for scribe lines in the skin along lap joints, butt joints, certain external doublers, and the large cargo door hinges. Do all applicable related investigative and corrective actions at the times specified in the service bulletin, by accomplishing all actions specified in the Accomplishment Instructions of the service bulletin, except as provided by paragraph (i) of this AD.

Note 1: The inspection exemptions described in NOTES 1.–5. in paragraph 1.E. of Boeing Alert Service Bulletin 777-53A0054, dated August 7, 2008, apply to this AD.

Exceptions to Service Bulletin Specifications

(h) Where Boeing Alert Service Bulletin 777-53A0054, dated August 7, 2008, specifies a compliance time after the date on the service bulletin, this AD requires compliance within the specified compliance time after the effective date of this AD.

(i) Where Boeing Alert Service Bulletin 777-53A0054, dated August 7, 2008, specifies to contact Boeing for appropriate action, accomplish applicable actions using a method approved in accordance with the procedures specified in paragraph (l) of this AD.

(j) Where paragraph 1.E. of Boeing Alert Service Bulletin 777-53A0054, dated August 7, 2008, specifies to "contact Boeing for inspection requirements for operation beyond 60,000 total flight-cycles after first repaint," for those airplanes, this AD requires contacting the Manager, Seattle Aircraft Certification Office (ACO), for all inspection requirements of this AD.

Report

(k) At the applicable time specified in paragraph (k)(1) or (k)(2) of this AD: Submit a report of the findings (both positive and negative) of the inspections required by paragraph (g) of this AD. You may use Appendix B of Boeing Alert Service Bulletin 777-53A0054, dated August 7, 2008. Send the report to Boeing Commercial Airplanes, P.O. Box 3707, Seattle, Washington 98124-2207. The report must contain, at a minimum, the inspection results, a description of any discrepancies found, the airplane serial number, and the number of flight cycles and flight hours on the airplane. Under the provisions of the Paperwork Reduction Act (44 U.S.C. 3501 *et seq.*), the Office of Management and Budget (OMB) has approved the information collection requirements contained in this AD and has assigned OMB Control Number 2120-0056.

(1) If the inspection was done on or after the effective date of this AD: Submit the report within 30 days after the inspection.

(2) If the inspection was done before the effective date of this AD: Submit the report within 30 days after the effective date of this AD.

Alternative Methods of Compliance (AMOCs)

(l)(1) The Manager, Seattle ACO, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. Send information to ATTN: 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. Or, e-mail information to 9-ANM-Seattle-ACO-AMOC-Requests@faa.gov.

(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 principal maintenance inspector (PMI) or principal avionics inspector (PAI), as appropriate, or lacking a principal inspector, your local Flight Standards District Office. The AMOC approval letter must specifically reference this AD.

(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.

Issued in Renton, Washington, on June 17, 2009.

Dorr M. Anderson,

Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.

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DEPARTMENT OF TRANSPORTATION**Federal Aviation Administration****14 CFR Part 39**

[Docket No. FAA-2009-0574; Directorate Identifier 2009-CE-028-AD]

RIN 2120-AA64

Airworthiness Directives; DORNIER LUFTFAHRT GmbH Models 228-100, 228-101, 228-200, 228-201, and 228-202 Airplanes

AGENCY: Federal Aviation Administration (FAA), Department of Transportation (DOT).

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: We propose to adopt a new airworthiness directive (AD) for the products listed above. This proposed AD results from mandatory continuing airworthiness information (MCAI) originated by an aviation authority of another country to identify and correct an unsafe condition on an aviation product. The MCAI describes the unsafe condition as:

A stub axle failure of the main landing gear on a Dornier 228-200 aeroplane was reported to RUAG Aerospace. Investigations revealed that the fracture of the axle—manufacturer Part Number (P/N) A-511000B28B was due to fatigue. Already in the year 1993 two failures of P/N A-511000B28B axles occurred. Those events led in 1994 the Luftfahrt-Bundesamt—Germany's National Aviation Authority—to publish Airworthiness Directive (AD) D-1994-042 to mandate the replacement of A-511000B28B axles by improved-design axle with P/N A-511000C28B (Dornier Luftfahrt GmbH Service bulletin 228-214).

It is believed that a misinterpretation of the Dornier 228 repair/maintenance documentation caused inadvertent installation of A-511000B28B axle on the accident aeroplane's main landing gear with P/N A-511000C00F. This configuration was not approved for installation and was therefore not addressed by LBA AD D-1994-042 or Dornier SB-228-214.

The actions specified in this Airworthiness Directive are intended to prevent main landing gear failure, which could result in loss of control of the aeroplane during landing operations.

The proposed AD would require actions that are intended to address the unsafe condition described in the MCAI.

DATES: We must receive comments on this proposed AD by July 27, 2009.

ADDRESSES: You may send comments 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.