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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2004-19525; Directorate Identifier 2004-NM-18-AD; Amendment 39-14026; AD 2005-07-02]

RIN 2120-AA64

Airworthiness Directives; Boeing Model 777-200 and -300 Series Airplanes

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

ACTION: Final rule.

SUMMARY: The FAA is adopting a new airworthiness directive (AD) for all Boeing Model 777-200 and -300 series airplanes. This AD requires inspection of the outer cylinder of the main landing gear (MLG) to determine the serial number; an ultrasonic inspection of the outer cylinder of the MLG for cracks if necessary; and applicable specified and corrective actions if necessary. This AD is prompted by reports indicating that two outer cylinders were found fractured in the weld area. We are issuing this AD to detect and correct cracks or defects that could result in a fracture of the outer cylinder of the MLG, which could lead to collapse of the MLG during landing.

DATES: This AD becomes effective May 4, 2005.

The incorporation by reference of a certain publication listed in the AD is approved by the Director of the Federal Register as of May 4, 2005.

ADDRESSES: For service information identified in this AD, contact Boeing Commercial Airplanes, P.O. Box 3707, Seattle, Washington 98124-2207.

Docket: The AD docket contains the proposed AD, comments, and any final disposition. You can examine the AD docket on the Internet at <http://dms.dot.gov>, or in person at the Docket Management Facility office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The Docket Management Facility office (telephone (800) 647-5227) is located on the plaza level of the Nassif Building at the U.S. Department of Transportation, 400 Seventh Street SW., room PL-401, Washington, DC. This docket number is FAA-2004-19525; the directorate identifier for this docket is 2004-NM-18-AD.

FOR FURTHER INFORMATION CONTACT: Gary Oltman, Aerospace Engineer, Airframe Branch, ANM-120S, FAA, Seattle Aircraft Certification Office, 1601 Lind Avenue, SW., Renton, Washington 98055-4056; telephone (425) 917-6443; fax (425) 917-6590.

SUPPLEMENTARY INFORMATION: The FAA proposed to amend 14 CFR Part 39 with an AD for all Boeing Model 777-200, -200ER, and -300 series airplanes. That action, published in the Federal Register on November 4, 2004 (69 FR 64263), proposed to require inspection of the outer cylinder of the main landing gear (MLG) to determine the serial number; an ultrasonic inspection of the outer cylinder of the MLG for cracks if necessary; and applicable specified and corrective actions if necessary.

Comments

We provided the public the opportunity to participate in the development of this AD. We have considered the comments that have been submitted on the proposed AD.

Request for Alternate Inspection or Extension of Compliance Time

One commenter asks that an "on-aircraft" inspection be allowed as an alternate means of accomplishing the inspection for cracking of the main landing gear (MLG) in order to avoid unnecessary removal and disassembly of the MLG. Additionally, the removal and disassembly costs would be saved if an on-wing (on-aircraft) inspection were available. The commenter also asks that, if an "on-aircraft" inspection is not possible, the compliance time for accomplishing the inspection of the outer cylinder of the MLG be extended until removal of the MLG can be done at a normal maintenance time for overhaul. The commenter states that it has airplanes that have been in-service for 4 years without any problems, and notes that the cracking of the MLG was found before it was installed on the airplane. The FAA would allow 6 years for compliance, as specified in the proposed AD. The commenter adds that the manufacturer states that 6 years is the time allowed for overhaul, but the overhaul limit is actually 10 years.

We do not agree with the commenter's request for an "on-aircraft" inspection in place of the inspection of the outer cylinder of the MLG. There are no procedures for accomplishing an "on-aircraft" inspection specified in the referenced service information. Nor do we agree to extend the compliance time for accomplishing the inspection of the outer cylinder of the MLG until the removal of the MLG can be done at a normal maintenance time for overhaul. In developing an appropriate compliance time for this action, we considered the recommendation of the manufacturer, the urgency associated with the subject unsafe condition, and the practical aspect of accomplishing the required inspection within a period of time that corresponds to normal scheduled maintenance for most affected operators. The compliance time specified in this final rule represents an acceptable interval of time wherein affected airplanes may be allowed to operate without jeopardizing safety. In addition, no technical justification was provided to substantiate this request. Paragraph (k)(1) of this AD provides affected operators the opportunity to apply for an alternative method of compliance (AMOC) and to present data to justify the adjustment of the compliance time. We have made no change to the final rule in this regard.

Request for Part Number or Serial Number Identification on Affected Parts

One commenter asks that part number (P/N) or serial number (S/N) re-identification be done after accomplishing the required inspection. The commenter states that the referenced service bulletin does not require P/N or S/N re-identification of affected parts after accomplishing the inspection: the procedures only specify engraving the service bulletin number on the part. The commenter adds that the outer cylinder of the MLG is a life-limited part that must be tracked for the life of the part; therefore, P/N or S/N re-identification is necessary to track incorporation of the referenced service bulletin and the proposed AD. The commenter notes that life-limited parts are tracked for the life of the part, and operators must know on which airplanes the S/N identified in the referenced service bulletin is installed.

We do not agree with the commenter. The referenced service bulletin specifies vibro-engraving or electro-chemically etching the service bulletin number next to the existing P/N on the outer cylinder assembly. We have determined that this action sufficiently differentiates between pre- and post-modification of the part and allows tracking for the life of the part. We have made no change to the final rule in this regard.

Requests To Change Applicability or Allow Alternate Method for Confirming the Serial Numbers

One commenter asks that the applicability specified in the proposed AD be changed to an appliance AD, which would be applicable only to airplanes with parts having the P/N and S/N identified in the referenced service bulletin, not all Model 777-200, -200ER, and -300 series airplanes. The commenter does not provide a reason for this request.

We do not agree with the commenter. Our general policy, when an unsafe condition results from an appliance or other item that is, or could be, installed on multiple airplane models, is that the AD is issued so that it is applicable to those airplane models, rather than to the item. The reason for this is simple: Making the AD applicable to the airplane models on which the appliance or other item is installed ensures that operators of those airplanes will be notified directly of the unsafe condition and the action required to correct it. While it is assumed that an operator will know the models of airplanes that it operates, there is a potential that the operator will not know or be aware of specific items that are installed on its airplanes. Therefore, calling out the airplane model as the subject of the AD prevents "unknowing non-compliance" on the part of the operator. We have made no change to the final rule in this regard.

Another commenter asks that the applicability specified in the proposed AD be changed to match the effectivity identified in the referenced service bulletin, which applies to Model 777-200 series airplanes only. If the applicability is not changed, the commenter asks that an alternate method of confirming the S/N of the outer cylinder of the MLG be allowed. The commenter notes that one method is using digital records provided by the manufacturer. The commenter does not provide a reason for this request.

We partially agree with the commenter. We agree to change the applicability specified in the proposed AD somewhat. As specified in the "Differences" section of the proposed AD, Model 777-300 series airplanes are included in the applicability since we determined that, because of the potential for the affected outer cylinders to be installed on Model 777-300 series airplanes, the proposed actions must be done on those airplanes. As discussed below in "Explanation of Changes to Proposed AD," we inadvertently included Model 777-200ER series airplanes; we have removed that model from the applicability specified in this final rule.

We agree to allow the use of digital records provided by the manufacturer for confirming the serial number of the outer cylinder of the MLG, provided that precise tracking of which outer cylinder serial number is on which airplane since delivery can be determined from the airplane maintenance records. The final rule already provides for this by the maintenance records review specified in paragraph (h) of this AD. We have made no change to the final rule in this regard.

Request for Preliminary Inspection

One commenter asks that the requirements specified in paragraph (h)(2) of the proposed AD be changed to allow for a preliminary inspection of serial numbers to determine which airplanes are affected by the proposed AD. The commenter also asks to be allowed to accomplish any necessary inspections and corrective action at a later time, as long as those actions are accomplished within the compliance time required by paragraph (g) of the proposed AD. The commenter states that paragraph (h)(2) of the proposed AD specifies that if any serial number identified in the referenced service bulletin is installed, the ultrasonic inspection must be accomplished before further flight, in addition to accomplishing all applicable specified actions and any corrective action.

We agree that a preliminary inspection to determine the serial numbers of affected airplanes may be accomplished before accomplishing the requirements specified in paragraph (h)(2) of this AD. Operators are always permitted to perform actions earlier than the compliance time specified in an AD. In this case, it is at the operator's discretion to accomplish a preliminary inspection of the serial numbers to determine which airplanes are affected by the AD at any time before the required compliance time, if that time more closely fits the operator's maintenance schedule. We also agree that the inspection for cracking and any applicable specified actions, as required by paragraph (h)(2), may be accomplished at a later time as long as the inspection for cracking is done within the compliance time required by paragraph (g) of this AD. Paragraph (h)(2) of this AD has been changed accordingly.

We do not agree that any applicable corrective action resulting from inspection findings may be accomplished at a later time; the corrective action must always be accomplished before further flight after accomplishing the required inspection to maintain safety of flight. We have made no change to the final rule in this regard.

Explanation of Changes to Proposed AD

The applicability in the proposed AD addresses "All Boeing Model 777-200, -200ER, and -300 series airplanes." We inadvertently included Model 777-200ER series airplanes, which are not specified on the type certificate data sheet and are encompassed within the Model 777-200 series. Our intent is that the AD apply to all Model 777-200 and -300 series airplanes; therefore, we have changed the applicability in this final rule accordingly.

Boeing has received a Delegation Option Authorization (DOA). We have revised this final rule to delegate the authority to approve an AMOC for any repair required by this AD to the Authorized Representative for the Boeing DOA Organization rather than the Designated Engineering Representative.

Conclusion

We have carefully reviewed the available data, including the comments that have been submitted, and determined that air safety and the public interest require adopting the AD with the changes described previously. These changes will neither increase the economic burden on any operator nor increase the scope of the AD.

Costs of Compliance

This AD affects about 463 Model 777 series airplanes worldwide. The following table provides the estimated costs for U.S. operators to comply with this AD.

ESTIMATED COSTS

Action	Work hours	Average labor rate per hour	Parts	Cost per airplane	Number of U.S.-registered airplanes	Fleet cost
Part Number Inspection	1 to 229 (depending on which inspection method is used).	\$65	None	\$65 to \$14,885	133	\$8,645 to \$1,979,705
Ultrasonic Inspection (if necessary).	6	\$65	None	\$390 per outer cylinder, \$780 for both outer cylinders on the airplane.	unknown, but there may be up to 26 affected outer cylinders in fleet.	\$10,140

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 have determined that 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.

We prepared a regulatory evaluation of the estimated costs to comply with this AD. See the ADDRESSES section for a location to examine the regulatory evaluation.

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):

AIRWORTHINESS DIRECTIVE



Aircraft Certification Service
Washington, DC

U.S. Department
of Transportation
**Federal Aviation
Administration**

We post ADs on the internet at "www.faa.gov"

The following Airworthiness Directive issued by the Federal Aviation Administration in accordance with the provisions of Title 14 of the Code of Federal Regulations (14 CFR) part 39, applies to an aircraft model of which our records indicate you may be the registered owner. Airworthiness Directives affect aviation safety and are regulations which require immediate attention. You are cautioned that no person may operate an aircraft to which an Airworthiness Directive applies, except in accordance with the requirements of the Airworthiness Directive (reference 14 CFR part 39, subpart 39.3).

2005-07-02 Boeing: Amendment 39-14026. Docket No. FAA-2004-19525; Directorate Identifier 2004-NM-18-AD.

Effective Date

- (a) This AD becomes effective May 4, 2005.

Affected ADs

- (b) None.

Applicability

- (c) This AD applies to all Boeing Model 777-200 and -300 series airplanes; certificated in any category.

Unsafe Condition

- (d) This AD was prompted by reports that two outer cylinders of the main landing gear (MLG) were found fractured in the weld area. We are issuing this AD to detect and correct cracks or defects that could result in a fracture of the outer cylinder of the MLG, which could lead to collapse of the MLG during landing.

Compliance

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

Service Bulletin References

- (f) The term "the service bulletin," as used in this AD, means the Accomplishment Instructions of Boeing Alert Service Bulletin 777-32A0038, Revision 1, dated February 19, 2004.

Compliance Time

- (g) Perform the applicable actions specified in paragraph (h) of this AD at the later of the times specified in paragraphs (g)(1) and (g)(2) of this AD.

- (1) Within 4,000 flight cycles or 750 days after the effective date of this AD, whichever occurs first; or

(2) Before accumulation of 8,000 total flight cycles on the outer cylinder or 72 months on the outer cylinder since new, whichever occurs first.

Part Identification Inspection, Ultrasonic Inspection, and Corrective Action

(h) Inspect the outer cylinder of the MLG to determine whether an outer cylinder having a serial number (S/N) listed in paragraph 1.D., "Description," of the service bulletin is installed. Instead of an inspection of the outer cylinder of the MLG, a review of airplane maintenance records is acceptable if the S/N of the outer cylinder can be positively determined from that review.

(1) If no S/N identified in the service bulletin is installed, no further action is required by this paragraph.

(2) If any S/N identified in the service bulletin is installed, at the applicable compliance time specified in paragraph (g) of this AD, do an ultrasonic inspection of the outer cylinder of the MLG for cracks, and do all applicable specified and corrective actions per the service bulletin. Do any applicable corrective action before further flight.

Reporting a Crack

(i) Submit a report of any crack that is found during the inspection required by paragraph (h)(2) of this AD to the Manager, Seattle Aircraft Certification Office (ACO), FAA, 1601 Lind Avenue, SW., Renton, Washington, at the applicable time specified in paragraph (i)(1) or (i)(2) of this AD. The report must include the inspection results, a description of any discrepancies found, the outer cylinder serial number and part number, and the number of landings and flight hours on the outer cylinder. Under the provisions of the Paperwork Reduction Act of 1980 (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 after the effective date of this AD: Submit the report within 10 days after the inspection.

(2) If the inspection was accomplished prior to the effective date of this AD: Submit the report within 10 days after the effective date of this AD.

Parts Installation

(j) As of the effective date of this AD, no person may install an outer cylinder having a S/N listed in paragraph 1.D., "Description," of the service bulletin on any airplane unless it has been inspected and all specified and corrective actions are accomplished in accordance with paragraph (h)(2) of this AD.

Alternative Methods of Compliance (AMOCs)

(k)(1) The Manager, Seattle ACO, has the authority to approve AMOCs for this AD, if requested in accordance with the procedures found in 14 CFR 39.19.

(2) 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 Delegation Option Authorization Organization who has been authorized by the Manager, Seattle ACO, to make those findings.

Material Incorporated by Reference

(l) You must use Boeing Alert Service Bulletin 777-32A0038, Revision 1, dated February 19, 2004, to perform the actions that are required by this AD, unless the AD specifies otherwise. The

Director of the Federal Register approves the incorporation by reference of this document in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. For copies of the service information, contact Boeing Commercial Airplanes, P.O. Box 3707, Seattle, Washington 98124-2207. For information on the availability of this material at the National Archives and Records Administration (NARA), call (202) 741-6030, or go to http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html. You may view the AD docket at the Docket Management Facility, U.S. Department of Transportation, 400 Seventh Street SW., room PL-401, Nassif Building, Washington, DC.

Issued in Renton, Washington, on March 21, 2005.

Ali Bahrami,

Manager, Transport Airplane Directorate, Aircraft Certification Service.

[FR Doc. 05-6110 Filed 3-29-05; 8:45 am]

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