DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. 2001–NM–246–AD; Amendment 39–13784; AD 2004–18–06]

RIN 2120–AA64

Airworthiness Directives; Boeing Model 737–200, –200C, –300, –400, and –500 Series Airplanes

AGENCY: Federal Aviation Administration, DOT.

ACTION: Final rule.

SUMMARY: This amendment adopts a new airworthiness directive (AD), applicable to certain Boeing Model 737–200, –200C, –300, –400, and –500 series airplanes, that requires repetitive inspections to find fatigue cracking of certain upper and lower skin panels of the fuselage, and follow-on and corrective actions, if necessary. This amendment also includes terminating action for the repetitive inspections of certain modified or repaired areas only. This action is necessary to find and fix fatigue cracking of the skin panels, which could result in sudden fracture and failure of the skin panels of the fuselage, and consequent rapid decompression of the airplane. This action is intended to address the identified unsafe condition.

DATES: Effective October 13, 2004.

The incorporation by reference of certain publications listed in the regulations is approved by the Director of the Federal Register as of October 13, 2004.

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; 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.*

FOR FURTHER INFORMATION CONTACT: Suzanne Lucier, Aerospace Engineer, Airframe Branch, ANM–120S, FAA, Seattle Aircraft Certification Office, 1601 Lind Avenue, SW., Renton, Washington 98055–4056; telephone (425) 917–6438; 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 737–200, –200C, –300, –400, and –500 series airplanes was published in the **Federal Register** on June 18, 2003 (68 FR 36515). That action proposed to require repetitive inspections to find fatigue cracking of certain upper and lower skin panels of the fuselage, and follow-on and corrective actions, if necessary. That action also includes terminating action for the repetitive inspections of certain modified or repaired areas only.

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.

Agreement With Proposed Rule

One commenter generally agrees with the proposed rule.

Request To Clarify Repetitive Eddy Current Inspections

Several commenters request clarification of the repetitive eddy current inspections required by paragraph (a) of the proposed rule. The commenters note that the proposed rule differs from the service bulletin in that the proposed rule requires both external detailed and eddy current inspections every 4,500 flight cycles, while the service bulletin only specifies to repeat the detailed inspections. One commenter asks if the repetitive eddy current inspections are mandatory. Another commenter points out that no explanation is given in the preamble of the proposed rule in the ''Differences'' paragraph. Because no technical reason is given for this change, the commenter believes the proposed rule's intent was not to include repetitive eddy current inspections that are beyond the scope of the service bulletin.

Another commenter, the manufacturer, agrees with the proposed rule that the eddy current inspections should be repetitive. The commenter states that because of recent upper row cracks found on a Model 737 series airplane with disbonded waffle doublers, it seems prudent to use the more sensitive eddy current inspection at repetitive intervals of 4,500 flight cycles. The commenter notes that only external detailed inspections were originally used because it was assumed that the tear straps were bonded and functioning to slow down the cracks until they could easily be detected using visual methods. The commenter states that in the case of a disbonded panel, it is unclear if the chem-mill type crack would slow down as it approaches the tear straps. The commenter believes that if it is assumed that tear straps do not slow the growth of the cracks, then the repetitive external detailed inspections every 4,500 flight cycles would allow more than two inspection opportunities to pass as cracks detectable by eddy current inspections become critical.

We agree with the request to clarify the repetitive eddy current inspections required by paragraph (a) of the final rule. Paragraph (a) of the proposed rule did specify repetitive external detailed and eddy current inspections but stated this as ''repeat the inspections.'' Because the service bulletin only specifies repetitive detailed inspections, we should have explained the difference in the ''Differences'' paragraph of the proposed rule for the reasons stated by the last commenter (*i.e.* because of the recent upper row cracks found on an airplane with disbonded waffle doublers). However the ''Differences'' paragraph of the proposed rule is not repeated in the final rule. We have clarified the repetitive eddy current inspections by revising paragraph (a) of the final rule to state, ''Repeat the external detailed and eddy current inspections * * *.''

Request To Revise Text To Describe the Area of Inspection

One commenter requests to revise the text in paragraph (a) of the proposed rule from ''crown area'' to ''crown area and other known areas of cracking.'' The commenter states that the inspections in Part 1 and Figure 1 of Boeing Alert Service Bulletin 737–53A1210, Revision 1, dated October 25, 2001 (referenced as the appropriate source of service information in the proposed rule), include areas of known cracking outside the crown. The commenter believes that since paragraph (a) of the proposed rule states to inspect only the ''crown area,'' then the areas of known cracking outside the crown as specified in the service bulletin may not get inspected. In addition, another commenter notes that it reported a crack at S12L on a Boeing Model 737–300 series airplane.

The FAA agrees with the commenter that the text to describe the area of inspection should be revised. While the heading of Part 1 of the service bulletin (like the proposed rule) makes reference only to the crown area, Part 1 includes inspections outside that area, as stated by the commenter. We proposed to require all of the actions specified in Part 1 and Figure 1 of the service bulletin. For the reasons stated by that

commenter, we have clarified paragraph (a) of the final rule to state, ''* * * crown area and other known areas of fuselage skin cracking, per Part 1 and Figure 1 * * *.'' This clarification does not expand the inspection locations specified in Part 1 and Figure 1.

Request To Reduce Inspection Area

One commenter requests reducing the area of the eddy current inspection required by paragraph (a) of the proposed rule from body station (BS) 360 to BS 1016 to the area BS 460 to BS 787. The commenter contends that the cracking reported in the upper crown at locations ranging from BS 480 to BS 777, per Boeing Service Bulletin 737–53A1210, Revision 1, does not warrant accomplishing both a visual and an eddy current inspection of areas BS 360 to BS 1016. The commenter recommends a visual inspection for areas BS 360 to BS 1016 and an eddy current inspection for areas BS 460 to BS 787.

We do not agree with the request to reduce the area of the eddy current inspection required by paragraph (a) of the final rule. Since the issuance of the service bulletin, we have received new reports of cracking. To address the identified unsafe condition, detailed and eddy current inspections are required by paragraph (a) of the final rule for areas BS 360 to BS 1016 identified in the service bulletin. No change is made to the final rule in this regard.

Request To Clarify Inspections of Chem-mill Areas

Two commenters request clarification of inspections for chem-mill areas covered by FAA-approved or accepted repairs other than external repair doublers that extend a minimum of three rows of fasteners above and below the chem-mill steps. One commenter, the manufacturer, requests that an inspection be added to the proposed rule for areas that are covered by external repair doublers that do not extend a minimum of three rows of fasteners above and below the chem-mill steps because paragraph (a) of the proposed rule does not address inspecting these areas. The commenter states that Boeing has developed a new internal inspection method for chem-mill cracks under the external repair doublers, as specified in Boeing 737 Non-Destructive Test (NDT) Manual, Part 6, Subject 53–30–20. The commenter contends that this inspection method can be used as a substitute for the external inspections with no change in the proposed compliance times. The commenter believes that chem-mill cracks under a repair doubler that do not extend beyond the chem-mill step are just as critical because three rows are required to carry failsafe loads. However, the commenter believes the cracks in this area are inspected less than cracks addressed by the proposed rule, and that it is likely repairs have been installed over undetected chem-mill cracks. The other commenter recommends that a general visual inspection of the repair for chem-milled areas covered by other FAA-approved or accepted repairs be added to the proposed rule, or that the areas be exempted from the inspections required by paragraphs (a) and (b) of the proposed rule.

We agree that inspections of the chem-mill areas should be clarified. Inspections are not required in areas that are spanned by an FAA-approved repair that has a minimum of 3 rows of fasteners above and below the chem-milled step. If an external doubler covers the chem-milled step, but does not span it by a minimum of 3 rows of fasteners above and below, operators must request an alternative method of compliance (AMOC) as required by section 39.17 of the Federal Aviation Regulations (14 CFR 39.17). In lieu of requesting an AMOC, one method of compliance with the inspection requirement of paragraphs (a) and (b) of this final rule is to inspect all chem-milled steps covered by the repair using internal nondestructive test (NDT) methods in accordance with Boeing 737 NDT Manual, Part 6, Subject 53–30–20. We have included new paragraph (i) of this final rule to provide inspection procedures, in lieu of requesting an AMOC, as one method of compliance with the requirements of paragraphs (a) and (b) of this final rule.

Request To Clarify Inspection Requirements in the Area of an Internal Doubler at the Emergency Door Surround Structure

One commenter requests that an inspection method be specified for the area of the internal doubler at the emergency exit surround structure as shown in Figure 5 of the service bulletin, or that the requirement to inspect this area be removed. The commenter notes that inspecting the area between BS 540 and BS 727 would require a different inspection procedure than the Boeing 737 NDT Manual, Part 6, Subject 53–30–18 or 53–30–19 procedures which are specified in Figure 5 of Boeing Alert Service Bulletin 737–53A1210, Revision 1, dated October 25, 2001.

We agree with the commenter that there should not be a requirement to inspect this area because the internal doubler that extends above S–10 stabilizes the skin in this area and eliminates this area as a cracking concern. However, there is not a need to clarify this in the final rule because the service bulletin does not specify to inspect this area. This area is shown with a dotted line in Figure 5 of the service bulletin and is excluded from the inspections in Figure 5. Therefore, no change to the final rule is necessary.

Request To Clarify Terminating Action for Repetitive Inspections

Two commenters request that the terminating action for the repetitive inspections required by paragraph (a) of the proposed rule be clarified. One commenter states that the proposed rule requires to ''Repeat the inspections at least every 4,500 flight cycles until paragraph (c) or (d)(1)(ii) of this AD has been done, as applicable.'' The commenter notes that paragraph (c) and (d)(1)(ii) of the proposed rule do not cover the joint cutout modification per paragraph (g) of AD 2002–07–08, amendment 39–12702 (67 FR 17917). The commenter contends that the lap joint repair per paragraph (g) of AD 2002–07–08 ends the repetitive inspections for those lap joints, and therefore, should be included as a terminating action in paragraph (a) of the proposed rule. The other commenter questions if the statement ''Installation of the lap joint repair * * * is considered acceptable for compliance with * * *'' in paragraph (d)(1) of the proposed AD ends the repetitive inspections per paragraph (a) of the proposed AD for those lap joints.

We agree with the commenters that we should clarify the terminating actions for the repetitive actions for the reasons stated by the first commenter. The lap joint modification (repair) is an alternate method of compliance for the repetitive requirements of paragraph (a) of the final rule. There is language in paragraph (d)(1) of the AD that does specify, ''Installation of the lap joint repair specified in paragraph (g) of AD 2002–07–08, amendment 39–12702, is considered acceptable for compliance with the corresponding action specified in this paragraph for the lap joint areas only.'' We have moved this language to paragraph (d)(1)(ii) of the final rule to clarify that modifications performed in accordance with paragraph (g) of AD 2002–07–08 are considered a terminating modification for the chem-mill step areas within the modified areas.

Request To Add New Repair Option

One commenter requests that a new repair option be added to paragraph (d) of the proposed rule. Paragraph (d) of the proposed rule provides two options for repair if cracking is found. The commenter points out that general skin repairs have been added to Boeing 737 structural repair manuals, and that these repairs meet or exceed the requirements as stated in paragraph (d) of the proposed rule. The commenter suggests adding paragraph (d)(3) to the proposed rule stating, ''For cracking in any area within the limitations of 737–100/200 SRM 53–30–3 Figure 48 for –100's and –200 aircraft, 737–300 SRM 53–00–01 Figure 229 for –300 aircraft, 737–400 SRM 53–00–01 Figure 231 for –400 aircraft, and 737–500 SRM 53–00–01 Figure 229 for –500 aircraft, cracks can be repaired per these SRM figures as applicable. Accomplishment of these repairs ends the repetitive inspections required by paragraph (b) of this AD for the repaired area only.'' The commenter also suggests revising the first sentence of paragraph (d) of the proposed rule to state, ''* * * specified in paragraphs (d)(1), (d)(2), and (d)(3) of this AD, as applicable * * *.'' The commenter points out that these SRM repairs are being used extensively within the industry to repair skin damage, including chem-mill cracks.

We agree with the commenter that the new repair option should be added and concur with its justification. Accordingly, we have added paragraph (e) to the final rule as follows: ''For cracking in any area specified in paragraphs (d)(1) and (d)(2) of this AD within the limitations of Chapter 53, Subject 53–30–3, Figure 48 (for Model 737–100 and –200 series airplanes), of the Boeing 737–100 and –200 Structural Repair Manual (SRM); Chapter 53, Subject 53–00–01, Figure 229 (for Model 737–300 airplanes), of the Boeing 737–300 SRM; Chapter 53, Subject 53–00–01, Figure 231 (for Model 737–400 series airplanes), of the Boeing 737–400 SRM; and Chapter 53, Subject 53–00–01, Figure 229 (for Model 737–500 series airplanes), of the Boeing 737–500 SRM; repair cracks per the applicable SRM. Accomplishment of the applicable repair terminates the repetitive inspections required by paragraphs (a) and (b) of this AD for the repaired area only.'' We also revised paragraphs (a) and (b) of the final rule to include paragraph (e) of the final rule as an optional terminating action for the repaired area only. In addition, we revised paragraphs (d)(1) and (d)(2) of the final rule by adding paragraph (e) of the final rule as a repair option.

Request To Revise Repair Instructions

One commenter requests that the repair instructions in paragraph (d)(2) of the proposed rule be revised. The commenter notes that paragraph (d)(2) gives instructions to ''* * * repair per Part 2 of the Work Instructions of the service bulletin * * *,'' and the service bulletin specifies to ask Boeing for repair data. The commenter contends that an operator may interpret paragraph (d)(2) of the proposed rule as requiring them to contact Boeing for all repairs in the lower lobe and section 41. The commenter suggests revising paragraph (d)(2) of the proposed rule to state, ''For cracking of the lower lobe area and Section 41, repair per paragraph (d)(3) of this AD before further flight * * *.''

We disagree with the commenter to revise paragraph (d)(3) of the final rule per its suggested wording. As stated earlier, paragraph (d)(2) of the final rule has been revised by adding paragraph (e) of the final rule as an option to the repair of the cracking of the lower lobe and Section 41 done per Part 2 of the Work Instructions of the service bulletin. Operators should note that while the service bulletin does specify to contact Boeing for repair, paragraph (d) of the final rule requires operators to contact the FAA or a Designated Engineering Representative (DER) if the service bulletin specifies to contact Boeing for repair instructions. No change is made to the final rule in this regard.

Request To Add Inspection Requirement

One commenter requests that the external subsurface inspection of the chem-mill steps in adjacent bays per step 2 of Figure 18 of the service bulletin be added to paragraph (e)(2) of the proposed rule. The commenter notes that paragraph (e)(2) of the proposed rule requires an ''internal eddy current inspection of the skin, tear straps, and lap joint * * *'' The commenter states that, while this agrees with the service bulletin, the service bulletin also specifies an external subsurface inspection of the chem-mill steps in adjacent bays. The commenter points out that when the time-limited repair required by paragraph (e) of the proposed rule is accomplished at remote sites, it may not be possible to do an NDT inspection of the adjacent chem-mill steps. The commenter states that, often times in service, the bays adjacent to the cracked bay will also have cracks. The commenter also notes that inspection of the adjacent bays within 4,000 flight cycles after doing the repair is recommended by the service bulletin as a precautionary measure.

We agree with the commenter that the service bulletin also specifies external subsurface inspection of the chem-mill steps in adjacent bays. In our effort to describe the types of inspections referenced in Part 4 of the service bulletin, we inadvertently omitted the one mentioned by the commenter. We had no intention of deviating from the service bulletin. To clarify this intent, the final rule has been revised to track the precise wording of Part 4 of the service bulletin: ''Do inspections of the repaired area * * *.''

Request To Remove ''Tear Straps'' From Inspection Description

One commenter requests that the words ''tear straps'' be removed from paragraph (e)(2) of the proposed rule. The commenter notes that the internal inspection shown in Figure 18 of the service bulletin looks for cracks in the skin under the tear strap and does not look for cracks in the tear straps.

We agree with the commenter that the words ''tear straps'' be removed from paragraph (f)(2) of the final rule (specified as paragraph (e)(2) of the proposed rule). As stated previously, paragraph (f)(2) of the final rule (specified as paragraph (e)(2) of the proposed rule) has been changed to state, ''Do the inspections of the repaired area * * *.''

Request To Add Inspection for Disbonding To Terminate Repetitive Eddy Current Inspections

One commenter requests that an inspection for disbonding be added that would terminate the repetitive eddy current inspections required by paragraph (a) of the proposed rule. The commenter recommends that the inspection for disbonding specified in Boeing Service Bulletin 737–53–1179, Revision 2, dated October 25, 2001, be added as a terminating action for the repetitive eddy current inspections required by paragraph (a) of the proposed rule, and then only repetitive detailed inspections would be needed to ensure safety.

We agree that an inspection for disbonding should be added to terminate the repetitive eddy current inspections required by paragraph (a) of the final rule. The inspection for disbonding specified in Boeing Service Bulletin 737–53–1179, Revision 2, dated October 25, 2001, will verify the integrity of the doublers, and therefore, the repetitive eddy current inspections will no longer be required. The service bulletin is the source of service information for paragraphs (b) and (c) of

AD 2003–14–06, amendment 39–13225. That AD requires repetitive inspections for cracking of certain lap splices, and corrective action if necessary. We have added paragraph (g) to the final rule as follows: ''Accomplishment of paragraph (b) or (c), as applicable, of AD 2003–14–06, amendment 39–13225, terminates the repetitive eddy current inspections required by paragraph (a) of this AD; however the repetitive detailed inspections required by paragraph (a) of this AD are still required.''

Request To Exclude Appendix A From Service Bulletin References

Two commenters request that the phrase ''including Appendix A'' in paragraphs (a) through (e) of the proposed rule either be removed or changed to ''excluding Appendix A.'' One commenter notes that Appendix A of the service bulletin is an optional cost benefit analysis worksheet that is included in the service bulletin for the benefit of the operators if they elect to use it and that it has no effect on the repair, modification, or compliance instructions of the referenced service bulletin. The other commenter questions why Appendix A is mandatory and what operators should do with it if it is not excluded from the proposed rule.

We agree that Appendix A should be excluded from the service bulletin references for the reasons stated by the first commenter. We removed the wording ''including Appendix A'' from paragraphs (a) through (d) of the final rule and paragraph (f) of the final rule (specified as paragraph (e) of the proposed rule). We also removed the wording ''excluding Evaluation Form.''

Explanation of Editorial Changes

We have revised certain wording regarding the compliance times of the repetitive inspection requirements specified in paragraphs (a), (b), and (f)(1) (specified as paragraph (e)(1) of the proposed rule) of the final rule. Instead of specifying that the repetitive inspections be repeated ''at least every,'' as stated in paragraphs (a), (b), and (e)(1) of the proposed rule, this final rule specifies that the inspections be repeated ''at intervals not to exceed.''

Clarification of Type of Inspection

We have clarified one of the inspection requirements contained in the proposed rule. Whereas paragraph (f)(1) of the proposed rule specifies a general visual inspection, we have revised paragraph (f)(1) of the final rule to clarify that our intent is to require a detailed inspection, as specified in the service bulletin.

Conclusion

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

Changes to 14 CFR Part 39/Effect on the AD

On July 10, 2002, the FAA issued a new version of 14 CFR part 39 (67 FR 47997, July 22, 2002), which governs the FAA's airworthiness directives system. The regulation now includes material that relates to altered products, special flight permits, and alternative methods of compliance. However, for clarity and consistency in this final rule, we have retained the language of the NPRM regarding that material.

Change to Labor Rate Estimate

We have reviewed the figures we have used over the past several years to calculate AD costs to operators. To account for various inflationary costs in the airline industry, we find it necessary to increase the labor rate used in these calculations from $60 per work hour to $65 per work hour. The cost impact information, below, reflects this increase in the specified hourly labor rate.

Interim Action

This is considered to be interim action for Group 7 airplanes. Although the service bulletin described previously does not include the inspection of the crown area (upper lobe) for Group 7 airplanes, as specified in paragraph (a) of this final rule, the manufacturer has advised that it currently is developing a new service bulletin to address those airplanes. Once the FAA has reviewed and approved the service bulletin, we may consider additional rulemaking to mandate those inspections.

Cost Impact

There are approximately 2,200 airplanes of the affected design in the worldwide fleet. The FAA estimates that 903 airplanes of U.S. registry will be affected by this proposed AD.

It will take approximately 94 work hours per airplane to accomplish the inspections of the crown area, at an average labor rate of $65 per work hour. Based on these figures, the cost impact of these inspections on U.S. operators is estimated to be $5,517,330, or $6,110 per airplane, per inspection cycle.

It will take approximately 96 work hours per airplane to accomplish the inspections of the lower lobe area, at an average labor rate of $65 per work hour. Based on these figures, the cost impact of these inspections on U.S. operators is estimated to be $5,634,720, or $6,240 per airplane, per inspection cycle.

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.

Should an operator elect to install the preventive modification, it will take approximately 108 work hours to accomplish, at an average labor rate of $65 per work hour. Based on these figures, the cost impact of the preventive modification is estimated to be $7,020 per airplane.

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:

2004–18–06 Boeing: Amendment 39–13784. Docket 2001–NM–246–AD.

Applicability: Model 737–200, –200C, –300, –400, and –500 series airplanes, as listed in Boeing Alert Service Bulletin 737–53A1210, Revision 1, dated October 25, 2001; certificated in any category.

Note 1: This AD applies to each airplane identified in the preceding applicability provision, regardless of whether it has been modified, altered, or repaired in the area subject to the requirements of this AD. For airplanes that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must request approval for an alternative method of compliance in accordance with paragraph (j) of this AD. The request should include an assessment of the effect of the modification, alteration, or repair on the unsafe condition addressed by this AD; and, if the unsafe condition has not been eliminated, the request should include specific proposed actions to address it.

Compliance: Required as indicated, unless accomplished previously.

To find and fix fatigue cracking of certain upper and lower skin panels of the fuselage, which could result in sudden fracture and failure of the skin panels and consequent rapid decompression of the airplane, accomplish the following:

External Detailed and Eddy Current Inspections

(a) For Groups 1 through 6 and Group 8 airplanes: Before the accumulation of 35,000 total flight cycles, or within 4,500 flight cycles after the effective date of this AD, whichever is later, do external detailed and eddy current inspections of the crown area and other known areas of fuselage skin cracking, per Part 1 and Figure 1 of the Work Instructions of Boeing Alert Service Bulletin 737–53A1210, Revision 1, dated October 25, 2001, except as provided by paragraph (i) of this AD. Repeat the external detailed and eddy current inspections at intervals not to exceed 4,500 flight cycles until paragraph (c), (d)(1)(ii), (e), (f), or (g) of this AD has been done, as applicable. Although paragraph 1.D. of the service bulletin references a reporting requirement, such reporting is not required by this AD.

Note 2: 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.''

(b) For all airplanes: Before the accumulation of 40,000 total flight cycles, or within 4,500 flight cycles after the effective date of this AD, whichever is later, do an external detailed inspection of the lower lobe area and section 41 of the fuselage for cracking, per Part 2 and Figure 2 of the Work Instructions of Boeing Alert Service Bulletin 737–53A1210, Revision 1, dated October 25, 2001, except as provided by paragraph (i) of this AD. Repeat the inspection at intervals not to exceed 9,000 flight cycles until paragraph (d)(2) or (e) of this AD has been done, as applicable.

Preventive Modification

(c) For Groups 3, 5, 6, and 8 airplanes: If no cracking is found during any inspection required by paragraph (a) of this AD, doing the preventive modification of the chem-milled pockets in the upper skin as specified in Part 5 of the Work Instructions of Boeing Alert Service Bulletin 737–53A1210, Revision 1, dated October 25, 2001, ends the repetitive external detailed and eddy current inspections required by paragraph (a) of this AD for the modified area only.

Corrective Actions

(d) If any cracking is found during any inspection required by paragraph (a) or (b) of this AD, before further flight, do the actions specified in paragraphs (d)(1) and (d)(2) of this AD, as applicable, per the Work Instructions of Boeing Alert Service Bulletin 737–53A1210, Revision 1, dated October 25, 2001. Where the service bulletin specifies to contact Boeing for repair instructions, before further flight, repair per a method approved by the Manager, Seattle Aircraft Certification Office (ACO), FAA; or per data meeting the type certification basis of the airplane approved by a Boeing Company Designated Engineering Representative (DER) who has been authorized by the Manager, Seattle ACO, to make such findings. For a repair method to be approved by the Manager, Seattle ACO, as required by this paragraph, the approval letter must specifically reference this AD.

(1) Except as provided by paragraph (e) of this AD, for cracking of the crown area, do the repair specified in either paragraph (d)(1)(i) or (d)(1)(ii) of this AD.

(i) Do a time-limited repair per Part 4 of the Work Instructions of the service bulletin, then do the actions required by paragraph (f) of this AD at the times specified in that paragraph.

(ii) Do a permanent repair per Part 3 of the Work Instructions of the service bulletin. Installation of a permanent repair ends the repetitive inspections required by paragraph (a) of this AD for the repaired area only. Installation of the lap joint repair specified in paragraph (g) of AD 2002–07–08, amendment 39–12702, is considered acceptable for compliance with the corresponding permanent repair specified in this paragraph for the repaired areas only.

(2) Except as provided by paragraph (e) of this AD, for cracking of the lower lobe area and Section 41, repair per Part 2 of the Work Instructions of the service bulletin. Accomplishment of this repair ends the repetitive inspections required by paragraph (b) of this AD for the repaired area only.

Optional Repair Method

(e) For cracking in any area specified in paragraphs (d)(1) and (d)(2) of this AD within the limitations of Chapter 53, Subject 53–30–3, Figure 48 (for Model 737–100 and –200 series airplanes), of the Boeing 737–100 and –200 Structural Repair Manual (SRM); Chapter 53, Subject 53–00–01, Figure 229 (for Model 737–300 airplanes), of the Boeing 737–300 SRM; Chapter 53, Subject 53–00–01, Figure 231 (for Model 737–400 series airplanes), of the Boeing 737–400 SRM; and Chapter 53, Subject 53–00–01, Figure 229 (for Model 737–500 series airplanes), of the Boeing 737–500 SRM; repair cracks per the applicable SRM. Accomplishment of the applicable repair terminates the repetitive inspections required by paragraphs (a) and (b) of this AD for the repaired area only.

Follow-on and Corrective Actions

(f) If a time-limited repair is done, as specified in paragraph (d)(1)(i) of this AD: Do the actions specified in paragraphs (f)(1), (f)(2), and (f)(3) of this AD, at the times specified in paragraphs (f)(1), (f)(2), and (f)(3) of this AD, per the Work Instructions of Boeing Alert Service Bulletin 737–53A1210, Revision 1, dated October 25, 2001.

(1) Within 3,000 flight cycles after doing the repair: Do a detailed inspection of the repaired area for loose fasteners per Part 4 of the Work Instructions of the service bulletin. If any loose fastener is found, before further flight, replace with a new fastener per the service bulletin. Then repeat the inspection at intervals not to exceed 3,000 flight cycles until permanent rivets are installed in the repaired area, which ends the repetitive inspections for this paragraph.

(2) Within 4,000 flight cycles after doing the repair: Do inspections of the repaired area for cracking per Part 4 of the Work Instructions of the service bulletin. If any cracking is found, before further flight, repair per a method approved by the Manager, Seattle ACO, or per data meeting the type certification basis of the airplane approved by a Boeing Company DER who has been authorized by the FAA to make such findings. For a repair method to be approved by the Manager, Seattle ACO, as required by this paragraph, the approval letter must specifically reference this AD.

(3) Within 10,000 flight cycles after doing the repair: Make the repair permanent per Part 4 and Figure 20 of the Work Instructions of the service bulletin, which ends the repetitive inspections for the repaired area only.

Optional Terminating Action for Repetitive Eddy Current Inspections

(g) Accomplishment of paragraph (b) or (c), as applicable, of AD 2003–14–06, amendment 39–13225, ends the repetitive eddy current inspections required by paragraph (a) of this AD for that skin panel only; however the repetitive external detailed inspections required by paragraph (a) of this AD are still required for all areas.

Credit for Actions Done Per Previous Service Bulletin

(h) Inspections, repairs, and preventive modifications done before the effective date of this AD per Boeing Alert Service Bulletin 737–53A1210, dated December 14, 2000, are acceptable for compliance with the corresponding actions required by this AD.

Exception to Service Bulletin Procedures

(i) For airplanes subject to the requirements of paragraphs (a) and (b) of this AD: Inspections are not required in areas that are spanned by an FAA-approved repair that has a minimum of 3 rows of fasteners above and below the chem-milled step. If an external doubler covers the chem-milled step, but does not span it by a minimum of 3 rows of fasteners above and below, in lieu of requesting approval for an alternative method of compliance (AMOC), one method of compliance with the inspection requirement of paragraphs (a) and (b) of this AD is to inspect all chemical-milled steps covered by the repair using internal nondestructive test (NDT) methods in accordance with Boeing 737 Non-Destructive Test NDT Manual, Part 6, Subject 53–30–20.

Alternative Methods of Compliance

(j)(1) An alternative method of compliance (AMOC) or adjustment of the compliance time that provides an acceptable level of safety may be used if approved by the Manager, Seattle ACO. Operators shall submit their requests through an appropriate FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager, Seattle ACO.

(2) AMOCs, approved previously in accordance with AD 2003–14–06, amendment 39–13225, for paragraphs (b) and (c) of AD 2003–14–06, are approved as AMOCs with paragraphs (a) and (g) of this AD for the applicable terminating action for the repetitive eddy current inspections only.

Note 3: Information concerning the existence of approved alternative methods of compliance with this AD, if any, may be obtained from the Seattle ACO.

Special Flight Permit

(k) Special flight permits may be issued in accordance with sections 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate the airplane to a location where the requirements of this AD can be accomplished.

Incorporation by Reference

(l) Unless otherwise specified in this AD, the actions shall be done in accordance with Boeing Alert Service Bulletin 737–53A1210, Revision 1, dated October 25, 2001, excluding Appendix A. 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. Copies may be obtained from Boeing Commercial Airplanes, P.O. Box 3707, Seattle, Washington 98124–2207. Copies may be inspected 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.*

Effective Date

(m) This amendment becomes effective on October 13, 2004.

Issued in Renton, Washington, on August 26, 2004.

Kevin M. Mullin,

Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.

[FR Doc. 04–20120 Filed 9–7–04; 8:45 am]

BILLING CODE 4910–13–P

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. 2003–NM–131–AD; Amendment 39–13786; AD 2004–18–08]

RIN 2120–AA64

Airworthiness Directives; Boeing Model 727, 727C, 727–100, –100C, and –200 Series Airplanes

AGENCY: Federal Aviation Administration, DOT.

ACTION: Final rule.

SUMMARY: This amendment adopts a new airworthiness directive (AD), applicable to certain Boeing Model 727, 727C, 727–100, –100C, and –200 series airplanes. This amendment requires an inspection of the forward trunnion attach fittings of the main landing gear (MLG), inspections of the attach fitting holes of the forward trunnion attach fittings if necessary, replacement of the forward trunnion attach fittings if necessary, and corrective actions if necessary. This action is necessary to detect and correct cracks and corrosion on the attach fitting holes of the forward trunnion attach fittings of the MLG, which could result in the collapse of the MLG. This action is intended to address the identified unsafe condition.

DATES: Effective October 13, 2004.

The incorporation by reference of a certain publication listed in the regulations is approved by the Director of the Federal Register as of October 13, 2004.

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; 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.*

FOR FURTHER INFORMATION CONTACT: Daniel F. Kutz, Aerospace Engineer, Airframe Branch, ANM–120S, FAA, Seattle Aircraft Certification Office, 1601 Lind Avenue, SW., Renton, Washington 98055–4056; telephone (425) 917–6456; 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 727, 727C, 727–100, –100C, and –200 series airplanes was published in the **Federal Register** on June 16, 2004 (69 FR 33587). That action proposed to require an inspection of the forward trunnion attach fittings of the main landing gear, inspections of the attach fitting holes of the forward trunnion attach fittings if necessary, replacement of the forward trunnion attach fittings if necessary, and corrective actions if necessary.

Comments

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

The commenter supports the proposed rule.

Conclusion

After careful review of the available data, including the comment noted above, the FAA has determined that air safety and the public interest require the adoption of the rule as proposed.

Cost Impact

There are approximately 523 airplanes of the affected design in the worldwide fleet. The FAA estimates that 309 airplanes of U.S. registry will be affected by this AD, that it will take approximately 1 work hour per airplane to accomplish the required inspection, and that the average labor rate is $65 per work hour. Based on these figures, the