[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2012-0673; Directorate Identifier 2012-NM-091-AD; Amendment 39-17109; AD 2012-13-07]

RIN 2120-AA64

Airworthiness Directives; The Boeing Company Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule; request for comments.

SUMMARY: We are adopting a new airworthiness directive (AD) for all The Boeing Company Model 737-100, -200, -200C, -300, -400, and -500 series airplanes. This AD requires inspecting parts or doing a records review to determine if certain trailing edge flap carriages are installed, doing repetitive inspections for corrosion, and flaking or missing thermal coating on suspect carriage spindles, and related investigative and corrective actions, if necessary; this AD also provides optional terminating action for the repetitive inspections. This AD was prompted by reports of corrosion found on carriage that are located on the outboard flaps. We are issuing this AD to detect and correct corrosion of the carriage spindle, which could result in a fracture; fracture of both the inboard and outboard carriage spindles, at the forward ends through the large diameters, on a single flap assembly, could adversely affect the continued safe flight and landing of the airplane.

DATES: This AD is effective [INSERT DATE 15 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of certain publications listed in the AD as of [INSERT DATE 15 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

We must receive comments on this AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, 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, 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; Internet https://www.myboeingfleet.com. You may review copies of the referenced 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.

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 (phone: 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; phone: (425) 917-6440; fax: (425) 917-6590; e-mail: Nancy.Marsh@faa.gov.

SUPPLEMENTARY INFORMATION:

Discussion

We received reports of corrosion found on carriages that are located on the outboard flaps. Each of the suspect carriages had accumulated fewer than 7,000 total flight cycles. The suspect carriages had tungsten-carbide-cobalt-chrome coating applied with high velocity oxygenated fuel (HVOF) thermal coating on the spindle. The HVOF thermal coating had flaked off the lower surface of the spindle, at the root of the spindle. Cracked, flaking, or missing thermal coating can lead to moisture ingress, which might begin corroding the alloy steel base metal. Corrosion pits in this area could create a stress concentration where a crack can start in the base metal, resulting in the inability of the carriage to sustain limit load. 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 (increasing pilot workload). However, fracture of both the inboard and outboard carriage spindles, at the forward ends through the large diameters, on a single flap, could adversely affect the continued safe flight and landing of the airplane.

Relevant Service Information

We reviewed Boeing Alert Service Bulletin 737-57A1319, dated April 16, 2012, as revised by Boeing Alert Service Bulletin 737-57A1319, Revision 1, dated June 6, 2012. This service information describes the following procedures.

- For all airplanes, inspection of parts or review of maintenance records to determine if a carriage, i.e., a carriage with HVOF thermal coating, is installed at wing butt line (WBL) 254 or WBL 355.
- For any suspect carriage or carriage with an unidentifiable part number (P/N): Repetitive detailed inspections for corrosion, missing, or flaking thermal coating on the forward end of the carriage spindle at the root (with the option to do a borescope inspection instead), and related investigative and corrective actions if necessary.
- Related investigative action is a detailed inspection for corrosion inhibiting compound (CIC) coverage on the lower surface of the spindle at the root.
- The corrective actions include applying or reapplying CIC, and replacing the suspect carriage with a new or serviceable carriage.
- Replacement of the suspect carriage with a new or serviceable non-HVOF thermal coated carriage eliminates the need for the repetitive inspections for that carriage only.

FAA's Determination

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 same type design.

AD Requirements

This AD requires accomplishing the actions specified in the service information described previously.

Interim Action

We consider this AD interim action. The manufacturer is currently developing a modification that will address the unsafe condition identified in this AD. Once this modification is developed, approved, and available, we might consider additional rulemaking.

FAA's Justification and Determination of the Effective Date

An unsafe condition exists that requires the immediate adoption of this AD. The FAA has found that the risk to the flying public justifies waiving notice and comment prior to adoption of this rule because 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 continued safe flight and landing of the airplane. 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. Therefore, we find that notice and opportunity for prior public comment 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 was not preceded by notice and an opportunity for public comment. 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 the docket number FAA-2012-0673 and Directorate Identifier 2012-NM-091-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.

Costs of Compliance

We estimate that this AD affects 494 airplanes of U.S. registry.

We estimate the following costs to comply with this AD:

Estimated costs

Action	Labor cost	Parts cost	Cost per product	Number of U.S. Operators	Cost on U.S. operators
Inspection or records review to determine installation of suspect carriage	1 work-hour X $85 per hour = $85	$0	$85	494	$41,990

We estimate the following costs to do any necessary actions that would be required based on the results of the inspection. We have no way of determining the number of aircraft that might need these actions.

On-condition costs

Action	Labor cost	Parts cost	Cost per product
Inspection of suspect carriages	3 work-hours X $85 per hour = $255 per inspection cycle	$0	$255 per inspection cycle
Replacement of carriage spindle, per spindle (four spindles per airplane)	17 work-hours X $85 per hour = $1,445	We have received no definitive data that would enable us to provide a cost estimate for parts necessary for the replacement specified in this AD.	$1,445

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),

(3) Will not affect intrastate aviation in, and

(4) 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.

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 airworthiness directive (AD):

2012-13-07 The Boeing Company: Amendment 39-17109; Docket No. FAA-2012-0673; Directorate Identifier 2012-NM-091-AD.

(a) Effective Date

This AD is effective [INSERT DATE 15 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

This AD affects AD 2011-04-10, Amendment 39-16609 (76 FR 9498, February 18, 2011).

(c) Applicability

This AD applies to all The Boeing Company Model 737-100, -200, -200C, -300, -400, and -500 series airplanes, certificated in any category.

(d) Subject

Joint Aircraft System Component (JASC)/Air Transport Association (ATA) of America Code 57, Wings.

(e) Unsafe Condition

This AD was prompted by reports of corrosion found on carriage spindles that are located on the outboard flaps. We are issuing this AD to detect and correct corrosion of the carriage spindle, which could result in a fracture; fracture of both the inboard and outboard carriage spindles, at the forward ends through the large diameters, on a single flap, could adversely affect the continued safe flight and landing of the airplane.

(f) Compliance

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

(g) Inspection to Determine Suspect Carriage Spindle

Within 90 days after the effective date of this AD, do an inspection of the part or a records review to determine whether a suspect carriage with a high velocity oxygenated fuel (HVOF) thermal coating is installed at wing butt line (WBL) 254 or WBL 355, in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 737-57A1319, dated April 16, 2012, as revised by Boeing Alert Service Bulletin 737-57A1319, Revision 1, dated June 6, 2012. If no suspect carriage is installed, no further action is required by this paragraph.

(h) Repetitive Inspections, Related Investigative Actions, and Corrective Action

(1) For airplanes on which any suspect carriage is installed, or if the part number of the carriage cannot be determined: Within 90 days after the effective date of this AD, or within 180 days after installation of a suspect carriage, whichever occurs later, do a detailed or borescope inspection of the forward end of the carriage spindle for corrosion and flaking and missing thermal coating, and do all applicable related investigative and corrective actions, in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 737-57A1319, dated April 16, 2012, as revised by Boeing Alert Service Bulletin 737-57A1319, Revision 1, dated June 6, 2012. Do all applicable related investigative and corrective actions before further flight. Repeat the detailed or borescope inspection thereafter at intervals not to exceed 180 days.

(2) For the purposes of this AD, a "serviceable part" can be either a suspect part (i.e., a carriage with HVOF thermal coating) or a non-suspect part (i.e., a carriage that does not have HVOF thermal coating).

(i) Optional Terminating Action

Replacement of a suspect carriage with a new or serviceable carriage without HVOF thermal coating, in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 737-57A1319, dated April 16, 2012, as revised by Boeing Alert Service Bulletin 737-57A1319, Revision 1, dated June 6, 2012, terminates the requirements of paragraph (h) of this AD for that carriage spindle only.

(j) Parts Installation

As of the effective date of this AD, a serviceable HVOF-coated carriage may not be installed on an airplane unless the actions required by paragraph (h)(1) of this AD are done on that carriage prior to installation.

(k) Credit for Previous Actions

This paragraph provides credit for the inspections required by paragraphs (g) and (h) of this AD, and the replacement specified in paragraph (i) of this AD, if those actions were performed before the effective date of this AD using Boeing Alert Service Bulletin 737-57A1319, dated April 16, 2012.

(l) Alternative Methods of Compliance (AMOCs)

(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. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the ACO, send it to the attention of the person identified in the Related Information section of this AD. Information may be e-mailed to: 9-ANM-Seattle-ACO-AMOC-Requests@faa.gov.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(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.

(4) The inspection required by paragraph (h) of this AD may be used as an AMOC for the initial and repetitive detailed or borescope inspections required by paragraphs (h) and (i) of AD 2011-04-10, Amendment 39-16609 (76 FR 9498, February 18, 2011), provided the inspections are accomplished at the compliance times required by that AD.

(m) Related Information

For more information about this AD, contact Nancy Marsh, Aerospace Engineer, Airframe Branch, ANM-120S, FAA, Seattle Aircraft Certification Office, 1601 Lind Avenue SW., Renton, Washington 98057-3356; phone: (425) 917-6440; fax: (425) 917-6590; e-mail: Nancy.Marsh@faa.gov.

(n) Material Incorporated by Reference

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

(2) You must use the following service information to do the actions required by this AD, unless the AD specifies otherwise.

(i) Boeing Alert Service Bulletin 737-57A1319, dated April 16, 2012.

(ii) Boeing Alert Service Bulletin 737-57A1319, Revision 1, dated June 6, 2012.

(3) 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; Internet https://www.myboeingfleet.com.

(4) 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.

(5) 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 an NARA facility, 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 June 21, 2012.

John P. Piccola,
Acting Manager,
Transport Airplane Directorate,
Aircraft Certification Service.

[FR Doc. 2012-15898 Filed 06/29/2012 at 8:45 am; Publication Date: 07/02/2012]