

[Federal Register: April 3, 2003 (Volume 68, Number 64)]
[Rules and Regulations]
[Page 16200-16203]
From the Federal Register Online via GPO Access [wais.access.gpo.gov]
[DOCID:fr03ap03-8]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. 2002-NM-315-AD; Amendment 39-13104; AD 2003-07-08]

RIN 2120-AA64

Airworthiness Directives; Boeing Model 757-200, 757-200CB, and 757-200PF Series Airplanes

AGENCY: Federal Aviation Administration, DOT.

ACTION: Final rule; request for comments.

SUMMARY: This amendment adopts a new airworthiness directive (AD) that is applicable to certain Boeing Model 757-200, 757-200CB, and 757-200PF series airplanes. This action requires repetitive detailed inspections to detect horizontal or vertical movement of the shims at the joint of the mid-bulkhead and the upper link fittings, and corrective action if necessary; or certain alternative actions that will terminate the requirement for the repetitive inspections. This action is necessary to detect and correct migration of shims at the joint of the mid-bulkhead and the upper link fittings, which could result in cracking of the strut and consequent loss of the strut and engine.

DATES: Effective April 18, 2003. The incorporation by reference of certain publications listed in the regulations is approved by the Director of the Federal Register as of April 18, 2003.

Comments for inclusion in the Rules Docket must be received on or before June 2, 2003.

ADDRESSES: Submit comments in triplicate to the Federal Aviation Administration (FAA), Transport Airplane Directorate, ANM-114, Attention: Rules Docket No. 2002-NM-315-AD, 1601 Lind Avenue, SW., Renton, Washington 98055-4056. Comments may be inspected at this location between 9 a.m. and 3 p.m., Monday through Friday, except Federal holidays. Comments may be submitted via fax to (425) 227-1232. Comments may also be sent via the Internet using the following address: 9-anm-iarcomment@faa.gov. Comments sent via fax or the Internet must contain "Docket No. 2002-NM-315-AD" in the subject line and need not be submitted in triplicate. Comments sent via the Internet as attached electronic files must be formatted in Microsoft Word 97 for Windows or ASCII text.

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 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.

FOR FURTHER INFORMATION CONTACT: Dennis Stremick, Aerospace Engineer, Airframe Branch, ANM-120S, FAA, Seattle Aircraft Certification Office, 1601 Lind Avenue, SW., Renton, Washington 98055-4056; telephone (425) 917-6450; fax (425) 917-6590.

SUPPLEMENTARY INFORMATION: The FAA has received several reports of cracking of the strut in the mid-bulkhead on certain Boeing Model 757-200, 757-200CB, and 757-200PF series airplanes. Investigation revealed that the shims at the joint of the mid-bulkhead and the upper link fittings had migrated out of position. The investigation also revealed that the shim's movement was possibly caused by movement of the fittings and the installation of thin laminated shims at the joint. The holes in the fittings rely on the action of the sleevebolts for alignment. If complete alignment does not occur, the joint could move and cause the shim to delaminate, resulting in the shim migrating away from the joint. Such migration of the shims, if not corrected, could result in cracking of the strut and consequent loss of the strut and engine.

Explanation of Relevant Service Information

The FAA has reviewed and approved Boeing Alert Service Bulletin (ASB) 757-54A0039, Revision 1, dated June 20, 2002. Part I of the Accomplishment Instructions of that ASB describes procedures for performing repetitive detailed inspections of the laminated shims at the joint of the mid-bulkhead and upper link fittings to detect any vertical or horizontal movement of the shims. Part II of the Accomplishment Instructions of the ASB describes follow-on corrective actions (Figure 3 of the ASB) for shims that have migrated within certain limits (e.g., replacing the laminated shims with new solid shims, replacing the existing sleevebolts with new oversized sleevebolts, performing visual and high frequency eddy current inspections (HFEC) to detect cracking and deformation in the sleevebolt holes and in the fittings, and corrective actions if necessary). The ASB recommends that operators contact Boeing if any shims cannot be removed. Additionally, Part III of the Accomplishment Instructions of the ASB describes procedures for performing a one-time HFEC inspection of the bolt holes (Figure 9 of the ASB) in the mid-bulkhead, and describes repair procedures for cracking.

Explanation of the Requirements of the Rule

Since an unsafe condition has been identified that is likely to exist or develop on other airplanes of the same type design, this AD is being issued to detect and correct migration of shims at the joint of the mid-bulkhead and the upper link fittings, which could result in cracking of the strut and consequent loss of the strut and engine. This AD requires accomplishment of the actions specified in the service bulletin described previously, except as discussed below.

Differences Between the ASB and This AD

Revision 1 of the ASB recommends that operators who have accomplished the inspections and actions described in Boeing ASB 757-54A0039, November 2, 2000, perform a one-time non-destructive testing (NDT) and/or HFEC inspection to detect cracking of the mid-bulkhead as shown in Figure 9 of the ASB, and repair if necessary. Operators should note that this AD requires those operators to perform a detailed inspection to detect cracking rather than an NDT and/or HFEC inspection. We have determined that, for airplanes on which the inspections specified in Parts I and II of Boeing ASB 757-54A0039, dated November 2, 2000, have been previously accomplished, a detailed inspection to detect cracks, and repair if necessary, within 90 days of the effective date of this AD, are adequate to continue to provide an acceptable level of safety for this interim action.

Operators also should note that Boeing ASB 757-54A0039, Revision 1, dated June 20, 2002, does not specify procedures for operators to add previously recorded measurements of the shim movement to the current measurement of shim movement. However, this AD requires those actions to ensure that the cumulative or progressive movement is measured and recorded to encompass total movement of the shim.

Additionally, operators also should note that, although the ASB specifies that the manufacturer may be contacted for further instructions if a shim cannot be removed or for disposition of certain repair conditions, this AD requires the repair of those conditions to be accomplished per a method approved by the FAA, or per data meeting the type certification basis of the airplane approved by a Boeing Company Designated Engineering Representative who has been authorized by the FAA to make such findings.

Interim Action

This is considered to be interim action. We are currently considering requiring HFEC inspections for cracking in and around the bolt holes of the left and right side of the mid-bulkhead strut, and repair if necessary, which would constitute terminating action for the repetitive inspections required by this AD. However, the planned compliance time for the HFEC inspections is sufficiently long so that notice and opportunity for prior public comment will be practicable.

Determination of Rule's Effective Date

Since a situation exists that requires the immediate adoption of this regulation, it is found that notice and opportunity for prior public comment hereon are impracticable, and that good cause exists for making this amendment effective in less than 30 days.

Comments Invited

Although this action is in the form of a final rule that involves requirements affecting flight safety and, thus, was not preceded by notice and an opportunity for public comment, comments are invited on this rule. Interested persons are invited to comment on this rule by submitting such written data, views, or arguments as they may desire. Communications shall identify the Rules Docket number and be submitted in triplicate to the address specified under the caption ADDRESSES. All communications received on or before the closing date for comments will be considered, and this rule may be amended in light of the comments received. Factual information that supports the commenter's ideas and suggestions is extremely helpful in evaluating the effectiveness of the AD action and determining whether additional rulemaking action would be needed.

Submit comments using the following format:

- Organize comments issue-by-issue. For example, discuss a request to change the compliance time and a request to change the service bulletin reference as two separate issues.
- For each issue, state what specific change to the AD is being requested.
- Include justification (e.g., reasons or data) for each request.

Comments are specifically invited on the overall regulatory, economic, environmental, and energy aspects of the rule that might suggest a need to modify the rule. All comments submitted will be available, both before and after the closing date for comments, in the Rules Docket for examination by interested persons. A report that summarizes each FAA-public contact concerned with the substance of this AD will be filed in the Rules Docket.

Commenters wishing the FAA to acknowledge receipt of their comments submitted in response to this rule must submit a self-addressed, stamped postcard on which the following statement is made: "Comments to Docket Number 2002-NM-315-AD." The postcard will be date stamped and returned to the commenter.

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.

The FAA has determined that this regulation is an emergency regulation that must be issued immediately to correct an unsafe condition in aircraft, and that it is not a "significant regulatory action" under Executive Order 12866. It has been determined further that this action involves an emergency regulation under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979). If it is determined that this emergency regulation otherwise would be significant under DOT Regulatory Policies and Procedures, a final regulatory evaluation will be prepared and placed in the Rules Docket. A copy of it, if filed, 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).

2003-07-08 Boeing: Amendment 39-13104. Docket 2002-NM-315-AD.

Applicability: Model 757-200, 757-200CB, and 757-200PF series airplanes, line numbers 1 through 735 inclusive, equipped with Rolls Royce Model RB211 engines, as listed in Boeing Alert Service Bulletin 757-54A0039, Revision 1, dated June 20, 2002; 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 (i) 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 and correct migration of shims at the joint of the mid-bulkhead and the upper link fittings, which could result in cracking of the strut and consequent loss of the strut and engine; accomplish the following:

Inspection for Movement of Shims and Corrective Actions

(a) With the exception of the airplanes specified in paragraph (e) of this AD: Within 90 days after the effective date of this AD, perform a detailed inspection to detect horizontal or vertical movement of the shims at the joint of the mid-bulkhead and the upper link fittings, per Boeing Alert Service Bulletin (ASB) 757-54A0039, Revision 1, dated June 20, 2002.

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) If all laminated shims have not moved, or if all laminated shims have moved less than 0.25 inch, before further flight, perform the actions specified in either paragraph (b)(1) or (b)(2) of this AD, per Boeing Alert Service Bulletin (ASB) 757-54A0039, Revision 1, dated June 20, 2002.

(1) Perform the actions specified in paragraph 3.B.6 of the Accomplishment Instructions of the ASB (e.g., measure and record movement of the shim, cut the exposed plies, and seal adjacent surfaces and edges), and repeat the detailed inspections at intervals not to exceed 12,000 flight cycles or 72 months, whichever occurs first. At each inspection interval, the previously recorded

measurement must be added to the current measurement so that the cumulative total movement of the shim is recorded. If the cumulative total movement exceeds 0.25 but is less than 0.90, before further flight, perform the actions specified in paragraph (c) of this AD. If the cumulative total movement measures 0.90 inch or more: Before further flight, perform the actions specified in paragraph (d) of this AD. Or,

(2) Perform the actions specified in paragraphs (g) and (h) of this AD.

(c) If any laminated shim has moved 0.25 inch or more but less than 0.90 inch: Before further flight, perform the actions specified in paragraph (c)(1) or (c)(2) of this AD, per Boeing Alert Service Bulletin (ASB) 757-54A0039, Revision 1, dated June 20, 2002.

(1) Before further flight, perform the actions specified in paragraph 3.B.6 of the Accomplishment Instructions of the ASB (e.g., measure and record movement of the shim, cut the exposed plies and seal adjacent surfaces and edges), and repeat the detailed inspections at intervals not to exceed 3,000 flight cycles or 18 months, whichever occurs first. At each inspection interval, the previously recorded measurement must be added to the current measurement so that the cumulative total movement of the shim is recorded. If the cumulative total movement measures 0.90 inch or more, before further flight, perform the actions specified in paragraph (d) of this AD. Or,

(2) Perform the actions specified in paragraphs (g) and (h) of this AD.

(d) If any laminated shim has moved 0.90 inch or more, before further flight, perform the actions specified in paragraphs (g) and (h) of this AD.

Inspection of Lower Mid-Spar Bolts

(e) For airplanes on which the actions specified in Boeing Alert Service Bulletin (ASB) 757-54A0039, dated November 2, 2000, have been accomplished prior to the effective date of this AD: Within 90 days after the effective date of this AD, perform a detailed inspection for cracking around the four bolt heads, nuts, washers, and radius fillers specified in Figure 9 of Boeing Alert Service Bulletin (ASB) 757-54A0039, Revision 1, dated June 20, 2002.

(1) If no cracking is found, repeat the detailed inspection at intervals not to exceed 3,000 flight cycles.

(2) If any cracking is found, 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 who has been authorized by the Manager, Seattle ACO, to make such findings. For a repair method to be approved, the approval must specifically reference this AD.

Optional Terminating Action

(f) Accomplishment of the actions specified in paragraphs (g) and (h) of this AD constitutes terminating action for the repetitive inspection requirements of this AD.

(g) Replace any laminated shim with a solid shim; replace existing sleevebolts with new, oversized sleevebolts; and perform a general visual and high-frequency eddy current (HFEC) inspection to detect cracking and deformation in the sleevebolt holes and in the fittings, as shown in Part II, Figure 3, of Boeing Alert Service Bulletin 757-54A0039, Revision 1, dated June 20, 2002. If any shim cannot be removed, or if any cracking or deformation is found: 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 who has been authorized by the Manager, Seattle ACO, to make such findings. For a repair to be approved, the approval must specifically reference this AD. No further action is required by this paragraph.

(h) Perform a one-time HFEC inspection for cracking in and around the bolt holes of the left and right side of the mid-bulkhead strut as shown in Part III, Figure 9, of Boeing Alert Service Bulletin (ASB) 757-54A0039, Revision 1, dated June 20, 2002.

(1) If no cracking is found during any inspection specified in paragraph (h) of this AD, before further flight, install oversized bolts per Figure 10 of the ASB. No further action is required by this AD.

(2) If any cracking is found during any inspection specified in paragraph (h) of this AD that is within the limits specified in the ASB: Before further flight, repair per the ASB.

(3) If any cracking is found during any inspection specified in paragraph (h) of this AD that is outside the limits specified by the ASB, and the ASB specifies to contact Boeing for appropriate action: 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 who has been authorized by the Manager, Seattle ACO, to make such findings. For a repair method to be approved, the approval must specifically reference this AD.

Alternative Methods of Compliance

(i) 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 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 Permits

(j) 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

(k) Unless otherwise specified in this AD, the actions shall be done in accordance with Boeing Alert Service Bulletin 757-54A0039, Revision 1, dated June 20, 2002. 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

(l) This amendment becomes effective on April 18, 2003.

Issued in Renton, Washington, on March 26, 2003.

Michael J. Kaszycki,

Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.

[FR Doc. 03-7748 Filed 4-2-03; 8:45 am]

BILLING CODE 4910-13-U