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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2008-0295; Directorate Identifier 2007-NM-298-AD; Amendment 39-16576; AD 2011-02-03]

RIN 2120-AA64

Airworthiness Directives; The Boeing Company Model 757 Airplanes

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

ACTION: Final rule.

SUMMARY: The FAA is adopting a new airworthiness directive (AD) for Model 757-200, -200PF, -200CB, and -300 series airplanes. This AD requires an inspection of the two spring arms in the spin brake assemblies in the nose wheel well to determine if the spring arms are made of aluminum or composite material, and repetitive related investigative/corrective actions if necessary. This AD also provides options for terminating the repetitive actions. This AD results from reports of cracked and broken aluminum springs. We are issuing this AD to detect and correct cracked or broken springs. A cracked or broken spring could separate from the airplane and result in potential hazard to persons or property on the ground, or ingestion into the engine with engine damage and potential shutdown, or damage to the airplane.

DATES: This AD becomes effective February 16, 2011.

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in the AD as of February 16, 2011.

ADDRESSES: For service information identified in this AD, contact Boeing Commercial Airplanes, Attention: Data & Services Management, P.O. Box 3707, MC 2H-65, Seattle, Washington 98124-2207; telephone 206-544-5000, extension 1; fax 206-766-5680; e-mail me.boecom@boeing.com; Internet https://www.myboeingfleet.com.

Examining the AD Docket

You may examine the AD docket on the Internet at http://www.regulations.gov; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this AD, the regulatory evaluation, any comments received, and other information. The address for the Docket Office (telephone 800-647-5527) is the Document

Management Facility, U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue, SE., Washington, DC 20590.

FOR FURTHER INFORMATION CONTACT: Steve Fox, Aerospace Engineer, Airframe Branch, ANM-120S, FAA, Seattle Aircraft Certification Office, 1601 Lind Avenue, SW., Renton, Washington 98057-3356; telephone (425) 917-6425; fax (425) 917-6590.

SUPPLEMENTARY INFORMATION:

Discussion

The FAA issued a supplemental notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 to include an AD that would apply to all Model 757-200, -200PF, -200CB, and -300 series airplanes. That supplemental NPRM was published in the Federal Register on October 19, 2009 (74 FR 53430). The original NPRM proposed to require an inspection of the two spring arms in the spin brake assemblies in the nose wheel well to determine if the spring arms are made of aluminum or composite material, and repetitive related investigative/corrective actions if necessary. The original NPRM also would have provided for optional terminating actions for the repetitive inspections. The supplemental NPRM proposed to require revising the original NPRM to include a parts installation paragraph and to provide options for terminating the repetitive actions.

Comments

We provided the public the opportunity to participate in the development of this AD. We have considered the comments received on the supplemental NPRM. Continental Airlines had no additional comments beyond what was previously submitted in the supplemental NPRM.

Request To Revise Delegation of Authority

Boeing requested that we revise the Delegation Option Authorization (DOA) holder to Boeing Commercial Airplanes Organization Designation Authorization (ODA) in paragraph (l)(3) of the supplemental NPRM.

We agree with Boeing's request to revise the delegation of authority. Boeing Commercial Airplanes has received an ODA, which replaces the previous designation as a DOA holder. We have revised paragraph (m)(3) of this AD (paragraph (l)(3) of the supplemental NPRM) to add delegation of authority to Boeing Commercial Airplanes ODA to approve an alternative method of compliance (AMOC) for any repair required by this AD.

Request To Revise the AD To Permit the Accomplishment of Paragraph (k) of this AD in a Shop Environment

American Airlines (AAL) requested that the supplemental NPRM permit the accomplishment of paragraph (j) of the supplemental NPRM, "Parts Installation," in a shop environment. AAL stated that paragraph (j) of the supplemental NPRM (paragraph (k) of this AD) presents several issues that need resolution. AAL stated that the Accomplishment Instructions of Boeing Special Attention Service Bulletin 757-32-0176, Revision 1, dated October 16, 2008, are applicable to an on-wing inspection with no provisions for shop instructions.

AAL also stated that paragraph 3.B.5.a. of Boeing Special Attention Service Bulletin 757-32-0176, Revision 1, dated October 16, 2008, contains multiple areas of concern. AAL stated that the service bulletin instructs operators to "Replace the left or right (as applicable) aluminum spring with a new aluminum spring in accordance with FIGURE 4 * * *." However, AAL stated that this figure provides instructions to replace the spring on-wing. AAL stated that it has processes in place by

which the spring assembly (141N0091-22) is reworked (to include any necessary spring replacement) in accordance with Boeing drawing data in a shop environment. AAL stated that the supplemental NPRM contains no provisions for accomplishing this spring replacement in a shop environment. AAL requested that the final rule contain appropriate language to allow operators to accomplish the intent of Figure 4 of the service bulletin in a shop environment.

We disagree with AAL's request to include language specifying that the accomplishment of paragraph (k) of this AD is permitted in a shop environment. Although the final installation of the spin brakes is required by this AD and installation may be accomplished in a shop environment, AD compliance is established for airplanes and not parts. AAL may perform shop maintenance provided that the AD is complied with and the airplane meets the requirements of this AD.

In addition, the service bulletin does not provide for inspections and replacement of parts in a shop environment where the installation of the spin brake assemblies could be accomplished off the airplane. The commenter does not provide sufficient suggestions to demonstrate and ensure that the corrected assemblies could be installed such that each affected airplane could demonstrate compliance. An operator may request approval of an alternative method of compliance (AMOC) in accordance with the provisions of paragraph (m) of this AD for brake assemblies that were re-worked off the airplane. No changes to the AD have been made in this regard.

Request To Allow Replacement of the Existing Spin Brake Assembly With a Serviceable Spin Brake Assembly

AAL stated that there is an omission from paragraph 3.B.5.a. of Boeing Special Attention Service Bulletin 757-32-0176, Revision 1, dated October 16, 2008. AAL stated that the paragraph allows replacement of the existing spin brake assembly with a new spin brake assembly in accordance with the Boeing 757 Airplane Maintenance Manual, but no provisions are made for installing a serviceable (used) spin brake.

From these comments we infer that AAL is requesting that we revise the final rule to also allow replacement of an existing spin brake assembly with a serviceable assembly. We agree with AAL that a serviceable spin brake assembly is acceptable for compliance. We have added paragraph (j) of this AD to allow replacement with a serviceable spin brake assembly if the assembly is inspected and all applicable related investigative and corrective actions have been applied in accordance with the requirements of paragraph (g) of this AD.

Request To Use Part Substitutions

AAL requested that we revise the supplemental NPRM to allow use of approved part substitutions for accomplishing the proposed actions. AAL stated that where common hardware such as washers, nuts, bolts, shims, sealants, and adhesives are specified in Boeing Special Attention Service Bulletin 757-32-0176, Revision 1, dated October 16, 2008, operators with accepted processes may use approved substitutes determined to be equivalent in accordance with the operator parts management systems. AAL stated that this will eliminate a duplication of effort for all parties, including the operators, Boeing, and the engineering branch of the Seattle Aircraft Certification Office by avoiding unnecessary requests for AMOCs to allow equivalent hardware.

AAL stated that many operators, including AAL, have an FAA-accepted process by which they combine certain parts that have been determined to be equivalent and are placed in inventory under a single company part number. AAL stated that this process is longstanding and is done to facilitate an efficient inventory system. AAL also stated that the parts disposition authority (PDA) for American Airlines is contained in the engineering procedures manual (EPM), which is incorporated into the general manual (GM). AAL stated that the GM is required by the FAA-approved operations specification. AAL stated that Section 15-20 of the EPM defines the process by which part equivalency can be established. The basis for equivalency is found in source documents provided by

the original equipment manufacturer (OEM), such as the Boeing Spec-2000, Boeing Document D-590, Boeing qualified product list (QPL), the applicable aircraft illustrated parts catalog (IPC), or industry standard specifications such as military specification (MS), National Aerospace Standards (NAS), Army Navy (AN), Society of Automotive Engineers (SAE), etc., or other qualified data provided by the OEM. AAL also stated that in any case where equivalency is clearly unambiguous, AAL engineering will use these and other FAA-approved sources such as OEM drawings, specifications, OEM correspondence, or parts manufacturer approval (PMA) authorizations to determine the interchangeability of parts. AAL stated that while some of the above documents have been included as notes in applicable service bulletins in order to provide equivalency, it has found a number of cases where, during accomplishment of an AD, there was not sufficient information provided to make that assessment.

We disagree with AAL's request to use part substitutions for accomplishing the actions in this AD. The requested list of substitute parts and materials is extensive and uncontrolled–and, in many cases, not FAA approved. An operator may request approval of an AMOC in accordance with the provisions of paragraph (m) of this AD. We have not changed this AD regarding this issue.

Request To Revise the Phrase ''Investigative and Corrective Actions''

Northwest Airlines (NWA) requested that we revise the phrase "investigative and corrective actions" in the supplemental NPRM. NWA stated that the use of the phrase "investigative and corrective actions" in paragraphs (g) and (j) of the supplemental NPRM may lead to confusion as to what action(s) in the service instructions are required. NWA proposed that the phrase be changed to "compliance action" in paragraph (g) of the supplemental NPRM, and that the phrase should be removed from paragraph (j) of the supplemental NPRM. NWA stated that the term "investigative and corrective actions" is not used in the service instructions and is not defined in the supplemental NPRM. NWA stated that in the process task flow of the service instructions, the "determination" or "investigation" of spring material type was identified earlier in paragraph (g) of the supplemental NPRM, and the tasks that remain to be accomplished are compliance actions (inspect or replace), and not investigative actions.

We disagree with NWA's request to revise the phrase "investigative and corrective actions." This terminology was defined in the Relevant Service Information section of the original NPRM. The "related investigative and corrective actions" include repetitive detailed and high frequency eddy current inspections for cracking of the aluminum spring arm, and the corrective action is replacing the spring arm with a new spring arm made of either aluminum or composite material. We have not changed this AD in this regard.

Request To Add a Note to the Supplemental NPRM

NWA also requested that a note be added to the supplemental NPRM stating that Parts 1 and 6 of the Accomplishment Instructions of Boeing Special Attention Service Bulletin 757-32-0176, Revision 1, dated October 16, 2008, are for operator use and compliance documentation is not required.

NWA stated that the FAA did not address its concern in a previous comment on the original NPRM. NWA stated that the FAA was clear on how operators perform access and restoration per the operators' normal maintenance, but the FAA may have missed the point that operators also have to retain technician sign-off of ADs as permanent records. NWA stated that if operators access and restore the area via other "normal maintenance routine work cards," the operators do not desire to maintain those other work cards just to comply with the retention of records aspect of rulemaking policy. NWA stated that the access and restoration are not part of the service instruction safety aspect that the FAA is trying to mitigate with this rulemaking. NWA stated that by placing a note in the AD that states that access/restoration is not part of the safety aspect of the rulemaking and that retention

of records is not required for access/restoration, operators would be permitted to not have separate access/restoration work cards.

We partially agree with the commenter's request to delete Parts 1 and 6 (access and close). As we clarified in the supplemental NPRM, Note 8 under paragraph 3.A. of the Accomplishment Instructions of Boeing Special Attention Service Bulletin 757-32-0176, Revision 1, dated October 16, 2008, gives provisions for operators to use accepted alternative procedures for actions specified in the Accomplishment Instructions when the words "refer to" are used. Those words are used in both Parts 1 and 6 of the Accomplishment Instructions of Boeing Special Attention Service Bulletin 757-32-0176, Revision 1, dated October 16, 2008. In addition, although these actions are necessary to accomplish the inspections, Boeing Special Attention Service Bulletin 757-32-0176, Revision 1, dated October 16, 2008, provides alternative methods for access and close-up, as defined in Notes 5 and 6 under paragraph 3.A. of the Accomplishment Instructions of Boeing Special Attention Service Bulletin 757-32-0176, Revision 1, dated October 16, 2008. Since the suggested note is already contained in the Accomplishment Instructions of the service bulletin, no additional notes are necessary in this AD.

We have changed paragraph (g) of this AD to limit the required actions to those specified only in Parts 2 through 5 of Boeing Special Attention Service Bulletin 757-32-0176, Revision 1, dated October 16, 2008.

Request To Revise the Initial Compliance Time

One commenter, Jennifer Owens, requested that we revise the initial compliance time. The commenter stated that the issue of cracked and broken aluminum springs has been known to the FAA since at least September 2007 (when the original Boeing "paperwork"–i.e., service information–was released). The commenter stated that under the original docket, published in March 2008, multiple parties requested that the rule be amended to refer to a later revision of "the Boeing paperwork." The commenter stated that this later revision of the "paperwork," according to the current proposed rule, was released on October 16, 2008. The commenter also stated that the new proposed rule was published on October 19, 2009, just over a year since Boeing revised its "paperwork."

The commenter suggested that the annual utilization rate of about 1,050 flight cycles is representative of how many Model 757 airplanes are used. The commenter stated that given this delay, and based on this utilization, operators have had the opportunity to skip three or four of the required 300-cycle inspections and are approaching the point where they may skip the first of the 1,500-cycle inspections. The commenter stated that because of this delay, and the fact that the FAA chose instead to re-open the comment period, it further delayed the release of the final rule by another 18 months. The commenter stated that if a delay of approximately 3 years is acceptable, then the inspection intervals of approximately 2-3 months and 18 months (based on the utilization contained above) are unnecessarily short. The commenter stated that if neither is true, then initial compliance times should be shortened to account for the delay in releasing the final rule.

We assume the commenter is referring to Boeing Special Attention Service Bulletin, 757-32-0176, dated September 10, 2007, as "the original Boeing paperwork," and Boeing Special Attention Service Bulletin 757-32-0176, Revision 1, dated October 16, 2008, as "the later revision of the Boeing paperwork." We disagree with the commenter's request to revise the initial compliance time. We have determined that having a terminating modification for the required inspections provides a higher level of safety than the reliance on continued re-inspection. Also, in developing an appropriate compliance time for this action, we considered the safety implications, parts availability, and normal maintenance schedules for the timely accomplishment of the modification. We have determined that the compliance time as proposed will ensure an acceptable level of safety and allow the modifications to be done during scheduled maintenance intervals for most affected operators. We have not changed this AD in this regard.

Explanation of Change Made to This AD

We have revised this AD to identify the legal name of the manufacturer as published in the most recent type certificate data sheet for the affected airplane models.

Conclusion

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

Explanation of Changes To Costs of Compliance

Since issuance of the NPRM, we have increased the labor rate used in the Costs of Compliance from $80 per work-hour to $85 per work-hour. The Costs of Compliance information, below, reflects this increase in the specified hourly labor rate.

Costs of Compliance

We estimate that this AD would affect 668 airplanes of U.S. registry. We also estimate that it would take about 1 work-hour per product to comply with this AD. The average labor rate is $85 per work-hour. Based on these figures, we estimate the cost of this proposed AD for U.S. operators to be $56,780, or $85 per product.

Authority for This Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII, Aviation Programs, describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in subtitle VII, part A, subpart III, section 44701, "General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

We have determined that this AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

(1) Is not a "significant regulatory action" under Executive Order 12866;

(2) Is not a "significant rule" under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979); and

(3) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

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

List of Subjects in 14 CFR Part 39

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

Adoption of the Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

PART 39–AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The Federal Aviation Administration (FAA) amends § 39.13 by adding the following new airworthiness directive (AD):

2011-02-03 The Boeing Company: Amendment 39-16576. Docket No. FAA-2008-0295; Directorate Identifier 2007-NM-298-AD.

Effective Date

(a) This AD becomes effective February 16, 2011.

Affected ADs

(b) None.

Applicability

(c) This AD applies to all The Boeing Company Model 757-200, -200PF, -200CB, and -300 series airplanes, certificated in any category.

Subject

(d) Air Transport Association (ATA) of America Code 32: Landing Gear.

Unsafe Condition

(e) This AD results from reports of cracked and broken aluminum springs. We are issuing this AD to detect and correct cracked or broken springs. A cracked or broken spring could separate from the airplane and result in potential hazard to persons or property on the ground, or ingestion into the engine with engine damage and potential shutdown, or damage to the airplane.

Compliance

(f) Comply with this AD within the compliance times specified, unless already done.

Inspections and Corrective Actions

(g) At the applicable time specified in paragraph 1.E., "Compliance," of Boeing Special Attention Service Bulletin 757-32-0176, Revision 1, dated October 16, 2008, except that where Boeing Special Attention Service Bulletin 757-32-0176, Revision 1, dated October 16, 2008, specifies a compliance time after the date "on this service bulletin," this AD requires compliance within the specified compliance time after the effective date of this AD: Do a general visual inspection to determine the material (aluminum or composite) of the two springs in the spin brake assemblies in the nose wheel well. A review of airplane maintenance records is acceptable in lieu of this inspection if the material can be conclusively determined from that review. At the applicable time specified in paragraph 1.E., "Compliance," of Boeing Special Attention Service Bulletin 757-32-0176, Revision 1, dated October 16, 2008, do all applicable related investigative and corrective actions, and all repetitive inspections thereafter in accordance with Parts 2 through 5 of the

Accomplishment Instructions of Boeing Special Attention Service Bulletin 757-32-0176, Revision 1, dated October 16, 2008; except as provided by paragraph (j) of this AD.

Optional Terminating Actions

(h) Replacing an aluminum spin brake assembly with a spin brake assembly made of composite material in accordance with Figure 5 of Boeing Special Attention Service Bulletin 757-32-0176, Revision 1, dated October 16, 2008, ends the repetitive inspections required by paragraph (g) of this AD for that spring.

(i) Replacing an aluminum spring with a spring made of corrosion-resistant steel (CRES), in accordance with Figure 6 of Boeing Special Attention Service Bulletin 757-32-0176, Revision 1, dated October 16, 2008, ends the repetitive inspections required by paragraph (g) of this AD for that spring.

Exception to the Service Bulletin: Using a Serviceable Spin Brake Assembly

(j) A serviceable spin brake assembly may be used to replace a cracked part, provided that it has been inspected and all applicable related investigative and corrective actions have been applied in accordance with the requirements of paragraph (g) of this AD.

Parts Installation

(k) As of the effective date of this AD, no person may install an aluminum spring on any airplane unless it has been inspected and all applicable related investigative and corrective actions have been applied in accordance with the requirements of paragraph (g) of this AD.

Credit for Previous Revision of Service Bulletin

(l) Actions done before the effective date of this AD in accordance with Boeing Special Attention Service Bulletin 757-32-0176, dated September 10, 2007, are acceptable for compliance with the corresponding requirements of this AD.

Alternative Methods of Compliance (AMOCs)

(m)(1) The Manager, Seattle Aircraft Certification Office (ACO), FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. Send information to ATTN: Steve Fox, Aerospace Engineer, Airframe Branch, ANM-120S, FAA, Seattle ACO, 1601 Lind Avenue, SW., Renton, Washington 98057-3356; telephone (425) 917-6425; fax (425) 917-6590; Or, e-mail information to 9-ANM-Seattle-ACO-AMOC-Requests@faa.gov.

(2) To request a different method of compliance or a different compliance time for this AD, follow the procedures in 14 CFR 39.19. Before using any approved AMOC on any airplane to which the AMOC applies, notify your principal maintenance inspector (PMI) or principal avionics inspector (PAI), as appropriate, or lacking a principal inspector, your local Flight Standards District Office. The AMOC approval letter must specifically reference this AD.

(3) An AMOC that provides an acceptable level of safety may be used for any repair required by this AD if it is approved by the Boeing Commercial Airplanes Organization Designation Authorization (ODA) that has been authorized by the Manager, Seattle ACO to make those findings. For a repair method to be approved, the repair must meet the certification basis of the airplane, and the approval must specifically refer to this AD.

Material Incorporated by Reference

(n) You must use Boeing Special Attention Service Bulletin 757-32-0176, Revision 1, dated October 16, 2008, to do the actions required by this AD, unless the AD specifies otherwise. If you accomplish the optional actions specified in this AD, you must use Boeing Special Attention Service Bulletin 757-32-0176, Revision 1, dated October 16, 2008, to perform those actions, unless the AD specifies otherwise.

(1) The Director of the Federal Register approved the incorporation by reference of this service information under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) For service information identified in this AD, contact Boeing Commercial Airplanes, Attention: Data & Services Management, P.O. Box 3707, MC 2H-65, Seattle, Washington 98124-2207; telephone 206-544-5000, extension 1; fax 206-766-5680; e-mail me.boecom@boeing.com; Internet https://www.myboeingfleet.com.

(3) You may review copies of the service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington. For information on the availability of this material at the FAA, call 425-227-1221.

(4) You may also review copies of the service information that is incorporated by reference 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.

Issued in Renton, Washington, on December 30, 2010.
Suzanne Masterson,
Acting Manager, Transport Airplane Directorate,
Aircraft Certification Service.