

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. 2001-NM-89-AD; Amendment 39-14165; AD 2005-13-28]

RIN 2120-AA64

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

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

ACTION: Final rule.

SUMMARY: This amendment adopts a new airworthiness directive (AD), applicable to certain Boeing Model 777-200 and -300 series airplanes. This AD requires a one-time inspection of the clevis end of the vertical tie rods that support the center stowage bins to measure the exposed thread, installation of placards that advise of weight limits for certain electrical racks, a one-time inspection and records check to determine the amount of weight currently installed in those electrical racks, corrective actions, and replacement of the vertical tie rods for the center stowage bins or electrical racks with new improved tie rods, as applicable. The actions specified by this AD are intended to prevent failure of the vertical tie rods supporting certain electrical racks and the center stowage bins, which could cause the center stowage bins or electrical racks to fall onto passenger seats below during an emergency landing, impeding an emergency evacuation or injuring passengers. This action is intended to address the identified unsafe condition.

DATES: Effective August 1, 2005.

The incorporation by reference of a certain publication listed in the regulations is approved by the Director of the Federal Register as of August 1, 2005.

ADDRESSES: The service information referenced in this AD may be obtained from Boeing Commercial Airplanes, P.O. Box 3707, Seattle, Washington 98124-2207. This information may be examined at the Federal Aviation Administration (FAA), Transport Airplane Directorate, Rules Docket, 1601 Lind Avenue, SW., Renton, Washington.

FOR FURTHER INFORMATION CONTACT: Robert Kaufman, Aerospace Engineer, Cabin Safety and Environmental Systems Branch, ANM-150S, FAA, Seattle Aircraft Certification Office, 1601 Lind Avenue, SW., Renton, Washington 98055-4056; telephone (425) 917-6433; fax (425) 917-6590.

SUPPLEMENTARY INFORMATION: A proposal to amend part 39 of the Federal Aviation Regulations (14 CFR part 39) to include an airworthiness directive (AD) that is applicable to certain Boeing Model 777-200 and -300 series airplanes was published as a supplemental notice of proposed rulemaking (NPRM) in the Federal Register on January 5, 2005 (70 FR 737). That action proposed to require a one-time inspection of the clevis end of the vertical tie rods that support the center stowage bins to measure the exposed thread, installation of placards that advise of weight limits for certain electrical racks, a one-time inspection and records check to determine the amount of weight currently installed in those electrical racks, corrective actions, and replacement of the vertical tie rods for the center stowage bins or electrical racks with new improved tie rods, as applicable.

Comments

Interested persons have been afforded an opportunity to participate in the making of this amendment. Due consideration has been given to the comments received.

Support for the Supplemental NPRM

Two commenters support the supplemental NPRM. One of these commenters states that the applicable requirements for its 19 affected airplanes will take 13 work hours to accomplish, with a parts cost of \$2,072 per airplane. This is consistent with the costs estimated in the supplemental NPRM.

Request To Extend Compliance Time for Weight Inspection/Records Check

One commenter requests that we revise paragraph (d)(3) of the supplemental NPRM to extend the compliance time for accomplishing the inspection and records check to determine the weight of equipment installed in the subject electrical racks. The commenter notes that, by the time the AD is issued, it will have accomplished the actions specified in paragraphs (d)(1) and (d)(2) of the supplemental NPRM in accordance with the referenced service bulletin. However, it will not have accomplished the actions specified in paragraph (d)(3) of the supplemental NPRM because those actions are not specified in the service bulletin. The commenter requests that compliance time language similar to that in paragraph (a)(2)(i) of the supplemental NPRM be added to paragraph (d)(3). (Paragraph (a)(2)(i) of the supplemental NPRM gives a compliance time of up to 12 months after the effective date of the AD for checking the weight installed in certain electrical racks on airplanes on which the placard installation specified in paragraph (a)(1) has been accomplished before the effective date of the AD.)

We concur. The actions in paragraph (d)(3) of this AD are similar to those in paragraph (a)(2), and the compliance time should also be similar. Accordingly, we have revised paragraph (d)(3) of this AD, and added paragraphs (d)(3)(i) and (d)(3)(ii) to this AD, to allow up to 12 months for accomplishing the weight check on airplanes on which the actions in paragraphs (d)(1) and (d)(2) of this AD have been accomplished before the effective date of this AD.

Request To Clarify Credit for Actions Accomplished Previously

The same commenter states that paragraph (e), "Actions Accomplished Previously," contradicts the rest of the supplemental NPRM. The commenter states that paragraph (e) implies that no further work is necessary if a previous revision of the service bulletin was accomplished before the effective date of the AD. The commenter states that this would mean that the weighing of electrical racks, which is not referenced in the service bulletins, would not be done.

We do not agree. Paragraph (e) states that actions accomplished before the effective date of the AD per an earlier revision of the service bulletin are acceptable for compliance with corresponding

actions required by this AD. For example, if placards were installed on electrical racks E7, E11, and E15, in accordance with the original issue of the referenced service bulletin, the placards would not have to be reinstalled in accordance with Revision 2 of the service bulletin. Because the procedures in the original issue of the service bulletin for accomplishing the placard installation are exactly the same as the procedures in Revision 2, there is no need to repeat the installation of placards to establish compliance with the AD. However, as paragraph (e) states, any actions in Revision 2 of the service bulletin (e.g., in Part 2 or 3 of the Accomplishment Instructions) that were not included in the original issue of the service bulletin must still be done in accordance with Revision 2. Likewise, the weighing of equipment that is specified in this AD is still required.

However, we agree that it is possible to clarify paragraph (e) of this AD in this regard. Therefore, we have added a sentence to paragraph (e) of this AD to state that the weighing requirements in paragraphs (a)(2) and (d)(3) of the AD must be accomplished at the applicable times identified in those paragraphs.

Request To Refer to Revised Service Information

One commenter notes that information that it received from Boeing indicates that Boeing would be revising the service bulletin referenced in the supplemental NPRM. The commenter states that Boeing has indicated that Figure 8 of the service bulletin does not need to be done if the crew rest has been modified. The commenter states that, if Boeing doesn't update the service bulletin in time, operators of airplanes with the modified crew rest may have to request an alternative method of compliance (AMOC).

We infer that the commenter is requesting that we delay issuance of the final rule until Boeing has released the revised service bulletin. We do not concur. The revision of the service bulletin to which the commenter refers is not yet available. We find that it would be inappropriate to delay the issuance of this final rule to wait for the service bulletin to be revised. The commenter may request approval of an AMOC for the relevant requirements of this AD. The request must include data substantiating that the AMOC would provide an acceptable level of safety. We have not changed the final rule in this regard.

Explanation of Editorial Change to Final Rule

We have revised paragraphs (a), (b), (c), and (d)(1) of this final rule to state the compliance times in months (i.e., 60 months) instead of years (i.e., 5 years).

Conclusion

After careful review of the available data, including the comments noted above, we have determined that air safety and the public interest require the adoption of the rule with the changes previously described. We have determined that these changes will neither increase the economic burden on any operator nor increase the scope of the AD.

Cost Impact

There are approximately 282 airplanes of the affected design in the worldwide fleet. We estimate that 84 airplanes of U.S. registry will be affected by this AD.

For all airplanes: The records check and inspection to determine the weight currently installed in electrical rack E7 will take approximately 1 work hour per airplane to accomplish, at an average labor rate of \$65 per work hour. Based on these figures, the cost impact of this records check and inspection on U.S. operators is estimated to be \$5,460, or \$65 per airplane.

For all airplanes: It will take approximately 1 work hour to accomplish the installation of a placard specifying weight limits for electrical rack E7, at an average labor rate of \$65 per work hour. Required parts will cost approximately \$29 per airplane. Based on these figures, the cost impact of this placard installation on U.S. operators is estimated to be \$7,896, or \$94 per electrical rack.

For airplanes subject to the records check and inspection to determine the weight currently installed in electrical rack E9, E11, E13, or E15: It will take approximately 1 work hour per electrical rack (up to 4 racks per airplane) to accomplish, at an average labor rate of \$65 per work hour. Based on these figures, the cost impact of this records check and inspection is estimated to be as much as \$260 per airplane.

For airplanes subject to the installation of a placard specifying weight limits for electrical rack E9, E11, E13, or E15: It will take approximately 1 work hour per electrical rack to accomplish, at an average labor rate of \$65 per work hour. Required parts will cost approximately \$29 per electrical rack. Based on these figures, the cost impact of this installation is estimated to be as much as \$376 per airplane.

For airplanes subject to the inspection of the clevis end of the vertical support tie rod for the center stowage bin to measure the exposed thread: It will take as much as 3 work hours per airplane (0.25 work hour per tie rod, with up to 12 subject tie rods per airplane) at an average labor rate of \$65 per work hour. Based on these figures, the cost impact of this inspection is estimated to be as much as \$195 per airplane.

For airplanes subject to the replacement of the vertical tie rods that support the center stowage bins: It will take as much as 6 work hours per airplane (0.5 work hour per tie rod, with up to 12 subject tie rods per airplane) at an average labor rate of \$65 per work hour. Required parts will cost as much as \$3,020 per airplane. Based on these figures, this replacement is estimated to be as much as \$3,410 per airplane.

For airplanes subject to the replacement of the vertical tie rods that support the electrical racks: It will take as much as 2 work hours per airplane (0.5 work hour per tie rod with up to 4 subject tie rods per airplane) at an average labor rate of \$65 per work hour. Required parts will cost as much as \$3,012 per airplane. Based on these figures, this replacement is estimated to be as much as \$3,142 per airplane.

The cost impact figures discussed above are based on assumptions that no operator has yet accomplished any of the requirements of this AD action, and that no operator would accomplish those actions in the future if this AD were not adopted. The cost impact figures discussed in AD rulemaking actions represent only the time necessary to perform the specific actions actually required by the AD. These figures typically do not include incidental costs, such as the time required to gain access and close up, planning time, or time necessitated by other administrative actions.

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 Impact

The regulations adopted herein 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. Therefore, it is determined that this final rule does not have federalism implications under Executive Order 13132.

For the reasons discussed above, I certify that this action (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. A final evaluation has been prepared for this action and it is contained in the Rules Docket. A copy of it may be obtained from the Rules Docket at the location provided under the caption ADDRESSES.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

Adoption of the Amendment

Accordingly, pursuant to the authority delegated to me by the Administrator, the Federal Aviation Administration amends part 39 of the Federal Aviation Regulations (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. Section 39.13 is amended by adding the following new airworthiness directive:

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).

2005-13-28 Boeing: Amendment 39-14165. Docket 2001-NM-89-AD.

Applicability

Model 777-200 and -300 series airplanes; certificated in any category; line numbers 002 through 283 inclusive.

Compliance

Required as indicated, unless accomplished previously.

To prevent failure of the vertical tie rods supporting certain electrical racks and the center stowage bins, which could cause the center stowage bins or electrical racks to fall onto passenger seats below during an emergency landing, impeding an emergency evacuation or injuring passengers, accomplish the following:

Inspection to Determine Weight and Placard Installation

(a) For airplanes in the groups listed in the table under paragraph 3.B.1.b.(3) of the Accomplishment Instructions of Boeing Special Attention Service Bulletin 777-25-0144, Revision 2, dated January 15, 2004: Within 60 months after the effective date of this AD, do the applicable actions in paragraphs (a)(1) and (a)(2) of this AD.

(1) Install placards that show weight limits for electrical racks E7, E11, and E15; as applicable; per the Accomplishment Instructions of the service bulletin.

(2) For each electrical rack on which a placard was installed per paragraph (a)(1) of this AD: At the applicable compliance time specified in paragraph (a)(2)(i) or (a)(2)(ii) of this AD, perform a one-time inspection and records review to determine the weight of equipment installed in that electrical rack. This records review and inspection must include determining what extra equipment, if any, has been installed in the subject rack of the airplane, performing a detailed inspection to determine whether this equipment is installed on the airplane, calculating the total weight of the installed equipment, and comparing that total to the weight limit specified on the placard installed per paragraph (a)(1) of this AD. If the weight is outside the limits specified in the placard to be installed per the service bulletin, before further flight, remove equipment from the rack to meet the weight limit specified in the placard.

(i) For airplanes on which the actions required by paragraph (a)(1) of this AD were done before the effective date of this AD: Within 12 months after the effective date of this AD.

(ii) For airplanes on which the actions required by paragraph (a)(1) of this AD are done after the effective date of this AD: Before further flight after installing the placards.

Note 1: For the purposes of this AD, a detailed inspection is defined as: "An intensive visual examination of a specific structural area, system, installation, or assembly to detect damage, failure, or irregularity. Available lighting is normally supplemented with a direct source of good lighting at intensity deemed appropriate by the inspector. Inspection aids such as mirror, magnifying lenses, etc., may be used. Surface cleaning and elaborate access procedures may be required."

Inspection to Measure Exposed Thread and Corrective Actions

(b) For airplanes in the groups listed in the table under paragraph 3.B.1.b.(1) of the Accomplishment Instructions of Boeing Special Attention Service Bulletin 777-25-0144, Revision 2, dated January 15, 2004: Within 60 months after the effective date of this AD, perform a detailed inspection of the clevis end of the vertical support tie rod for the center stowage bin to measure the exposed thread, per the Accomplishment Instructions of the service bulletin. If the measurement of the exposed thread is outside the limits specified in Figure 2 of the service bulletin, before further flight, perform all corrective actions specified in steps 2 through 14 inclusive of Figure 2 of the service bulletin (including installing a threaded sleeve, torquing the jam nuts, inserting a pin in the witness hole to ensure that the witness hole is blocked by the clevis shank, and making any applicable adjustment of the clevis). Perform the corrective actions per the Accomplishment Instructions of the service bulletin, except as provided by paragraph (e) of this AD.

Replacement of Tie Rods for Center Stowage Bin

(c) For airplanes in Group 21, as listed in the Airplane Group column of the table under 3.B.1.b.(2) of the Accomplishment Instructions of Boeing Special Attention Service Bulletin 777-25-0144, Revision 2, dated January 15, 2004: Within 60 months after the effective date of this AD, replace the vertical support tie rods for the center stowage bin with new improved tie rods (including replacing the existing tie rod with a new improved tie rod, torquing the jam nuts, inserting a pin in the witness hole to ensure that the witness hole is blocked by the clevis shank, and making any applicable adjustment of the clevis) by doing all actions specified in steps 1 through 8 of Figure 3 of the service bulletin. Do these actions per the Accomplishment Instructions of the service bulletin. Any required adjustment of the clevis must be done before further flight.

Inspection to Determine Weight, Tie Rod Replacement, and Placard Installation

(d) For airplanes in the groups listed in the table under paragraph 3.B.1.b.(4) of the Accomplishment Instructions of Boeing Special Attention Service Bulletin 777-25-0144, Revision 2, dated January 15, 2004: Do the actions in paragraphs (d)(1), (d)(2), and (d)(3) of this AD.

(1) Within 60 months after the effective date of this AD, replace the vertical support tie rods for electrical racks E9, E11, and E13 (including replacing the existing tie rods with new improved tie rods, replacing an existing tie rod clamp with a new improved tie rod clamp, performing a free-play inspection of certain electrical racks, adjusting jam nuts as applicable, performing a general visual inspection through the witness hole to make sure tie rod threads are visible, and making any applicable adjustment to ensure tie rod threads are visible) by doing all actions specified in Figures 5, 6, 7, and 9 of the service bulletin; as applicable. Do these actions per the Accomplishment Instructions of the service bulletin. Any required adjustment must be done before further flight.

(2) Before further flight after accomplishing paragraph (d)(1) of this AD, install placards that show weight limits for electrical racks E9, E11, and E13; as applicable; per the Accomplishment Instructions of the service bulletin.

(3) For each electrical rack on which a placard was installed per paragraph (d)(2) of this AD: At the applicable compliance time specified in paragraph (d)(3)(i) or (d)(3)(ii) of this AD, perform a one-time inspection and records check to determine the weight of equipment installed in that electrical rack. This records review and inspection must include determining what, if any, extra

equipment has been installed in the subject racks of the airplane, performing a detailed inspection to determine that this equipment is installed on the airplane, calculating the total weight of the installed equipment, and comparing that total to the weight limit specified on the placard installed per paragraph (d)(2) of this AD. If the weight is outside the limits specified in the placard, before further flight, remove equipment from the rack to meet the weight limit specified in the placard.

(i) For airplanes on which the actions required by paragraphs (d)(1) and (d)(2) of this AD were done before the effective date of this AD: Within 12 months after the effective date of this AD.

(ii) For airplanes on which the actions required by paragraphs (d)(1) and (d)(2) of this AD are done after the effective date of this AD: Before further flight after installing the placards.

Actions Accomplished Previously

(e) Actions accomplished before the effective date of this AD per the Accomplishment Instructions of Boeing Special Attention Service Bulletin 777-25-0144, dated January 25, 2001; or Revision 1, dated January 10, 2002; are acceptable for compliance with the corresponding actions required by this AD, provided that the additional actions specified in Part 2 or 3 of the Accomplishment Instructions of Boeing Special Attention Service Bulletin 777-25-0144, Revision 2, dated January 15, 2004, are accomplished within the compliance time specified in this AD. The weighing requirements in paragraphs (a)(2) and (d)(3) of this AD must be accomplished at the applicable times identified in those paragraphs.

Alternative Methods of Compliance

(f) In accordance with 14 CFR 39.19, the Manager, Seattle Aircraft Certification Office, FAA, is authorized to approve alternative methods of compliance (AMOCs) for this AD.

Incorporation by Reference

(g) Unless otherwise specified in this AD, the actions must be done in accordance with Boeing Special Attention Service Bulletin 777-25-0144, Revision 2, dated January 15, 2004. This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. To get copies of this service information, go to Boeing Commercial Airplanes, P.O. Box 3707, Seattle, Washington 98124-2207. To inspect copies of this service information, go to the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington; or to the National Archives and Records Administration (NARA). For information on the availability of this material at the NARA, call (202) 741-6030, or go to http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html.

Effective Date

(h) This amendment becomes effective on August 1, 2005.

Issued in Renton, Washington, on June 15, 2005.
Kevin M. Mullin,
Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.
[FR Doc. 05-12510 Filed 6-24-05; 8:45 am]
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