

## DEPARTMENT OF TRANSPORTATION

### Federal Aviation Administration

#### 14 CFR Part 39

[Docket No. FAA-2009-1026; Directorate Identifier 2009-NM-197-AD; Amendment 39-16084; AD 2009-23-10]

RIN 2120-AA64

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

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

**ACTION:** Final rule; request for comments.

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**SUMMARY:** The FAA is superseding an existing airworthiness directive (AD) that applies to all Boeing Model 737-300, -400, and -500 series airplanes. The existing AD currently 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 and corrective actions. The existing AD also provides optional terminating action. For certain airplanes, this new AD would reinstate the requirements of the existing AD. This AD results from the exclusion of certain carriage spindles from the requirements of the existing AD, and additional reports 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 becomes effective November 24, 2009.

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in the AD as of November 24, 2009.

On August 5, 2008 (73 FR 42259, July 21, 2008), the Director of the Federal Register approved the incorporation by reference of a certain other publication listed in the AD.

We must receive any comments on this AD by December 24, 2009.

**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, 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 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**

On July 10, 2008, we issued AD 2008-15-05, amendment 39-15617 (73 FR 42259, July 21, 2008). That AD applies to all Boeing Model 737-300, -400, and -500 series airplanes. That 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. That AD also provides optional terminating action. That AD resulted from a report of corrosion found on carriage spindles that are located on the outboard trailing edge flaps. The actions specified in that AD are intended 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.

#### **Actions Since Existing AD Was Issued**

Since we issued AD 2008-15-05, we approved an alternative method of compliance (AMOC), dated December 8, 2008, to exclude certain carriage spindle serial numbers from the inspection requirements. This approval was given based on information received from Boeing indicating that only one supplier of the carriage spindles produced discrepant coatings, and that the carriages produced by the second supplier did not have this unsafe condition.

Subsequent to the AMOC approval, we were advised that the carriages produced by the second supplier may have been incorrectly finished, leading to over-grinding of the high velocity oxy-fuel (HVOF) coating on the spindle. The over-grinding of the HVOF coating leads to exposure of the base metal, which is susceptible to corrosion. We also received additional reports of corrosion found on the carriage spindles that were excluded from the inspection requirements in the existing AD. Investigation of those carriage spindles revealed that discrepant surface finishing of the HVOF coating during the production process had exposed the base metal. The exposed base metal is susceptible to corrosion.

Subsequently, we have determined that it is necessary to reinstate the inspections of certain carriage spindles because those spindles are subject to the same unsafe condition.

## Relevant Service Information

We have reviewed Boeing Service Bulletin 737-57A1304, Revision 1, dated August 11, 2009. (We referred to Boeing Alert Service Bulletin 737-57A1304, dated June 2, 2008, as the appropriate source of service information for accomplishing the required actions of AD 2008-15-05.) The actions specified in Revision 1 are essentially identical to those in Boeing Alert Service Bulletin 737-57A1304, dated June 2, 2008. Revision 1 references the effect of the AMOC letter discussed previously and adds a new table (Table 3) to reflect certain serial numbers that also are subject to the unsafe condition, but were excluded from the inspection requirements under the AMOC discussed previously.

## FAA's Determination and Requirements of This AD

The unsafe condition described previously is likely to exist or develop on other airplanes of the same type design. For this reason, we are issuing this AD to supersede AD 2008-15-05. This new AD retains certain requirements of the existing AD. This AD would also require accomplishing the actions specified in the Relevant Service Information described previously.

## Interim Action

We consider this AD interim action. We are currently considering requiring replacement of all HVOF-coated carriage spindles, which will constitute terminating action for the repetitive inspections required by this AD. However, the planned compliance time for the replacement would allow enough time to provide notice and opportunity for prior public comment on the merits of the replacement.

## Change to Existing AD

This AD would retain certain requirements of AD 2008-15-05; however, the inspection report required by paragraph (h) of the existing AD is not required by this AD.

Since AD 2008-15-05 was issued, a new paragraph (d) was added to provide the Air Transport Association (ATA) of America subject code. This code was added to make this AD parallel with other new AD actions.

Since AD 2008-15-05 was issued, the AD format has been revised, and certain paragraphs have been rearranged. As a result, the corresponding paragraph identifiers have changed in this AD, as listed in the following table:

**Revised Paragraph Identifiers**

<b>Requirement in AD 2008-15-05</b>	<b>Corresponding requirement in this AD</b>
paragraph (d)	paragraph (e)
paragraph (e)	paragraph (f)
paragraph (f)	paragraph (g)
paragraph (g)	paragraph (h)
paragraph (i)	paragraph (j)
paragraph (j)	paragraph (k)

## FAA's Justification and Determination of the Effective Date

We received additional reports of corrosion found on carriage spindles that are located on the outboard trailing edge flaps and were removed from the inspection requirements in the existing AD. Investigation of those carriage spindles revealed that discrepant surface finishing of the HVOF coating done during the production process had exposed the base metal. The exposed base metal is susceptible to corrosion. 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-2009-1026; Directorate Identifier 2009-NM-197-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

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 the regulation:

1. Is not a "significant regulatory action" under Executive Order 12866;
2. Is not a "significant rule" under the 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 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. The FAA amends § 39.13 by removing amendment 39-15617 (73 FR 42259, July 21, 2008) and adding the following new AD:



**2009-23-10 Boeing:** Docket No. FAA-2009-1026; Directorate Identifier 2009-NM-197-AD; Amendment 39-16084.

**Effective Date**

(a) This AD becomes effective November 24, 2009.

**Affected ADs**

(b) This AD supersedes AD 2008-15-05, Amendment 39-15617.

**Applicability**

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

**Subject**

(d) Air Transport Association (ATA) of America Code 57: Wings.

**Unsafe Condition**

(e) This AD results from the exclusion of certain carriage spindles from the requirements of the existing AD, and additional reports of corrosion found on carriage spindles that are located on the outboard trailing edge flaps. The Federal Aviation Administration is 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.

**Compliance**

(f) You are responsible for having the actions required by this AD performed within the compliance times specified, unless the actions have already been done.

**Restatement of Requirements of AD 2008-15-05, With New Service Information**

*Inspection To Determine Affected Carriage Spindle*

(g) For all airplanes: Within 30 days after August 5, 2008 (the effective date of AD 2008-15-05), 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*

(h) For airplanes on which any affected carriage spindle was determined to be installed in accordance with Boeing Alert Service Bulletin 737-57A1304, dated June 2, 2008, as of the effective date of this AD; and the spindle is identified in Table 2 of Boeing Service Bulletin 737-57A1304, Revision 1, dated August 11, 2009: At the later of the times specified in paragraphs (h)(1) and (h)(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; or Boeing Service Bulletin 737-57A1304, Revision 1, dated August 11, 2009. Do all applicable related investigative 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 paragraph 1.E. of Boeing Alert Service Bulletin 737-57A1304, dated June 2, 2008; or Boeing Service Bulletin 737-57A1304, Revision 1, dated August 11, 2009.

(1) Within 30 days after August 5, 2008.

(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; and Boeing Service Bulletin 737-57A1304, Revision 1, dated August 11, 2009; reference Boeing Alert Service Bulletin 737-57A1277, Revision 1, dated November 25, 2003; for further guidance on accomplishing the related investigative actions.

**New Requirements of This AD**

*Repetitive Inspections, Related Investigative Actions, and Corrective Action for Certain Airplanes*

(i) For airplanes on which a carriage spindle having a serial number identified in Table 3 of Appendix A of Boeing Service Bulletin 737-57A1304, Revision 1, dated August 11, 2009, is installed: At the latest of the times specified in paragraphs (i)(1), (i)(2), and (i)(3) of this AD, as applicable, 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 Service Bulletin 737-57A1304, Revision 1, dated August 11, 2009. Do all applicable related investigative 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 related investigative actions (i.e., the gap-check or optional NDT ultrasonic inspection) at the applicable compliance times specified in paragraph 1.E. of Boeing Service Bulletin 737-57A1304, Revision 1, dated August 11, 2009.

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

(2) Within 90 days after the installation of a new HVOF-coated spindle identified in Table 3 of Appendix A of Boeing Service Bulletin 737-57A1304, Revision 1, dated August 11, 2009.

(3) Within 90 days after doing an inspection in accordance with Boeing Alert Service Bulletin 737-57A1304, dated June 2, 2008.

*Optional Terminating Action*

(j) Replacement of an HVOF-coated carriage spindle with a non-HVOF coated carriage spindle, or with a serviceable HVOF-coated carriage spindle with an 'R' suffix on the serial number, in

accordance with Boeing Alert Service Bulletin 737-57A1304, dated June 2, 2008; or Boeing Service Bulletin 737-57A1304, Revision 1, dated August 11, 2009; terminates the requirements of this AD for that carriage spindle only.

### *Parts Installation*

(k) As of August 5, 2008, an HVOF-coated spindle without an 'R' suffix on the serial number may be installed on an airplane provided the actions required by paragraph (h) or (i) of this AD, as applicable, are done on that spindle.

### *Alternative Methods of Compliance (AMOCs)*

(1)(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: Nancy Marsh, Aerospace Engineer, Airframe Branch, ANM-120S, FAA, Seattle ACO, 1601 Lind Avenue, SW., Renton, Washington 98057-3356; telephone (425) 917-6440; 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 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.

(4) AMOCs approved previously in accordance with AD 2008-15-05, are not approved as AMOCs for this AD.

### *Material Incorporated by Reference*

(m) You must use Boeing Alert Service Bulletin 737-57A1304, dated June 2, 2008; and Boeing Service Bulletin 737-57A1304, Revision 1, dated August 11, 2009; as applicable; 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 Boeing Service Bulletin 737-57A1304, Revision 1, dated August 11, 2009, under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) The Director of the Federal Register previously approved the incorporation by reference of Boeing Alert Service Bulletin 737-57A1304, dated June 2, 2008, on August 5, 2008 (73 FR 42259, July 21, 2008).

(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; e-mail me.boecom@boeing.com; 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 or 425-227-1152.

(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 NARA, call 202-741-6030, or go to: [http://www.archives.gov/federal\\_register/code\\_of\\_federal\\_regulations/ibr\\_locations.html](http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html).

Issued in Renton, Washington, on October 26, 2009.  
Stephen P. Boyd,  
Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.  
[FR Doc. E9-26581 Filed 11-6-09; 8:45 am]

SUPERSEDED