

[Federal Register Volume 77, Number 141 (Monday, July 23, 2012)]  
[Rules and Regulations]  
[Pages 42962-42964]  
From the Federal Register Online via the Government Printing Office [www.gpo.gov]  
[FR Doc No: 2012-16964]

---

## **DEPARTMENT OF TRANSPORTATION**

### **Federal Aviation Administration**

#### **14 CFR Part 39**

**[Docket No. FAA-2012-0149; Directorate Identifier 2011-NM-255-AD; Amendment 39-17117; AD 2012-14-03]**

**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 777-200 and -300 series airplanes. This AD was prompted by reports of fatigue cracks in the lap joints, which initiated at scribe lines that were made during production when maskant was removed from the affected skin panels during the chemical milling process. This AD requires repetitive external phased-array ultrasonic inspections to detect cracks of the affected fuselage skin lap splices in Sections 41, 43, and 44, as applicable, and repair if necessary. We are issuing this AD to detect and correct such fatigue cracking, which could grow large and cause sudden decompression and the inability to sustain limit flight and pressure loads.

**DATES:** This AD is effective August 27, 2012.

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in the AD as of August 27, 2012.

**ADDRESSES:** For service information identified in this 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; 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.

#### **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 (phone: 800-647-5527) is 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:** James Sutherland, Aerospace Engineer, Airframe Branch, ANM-120S, FAA, Seattle Aircraft Certification Office, 1601 Lind Avenue SW., Renton, Washington 98057-3356; phone: 425-917-6533; fax: 425-917-6590; email: James.Sutherland@faa.gov.

## **SUPPLEMENTARY INFORMATION:**

### **Discussion**

We issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 to include an AD that would apply to the specified products. That NPRM published in the Federal Register on February 22, 2012 (77 FR 10411). That NPRM proposed to require repetitive external phased-array ultrasonic inspections to detect cracks of the affected fuselage skin lap splices in Sections 41, 43, and 44, as applicable, and repair if necessary.

### **Comments**

We gave the public the opportunity to participate in developing this AD. The following presents the comments received on the proposal (77 FR 10411, February 22, 2012) and the FAA's response to each comment.

### **Request To Allow Certain Repairs**

Boeing requested we add additional text to the end of paragraph (h)(2) of the NPRM (77 FR 10411, February 22, 2012) stating "\* \* \* unless all cracked material has been completely removed and the repair is a reinforcing repair that has been FAA approved to [Federal Aviation Regulations] 14 CFR 25.571 and 14 CFR 26.43 (c) or (d)." Boeing stated that reinforcing repairs which are FAA approved to 14 CFR 25.571 at the certification basis for the subject Model 777 airplanes and 14 CFR 26.43(c) or (d) must have been evaluated for damage tolerance, and would have the damage tolerance inspection requirements in place in order to maintain the safety of the airplane at the repaired area. Boeing asserted that the requirement to obtain an alternative method of compliance (AMOC) approval for such repairs would therefore not be required to ensure the safety of the repaired airplane.

We disagree. The change proposed by Boeing would only require compliance for two certain regulations and would not require other necessary regulatory standards. The requirements defined in the existing AMOC delegation authority include other FAA regulations and manufacturer's design considerations beyond those listed on the airplane type certificate data sheet. We have not changed the final rule in this regard.

### **Conclusion**

We reviewed the relevant data, considered the comment 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 46 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          |
|---|---|------------|-------------------------------|---------------------------------|
| Inspections for Group 1 airplanes (25 airplanes). | 126 work-hours × \$85 per hour = \$10,710 per inspection cycle. | \$0        | \$10,710 per inspection cycle | \$267,750 per inspection cycle. |
| Inspections for Group 2 airplanes (21 airplanes). | 50 work-hours × \$85 per hour = \$4,250 per inspection cycle.   | 0          | \$4,250 per inspection cycle  | \$89,250 per inspection cycle.  |

We have received no definitive data that would enable us to provide cost estimates for the on-condition repair.

#### **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):



---

**2012-14-03 The Boeing Company:** Amendment 39-17117; Docket No. FAA-2012-0149; Directorate Identifier 2011-NM-255-AD.

**(a) Effective Date**

This AD is effective August 27, 2012.

**(b) Affected ADs**

None.

**(c) Applicability**

This AD applies to The Boeing Company Model 777-200 and -300 series airplanes, certificated in any category, as identified in Boeing Alert Service Bulletin 777-53A0043, dated November 9, 2011.

**(d) Subject**

Joint Aircraft System Component (JASC)/Air Transport Association (ATA) of America Code 53, Fuselage.

**(e) Unsafe Condition**

This AD was prompted by reports of fatigue cracks in the lap joints, which initiated at scribe lines that were made during production when maskant was removed from the affected skin panels during the chemical milling process. We are issuing this AD to detect and correct such fatigue cracking, which could grow large and cause sudden decompression and the inability to sustain limit flight and pressure loads.

**(f) Compliance**

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

**(g) Inspections and Repair**

Except as provided by paragraph (h)(1) of this AD, at the applicable time identified in paragraph 1.E., "Compliance," of Boeing Alert Service Bulletin 777-53A0043, dated November 9, 2011: Do external phased-array ultrasonic inspections to detect cracks of the affected fuselage skin lap splices in Sections 41, 43, and 44, as applicable, in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 777-53A0043, dated November 9, 2011. If any crack is found, before further flight, repair in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 777-53A0043, dated November 9, 2011; except as required by paragraph (h)(2) of this AD. Repeat the inspections of unrepaired areas thereafter at intervals not to exceed 4,200 flight cycles.

## **(h) Exception to Service Information**

(1) Where Boeing Alert Service Bulletin 777-53A0043, dated November 9, 2011, specifies a compliance time "after the original issue date on this service bulletin," this AD requires compliance within the specified compliance time after the effective date of this AD.

(2) Where Boeing Alert Service Bulletin 777-53A0043, dated November 9, 2011, specifies that "other approved methods" may be used to install a repair, this AD requires that the repair be done using a method approved in accordance with the procedures specified in paragraph (i) 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**

For more information about this AD, contact James Sutherland, Aerospace Engineer, Airframe Branch, ANM-120S, FAA, Seattle Aircraft Certification Office, 1601 Lind Avenue SW., Renton, Washington 98057-3356; phone: 425-917-6533; fax: 425-917-6590; email: James.Sutherland@faa.gov.

## **(k) Material Incorporated by Reference**

(1) You must use the following service information to do the actions required by this AD, unless the AD specifies otherwise. The Director of the Federal Register approved the incorporation by reference (IBR) of the following service information under 5 U.S.C. 552(a) and 1 CFR part 51.

(i) Boeing Alert Service Bulletin 777-53A0043, dated November 9, 2011.

(ii) Reserved.

(2) For service information identified in this 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; Internet <https://www.myboeingfleet.com>.

(3) 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.

(4) You may also review copies of the 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 June 28, 2012.  
Kalene C. Yanamura,  
Acting Manager, Transport Airplane Directorate,  
Aircraft Certification Service.