

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

[Docket No. 99-NM-182-AD; Amendment 39-11795; AD 2000-12-17]

RIN 2120-AA64

Airworthiness Directives; Boeing Model 767 Series Airplanes

AGENCY: Federal Aviation Administration, DOT.

ACTION: Final rule.

SUMMARY: This amendment adopts a new airworthiness directive (AD), applicable to certain Boeing Model 767 series airplanes, that requires repetitive inspections to detect fatigue cracking of the pitch load fittings of the wing front spar, and rework, if necessary. This amendment also provides for optional terminating action for the repetitive inspections required by this AD. This amendment is prompted by a structural fatigue analysis that shows that the operational loads of the nacelle are higher than the loads used during initial design of the Model 767. The actions specified by this AD are intended to detect and correct fatigue cracking in the pitch load fittings of the wing front spar, which could result in reduced structural integrity of the strut.

DATES: Effective July 24, 2000.

The incorporation by reference of certain publications listed in the regulations is approved by the Director of the Federal Register as of July 24, 2000.

ADDRESSES: The service information referenced in this AD may be obtained from Boeing Commercial Airplane Group, 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 Office of the **Federal Register**, 800 North Capitol Street, NW., suite 700, Washington, DC.

FOR FURTHER INFORMATION CONTACT:

James G. Rehrl, Aerospace Engineer, Airframe Branch, ANM-120S, FAA, Transport Airplane Directorate, Seattle Aircraft Certification Office, 1601 Lind Avenue, SW., Renton, Washington 98055-4056; telephone (425) 227-2783; fax (425) 227-1181.

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 767 series airplanes was published in the **Federal Register** on December 6, 1999 (64 FR 68058). That action proposed to require repetitive inspections to detect fatigue cracking of the pitch load fittings of the wing front spar, and rework, 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 comments received.

Support for the Proposed Rule

One commenter supports the proposed rule.

Request To Allow Alternative Inspection Method

Two commenters request that the FAA revise paragraph (c)(1) of the proposed rule to allow a dye penetrant inspection to be performed in lieu of the high frequency eddy current (HFEC) inspection specified in that paragraph. Both commenters point out that Boeing Service Bulletin 767-57-0053, Revision 2, dated September 23, 1999, describes a dye penetrant inspection that may be used instead of the HFEC inspection. One of the commenters also points out that the original issue, dated June 27, 1996, and Revision 1, dated October 31, 1996, of the service bulletin reference a dye penetrant inspection but not an HFEC inspection, and some operators have already accomplished the inspection in accordance with one of the earlier issues of the service bulletin. ("Note 2" of the proposed rule states that use of the original issue or Revision 1 of the service bulletin is acceptable for compliance with this AD.)

The FAA concurs with the commenters' request to revise paragraph (c)(1) of this AD. The FAA's intent in the proposed rule was to allow accomplishment of the dye penetrant inspection in lieu of the HFEC inspection; however, the proposed rule did not explicitly state that. Therefore, the FAA has revised paragraph (c)(1) of this final rule to require accomplishment of either an HFEC or a dye penetrant inspection.

Request to Reference Terminating Action

Several commenters request that the proposed rule be revised to specify a terminating action for the proposed repetitive inspections. Though Boeing Service Bulletin 767-57-0053, Revision 2, specifies that incorporation of certain strut improvement program (SIP) service bulletins is terminating action, the proposed rule does not mention a

terminating action. One commenter, the airplane manufacturer, states that the proposed rule should be revised to state that accomplishment of the applicable SIP service bulletin, along with the bushing removal, lug bore inspections, and insurance cut specified in Boeing Service Bulletin 767-57-0053, constitutes terminating action for the repetitive inspection requirements of this AD. One commenter, an operator, also points out that the SIP service bulletin that is applicable to its airplanes recommends accomplishment of Boeing Service Bulletin 767-57-0053, Revision 1, dated October 31, 1996, prior to or concurrent with the SIP bulletin, but the SIP service bulletin does not list Boeing Service Bulletin 767-57-0053, Revision 2. The commenter states that the bulletins "do not provide a clear direction on what needs to be accomplished to terminate the inspection requirements stated in the NPRM."

The FAA concurs with the commenters' request. The SIP service bulletins referenced by the commenter and Boeing Service Bulletin 767-57-0053, Revision 2, do reference one another, and modification of the nacelle strut and wing structure as specified in the applicable SIP service bulletin does constitute terminating action for the repetitive inspections required by this AD, provided that the lug bore inspections and the insurance cut described in this AD are also accomplished. Therefore, a new paragraph (g) has been added to this final rule to provide this as an optional terminating action.

In addition, the FAA is considering separate rulemaking actions to mandate accomplishment of the SIP service bulletins, and Boeing Service Bulletin 767-57-0053, Revision 2 (as well as the earlier revisions of that service bulletin), will be specified as an integral part of the actions required to accomplish the SIP service bulletins. A new "Note 4" has been included in this final rule to clarify this.

Request To Specify Removal of Bushings

One commenter requests that paragraph (c) of the proposed rule be revised to specify that the pitch load fitting bushings must be removed to accomplish the inspection of the lug bores. The commenter points out that removal of both the upper link and pitch load fitting bushings is specified in Figure 1 of the service bulletin. The commenter states that the omission is an error in the proposed rule.

The FAA does not concur with the commenter's request to revise paragraph

(c) of the proposed rule. The FAA acknowledges that the pitch load fitting bushings must be removed prior to inspection of the lug bores. Though this was not explicitly stated in the proposed rule, the FAA finds that it is implied by the wording of paragraph (c), which reads, "accomplish the requirements of paragraphs (c)(1) and (c)(2) of this AD in accordance with [the service bulletin]." The service bulletin states that the HFEC inspection, which is specified in paragraph (c)(1) of this AD, is to be accomplished "as specified in Figure 3" of the service bulletin. In turn, Figure 3 instructs operators to remove the bushings prior to accomplishment of the inspection. The FAA finds that to specify every action contained in the service bulletin would unnecessarily complicate this AD. Therefore, no change to the final rule is necessary in this regard.

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.

Cost Impact

There are approximately 663 Model 767 series airplanes of the affected design in the worldwide fleet. The FAA estimates that 312 airplanes of U.S. registry will be affected by this AD, that it will take approximately 10 work hours per airplane to accomplish the required inspections, and that the average labor rate is \$60 per work hour. Based on these figures, the cost impact of the AD on U.S. operators is estimated to be \$187,200, or \$600 per airplane, per inspection cycle.

The cost impact figure discussed above is 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.

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:

2000-12-17: Boeing: Amendment 39-11795. Docket 99-NM-182-AD.

Applicability: Model 767 series airplanes, line numbers 1 through 663 inclusive, 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 (h) 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 detect fatigue cracks in the pitch load fittings of the wing front spar, which could result in reduced structural integrity of the strut, accomplish the following:

(a) Accomplish the requirements of either paragraph (b) or (c) of this AD at the later of the times specified in paragraphs (a)(1) and (a)(2) of this AD.

(1) Prior to the initial inspection threshold specified in Figure 1, Table 1.1 of Boeing Service Bulletin 767-57-0053, Revision 2, dated September 23, 1999.

(2) Within 3,000 flight cycles or 18 months after the effective date of this AD, whichever occurs first.

Note 2: Inspections and repairs accomplished prior to the effective date of this AD in accordance with Boeing Service Bulletin 767-57-0053, dated June 27, 1996; or Revision 1, dated October 31, 1996; are considered acceptable for compliance with the applicable action specified in this amendment.

Option 1: Ultrasonic and Eddy Current Inspections

(b) Perform ultrasonic and eddy current inspections to detect cracks of the pitch load fittings of the wing front spar, in accordance with Boeing Service Bulletin 767-57-0053, Revision 2, dated September 23, 1999.

(1) If no crack is detected, repeat the inspections thereafter at the interval specified in Table 1.2 of Figure 1 of the service bulletin.

(2) If any crack is detected, prior to further flight, remove the upper link and the pitch load fitting bushings, and accomplish both paragraphs (b)(2)(i) and (b)(2)(ii) of this AD.

(i) Perform a detailed visual inspection of the inner and outer face pad-up areas of the pitch load fittings to detect damage or corrosion and to determine if the pad-up areas are parallel, in accordance with the service bulletin. Except as provided by paragraph (f) of this AD, if any damage, corrosion, or non-parallelism is detected, prior to further flight, rework the inner or outer face of the pitch load fitting where damage or corrosion was detected, and make pad-up areas parallel, as applicable, in accordance with the service bulletin.

(ii) Accomplish paragraph (d) of this AD.

Note 3: For the purposes of this AD, a detailed visual 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."

Option 2: High Frequency Eddy Current and Detailed Visual Inspections

(c) Remove the upper link and accomplish the requirements of paragraphs (c)(1) and (c)(2) of this AD, in accordance with Boeing Service Bulletin 767-57-0053, Revision 2, dated September 23, 1999.

(1) Perform a high frequency eddy current inspection or a dye penetrant inspection to detect cracking of the pitch load fittings of the wing front spar.

(2) Perform a detailed visual inspection of the inner and outer face pad-up areas of the pitch load fittings to detect damage or corrosion and to determine if the pad-up areas are parallel. Except as provided by paragraph (f) of this AD, if any damage, corrosion, or non-parallelism is detected, prior to further flight, rework the inner or outer face of the pitch load fitting where damage or corrosion was detected, and make pad-up areas parallel, as applicable, in accordance with the service bulletin.

Rework

(d) For airplanes on which any cracking is detected during any inspection required by paragraph (b) of this AD, or on which the requirements of paragraph (c) of this AD have been accomplished: Prior to further flight, accomplish paragraph (d)(1) or (d)(2) of this AD, as applicable, in accordance with Boeing Service Bulletin 767-57-0053, Revision 2, dated September 23, 1999; and accomplish paragraph (e) of this AD.

(1) For airplanes inspected in accordance with paragraph (c) of this AD and on which no cracking was detected: Make an insurance cut of the pitch load fitting lug.

(2) For airplanes on which any cracking was detected during any inspection required by paragraph (b) or (c) of this AD: Except as provided by paragraph (f) of this AD, rework the lugs of the pitch load fittings of the wing front spar.

Bushing Installation

(e) For airplanes on which the requirements specified in paragraph (d) of this AD have been accomplished: Prior to further flight, install new bushings in the pitch load fittings of the wing front spar as specified in paragraph (e)(1) or (e)(2) of this AD, in accordance with Boeing Service Bulletin 767-57-0053, Revision 2, dated September 23, 1999.

(1) Option 1: Install new bushings using the high interference fit method, and repeat the inspections required by paragraph (b) or

(c) of this AD at the intervals specified in Table 1.3 of Figure 1. of the service bulletin.

(2) Option 2: Install new bushings using the FORCEMATE method, and repeat the inspections required by paragraph (b) or (c) of this AD at the interval specified in Table 1.4 of Figure 1. of the service bulletin.

Repair

(f) If any damage is detected that is outside the limits specified in Boeing Service Bulletin 767-57-0053, Revision 2, dated September 23, 1999, and the service bulletin specifies to contact Boeing for appropriate action: Prior to further flight, repair in accordance with a method approved by the Manager, Seattle Aircraft Certification Office (ACO), FAA, Transport Airplane Directorate; or in accordance with 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, as required by this paragraph, the approval letter must specifically reference this AD.

Optional Terminating Action

(g) Accomplishment of the actions specified in paragraphs (g)(1) and (g)(2) of this AD constitutes terminating action for the actions required by this AD.

(1) Modify the nacelle strut and wing structure in accordance with Boeing Service Bulletin 767-54-0080, dated October 7, 1999 (for Model 767 series airplanes powered by Pratt & Whitney engines); Boeing Service Bulletin 767-54-0081, dated July 29, 1999 (for Model 767 series airplanes powered by General Electric engines); or Boeing Service Bulletin 767-54-0082, dated October 28, 1999 (for Model 767 series airplanes powered by Rolls-Royce engines); as applicable.

(2) Accomplish the lug bore inspections and insurance cut of the pitch load fitting in accordance with Boeing Service Bulletin 767-57-0053, Revision 2, dated September 23, 1999.

Note 4: The FAA is considering separate rulemaking actions to mandate accomplishment of Boeing Service Bulletins 767-54-0080, 767-54-0081, and 767-54-0082. Actions described in Boeing Service Bulletin 767-57-0053, Revision 2 (or previous issues of that service bulletin), as required by this AD will be specified as an integral part of the actions required to accomplish these service bulletins.

Alternative Methods of Compliance

(h) An alternative method of compliance 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.

Note 5: Information concerning the existence of approved alternative methods of

compliance with this AD, if any, may be obtained from the Seattle ACO.

Special Flight Permits

(i) Special flight permits may be issued in accordance with §§ 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

(j) Except as provided in paragraphs (f) and (g)(1) of this AD, the actions shall be done in accordance with Boeing Service Bulletin 767-57-0053, Revision 2, dated September 23, 1999. 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 Airplane Group, 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 Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

Effective Date

(k) This amendment becomes effective on July 24, 2000.

Issued in Renton, Washington, on June 9, 2000.

Donald L. Riggan,

Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.
[FR Doc. 00-15183 Filed 6-16-00; 8:45 am]

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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. 99-NM-351-AD; Amendment 39-11791; AD 2000-12-13]

RIN 2120-AA64

Airworthiness Directives; Airbus Model A319, A320, and A321 Series Airplanes

AGENCY: Federal Aviation Administration, DOT.

ACTION: Final rule.

SUMMARY: This amendment supersedes an existing airworthiness directive (AD), applicable to certain Airbus Model A319, A320, and A321 series airplanes, that currently requires revising the FAA-approved Airplane Flight Manual (AFM) to increase monitoring of the