

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):

**2006-03-11 BAE Systems (Operations) Limited (Formerly British Aerospace Regional Aircraft):** Amendment 39-14475. Docket No. FAA-2006-23799; Directorate Identifier 2004-NM-141-AD.

#### Effective Date

(a) This AD becomes effective February 24, 2006.

#### Affected ADs

(b) None.

#### Applicability

(c) This AD applies to all BAE Systems (Operations) Limited Model HS 748 series 2A and series 2B airplanes, certificated in any category.

#### Unsafe Condition

(d) This AD results from incidents where an elevator gust lock re-engaged without input from the flightcrew, and may have caused a flight control restriction. We are issuing this AD to prevent uncommanded re-engagement of the elevator gust lock, which could result in restriction of the elevator's movement and consequent reduced controllability of the airplane.

#### Compliance

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

#### Installation and Repetitive Inspections

(f) Within 9 months after the effective date of this AD, install a baulking actuator system for the elevator gust lock in accordance with the Accomplishment Instructions of BAE Systems (Operations) Limited Service Bulletin HS748-27-135, Revision 2, dated October 2, 2003.

**Note 1:** BAE Systems (Operations) Limited Service Bulletin HS748-27-135, Revision 2, dated October 2, 2003, refers to BAE Systems (Operations) Limited Alert Service Bulletin HS748-A27-128, Revision 1, dated December 10, 2002; and BAE Systems (Operations) Limited Service Bulletin HS748-A27-76, Revision 3, dated December 20, 1996; as additional sources of service information for doing the installation.

(g) At the later of the times specified in paragraphs (g)(1) or (g)(2), test the actuator system for correct operation in accordance with Appendix 2 of BAE Systems (Operations) Limited Service Bulletin HS748-27-135, Revision 2, dated October 2, 2003. Repeat the inspection thereafter at intervals not to exceed 750 flight hours or 240 days, whichever occurs first. Correct any operation errors before further flight in accordance with a method approved by the FAA or the Civil Aviation Authority (CAA) (or its delegated agent).

(1) 750 flight hours or 240 days after installation of the actuator system, whichever occurs first.

(2) 750 flight hours or 240 days after the effective date of this AD, whichever occurs first.

#### Inspection of Any Installation Done in Accordance With Older Service Bulletin

(h) For airplanes with a baulking actuator system installed in accordance with the Accomplishment Instructions of BAE Systems (Operations) Limited Service Bulletin HS748-27-135, Revision 1, dated December 10, 2002: Within 750 flight hours or 240 days after the effective date of this AD, whichever occurs first, do the actions specified in paragraphs (h)(1) and (h)(2) of this AD.

(1) Do a general visual inspection of the actuator system for correct wiring in accordance with the Accomplishment Instructions of BAE Systems (Operations) Limited Service Bulletin HS748-27-135, Revision 2, dated October 2, 2003. Reroute any wiring as applicable before further flight in accordance with the service bulletin.

(2) Do a functional test of the actuator system in accordance with Appendix 1 of BAE Systems (Operations) Limited Service Bulletin HS748-27-135, Revision 2, dated October 2, 2003.

**Note 2:** For the purposes of this AD, a general visual inspection is: "A visual examination of an interior or exterior area, installation, or assembly to detect obvious damage, failure, or irregularity. This level of inspection is made from within touching distance unless otherwise specified. A mirror may be necessary to ensure visual access to all surfaces in the inspection area. This level of inspection is made under normally available lighting conditions such as daylight, hangar lighting, flashlight, or droplight and may require removal or opening of access panels or doors. Stands, ladders, or platforms may be required to gain proximity to the area being checked."

#### Previous Actions

(i) Actions done before the effective date of this AD in accordance with BAE Systems (Operations) Limited Service Bulletin HS748-27-135, Revision 1, dated December 10, 2002, are considered acceptable for compliance with paragraphs (f) and (g) of this AD.

#### Alternative Methods of Compliance (AMOCs)

(j)(1) The Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA, has the authority to approve AMOCs for this AD, if requested in accordance with the procedures found in 14 CFR 39.19.

(2) Before using any AMOC approved in accordance with § 39.19 on any airplane to which the AMOC applies, notify the appropriate principal inspector in the FAA Flight Standards Certificate Holding District Office.

#### Related Information

(k) British airworthiness directives G-2004-0002, dated February 18, 2004, and 003-12-2002, also address the subject of this AD.

#### Material Incorporated by Reference

(l) You must use BAE Systems (Operations) Limited Service Bulletin HS748-27-135, Revision 2, dated October 2, 2003, to perform the actions that are required by this AD, unless the AD specifies otherwise. The Director of the Federal Register approved the incorporation by reference of this document in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Contact British Aerospace Regional Aircraft American Support, 13850 Mclearen Road, Herndon, Virginia 20171, for a copy of this service information. You may review copies at the Docket Management Facility, U.S. Department of Transportation, 400 Seventh Street SW., room PL-401, Nassif Building, Washington, DC; on the Internet at <http://dms.dot.gov>; or at the National Archives and Records Administration (NARA). For information on the availability of this material at the 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 January 26, 2006.

**Ali Bahrami,**

Manager, Transport Airplane Directorate, Aircraft Certification Service.

[FR Doc. 06-1149 Filed 2-8-06; 8:45 am]

**BILLING CODE 4910-13-P**

## DEPARTMENT OF TRANSPORTATION

### Federal Aviation Administration

#### 14 CFR Part 39

[Docket No. FAA-2005-22503; Directorate Identifier 2005-NM-062-AD; Amendment 39-14477; AD 2006-03-13]

RIN 2120-AA64

#### Airworthiness Directives; McDonnell Douglas Model DC-10-10, DC-10-10F, DC-10-15, DC-10-30, DC-10-30F (KC-10A and KDC-10), DC-10-40, DC-10-40F, MD-10-10F, MD-10-30F, MD-11, and MD-11F Airplanes

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

**ACTION:** Final rule.

**SUMMARY:** The FAA is adopting a new airworthiness directive (AD) for certain McDonnell Douglas transport category airplanes. This AD requires an initial ultrasonic inspection for cracks of the studbolts of the inboard and outboard hinge fittings of the left and right outboard flaps of the wings. Based on the inspection results, this AD also requires doing repetitive ultrasonic inspections, replacing upper and/or lower studbolts with new or serviceable studbolts, doing a detailed inspection for corrosion of the upper studbolts, doing a magnetic particle inspection for

cracks of studbolts, and changing the protection treatment; as applicable. This AD results from reports of corrosion and failures of the upper and lower studbolts of the outboard flaps inboard and outboard hinge fittings. We are issuing this AD to prevent corrosion and subsequent cracking of studbolts, which could result in failure of the flap hinge fittings and their possible separation from the wing rear spar, and consequent reduced controllability of the airplane.

**DATES:** This AD becomes effective March 16, 2006.

The Director of the Federal Register approved the incorporation by reference of certain publications listed in the AD as of March 16, 2006.

**ADDRESSES:** You may examine the AD docket on the Internet at <http://dms.dot.gov> or in person at the Docket Management Facility, U.S. Department of Transportation, 400 Seventh Street SW., Nassif Building, Room PL-401, Washington, DC.

Contact Boeing Commercial Airplanes, Long Beach Division, 3855 Lakewood Boulevard, Long Beach, California 90846, Attention: Data and Service Management, Dept. C1-L5A (D800-0024), for service information identified in this AD.

**FOR FURTHER INFORMATION CONTACT:** Maureen Moreland, Aerospace Engineer, Airframe Branch, ANM-120L, FAA, Los Angeles Aircraft Certification Office, 3960 Paramount Boulevard, Lakewood, California 90712-4137; telephone (562) 627-5238; fax (562) 627-5210.

**SUPPLEMENTARY INFORMATION:**

**Examining the Docket**

You may examine the airworthiness directive (AD) docket on the Internet at <http://dms.dot.gov> or in person at the Docket Management Facility office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The Docket Management Facility office (telephone (800) 647-5227) is located on the plaza level of the Nassif Building at the street address stated in the **ADDRESSES** section.

**ADDRESSES** section.

**Discussion**

The FAA issued a notice of proposed rulemaking (NPRM) to amend 14 CFR

part 39 to include an AD that would apply to certain McDonnell Douglas Model DC-10-10, DC-10-10F, DC-10-15, DC-10-30, DC-10-30F (KC-10A and KDC-10), DC-10-40, DC-10-40F, MD-10-10F, MD-10-30F, MD-11, and MD-11F airplanes. That NPRM was published in the **Federal Register** on September 22, 2005 (70 FR 55598). That NPRM proposed to require an initial ultrasonic inspection for cracks of the studbolts of the inboard and outboard hinge fittings of the left and right outboard flaps of the wings. Based on the inspection results, that NPRM also proposed to require doing repetitive ultrasonic inspections, replacing upper and/or lower studbolts with new or serviceable studbolts, doing a detailed inspection for corrosion of the upper studbolts, doing a magnetic particle inspection for cracks of studbolts, and changing the protection treatment; as applicable.

**Comments**

We provided the public the opportunity to participate in the development of this AD. We have considered the comments received.

**Request To Consider Parts Availability**

One commenter requests that we consider parts availability before setting an effective date for the AD. The commenter states that there are no kits available to do the proposed replacement. The commenter also states that most quantities of studbolts are minimal (less than 50 available) with additional orders coming in from suppliers in the first half of 2006.

We agree to consider parts availability, but do not agree that there is a shortage of parts. The AD specifies several options for continued operation with existing studbolts that are found not to be cracked. Options include installing new bolts with increased corrosion protections; treating existing studbolts with corrosion protection in accordance with a method approved by us; and replacing the studbolts with equivalent studbolts with follow-on repetitive inspections.

In addition, the airplane manufacturer has informed us that they have developed corrosion protection

methodologies and will pursue approval from us once the final rule is issued. We will support this effort. The airplane manufacturer also has informed us that they are scheduled to receive studbolts in March of 2006 to support the required replacement of failed studbolts. For operators that initiate a program to replace all the studbolts as terminating action, the airplane manufacturer recommends placing a specific purchase order for the part numbers and quantities of studbolts required, along with a time frame that supports their replacement program.

In light of these findings, we have determined that no change to the final rule is necessary.

**Clarification of Alternative Method of Compliance (AMOC) Paragraph**

We have revised this action to clarify the appropriate procedure for notifying the principal inspector before using any approved AMOC on any airplane to which the AMOC applies.

**Clarification of Replacement**

In paragraph (j)(4) of the NPRM, we inadvertently omitted the reference to the service bulletin. We have revised that paragraph to include the phrase "in accordance with the service bulletin."

**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 change described previously. We have determined that this change will neither increase the economic burden on any operator nor increase the scope of the AD.

**Costs of Compliance**

There are about 594 airplanes of the affected design in the worldwide fleet. This AD will affect about 297 U.S.-registered Model DC-10-10, DC-10-10F, DC-10-15, DC-10-30, DC-10-30F (KC-10A and KDC-10), DC-10-40, DC-10-40F, MD-10-10F, and MD-10-30F airplanes; and 69 Model MD-11 and -11F airplanes.

**ESTIMATED COSTS FOR REQUIRED ACTIONS**

Action	Work hours	Average labor rate per hour	Parts	Cost per airplane	Number of U.S.-registered airplanes	Fleet cost
Initial ultrasonic inspection .....	16	\$65	None .....	\$1,040	366	\$380,640

**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):

**2006-03-13 McDonnell Douglas:**  
 Amendment 39-14477. Docket No. FAA-2005-22503; Directorate Identifier 2005-NM-062-AD.

**Effective Date**

- (a) This AD becomes effective March 16, 2006.

**Affected ADs**

- (b) None.

**Applicability**

- (c) This AD applies to McDonnell Douglas airplanes identified in Table 1 of this AD, certificated in any category.

TABLE 1.—APPLICABILITY

Model—	As identified in—
(1) DC-10-10, DC-10-10F, DC-10-15, DC-10-30, DC-10-30F (KC-10A and KDC-10), DC-10-40, DC-10-40F, MD-10-10F and MD-10-30F airplanes.	Boeing Service Bulletin DC10-57-154, dated February 2, 2005.
(2) MD-11 and MD-11F airplanes .....	Boeing Service Bulletin MD11-57-076, dated February 2, 2005.

**Unsafe Condition**

(d) This AD was prompted by reports of corrosion and failures of the upper and lower studbolts of the outboard flaps inboard and outboard hinge fittings. We are issuing this AD to prevent corrosion and subsequent cracking of studbolts, which could result in failure of the flap hinge fittings and their possible separation from the wing rear spar, and consequent reduced controllability of the airplane.

**Compliance**

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

**Service Bulletins**

(f) The term "service bulletin," as used in this AD, means the Accomplishment

Instructions of the applicable service bulletin listed in Table 1 of this AD.

**Ultrasonic Inspection**

(g) Do an ultrasonic inspection for cracks of the upper and lower studbolts (upper studbolts only for Model MD-11 and -11F airplanes) of the inboard and outboard hinge fittings of the left and right outboard flaps of the wings, in accordance with the service bulletin. Inspect within 72 months from the time the studbolts were last replaced, or within 24 months after the effective date of this AD, whichever occurs later.

**Condition 1: No Cracked Studbolts**

(h) If no cracked upper or lower studbolt is detected during any ultrasonic inspection required by paragraph (g) of this AD, do the actions specified in paragraph (i), (j), or (k) of this AD.

**Condition 1, Option 1: Repetitive Inspections**

(i) Repeat the ultrasonic inspection required by paragraph (g) of this AD thereafter at intervals not to exceed 24 months, until the action in paragraph (j)(1), (j)(2), (k)(1), (k)(2)(i), (o)(1), or (o)(2)(i) of this AD is done.

**Condition 1, Option 2: Replacement**

(j) Within 72 months from the time the studbolts were last replaced, or within 24 months after the effective date of this AD, whichever occurs later, do any one of the replacements in Table 2 of this AD. Thereafter, at the times specified in Table 2, repeat the ultrasonic inspection required by paragraph (g) of this AD (if applicable).

TABLE 2.—REPLACEMENT PARTS

Replace the upper and lower studbolts (as applicable) of the inboard and outboard hinge fittings with—	And repeat the ultrasonic inspection required by paragraph (g) of this AD thereafter—	Accomplishing this replacement terminates—
(1) New studbolts that have increased corrosion protection in accordance with the service bulletin.	None .....	The repetitive inspection requirements of paragraph (i), (j)(3), and (j)(4) of this AD.
(2) Studbolts changed with protective treatment in accordance with a method approved by the Manager, Los Angeles Aircraft Certification (ACO), FAA.	None .....	The repetitive inspection requirements of paragraph (i), (j)(3), and (j)(4) of this AD.
(3) Equivalent studbolts in accordance with the service bulletin.	At intervals not to exceed 24 months .....	None.
(4) Kept serviceable studbolts wet with sealant in accordance with the service bulletin.	At intervals not to exceed 24 months .....	None.

**Condition 1, Option 3: Removal, Inspection(s), and Corrective Actions**

(k) Within 72 months from the time the studbolts were last replaced, or within 24 months after the effective date of this AD, whichever occurs later, remove the upper and lower studbolts (as applicable) of the inboard and outboard hinge fittings, and do a detailed inspection for corrosion of the upper and lower studbolts (as applicable), in accordance with the service bulletin.

**Note 1:** For the purposes of this AD, a detailed inspection is: “An intensive examination of a specific item, installation, or assembly to detect damage, failure, or irregularity. Available lighting is normally supplemented with a direct source of good lighting at an intensity deemed appropriate. Inspection aids such as mirror, magnifying lenses, etc., may be necessary. Surface cleaning and elaborate procedures may be required.”

(1) If no corroded studbolt is found, before further flight, change the protective treatment of all upper and lower studbolts (as applicable) to give increased corrosion protection, in accordance with a method approved by the Manager, Los Angeles ACO, FAA. Accomplishing this change ends the repetitive inspection requirements of paragraph (i) of this AD.

(2) If any corroded studbolt is found, before further flight, install any studbolt identified in and in accordance with Table 2 of this AD, thereafter do the repetitive inspections (if applicable) in accordance with Table 2 of this AD, and do a magnetic particle inspection for cracks in any remaining studbolt in accordance with the service bulletin.

(i) If no cracked studbolt is found, before further flight, change the protective treatment of all remaining studbolts to give increased corrosion protection, in accordance with a method approved by the Manager, Los Angeles ACO, FAA. Accomplishing this change ends the repetitive inspection requirements of paragraph (i) of this AD.

(ii) If any cracked studbolt is found, before further flight, install any studbolt identified in and in accordance with Table 2 of this AD, and thereafter do the repetitive inspections (if applicable) in accordance with Table 2 of this AD.

**Condition 2: Cracked Studbolts**

(l) If any cracked studbolt is detected during any ultrasonic inspection required by paragraph (g) of this AD, before further flight, do the actions specified in paragraph (m), (n), or (o) of this AD.

**Condition 2, Option 1: Removal, Inspection(s), and Corrective Actions**

(m) Remove any cracked upper and lower studbolt (as applicable) of the inboard and outboard hinge fittings, install any studbolt identified in and in accordance with Table 2 of this AD, do the repetitive inspections (if applicable) in accordance with Table 2 of this AD, and do a detailed inspection for corrosion of any remaining studbolts in accordance with the service bulletin.

(1) If no corroded studbolt is found, before further flight, do a magnetic particle inspection for cracks in any remaining studbolt in accordance with the service bulletin. If any crack is found, before further flight, install any studbolt identified in and in accordance with Table 2 of this AD and do the repetitive inspections (if applicable) in accordance with Table 2 of this AD.

(2) If any corroded studbolt is found, before further flight, install any studbolt identified in and in accordance with Table 2 of this AD, do the repetitive inspections (if applicable) in accordance with Table 2 of this AD, and do a magnetic particle inspection for cracks in any remaining studbolt in accordance with the service bulletin.

(i) If no cracked studbolt is found, before further flight, install any studbolt identified in and in accordance with Table 2 of this AD, and do the repetitive inspections (if applicable) in accordance with Table 2 of this AD.

(ii) If any cracked studbolt is found, before further flight, install any studbolt identified in and in accordance with Table 2 of this AD, and do the repetitive inspections (if applicable) in accordance with Table 2 of this AD.

**Condition 2, Option 2: Replacement**

(n) Replace all studbolts in accordance with paragraph (j) of this AD.

**Condition 2, Option 3: Removal, Inspections, and Installation**

(o) Remove any cracked studbolt, install any studbolt identified in and in accordance with Table 2 of this AD, do the repetitive

inspections (if applicable) in accordance with Table 2 of this AD, and do a detailed inspection for corrosion of any remaining studbolt in accordance with the service bulletin.

(1) If no corroded studbolt is found, before further flight, do a magnetic particle inspection for cracks in any remaining studbolt in accordance with the service bulletin, and change the protective treatment of all remaining upper and lower studbolts (as applicable) to give increased corrosion protection in accordance with a method approved by the Manager, Los Angeles ACO, FAA. Accomplishing this change ends the repetitive inspection requirements of paragraph (i) of this AD.

(2) If any corroded studbolt is found, before further flight, install any studbolt identified in and in accordance with Table 2 of this AD, do the repetitive inspections (if applicable) in accordance with Table 2 of this AD, and do a magnetic particle inspection for cracks in any remaining studbolt in accordance with the service bulletin.

(i) If no cracked studbolt is found, before further flight, change the protective treatment of all remaining studbolts to give increased corrosion protection in accordance with a method approved by the Manager, Los Angeles ACO, FAA. Accomplishing this change ends the repetitive inspection requirements of paragraph (i) of this AD.

(ii) If any cracked studbolt is found, before further flight, install any studbolt identified in and in accordance with Table 2 of this AD, and do the repetitive inspections (if applicable) in accordance with Table 2 of this AD.

**Alternative Methods of Compliance (AMOCs)**

(p)(1) The Manager, Los Angeles ACO, FAA, has the authority to approve AMOCs for this AD, if requested in accordance with the procedures found in 14 CFR 39.19.

(2) Before using any AMOC approved in accordance with § 39.19 on any airplane to which the AMOC applies, notify the appropriate principal inspector in the FAA Flight Standards Certificate Holding District Office.

**Material Incorporated by Reference**

(q) You must use the applicable service bulletin in table 3 of this AD to perform the actions that are required by this AD, unless

the AD specifies otherwise. The Director of the Federal Register approved the incorporation by reference of these documents in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Contact Boeing Commercial Airplanes, Long Beach Division, 3855 Lakewood Boulevard, Long Beach, California 90846, Attention: Data and Service Management, Dept. C1-L5A (D800-0024), for a copy of this service information. You may review copies at the Docket Management Facility, U.S. Department of Transportation, 400 Seventh Street SW., Room PL-401, Nassif Building, Washington, DC; on the Internet at <http://dms.dot.gov>; or at the National Archives and Records Administration (NARA). For information on the availability of this material at the 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).

TABLE 3.—MATERIAL INCORPORATED BY REFERENCE

Service Bulletin	Date
Boeing Service Bulletin DC10-57-154.	February 2, 2005.
Boeing Service Bulletin MD11-57-076.	February 2, 2005.

Dated: Issued in Renton, Washington, on January 30, 2006.

**Ali Bahrami,**

*Manager, Transport Airplane Directorate, Aircraft Certification Service.*

[FR Doc. 06-1148 Filed 2-8-06; 8:45 am]

BILLING CODE 4910-13-P

## DEPARTMENT OF TRANSPORTATION

### Federal Aviation Administration

#### 14 CFR Part 39

[Docket No. FAA-2005-23279; Directorate Identifier 2005-NE-44-AD; Amendment 39-14478; AD 2006-03-14]

RIN 2120-AA64

#### Airworthiness Directives; Rolls-Royce plc RB211 Trent 500 Series Turbofan Engines

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

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

**SUMMARY:** The FAA is adopting a new airworthiness directive (AD) for Rolls Royce plc (RR) RB211 Trent 500 series turbofan engines. This AD requires initial and repetitive borescope inspections of the high pressure-and-intermediate pressure (HP-IP) turbine oil vent tubes and bearing chambers for coking and carbon buildup and

replacing the vent tubes if necessary. This AD results from a report of an RB211 Trent 700 series engine that experienced a disk shaft separation, overspeed of the IP turbine rotor, and multiple blade release of IP turbine blades. Since the design arrangement in the Trent 500 series engines is similar to that of the Trent 700 series engines, the same failure could occur in the Trent 500 series engines. We are issuing this AD to prevent internal oil fires caused by coking and carbon buildup, that could result in uncontained engine failure and damage to the airplane.

**DATES:** Effective February 24, 2006. The Director of the Federal Register approved the incorporation by reference of certain publications listed in the regulations as of February 24, 2006.

We must receive any comments on this AD by April 10, 2006.

**ADDRESSES:** Use one of the following addresses to comment on this AD:

- DOT Docket Web site: Go to <http://dms.dot.gov> and follow the instructions for sending your comments electronically.

- Government-wide rulemaking Web site: Go to <http://www.regulations.gov> and follow the instructions for sending your comments electronically.

- Mail: Docket Management Facility; U.S. Department of Transportation, 400 Seventh Street, SW., Nassif Building, Room PL-401, Washington, DC 20590-0001.

- Fax: (202) 493-2251.

- Hand Delivery: Room PL-401 on the plaza level of the Nassif Building, 400 Seventh Street, SW., Washington, DC, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

Contact Rolls-Royce plc, Technical Publications, P.O. Box 31, Derby, DE24 8BJ, UK; telephone: 011-44-1332-242424; fax: 011-44-1332-249936, for the service information identified in this AD.

#### FOR FURTHER INFORMATION CONTACT:

Christopher Spinney, Aerospace Engineer, Engine Certification Office, FAA, Engine and Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803-5299; telephone (781) 238-7175; fax (781) 238-7199.

**SUPPLEMENTARY INFORMATION:** The Civil Aviation Authority (CAA), which is the airworthiness authority for the United Kingdom (UK) recently notified us that an unsafe condition might exist on RR RB211 Trent 500 Series turbofan engines. The CAA advises that a previous service incident in a Trent 700 engine indicates that carbon restriction in the vent tube can cause over-pressurization of the HP-IP bearing chamber leading to oil ejection from the

rear of the chamber. If this oil spray ignites, the fire can cause an IPT shaft failure, leading to overspeed and uncontained failure of the IPT disc. Since the design arrangement in the Trent 500 engines is similar to that of the Trent 700 engines, the same failure could occur in the Trent 500 series engines. We are issuing this AD to prevent internal oil fires caused by coking and carbon buildup, that could result in uncontained engine failure and damage to the airplane.

#### Relevant Service Information

We have reviewed and approved the technical contents of RR Alert Service Bulletin (ASB) RB.211-72-AE836, Revision 1, dated October 5, 2005. That ASB describes procedures for initial and repetitive borescope inspection and assessment of the HP-IP turbine oil vent tubes and bearing chamber. The CAA classified this service bulletin as mandatory and issued AD No. G-2005-0029, dated October 4, 2005, in order to ensure the airworthiness of these RR Trent 500 series engines in the U.K.

#### Bilateral Airworthiness Agreement

These RB211 Trent 500 series turbofan engines are manufactured in the U.K. and are type certificated for operation in the United States under the provisions of section 21.29 of the Federal Aviation Regulations (14 CFR 21.29) and the applicable bilateral airworthiness agreement. Under this bilateral airworthiness agreement, the CAA kept the FAA informed of the situation described above. We have examined the findings of the CAA, reviewed all available information, and determined that AD action is necessary for products of this type design that are certificated for operation in the United States.

#### FAA's Determination and Requirements of This AD

Although no airplanes that are registered in the United States use these engines, the possibility exists that the engines could be used on airplanes that are registered in the United States in the future. The unsafe condition described previously is likely to exist or develop on other RR RB211 Trent 500 series turbofan engines of the same type design. This AD requires initial and repetitive borescope inspections of the HP-IP turbine bearing oil vent tubes and bearing chambers for coking and carbon buildup; and replacement of the tubes if necessary.

We are issuing this AD to prevent internal oil fires from coking and carbon buildup that could cause uncontained engine failure and damage to the