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[Page 42259-42262]
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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2008-0733; Directorate Identifier 2008-NM-114-AD; Amendment 39-15617; AD 2008-15-05]

RIN 2120-AA64

Airworthiness Directives; Boeing Model 737-300, -400, and -500 Series Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule; request for comments.

SUMMARY: We are adopting a new airworthiness directive (AD) for all Boeing Model 737-300, -400, and -500 series airplanes. This AD requires inspecting to determine if certain carriage spindles are installed, repetitive inspections for corrosion and indications of corrosion on affected carriage spindles, and if necessary, related investigative action and corrective action. This AD also provides optional terminating action. This AD results from a report of corrosion found on carriage spindles that are located on the outboard trailing edge flaps. We are issuing this AD to detect and correct corrosion of the carriage spindle, which could result in fracture. Fracture of both the inboard and outboard carriage spindles, in the forward ends through the large diameters, on a flap, could adversely affect the airplane's continued safe flight and landing.

DATES: This AD is effective August 5, 2008.

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of August 5, 2008.

We must receive comments on this AD by September 19, 2008.

ADDRESSES: You may send comments by any of the following methods:

- Federal eRulemaking Portal: Go to http://www.regulations.gov. Follow the instructions for submitting comments.
- Fax: 202-493-2251.
- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue, SE., Washington, DC 20590.
- Hand Delivery: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue, SE., Washington, DC 20590, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this AD, contact Boeing Commercial Airplanes, P.O. Box 3707, Seattle, Washington 98124-2207.

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 street address for the Docket Office (telephone 800-647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT: Nancy Marsh, Aerospace Engineer, Airframe Branch, ANM-120S, FAA, Seattle Aircraft Certification Office, 1601 Lind Avenue, SW., Renton, Washington 98057-3356; telephone (425) 917-6440; fax (425) 917-6590.

SUPPLEMENTARY INFORMATION:

Discussion

We received a report of corrosion found on carriage spindles that are located on the outboard trailing edge flaps. The affected carriages were overhauled after February 2006. The carriage sub-assembly had been replaced with a new carriage sub-assembly that had a high velocity oxy-fuel (HVOF) thermal coating applied to the spindle. The HVOF thermal coating had flaked off, exposing the base metal and allowing corrosion on the spindle. Boeing is examining parts returned from operators to find the cause of the coating flaking off. Corrosion of the carriage spindle, if not detected and corrected, could result in fracture of the spindle. One fractured carriage spindle on a flap can be compensated for with pilot inputs to the aileron or rudder, which increases pilot workload. Fracture of both the inboard and outboard carriage spindles, in the forward ends through the large diameters, on a single flap, could adversely affect the airplane's continued safe flight and landing.

Relevant Service Information

We reviewed Boeing Alert Service Bulletin 737-57A1304, dated June 2, 2008. The service bulletin describes procedures for:

- An inspection or maintenance records check to determine if a suspect carriage spindle with HVOF thermal coating is installed;
- Repetitive detailed inspections for corrosion and for potential indications of corrosion such as flaking metallic particles, disbonded sealant, or cracked paint or primer of the forward and aft ends of the affected carriage spindle (with the option to do a borescope inspection instead on the forward end only);
- Related investigative actions if potential or no indications of corrosion are found; and
- Corrective action if a corroded, cracked, or severed spindle is found.

The related investigative actions involve (1) removing the carriage to do a detailed inspection of the entire surface of the spindle for corrosion if potential indications of corrosion were found or (2) for airplanes on which no corrosion indications were found during the detailed or optional borescope inspection, doing repetitive gap checks for differential movement (with an option to do a non-destructive test (NDT) ultrasonic inspection) for cracking that could indicate a severed spindle. The corrective action involves replacing a corroded, cracked, or severed carriage spindle with a new or serviceable carriage spindle. The service bulletin also provides for an optional terminating action that involves replacing an HVOF-coated carriage spindle with a non-HVOF coated carriage spindle.

The service bulletin specifies a repetitive interval of 90 days for the detailed inspections (including optional borescope inspection) and a repetitive interval of 15 days or 150 flight cycles for the gap checks (including optional NDT ultrasonic inspections).

FAA's Determination and Requirements of This AD

We are issuing this AD because we evaluated all the relevant information and determined the unsafe condition described previously is likely to exist or develop in other products of the(se) same type design(s). This AD requires accomplishing the actions specified in the service information described previously, except as discussed under "Difference Between the AD and the Service Information."

Interim Action

This is considered to be interim action. The inspection reports that are required by this AD will enable the manufacturer to obtain better insight into the nature, cause, and extent of the discrepant HVOF coating, and eventually to develop final action to address the unsafe condition. Once final action has been identified, the FAA might consider further rulemaking.

FAA's Justification and Determination of the Effective Date

We received a report of corrosion found on carriage spindles that are located on the outboard trailing edge flaps. The HVOF coating on the affected carriage spindle had flaked off, exposing the base metal. Corrosion occurring on the exposed base metal can quickly lead to cracking and full fracture of the carriage spindle. Fracture of both the inboard and outboard carriage spindles, in the forward ends through the large diameters, on a single flap, could adversely affect the airplane's continued safe flight and landing. Because of our requirement to promote safe flight of civil aircraft and thus, the critical need to assure the structural integrity of the carriage spindle and the short compliance time involved with this action, this AD must be issued immediately.

Because an unsafe condition exists that requires the immediate adoption of this AD, we find 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

This AD is a final rule that involves requirements affecting flight safety, and we did not provide you with notice and an opportunity to provide your comments before it becomes effective. However, we invite you to send any written data, views, or arguments about this AD. Send your comments to an address listed under the ADDRESSES section. Include "Docket No. FAA-2008-0733; Directorate Identifier 2008- NM-114-AD" at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this AD. We will consider all comments received by the closing date and may amend this AD because of those comments.

We will post all comments we receive, without change, to http://www.regulations.gov, including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive about this AD.

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

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.

You can find our regulatory evaluation and the estimated costs of compliance in the AD Docket.

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 FAA amends § 39.13 by adding the following new AD:

2008-15-05 Boeing: Amendment 39-15617. Docket No. FAA-2008-0733; Directorate Identifier 2008-NM-114-AD.

Effective Date

(a) This airworthiness directive (AD) is effective August 5, 2008.

Affected ADs

(b) None.

Applicability

(c) This AD applies to all Boeing Model 737-300, -400, and -500 series airplanes, certificated in any category.

Unsafe Condition

(d) This AD results from a report of corrosion found on carriage spindles that are located on the outboard trailing edge flaps. We are issuing this AD to detect and correct corrosion of the carriage spindle, which could result in fracture. Fracture of both the inboard and outboard carriage spindles, in the forward ends through the large diameters, on a single flap, could adversely affect the airplane's continued safe flight and landing.

Compliance

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

Inspection To Determine Affected Carriage Spindle

(f) Within 30 days after the effective date of this AD, inspect the carriage sub-assembly to determine whether an affected carriage spindle with a high velocity oxy-fuel (HVOF) thermal coating is installed, in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 737-57A1304, dated June 2, 2008. A review of airplane maintenance records is acceptable in lieu of this inspection if the part number and/or serial number of the carriage can be conclusively determined from that review. If no affected carriage spindle is installed, no further action is required by this paragraph.

Repetitive Inspections, Related Investigative Actions, and Corrective Action

(g) For airplanes on which any affected carriage spindle is installed: At the later of the times specified in paragraphs (g)(1) and (g)(2) of this AD, do a detailed inspection (or, as an option for the forward end of the spindle only, a borescope inspection technique may be used) of the spindle for corrosion and potential indications of corrosion of the carriage spindle, and do all applicable related investigative and corrective actions, in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 737-57A1304, dated June 2, 2008. Do all applicable related investigative

actions and corrective actions before further flight. Repeat the detailed inspection (or, as an option for the forward end of the spindle only, the borescope inspection) and certain related investigative actions (i.e., the gap-check or optional non-destructive test (NDT) ultrasonic inspection) at the applicable compliance times specified in the service bulletin.

(1) Within 30 days after the effective date of this AD.

(2) Within 90 days after the installation of a new HVOF-coated spindle.

Note 1: Boeing Alert Service Bulletin 737-57A1304, dated June 2, 2008, references Boeing Alert Service Bulletin 737-57A1277, Revision 1, dated November 25, 2003, for further information on accomplishing the related investigative actions.

Inspection Report

(h) If any corrosion, cracking, or severed spindle is found during any inspection required by paragraph (g) of this AD: Within 10 days after the inspection, or within 10 days after the effective date of this AD, whichever occurs later, submit a report of the inspection results to the Manager, Airline Support, Boeing Commercial Airlines Group, as specified in Note 2 of paragraph 1.D., "Description," of Boeing Alert Service Bulletin 737-57A1304, dated June 2, 2008. Information collection requirements contained in this AD have been approved by the Office of Management and Budget (OMB) under the provisions of the Paperwork Reduction Act (44 U.S.C. 3501 et seq.) and have been assigned OMB Control Number 2120-0056.

Optional Terminating Action

(i) Replacement of an HVOF-coated carriage spindle with a non-HVOF coated carriage spindle in accordance with Boeing Alert Service Bulletin 737-57A1304, dated June 2, 2008, terminates the requirements of this AD for that carriage spindle only.

Parts Installation

(j) As of the effective date of this AD, an HVOF-coated spindle may be installed on an airplane provided the actions required by paragraph (g) of this AD are done on that spindle.

Alternative Methods of Compliance (AMOCs)

(k)(1) The Manager, Seattle ACO, FAA, ATTN: Nancy Marsh, Aerospace Engineer, Airframe Branch, ANM-120S, 1601 Lind Avenue, SW., Renton, Washington 98057-3356; telephone (425) 917-6440; fax (425) 917-6590; has the authority to approve AMOCs for this AD, if requested, using the procedures found in 14 CFR 39.19.

(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 appropriate principal inspector (PI) in the FAA Flight Standards District Office (FSDO), or lacking a PI, your local FSDO.

(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 an Authorized Representative for the Boeing Commercial Airplanes Delegation Option Authorization Organization who 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

(l) You must use Boeing Alert Service Bulletin 737-57A1304, dated June 2, 2008, to do the actions required by this AD, 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, P.O. Box 3707, Seattle, Washington 98124-2207.

(3) You may review copies of the service information incorporated by reference 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.

Issued in Renton, Washington, on July 10, 2008.

Ali Bahrami,

Manager, Transport Airplane Directorate, Aircraft Certification Service.

[FR Doc. E8-16483 Filed 7-18-08; 8:45 am]