

**FEDERAL AVIATION ADMINISTRATION  
AIRWORTHINESS DIRECTIVES**

**LARGE AIRCRAFT**

**BIWEEKLY 2014-06**

*3/10/2014 - 3/23/2014*



Federal Aviation Administration  
Engineering Procedures Office, AIR-110  
P.O. Box 25082  
Oklahoma City, OK 73125-0460

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# LARGE AIRCRAFT

AD No.	Information	Manufacturer	Applicability
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Information Key: E - Emergency; COR - Correction; S - Supersedes

## Biweekly 2014-01

2013-25-04		Embraer S.A.	ERJ 170-100 LR, -100 STD, -100 SE., -100 SU, ERJ 170-200 LR, -200 SU, -200 STD, ERJ 190-100 STD, -100 LR, -100 ECJ, -100 IGW, ERJ 190-200 STD, -200 LR, and -200 IGW
2013-25-06		Airbus	A318-111, -112, -121, -122, A319-111, -112, -113, -114, -115, -131, -132, -133, A320-111, -211, -212, -214, -231, -232, -233, A321-111, -112, -131, -211, -212, -213, -231, and -232
2013-26-01 2013-26-02		CFM International S.A. Bombardier, Inc.	CFM56-3 series and CFM56-7B series turbofan engines CL-600-2C10 (Regional Jet Series 700, 701, & 702), CL-600-2D15 (Regional Jet Series 705) and CL-600-2D24 (Regional Jet Series 900)
2013-26-03	S 2011-24-09	Airbus	A340-211, A340-212, A340-213, A340-311, A340-312, A340-313, A340-541, and A340-642
2013-26-04 2013-26-06	S 2010-19-01	The Boeing Company Rolls-Royce Corporation	747-400, -400D, and -400F series AE 3007A, A1, A1/1, A1/2, A1/3, A1P, A1E, and A3 turbofan engines
2013-26-07		Airbus	A318-111, -112, -121, -122, A319-111, -112, -113, -114, -115, -131, -132, -133, A320-111, -211, -212, -214, -231, -232, -233, A321-111, -112, -131, -211, -212, -213, -231, and -232
2013-26-08 2013-26-10		The Boeing Company Rolls-Royce plc	737-600, -700, -700C, -800, -900, and -900ER series RB211-524G2-19, RB211-524G3-19, RB211-524H-36, and RB211-524H2-19 turbofan engines
2013-26-12	S 2009-14-02	The Boeing Company	747-100, 747-100B, 747-100B SUD, 747-200B, 747-200C, 747-200F, 747-300, 747-400, 747-400D, 747-400F, 747SR, and 747SP series

## Biweekly 2014-02

There were no AD's published in this Large Bi-weekly period

## Biweekly 2014-03

2013-24-04	S 2003-19-11	Learjet Inc.	60
2013-25-03	S 2000-17-05 S 2001-04-09	The Boeing Company	767-200, -300, -300F, and -400ER series
2014-01-04		Bae Systems (Operations) Limited	BAe 146-100A, -200A, -300A, Avro 146-RJ70A, 146-RJ85A, and 146-RJ100A
2014-01-05 2014-02-01	S 2011-03-13	The Boeing Company Bombardier, Inc.	737-100, -200, -200C, -300, -400, and -500 series CL-600-2C10 (Regional Jet Series 700, 701, & 702), CL-600-2D15 (Regional Jet Series 705), and CL-600-2D24 (Regional Jet Series 900)

## Biweekly 2014-04

2014-03-07 2014-03-08	S 2009-26-16	The Boeing Company Airbus	MD-11 and MD-11F A318-111, -112, -121, -122, A319-111, -112, -113, -114, -115, -131, -132, -133, A320-111, -211, -212, -214, -231, -232, -233, A321-111, -112, -131, -211, -212, -213, -231, and -232
2014-03-09		ATR-GIE Avions de Transport Régional	ATR42-200, -300, -320, -500, ATR72-101, -201, -102, -202, -211, -212, and -212A
2014-03-14		Airbus	A330-201, -202, -203, -223, -243, -301, -302, -303, -321, -322, -323, -341, -342, -343, A340-211, -212, -213, -311, -312, -313, -541, and -642
2014-03-16		Rolls-Royce Deutschland Ltd & Co. KG	Tay 620-15, 650-15, and 651-54 turbofan engines
2014-03-17		Bombardier, Inc.	CL-600-1A11 (CL-600), CL-600-2A12 (CL-601), CL-600-2B16 (CL-601-3A, CL-601-3R, & CL-604 Variants)

## Biweekly 2014-05

2014-01-03 2014-03-04 2014-03-05 2014-03-06		Saab AB, Saab Aerosystems Bombardier, Inc. Bombardier, Inc. Boeing	340A (SAAB/SF340A) and SAAB 340B airplanes DHC-8-400, -401, and -402 airplanes BD-700-1A10 airplanes 737-100, -200, -200C, -300, -400, and -500 series airplanes
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## LARGE AIRCRAFT

AD No.	Information	Manufacturer	Applicability
Information Key: E - Emergency; COR - Correction; S - Supersedes			
2014-03-12	S 2002-23-19	Dassault Aviation	FALCON 2000 airplanes
2014-03-13		Fokker Services B.V.	F.28 Mark 0070 and 0100 airplanes
2014-03-15	S 2008-14-16	328 Support Services GmbH	328-100, 328-300 airplanes
2014-03-19		Boeing	737-600, -700, -800, -900, and -900ER series airplanes
2014-03-21		Boeing	727-200 and 727-200F series airplanes
2014-04-05		Boeing	737-100, -200, -200C, -300, -400, and -500 series airplanes
2014-04-08		Bombardier, Inc.	CL-600-2B19 (Regional Jet Series 100 & 440) airplanes
2014-05-02	S 2002-10-11	Boeing	737-100, -200, -200C, -300, -400, and -500 series airplanes
2014-05-03		Boeing	777-200, -200LR, -300, -300ER, and -777F series airplanes
2014-05-05		Boeing	777-200, -200LR, -300, -300ER, and 777F series airplanes
<b>Biweekly 2014-06</b>			
2014-05-09	S 2012-12-08	Boeing	777-200 and -300 series airplanes
2014-05-12	S 2010-15-08	Boeing	737-100, -200, -200C, -300, -400, and -500 series airplanes
2014-05-13	S 2004-12-07	Boeing	757-200, -200PF, and -200CB series airplanes
2014-05-16		Boeing	747-200B, 747-300, 747-400, 747-400D, and 747-400F series airplanes; 767-200, -300, -300F, and -400ER series airplanes
2014-05-18		Bombardier	DHC-8-400, -401, and -402 airplanes
2014-05-19		Boeing	747-200B, 747-200F, 747-300, and 747SP series airplanes; 747-400 and 747-400F series airplanes; 767-300 series airplanes
2014-05-20		Boeing	757-200, -200PF, -200CB, and -300 series airplanes
2014-05-21	S 2008-11-04	Boeing	737-100, -200, -200C, -300, -400, and -500 series airplanes
2014-05-22		Boeing	717-200 airplanes
2014-05-23		Bombardier	BD-100-1A10 (Challenger 300) airplanes
2014-05-24	S 84-19-01	Boeing	747-100, 747-200B, and 747-200F series airplanes
2014-05-25		Rolls-Royce plc	RB211-Trent 970-84, RB211-Trent 970B-84, RB211-Trent 972-84, RB211-Trent 972B-84, RB211-Trent 977-84, RB211-Trent 977B-84, and RB211-Trent 980-84 turbofan engines
2014-05-30	S 2013-07-07	Boeing	737-600, -700, -700C, -800, -900, and -900ER series airplanes
2014-06-02		Boeing	747-400 series airplanes



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**2014-05-09 The Boeing Company:** Amendment 39-17782; Docket No. FAA-2013-0789; Directorate Identifier 2013-NM-127-AD.

**(a) Effective Date**

This AD is effective April 14, 2014.

**(b) Affected ADs**

This AD supersedes AD 2012-12-08, Amendment 39-17088 (77 FR 37781, June 25, 2012; corrected July 20, 2012 (77 FR 42625)).

**(c) Applicability**

This AD applies to The Boeing Company Model 777-200 and -300 series airplanes, certificated in any category, as identified in Boeing Special Attention Service Bulletin 777-32-0083, Revision 2, dated May 2, 2013.

**(d) Subject**

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

**(e) Unsafe Condition**

This AD was prompted by a determination that additional airplanes may be subject to the identified unsafe condition. We are issuing this AD to prevent structural damage to the side and drag brace lock assemblies, which could result in landing gear collapse during touchdown, rollout, or taxi.

**(f) Compliance**

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

**(g) Part Number Inspection and Replacement**

Except as required by paragraph (h) of this AD, at the applicable time specified in paragraph 1.E., "Compliance," of Boeing Special Attention Service Bulletin 777-32-0083, Revision 2, dated May 2, 2013: Inspect the retract actuator fuse pin to determine the part number, and replace any retract actuator fuse pin having part number 112W1769-1, in accordance with the Accomplishment Instructions of Boeing Special Attention Service Bulletin 777-32-0083, Revision 2, dated May 2, 2013. A review of airplane maintenance records is acceptable in lieu of this inspection if the part number of the retract actuator fuse pin can be conclusively determined from that review. Except as required by paragraph (h) of this AD, do all applicable replacements at the applicable time specified in paragraph 1.E., "Compliance," of Boeing Special Attention Service Bulletin 777-32-0083, Revision 2, dated May 2, 2013.

### **(h) Exception to Service Information Specifications**

Where Boeing Special Attention Service Bulletin 777-32-0083, Revision 2, dated May 2, 2013, specifies a compliance time "after the Revision 2 date of this service bulletin," this AD requires compliance within the specified compliance time after the effective date of this AD.

### **(i) Parts Installation Prohibition**

(1) For airplanes identified in Group 1 of Boeing Special Attention Service Bulletin 777-32-0083, Revision 2, dated May 2, 2013: As of July 30, 2012 (the effective date of AD 2012-12-08, Amendment 39-17088 (77 FR 37781, June 25, 2012; corrected July 20, 2012 (77 FR 42625))), no person may install a retract actuator fuse pin having part number 112W1769-1 on any airplane.

(2) For airplanes identified in Group 2 of Boeing Special Attention Service Bulletin 777-32-0083, Revision 2, dated May 2, 2013: As of the effective date of this AD, no person may install a retract actuator fuse pin having part number 112W1769-1 on any airplane.

### **(j) Credit for Previous Actions**

(1) This paragraph provides credit for the actions specified in paragraph (g) of this AD, if those actions were performed before the effective date of AD 2012-12-08, Amendment 39-17088 (77 FR 37781, June 25, 2012; corrected July 20, 2012 (77 FR 42625)), using Boeing Special Attention Service Bulletin 777-32-0083, dated February 5, 2009, which is not incorporated by reference in this AD.

(2) This paragraph provides credit for the actions specified in paragraph (g) of this AD, if those actions were performed before the effective date of this AD using Boeing Special Attention Service Bulletin 777-32-0083, Revision 1, dated February 17, 2011, which is not incorporated by reference in this AD.

### **(k) 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 paragraph (l)(1) of this AD. Information may be emailed 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.

### **(l) Related Information**

(1) For more information about this AD, contact Melanie Violette, Aerospace Engineer, Airframe Branch, ANM-120S, FAA, Seattle Aircraft Certification Office, 1601 Lind Avenue SW., Renton, WA 98057-3356; phone: 425-917-6422; fax: 425-917-6590; email: melanie.violette@faa.gov.

(2) Service information identified in this AD that is not incorporated by reference in this AD may be obtained at the addresses specified in paragraphs (m)(3) and (m)(4) of this AD.

**(m) Material Incorporated by Reference**

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

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

(i) Boeing Special Attention Service Bulletin 777-32-0083, Revision 2, dated May 2, 2013.

(ii) Reserved.

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

(4) You may view this service information at 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 view this 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/cfr/ibr-locations.html>.

Issued in Renton, Washington, on February 18, 2014.

Ross Landes,  
Acting Manager, Transport Airplane Directorate,  
Aircraft Certification Service.



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**2014-05-12 The Boeing Company:** Amendment 39-17785; Docket No. FAA-2013-0542; Directorate Identifier 2011-NM-162-AD.

**(a) Effective Date**

This AD is effective April 22, 2014.

**(b) Affected ADs**

This AD supersedes AD 2010-15-08, Amendment 39-16374 (75 FR 43803, July 27, 2010).

**(c) Applicability**

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

(2) Installation of Supplemental Type Certificate (STC) ST01219SE ([http://rgl.faa.gov/Regulatory\\_and\\_Guidance\\_Library/rgstc.nsf/0/BE866B732F6CF31086257B9700692796?OpenDocument&Highlight=st01219se](http://rgl.faa.gov/Regulatory_and_Guidance_Library/rgstc.nsf/0/BE866B732F6CF31086257B9700692796?OpenDocument&Highlight=st01219se)) does not affect the ability to accomplish the actions required by this AD. Therefore, for airplanes on which STC ST01219SE is installed, a "change in product" alternative method of compliance (AMOC) approval request is not necessary to comply with the requirements of 14 CFR 39.17.

**(d) Subject**

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

**(e) Unsafe Condition**

This AD was prompted by a report of failure of both flap carriages. We are issuing this AD to detect and correct cracked, corroded, or fractured carriage spindles, which could lead to severe flap asymmetry, and could result in reduced control or loss of controllability of the airplane.

**(f) Compliance**

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

**(g) Compliance Times for Paragraphs (h) and (j) of This AD**

This paragraph restates the requirements of paragraph (g) of AD 2010-15-08, Amendment 39-16374 (75 FR 43803, July 27, 2010), with revised service information that shortens the compliance times for certain inspections. The tables in paragraph 1.E., "Compliance," of Boeing Alert Service Bulletin 737-57A1277, Revision 1, dated November 25, 2003; and Boeing Service Bulletin 737-57A1277, Revision 3, dated May 16, 2012; specify the compliance times for paragraphs (g) through (k) of this AD. For carriage spindles that have accumulated the number of flight cycles or years in service specified in the "Threshold" column of the tables in paragraph 1.E., "Compliance," of Boeing

Alert Service Bulletin 737-57A1277, Revision 1, dated November 25, 2003, accomplish the gap check, nondestructive test (NDT) inspection, and general visual inspection specified in paragraphs (h) and (j) of this AD within the corresponding interval after December 4, 2003 (the effective date AD 2003-24-08, Amendment 39-13337 (68 FR 67027, December 1, 2003)), as specified in the "Interval" column of the tables in paragraph 1.E., "Compliance," of Boeing Alert Service Bulletin 737-57A1277, Revision 1, dated November 25, 2003, except as specified in paragraph (g)(1) or (g)(2) of this AD. Repeat the gap check, NDT, and general visual inspections at the intervals specified in the "Interval" column of the tables in paragraph 1.E., "Compliance," of Boeing Alert Service Bulletin 737-57A1277, Revision 1, dated November 25, 2003, except as specified in paragraph (g)(1) and (g)(2) of this AD. As of the effective date of this AD, accomplish the gap check, NDT inspection, and general visual inspections specified in paragraphs (h) and (j) of this AD within the corresponding interval as specified in the "Interval" column of the tables in paragraph 1.E., "Compliance," of Boeing Alert Service Bulletin 737-57A1277, Revision 1, dated November 25, 2003, and thereafter at the intervals specified in Boeing Service Bulletin 737-57A1277, Revision 3, dated May 16, 2012, except as specified in paragraphs (g)(1) and (g)(2) of this AD. Repeat the gap check, NDT, and general visual inspections thereafter at the intervals specified in the "Interval" column of the tables in paragraph 1.E., "Compliance," of Boeing Service Bulletin 737-57A1277, Revision 3, dated May 16, 2012, except as specified in paragraphs (g)(1) and (g)(2) of this AD.

(1) The gap check does not have to be done at the same time as an NDT inspection; after doing an NDT inspection, the interval for doing the next gap check may be measured from the NDT inspection.

(2) As carriage spindles gain flight cycles or years in service and move from one category in the "Threshold" column to another, they are subject to the repetitive inspection intervals corresponding to the new threshold category.

#### **(h) Retained Work Package 2: Gap Check**

This paragraph restates the requirements of paragraph (h) of AD 2010-15-08, Amendment 39-16374 (75 FR 43803, July 27, 2010), with revised service information. Perform a gap check of the inboard and outboard carriage of the left and right outboard mid-flaps to determine if there is a positive indication of a severed carriage spindle, in accordance with Work Package 2 of paragraph 3.B., "Work Instructions," of Boeing Alert Service Bulletin 737-57A1277, Revision 1, dated November 25, 2003; or Boeing Service Bulletin 737-57A1277, Revision 3, dated May 16, 2012. As of the effective date of this AD, only Boeing Service Bulletin 737-57A1277, Revision 3, dated May 16, 2012, may be used to perform the actions specified in this paragraph.

#### **(i) Retained Work Package 2: Corrective Actions with New Optional Actions and Exception**

This paragraph restates the requirements of paragraph (i) of AD 2010-15-08, Amendment 39-16374 (75 FR 43803, July 27, 2010), with revised service information and new optional actions and exception. If there is a positive indication of a severed carriage spindle during the gap check required by paragraph (h) of this AD, before further flight, do the actions specified in paragraph (i)(1) or (i)(2) of this AD, except for carriage spindles on which an ultrasonic inspection has been done in accordance with the "Work Instructions" of Boeing Service Bulletin 737-57A1277, Revision 3, dated May 16, 2012; and the spindle has been confirmed not to be severed, no further actions are required by this paragraph for that carriage spindle.

(1) Remove the carriage spindle and install a new or serviceable carriage spindle, in accordance with the "Work Instructions" of any service bulletin specified in paragraph (i)(1)(i), (i)(1)(ii), (i)(1)(iii), or (i)(1)(iv) of this AD. As of the effective date of this AD, only Boeing Service Bulletin 737-57A1277, Revision 3, dated May 16, 2012, may be used to perform the actions specified in this paragraph.

(i) Boeing Alert Service Bulletin 737-57A1277, Revision 1, dated November 25, 2003.

- (ii) Boeing Service Bulletin 737-57A1277, Revision 3, dated May 16, 2012.
- (iii) Boeing Alert Service Bulletin 737-57A1218, Revision 5, dated February 9, 2009.
- (iv) Boeing Alert Service Bulletin 737-57A1218, Revision 6, dated June 9, 2011.

(2) Do a detailed inspection of the spindle to determine if there is corrosion, cracking, or a severed spindle, and, before further flight, do all related investigative and corrective actions, in accordance with the "Work Instructions" of Boeing Alert Service Bulletin 737-57A1277, Revision 1, dated November 25, 2003; or Boeing Service Bulletin 737-57A1277, Revision 3, dated May 16, 2012. If, during the detailed inspection described in paragraph 4.b. of Work Package 2 of Boeing Alert Service Bulletin 737-57A1277, Revision 1, dated November 25, 2003; or Boeing Alert Service Bulletin 737-57A1277, Revision 3, dated May 16, 2012; a carriage spindle is found not to be severed, and no corrosion and no cracking is present, it can be reinstalled on the outboard mid-flap, in accordance with any service bulletin specified in paragraph (i)(2)(i), (i)(2)(ii), (i)(2)(iii), or (i)(2)(iv) of this AD. As of the effective date of this AD, only Boeing Service Bulletin 737-57A1277, Revision 3, dated May 16, 2012, may be used to perform the actions specified in this paragraph.

- (i) Boeing Alert Service Bulletin 737-57A1277, Revision 1, dated November 25, 2003.
- (ii) Boeing Service Bulletin 737-57A1277, Revision 3, dated May 16, 2012.
- (iii) Boeing Alert Service Bulletin 737-57A1218, Revision 5, dated February 9, 2009.
- (iv) Boeing Alert Service Bulletin 737-57A1218, Revision 6, dated June 9, 2011.

**(j) Retained Work Package 1: NDT (Ultrasonic) and General Visual Inspections**

This paragraph restates the requirements of paragraph (j) of AD 2010-15-08, Amendment 39-16374 (75 FR 43803, July 27, 2010), with revised service information. Perform an NDT (ultrasonic) inspection and general visual inspection for each carriage spindle of the left and right outboard mid-flaps to detect cracks, corrosion, or severed carriage spindles, in accordance with "Work Package 1" of the "Work Instructions" of Boeing Alert Service Bulletin 737-57A1277, Revision 1, dated November 25, 2003; or Boeing Service Bulletin 737-57A1277, Revision 3, dated May 16, 2012. As of the effective date of this AD, only Boeing Service Bulletin 737-57A1277, Revision 3, dated May 16, 2012, may be used to perform the actions specified in this paragraph.

**(k) Retained Work Package 1: Corrective Actions and New Optional Action**

This paragraph restates the requirements of paragraph (k) of AD 2010-15-08, Amendment 39-16374 (75 FR 43803, July 27, 2010), with revised service information and new optional action. If any corroded, cracked, or severed carriage spindle is found during any inspection required by paragraph (j) of this AD: Before further flight, do the actions specified in paragraph (k)(1) or (k)(2) of this AD.

(1) Remove the carriage spindle and install a new or serviceable carriage spindle, in accordance with any service bulletin identified in paragraph (k)(1)(i), (k)(1)(ii), (k)(1)(iii), or (k)(1)(iv) of this AD. As of the effective date of this AD, only Boeing Service Bulletin 737-57A1277, Revision 3, dated May 16, 2012, may be used to perform the actions specified in this paragraph.

- (i) Boeing Alert Service Bulletin 737-57A1277, Revision 1, dated November 25, 2003.
- (ii) Boeing Service Bulletin 737-57A1277, Revision 3, dated May 16, 2012.
- (iii) Boeing Alert Service Bulletin 737-57A1218, Revision 5, dated February 9, 2009.
- (iv) Boeing Alert Service Bulletin 737-57A1218, Revision 6, dated June 9, 2011.

(2) Do a detailed inspection of the spindle to determine if there is corrosion, cracking, or a severed spindle, in accordance with the "Work Instructions" of Boeing Alert Service Bulletin 737-57A1277, Revision 1, dated November 25, 2003; or Boeing Service Bulletin 737-57A1277, Revision 3, dated May 16, 2012. If any corrosion, cracking, or a severed spindle is found, before further flight, install a new or serviceable carriage spindle, in accordance with any service bulletin identified in paragraph (k)(1)(i), (k)(1)(ii), (k)(1)(iii), or (k)(1)(iv) of this AD. As of the effective date of this AD, only Boeing Service Bulletin 737-57A1277, Revision 3, dated May 16, 2012, may be used to perform the actions specified in this paragraph.

**(l) Retained Parts Installation Limitation**

This paragraph restates the requirements of paragraph (l) of AD 2010-15-08, Amendment 39-16374 (75 FR 43803, July 27, 2010). Except as provided by paragraph (i) of this AD: As of December 4, 2003 (the effective date AD 2003-24-08, Amendment 39-13337 (68 FR 67027, December 1, 2003)), no person may install on any airplane a carriage spindle that has been removed as required by paragraph (i) or (k) of this AD, unless it has been overhauled in accordance with the "Work Instructions" of the applicable service bulletin identified in paragraph (l)(1), (l)(2), (l)(3), or (l)(4) of this AD. As of the effective date of this AD, only Boeing Service Bulletin 737-57A1277, Revision 3, dated May 16, 2012; or Boeing Alert Service Bulletin 737-57A1218, Revision 6, dated June 9, 2011; may be used to perform the actions specified in this paragraph. To be eligible for installation under this paragraph, the carriage spindle must have been overhauled in accordance with the requirements of paragraph (m) of this AD.

- (1) Boeing Alert Service Bulletin 737-57A1277, Revision 1, dated November 25, 2003.
- (2) Boeing Service Bulletin 737-57A1277, Revision 3, dated May 16, 2012.
- (3) Boeing Alert Service Bulletin 737-57A1218, Revision 5, dated February 9, 2009.
- (4) Boeing Alert Service Bulletin 737-57A1218, Revision 6, dated June 9, 2011.

**(m) Retained Electrodeposited Nickel Plating With New Plating Restrictions**

This paragraph restates the requirements of paragraph (m) of AD 2010-15-08, Amendment 39-16374 (75 FR 43803, July 27, 2010) with revised plating application procedures. As of the effective date of this AD, during accomplishment of any overhaul specified in paragraph (l) or (o) of this AD, follow the requirements specified in paragraphs (m)(1), (m)(2), and (m)(3) of this AD during application of the plating to the carriage spindle, in accordance with a method approved by the Manager, Seattle, Aircraft Certification Office (ACO), FAA. 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.

- (1) The maximum deposition rate of the nickel plating in any one plating/baking cycle must not exceed 0.002-inch-per-hour.
- (2) Begin the hydrogen embrittlement relief bake within 10 hours after application of the nickel plating, or less than 24 hours after the current was first applied to the part, whichever is first.
- (3) The carriage must not be plated using any high velocity oxygen fuel (HVOF) thermal spray process.

Note 1 to paragraph (m) of this AD: Guidance on the application of nickel plating can be found in Chapter 20-42-09, Electrodeposited Nickel Plating, of the Boeing (737) Standard Overhaul Practices Manual, Revision 25, dated July 1, 2009.

**(n) Retained Exception to Reporting Recommendations**

This paragraph restates the provisions of paragraph (n) of AD 2010-15-08, Amendment 39-16374 (75 FR 43803, July 27, 2010), with revised service information. Although Boeing Alert Service Bulletin 737-57A1277, Revision 1, dated November 25, 2003; and Boeing Service Bulletin 737-57A1277, Revision 3, dated May 16, 2012; recommend that operators report inspection findings to the manufacturer, this AD does not require reporting.

**(o) Retained Inspections, Measurements, and Overhauls of the Carriage Spindle With Clarification of Overhaul Restrictions**

This paragraph restates the requirements of paragraph (o) of AD 2010-15-08, Amendment 39-16374 (75 FR 43803, July 27, 2010) with clarification of overhaul restrictions. At the applicable

times specified in paragraphs (o)(1) and (o)(2) of this AD: Do the detailed inspection for corrosion, pitting, and cracking of the carriage spindle; magnetic particle inspection for cracking of the carriage spindle; measurements of the spindle to determine if it meets the allowable minimum diameter; overhauls of the carriage spindle; and applicable corrective actions; in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 737-57A1218, Revision 5, dated February 9, 2009; or Boeing Alert Service Bulletin 737-57A1218, Revision 6, dated June 9, 2011. As of the effective date of this AD, only Boeing Alert Service Bulletin 737-57A1218, Revision 6, dated June 9, 2011, may be used to perform the actions specified in this paragraph. The applicable corrective actions must be done before further flight. Repeat these actions thereafter at intervals not to exceed every 12,000 flight cycles on the carriage spindle or every 8 years since first installation of the carriage spindle on the airplane, whichever comes first. As of the effective date of this AD: For any overhaul required by this paragraph, the carriage spindle must be overhauled in accordance with the requirements of paragraph (m) of this AD.

(1) For Model 737-100, -200, -200C series airplanes: At the later of the times specified in paragraphs (o)(1)(i) and (o)(1)(ii) of this AD.

(i) Before the accumulation of 12,000 total flight cycles on the carriage spindle since new or overhauled, or within 8 years after the installation of the new or overhauled part, whichever comes first.

(ii) Within 1 year after August 31, 2010 (the effective date of AD 2010-15-08, Amendment 39-16374 (75 FR 43803, July 27, 2010)).

(2) For Model -300, -400, and -500 series airplanes: At the later of the times specified in paragraphs (o)(2)(i) and (o)(2)(ii) of this AD.

(i) Before the accumulation of 12,000 total flight cycles on the carriage spindle since new or overhauled, or within 8 years after the installation of the new or overhauled part, whichever comes first.

(ii) Within 2 years after August 31, 2010 (the effective date of AD 2010-15-08, Amendment 39-16374 (75 FR 43803, July 27, 2010)).

#### **(p) Retained Carriage Spindle Replacement for Model 737-100, -200, and -200C Series Airplanes**

This paragraph restates the requirements of paragraph (p) of AD 2010-15-08, Amendment 39-16374 (75 FR 43803, July 27, 2010), with revised service information and a shortened compliance time. For Model 737-100, -200, -200C series airplanes: Replace the carriage spindle with a new or documented (for which the service life, in total flight cycles, is known) carriage spindle, in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 737-57A1218, Revision 5, dated February 9, 2009; or Boeing Alert Service Bulletin 737-57A1218, Revision 6, dated June 9, 2011; at the earlier of the times specified in paragraphs (p)(1) and (p)(2) of this AD, except as required by paragraph (r) of this AD. As of the effective date of this AD, only Boeing Alert Service Bulletin 737-57A1218, Revision 6, dated June 9, 2011, may be used to perform the replacement. Overhauling the carriage spindles does not zero-out the flight cycles. Total flight cycles accumulate since new.

(1) At the later of the times specified in paragraphs (p)(1)(i) and (p)(1)(ii) of this AD.

(i) Before the accumulation of 48,000 total flight cycles on the new or overhauled carriage.

(ii) Within 3 years or 7,500 flight cycles after August 31, 2010 (the effective date of AD 2010-15-08, Amendment 39-16374 (75 FR 43803, July 27, 2010)), whichever occurs first.

(2) Before the accumulation of 40,000 total flight cycles on the new or overhauled carriage or 6 months after the effective date of this AD, whichever occurs later.

#### **(q) Retained Carriage Spindle Replacement for Model 737-300, -400, and -500 Series Airplanes**

This paragraph restates the requirements of paragraph (q) of AD 2010-15-08, Amendment 39-16374 (75 FR 43803, July 27, 2010), with revised service information and a shortened compliance time. For Model 737-300, -400, and -500 series airplanes: Replace the carriage spindle with a new or documented (for which the service life, in flight cycles, is known) carriage spindle, in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 737-57A1218, Revision 5, dated February 9, 2009; or Boeing Alert Service Bulletin 737-57A1218, Revision 6, dated June 9, 2011; at the later of the times specified in paragraphs (q)(1) and (q)(2) of this AD, except as required by paragraph (r) of this AD. As of the effective date of this AD, only Boeing Alert Service Bulletin 737-57A1218, Revision 6, dated June 9, 2011, may be used to perform the replacement required by this paragraph. Overhauling the carriage spindles does not zero-out the flight cycles. Total flight cycles accumulate since new.

(1) Before the accumulation of 40,000 total flight cycles on the new or overhauled carriage.

(2) Within 6 years or 15,000 flight cycles after August 31, 2010 (the effective date of AD 2010-15-08, Amendment 39-16374 (75 FR 43803, July 27, 2010)), whichever occurs first.

### **(r) Retained Carriage Spindle Replacement for Airplanes With an Undocumented Carriage**

This paragraph restates the requirements of paragraph (r) of AD 2010-15-08, Amendment 39-16374 (75 FR 43803, July 27, 2010). For airplanes with an undocumented carriage: Do the applicable actions specified in paragraph (p) or (q) of this AD at the applicable time specified in paragraph (r)(1) or (r)(2) of this AD.

(1) For Model 737-100, -200, -200C series airplanes: Do the actions specified in paragraph (p) of this AD at the time specified in paragraph (p)(1)(ii) of this AD.

(2) For Model -300, -400, and -500 series airplanes: Do the actions specified in paragraph (q) of this AD at the time specified in paragraph (q)(2) of this AD.

### **(s) Retained Repetitive Replacements of Carriage Spindle**

This paragraph restates the requirements of paragraph (s) of AD 2010-15-08, Amendment 39-16374 (75 FR 43803, July 27, 2010), with revised compliance times.

(1) For airplanes on which the actions required by paragraph (p) or (q) of this AD, as applicable, have been done as of the effective date of this AD: Repeat the replacement of the carriage spindle specified by paragraph (p) or (q) of this AD, as applicable, one time at the later of the times specified in paragraphs (s)(1)(i) and (s)(1)(ii) of this AD, and thereafter at intervals not to exceed 40,000 total flight cycles on the new or overhauled carriage spindle.

(i) Before the accumulation of 40,000 total flight cycles on the new or overhauled carriage.

(ii) Within 6 years or 15,000 flight cycles after August 31, 2010 (the effective date of AD 2010-15-08, Amendment 39-16374 (75 FR 43803, July 27, 2010)), whichever occurs first.

(2) For airplanes on which the actions required by paragraph (p) or (q) of this AD, as applicable, have not been done as of the effective date of this AD: Repeat the replacement of the carriage spindle specified by paragraph (p) or (q) of this AD, as applicable, thereafter at intervals not to exceed 40,000 total flight cycles on the new or overhauled carriage spindle.

### **(t) Exception to Compliance Time**

Where Boeing Service Bulletin 737-57A1277, Revision 3, dated May 16, 2012, and Boeing Alert Service Bulletin 737-57A1218, Revision 6, dated June 9, 2011, specify a compliance time after the dates of those service bulletins, this AD requires compliance within the specified compliance time after the effective date of this AD.

**(u) Credit for Previous Actions**

This paragraph provides credit for actions required by paragraphs (g) through (s) of this AD, if those actions were performed before the effective date of this AD using Boeing Alert Service Bulletin 737-57A1277, Revision 2, dated June 9, 2011, which is not incorporated by reference in this AD.

**(v) 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 paragraph (w) of this AD. Information may be emailed 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, 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) AMOCs previously approved in accordance with AD 2003-24-08, Amendment 39-13377 (68 FR 67027, December 1, 2003), or AD 2010-15-08, Amendment 39-16374 (75 FR 43803, July 27, 2010), are approved as AMOCs for individual repairs are acceptable for compliance with the corresponding provisions of this AD. All other existing AMOCs are not acceptable.

**(w) Related Information**

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

(2) Service information identified in this AD that is not incorporated by reference may be obtained at the addresses specified in paragraphs (x)(5) and (x)(6) of this AD.

**(x) Material Incorporated by Reference**

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

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

(3) The following service information was approved for IBR on April 22, 2014.

(i) Boeing Alert Service Bulletin 737-57A1218, Revision 6, dated June 9, 2011.

(ii) Boeing Alert Service Bulletin 737-57A1277, Revision 3, dated May 16, 2012.

(4) The following service information was approved for IBR on August 31, 2010 (75 FR 43803, July 27, 2010).

(i) Boeing Alert Service Bulletin 737-57A1218, Revision 5, dated February 9, 2009.

(ii) Boeing Alert Service Bulletin 737-57A1277, Revision 1, dated November 25, 2003.

(5) For Boeing 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>.

(6) You may view this service information at 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.

(7) You may view this 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/cfr/ibr-locations.html>.

Issued in Renton, Washington, on February 18, 2014.

Ross Landes,  
Acting Manager, Transport Airplane Directorate,  
Aircraft Certification Service.



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**2014-05-13 The Boeing Company:** Amendment 39-17786; Docket No. FAA-2013-0326; Directorate Identifier 2012-NM-089-AD.

**(a) Effective Date**

This AD is effective April 22, 2014.

**(b) Affected ADs**

This AD supersedes AD 2004-12-07, Amendment 39-13666 (69 FR 33561, June 16, 2004).

**(c) Applicability**

(1) This AD applies to The Boeing Company Model 757-200, -200PF, and -200CB series airplanes, certificated in any category, line numbers 1 through 735 inclusive, equipped with Rolls-Royce RB211 engines.

(2) Installation of Supplemental Type Certificate (STC) ST01518SE ([http://rgl.faa.gov/Regulatory\\_and\\_Guidance\\_Library/rgstc.nsf/0/48e13cdfbbc32cf4862576a4005d308b/Body/0.48A!OpenElement&FieldElemFormat=gif](http://rgl.faa.gov/Regulatory_and_Guidance_Library/rgstc.nsf/0/48e13cdfbbc32cf4862576a4005d308b/Body/0.48A!OpenElement&FieldElemFormat=gif)) does not affect the ability to accomplish the actions required by this AD. Therefore, for airplanes on which STC ST01518SE is installed, a "change in product" alternative method of compliance (AMOC) approval request is not necessary to comply with the requirements of 14 CFR 39.17.

**(d) Subject**

Air Transport Association (ATA) of America Code 54, Nacelles/Pylons.

**(e) Unsafe Condition**

This AD was prompted by reports indicating that the actual operational loads applied to the nacelle are higher than the analytical loads that were used during the initial design. We are issuing this AD to prevent fatigue cracking in primary strut structure and consequent reduced structural integrity of the strut.

**(f) Compliance**

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

**(g) Retained Modification**

This paragraph restates the requirements of paragraph (a) of AD 2004-12-07, Amendment 39-13666 (69 FR 33561, June 16, 2004), with new service information: Modify the nacelle strut and wing structure according to Boeing Service Bulletin 757-54-0035, dated July 17, 1997; Revision 1, dated April 15, 1999; Revision 2, dated June 13, 2002; or Revision 6, dated December 2, 2011; except as specified in paragraph (l) of this AD; at the later of the times specified in paragraph (g)(1)

or (g)(2) of this AD, except as required by paragraph (i) of this AD. All of the terminating actions described in paragraph I.C., Table I, "Strut Improvement Bulletins," on page 6 of Boeing Service Bulletin 757-54-0035, dated July 17, 1997; page 7 of Boeing Service Bulletin 757-54-0035, Revision 1, dated April 15, 1999; and on page 7 of Boeing Service Bulletin 757-54-0035, Revision 2, dated June 13, 2002; as applicable; must be accomplished prior to, or concurrently with, the accomplishment of the modification of the nacelle strut and wing structure required by this paragraph. After July 21, 2004 (the effective date of AD 2004-12-07), use only Boeing Service Bulletin 757-54-0035, Revision 2, dated June 13, 2002; or Boeing Service Bulletin 757-54-0035, Revision 6, dated December 2, 2011. After the effective date of this AD, use only Boeing Service Bulletin 757-54-0035, Revision 6, dated December 2, 2011. Accomplishment of the actions required by paragraph (i) of this AD terminates the requirements of this paragraph.

(1) Prior to the accumulation of 37,500 total flight cycles, or prior to 20 years since the date of manufacture of the airplane, whichever occurs first.

(2) Within 3,000 flight cycles after January 3, 2000 (the effective date of AD 99-24-07, Amendment 39-11431 (64 FR 66370, November 26, 1999)).

#### **(h) Retained Inspection and Repair**

This paragraph restates the requirements of paragraph (c) of AD 2004-12-07, Amendment 39-13666 (69 FR 33561, June 16, 2004), with new service information. For airplanes on which the modification required by paragraph (g) of this AD has been done according to Boeing Service Bulletin 757-54-0035, dated July 17, 1997: Within 15,000 flight cycles after doing the modification required by paragraph (g) of this AD, or within 3 years after July 21, 2004 (the effective date of AD 2004-12-07), whichever is later; do a one-time detailed inspection of the middle gusset of the inboard side load fitting for proper alignment, according to Part II of the Accomplishment Instructions of Boeing Service Bulletin 757-54-0035, Revision 1, dated April 15, 1999; or Revision 2, dated June 13, 2002, excluding Evaluation Form; or Boeing Service Bulletin 757-54-0035, Revision 6, dated December 2, 2011; except as specified by paragraph (l) of this AD. If the gusset is not aligned properly: Before further flight, machine the gusset to the specified angle according to the Accomplishment Instructions of Boeing Service Bulletin 757-54-0035, Revision 1, dated April 15, 1999; or Revision 2, dated June 13, 2002, excluding Evaluation Form; or Boeing Service Bulletin 757-54-0035, Revision 6, dated December 2, 2011. As of the effective date of this AD, use only Boeing Service Bulletin 757-54-0035, Revision 6, dated December 2, 2011, for accomplishing the actions required by this paragraph.

#### **(i) New Compliance Time Limitation**

For airplanes on which the modification of the nacelle strut and wing structure required by paragraph (g) of this AD has not been done as of the effective date of this AD: Do the modification required by paragraph (g) of this AD at the later of the times specified in paragraphs (i)(1) and (i)(2) of this AD.

(1) At the time specified in paragraph 1.E., "Compliance," of Boeing Service Bulletin 757-54-0035, Revision 6, dated December 2, 2011, except that where this service bulletin specifies a compliance time "from the date on Revision 4 of this service bulletin," this AD requires compliance within the specified compliance time after the effective date of this AD.

(2) Within 3,000 flight cycles after January 3, 2000 (the effective date of AD 99-24-07, Amendment 39-11431 (64 FR 66370, November 26, 1999)).

#### **(j) New Concurrent Actions**

Concurrently with or prior to the accomplishment of the actions required by paragraph (i) of this AD, do the actions specified in paragraphs (j)(1) and (j)(2) of this AD.

(1) For airplanes identified in Boeing Service Bulletin 757-54-0003, Revision 1, dated August 30, 1985: Modify the nacelle strut upper spar, in accordance with the Accomplishment Instructions of Boeing Service Bulletin 757-54-0003, Revision 1, dated August 30, 1985.

(2) For airplanes identified in Boeing Service Bulletin 757-54-0028, Revision 1, dated August 25, 1994: Do a detailed inspection and non-destructive test inspection for cracking of the lower chord, mid-chord, and holes (for cracking, galling, corrosion, or damage due to fastener removal), in accordance with the Accomplishment Instructions of Boeing Service Bulletin 757-54-0028, Revision 1, dated August 25, 1994.

Note 1 to paragraph (j) of this AD: Paragraph D. of Boeing Service Bulletin 757-54-0035, Revision 6, dated December 2, 2011, incorrectly states that the actions described in Boeing Service Bulletin 757-54-0003, Revision 1, dated August 30, 1985; and Boeing Service Bulletin 757-54-0028, Revision 1, dated August 25, 1994; no longer need to be accomplished.

### **(k) Repair**

(1) If any cracking is found during any inspection required by paragraph (j)(2) of this AD: Before further flight, repair the cracking using a method approved in accordance with the procedures specified in paragraph (n) of this AD.

(2) If any holes with galling, corrosion, or damage due to fastener removal are found during any inspection required by paragraph (j)(2) of this AD: Before further flight, repair the holes, in accordance with the Accomplishment Instructions of Boeing Service Bulletin 757-54-0028, Revision 1, dated August 25, 1994.

### **(l) Work Sequence Requirement**

Although Boeing Service Bulletin 757-54-0035, Revision 6, dated December 2, 2011, specifies to work the wing modification before the strut modification, this AD allows for the wing and strut modifications to occur simultaneously. This AD also allows for both struts to be modified simultaneously.

### **(m) Credit for Previous Actions**

(1) This paragraph provides credit for the actions required by paragraph (g) of this AD, if those actions were performed before the effective date of this AD using Boeing Service Bulletin 757-54-0035, Revision 4, dated June 18, 2009; or Revision 5, dated June 9, 2011; which are not incorporated by reference in this AD.

(2) This paragraph provides credit for the actions required by paragraph (h) of this AD, if those actions were performed before the effective date of this AD using Boeing Service Bulletin 757-54-0035, Revision 4, dated June 18, 2009; or Revision 5, dated June 9, 2011; which are not incorporated by reference in this AD.

(3) This paragraph provides credit for the actions required by paragraph (j)(1) of this AD, if those actions were performed before the effective date of this AD using Boeing Service Bulletin 757-54-0003, dated December 14, 1984, which is not incorporated by reference in this AD.

(4) This paragraph provides credit for the actions required by paragraph (j)(2) of this AD, if those actions were performed before the effective date of this AD using Boeing Service Bulletin 757-54-0028, dated March 31, 1994, which is not incorporated by reference in this AD.

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

(1) The Manager, Seattle 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 paragraph (o)(1) of this AD. Information may be emailed 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) AMOCs approved for AD 2004-12-07, Amendment 39-13666 (69 FR 33561, June 16, 2004), are approved as AMOCs for paragraphs (g) and (h) of this AD, except for AMOCs that approved a revised compliance time.

### **(o) Related Information**

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

(2) Service information identified in this AD that is not incorporated by reference may be obtained at the addresses specified in paragraphs (p)(6) and (p)(7) of this AD.

### **(p) Material Incorporated by Reference**

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

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

(3) The following service information was approved for IBR on April 22, 2014.

(i) Boeing Service Bulletin 757-54-0003, Revision 1, dated August 30, 1985.

(ii) Boeing Service Bulletin 757-54-0028, Revision 1, dated August 25, 1994.

(iii) Boeing Service Bulletin 757-54-0035, Revision 6, dated December 2, 2011.

(4) The following service information was approved for IBR on July 21, 2004 (69 FR 33561, June 16, 2004).

(i) Boeing Service Bulletin 757-54-0035, Revision 1, dated April 15, 1999.

(ii) Boeing Service Bulletin 757-54-0035, Revision 2, dated June 13, 2002.

(5) The following service information was approved for IBR on January 3, 2000 (64 FR 66370, November 26, 1999).

(i) Boeing Service Bulletin 757-54-0035, dated July 17, 1997.

(ii) Reserved.

(6) For service information identified in this AD, contact Boeing Commercial Airplanes, Attention: Data & Services Management, P.O. Box 3707, MC 2H-65, Seattle, WA 98124-2207; phone: 206-544-5000, extension 1; fax: 206-766-5680; Internet: <https://www.myboeingfleet.com>.

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

(8) You may view this 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/cfr/ibr-locations.html>.

Issued in Renton, Washington, on February 19, 2014.  
Jeffrey E. Duven,  
Manager, Transport Airplane Directorate,  
Aircraft Certification Service.



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**2014-05-16 The Boeing Company:** Amendment 39-17789; Docket No. FAA-2012-1318; Directorate Identifier 2012-NM-104-AD.

**(a) Effective Date**

This AD is effective April 25, 2014.

**(b) Affected ADs**

This AD affects AD 2003-16-16, Amendment 39-13269 (68 FR 51439, August 27, 2003); AD 2000-15-04, Amendment 39-11833 (65 FR 47252, August 2, 2000); and AD 2000-09-04, Amendment 39-11712 (65 FR 25833, May 4, 2000).

**(c) Applicability**

This AD applies to The Boeing Company airplanes, certificated in any category, powered by General Electric (GE) CF6-80C2 engines, as identified in paragraphs (c)(1) and (c)(2) of this AD.

(1) Model 747-200B, 747-300, 747-400, 747-400D, and 747-400F series airplanes, as identified in Boeing Alert Service Bulletin 747-78A2185, dated October 26, 2010.

(2) Model 767-200, -300, -300F, and -400ER series airplanes, as identified in Boeing Alert Service Bulletin 767-78A0100, dated October 26, 2010.

**(d) Subject**

Joint Aircraft System Component (JASC) Code 7830, Thrust reverser.

**(e) Unsafe Condition**

This AD was prompted by reports of failure of the electro-mechanical brake flexshaft (short flexshaft) of the thrust reverser actuation system (TRAS). We are issuing this AD to prevent an uncommanded in-flight thrust reverser deployment and consequent loss of control of the airplane.

**(f) Compliance**

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

**(g) Flexible Drive Shaft Replacement**

Within 60 months after the effective date of this AD, replace the short flexshaft on each thrust reverser half of each engine with a new short flexshaft, in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 747-78A2185, dated October 26, 2010; or Boeing Alert Service Bulletin 767-78A0100, dated October 26, 2010; as applicable; or Middle River Aircraft Systems CF6-80C2B Service Bulletin 78-1168, Revision 2, dated April 19, 2011.

Note 1 to paragraph (g) of this AD: The torque value for the short flexshaft installation specified in paragraph (g) of this AD is lower than the torque value described for the part specified in AD 2000-09-04, Amendment 39-11712 (65 FR 25833, May 4, 2000).

#### **(h) Functional Test**

Within 2,000 flight hours after accomplishment of the short flexshaft replacements required by paragraph (g) of this AD: Do a functional test on the electro-mechanical brakes and the cone brake of the center drive unit (CDU) to verify the holding torque, on all thrust reversers and on all engines, in accordance with the Accomplishment Instructions of Boeing Service Bulletin 747-78A2166, Revision 3, dated July 29, 2004 (for Model 747 airplanes); Boeing Alert Service Bulletin 767-78A0081, Revision 2, dated April 19, 2001 (for Model 767-200, -300, and -300F airplanes); or Boeing Alert Service Bulletin 767-78A0088, dated April 19, 2001 (for Model 767-400ER airplanes). Repeat the functional test thereafter at intervals not to exceed 2,000 flight hours.

#### **(i) Corrective Action**

If any functional test required by paragraph (h) of this AD fails: Before further flight, do related investigative and corrective actions, in accordance with the Accomplishment Instructions of Boeing Service Bulletin 747-78A2166, Revision 3, dated July 29, 2004 (for Model 747 airplanes); Boeing Alert Service Bulletin 767-78A0081, Revision 2, dated April 19, 2001 (for Model 767-200, -300, and -300F airplanes); or Boeing Alert Service Bulletin 767-78A0088, dated April 19, 2001 (for Model 767-400ER airplanes); and repeat the applicable test or check until successfully accomplished.

#### **(j) Terminating Actions**

(1) Accomplishment of the initial test specified in paragraph (h) of this AD terminates the requirements of paragraphs (a) and (e) of AD 2003-16-16, Amendment 39-13269 (68 FR 51439, August 27, 2003), for Model 747-400 series airplanes powered by GE Model CF6-80C2 series engines.

(2) Accomplishment of the initial test specified in paragraph (h) of this AD terminates the requirements of paragraph (g) of AD 2000-15-04, Amendment 39-11833 (65 FR 47252, August 2, 2000), for Model 747-200 and -300 series airplanes powered by General Electric Model CF6-80C2 series engines.

(3) Accomplishment of the initial test specified in paragraph (h) of this AD terminates the requirements of paragraphs (e) and (f) of AD 2000-09-04, Amendment 39-11712 (65 FR 25833, May 4, 2000), for Model 767 series airplanes powered by General Electric Model CF6-80C2 series engines.

#### **(k) Parts Installation Prohibition**

As of the effective date of this AD, no person may install a flexshaft having part number 3278500-( ) on any airplane identified in paragraph (c) of this AD.

#### **(l) Operation With a CDU Cone Brake Failure**

In the event of a CDU cone brake failure, an airplane may be operated as specified in the operator's FAA-approved minimum equipment list, provided that the conditions specified in paragraphs (l)(1) through (l)(3) of this AD, as applicable, are met.

(1) Only one CDU cone brake check on any engine thrust reverser on the Model 767 airplane has failed.

(2) The electro-mechanical brake (TRAS lock) on the inoperative thrust reverser must be locked in the forward thrust position.

(3) Since the most recent flight, and before further flight, on the affected engine, the electro-mechanical brake (TRAS lock) holding torque is determined to be acceptable in accordance with the function test specified in paragraph (h) of this AD.

#### **(m) Credit for Previous Actions**

This paragraph provides credit for actions required by paragraph (g) of this AD, if those actions were performed before the effective date of this AD using Middle River Aircraft Systems CF6-80C2B Service Bulletin 78-1168, Revision 1, dated August 26, 2010, which is not incorporated by reference in this AD.

#### **(n) 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 paragraph (o)(1) of this AD. Information may be emailed 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.

#### **(o) Related Information**

(1) For more information about this AD, contact Tung Tran, Aerospace Engineer, Propulsion Branch, ANM-140S, Seattle Aircraft Certification Office (ACO), FAA, 1601 Lind Avenue SW., Renton, WA 98057-3356; phone: 425-917-6505; fax: 425-917-6590; email: Tung.Tran@faa.gov.

(2) Service information identified in this AD that is not incorporated by reference may be obtained at the addresses specified in paragraphs (p)(4) and (p)(5) of this AD.

#### **(p) Material Incorporated by Reference**

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

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

(i) Boeing Alert Service Bulletin 747-78A2185, dated October 26, 2010.

(ii) Boeing Alert Service Bulletin 767-78A0081, Revision 2, dated April 19, 2001.

(iii) Boeing Alert Service Bulletin 767-78A0088, dated April 19, 2001.

(iv) Boeing Alert Service Bulletin 767-78A0100, dated October 26, 2010.

(v) Boeing Service Bulletin 747-78A2166, Revision 3, dated July 29, 2004.

(vi) Middle River Aircraft Systems CF6-80C2B Service Bulletin 78-1168, Revision 2, dated April 19, 2011.

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

(4) For Middle River Aircraft Systems service information identified in this AD, contact Middle River Aircraft Systems, ATTN: Commercial Spares Support, Mail Point 46, 103 Chesapeake Park Plaza, Baltimore, MD 21220; fax: 410-682-0090; email: [spares\\_support@mras-usa.com](mailto:spares_support@mras-usa.com).

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

(6) You may view this 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/cfr/ibr-locations.html>. \*COM019\*

Issued in Renton, Washington, on February 18, 2014.

Ross Landes,  
Acting Manager, Transport Airplane Directorate,  
Aircraft Certification Service.



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**2014-05-18 Bombardier, Inc.:** Amendment 39-17791. Docket No. FAA-2013-0689; Directorate Identifier 2012-NM-225-AD.

**(a) Effective Date**

This airworthiness directive (AD) becomes effective April 22, 2014.

**(b) Affected ADs**

None.

**(c) Applicability**

This AD applies to all Bombardier, Inc. Model DHC-8-400, -401, and -402 airplanes, certificated in any category.

**(d) Subject**

Air Transport Association (ATA) of America Code 32, Landing gear.

**(e) Reason**

This AD was prompted by a report that a batch of main landing gear (MLG) door actuators with a certain part number having certain serial numbers could be assembled with the scraper installed backward. We are issuing this AD to prevent incorrectly installed scrapers, which could hinder the operation of the MLG alternate extension system (AES), and result in failure of the MLG AES on one side, and consequent unsafe asymmetrical landing configuration.

**(f) Compliance**

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

**(g) Inspection to Determine Part Number of MLG Door Actuators**

Within 50 flight hours after the effective date of this AD, inspect the MLG door actuators to determine whether part number (P/N) 46830-7 is installed. A review of airplane maintenance records is acceptable in lieu of this inspection if the part number of the MLG door actuator can be conclusively determined from that review.

**(h) Functional Check of the MLG AES**

If, during the inspection to determine the part number of the MLG actuators as required by paragraph (g) of this AD, any MLG door actuator having P/N 46830-7 and a serial number included in paragraph 1.A. "Effectivity," of Bombardier Service Bulletin 84-32-108, Revision A, dated

October 1, 2012, is found; or if the part number is unable to be determined: At the applicable time specified in paragraph (h)(1) or (h)(2) of this AD, do a functional check of the MLG AES, in accordance with Part A of paragraph 3.B. "Procedure," of the Accomplishment Instructions of Bombardier Service Bulletin 84-32-108, Revision A, dated October 1, 2012. Repeat the functional check thereafter at intervals not to exceed 50 flight cycles until the actions required by paragraph (i) of this AD are done. If the force applied during the functional check exceeds 67 pound-force (lbf), before further flight, replace the affected actuator, in accordance with Part B of paragraph 3.B. "Procedure," of the Accomplishment Instructions of Bombardier Service Bulletin 84-32-108, Revision A, dated October 1, 2012.

(1) For airplanes with MLG door actuators that have accumulated more than 950 total flight hours as of the effective date of this AD: Within 50 flight hours after the effective date of this AD.

(2) For airplanes with MLG door actuators that have accumulated 950 total flight hours or less as of the effective date of this AD: Within 1,000 flight hours after the effective date of this AD.

#### **(i) Terminating Action for Repetitive Functional Checks**

At the earlier of the times specified in paragraphs (i)(1) and (i)(2) of this AD: Replace all MLG door actuators having P/N 46830-7 and a serial number included in paragraph 1.A. "Effectivity," of Bombardier Service Bulletin 84-32-108, Revision A, dated October 1, 2012, with MLG door actuators reworked in accordance with Part B of paragraph 3.B. "Procedure," of the Accomplishment Instructions of Bombardier Service Bulletin 84-32-108, Revision A, dated October 1, 2012, or with a MLG door actuator having P/N 46830-7 and a serial number that is not included in section 1.A. "Effectivity," of Bombardier Service Bulletin 84-32-108, Revision A, dated October 1, 2012. Installation of a MLG door actuator having P/N 46830-7 with "Mod Status 32-106" on the identification plate is acceptable for compliance with the requirements of this paragraph.

(1) Prior to the accumulation of 3,000 total flight hours on any MLG door actuator, or within 50 flight hours after the effective date of this AD, whichever occurs later.

(2) Within 12 months or 2,000 flight hours after the effective date of this AD, whichever occurs first.

#### **(j) Credit for Previous Actions**

This paragraph provides credit for actions required by paragraph (i) of this AD, if those actions were performed before the effective date of this AD using Bombardier Service Bulletin 84-32-108, dated September 6, 2012, which is not incorporated by reference in this AD.

#### **(k) Parts Installation Limitation**

As of the effective date of this AD, no person may install a MLG door actuator having P/N 46830-7, with a serial number identified in paragraph 1.A. "Effectivity," of Bombardier Service Bulletin 84-32-108, Revision A, dated October 1, 2012, unless "Mod Status 32-106" is on the identification plate.

#### **(l) Other FAA AD Provisions**

The following provisions also apply to this AD:

(1) Alternative Methods of Compliance (AMOCs): The Manager, New York ACO, ANE-170, 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 ACO, send it to ATTN: Program Manager, Continuing Operational Safety, FAA, New York ACO, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516-228-7300; fax 516-794-5531. 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. The AMOC approval letter must specifically reference this AD.

(2) Airworthy Product: For any requirement in this AD to obtain corrective actions from a manufacturer or other source, use these actions if they are FAA-approved. Corrective actions are considered FAA-approved if they are approved by the State of Design Authority (or their delegated agent). You are required to assure the product is airworthy before it is returned to service.

#### **(m) Related Information**

(1) Refer to Mandatory Continuing Airworthiness Information (MCAI) Canadian Airworthiness Directive CF-2012-28R1, dated November 26, 2012, for related information. The MCAI may be found in the AD docket on the Internet at <http://www.regulations.gov/#!documentDetail;D=FAA-2013-0689-0003>.

(2) Service information identified in this AD that is not incorporated by reference may be obtained at the addresses specified in paragraphs (n)(3) and (n)(4) of this AD.

#### **(n) Material Incorporated by Reference**

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

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

(i) Bombardier Service Bulletin 84-32-108, Revision A, dated October 1, 2012.

(ii) Reserved.

(3) For service information identified in this AD, contact Bombardier, Inc., Q-Series Technical Help Desk, 123 Garratt Boulevard, Toronto, Ontario M3K 1Y5, Canada; telephone 416-375-4000; fax 416-375-4539; email [thd.qseries@aero.bombardier.com](mailto:thd.qseries@aero.bombardier.com); Internet <http://www.bombardier.com>.

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

(5) You may view this 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/cfr/ibr-locations.html>.

Issued in Renton, Washington, on February 19, 2014.

Jeffrey E. Duven,  
Manager, Transport Airplane Directorate,  
Aircraft Certification Service.



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**2014-05-19 The Boeing Company:** Amendment 39-17792; Docket No. FAA-2013-0331; Directorate Identifier 2011-NM-170-AD.

**(a) Effective Date**

This AD is effective April 25, 2014.

**(b) Affected ADs**

This AD affects the requirements of AD 2000-01-05, Amendment 39-11502 (65 FR 1051, January 7, 2000).

**(c) Applicability**

This AD applies to The Boeing Company airplanes, certificated in any category, identified in paragraphs (c)(1), (c)(2), and (c)(3) of this AD, and equipped with Rolls-Royce RB211-524 engines.

(1) Model 747-200B, 747-200F, 747-300, and 747SP series airplanes, as identified in Boeing Service Bulletin 747-78-2178, Revision 1, dated August 4, 2011.

(2) Model 747-400 and 747-400F series airplanes, as identified in Boeing Service Bulletin 747-78-2180, Revision 2, dated November 11, 2011.

(3) Model 767-300 series airplanes, as identified in Boeing Service Bulletin 767-78-0096, Revision 1, dated December 10, 2009.

**(d) Subject**

Joint Aircraft System/Component (JASC) Code 7830, Engine Thrust Reverser.

**(e) Unsafe Condition**

This AD was prompted by multiple reports of uncommanded thrust reverser unlock events, three of which had all three locks disengaged. We are issuing this AD to prevent an uncommanded thrust reverser deployment during takeoff or in flight resulting in decreased airplane control and performance, possible runway excursions, and failure to climb.

**(f) Compliance**

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

**(g) Replacement**

Within 60 months after the effective date of this AD: Do the actions specified in paragraphs (g)(1), (g)(2), and (g)(3) of this AD, as applicable.

(1) For Model 747-200B, 747-200F, 747-300, and 747SP series airplanes: Replace relays and relay sockets in the P252 and P253 panels with new relays and relay sockets, and do wiring changes,

in accordance with the Accomplishment Instructions of Boeing Service Bulletin 747-78-2178, Revision 1, dated August 4, 2011.

(2) For Model 747-400 and 747-400F series airplanes: Install the components removed from the existing P252 and P253 panels, install new relays and relay sockets, and do wiring changes on the new P252 and P253 relay panels, in accordance with the Accomplishment Instructions of Boeing Service Bulletin 747-78-2180, Revision 2, dated November 11, 2011.

(3) For Model 767-300 series airplanes: Replace relays and relay sockets in the P36 and P37 panels with new relays and relay sockets, and do wiring changes in the P33, P36, and P37 panels, in accordance with the Accomplishment Instructions of Boeing Service Bulletin 767-78-0096, Revision 1, dated December 10, 2009.

#### **(h) Concurrent Requirements**

(1) For Model 747-200B, 747-200F, 747-300, and 747SP series airplanes: Prior to or concurrently with accomplishing the actions required by paragraph (g)(1) of this AD, install an additional locking system on the thrust reversers, in accordance with the Accomplishment Instructions of Boeing Service Bulletin 747-78-2156, Revision 1, dated August 30, 2001. Accomplishing this installation is a method of compliance with the installation required by paragraph (c) of AD 2000-01-05, Amendment 39-11502 (65 FR 1051, January 7, 2000).

(2) For Model 747-400 and 747-400F series airplanes identified as Group 1, 2, 3, 4, 7, 8, or 9 airplanes in Boeing Service Bulletin 747-78-2180, Revision 2, dated November 11, 2011: Prior to or concurrently with accomplishing the actions required by paragraph (g)(2) of this AD, install an additional locking gearbox on the thrust reversers of each engine and modify system wiring for in-flight fault indications of the thrust reverser system, in accordance with the Accomplishment Instructions of Boeing Service Bulletin 747-78-2158, Revision 2, dated July 29, 1999.

Note 1 to paragraph (h)(2) of this AD: Paragraph (a)(1) of AD 2000-02-22, Amendment 39-11540 (65 FR 5222, February 3, 2000), refers to Boeing Service Bulletin 747-78-2158, Revision 2, dated July 29, 1999, as the appropriate source of service information for accomplishing the installation required by that paragraph.

(3) For Model 767-300 series airplanes identified as Group 2 airplanes in Boeing Service Bulletin 767-78-0096, Revision 1, dated December 10, 2009: Prior to or concurrently with accomplishing the actions required by paragraph (g)(3) of this AD, install a second locking gearbox system on the thrust reversers, in accordance with the Accomplishment Instructions of Boeing Service Bulletin 767-78-0059, Revision 3, dated January 20, 1994.

Note 2 to paragraph (h)(3) of this AD: Paragraph (c) of AD 94-17-03, Amendment 39-8998 (59 FR 41647, August 15, 1994), refers to Boeing Service Bulletin 767-78-0059, Revision 3, dated January 20, 1994, as an appropriate source of service information for accomplishing the installation required by that paragraph.

#### **(i) Credit for Previous Actions**

(1) This paragraph provides credit for the requirements of paragraph (g)(1) of this AD, if those actions were performed before the effective date of this AD using Boeing Service Bulletin 747-78-2178, dated January 22, 2009, which is not incorporated by reference in this AD.

(2) This paragraph provides credit for the requirements of paragraph (g)(2) of this AD, if those actions were performed before the effective date of this AD using Boeing Service Bulletin 747-78-2180, dated April 10, 2008, which is not incorporated by reference in this AD.

(3) This paragraph provides credit for the requirements of paragraph (g)(2) of this AD, if those actions were performed before the effective date of this AD using Boeing Service Bulletin 747-78-2180, Revision 1, dated November 11, 2010, which is not incorporated by reference in this AD.

(4) This paragraph provides credit for the requirements of paragraph (g)(3) of this AD, if those actions were performed before the effective date of this AD using Boeing Service Bulletin 767-78-0096, dated August 7, 2008, which is not incorporated by reference in this AD.

(5) This paragraph provides credit for the requirements of paragraph (h)(1) of this AD, if those actions were performed before the effective date of this AD using Boeing Service Bulletin 747-78-2156, dated October 31, 1996, which was incorporated by reference in AD 99-18-03, Amendment 39-11269 (64 FR 47365, August 31, 1999).

Note 3 to paragraph (i)(5) of this AD: Paragraph (c) of AD 2000-01-05, Amendment 39-11502 (65 FR 1051, January 7, 2000), refers to Boeing Service Bulletin 747-78-2156, dated October 31, 1996, as the appropriate source of service information for accomplishing the installation required by that paragraph.

(6) This paragraph provides credit for the requirements of paragraph (h)(2) of this AD, if those actions were performed before the effective date of this AD using Boeing Service Bulletin 747-78-2158, Revision 1, dated January 22, 1998, which is not incorporated by reference in this AD.

Note 4 to paragraph (i)(6) of this AD: In AD 2000-02-22, Amendment 39-11540 (65 FR 5222, February 3, 2000), Note 2 to paragraph (a)(1) of AD 2000-02-22 refers to Boeing Service Bulletin 747-78-2158, Revision 1, dated January 22, 1998, as a method of compliance for accomplishing the installation required by paragraph (a)(1) of AD 2000-02-22.

(7) This paragraph provides credit for the requirements of paragraph (h)(3) of this AD, if those actions were performed before the effective date of this AD using Boeing Service Bulletin 767-78-0059, Revision 2, dated June 10, 1993, which is not incorporated by reference in this AD, which was incorporated by reference in AD 94-17-03, Amendment 39-8998 (59 FR 41647, August 15, 1994).

Note 5 to paragraph (i)(7) of this AD: Paragraph (c) of AD 94-17-03, Amendment 39-8998 (59 FR 41647, August 15, 1994), refers to Boeing Service Bulletin 767-78-0059, Revision 2, dated June 10, 1993, as an appropriate source of service information for accomplishing the installation required by that paragraph.

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

(1) The Manager, Seattle Aircraft Certification Office, 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 paragraph (k) of this AD. Information may be emailed 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 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.

**(k) Related Information**

(1) For more information about this AD, contact Tung Tran, Aerospace Engineer, Propulsion Branch, ANM-140S, Seattle Aircraft Certification Office (ACO), FAA, 1601 Lind Avenue SW., Renton, WA 98057-3356; phone: 425-917-6505; fax: 425-917-6590; email: Tung.Tran@faa.gov.

(2) Service information identified in this AD that is not incorporated by reference may be obtained at the addresses specified in paragraphs (1)(6) and (1)(7) of this AD.

**(l) Material Incorporated by Reference**

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

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

(3) The following service information was approved for IBR on April 25, 2014.

(i) Boeing Service Bulletin 747-78-2156, Revision 1, dated August 30, 2001.

(ii) Boeing Service Bulletin 747-78-2178, Revision 1, dated August 4, 2011.

(iii) Boeing Service Bulletin 747-78-2180, Revision 2, dated November 11, 2011.

(iv) Boeing Service Bulletin 767-78-0096, Revision 1, dated December 10, 2009.

(4) The following service information was approved for IBR on February 18, 2000 (65 FR 5222, February 3, 2000).

(i) Boeing Service Bulletin 747-78-2158, Revision 2, dated July 29, 1999.

(ii) Reserved.

(5) The following service information was approved for IBR on September 14, 1994 (59 FR 41647, August 15, 1994).

(i) Boeing Service Bulletin 767-78-0059, Revision 3, dated January 20, 1994.

(ii) Reserved.

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

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

(8) You may view this 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/cfr/ibr-locations.html>.

Issued in Renton, Washington, on February 19, 2014.

Jeffrey E. Duven,  
Manager, Transport Airplane Directorate,  
Aircraft Certification Service.



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**2014-05-20 The Boeing Company:** Amendment 39-17793; Docket No. FAA-2013-0369; Directorate Identifier 2012-NM-128-AD.

**(a) Effective Date**

This AD is effective April 22, 2014.

**(b) Affected ADs**

Certain requirements of this AD terminate the requirements of AD 2001-22-13, Amendment 39-12492 (66 FR 55075, November 1, 2001), for Model 757 airplanes.

**(c) Applicability**

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

**(d) Subject**

Air Transport Association (ATA) of America Code 27, Flight Controls.

**(e) Unsafe Condition**

This AD was prompted by reports of fractured rudder pedal pushrod connecting bolts in the rudder pedal assembly. We are issuing this AD to prevent fracture of the rudder pedal pushrod connecting bolts during pedal use, which could result in large involuntary inputs to the rudder and nose-wheel steering and an asymmetric application of braking, if pedal brakes are applied, leading to a runway excursion.

**(f) Compliance**

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

**(g) Inspection**

Within 60 months after the effective date of this AD, do a detailed inspection of the rudder pedal assembly bolt holes to determine the diameter in each of the captain and the first officer rudder pedal assemblies, in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 757-27A0153, dated May 9, 2012, as revised by Boeing Alert Service Bulletin 757-27A0153, Revision 1, dated October 29, 2012. Repeat this inspection thereafter at intervals not to exceed 15,000 flight cycles.

**(h) Installation**

Do the applicable actions specified in paragraph (h)(1), (h)(2), or (h)(3) of this AD for each of the captain and first officer rudder pedal assemblies, based on the results of any inspection required by paragraph (g) of this AD. Accomplishment of paragraph (h)(1), (h)(2), or (h)(3) of this AD terminates the requirements of AD 2001-22-13, Amendment 39-12492 (66 FR 55075, November 1, 2001), for that Model 757 airplane only.

(1) If the diameters of both holes are within 0.3120 and 0.3140 inch on the assembly, before further flight, install a new rudder pedal pushrod connecting bolt, washer, nut, and cotter pin, in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 757-27A0153, dated May 9, 2012, as revised by Boeing Alert Service Bulletin 757-27A0153, Revision 1, dated October 29, 2012.

(2) If the diameter of only one hole is greater than 0.3140 inch on the assembly, before further flight, do the actions specified in paragraphs (h)(2)(i) and (h)(2)(ii) of this AD.

(i) Install a new rudder pedal assembly, or install a bushing in the worn hole, in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 757-27A0153, dated May 9, 2012, as revised by Boeing Alert Service Bulletin 757-27A0153, Revision 1, dated October 29, 2012.

(ii) Install a new rudder pedal pushrod connecting bolt, washer, nut, and cotter pin, in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 757-27A0153, dated May 9, 2012, as revised by Boeing Alert Service Bulletin 757-27A0153, Revision 1, dated October 29, 2012.

(3) If the diameters of both holes are greater than 0.3140 inch on the assembly, before further flight, do the actions specified in paragraphs (h)(3)(i) and (h)(3)(ii) of this AD.

(i) Install a new rudder pedal assembly, or install two bushings in the two worn holes, in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 757-27A0153, dated May 9, 2012, as revised by Boeing Alert Service Bulletin 757-27A0153, Revision 1, dated October 29, 2012.

(ii) Install a new rudder pedal pushrod connecting bolt, washer, nut, and cotter pin, in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 757-27A0153, dated May 9, 2012, as revised by Boeing Alert Service Bulletin 757-27A0153, Revision 1, dated October 29, 2012.

**(i) Parts Installation Prohibition**

As of the effective date of this AD, no person may install, in a rudder pedal assembly of any Boeing Model 757 airplane, a bolt having part number (P/N) BACB30NM5DK47.

**(j) Credit for Previous Actions**

This paragraph provides credit for the actions required by paragraphs (g) and (h) of this AD, if operators installed washers having P/N NAS1149D0516J, NAS1149D0532J, and NAS1149D0563J, and if those actions were performed before the effective date of this AD using Boeing Alert Service Bulletin 757-27A0153, dated May 9, 2012, as unmodified by Boeing Alert Service Bulletin 757-27A0153, Revision 1, dated October 29, 2012.

**(k) 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 paragraph (l)(1) of this AD. Information may be emailed 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.

### **(l) Related Information**

(1) For more information about this AD, contact Marie Hogestad, Aerospace Engineer, Systems and Equipment Branch, ANM-130S, Seattle Aircraft Certification Office, FAA, 1601 Lind Avenue SW., Renton, WA 98057-3356; phone: 425-917-6418; fax: 425-917-6590; email: marie.hogestad@faa.gov.

(2) Service information identified in this AD that is not incorporated by reference in this AD may be obtained at the address specified in paragraphs (m)(3) and (m)(4) of this AD.

### **(m) Material Incorporated by Reference**

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

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

(i) Boeing Alert Service Bulletin 757-27A0153, dated May 9, 2012.

(ii) Boeing Alert Service Bulletin 757-27A0153, Revision 1, dated October 29, 2012.

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

(4) You may view this service information at FAA, 1601 Lind Avenue SW., Renton, WA 98057-3356. For information on the availability of this material at the FAA, call 425-227-1221.

(5) You may view this 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/cfr/ibr-locations.html>.

Issued in Renton, Washington, on February 19, 2014.

Jeffrey E. Duven,  
Manager, Transport Airplane Directorate,  
Aircraft Certification Service.



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**2014-05-21 The Boeing Company:** Amendment 39-17794; Docket No. FAA-2013-0327; Directorate Identifier 2011-NM-161-AD.

**(a) Effective Date**

This AD is effective April 22, 2014.

**(b) Affected ADs**

This AD supersedes AD 2008-11-04, Amendment 39-15526 (73 FR 29421, May 21, 2008).

**(c) Applicability**

This AD applies to The Boeing Company Model 737-100, -200, -200C, -300, -400, and -500 series airplanes, certificated in any category, as identified in Boeing Service Bulletin 737-53A1200, Revision 2, dated September 12, 2012.

**(d) Subject**

Air Transport Association (ATA) of America Code 53, Fuselage.

**(e) Unsafe Condition**

This AD was prompted by multiple reports of cracks in the skin and/or bear strap at the forward galley service doorway hinge cutouts, and multiple reports of cracking under the repairs installed at the hinge cutouts. We are issuing this AD to detect and correct such cracking, which could result in rapid decompression of the airplane.

**(f) Compliance**

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

**(g) Retained Repetitive Inspections**

This paragraph restates the requirements of paragraph (f) of AD 2008-11-04, Amendment 39-15526 (73 FR 29421, May 21, 2008). Except as provided by paragraph (h)(1) of this AD, at the applicable times specified in paragraph 1.E. "Compliance," of Boeing Alert Service Bulletin 737-53A1200, dated April 13, 2006, do external detailed, low frequency eddy current (LFEC), high frequency eddy current (HFEC), and HFEC rotary probe inspections, as applicable, for cracks in and around the upper and lower hinge cutouts of the forward entry and forward galley service doorways, in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 737-53A1200, dated April 13, 2006, except as provided by paragraphs (h)(2) and (i) of this AD. Do not exceed the applicable repetitive interval for the previous inspection, as specified in Boeing Alert Service Bulletin 737-53A1200, dated April 13, 2006, as Option A or Option B. Repair any crack before further flight using a method approved in accordance with the procedures specified in paragraph (p) of this AD.

Accomplishment of the actions required by paragraph (j) of this AD terminates the requirements of this paragraph.

### **(h) Retained Exceptions to Service Bulletin Specifications**

This paragraph restates the requirements of paragraphs (g) and (h) of AD 2008-11-04, Amendment 39-15526 (73 FR 29421, May 21, 2008).

(1) Where Boeing Alert Service Bulletin 737-53A1200, dated April 13, 2006, specifies a compliance time after the release date of that service bulletin, this AD requires compliance within the specified compliance time after June 25, 2008 (the effective date of AD 2008-11-04, Amendment 39-15526 (73 FR 29421, May 21, 2008)).

(2) Although Boeing Alert Service Bulletin 737-53A1200, dated April 13, 2006, specifies contacting Boeing for information about installing an optional preventive modification that would terminate the repetitive inspections specified in paragraph (g) of this AD, this AD requires that any terminating action be done by using a method approved in accordance with the procedures specified in paragraph (p) of this AD.

### **(i) Retained Optional Terminating Action**

This paragraph restates the optional terminating action specified paragraph (i) of AD 2008-11-04, Amendment 39-15526 (73 FR 29421, May 21, 2008), with revised method of compliance language and removal of note 1 to paragraph (i) of this AD. The inspections specified in paragraph (g) of this AD may be terminated at areas repaired using a method approved in accordance with the procedures specified in paragraph (p) of this AD.

### **(j) New Repetitive Inspections and Repair**

Except as required by paragraph (l)(1) of this AD, at the applicable times specified in Paragraph 1.E., "Compliance," of Boeing Service Bulletin 737-53A1200, Revision 2, dated September 12, 2012: Do an external and internal detailed inspection, HFEC inspection, and HFEC hole probe inspection, at the forward entry and galley service doorway upper and lower hinge cutouts for cracking in the skin, bonded doubler, bearstrap, and frame outer chord, in accordance with the Accomplishment Instructions of Boeing Service Bulletin 737-53A1200, Revision 2, dated September 12, 2012, except as required by paragraph (m) of this AD. Options provided in Boeing Service Bulletin 737-53A1200, Revision 2, dated September 12, 2012, for accomplishing the inspections are acceptable for compliance with the corresponding requirements of this paragraph. Repeat the applicable inspections thereafter at the applicable times specified in paragraph 1.E., "Compliance," of Boeing Service Bulletin 737-53A1200, Revision 2, dated September 12, 2012. If any crack is found, before further flight, repair using a method approved in accordance with the procedures specified in paragraph (p) of this AD. Accomplishment of the initial inspections terminates the requirements of paragraph (g) of this AD.

### **(k) New Actions for Airplanes With Certain Repairs Installed**

(1) For airplanes with any structural repair manual (SRM) repair specified in paragraphs (k)(1)(i) through (k)(1)(vii) of this AD installed, at the applicable times specified in paragraph 1.E., "Compliance," of Boeing Service Bulletin 737-53A1200, Revision 2, dated September 12, 2012: Do an external and internal detailed inspection, HFEC inspection, and LFEC inspection, at the forward entry and galley service doorway upper and lower hinge cutouts for cracking in the skin, bearstrap, and frame outer chord, in accordance with the Accomplishment Instructions of Boeing Service Bulletin 737-53A1200, Revision 2, dated September 12, 2012, except as required by paragraph (l)(2) of this AD. Repeat the inspection thereafter at the applicable times specified in paragraph 1.E.,

"Compliance," of Boeing Service Bulletin 737-53A1200, Revision 2, dated September 12, 2012. If any crack is found, before further flight, repair using a method approved in accordance with the procedures specified in paragraph (p) of this AD.

(i) Repair specified in Boeing 737-100/ -200 SRM 53-30-03, Figure 21.

(ii) Repair specified in Boeing 737-100/200 SRM 53-30-03, Figure 31.

(iii) Repair 5 specified in Boeing 737-300 SRM 53-10-01; Repair 5 specified in Boeing 737-400 SRM 53-10-01; or Repair 5 specified in Boeing 737-500 SRM 53-10-01; installed at the upper or lower hinge cutout.

(iv) Repair specified in Boeing 737-100/200 SRM 53-30-03, Figure 20.

(v) Repair 6 specified in Boeing 737-300 SRM 53-10-01; Repair 6 specified in Boeing 737-400 SRM 53-10-01; or Repair 6 specified in Boeing 737-500 SRM 53-10-01.

(vi) Repair 8 specified in Boeing 737-300 SRM 53-10-01; Repair 8 specified in Boeing 737-400 SRM 53-10-01; or Repair 8 specified in Boeing 737-500 SRM 53-10-01.

(vii) Repair specified in Boeing 737-100/200 SRM 53-30-03, Figure 32.

(2) For airplanes with any repair installed at the forward entry doorway or forward galley doorway, upper or lower hinge cutout, that does not meet the conditions specified in Note 10 of paragraph 3.A., "General Information," of the Accomplishment Instructions of Boeing Service Bulletin 737-53A1200, Revision 2, dated September 12, 2012: Except as required by paragraph (l) of this AD, at the applicable times specified in paragraph 1.E., "Compliance," of Boeing Service Bulletin 737-53A1200, Revision 2, dated September 12, 2012, contact the Manager, Seattle ACO, FAA, for instructions, using the procedures specified in paragraph (p) of this AD, and do the actions required by the FAA.

#### **(l) New Exception to Service Bulletin Specifications**

(1) Where Boeing Service Bulletin 737-53A1200, Revision 2, dated September 12, 2012, specifies a compliance time after the issue date of Boeing Service Bulletin 737-53A1200, Revision 1, dated July 7, 2011, this AD requires compliance within the specified compliance time after the effective date of this AD.

(2) Where Boeing Service Bulletin 737-53A1200, Revision 2, dated September 12, 2012, specifies to contact Boeing for further instructions, this AD requires contacting the Manager, Seattle Aircraft Certification Office (ACO), FAA, for instructions and doing the actions required by the FAA, using the procedures specified in paragraph (p) of this AD.

#### **(m) Exception for Group 5 Airplanes**

For Group 5 airplanes identified in Boeing Service Bulletin 737-53A1200, Revision 2, dated September 12, 2012: Before further flight, contact the Manager, Seattle ACO, FAA, for instructions, using the procedures specified in paragraph (p) of this AD, and do the actions required by the FAA.

#### **(n) Terminating Actions**

The inspections required by paragraph (j) of this AD may be terminated at areas with repairs installed prior to the effective date of this AD, provided the repairs meet the conditions specified in Note 10 of paragraph 3.A., "General Information," of the Accomplishment Instructions of Boeing Service Bulletin 737-53A1200, Revision 2, dated September 12, 2012.

#### **(o) Credit for Previous Actions**

This paragraph provides credit for the actions required by paragraphs (j) and (k) of this AD, if those actions were performed before the effective date of this AD using Boeing Alert Service Bulletin 737-53A1200, Revision 1, dated July 7, 2011, which is not incorporated by reference in this AD.

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

(1) The Manager, Seattle 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 paragraph (q)(1) of this AD. Information may be emailed 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) AMOCs approved previously for paragraphs (f) and (i) of AD 2008-11-04, Amendment 39-15526 (73 FR 29421, May 21, 2008), are approved as AMOCs for the corresponding provisions of paragraphs (g) and (i) of this AD.

**(q) Related Information**

(1) For more information about this AD, contact Alan Pohl, Aerospace Engineer, Airframe Branch, ANM-120S, Seattle Aircraft Certification Office (ACO), FAA, 1601 Lind Avenue SW., Renton, WA 98057-3356; phone: 425-917-6450; fax: 425-917-6590; email: Alan.Pohl@faa.gov.

(2) Service information identified in this AD that is not incorporated by reference may be obtained at the addresses specified in paragraphs (r)(5) and (r)(6) of this AD.

**(r) Material Incorporated by Reference**

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

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

(3) The following service information was approved for IBR on April 22, 2014.

(i) Boeing Service Bulletin 737-53A1200, Revision 2, dated September 12, 2012.

(ii) Reserved.

(4) The following service information was approved for IBR on June 25, 2008 (73 FR 29421, May 21, 2008).

(i) Boeing Alert Service Bulletin 737-53A1200, dated April 13, 2006.

(ii) Reserved.

(5) For service information identified in this AD, contact Boeing Commercial Airplanes, Attention: Data & Services Management, P. O. Box 3707, MC 2H-65, Seattle, WA 98124-2207; phone: 206-544-5000, extension 1; fax: 206-766-5680; Internet: <https://www.myboeingfleet.com>.

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

(7) You may view this 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/cfr/ibr-locations.html>.

Issued in Renton, Washington, on February 19, 2014.  
Jeffrey E. Duven,  
Manager, Transport Airplane Directorate,  
Aircraft Certification Service.



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**2014-05-22 The Boeing Company:** Amendment 39-17795; Docket No. FAA-2013-0977; Directorate Identifier 2013-NM-190-AD.

**(a) Effective Date**

This AD is effective April 15, 2014.

**(b) Affected ADs**

None.

**(c) Applicability**

This AD applies to all The Boeing Company Model 717-200 airplanes, certificated in any category.

**(d) Subject**

Air Transport Association (ATA) of America Code 53, Fuselage.

**(e) Unsafe Condition**

This AD was prompted by multiple reports of cracking in the overwing frames. We are issuing this AD to detect and correct such cracking, which could result in a severed frame and might increase the loading of adjacent frames, resulting in damage to the adjacent structure and consequent loss of structural integrity of the airplane.

**(f) Compliance**

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

**(g) Inspections and Corrective Actions**

At the applicable time specified in paragraph (g)(1) or (g)(2) of this AD, do a general visual inspection and a high frequency eddy current (HFEC) inspection for cracking of the left-side and right-side overwing frames at station 737, and do all applicable corrective actions, in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 717-53A0036, dated August 12, 2013, except as required by paragraph (h)(3) of this AD. Do all applicable corrective actions before further flight. Except as required by paragraph (h)(2) of this AD, repeat the inspections thereafter at the applicable time specified in paragraph 1.E., "Compliance," of Boeing Alert Service Bulletin 717-53A0036, dated August 12, 2013.

(1) For Group 1, Configuration 1 airplanes identified in Boeing Alert Service Bulletin 717-53A0036, dated August 12, 2013: At the time specified in table 1 of paragraph 1.E., "Compliance," of Boeing Alert Service Bulletin 717-53A0036, dated August 12, 2013, except as provided by paragraph (h)(1) of this AD.

(2) For Group 1, Configuration 2 airplanes identified in Boeing Alert Service Bulletin 717-53A0036, dated August 12, 2013: At the applicable time specified in paragraph (g)(2)(i) or (g)(2)(ii) of this AD.

(i) For airplanes on which the overwing frame has not been replaced: Within 9,300 flight cycles after the inspections specified in Boeing Multi Operator Message (MOM) MOM-MOM-13-0375-01B, dated May 9, 2013, were accomplished.

(ii) For airplanes on which the overwing frame has been replaced: Within 12,000 flight cycles after replacing the frame.

#### **(h) Exceptions to Service Information Specifications**

(1) Where Boeing Alert Service Bulletin 717-53A0036, dated August 12, 2013, specifies a compliance time "after the original issue date of this service bulletin," this AD requires compliance within the specified compliance time after the effective date of this AD.

(2) Where Boeing Alert Service Bulletin 717-53A0036, dated August 12, 2013, specifies to contact Boeing for the compliance time of an inspection repetitive interval, this AD requires a compliance time approved by the FAA in accordance with the procedures specified in paragraph (j) of this AD.

(3) Where Boeing Alert Service Bulletin 717-53A0036, dated August 12, 2013, specifies to contact Boeing for repair instructions, this AD requires repair before further flight using a method approved in accordance with the procedures specified in paragraph (j) of this AD.

#### **(i) Credit for Previous Actions**

This paragraph provides credit for only the initial general visual inspection, HFEC inspection, and frame replacement required by paragraph (g) of this AD, if those actions were performed before the effective date of this AD using Boeing Multi Operator Message MOM-MOM-13-0375-01B, dated May 9, 2013, which is not incorporated by reference in this AD.

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

(1) The Manager, Los Angeles 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 paragraph (k) of this AD. Information may be emailed to: 9-ANM-LAACO-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, Los Angeles ACO, to make those findings. For a repair method to be approved, the repair must meet the certification basis of the airplane and 14 CFR 25.571, Amendment 45, and the approval must specifically refer to this AD.

(4) If the service information contains steps that are labeled as RC (Required for Compliance), those steps must be done to comply with this AD; any steps that are not labeled as RC are recommended. Those steps that are not labeled as RC may be deviated from, done as part of other actions, or done using accepted methods different from those identified in the specified service information without obtaining approval of an AMOC, provided the steps labeled as RC can be done and the airplane can be put back in a serviceable condition. Any substitutions or changes to steps labeled as RC require approval of an AMOC.

**(k) Related Information**

(1) For more information about this AD, contact: Eric Schrieber, Aerospace Engineer, Airframe Branch, ANM-120L, Los Angeles ACO, FAA, 3960 Paramount Boulevard, Lakewood, CA 90712-4137; phone: 562-627-5348; fax: 562-627-5210; email: eric.schrieber@faa.gov.

(2) Service information identified in this AD that is not incorporated by reference may be obtained at the addresses specified in paragraphs (1)(3) and (1)(4) of this AD.

**(l) Material Incorporated by Reference**

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

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

(i) Boeing Alert Service Bulletin 717-53A0036, dated August 12, 2013.

(ii) Reserved.

(3) For service information identified in this AD, contact Boeing Commercial Airplanes, Attention: Data & Services Management, 3855 Lakewood Boulevard, MC D800-0019, Long Beach, CA 90846-0001; telephone 206-544-5000, extension 2; fax 206-766-5683; Internet <https://www.myboeingfleet.com>.

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

(5) You may view this 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/cfr/ibr-locations.html>.

Issued in Renton, Washington on February 26, 2014.

Jeffrey E. Duven,  
Manager, Transport Airplane Directorate,  
Aircraft Certification Service.



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**2014-05-23 Bombardier, Inc.:** Amendment 39-17796. Docket No. FAA-2013-0798; Directorate Identifier 2013-NM-087-AD.

**(a) Effective Date**

This airworthiness directive (AD) becomes effective April 15, 2014.

**(b) Affected ADs**

None.

**(c) Applicability**

This AD applies to Bombardier, Inc. Model BD-100-1A10 (Challenger 300) airplanes, certificated in any category, serial numbers 20003 and subsequent.

**(d) Subject**

Air Transport Association (ATA) of America Code 24, Electrical power.

**(e) Reason**

This AD was prompted by multiple reports of erratic electrical status indications on the push button annunciators and the engine instrument and crew alerting system. Certain of those reported incidents resulted in the airplane experiencing a momentary loss of electrical power and loss of flight displays. We are issuing this AD to prevent loss of electrical power, which could result in the loss of flight displays and reduced controllability of the airplane.

**(f) Compliance**

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

**(g) Direct Current Power Centers (DCPC) Modification**

For airplanes having serial numbers 20003 through 20405 inclusive: Within 800 flight hours after the effective date of this AD or within 24 months after the effective date of this AD, whichever occurs first, modify the left-hand DCPC, right-hand DCPC, and auxiliary DCPC, in accordance with the Accomplishment Instructions of Bombardier Service Bulletin 100-24-23, dated November 26, 2012.

**(h) Parts Installation Limitation**

As of the effective date of this AD, no person may install a DCPC having a part number specified in paragraphs (h)(1) through (h)(9) of this AD on any airplane, unless the DCPC serial number has a suffix "R" beside the serial number.

- (1) 970GC02Y04.
- (2) 970GC02Y05.
- (3) 970GC02Y06.
- (4) 975GC02Y04.
- (5) 975GC02Y05.
- (6) 975GC02Y06.
- (7) 320GC03Y04.
- (8) 320GC03Y05.
- (9) 320GC03Y06.

**(i) Other FAA AD Provisions**

The following provisions also apply to this AD:

(1) Alternative Methods of Compliance (AMOCs): The Manager, New York Aircraft Certification Office (ACO), ANE-170, 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 ACO, send it to ATTN: Program Manager, Continuing Operational Safety, FAA, New York ACO, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516-228-7300; fax 516-794-5531. 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. The AMOC approval letter must specifically reference this AD.

(2) Airworthy Product: For any requirement in this AD to obtain corrective actions from a manufacturer or other source, use these actions if they are FAA-approved. Corrective actions are considered FAA-approved if they are approved by the State of Design Authority (or their delegated agent). You are required to assure the product is airworthy before it is returned to service.

**(j) Related Information**

Refer to Mandatory Continuing Airworthiness Information (MCAI) Canadian Airworthiness Directive CF-2013-05, dated February 22, 2013, for related information. This MCAI may be found in the AD docket on the Internet at <http://www.regulations.gov/#!documentDetail;D=FAA-2013-0798-0001>.

**(k) Material Incorporated by Reference**

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

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

- (i) Bombardier Service Bulletin 100-24-23, dated November 26, 2012.
- (ii) Reserved.

(3) For service information identified in this AD, contact Bombardier, Inc., 400 Côte-Vertu Road West, Dorval, Québec H4S 1Y9, Canada; telephone 514-855-5000; fax 514-855-7401; email [thd.crj@aero.bombardier.com](mailto:thd.crj@aero.bombardier.com); Internet <http://www.bombardier.com>.

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

(5) You may view this 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/cfr/ibr-locations.html>.

Issued in Renton, Washington, on February 26, 2014.

Jeffrey E. Duven,  
Manager, Transport Airplane Directorate,  
Aircraft Certification Service.



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**2014-05-24 The Boeing Company:** Amendment 39-17797; Docket No. FAA-2013-1023; Directorate Identifier 2013-NM-042-AD.

**(a) Effective Date**

This AD is effective April 25, 2014.

**(b) Affected ADs**

This AD supersedes AD 84-19-01, Amendment 39-4913 (Docket No. 84-NM-10-AD; 49 FR 36365, September 17, 1984).

**(c) Applicability**

This AD applies to The Boeing Company Model 747-100, 747-200B, and 747-200F series airplanes, certificated in any category, as identified in Boeing Alert Service Bulletin 747-53A2088, Revision 4, dated January 11, 2013.

**(d) Subject**

Air Transport Association (ATA) of America Code 53, Fuselage.

**(e) Unsafe Condition**

This AD was prompted by reports of cracking in the body station (BS) 760 tension tie as a result of bending due to cabin pressurization. We are issuing this AD to detect and correct tension tie cracking, which could eventually result in in-flight depressurization of the airplane and the inability to withstand current regulatory failsafe loads.

**(f) Compliance**

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

**(g) Repetitive Inspections: Unmodified Airplanes**

For airplanes that have not been modified as specified in Boeing Service Bulletin 747-53-2088: At the applicable time specified in Table 1 of paragraph 1.E., "Compliance," of Boeing Alert Service Bulletin 747-53A2088, Revision 4, dated January 11, 2013, except as required by paragraph (j)(1) of this AD, do detailed (close visual) and surface high frequency eddy current inspections for cracking of the tension tie at BS 760 or 780, as applicable, and do all applicable corrective actions, in accordance with Part I of the Accomplishment Instructions of Boeing Alert Service Bulletin 747-53A2088, Revision 4, dated January 11, 2013, except as required by paragraph (j)(2) of this AD. Do all applicable corrective actions before further flight. Repeat the inspections thereafter at the applicable time specified in Table 1 or Table 2 of paragraph 1.E., "Compliance," of Boeing Alert

Service Bulletin 747-53A2088, Revision 4, dated January 11, 2013, until accomplishment of the requirements of paragraph (h) of this AD.

#### **(h) Modification**

For airplanes that have not been modified as specified in Boeing Service Bulletin 747-53-2088: At the applicable time specified in Table 1 of paragraph 1.E., "Compliance," of Boeing Alert Service Bulletin 747-53A2088, Revision 4, dated January 11, 2013, except as required by paragraph (j)(1) of this AD, modify the tension ties, including doing an open-hole high frequency eddy current inspection for cracks, as applicable, and all applicable corrective actions, in accordance with Part III of the Accomplishment Instructions of Boeing Alert Service Bulletin 747-53A2088, Revision 4, dated January 11, 2013, except as required by paragraph (j)(2) of this AD. All applicable corrective actions must be done before further flight. This modification terminates the repetitive inspection requirements of paragraph (g) of this AD.

#### **(i) Post-modification Repetitive Inspections**

For airplanes that have been modified as specified in Boeing Service Bulletin 747-53-2088: At the applicable time specified in Table 2 of paragraph 1.E., "Compliance," of Boeing Alert Service Bulletin 747-53A2088, Revision 4, dated January 11, 2013, do a detailed inspection for cracking of the tension tie at BS 760 or 780, and do all applicable corrective actions, in accordance with Part I of the Accomplishment Instructions of Boeing Alert Service Bulletin 747-53A2088, Revision 4, dated January 11, 2013, except as required by paragraph (j)(2) of this AD. Do all applicable corrective actions before further flight. Repeat the inspection thereafter at the applicable time specified in Table 2 of paragraph 1.E., "Compliance," of Boeing Alert Service Bulletin 747-53A2088, Revision 4, dated January 11, 2013. Boeing Alert Service Bulletin 747-53A2088, Revision 4, dated January 11, 2013, notes that additional post-modification inspections are specified in Boeing Service Bulletin 747-53A2502; those post-modification inspections are required by AD 2006-01-07, Amendment 39-14446 (71 FR 1947, January 12, 2006).

#### **(j) Exceptions to Service Information Specifications**

(1) Where Boeing Alert Service Bulletin 747-53A2088, Revision 4, dated January 11, 2013, specifies a compliance time "after the Revision 4 date of this service bulletin," this AD requires compliance within the specified compliance time after the effective date of this AD.

(2) Where Boeing Alert Service Bulletin 747-53A2088, Revision 4, dated January 11, 2013, specifies to contact Boeing for appropriate action: Before further flight, repair using a method approved in accordance with the procedures specified in paragraph (m) of this AD.

#### **(k) Credit for Previous Actions**

This paragraph provides credit for the actions specified in this AD, if those actions were performed before the effective date of this AD using Boeing Alert Service Bulletin 747-53A2088, Revision 3, dated September 8, 1994, which is not incorporated by reference in this AD.

#### **(l) Special Flight Permit**

Special flight permits, as described in Section 21.197 and Section 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199), are not allowed.

**(m) 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 paragraph (n)(1) of this AD. Information may be emailed 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) AMOCs approved for AD 84-19-01, Amendment 39-4913 (Docket No. 84-NM-10-AD; 49 FR 36365, September 17, 1984), are approved as AMOCs for the corresponding requirements of paragraph (g) (the retained detailed inspections) and paragraph (i) of this AD, but not as AMOCs for the high frequency eddy current inspections required by paragraph (g) of this AD.

**(n) Related Information**

(1) For more information about this AD, contact Nathan Weigand, Aerospace Engineer, Airframe Branch, ANM-120S, FAA, Seattle Aircraft Certification Office (ACO), 1601 Lind Avenue SW., Renton, WA 98057-3356; phone: 425-917-6428; fax: 425-917-6590; email: Nathan.P.Weigand@faa.gov.

(2) Service information identified in this AD that is not incorporated by reference in this AD may be obtained at the addresses specified in paragraphs (o)(3) and (o)(4) of this AD.

**(o) Material Incorporated by Reference**

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

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

(i) Boeing Alert Service Bulletin 747-53A2088, Revision 4, dated January 11, 2013.

(ii) Reserved.

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

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

(5) You may view this 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/cfr/ibr-locations.html>.

Issued in Renton, Washington, on February 26, 2014.

Jeffrey E. Duven,  
Manager, Transport Airplane Directorate,  
Aircraft Certification Service.



**2014-05-25 Rolls-Royce plc:** Amendment 39-17798; Docket No. FAA-2013-1015; Directorate Identifier 2013-NE-37-AD.

**(a) Effective Date**

This AD is effective April 7, 2014.

**(b) Affected ADs**

None.

**(c) Applicability**

This AD applies to Rolls-Royce plc (RR) RB211-Trent 970-84, RB211-Trent 970B-84, RB211-Trent 972-84, RB211-Trent 972B-84, RB211-Trent 977-84, RB211-Trent 977B-84, and RB211-Trent 980-84 turbofan engines.

**(d) Reason**

This AD was prompted by an RR structural re-analysis indicating that the tail bearing housing (TBH) may not retain full limit load capability in all fail-safe conditions. We are issuing this AD to prevent failure of the TBH, resulting in damage to the engine and damage to the airplane.

**(e) Actions and Compliance**

Comply with this AD within the compliance times specified, unless already done. Performing the on-wing or in-shop inspections as specified in paragraph (e)(1) satisfies the requirements of this AD.

(1) Accomplish on-wing or in-shop inspections of the TBH as specified in paragraphs (e)(1)(i) through (e)(1)(iv) of this AD.

(i) Perform an inspection of the mount lug run-outs, before exceeding 2,200 flight cycles since new (FCSN). Use Section 3.A., 3.B., or 3.C. of RR Alert Non-Modification Service Bulletin (NMSB) No. RB.211-72-AG971, Revision 1, dated September 27, 2013, to do the inspection. Thereafter, inspect every 2,200 flight cycles (FC).

(ii) For a TBH with 900 FCSN or less on the effective date of this AD, perform an inspection of the mount lug forging leading edge (LE) areas and fail safe catcher, before exceeding 1,000 FCSN. Use Section 3.A., or 3.B. of RR Alert NMSB No. RB.211-72-AH154, Revision 1, dated June 18, 2013; or Section 3.B. or 3.C. of RR Alert NMSB No. RB.211-72-AG971, Revision 1, dated September 27, 2013, to do the inspection. Thereafter, inspect every 1,000 FC.

(iii) For a TBH with more than 900 FCSN on the effective date of this AD, perform an inspection of the mount lug forging LE areas and fail safe catcher, within 100 FC. Use Section 3.A. or 3.B. of RR Alert NMSB No. RB.211-72-AH154, Revision 1, dated June 18, 2013; or Section 3.B. or 3.C. of RR Alert NMSB No. RB.211-72-AG971, Revision 1, dated September 27, 2013, to do the inspection. Thereafter, inspect every 1,000 FC.

(iv) Perform an inspection of the top core vanes, before exceeding 3,800 FCSN. Use Section 3.C. of RR Alert NMSB No. RB.211-72-AG971, Revision 1, dated September 27, 2013, to do the inspection. Thereafter, inspect every 3,800 FC.

(2) If any inspection required by paragraph (e)(1) of this AD fails, remove the TBH from service.

(3) Remove any TBH from service before the TBH exceeds 17,200 FCSN.

#### **(f) Credit for Previous Actions**

(1) If, before the effective date of this AD, you performed inspections and corrective actions using RR Alert NMSB No. RB.211-72-AG971, dated September 20, 2012 or RR Alert NMSB No. RB.211-72-AH154, dated June 13, 2013; you met the requirements of paragraph (e)(1) of this AD.

(2) If, before the effective date of this AD, the last in-shop inspection of the mount lug run-outs was accomplished using Section 3.C. of RR Alert NMSB No. RB.211-72-AG971, dated September 20, 2012, the compliance time interval for the next on-wing or in-shop inspection of the fail safe catcher, as required by paragraphs (e)(1)(ii) and (e)(1)(iii) of this AD, may be counted from that last in-shop inspection of the mount lug run-outs.

(3) If, before the effective date of this AD, you performed inspections and corrective actions using RR Technical Variance (TV) No. 124801, Issue 2, dated July 4, 2012 or earlier versions; or TV No. 124851, Issue 2, dated July 4, 2012 or earlier versions; you met the requirements of paragraph (e)(1)(i) of this AD.

(4) If, before the effective date of this AD, you performed inspections and corrective actions using RR TV No. 132043, Issue 1, dated March 25, 2013 or earlier versions; or TV No. 132217, Issue 5, dated May 23, 2013 or earlier versions; you met the requirements of paragraphs (e)(1)(ii) and (e)(1)(iii) of this AD.

(5) Any inspections and corrective actions performed are not terminating action for the repetitive inspections required by paragraph (e)(1) of this AD.

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

The Manager, Engine Certification Office, FAA, may approve AMOCs to this AD. Use the procedures found in 14 CFR 39.19 to make your request.

#### **(h) Related Information**

(1) For more information about this AD, contact Anthony W. Cerra, Jr., Aerospace Engineer, Engine Certification Office, FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; phone: 781-238-7128; fax: 781-238-7199; email: anthony.cerra@faa.gov.

(2) Refer to MCAI European Aviation Safety Agency AD 2013-0240 (correction), dated October 4, 2013, for more information. You may examine the MCAI in the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating it in Docket No. FAA-2013-1015.

(3) RR Repeater TV No. 132043, Repeater TV No. 132217, TV No. 124801, and TV No. 124851, which are not incorporated by reference in this AD, can be obtained from RR, using the contact information in paragraph (i)(3) of this AD.

(4) You may view this service information at the FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA. For information on the availability of this material at the FAA, call 781-238-7125.

#### **(i) Material Incorporated by Reference**

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

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

(i) Rolls-Royce plc Alert Non-Modification Service Bulletin (NMSB) No. RB.211-72-AG971, Revision 1, dated September 27, 2013.

(ii) Rolls-Royce plc Alert NMSB No. RB.211-72-AH154, Revision 1, dated June 18, 2013.

(3) For service information identified in this AD, contact Rolls-Royce plc, Corporate Communications, P.O. Box 31, Derby, England, DE248BJ; phone: 011-44-1332-242424; fax: 011-44-1332-245418, or email: [http://www.rolls-royce.com/contact/civil\\_team.jsp](http://www.rolls-royce.com/contact/civil_team.jsp).

(4) You may view this service information at FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA. For information on the availability of this material at the FAA, call 781-238-7125.

(5) You may view this service information 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/cfr/ibr-locations.html>.

Issued in Burlington, Massachusetts, on February 27, 2014.  
Colleen M. D'Alessandro,  
Assistant Directorate Manager, Engine & Propeller Directorate,  
Aircraft Certification Service.



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**2014-05-30 The Boeing Company:** Amendment 39-17802; Docket No. FAA-2013-0796; Directorate Identifier 2013-NM-111-AD.

**(a) Effective Date**

This AD is effective April 25, 2014.

**(b) Affected ADs**

- (1) This AD supersedes AD 2013-07-07, Amendment 39-17411 (78 FR 22182, April 15, 2013).
- (2) This AD affects certain requirements of AD 2004-05-19, Amendment 39-13514 (69 FR 10921, March 9, 2004; corrected April 13, 2004 (69 FR 19313)).

**(c) Applicability**

(1) This AD applies to all The Boeing Company Model 737-600, -700, -700C, -800, -900, and -900ER series airplanes, certificated in any category.

(2) Installation of Supplemental Type Certificate (STC) ST00830SE ([http://rgl.faa.gov/Regulatory\\_and\\_Guidance\\_Library/rgstc.nsf/0/408E012E008616A7862578880060456C?OpenDocument&Highlight=st00830se](http://rgl.faa.gov/Regulatory_and_Guidance_Library/rgstc.nsf/0/408E012E008616A7862578880060456C?OpenDocument&Highlight=st00830se)) does not affect the ability to accomplish the actions required by this AD. Therefore, for airplanes on which STC ST00830SE is installed, a "change in product" alternative method of compliance (AMOC) approval request is not necessary to comply with the requirements of 14 CFR 39.17.

**(d) Subject**

Air Transport Association (ATA) of America Code 55, Stabilizers.

**(e) Unsafe Condition**

This AD was prompted by inquiries from affected operators regarding the parts installation limitation and prohibition, and re-installation of certain attach pins that were removed for inspection. We are issuing this AD to prevent premature failure of the attach pins, which could cause reduced structural integrity of the horizontal stabilizer to fuselage attachment, resulting in loss of control of the airplane.

**(f) Compliance**

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

**(g) Retained Part Number (P/N) Inspection**

This paragraph restates the requirements of paragraph (g) of AD 2013-07-07, Amendment 39-17411 (78 FR 22182, April 15, 2013). For airplanes having line numbers 1 through 3534 inclusive: Before the accumulation of 56,000 total flight cycles, or within 3,000 flight cycles after May 20,

2013 (the effective date of AD 2013-07-07), whichever occurs later, inspect to determine the part number of the attach pins of the horizontal stabilizer rear spar. A review of airplane maintenance records is acceptable in lieu of this inspection if the part number of the attach pin can be conclusively determined from that review.

#### **(h) Retained Replacement**

This paragraph restates the requirements of paragraph (h) of AD 2013-07-07, Amendment 39-17411 (78 FR 22182, April 15, 2013). If, during the inspection required by paragraph (g) of this AD, any horizontal stabilizer rear spar attach pin has P/N 180A1612-3 or 180A1612-4, prior to the accumulation of 56,000 total flight cycles on the pin, or within 3,000 flight cycles after May 20, 2013 (the effective date of AD 2013-07-07), whichever occurs later, replace with a new attach pin having P/N 180A1612-7 or 180A1612-8, respectively, in accordance with the Accomplishment Instructions of Boeing Special Attention Service Bulletin 737-55-1093, dated April 9, 2012.

#### **(i) Retained Parts Installation Prohibition**

This paragraph restates the requirements of paragraph (i)(2) of AD 2013-07-07, Amendment 39-17411 (78 FR 22182, April 15, 2013). For airplanes having line numbers 3535 and subsequent: As of May 20, 2013 (the effective date of AD 2013-07-07), no person may install an attach pin of the horizontal stabilizer rear spar having P/N 180A1612-3 or 180A1612-4 on any airplane.

#### **(j) Retained Terminating Action for AD 2004-05-19, Amendment 39-13514 (69 FR 10921, March 9, 2004; Corrected April 13, 2004 (69 FR 19313))**

This paragraph restates the provisions of paragraph (j) of AD 2013-07-07, Amendment 39-17411 (78 FR 22182, April 15, 2013). Accomplishment of the actions required by paragraphs (g) and (h) of this AD terminates the requirements of paragraphs (a), (b), (c), (d), and (e) of AD 2004-05-19, Amendment 39-13514 (69 FR 10921, March 9, 2004; corrected April 13, 2004 (69 FR 19313)), for the rear spar attach pins only.

#### **(k) New Parts Installation Limitation**

For airplanes having line numbers 1 through 3534 inclusive: As of the effective date of this AD, an attach pin of the horizontal stabilizer rear spar having P/N 180A1612-3 or 180A1612-4 may be installed on an airplane, provided it is replaced with an attach pin having P/N 180A1612-7 or 180A1612-8, as applicable, prior to the accumulation of 56,000 total flight cycles on the attach pin. The replacement must be done in accordance with the Accomplishment Instructions of Boeing Special Attention Service Bulletin 737-55-1093, dated April 9, 2012.

#### **(l) New Attach Pin Replacement**

For airplanes having line numbers 1 through 3534 inclusive on which an attach pin of the horizontal stabilizer rear spar having P/N 180A1612-7 or 180A1612-8 has been replaced with an attach pin having P/N 180A1612-3 or 180A1612-4 before the effective date of this AD: Prior to the accumulation of 56,000 total flight cycles on the attach pin, or within 1,000 flight cycles on the airplane after the effective date of this AD, whichever occurs later, replace the attach pin having P/N 180A1612-3 or 180A1612-4 with an attach pin having P/N 180A1612-7 or 180A1612-8, as applicable, in accordance with the Accomplishment Instructions of Boeing Special Attention Service Bulletin 737-55-1093, dated April 9, 2012.

**(m) 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 paragraph (n) of this AD. Information may be emailed 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) AMOCs approved previously for AD 2013-07-07, Amendment 39-17411 (78 FR 22182, April 15, 2013), are approved as AMOCs for the corresponding provisions of this AD.

**(n) 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, WA 98057-3356; phone: 425-917-6440; fax: 425-917-6590; email: Nancy.Marsh@faa.gov.

**(o) Material Incorporated by Reference**

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

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

(3) The following service information was approved for IBR on May 20, 2013 (78 FR 22182, April 15, 2013).

(i) Boeing Special Attention Service Bulletin 737-55-1093, dated April 9, 2012.

(ii) Reserved.

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

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

(6) You may view this 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/cfr/ibr-locations.html>.

Issued in Renton, Washington, on March 3, 2014.

Michael J. Kaszycki,  
Acting Manager, Transport Airplane Directorate,  
Aircraft Certification Service.



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**2014-06-02 The Boeing Company:** Amendment 39-17806; Docket No. FAA-2013-0089; Directorate Identifier 2012-NM-166-AD.

**(a) Effective Date**

This AD is effective April 25, 2014.

**(b) Affected ADs**

None.

**(c) Applicability**

This AD applies to The Boeing Company Model 747-400 series airplanes, certificated in any category, as identified in Boeing Service Bulletin 747-24A2360, Revision 2, dated October 2, 2013.

**(d) Subject**

Air Transport Association (ATA) of America Code 24, Electrical Power.

**(e) Unsafe Condition**

This AD was prompted by reports of auxiliary power unit (APU) faults due to power feeder cable chafing. We are issuing this AD to detect and correct chafing of the APU power feeder cables within a flammable fluid leakage zone, which, with arcing, could result in fire and structural damage.

**(f) Compliance**

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

**(g) Inspection, Related Investigative and Corrective Actions**

Within 18 months after the effective date of this AD: Do a detailed inspection for damage (e.g., surface finish integrity, excessive wear or possible heat damage) of the APU power feeder cables within each wire bundle on the left and right sides of the bulkhead, and do all applicable related investigative and corrective actions, in accordance with the Accomplishment Instructions of Boeing Service Bulletin 747-24A2360, Revision 2, dated October 2, 2013; except as required by paragraph (h) of this AD. If no damage is found during this inspection, before further flight, replace the clamp(s) and install grommets, in accordance with the Accomplishment Instructions of Boeing Service Bulletin 747-24A2360, Revision 2, dated October 2, 2013. Do all applicable related investigative and correction actions before further flight. Where Boeing Service Bulletin 747-24A2360, Revision 2, dated October 2, 2013, specifies installation of a clamp having part number (P/N) TA025097L16, a clamp having P/N TA025097L() may be installed instead.

Note 1 to paragraph (g) of this AD: The parenthesis "(") designates different size clamps, to accommodate possible wire bundle diameter size differences.

#### **(h) Exceptions to the Service Information**

If any damage is found during any inspection required by this AD, and Boeing Service Bulletin 747-24A2360, Revision 2, dated October 2, 2013, specifies to contact Boeing for appropriate action: Before further flight, repair the damage using a method approved in accordance with paragraph (k) of this AD.

#### **(i) Parts Installation Limitation**

As of the effective date of this AD, no person may install, on any airplane, any wiring support clamp, except for part number TA025097L(), in those areas of the airplane identified in Boeing Service Bulletin 747-24A2360, Revision 2, dated October 2, 2013.

Note 2 to paragraph (i) of this AD: The parenthesis "(") designates different size clamps, to accommodate possible wire bundle diameter size differences.

#### **(j) Credit for Previous Actions**

This paragraph provides credit for the actions required by paragraph (g) of this AD, if those actions were performed before the effective date of this AD using Boeing Alert Service Bulletin 747-24A2360, dated January 18, 2012; or Boeing Alert Service Bulletin 747-24A2360, Revision 1, dated May 2, 2012; which are not incorporated by reference in this AD.

#### **(k) 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 paragraph (l) of this AD. Information may be emailed 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.

#### **(l) Related Information**

(1) For more information about this AD, contact Georgios Roussos, Aerospace Engineer, Systems and Equipment Branch, ANM-130S, Seattle Aircraft Certification Office, FAA, 1601 Lind Avenue SW., Renton, WA 98057-3356; phone: 425-917-6482; fax: 425-917-6590; email: georgios.roussos@faa.gov.

(2) Service information identified in this AD that is not incorporated by reference may be obtained at the addresses specified in paragraphs (m)(3) and (m)(4) of this AD.

**(m) Material Incorporated by Reference**

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

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

(i) Boeing Service Bulletin 747-24A2360, Revision 2, dated October 2, 2013.

(ii) Reserved.

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

(4) You may view this service information at 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 view this 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/cfr/ibr-locations.html>.

Issued in Renton, Washington, on March 7, 2014.

Michael J. Kaszycki,  
Acting Manager, Transport Airplane Directorate,  
Aircraft Certification Service.