

**FEDERAL AVIATION ADMINISTRATION
AIRWORTHINESS DIRECTIVES**

LARGE AIRCRAFT

BIWEEKLY 2013-13

6/17/2013 - 6/30/2013



Federal Aviation Administration
Engineering Procedures Office, AIR-110
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LARGE AIRCRAFT

AD No.	Information	Manufacturer	Applicability
Information Key: E - Emergency; COR - Correction; S - Supersedes			
Biweekly 2013-01			
2012-25-09		Rolls-Royce plc	RB211-524G2-19; RB211-524G2-T-19; RB211-524G3-19; RB211-524G3-T-19; RB211-524H2-19; RB211-524H2-T-19; RB211-524H-36; RB211-524H-T-36; RB211-535E4-37; RB211-535E4-B-37; RB211-535E4-B-75; and RB211-535E4-C-37 turbofan engines
2012-26-01	S 2005-13-27	Saab AB, Saab Aerosystems	SAAB 2000
2012-26-02		Boeing	737-300, -400, and -500 series
2012-26-03		Airbus	A330-202, -203, -223, -243, -302, -323, -342, -343, and A340-313
2012-26-05		Airbus	A330-201, A330-202, A330-203, A330-223, A330-223F, A330-243, A330-243F, A330-301, A330-302, A330-303, A330-321, A330-322, A330-323, A330-341, A330-342, A330-343, A340-211, A340-212, A340-213, A340-311, A340-312, and A340-313
2012-26-08		Pratt & Whitney Canada Corp	PW118, PW118A, PW118B, PW119B, PW119C, PW120, PW120A, PW121, PW121A, PW123, PW123B, PW123C, PW123D, PW123E, PW123AF, PW124B, PW125B, PW126A, PW127, PW127E, PW127F, PW127G, and PW127M turboprop engines
2012-26-14		Rolls-Royce Deutschland Ltd & Co KG	BR700-715A1-30, BR700-715B1-30, and BR700-715C1-30 turbofan engines
2012-26-15		Honeywell International Inc	See AD
2012-26-51		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
2012-27-01		Rolls-Royce Deutschland Ltd & Co KG	Tay 620-15 turbofan engines
Biweekly 2013-02			
2012-25-13		The Boeing Company	747-100, 747-200B, 747-200C, 747-200F, 747-300, 747-400, 747-400F, and 747SR series
2012-26-04	S 2008-05-10	The Boeing Company	757-200, -200PF, and -200CB series
2013-01-02	S 2009-22-08	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; and Model 757-200, -200PF, and -300 series
2013-01-03		The Boeing Company	737-300, -400, and -500; and Model 757-200 series
2013-02-03		Rolls-Royce plc	RB211-Trent 970-84, 970B-84, 972-84, 972B-84, 977-84, 977B-84, and 980-84 turbofan engines
2013-02-51		The Boeing Company	787-8
Biweekly 2013-03			
2013-02-02		CFM International, S.A.	CFM56-3, CFM56-3B, and CFM56-3C turbofan engines
2013-02-04		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 engines
2013-02-05		The Boeing Company	737-600, -700, -700C, -800, -900, and -900ER series
2013-02-06		Engine Alliance	GP7270 and GP7277 turbofan engines
2013-02-07		The Boeing Company	737-600, -700, -700C, -800, -900, and -900ER series
2013-02-08		Bombardier, Inc	CL-600-2B19 (Regional Jet Series 100 & 440)
2013-02-09		BAE SYSTEMS (OPERATIONS) LIMITED	BAe 146-100A, -200A, -300A; Avro 146-RJ70A, 146-RJ85A, and 146-RJ100A
2013-02-10		Airbus	A330-201, -202, -203, -223, -223F, -243, -243F, -301, -302, -303, -321, -322, -323, -341, -342, -343, A340-211, -212, -213, -311, -312, and -313
2013-02-11		Airbus	A310-203
2013-02-12		EADS CASA	CN-235, CN-235-100, CN-235-200, and CN-235-300

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Biweekly 2013-04			
2013-02-51		The Boeing Company	787-8
2013-03-05		Airbus	A300 B4-601, B4-603, B4-620, B4-622, A300 B4-605R, B4-622R, A300 F4-605R, F4-622R, A300 C4-605R Variant F, A310-203, -204, -221, -222, -304, -322, -324, and -325
2013-03-07		Hawker Beechcraft Corporation	400A
2013-03-08		Bombardier, Inc.	CL-600-1A11 (CL-600), CL-600-2A12 (CL-601), CL-600-2B16 (CL-601-3A, CL-601-3R Variants), and CL-600-2B16 (CL-604 Variants)
2013-03-11		Airbus	A300 B4-601, B4-603, B4-620, B4-622, B4-605R, B4-622R, F4-605R, F4-622R, C4-605R Variant F; A310-203, -204, -221, -222, -304, -322, -324, and -325
2013-03-12		Dassault Aviation	Mystere-Falcon 50
2013-03-13		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
2013-03-17		Rolls-Royce Deutschland Ltd & Co KG	RRD BR700-710A1-10, BR700-710A2-20, and BR700-710C4-11 engines
2013-03-19	S 2001-17-20	The Boeing Company	707-100 long body, -200, -100B long body, -100B short body series, 707-300, -300B, -300C, -400 series, 720 and 720B series
2013-03-20		The Boeing Company	757-200, -200PF, -200CB, and -300 series
2013-03-23		Gulfstream Aerospace LP	G150
2013-04-01	S 2011-13-01	Rolls-Royce plc	RB211-524D4-19, -524D4-B-19, -524D4-39, -524D4-B-39, -524D4X-19, -524D4X-B-19, -524H-36, -524H2-19, -524H-T-36, -524H2-T-19, -524G2-19, -524G3-19, -524G2-T-19, and -524G3-T-19 turbofan engines
2013-04-05		The Boeing Company	737-200, -200C, -300, -400, and -500 series
Biweekly 2013-05			
2012-25-03	Cor	The Boeing Company	757-200, -200PF, -200CB series, and 757-300
2013-03-06		Airbus	A330-223F, -243F, 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
2013-04-03		Cessna Aircraft Company	750
2013-04-07		Bombardier, Inc.	DHC-8-102, -103, -106, -201, -202, -301, -311, and -315
2013-04-10		Airbus	A310-203, -204, -222, -304, -322, and -324
2013-04-11		The Boeing Company	737-600, -700, -800, and -900ER series
2013-04-12		Airbus	A310-204, -222, -304, -322, and -324
2013-04-13		BAE SYSTEMS (OPERATIONS) LIMITED	BAe 146-100A, -200A, and -300A airplanes; and Model Avro 146-RJ70A, 146-RJ85A, and 146-RJ100A
2013-05-02		The Boeing Company	DC-9-81 (MD-81), DC-9-82 (MD-82), DC-9-83 (MD-83), DC-9-87 (MD-87), and MD-88
Biweekly 2013-06			
2013-03-06		Airbus	A330-223F, -243F, 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
2013-03-22		Bombardier, Inc.	CL-600-2B19 (Regional Jet Series 100 & 440)
2013-04-14		Airbus	A300 B4-601, B4-603, B4-620, B4-622, B4-605R, B4-622R, F4-605R, F4-622R, C4-605R Variant F, A310-203, -204, -221, -222, -304, -322, -324, and -325
2013-05-02		The Boeing Company	DC-9-81 (MD-81), DC-9-82 (MD-82), DC-9-83 (MD-83), DC-9-87 (MD-87), and MD-88
2013-05-03		The Boeing Company	777-200, -200LR, -300, and -300ER series
2013-05-05		The Boeing Company	777-200, -200LR, -300, and -300ER series
2013-05-06		Bombardier, Inc.	CL-600-2A12 (CL-601), CL-600-2B16 (CL-601-3A, CL-601-3R, and CL-604 Variants)
2013-05-07		The Boeing Company	767-200, -300, -300F, and -400ER series
2013-05-09		Airbus	A330-201, -202, -203, -223, -243, -301, -302, -303, -321, -322, -323, -341, -342, -343, A330-223F, -243F, A340-211, -212, -213, -311, -312, and -313
2013-05-13		Rolls-Royce Deutschland Ltd & Co KG	BR700-710A1-10, BR700-710A2-20, and BR700-710C4-11 turbofan engines

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2013-05-18	S 2012-02-04	Rolls-Royce plc	RB211 Trent 553-61, RB211 Trent 553A2-61, RB211 Trent 556-61, RB211 Trent 556A2-61, RB211 Trent 556B-61, RB211 Trent 556B2-61, RB211 Trent 560-61, and RB211 Trent 560A2-61 turbofan engine
2013-05-19		Rolls-Royce Deutschland Ltd & Co KG	Tay 611-8 turbofan engines
2013-05-20		Rolls-Royce Deutschland Ltd & Co KG	Spey 511-8 turbojet engines
2013-06-01		Rolls-Royce Deutschland Ltd & Co KG	Tay 620-15 and Tay 650-15 turbofan engines
Biweekly 2013-07			
2013-05-10		The Boeing Company	777-200, -200LR, -300, -300ER, and 777F series
2013-05-12		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 IGW, ERJ 190-200 STD, -200 LR, -200 IGW, and ERJ 190-100 ECJ
2013-06-03		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
2013-06-05		The Boeing Company	737-600, -700, -700C, -800, -900, and -900ER series
2013-06-06		General Electric Company	CF34-8C1, CF34-8C5, CF34-8C5A1, CF34-8C5A2, CF34-8C5A3, CF34-8C5B1, CF34-8E2, CF34-8E2A1, CF34-8E5, CF34-8E5A1, CF34-8E5A2, CF34-8E6, and CF34-8E6A1 turbofan engines
Biweekly 2013-08			
2013-04-04	S 2008-13-20	The Boeing Company	757-200, -200CB, -200PF, and -300 series
2013-05-04		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
2013-07-02		Airbus	A318-111, -112, -121, -122, A319-111, -112, -113, -114, -115, -131, -132, -133, A320-111, -211, -212, -214, -231, -232, and -233
2013-07-03		Airbus	A330-201, -202, -203, -223, -243, -223F, -243F, -301, -302, -303, -321, -322, -323, -341, -342, -343, A340-211, -212, -213, -311, -312, -313, A340-541 and A340-642
2013-07-04	S 2007-05-13	Airbus	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
2013-07-07		The Boeing Company	737-600, -700, -700C, -800, -900, and -900ER series
2013-07-08		The Boeing Company	757-200, 757-200PF, 757-200CB, 757-300 series
2013-07-09		The Boeing Company	737-700, -700C, -800, -900ER, 747-400F, 767-200 and -300 series
2013-07-10		International Aero Engines	V2525-D5 and V2528-D5 turbofan engines
2013-07-11	S 2009-24-08	The Boeing Company	777-200, -200LR, -300, and -300ER series
2013-07-13		Dassault Aviation	Falcon 7X
2013-08-02	S 2007-26-05	The Boeing Company	777-200, -200LR, -300, and -300ER series
2013-08-03		Airbus	A330-201, -202, -203, -223, -243, -301, -302, -303, -321, -322, -323, -341, -342, -343, A340-211, -212, -213, -311, -312, and -313
2013-08-08		The Boeing Company	737-600 series
2013-08-09		The Boeing Company	777-200, -200LR, -300, -300ER, and 777F series

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AD No.	Information	Manufacturer	Applicability
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Biweekly 2013-09			
2013-08-10		Kelowna Flightcraft R & D Ltd.	340 and 440
2013-08-11		The Boeing Company	737-900 and -900ER series
2013-08-12		The Boeing Company	787-8
2013-08-13		The Boeing Company	767-300 series
2013-08-15		The Boeing Company	737-800 series
2013-08-16		The Boeing Company	737-700 and -700C series
2013-08-18		The Boeing Company	737-600, -700, -700C, -800, -900 and -900ER series
2013-08-20	S 2000-04-14	General Electric Company	CF6-80C2 A1/A2/A3/A5/A8/A5F/B1/B2/B4/B5F/B6/B1F/B2F/B4F/B6F/B7F/D1F turbofan engines
2013-08-23		The Boeing Company	DC-10-10, DC-10-10F, DC-10-15, DC-10-30, DC-10-30F (KC-10A and KDC-10), DC-10-40, DC-10-40F, MD-10-10F, MD-10-30F, MD-11, and MD-11F
Biweekly 2013-10			
2012-18-13 R1		The Boeing Company	737-100, -200, -200C, -300, -400, and -500 series
2013-05-08		Airbus	A330-201, -202, -203, -223, -243, -301, -302, -303, -321, -322, -323, -341, -342, -, A340-211, -212, -213, -311, -312, and -313
2013-08-01		The Boeing Company	737-600, -700, -700C, -800, -900, and -900ER series
2013-09-01	S 2003-08-15	The Boeing Company	737-200, -200C, -300, -400, and -500 series
2013-09-02	S 2000-25-07 S 2002-05-07	The Boeing Company	737-100, -200, -200C, -300, -400, and -500 series
2013-09-07		Bombardier, Inc.	CL-600-2B19 (Regional Jet Series 100 & 440)
2013-09-08		The Boeing Company	737-300, -400, and -500 series
2013-10-02	S 2003-18-05	The Boeing Company	757-200 and -200PF series
2013-10-52	E	General Electric Company	GE90-110B1 and GE90-115B turbofan engines
Biweekly 2013-11			
2013-09-08	COR	The Boeing Company	737-300, -400, and -500 series
2013-09-10	S 2000-07-06	The Boeing Company	737-100, -200, -200C, -300, -400, and -500 series
2013-09-11		Cessna Aircraft Company	500, 501, 550, 551, S550, 560, 560XL, and 650
2013-10-03	S 2010-02-10	Airbus	A330-201, -202, -203, -223, -223F, -243, -243F, -301, -302, -303, -321, -322, -323, -341, -342, -343, A340-211, -212, -213, -311, -312, -313, A340-541 and -642
2013-10-06		Airbus	A330-201, -202, -203, -223, -223F, -243, -243F, -301, -302, -303, -321, -322, -323, -341, -342, -343, A340-211, -212, -213, -311, -312, -313, -541, and -642
2013-10-07		Airbus	A300 B4-601, B4-603, B4-620, B4-605R, and B4-622R
2013-11-03		Bombardier, Inc.	CL-215-1A10 and CL-215-6B11 (CL-215T Variant)
Biweekly 2013-12			
2013-11-04		The Boeing Company	747-100, 747-100B, 747-100B SUD, 747-200B, 747-200F, 747-300, 747-400, 747-400D, 747-400F, 747SR, 747SP, 767-200, -300, -300F, -400ER, 777-200, -200LR, -300, and -300ER series
2013-11-06		Dassault Aviation	Mystere-Falcon 900 and Falcon 900EX
2013-11-07		Embraer S.A.	ERJ 190-100 STD, -100 LR, -100 ECJ, -100 IGW, ERJ 190-200 STD, -200 LR, and -200 IGW
2013-11-12		Bombardier, Inc.	BD-100-1A10 (Challenger 300)
2013-11-13		Rolls-Royce plc	Viper Mk. 601-22 turbojet engines
2013-11-14		The Boeing Company	777-200 and -300 series
2013-12-02		Engine Alliance	GP7270 and GP7277 turbofan engines
2013-12-03		Rolls-Royce Deutschland Ltd & Co KG	BR700-725A1-12 turbofan engines

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Biweekly 2013-13

2013-01-01	S 2011-23-08	Bombardier, Inc.	CL-600-2B19 (Regional Jet Series 100 & 440)
2013-05-11	S 2010-23-07	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
2013-09-04		Bombardier, Inc	DHC-8-400, -401, and -402
2013-10-52		General Electric Company	GE90-110B1 and GE90-115B turbofan engines
2013-11-16		Hawker Beechcraft Corporation	BAe.125 Series 800A (including C-29A and U-125), 800B, Hawker 800 (including variant U-125A) and 800XP
2013-12-01		Rolls-Royce plc	RB211 Trent 768-60, 772-60, and 772B-60 turbofan engines
2013-13-05		The Boeing Company	747SP, 747-100B SUD, and 747-300



2013-01-01 Bombardier, Inc.: Amendment 39-17315. Docket No. FAA-2012-0420; Directorate Identifier 2011-NM-284-AD.

(a) Effective Date

This airworthiness directive (AD) becomes effective July 23, 2013.

(b) Affected ADs

This AD supersedes AD 2011-23-08, Amendment 39-16859 (76 FR 71241, November 17, 2011).

(c) Applicability

This AD applies to Bombardier, Inc. Model CL-600-2B19 (Regional Jet Series 100 & 440) airplanes, certificated in any category, serial numbers 7003 and subsequent.

(d) Subject

Air Transport Association (ATA) of America Code 29, Hydraulic Power; 32, Landing Gear.

(e) Reason

This AD was prompted by reports of on-ground hydraulic accumulator screw cap/end cap failure. We are issuing this AD to detect and correct hydraulic accumulator screw cap/end cap failure, which could result in the loss of the associated hydraulic system and high-energy impact damage to adjacent systems and structure, and consequent loss of control 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) Retained Airplane Flight Manual (AFM) Revision, With Revised Service Information

This paragraph restates the AFM revision required by paragraph (g) of AD 2011-23-08, Amendment 39-16859 (76 FR 71241, November 17, 2011), with revised service information. Within 30 days after November 4, 2010 (the effective date of AD 2010-22-02, Amendment 39-16481 (75 FR 64636, October 20, 2010)), revise the Limitations section, Normal Procedures section, and Abnormal Procedures section of the Canadair Regional Jet AFM, CSP A-012, by incorporating Canadair Regional Jet Temporary Revision (TR) RJ/186-1, dated August 24, 2010; or Canadair Regional Jet TR RJ/186-2, dated July 7, 2011; into the applicable section of Canadair Regional Jet AFM, CSP A-012. Thereafter, except as provided by paragraph (p) of this AD, no alternative actions specified in Canadair Regional Jet TR RJ/186-1, dated August 24, 2010; or Canadair Regional Jet TR RJ/186-2, dated July 7, 2011; may be approved.

Note 1 to paragraph (g) of this AD: The actions required by paragraph (g) of this AD may be done by inserting a copy of Canadair Regional Jet TR RJ/186-1, dated August 24, 2010; or Canadair Regional Jet TR RJ/186-2, dated July 7, 2011; into the applicable section of the Canadair Regional Jet AFM, CSP A-012. When one of these TRs has been included in the general revisions of this AFM, the general revisions may be inserted into this AFM, and the TR removed, provided that the relevant information in the general revision is identical to that in Canadair Regional Jet TR RJ/186-1, dated August 24, 2010; or Canadair Regional Jet TR RJ/186-2, dated July 7, 2011.

(h) Retained Deactivation of the Hydraulic System No. 3 Accumulator

This paragraph restates the deactivation required by paragraph (h) of AD 2011-23-08, Amendment 39-16859 (76 FR 71241, November 17, 2011). Within 250 flight cycles after November 4, 2010 (the effective date of AD 2010-22-02, Amendment 39-16481 (75 FR 64636, October 20, 2010)), deactivate the hydraulic system No. 3 accumulator, in accordance with Part A of the Accomplishment Instructions of Bombardier Alert Service Bulletin A601R-29-031, Revision A, dated March 26, 2009. Doing the removal of the hydraulic system No. 3 accumulator in paragraph (l) of this AD terminates the requirements of this paragraph. The actions in this paragraph apply to all accumulators in hydraulic system No. 3.

(i) Retained Removal of the Hydraulic System No. 2 Accumulator

This paragraph restates the removal required by paragraph (i) of AD 2011-23-08, Amendment 39-16859 (76 FR 71241, November 17, 2011). Within 500 flight cycles after November 4, 2010 (the effective date of AD 2010-22-02, Amendment 39-16481 (75 FR 64636, October 20, 2010)), remove the hydraulic system No. 2 accumulator, in accordance with the Accomplishment Instructions of Bombardier Service Bulletin 601R-29-032, Revision A, dated January 26, 2010. The actions in this paragraph apply to all accumulators in hydraulic system No. 2.

(j) Retained Initial and Repetitive Ultrasonic Inspections of Hydraulic System No. 1, Inboard Brake and Outboard Brake Accumulators, With Revised Service Information

This paragraph restates the initial and repetitive ultrasonic inspections required by paragraph (j) of AD 2011-23-08, Amendment 39-16859 (76 FR 71241, November 17, 2011), with revised service information. For hydraulic system No. 1, inboard brake and outboard brake accumulators having part number (P/N) 601R75138-1 (08-60163-001 or 08-60163-002): At the applicable compliance times specified in paragraph (k) of this AD, do the inspections required by paragraphs (j)(1) and (j)(2) of this AD. Repeat the inspections for each accumulator having P/N 601R75138-1 (08-60163-001 or 08-60163-002) thereafter at intervals not to exceed 500 flight cycles until the replacement specified in this paragraph is done, or the replacement specified in paragraph (m) of this AD is done. If any crack is found, before further flight, replace the accumulator with a new accumulator having P/N 601R75138-1 (08-60163-001 or 08-60163-002) and having the letter "T" after the serial number on the identification plate, in accordance with the Accomplishment Instructions of the applicable service bulletin specified in paragraphs (j)(1)(i), (j)(1)(ii), (j)(2)(i), and (j)(2)(ii) of this AD.

Note 2 to paragraph (j) of this AD: For any accumulator having P/N 601R75138-1 (08-60163-001 or 08-60163-002) and the letter "T" after the serial number on the identification plate, or for any accumulator having a part number that is not listed in paragraph (j) of this AD, the inspection specified in paragraph (j) of this AD is not required.

(1) Do an ultrasonic inspection for cracks on each accumulator, in accordance with Part B of the Accomplishment Instructions of the applicable service bulletin specified in paragraphs (j)(1)(i) and (j)(1)(ii) of this AD.

(i) For the hydraulic system No. 1 accumulator: Bombardier Alert Service Bulletin A601R-29-029, Revision B, dated May 11, 2010, including Appendix A, dated October 18, 2007.

(ii) For the inboard and outboard brake accumulators: Bombardier Alert Service Bulletin A601R-32-103, Revision D, dated May 11, 2010, including Appendix A, Revision A, dated October 18, 2007.

(2) Do an ultrasonic inspection for cracks on the screw cap, in accordance with the Accomplishment Instructions of the applicable service specified in paragraphs (j)(2)(i) and (j)(2)(ii) of this AD.

(i) For the hydraulic system No. 1 accumulator: Bombardier Service Bulletin 601R-29-033, Revision A, dated May 11, 2010, including Appendix A, dated May 5, 2009.

(ii) For the inboard and outboard brake accumulators: Bombardier Service Bulletin 601R-32-106, including Appendix A, Revision A, dated May 11, 2010.

(k) Retained Compliance Times for the Ultrasonic Inspections of Hydraulic System No. 1, Inboard Brake and Outboard Brake Accumulators

This paragraph restates the compliance times required by paragraph (k) of AD 2011-23-08, Amendment 39-16859 (76 FR 71241, November 17, 2011). For hydraulic system No. 1 inboard brake, and outboard brake accumulators having P/N 601R75138-1 (08-60163-001 or 08-60163-002): Do the inspections specified in paragraph (j) of this AD at the applicable time in paragraphs (k)(1), (k)(2), and (k)(3) of this AD.

(1) For any accumulator not having the letter "T" after the serial number on the identification plate and with more than 4,500 flight cycles on the accumulator as of November 4, 2010 (the effective date of AD 2010-22-02, Amendment 39-16481 (75 FR 64636, October 20, 2010)): Inspect within 500 flight cycles after November 4, 2010 (the effective date of AD 2010-22-02).

(2) For any accumulator not having the letter "T" after the serial number on the identification plate and with 4,500 flight cycles or less on the accumulator as of November 4, 2010 (the effective date of AD 2010-22-02, Amendment 39-16481 (75 FR 64636, October 20, 2010)): Inspect prior to the accumulation of 5,000 flight cycles on the accumulator.

(3) If it is not possible to determine the flight cycles accumulated for any accumulator not having the letter "T" after the serial number on the identification plate: Inspect within 500 flight cycles after November 4, 2010 (the effective date of AD 2010-22-02, Amendment 39-16481 (75 FR 64636, October 20, 2010)).

(l) Retained Removal of the Hydraulic System No. 3 Accumulator

This paragraph restates the removal required by paragraph (o) of AD 2011-23-08, Amendment 39-16859 (76 FR 71241, November 17, 2011). Within 1,000 flight cycles after December 22, 2011 (the effective date of AD 2011-23-08), remove the hydraulic system No. 3 accumulator, in accordance with Part B of the Accomplishment Instructions of Bombardier Alert Service Bulletin A601R-29-031, Revision A, dated March 26, 2009. Doing the action in this paragraph terminates the requirements of paragraph (h) of this AD.

(m) Retained Replacement of the Hydraulic System No. 1, Inboard Brake and Outboard Brake Accumulators

This paragraph restates the replacement required by paragraph (p) of AD 2011-23-08, Amendment 39-16859 (76 FR 71241, November 17, 2011). Within 4,000 flight cycles or 24 months after December 22, 2011 (the effective date of AD 2011-23-08), whichever occurs first, replace any hydraulic system No. 1, inboard brake or outboard brake accumulator having P/N 601R75138-1 (08-60163-001 or 08-60163-002), with a new accumulator having P/N 601R75139-1 (11093-4), in accordance with the Accomplishment Instructions of the applicable service bulletin identified in

paragraphs (m)(1) through (m)(4) of this AD. Doing the action in this paragraph terminates the requirement for the inspections in paragraph (j) of this AD for that accumulator. As of December 22, 2011 (the effective date of AD 2011-23-08), use only the applicable service bulletin specified in paragraph (m)(2) or (m)(4) of this AD.

(1) For the hydraulic system No. 1 accumulator: Bombardier Service Bulletin 601R-29-035, dated May 11, 2010.

(2) For the hydraulic system No. 1 accumulator: Bombardier Service Bulletin 601R-29-035, Revision A, dated December 8, 2010.

(3) For the inboard and outboard brake accumulators: Bombardier Service Bulletin 601R-32-107, Revision A, dated June 17, 2010.

(4) For the inboard and outboard brake accumulators: Bombardier Service Bulletin 601R-32-107, Revision B, dated December 8, 2010.

(n) Retained Action for Airplanes on Which Bombardier Service Bulletin 601R-29-035, Dated May 11, 2010, Is Done and Reducer Having P/N MS21916D8-6 is Installed, With Revised Compliance Time

This paragraph restates the action required by paragraph (q) of AD 2011-23-08, Amendment 39-16859 (76 FR 71241, November 17, 2011), with reduced compliance time. For airplanes on which Bombardier Service Bulletin 601R-29-035, dated May 11, 2010, is done, and on which a reducer having P/N MS21916D8-6 is installed: At the later of the times specified in paragraphs (n)(1) and (n)(2) of this AD, replace the reducer of the hydraulic system No. 1 with a new reducer, in accordance with Part B of the Accomplishment Instructions of Bombardier Service Bulletin 601R-29-035, Revision A, dated December 8, 2010.

(1) Within 1,200 flight cycles or 8 months after December 22, 2011 (the effective date of AD 2011-23-08, Amendment 39-16859 (76 FR 71241, November 17, 2011)), whichever occurs first.

(2) Within 60 days after the effective date of this AD.

(o) Retained Credit for Previous Actions

(1) This paragraph provides credit for deactivating the hydraulic system No. 3 accumulator required by paragraph (h) of this AD, if the deactivation was performed before November 4, 2010 (the effective date of AD 2010-22-02, Amendment 39-16481 (75 FR 64636, October 20, 2010)), using Bombardier Alert Service Bulletin A601R-29-031, dated December 23, 2008, which is not incorporated by reference in this AD.

(2) This paragraph provides credit for removing the hydraulic system No. 2 accumulator required by paragraph (i) of this AD, if the removal was performed before November 4, 2010 (the effective date of AD 2010-22-02, Amendment 39-16481 (75 FR 64636, October 20, 2010)), using Bombardier Service Bulletin 601R-29-032, dated November 12, 2009, which is not incorporated by reference in this AD.

(3) This paragraph provides credit for an ultrasonic inspection for cracks required by paragraph (j) of this AD, if the ultrasonic inspection was performed before November 4, 2010 (the effective date of AD 2010-22-02, Amendment 39-16481 (75 FR 64636, October 20, 2010)), using the applicable service bulletin identified in paragraphs (o)(3)(i) through (o)(3)(viii) of this AD; as applicable; which are not incorporated by reference in this AD.

(i) Bombardier Alert Service Bulletin A601R-29-029, dated October 18, 2007.

(ii) Bombardier Alert Service Bulletin A601R-29-029, Revision A, dated November 12, 2009.

(iii) Bombardier Alert Service Bulletin A601R-32-103, dated November 21, 2006.

(iv) Bombardier Alert Service Bulletin A601R-32-103, Revision A, dated March 7, 2007.

(v) Bombardier Alert Service Bulletin A601R-32-103, Revision B, dated October 18, 2007.

(vi) Bombardier Alert Service Bulletin A601R-32-103, Revision C, dated February 26, 2009.

(vii) Bombardier Service Bulletin 601R-29-033, dated May 5, 2009.

(viii) Bombardier Service Bulletin 601R-32-106, dated May 5, 2009.

(4) This paragraph provides credit for removing the hydraulic system No. 3 accumulator required by paragraph (l) of this AD, if the removal was performed before December 22, 2011 (the effective date of AD 2011-23-08, Amendment 39-16859 (76 FR 71241, November 17, 2011)), using Bombardier Alert Service Bulletin A601R-29-031, dated December 23, 2008, which is not incorporated by reference in this AD.

(5) This paragraph provides credit for replacing any inboard brake or outboard brake accumulator required by paragraph (m) of this AD, if the replacement was performed before December 22, 2011 (the effective date of AD 2011-23-08, Amendment 39-16859 (76 FR 71241, November 17, 2011)), using Bombardier Service Bulletin 601R-32-107, dated May 11, 2010, which is not incorporated by reference in this AD.

(p) 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, New York 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.

(i) AMOCs approved previously in accordance with AD 2010-22-02, Amendment 39-16481 (75 FR 64636, October 20, 2010), are approved as AMOCs for the corresponding provisions of this AD.

(ii) AMOCs approved previously in accordance with AD 2011-23-08, Amendment 39-16859 (76 FR 71241, November 17, 2011), are approved as AMOCs for the corresponding provisions of 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.

(q) Related Information

Refer to MCAI Canadian Airworthiness Directive CF-2010-24, dated August 3, 2010, and the service bulletins specified in paragraphs (q)(1) through (q)(12) of this AD, for related information.

(1) Bombardier Alert Service Bulletin A601R-29-029, Revision B, dated May 11, 2010, including Appendix A, dated October 18, 2007.

(2) Bombardier Alert Service Bulletin A601R-29-031, Revision A, dated March 26, 2009.

(3) Bombardier Alert Service Bulletin A601R-32-103, Revision D, dated May 11, 2010, including Appendix A, Revision A, dated October 18, 2007.

(4) Bombardier Service Bulletin 601R-29-032, Revision A, dated January 26, 2010.

(5) Bombardier Service Bulletin 601R-29-033, Revision A, dated May 11, 2010, including Appendix A, dated May 5, 2009.

(6) Bombardier Service Bulletin 601R-29-035, dated May 11, 2010.

(7) Bombardier Service Bulletin 601R-29-035, Revision A, dated December 8, 2010.

(8) Bombardier Service Bulletin 601R-32-106, Revision A, including Appendix A, dated May 11, 2010.

(9) Bombardier Service Bulletin 601R-32-107, Revision B, dated December 8, 2010.

(10) Bombardier Service Bulletin 601R-32-107, Revision A, dated June 17, 2010.

(11) Canadair Regional Jet Temporary Revision RJ/186-1, dated August 24, 2010, to the Canadair Regional Jet Airplane Flight Manual, CSP A-012.

(12) Canadair Regional Jet TR RJ/186-2, dated July 7, 2011 to the Canadair Regional Jet Airplane Flight Manual, CSP A-012.

(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 July 23, 2013.

(i) Canadair Regional Jet TR RJ/186-2, dated July 7, 2011, to the Canadair Regional Jet Airplane Flight Manual, CSP A-012.

(ii) Reserved.

(4) The following service information was approved for IBR on December 22, 2011 (76 FR 71241, November 17, 2011)).

(i) Bombardier Service Bulletin 601R-29-035, Revision A, dated December 8, 2010.

(ii) Bombardier Service Bulletin 601R-32-107, Revision B, dated December 8, 2010.

(5) The following service information was approved for IBR on November 4, 2010 (75 FR 64636, October 20, 2010).

(i) Bombardier Alert Service Bulletin A601R-29-029, Revision B, dated May 11, 2010, including Appendix A, dated October 18, 2007.

Note 3 to paragraphs (r)(5)(i), (r)(5)(iii), (r)(5)(v), and (r)(5)(vii) of this AD: In Appendix A to these documents, the document number is shown only on page A1 of these appendices.

(ii) Bombardier Alert Service Bulletin A601R-29-031, Revision A, dated March 26, 2009.

(iii) Bombardier Alert Service Bulletin A601R-32-103, Revision D, dated May 11, 2010, including Appendix A, Revision A, dated October 18, 2007.

(iv) Bombardier Service Bulletin 601R-29-032, Revision A, dated January 26, 2010.

(v) Bombardier Service Bulletin 601R-29-033, Revision A, dated May 11, 2010, including Appendix A, dated May 5, 2009.

(vi) Bombardier Service Bulletin 601R 29 035, dated May 11, 2010.

(vii) Bombardier Service Bulletin 601R-32-106, Revision A, including Appendix A, dated May 11, 2010.

(viii) Bombardier Service Bulletin 601R-32-107, Revision A, dated June 17, 2010.

(ix) Canadair Regional Jet Temporary Revision RJ/186-1, dated August 24, 2010, to the Canadair Regional Jet Airplane Flight Manual, CSP A-012.

(6) 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; Internet <http://www.bombardier.com>.

(7) You may review copies of the 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 December 28, 2012.
Ali Bahrami,
Manager, Transport Airplane Directorate,
Aircraft Certification Service.



2013-05-11 Airbus: Amendment 39-17383. Docket No. FAA-2012-1034; Directorate Identifier 2011-NM-051-AD.

(a) Effective Date

This airworthiness directive (AD) becomes effective July 26, 2013.

(b) Affected ADs

This AD supersedes AD 2010-23-07, Amendment 39-16496 ((75 FR 68181, November 5, 2010); corrected (75 FR 78883, December 17, 2010)).

(c) Applicability

This AD applies to the Airbus airplanes identified in paragraphs (c)(1), (c)(2), (c)(3), and (c)(4) of this AD, certificated in any category, all serial numbers (S/N) having a rudder with a part number (P/N) and serial number listed in tables 1, 2, and 3, and figures 1 and 2, and 3 and 4 of this AD; and rudders P/N D554 71000 020 00, S/N TS-1494, and P/N D554 71002 000 00 0002, S/N TS-2212.

- (1) Model A318-111, -112, -121, and -122 airplanes.
- (2) Model A319-111, -112, -113, -114, -115, -131, -132, and -133 airplanes.
- (3) Model A320-111, -211, -212, -214, -231, -232, and -233 airplanes.
- (4) Model A321-111, -112, -131, -211, -212, -213, -231, and -232 airplanes.

Table 1 to Paragraph (c) of This AD

Rudder P/N	Affected rudder S/N		
		D554 71000 020 00	TS-1480
		D554 71000 020 00	TS-1491
D554 71000 010 00	TS-1069	D554 71000 020 00	TS-1495
D554 71000 010 00	TS-1090	D554 71000 020 00	TS-1498
D554 71000 012 00	TS-1227	D554 71000 020 00	TS-1499
D554 71000 014 00	TS-1350	D554 71000 020 00	TS-1500
D554 71000 014 00	TS-1366	D554 71000 020 00	TS-1505
D554 71000 014 00	TS-1371	D554 71000 020 00	TS-1506
D554 71000 014 00	TS-1383	D554 71000 020 00	TS-1507
D554 71000 014 00	TS-1387	D554 71000 020 00	TS-1509
D554 71000 016 00	TS-1412	D554 71000 020 00	TS-1515
D554 71000 018 00	TS-1443	D554 71000 020 00	TS-1528
D554 71000 018 00	TS-1444	D554 71000 020 00	TS-1530
D554 71000 018 00	TS-1468	D554 71000 020 00	TS-1532

D554 71000 020 00	TS-1535
D554 71000 020 00	TS-1536
D554 71000 020 00	TS-1538
D554 71001 000 00	TS-1537
D554 71001 000 00	TS-1540
D554 71001 000 00	TS-1541
D554 71001 000 00	TS-1543
D554 71001 000 00	TS-1548
D554 71001 000 00	TS-1549
D554 71001 000 00	TS-1551
D554 71001 000 00	TS-1554
D554 71001 000 00	TS-1555
D554 71001 000 00	TS-1556
D554 71001 000 00	TS-1557
D554 71001 000 00	TS-1559
D554 71001 000 00	TS-1562
D554 71001 000 00	TS-1563
D554 71001 000 00	TS-1564
D554 71001 000 00	TS-1565
D554 71001 000 00	TS-1566
D554 71001 000 00	TS-1567
D554 71001 000 00	TS-1568
D554 71001 000 00	TS-1569
D554 71001 000 00	TS-1570
D554 71001 000 00	TS-1573
D554 71001 000 00	TS-1575
D554 71001 000 00	TS-1578
D554 71001 000 00	TS-1579
D554 71001 000 00	TS-1580
D554 71001 000 00	TS-1581
D554 71001 000 00	TS-1582
D554 71001 000 00	TS-1584
D554 71001 000 00	TS-1593
D554 71001 000 00	TS-1594
D554 71001 000 00	TS-1596

D554 71001 000 00	TS-1599
D554 71001 000 00	TS-1603
D554 71001 000 00	TS-1609
D554 71001 000 00	TS-1621
D554 71001 000 00	TS-1626
D554 71001 000 00	TS-1627
D554 71001 000 00	TS-1635
D554 71001 000 00	TS-1637
D554 71002 000 00	TS-2306
D554 71002 000 00 0001	TS-2003
D554 71002 000 00 0001	TS-2005
D554 71002 000 00 0001	TS-2013
D554 71002 000 00 0001	TS-2016
D554 71002 000 00 0001	TS-2019
D554 71002 000 00 0001	TS-2020
D554 71002 000 00 0001	TS-2022
D554 71002 000 00 0001	TS-2024
D554 71002 000 00 0001	TS-2026
D554 71002 000 00 0001	TS-2031
D554 71002 000 00 0001	TS-2033
D554 71002 000 00 0001	TS-2043
D554 71002 000 00 0001	TS-2047
D554 71002 000 00 0001	TS-2048
D554 71002 000 00 0001	TS-2054
D554 71002 000 00 0001	TS-2058
D554 71002 000 00 0001	TS-2059
D554 71002 000 00 0001	TS-2064
D554 71002 000 00 0001	TS-2072
D554 71002 000 00 0001	TS-2075
D554 71002 000 00 0001	TS-2076
D554 71002 000 00 0001	TS-2079
D554 71002 000 00 0001	TS-2083
D554 71002 000 00 0001	TS-2089
D554 71002 000 00 0002	TS-2090
D554 71002 000 00 0002	TS-2095

D554 71002 000 00 0002	TS-2103
D554 71002 000 00 0002	TS-2116
D554 71002 000 00 0002	TS-2122
D554 71002 000 00 0002	TS-2133
D554 71002 000 00 0002	TS-2142
D554 71002 000 00 0002	TS-2147
D554 71002 000 00 0002	TS-2157
D554 71002 000 00 0002	TS-2158
D554 71002 000 00 0002	TS-2162
D554 71002 000 00 0002	TS-2167
D554 71002 000 00 0002	TS-2174
D554 71002 000 00 0002	TS-2176
D554 71002 000 00 0002	TS-2181
D554 71002 000 00 0002	TS-2189
D554 71002 000 00 0002	TS-2191
D554 71002 000 00 0002	TS-2203
D554 71002 000 00 0002	TS-2205
D554 71002 000 00 0002	TS-2207
D554 71002 000 00 0002	TS-2224
D554 71002 000 00 0002	TS-2229
D554 71002 000 00 0002	TS-2233
D554 71002 000 00 0002	TS-2241
D554 71002 000 00 0002	TS-2246
D554 71002 000 00 0002	TS-2249
D554 71002 000 00 0002	TS-2270
D554 71002 000 00 0002	TS-2275
D554 71002 000 00 0002	TS-2289
D554 71002 000 00 0002	TS-2290
D554 71002 000 00 0002	TS-2294

D554 71002 000 00 0002	TS-2309
D554 71002 000 00 0002	TS-2347
D554 71002 000 00 0002	TS-2348
D554 71002 000 00 0002	TS-2349
D554 71002 000 00 0002	TS-2357
D554 71002 000 00 0002	TS-2361
D554 71002 000 00 0002	TS-2380
D554 71002 000 00 0002	TS-2383
D554 71002 000 00 0002	TS-2390
D554 71002 000 00 0002	TS-2394
D554 71002 000 00 0002	TS-2396
D554 71002 000 00 0002	TS-2401
D554 71002 000 00 0002	TS-2406
D554 71002 000 00 0002	TS-2461
D554 71002 000 00 0002	TS-2468
D554 71002 000 00 0002	TS-2516
D554 71002 000 00 0002	TS-2537
D554 71002 000 00 0002	TS-2543
D554 71002 000 00 0002	TS-2546
D554 71002 000 00 0002	TS-2619
D554 71002 000 00 0002	TS-2684
D554 71002 000 00 0003	TS-2752
D554 71002 000 00 0003	TS-2869
D554 71002 000 00 0003	TS-2876
D554 71002 000 00 0003	TS-2970
D554 71002 000 00 0003	TS-2971
D554 71002 000 00 0003	TS-2987
D554 71004 000 00 0000	TS-3083
D554 71004 000 00 0000	TS-3197

Note 1 to paragraph (c) of this AD: For table 1 to paragraph (c) of this AD, only rudder P/N D554 71000 010 00 having affected rudder S/Ns TS-1069 and TS-1090, and rudder P/N D554 71000 012 00 having affected rudder S/N TS-1227, have a core density of 24 kilogram (kg)/meters cubed (m³).

Table 2 to Paragraph (c) of This AD

Rudder P/N	Affected rudder S/N		
D554-71000-014-00	TS-1278	D554-71002-000-00-0002	TS-2328
D554-71002-000-00-0001	TS-2081	D554-71002-000-00-0002	TS-2425
D554-71002-000-00-0002	TS-2125	D554-71002-000-00-0002	TS-2511
D554-71002-000-00-0002	TS-2129	D554-71002-000-00-0003	TS-2768
D554-71002-000-00-0002	TS-2160	D554-71002-000-00-0003	TS-2999
D554-71002-000-00-0002	TS-2201	D554-71002-000-00-0003	TS-3004
		D554-71002-000-00-0003	TS-3051
		D554-71004-000-00-0001	TS-3288

Table 3 to Paragraph (c) of This AD

Rudder P/N	Affected rudder S/N		
D554-71000-008-00	TS-1032	D554-71002-000-00-0002	TS-2123
D554-71000-010-00	TS-1092	D554-71002-000-00-0002	TS-2124
D554-71000-014-00	TS-1314	D554-71002-000-00-0002	TS-2424
D554-71000-018-00	TS-1445	D554-71002-000-00-0002	TS-2559
D554-71000-020-00	TS-1520	D554-71002-000-00-0003	TS-3061
D554-71002-000-00-0001	TS-2037	D554-71004-000-00-0001	TS-3694
D554-71002-000-00-0002	TS-2109	D554-71004-000-00-0001	TS-3709
		D554-71004-000-00-0002	TS-4148

Note 2 to paragraph (c) of this AD: For table 3 to paragraph (c) of this AD, only rudder P/N D554-71000-008-00 having affected rudder S/N TS-1032, and rudder P/N D554-71000-010-00 having affected rudder S/N TS-1092, have a core density of 24 kg/m³.

Figure 1–Rudder P/N With Any S/N Listed in Figure 2 of This AD**Rudder P/N With Any S/N Listed in Figure 2 of This AD**

D5547100000000	D5547100001000	D5547100002000
D5547100000200	D5547100001200	D5547100100000
D5547100000400	D5547100001400	D5547100200000
D5547100000600	D5547100001600	D5547100300000
D5547100000800	D5547100001800	D5547100400000

Figure 2—Affected S/Ns for Rudders Listed in Figure 1 of This AD**Affected S/N for Rudders Listed in Figure 1 of This AD**

TS-1368	TS-1616	TS-2080	TS-2159	TS-2222	TS-2276	TS-2327
TS-1389	TS-1619	TS-2082	TS-2163	TS-2223	TS-2279	TS-2330
TS-1496	TS-1622	TS-2084	TS-2168	TS-2227	TS-2280	TS-2331
TS-1501	TS-1632	TS-2085	TS-2169	TS-2228	TS-2281	TS-2332
TS-1503	TS-1639	TS-2086	TS-2170	TS-2230	TS-2284	TS-2333
TS-1508	TS-2004	TS-2094	TS-2172	TS-2231	TS-2285	TS-2334
TS-1516	TS-2008	TS-2096	TS-2175	TS-2232	TS-2286	TS-2336
TS-1527	TS-2010	TS-2097	TS-2177	TS-2234	TS-2293	TS-2337
TS-1529	TS-2012	TS-2098	TS-2179	TS-2235	TS-2297	TS-2338
TS-1534	TS-2014	TS-2100	TS-2182	TS-2236	TS-2298	TS-2339
TS-1545	TS-2017	TS-2101	TS-2183	TS-2238	TS-2299	TS-2340
TS-1547	TS-2018	TS-2106	TS-2185	TS-2240	TS-2302	TS-2341
TS-1553	TS-2023	TS-2113	TS-2192	TS-2242	TS-2303	TS-2343
TS-1560	TS-2025	TS-2115	TS-2193	TS-2244	TS-2304	TS-2346
TS-1561	TS-2029	TS-2118	TS-2195	TS-2245	TS-2305	TS-2352
TS-1571	TS-2032	TS-2126	TS-2199	TS-2248	TS-2307	TS-2353
TS-1572	TS-2034	TS-2130	TS-2200	TS-2250	TS-2310	TS-2354
TS-1574	TS-2039	TS-2131	TS-2204	TS-2251	TS-2311	TS-2355
TS-1576	TS-2040	TS-2132	TS-2206	TS-2252	TS-2312	TS-2356
TS-1577	TS-2041	TS-2134	TS-2208	TS-2254	TS-2313	TS-2358
TS-1583	TS-2046	TS-2136	TS-2209	TS-2258	TS-2315	TS-2360
TS-1585	TS-2050	TS-2140	TS-2210	TS-2259	TS-2316	TS-2362
TS-1588	TS-2051	TS-2143	TS-2211	TS-2260	TS-2319	TS-2363
TS-1591	TS-2052	TS-2144	TS-2213	TS-2261	TS-2320	TS-2364
TS-1600	TS-2053	TS-2145	TS-2216	TS-2262	TS-2321	TS-2365
TS-1602	TS-2056	TS-2149	TS-2217	TS-2265	TS-2322	TS-2366
TS-1607	TS-2060	TS-2152	TS-2218	TS-2268	TS-2323	TS-2367
TS-1608	TS-2069	TS-2154	TS-2220	TS-2271	TS-2325	TS-2370
TS-1614	TS-2070	TS-2155	TS-2221	TS-2272	TS-2326	TS-2371

TS-2372	TS-2483	TS-2583	TS-2665	TS-2743	TS-2813	TS-2878
TS-2373	TS-2484	TS-2584	TS-2666	TS-2744	TS-2814	TS-2879
TS-2374	TS-2486	TS-2585	TS-2667	TS-2745	TS-2815	TS-2880
TS-2377	TS-2488	TS-2586	TS-2668	TS-2747	TS-2816	TS-2881
TS-2381	TS-2491	TS-2587	TS-2671	TS-2749	TS-2818	TS-2882
TS-2382	TS-2493	TS-2590	TS-2674	TS-2751	TS-2819	TS-2885
TS-2387	TS-2494	TS-2591	TS-2675	TS-2753	TS-2821	TS-2886
TS-2388	TS-2498	TS-2592	TS-2676	TS-2754	TS-2822	TS-2890
TS-2392	TS-2499	TS-2593	TS-2677	TS-2755	TS-2823	TS-2891
TS-2393	TS-2501	TS-2596	TS-2679	TS-2756	TS-2824	TS-2892
TS-2395	TS-2505	TS-2597	TS-2680	TS-2757	TS-2826	TS-2893
TS-2397	TS-2506	TS-2601	TS-2681	TS-2758	TS-2827	TS-2896
TS-2398	TS-2508	TS-2602	TS-2682	TS-2759	TS-2828	TS-2897
TS-2399	TS-2510	TS-2603	TS-2683	TS-2760	TS-2830	TS-2898
TS-2407	TS-2512	TS-2605	TS-2685	TS-2762	TS-2831	TS-2899
TS-2408	TS-2514	TS-2606	TS-2688	TS-2765	TS-2832	TS-2900
TS-2409	TS-2517	TS-2611	TS-2689	TS-2771	TS-2833	TS-2903
TS-2410	TS-2518	TS-2612	TS-2691	TS-2772	TS-2834	TS-2904
TS-2411	TS-2521	TS-2614	TS-2695	TS-2773	TS-2835	TS-2906
TS-2412	TS-2522	TS-2615	TS-2697	TS-2775	TS-2836	TS-2907
TS-2415	TS-2527	TS-2616	TS-2698	TS-2776	TS-2837	TS-2908
TS-2417	TS-2529	TS-2617	TS-2699	TS-2778	TS-2838	TS-2909
TS-2421	TS-2532	TS-2620	TS-2700	TS-2779	TS-2839	TS-2910
TS-2422	TS-2536	TS-2625	TS-2701	TS-2780	TS-2840	TS-2911
TS-2423	TS-2540	TS-2626	TS-2707	TS-2782	TS-2843	TS-2913
TS-2427	TS-2544	TS-2628	TS-2710	TS-2783	TS-2844	TS-2914
TS-2428	TS-2545	TS-2629	TS-2711	TS-2784	TS-2845	TS-2916
TS-2435	TS-2547	TS-2630	TS-2712	TS-2785	TS-2846	TS-2917
TS-2437	TS-2551	TS-2631	TS-2713	TS-2786	TS-2848	TS-2919
TS-2440	TS-2552	TS-2632	TS-2714	TS-2788	TS-2849	TS-2920
TS-2444	TS-2553	TS-2634	TS-2716	TS-2790	TS-2850	TS-2922
TS-2446	TS-2554	TS-2635	TS-2717	TS-2791	TS-2851	TS-2923
TS-2447	TS-2555	TS-2636	TS-2719	TS-2792	TS-2852	TS-2924
TS-2453	TS-2558	TS-2637	TS-2722	TS-2793	TS-2853	TS-2925
TS-2455	TS-2562	TS-2640	TS-2724	TS-2794	TS-2854	TS-2927
TS-2458	TS-2563	TS-2641	TS-2725	TS-2795	TS-2855	TS-2928
TS-2460	TS-2566	TS-2642	TS-2726	TS-2796	TS-2856	TS-2929
TS-2463	TS-2568	TS-2644	TS-2727	TS-2797	TS-2857	TS-2930
TS-2466	TS-2570	TS-2647	TS-2728	TS-2799	TS-2860	TS-2932
TS-2467	TS-2571	TS-2648	TS-2732	TS-2801	TS-2861	TS-2933
TS-2471	TS-2572	TS-2650	TS-2734	TS-2803	TS-2862	TS-2934
TS-2472	TS-2573	TS-2651	TS-2735	TS-2804	TS-2863	TS-2935
TS-2474	TS-2574	TS-2653	TS-2736	TS-2805	TS-2864	TS-2937
TS-2476	TS-2575	TS-2656	TS-2738	TS-2807	TS-2865	TS-2938
TS-2477	TS-2576	TS-2657	TS-2739	TS-2808	TS-2868	TS-2939
TS-2478	TS-2579	TS-2658	TS-2740	TS-2810	TS-2872	TS-2943
TS-2481	TS-2580	TS-2659	TS-2741	TS-2811	TS-2874	TS-2944
TS-2482	TS-2581	TS-2662	TS-2742	TS-2812	TS-2877	TS-2946

TS-2948	TS-3040	TS-3113	TS-3177	TS-3249	TS-3689	TS-3928
TS-2949	TS-3043	TS-3114	TS-3178	TS-3250	TS-3690	TS-3936
TS-2950	TS-3046	TS-3116	TS-3179	TS-3251	TS-3695	TS-3939
TS-2951	TS-3049	TS-3119	TS-3180	TS-3252	TS-3699	TS-3942
TS-2953	TS-3050	TS-3120	TS-3181	TS-3253	TS-3702	TS-3950
TS-2954	TS-3052	TS-3121	TS-3182	TS-3255	TS-3703	TS-3958
TS-2955	TS-3054	TS-3122	TS-3183	TS-3256	TS-3704	TS-3961
TS-2957	TS-3055	TS-3123	TS-3184	TS-3257	TS-3706	TS-3968
TS-2958	TS-3056	TS-3124	TS-3185	TS-3259	TS-3708	TS-3987
TS-2959	TS-3058	TS-3125	TS-3186	TS-3262	TS-3710	TS-3993
TS-2960	TS-3060	TS-3126	TS-3188	TS-3271	TS-3717	TS-3995
TS-2962	TS-3065	TS-3127	TS-3189	TS-3276	TS-3718	TS-4003
TS-2964	TS-3066	TS-3129	TS-3191	TS-3278	TS-3734	TS-4027
TS-2965	TS-3071	TS-3131	TS-3193	TS-3282	TS-3743	TS-4031
TS-2968	TS-3072	TS-3132	TS-3194	TS-3286	TS-3761	TS-4087
TS-2969	TS-3074	TS-3133	TS-3195	TS-3289	TS-3772	TS-4099
TS-2973	TS-3075	TS-3134	TS-3198	TS-3290	TS-3780	TS-4118
TS-2976	TS-3076	TS-3135	TS-3200	TS-3291	TS-3789	TS-4145
TS-2980	TS-3077	TS-3138	TS-3201	TS-3292	TS-3805	TS-4146
TS-2984	TS-3078	TS-3139	TS-3202	TS-3295	TS-3820	TS-4147
TS-2985	TS-3079	TS-3140	TS-3204	TS-3297	TS-3821	TS-4163
TS-2986	TS-3080	TS-3141	TS-3205	TS-3306	TS-3822	TS-4167
TS-2988	TS-3081	TS-3142	TS-3207	TS-3309	TS-3824	TS-4175
TS-2991	TS-3082	TS-3143	TS-3210	TS-3310	TS-3825	TS-4178
TS-2998	TS-3084	TS-3144	TS-3215	TS-3317	TS-3839	TS-4181
TS-3001	TS-3087	TS-3145	TS-3216	TS-3320	TS-3841	TS-4186
TS-3002	TS-3088	TS-3148	TS-3217	TS-3328	TS-3843	TS-4195
TS-3003	TS-3089	TS-3149	TS-3218	TS-3388	TS-3844	TS-4212
TS-3005	TS-3090	TS-3151	TS-3219	TS-3392	TS-3846	TS-4232
TS-3006	TS-3091	TS-3154	TS-3221	TS-3395	TS-3849	TS-4271
TS-3009	TS-3093	TS-3155	TS-3222	TS-3429	TS-3850	TS-4331
TS-3011	TS-3094	TS-3156	TS-3223	TS-3441	TS-3851	TS-4345
TS-3016	TS-3096	TS-3158	TS-3224	TS-3516	TS-3853	TS-4366
TS-3018	TS-3097	TS-3159	TS-3226	TS-3561	TS-3855	TS-4396
TS-3020	TS-3098	TS-3160	TS-3227	TS-3567	TS-3857	TS-4401
TS-3021	TS-3100	TS-3161	TS-3232	TS-3574	TS-3860	TS-4420
TS-3025	TS-3101	TS-3162	TS-3234	TS-3590	TS-3862	TS-4461
TS-3026	TS-3102	TS-3164	TS-3235	TS-3591	TS-3863	TS-4480
TS-3027	TS-3103	TS-3166	TS-3236	TS-3595	TS-3871	TS-4636
TS-3028	TS-3104	TS-3167	TS-3237	TS-3598	TS-3878	TS-4651
TS-3030	TS-3105	TS-3168	TS-3240	TS-3609	TS-3879	TS-4678
TS-3031	TS-3106	TS-3169	TS-3241	TS-3625	TS-3882	TS-4696
TS-3032	TS-3107	TS-3170	TS-3242	TS-3638	TS-3883	TS-4770
TS-3033	TS-3108	TS-3171	TS-3243	TS-3650	TS-3885	N/A
TS-3034	TS-3109	TS-3172	TS-3244	TS-3669	TS-3910	N/A
TS-3035	TS-3110	TS-3174	TS-3245	TS-3684	TS-3914	N/A
TS-3037	TS-3111	TS-3175	TS-3247	TS-3685	TS-3921	N/A
TS-3038	TS-3112	TS-3176	TS-3248	TS-3687	TS-3924	N/A

Figure 3–Rudder P/N With Any S/N Listed in Figure 4 of This AD

Rudder P/N With Any S/N Listed in Figure 4 of This AD		
D5547100000000	D5547100001000	D5547100002000
D5547100000200	D5547100001200	D5547100100000
D5547100000400	D5547100001400	D5547100200000
D5547100000600	D5547100001600	D5547100300000
D5547100000800	D5547100001800	D5547100400000

Figure 4–Rudder S/N With Any P/N Listed in Figure 3 of This AD**Rudder S/N With Any P/N Listed in Figure 3 of This AD**

TS-2141

TS-2269

TS-2274

TS-2295

TS-2317

TS-2664

TS-2715

(d) Subject

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

(e) Reason

This AD was prompted by reports of surface defects on rudders that were the result of debonding between the skin and honeycomb core. We are issuing this AD to detect and correct extended debonding, which might degrade the structural integrity of the rudder. The loss of the rudder leads to degradation of the handling qualities and reduces the 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) Retained Repetitive Inspections of Rudders With a Core Density of 24 kg/m³

This paragraph restates the requirements of paragraph (g) of AD 2010-23-07, Amendment 39-16496 ((75 FR 68181, November 5, 2010); corrected (75 FR 78883, December 17, 2010)). For rudders identified in table 1 to paragraph (c) of this AD with a honeycomb core density of 24 kg/m³ (rudder P/N D554 71000 010 00 having affected rudder S/Ns TS-1069 and TS-1090, and rudder P/N D554 71000 012 00 having affected rudder S/N TS-1227), do the actions specified in paragraphs (g)(1), (g)(2), (g)(3), and (g)(4) of this AD, in accordance with Airbus All Operators Telex (AOT) A320-55A1038, Revision 01, dated June 10, 2009; or Airbus AOT A320-55A1038, Revision 02,

dated September 28, 2009; for the locations defined in the applicable AOT specified in this paragraph.

(1) Within 200 days after December 10, 2010 (the effective date of AD 2010-23-07, Amendment 39-16496 ((75 FR 68181, November 5, 2010); corrected (75 FR 78883, December 17, 2010))): Perform a vacuum loss inspection on the rudder reinforced area.

(2) Within 20 months after December 10, 2010 (the effective date of AD 2010-23-07, Amendment 39-16496 ((75 FR 68181, November 5, 2010); corrected (75 FR 78883, December 17, 2010))): Perform an elasticity laminate checker (ELCH) inspection on the rudder trailing edge area. Repeat the inspection two times, at intervals not to exceed 4,500 flight cycles, but not sooner than 4,000 flight cycles after the last inspection.

(3) Within 200 days after December 10, 2010 (the effective date of AD 2010-23-07, Amendment 39-16496 ((75 FR 68181, November 5, 2010); corrected (75 FR 78883, December 17, 2010))): Perform an ELCH inspection of the other areas (splice/lower rib/upper edge/leading edge/other specified locations). Repeat the inspection at intervals not to exceed 1,500 flight cycles or 200 days, whichever comes first.

(4) Within 20 months after December 10, 2010 (the effective date of AD 2010-23-07, Amendment 39-16496 ((75 FR 68181, November 5, 2010); corrected (75 FR 78883, December 17, 2010))): Perform a vacuum loss inspection of the other areas (splice/lower rib/upper edge/leading edge/other specified locations). Accomplishment of the action specified in paragraph (g)(4) of this AD terminates the requirements of paragraph (g)(3) of this AD.

(h) Retained Repetitive Inspections of Rudders Without a Core Density of 24 kg/m³

This paragraph restates the requirements of paragraph (h) of AD 2010-23-07, Amendment 39-16496 ((75 FR 68181, November 5, 2010); corrected (75 FR 78883, December 17, 2010)). For rudders that do not have a honeycomb core density of 24 kg/m³ (all rudders identified in table 1 to paragraph (c) of this AD, except rudder P/N D554 71000 010 00 having affected rudder S/Ns TS-1069 and TS-1090, and rudder P/N D554 71000 012 00 having affected rudder S/N TS-1227), do the actions specified in paragraphs (h)(1), (h)(2), (h)(3), and (h)(4) of this AD, in accordance with Airbus AOT A320-55A1038, Revision 01, dated June 10, 2009; or Airbus AOT A320-55A1038, Revision 02, dated September 28, 2009; for the locations defined in the applicable AOT specified in this paragraph. As of the effective date of this AD, use only Airbus AOT A320-55A1038, Revision 02, dated September 28, 2009. For this paragraph, "reference date" is defined as December 10, 2010 (the effective date of AD 2010-23-07), or the date when the rudder will accumulate 20,000 total flight cycles from its first installation on an airplane, whichever occurs later.

(1) Within 200 days after the reference date, perform a vacuum loss inspection on the rudder reinforced area.

(2) Within 20 months after the reference date, perform an ELCH inspection on the rudder trailing edge area. Repeat the inspection two times at intervals not to exceed 4,500 flight cycles, but not sooner than 4,000 flight cycles after the last inspection.

(3) Within 200 days after the reference date, perform an ELCH inspection of the other areas (splice/lower rib/upper edge/leading edge/other specified locations). Repeat the inspection at intervals not to exceed 1,500 flight cycles or 200 days, whichever comes first.

(4) Within 20 months after the reference date, perform a vacuum loss inspection of the other areas (splice/lower rib/upper edge/leading edge/other specified locations). Accomplishment of the actions specified in this paragraph terminates the requirements of paragraph (h)(3) of this AD.

(i) Retained Corrective Actions for De-Bonding

This paragraph restates the requirements of paragraph (i) of AD 2010-23-07, Amendment 39-16496 ((75 FR 68181, November 5, 2010); corrected (75 FR 78883, December 17, 2010)). In case of de-bonding found during any inspection required by paragraph (g) or (h) of this AD, before further

flight, contact Airbus for further instructions and apply the associated instructions and corrective actions in accordance with the approved data provided, or repair the debonding using a method approved by either the Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA, or the European Aviation Safety Agency (EASA) (or its delegated agent). After the effective date of this AD, repair the debonding using only a method approved by either the Manager, International Branch, ANM-116; or the EASA (or its delegated agent).

(j) Retained Reporting for Findings From Actions Required by Paragraphs (g) and (h) of This AD

This paragraph restates the requirements of paragraph (j) of AD 2010-23-07, Amendment 39-16496 ((75 FR 68181, November 5, 2010); corrected (75 FR 78883, December 17, 2010)). At the applicable time specified in paragraph (j)(1) or (j)(2) of this AD, submit a report of the findings (both positive and negative) of each inspection required by paragraphs (g) and (h) of this AD. The report must include the inspection results, as specified in Airbus Technical Disposition TD/K4/S2/27086/2009, Issue E, dated September 17, 2009. For positive findings, submit the report to either the Manager, Seer1/Seer2/Seer3 Customer Services, fax +33 (0)5 61 93 28 73, email region1.structurerepairsupport@airbus.com, region2.structurerepairsupport@airbus.com, or region3.structurerepairsupport@airbus.com; or AIRTAC (Airbus Technical AOG Center) Customer Services, telephone +33 (0)5 61 93 34 00, fax +33 (0)5 61 93 35 00, email airtac@airbus.com. For negative findings, submit the report to Nicolas Seynaeve, Sees1, Customer Services; telephone +33 (0)5 61 93 34 38; fax +33 (0)5 61 93 36 14; email nicolas.seynaeve@airbus.com; except, as of the effective date of this AD, only submit the report to SEES1, Customer Services, fax +33 (0)5 61 93 36 14.

(1) For any inspection done on or after December 10, 2010 (the effective date of AD 2010-23-07, Amendment 39-16496 ((75 FR 68181, November 5, 2010); corrected (75 FR 78883, December 17, 2010))): Submit the report within 30 days after the inspection.

(2) For any inspection done before December 10, 2010 (the effective date of AD 2010-23-07, Amendment 39-16496 ((75 FR 68181, November 5, 2010); corrected (75 FR 78883, December 17, 2010))): Submit the report within 30 days after December 10, 2010.

(k) Retained Inspection in Additional Areas

This paragraph restates the provisions of paragraph (k) of AD 2010-23-07, Amendment 39-16496, ((75 FR 68181, November 5, 2010); corrected (75 FR 78883, December 17, 2010)). All rudders that have passed the inspection specified in paragraphs (g)(1), (g)(2), (g)(3), (g)(4), (h)(1), (h)(2), (h)(3), and (h)(4) of this AD before December 10, 2010 (the effective date of AD 2010-23-07), in accordance with Airbus AOT A320-55A1038, dated April 22, 2009; or Airbus Technical Disposition TD/K4/S2/27051/2009, Issue B, dated February 25, 2009; are compliant with this AD only for the areas inspected. Additional areas defined in Section 0, "Reason for Revision," of Airbus AOT A320-55A1038, Revision 01, dated June 10, 2009; or Airbus AOT A320-55A1038, Revision 02, dated September 28, 2009; must be inspected as specified in paragraph (g) or (h) of this AD. For all areas, the repetitive inspections required by paragraph (g) or (h) of this AD remain applicable.

(l) Retained Parts Installation Limitations

This paragraph restates the requirements of paragraph (l) of AD 2010-23-07, Amendment 39-16496 ((75 FR 68181, November 5, 2010); corrected (75 FR 78883, December 17, 2010)). After December 10, 2010 (the effective date of AD 2010-23-07), no rudder listed in table 1 to paragraph (c) of this AD may be installed on any airplane, unless the rudder is inspected in accordance with paragraph (g) or (h) of this AD, as applicable, and all applicable actions specified in paragraph (i) of this AD are done.

(m) New Restoration of Vacuum Loss Holes

If no de-bonding is found during any inspection required by paragraph (g) or (h) of this AD: Before further flight, restore the vacuum loss holes by doing a permanent restoration with resin, in accordance with Note 3 of Airbus AOT A320-55A1038, Revision 02, dated September 28, 2009. Before doing the resin injection, do a local ultrasound inspection in reinforced areas, and a thermography inspection in other areas, for damage, in accordance with Note 3 of Airbus AOT A320-55A1038, Revision 02, dated September 28, 2009. If any damage is found during any inspection required by this paragraph: Before further flight, repair the damage using a method approved by either the Manager, International Branch, ANM-116; or the EASA (or its delegated agent).

(n) New X-Ray, ELCH, Vacuum Loss, or Thermography Inspection

For rudders identified in table 2 to paragraph (c) of this AD, do the actions specified in paragraphs (n)(1) and (n)(2) of this AD, in accordance with Airbus AOT A320-55A1039, dated November 4, 2009, for the locations defined in that AOT. For this paragraph, "reference date" is defined as the effective date of this AD or the date when the rudder will accumulate 20,000 total flight cycles from its first installation on an airplane, whichever occurs later.

(1) Within 20 months after the effective date of this AD, or within 200 days after the reference date, whichever occurs first: Perform x-ray, and/or ELCH, and/or vacuum loss, and/or thermography inspections for damage, as applicable to rudder part number and serial number, in accordance with the instructions of paragraph 4.2.2.1.1. of Airbus AOT A320-55A1039, dated November 4, 2009.

(2) At the applicable time specified in paragraph (n)(2)(i) or (n)(2)(ii) of this AD, send the developed x-ray films and the film layout arrangement, if applicable, to Attn: SDC32 Technical Data and Documentation Services, Airbus Customer Services Directorate, 1 Rond Point Maurice Bellonte, 31707 Blagnac Cedex, France; fax (+33) 5 61 93 28 06; email sb.reporting@airbus.com.

(i) If the inspection was done on or after the effective date of this AD: Submit the x-ray films and the film layout arrangement within 10 days after the inspection.

(ii) If the inspection was done before the effective date of this AD: Submit the x-ray films and the film layout arrangement within 10 days after the effective date of this AD.

(3) If any damage is found during any inspection required by paragraph (n) of this AD: Before further flight, repair the damage using a method approved by either the Manager, International Branch, ANM-116; or the EASA (or its delegated agent).

(o) New ELCH Inspection, Vacuum Loss Inspection, and Repairs

For rudders identified in table 2 to paragraph (c) of this AD: Within 1,500 flight cycles or 200 days after doing the requirements of paragraph (n)(1) of this AD, whichever occurs first, do the actions specified in paragraphs (o)(1) and (o)(2) of this AD.

(1) Perform an ELCH inspection for damage on the rudder trailing edge area, in accordance with the instructions of paragraph 4.2.2.1.2. of Airbus AOT A320-55A1039, dated November 4, 2009. In case of no finding, repeat the inspection two times, at intervals not to exceed 4,500 flight cycles but not sooner than 4,000 flight cycles after the last inspection.

(2) Perform a vacuum loss inspection for damage of the other areas (splice/lower rib/upper edge/leading edge/other specified locations), in accordance with the instructions of paragraph 4.2.2.1.2. of Airbus AOT A320-55A1039, dated November 4, 2009.

(3) If any damage is found during any inspection required by paragraph (o) of this AD: Before further flight, repair the damage using a method approved by either the Manager, International Branch, ANM-116; or the EASA (or its delegated agent).

(p) New Restorations/Inspections/Repairs of Certain Vacuum Loss Holes for Certain Rudders

If no damage is found during any inspection required by paragraph (o) of this AD: Before further flight, restore the vacuum loss holes by doing a permanent restoration with resin, in accordance with Note 3 of Airbus AOT A320-55A1039, dated November 4, 2009. Before doing the resin injection, do a local ultrasound inspection in reinforced areas, and a thermography inspection in other areas, for damage, in accordance with Note 3 of Airbus AOT A320-55A1039, dated November 4, 2009. If any damage is found during any inspection required by this paragraph: Before further flight, repair the damage using a method approved by either the Manager, International Branch, ANM-116; or the EASA (or its delegated agent).

(q) New Rudder Replacement for Rudders Identified in Table 3 to Paragraph (c) of This AD

For rudders identified in table 3 to paragraph (c) of this AD, do the actions specified in paragraphs (q)(1) and (q)(2) of this AD, in accordance with the instructions of Airbus AOT A320-55A1039, dated November 4, 2009, for the locations defined in that AOT. For this paragraph, "reference date" is defined as the effective date of this AD or the date when the rudder will accumulate 20,000 total flight cycles from its first installation on an airplane, whichever occurs later.

(1) For rudders identified in table 3 to paragraph (c) of this AD with a honeycomb core density of 24 kg/m³ (rudder P/N D554-71000-008-00 having affected rudder S/N TS-1032 and rudder P/N D554-71000-010-00 having affected rudder S/N TS-1092): Within 200 days after the effective date of this AD, replace the rudder with a new rudder, in accordance with a method approved by the Manager, International Branch, ANM-116; or the EASA (or its delegated agent).

(2) For rudders identified in table 3 to paragraph (c) of this AD that do not have a honeycomb core density of 24 kg/m³ (all except rudder P/N D554-71000-008-00 having affected rudder S/N TS-1032 and rudder P/N D554-71000-010-00 having affected rudder S/N TS-1092): Within 20 months after the effective date of this AD or within 200 days after the reference date, whichever occurs first, replace the rudder with a new rudder, in accordance with a method approved by the Manager, International Branch, ANM-116; or the EASA (or its delegated agent).

(r) New Vacuum Loss Inspection for Reinforced Areas of Rudder Identified in Figures 1 and 2 of This AD

For rudders identified in figures 1 and 2 of this AD: At the later of the times specified in paragraphs (r)(1) and (r)(2) of this AD, perform a vacuum loss inspection on the rudder reinforced area for damage, in accordance with the Accomplishment Instructions of Airbus Service Bulletin A320-55-1035, Revision 01, dated July 2, 2010 (for Model A320 series airplanes); Airbus Service Bulletin A320-55-1036, Revision 01, dated July 2, 2010 (for Model A318 and A321 series airplanes); or Airbus Service Bulletin A320-55-1037, Revision 01, dated July 2, 2010 (for Model A319 series airplanes).

(1) Before the rudder accumulates 17,000 total flight cycles from its first installation on an airplane without exceeding 20 months from the effective date of this AD.

(2) Within 200 days after the effective date of this AD.

(s) New ELCH Inspection for Rudder Trailing Edge Area

For rudders identified in figures 1 and 2 of this AD: Within 20 months after the effective date of this AD, perform an ELCH inspection for damage on the rudder trailing edge area, in accordance with the Accomplishment Instructions of Airbus Service Bulletin A320-55-1035, Revision 01, dated July 2, 2010 (for Model A320 series airplanes); Airbus Service Bulletin A320-55-1036, Revision 01, dated July 2, 2010 (for Model A318 and A321 series airplanes); or Airbus Service Bulletin A320-55-1037, Revision 01, dated July 2, 2010 (for Model A319 series airplanes). Repeat the inspection two

times at intervals not to exceed 4,500 flight cycles, but not sooner than 4,000 flight cycles after the last inspection.

(t) New ELCH Inspection for Additional Rudder Areas

For rudders identified in figures 1 and 2 of this AD: At the later of the times specified in paragraphs (t)(1) and (t)(2) of this AD, perform an ELCH inspection for damage of the other areas (splice/lower rib/upper edge/leading edge/other specified locations) for damage, in accordance with the Accomplishment Instructions of Airbus Service Bulletin A320-55-1035, Revision 01, dated July 2, 2010 (for Model A320 series airplanes); Airbus Service Bulletin A320-55-1036, Revision 01, dated July 2, 2010 (for Model A318 and A321 series airplanes); or Airbus Service Bulletin A320-55-1037, Revision 01, dated July 2, 2010 (for Model A319 series airplanes). Repeat the inspection thereafter at intervals not to exceed 1,500 flight cycles or 200 days, whichever comes first.

(1) Before the rudder accumulates 17,000 total flight cycles from its first installation on an airplane without exceeding 20 months from the effective date of this AD.

(2) Within 200 days after the effective date of this AD.

(u) New Vacuum Loss Inspection for Certain Areas of Rudders Identified in Figures 1 and 2 of This AD

For rudders identified in figures 1 and 2 of this AD: Within 20 months after the effective date of this AD, perform a vacuum loss inspection for damage of the lower rib, upper edge, leading edge, and other specified locations, in accordance with the Accomplishment Instructions of Airbus Service Bulletin A320-55-1035, Revision 01, dated July 2, 2010 (for Model A320 series airplanes); Airbus Service Bulletin A320-55-1036, Revision 01, dated July 2, 2010 (for Model A318 and A321 series airplanes); or Airbus Service Bulletin A320-55-1037, Revision 01, dated July 2, 2010 (for Model A319 series airplanes). Accomplishment of the actions specified in this paragraph terminates the requirements of paragraph (t) of this AD.

(v) New Corrective Actions for Certain Inspections

In case of damage found during any inspection required by paragraph (r), (s), (t), or (u) of this AD: Before further flight, repair the damage using a method approved by either the Manager, International Branch, ANM-116; or the EASA (or its delegated agent).

(w) New Restorations/Inspections/Repairs of Certain Vacuum Loss Holes for Certain Other Rudders

If no damage is found during any inspection required by paragraph (r) or (u) of this AD: Before further flight, restore the vacuum loss holes by doing a permanent restoration with resin, in accordance with the Accomplishment Instructions of Airbus Service Bulletin A320-55-1035, Revision 01, dated July 2, 2010 (for Model A320 series airplanes); Airbus Service Bulletin A320-55-1036, Revision 01, dated July 2, 2010 (for Model A318 and A321 series airplanes); or Airbus Service Bulletin A320-55-1037, Revision 01, dated July 2, 2010 (for Model A319 series airplanes). Before doing the resin injection, do a local ultrasound inspection in reinforced areas, and a thermography inspection in other areas, for damage, in accordance with the Accomplishment Instructions of Airbus Service Bulletin A320-55-1035, Revision 01, dated July 2, 2010 (for Model A320 series airplanes); Airbus Service Bulletin A320-55-1036, Revision 01, dated July 2, 2010 (for Model A318 and A321 series airplanes); or Airbus Service Bulletin A320-55-1037, Revision 01, dated July 2, 2010 (for Model A319 series airplanes). If any damage is found during any inspection required by this paragraph: Before further flight, repair the damage using a method approved by either the Manager, International Branch, ANM-116; or the EASA (or its delegated agent).

(x) Credit for Certain Previous Actions

This paragraph provides credit for the inspections required by paragraphs (r), (s), (t), (u), and (w) of this AD only for the inspected area for rudders identified in figures 1 and 2 of this AD, if the area passed the inspection before the effective date of this AD using Airbus Service Bulletin A320-55-1035, dated February 17, 2010 (for Model A320 series airplanes); Airbus Service Bulletin A320-55-1036, dated February 17, 2010 (for Model A318 and A321 series airplanes); or Airbus Service Bulletin A320-55-1037, dated February 17, 2010 (for Model A319 series airplanes); which are not incorporated by reference in this AD. For all other inspected areas, the repetitive inspections required by paragraph (s), (t), and (w) of this AD are still required.

(y) New ELCH Inspection and Repairs for Certain Rudders

For rudders identified in figures 3 and 4 of this AD: Within 4,500 flight cycles but not sooner than 4,000 flight cycles after the sampling inspection, or within 30 days after the effective date of this AD, whichever occurs later, perform an ELCH inspection for damage on the rudder trailing edge area, in accordance with the Accomplishment Instructions of Airbus Service Bulletin A320-55-1035, Revision 01, dated July 2, 2010 (for Model A320 series airplanes); Airbus Service Bulletin A320-55-1036, Revision 01, dated July 2, 2010 (for Model A318 and A321 series airplanes); or Airbus Service Bulletin A320-55-1037, Revision 01, dated July 2, 2010 (for Model A319 series airplanes). Repeat the inspection within 4,500 flight cycles, but not sooner than 4,000 flight cycles after the last inspection. If any damage is found during any inspection required by paragraph (y) of this AD: Before further flight, repair the damage using a method approved by either the Manager, International Branch, ANM-116; or the EASA (or its delegated agent).

(z) Credit for Certain Other Previous Actions

This paragraph provides credit for the inspection required by paragraph (y) of this AD only for the inspected area for rudders identified in figures 3 and 4 of this AD if the area passed the inspection before the effective date of this AD using Airbus Service Bulletin A320-55-1035, dated February 17, 2010 (for Model A320 series airplanes); Airbus Service Bulletin A320-55-1036, dated February 17, 2010 (for Model A318 and A321 series airplanes); or Airbus Service Bulletin A320-55-1037, dated February 17, 2010 (for Model A319 series airplanes); which are not incorporated by reference in this AD. For all inspection areas, the repetitive inspections required by paragraph (y) of this AD are still required.

(aa) New Repetitive Inspections of Certain Rudders

For rudders P/N D554 71000 020 00, S/N TS-1494; and P/N D554 71002 000 00 0002, S/N TS-2212: Do the actions specified in paragraphs (aa)(1), (aa)(2), (aa)(3), and (aa)(4) of this AD, in accordance with Airbus AOT A320-55A1038, Revision 02, dated September 28, 2009. For this paragraph, "reference date" is defined as the date when the rudder will accumulate 20,000 total flight cycles from its first installation on an airplane.

(1) Within 200 days after the reference date, perform a vacuum loss inspection on the rudder reinforced area.

(2) Within 20 months after the reference date, perform an ELCH inspection on the rudder trailing edge area. Repeat the inspection two times at intervals not to exceed 4,500 flight cycles, but not sooner than 4,000 flight cycles, after the last inspection.

(3) Within 200 days after the reference date, perform an ELCH inspection of the other areas (splice/lower rib/upper edge/leading edge/other specified locations). Repeat the inspection at intervals not to exceed 1,500 flight cycles or 200 days, whichever comes first.

(4) Within 20 months after the reference date, perform a vacuum loss inspection of the other areas (splice/lower rib/upper edge/leading edge/other specified locations). Accomplishment of the actions specified in this paragraph terminates the requirements of paragraph (h)(3) of this AD.

(bb) New De-Bonding Corrective Actions

In case of de-bonding found during any inspection required by paragraph (aa) of this AD: Before further flight, contact Airbus for further instructions and apply the associated instructions and corrective actions in accordance with the approved data provided.

(cc) New Restoration of Vacuum Loss Holes

If no de-bonding is found during any inspection required by paragraph (aa) of this AD: Before further flight, restore the vacuum loss holes by a permanent restoration with resin, in accordance with Note 3 of Airbus AOT A320-55A1038, Revision 02, dated September 28, 2009. Before doing the resin injection, do a local ultrasound inspection in reinforced areas, and a thermography inspection in other areas, for damage, in accordance with Note 3 of Airbus AOT A320-55A1038, Revision 02, dated September 28, 2009. If any damage is found during any inspection required by this paragraph: Before further flight, repair the damage using a method approved by either the Manager, International Branch, ANM-116; or the EASA (or its delegated agent).

(dd) New Reporting for Paragraphs (n), (o), (r), (s), (t), (u), (y), and (aa) of This AD

At the applicable time specified in paragraph (dd)(1) or (dd)(2) of this AD, submit a report of the findings (both positive and negative) of each inspection required by paragraphs (n), (o), (r), (s), (t), (u), (y), and (aa) of this AD. The report must include the inspection results, as specified in Airbus Technical Disposition TD/K4/S2/27086/2009, Issue E, dated September 17, 2009. For positive findings, submit the report to either the Manager, Seer1/Seer2/Seer3 Customer Services, fax +33 (0)5 61 93 28 73, email region1.structurerepairsupport@airbus.com, region2.structurerepairsupport@airbus.com, or region3.structurerepairsupport@airbus.com; or AIRTAC (Airbus Technical AOG Center) Customer Services, telephone +33 (0)5 61 93 34 00, fax +33 (0)5 61 93 35 00, email airtac@airbus.com. For negative findings, submit the report to SEES1, Customer Services, fax +33 (0)5 61 93 36 14.

(1) For any inspection done on or after the effective date of this AD: Submit the report within 10 days after the inspection.

(2) For any inspection done before the effective date of this AD: Submit the report within 10 days after the effective date of this AD.

(ee) New Parts Installation Limitation

As of the effective date of this AD, no rudder listed in table 1, 2, or 3 of this AD; or figure 1, 2, 3, or 4 of this AD; or a rudder identified in paragraph (ee)(1) or (ee)(2) of this AD; may be installed on any airplane, unless the rudder is in compliance with the requirements of this AD.

(1) P/N D554 71000 020 00; S/N TS-1494.

(2) P/N D554 71002 000 00 0002; S/N TS-2212.

(ff) Other FAA AD Provisions

The following provisions also apply to this AD:

(1) Alternative Methods of Compliance (AMOCs): The Manager, International Branch, ANM-116, 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 International Branch, send it to ATTN: Sanjay Ralhan, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind Avenue SW., Renton, WA 98057-3356; telephone (425) 227-1405; fax (425) 227-1149. Information may be emailed to: 9-ANM-116-AMOC-REQUESTS@faa.gov. 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.

(3) **Reporting Requirements:** A federal agency may not conduct or sponsor, and a person is not required to respond to, nor shall a person be subject to a penalty for failure to comply with a collection of information subject to the requirements of the Paperwork Reduction Act unless that collection of information displays a current valid OMB Control Number. The OMB Control Number for this information collection is 2120-0056. Public reporting for this collection of information is estimated to be approximately 5 minutes per response, including the time for reviewing instructions, completing, and reviewing the collection of information. All responses to this collection of information are mandatory. Comments concerning the accuracy of this burden and suggestions for reducing the burden should be directed to the FAA at: 800 Independence Ave. SW., Washington, DC 20591, Attn: Information Collection Clearance Officer, AES-200.

(gg) Related Information

(1) Refer to MCAI EASA Airworthiness Directive 2010-0164, dated August 5, 2010, for related information.

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

(hh) 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 July 26, 2013.

(i) Airbus All Operators Telex (AOT) A320-55A1038, dated April 22, 2009. The first page of this document contains the document number and date; no other pages contain this information.

(ii) Airbus AOT A320-55A1039, dated November 4, 2009. The first page of this document contains the document number and date; no other pages contain this information.

(iii) Airbus Service Bulletin A320-55-1035, Revision 01, dated July 2, 2010.

(iv) Airbus Service Bulletin A320-55-1036, Revision 01, dated July 2, 2010.

(v) Airbus Service Bulletin A320-55-1037, Revision 01, dated July 2, 2010.

(vi) Airbus Technical Disposition TD/K4/S2/27051/2009, Issue B, dated February 25, 2009.

(4) The following service information was approved for IBR on December 10, 2010 ((75 FR 68181, November 5, 2010); corrected (75 FR 78883, December 17, 2010)).

(i) Airbus AOT A320-55A1038, Revision 01, dated June 10, 2009. The first page of this document contains the document number, revision level, and date; no other pages contain this information.

(ii) Airbus AOT A320-55A1038, Revision 02, dated September 28, 2009. The first page of this document contains the document number, revision level, and date; no other pages contain this information.

(iii) Airbus Technical Disposition TD/K4/S2/27086/2009, Issue E, dated September 17, 2009. The first page of this document contains the document number, revision level, and date; no other pages contain this information.

(5) For service information identified in this AD, contact Airbus, Airworthiness Office–EIAS, 1 Rond Point Maurice Bellonte, 31707 Blagnac Cedex, France; telephone +33 5 61 93 36 96; fax +33 5 61 93 44 51; email account.airworth-eas@airbus.com; Internet <http://www.airbus.com>.

(6) You may review copies of the 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 March 1, 2013.

Ali Bahrami,
Manager, Transport Airplane Directorate,
Aircraft Certification Service.



2013-09-04 Bombardier, Inc.: Amendment 39-17445. Docket No. FAA-2012-1155; Directorate Identifier 2012-NM-115-AD.

(a) Effective Date

This airworthiness directive (AD) becomes effective August 2, 2013.

(b) Affected ADs

None.

(c) Applicability

This AD applies to Bombardier, Inc. Model DHC-8-400, -401, and -402 airplanes; certificated in any category; serial numbers 4001 through 4382 inclusive.

(d) Subject

Joint Aircraft System Component (JASC)/Air Transport Association (ATA) of America Code 26, Fire protection.

(e) Reason

This AD was prompted by reports of chafing found on the main landing gear (MLG) yoke. We are issuing this AD to prevent chafing between the nacelle fire detection wires and the MLG yoke. Chafing could lead to cracking and subsequent failure of the MLG yoke, which could adversely affect the safe landing of the airplane. In addition, chafing of the nacelle fire detection wires could cause them to fail and prevent the detection of a fire in the nacelle assembly.

(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) Inspections and Installation

Within 6,000 flight hours or 36 months after the effective date of this AD, whichever occurs first, accomplish the actions specified in paragraphs (g)(1), (g)(2), and (g)(3) of this AD, in accordance with the Accomplishment Instructions of Bombardier Service Bulletin 84-26-11, Revision A, dated January 25, 2012.

(1) Do a detailed inspection of the left and right nacelle fire detection wires for damage (i.e., chafing). If damage is found on any nacelle fire detection wire: Before further flight, remove and replace the damaged wire with a new wire, in accordance with the Accomplishment Instructions of Bombardier Service Bulletin 84-26-11, Revision A, dated January 25, 2012.

(2) Do a detailed inspection of the MLG yoke for damage (e.g., chafing, nicks, cracking).

(i) If any damage is found within the limitations specified in Figure 8 of Bombardier Service Bulletin 84-26-11, Revision A, dated January 25, 2012: Before further flight, repair the MLG yoke, in accordance with Figure 9, steps 1 through 10, of Bombardier Service Bulletin 84-26-11, Revision A, dated January 25, 2012.

(ii) If any damage exceeds the limitations specified in Figure 8 of Bombardier Service Bulletin 84-26-11, Revision A, dated January 25, 2012: Before further flight, repair the MLG yoke using a method approved by either the Manager, New York Aircraft Certification Office (ACO), ANE-170, FAA; or Transport Canada Civil Aviation (or its delegated agent).

(3) Install brackets and associated hardware, in accordance with the Accomplishment Instructions of Bombardier Service Bulletin 84-26-11, Revision A, dated January 25, 2012.

(h) Credit for Previous Actions

This paragraph provides credit for actions required by paragraphs (g)(1), (g)(2), and (g)(3) of this AD, if those actions were performed before the effective date of this AD using Bombardier Service Bulletin 84-26-11, dated December 19, 2011, which is not incorporated by reference in this AD.

(i) 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, New York 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

(1) Refer to MCAI Canadian Airworthiness Directive CF-2012-15, dated April 30, 2012 (<http://wwwapps3.tc.gc.ca/Saf-Sec-Sur/2/cawis-swimn/attachment.asp?aiid=CF-2012-15&revid=0&cntr=CF&file=CF-2012-15.pdf&type=PDE>), for related information.

(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 (k)(3) and (k)(4) of this AD.

(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 the AD specifies otherwise.

(i) Bombardier Service Bulletin 84-26-11, Revision A, dated January 25, 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; Internet <http://www.bombardier.com>.

(4) You may review copies of the 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 April 23, 2013.

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



2013-10-52 General Electric Company: Amendment 39-17488; Docket No. FAA-2013-0447; Directorate Identifier 2013-NE-17-AD.

(a) Effective Date

This airworthiness directive (AD) is effective June 26, 2013 to all persons except those persons to whom it was made immediately effective by Emergency AD 2013-10-52, issued on May 16, 2013, which contained the requirements of this amendment.

(b) Affected ADs

None.

(c) Applicability

General Electric Company (GE) GE90-110B1 and GE90-115B turbofan engines with a transfer gearbox assembly (TGB), part number 2115M33G07 or 2115M33G08, serial number (S/N) listed in Figure 1 to paragraph (c) of this AD, installed.

Figure 1 to Paragraph (c)–Transfer Gearbox Assembly S/Ns

FIA0HYRT	FIA0JGE8	FIA0J3YC	FIA0JRTW
FIA0HV16	FIA0JEH2	FIA0JEH3	FIA0K4M6
FIA0J31V	FIA0JGE7	FIA0JAVL	FIA0JN33
FIA0H0R1	FIA0JLAV	FIA0J70G	FIA0K7TV
FIA0J3YE	FIA0JLAY	FIA0HV18	FIA0K56H
FIA0J1L0	FIA0JGFC	FIA0J70E	FIA0K7TY
FIA0J3YF	FIA0JN31	FIA0JGE9	FIA0K7TW
FIA0J7FF	FIA0JN3Y	FIA0JLAW	FIA0K4M5
FIA0J5LR	FIA0JGFF	FIA0H0R3	FIA0K56G
FIA0J7FH	FIA0JN30	FIA0JGE6	FIA0JN32
FIA0J7FC	FIA0J7Y9	FIA0JT56	FIAAV6M1
FIA0J70A	FIA0JAVM	FIA0JT57	FIA0K7T1
FIA0J7Y8	FIA0JGFA	FIA0J7FE	FIAAP6C4
FIA0J7Y7	FIA0JLAT	FIA0JT6K	FIA0K7T0
FIA0J31W	FIA0JT58	FIA0JT6L	FIAATMYA
FIA0J70C	FIA0K2H1	FIA0JLAR	FIA0K56K
FIA0JAVH	FIA0HP4Y	FIA0JRT5	FIAATH0T

FIA0J7FG	FIA0HV17	FIA0JRT4	FIA0K56J
FIA0J70F	FIA0HV19	FIA0JT6J	FIAAPA8T
FIA0JAVK	FIA0HWG3	FIA0K2H4	FIAAVTMA
FIA0JEH4	FIA0J3YG	FIA0JRTV	FIA0JR TY
FIA0J5LY	FIA0H0R0	FIA0K2H2	FIAAR7C0
FIA0J5LT	FIA0HYRV	FIA0K2H3	FIAARW1V
FIA0J5LW	FIA0H0R2	FIA0K4M2	FIA07PAN
FIA0JEH5	FIA0J1LY	FIA0K4M4	FIA06VPP
FIA0JAVJ	FIA0J31T	FIA0JT59	F1A03RR4
FIA0JGE5	FIA0J1LW	FIA0K2H5	FIA0JGFE
FIA0JEH6	FIA0J5LV	FIA0K4M1	FIA02N6R
FIA0JGEH	FIA0HYRR	FIA0K56L	
FIA0J1LV	FIA0J31R	FIA0K4M3	

(d) Unsafe Condition

This AD was prompted by reports of two failures of TGBs which resulted in in-flight shutdowns (IFSDs). We are issuing this AD to prevent additional IFSDs of one or more engines, loss of thrust control, and damage to the airplane.

(e) Compliance

- (1) Comply with this AD within the compliance time specified, unless already done.
- (2) Before further flight, do not operate the airplane if more than one installed engine has a TGB S/N listed in Figure 1 to paragraph (c) of this AD.

(f) Alternative Methods of Compliance (AMOCs)

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

(g) Related Information

(1) For further information about this AD, contact: Jason Yang, Aerospace Engineer, Engine Certification Office, FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; phone: 781-238-7747; fax: 781-238-7199; email: jason.yang@faa.gov.

(2) GE GE90-100 Series Alert Service Bulletin (ASB) No. GE90-100 S/B 72-A0558, Revision 1, dated May 14, 2013, and GE90-100 Series ASB No. GE90-100 S/B 72-A0559, dated May 14, 2013, pertain to the subject of this AD.

(3) For the service information referenced in this AD, contact: General Electric Company, GE-Aviation, Room 285, 1 Neumann Way, Cincinnati, Ohio 45215; phone: 513-552-3272; email: geae.aoc@ge.com.

(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.

Issued in Burlington, Massachusetts, on June 13, 2013.
Frank P. Paskiewicz,
Acting Director,
Aircraft Certification Service.



2013-11-16 Hawker Beechcraft Corporation (Type Certificate Previously Held by Raytheon Aircraft Company): Amendment 39-17476; Docket No. FAA-2013-0462; Directorate Identifier 2013-NM-092-AD.

(a) Effective Date

This AD is effective July 2, 2013.

(b) Affected ADs

None.

(c) Applicability

This AD applies to Hawker Beechcraft Corporation (Type Certificate Previously Held by Raytheon Aircraft Company) Model BAe.125 Series 800A (including C-29A and U-125), and 800B airplanes; and Model Hawker 800 (including variant U-125A) and 800XP airplanes; certificated in any category; modified by Aviation Partners Inc. Supplemental Type Certificate (STC) ST01411SE ([http://rgl.faa.gov/Regulatory_and_Guidance_Library/rgstc.nsf/0/1b3a5d9052d875c0862577a700704eb6/\\$FILE/ST01411SE.pdf](http://rgl.faa.gov/Regulatory_and_Guidance_Library/rgstc.nsf/0/1b3a5d9052d875c0862577a700704eb6/$FILE/ST01411SE.pdf)).

(d) Subject

Joint Aircraft System Component (JASC)/Air Transport Association (ATA) of America Code 27, Flight Controls; and Code 57, Wings.

(e) Unsafe Condition

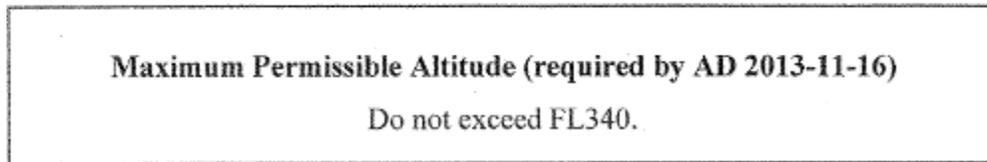
This AD was prompted by reports of several instances of severe vibration and wing/aileron oscillation due to lack of sufficient flutter margin with winglets installed. We are issuing this AD to prevent vibration and wing/aileron oscillations, which could cause structural damage or lead to divergent flutter, and result in loss of integrity of the wing, loss of control of the airplane, and in-flight breakup.

(f) Compliance

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

(g) Revise the Airplane Flight Manual

Within 45 days after the effective date of this AD: Revise the Limitations section of the airplane flight manual (AFM) by inserting the text specified in figure 1 to paragraph (g) of this AD adjacent to the page which states the Operational Limitations—Maximum Permissible Altitude.

Figure 1 to Paragraph (g) of this AD

Note 1 to paragraph (g) of this AD: When a statement identical to that in paragraph (g) of this AD has been included in the Limitations section of the general revisions of the AFM, the general revisions may be inserted into the AFM and the statement inserted as required by paragraph (g) of this AD may be removed.

(h) Installation of the Placards

Within 45 days after the effective date of this AD: Install placards on the instrument panel, in accordance with paragraph 3.B. of the Accomplishment Instructions of Aviation Partners Service Bulletin SBH-13-001, Revision A, dated May 3, 2013.

(i) 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 the Related Information section 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.

(j) Related Information

For more information about this AD, contact Kathleen Arrigotti, Aerospace Engineer, Airframe Branch, ANM-120S, FAA, Seattle Aircraft Certification Office, 1601 Lind Avenue SW., Renton, WA 98057-3356; phone: (425) 917-6426; fax: (425) 917-6590; email: kathleen.arrigotti@faa.gov.

(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 the AD specifies otherwise.

(i) Aviation Partners Service Bulletin SBH-13-001, Revision A, dated May 3, 2013.

(ii) Reserved.

(3) For service information identified in this AD, contact Aviation Partners Inc., 7299 Perimeter Road South, Seattle, WA 98108; telephone 800-946-4538; email info@aviationpartners.com; Internet <https://www.aviationpartners.com>.

(4) You may review copies of the referenced 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 May 24, 2013.
Jeffrey E. Duven,
Acting Manager, Transport Airplane Directorate,
Aircraft Certification Service.



2013-12-01 Rolls-Royce plc: Amendment 39-17478; Docket No. FAA-2012-1327; Directorate Identifier 2012-NE-47-AD.

(a) Effective Date

This airworthiness directive (AD) becomes effective July 29, 2013.

(b) Affected ADs

None.

(c) Applicability

This AD applies to all Rolls-Royce plc (RR) model RB211 Trent 768-60, 772-60, and 772B-60 turbofan engines.

(d) Reason

This AD was prompted by low-pressure (LP) compressor blade partial airfoil release events. We are issuing this AD to prevent LP compressor blade airfoil separations, engine damage, and damage to the airplane.

(e) Actions and Compliance

Unless already done, do the following actions.

(1) Inspection of LP Compressor Blade On-Wing or In-Shop

(i) For engines with LP compressor blades that have 2,500 flight cycles (FC) or more since new or since last inspection using RR Non-Mandatory Service Bulletin (NMSB) RB.211-72-G702, dated May 23, 2011, perform an ultrasonic inspection of each LP compressor blade within 500 FC or within 10 months after the effective date of this AD, whichever is sooner.

(ii) Use paragraphs 3.C through 3.H of the Accomplishment Instructions of RR NMSB RB.211-72-G872, Revision 2, dated March 8, 2013, to do the inspection.

(iii) You may do the on-wing phased array ultrasonic inspection added by NMSB RB.211-72-G872, Revision 2, dated March 8, 2013, and included in NMSB RB.211-72-H311, without removing the blades from the engine for the inspection.

(2) Re-Inspection of LP Compressor Blade Identified by Serial Number (S/N)

(i) For engines with LP compressor blades installed and identified by S/N in Appendix 1 of RR NMSB RB.211-72-H311, dated March 8, 2013, and that have, on the effective date of this AD, accumulated 2,500 FC since new or since last inspection using RR NMSB RB.211-72-G702, dated May 23, 2011, perform an ultrasonic inspection of each LP compressor blade.

(ii) The inspection, either on-wing or in-shop, must be performed within 500 FC or 10 months, whichever is sooner, after the effective date of this AD.

(iii) Use paragraphs 3.C through 3.H of the Accomplishment Instructions of RR NMSB RB.211-72-H311, dated March 8, 2013, to do the inspection.

(f) Installation Prohibition

(1) After the effective date of this AD, do not install, on any engine, any LP compressor blade that has 2,500 FC or more since new or since last inspection using RR NMSB RB.211-72-G702, dated May 23, 2011, unless the LP compressor blade has passed the ultrasonic inspection required in paragraphs (e)(1) or (e)(2) of this AD.

(2) LP compressor blades that are removed for routine on-wing maintenance such as blade root re-lubrication that will subsequently be reassembled into the engine are not subject to this Installation Prohibition.

(g) Credit for Previous Actions

You may take credit for the ultrasonic C-scan inspection of each compressor blade if you performed the inspection before the effective date of this AD using RR NMSB RB.211-72-G872, dated April 3, 2012, or Revision 1, dated July 2, 2012.

(h) Alternative Methods of Compliance (AMOCs)

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

(i) Related Information

(1) For more information about this AD, contact Robert Green, Aerospace Engineer, Engine Certification Office, FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; phone: 781-238-7754; fax: 781-238-7199; email: robert.green@faa.gov.

(2) European Aviation Safety Agency AD 2013-0060, dated March 11, 2013, pertains to the subject of this AD. You may examine this AD on the Internet at <http://ad.easa.europa.eu/ad/2013-0060>.

(3) RR Non-Mandatory Service Bulletin (NMSB) RB.211-72-G702, dated May 23, 2011, which is not incorporated by reference in this AD, can be obtained from Rolls-Royce plc using the contact information in paragraph (j)(3) of this AD.

(j) 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 Non-Modification Service Bulletin RB.211-72-H311, dated March 8, 2013.

(ii) Rolls-Royce plc Non-Modification Service Bulletin RB.211-72-G872, Revision 2, dated March 8, 2013.

(3) For Rolls-Royce plc service information identified in this AD, contact Rolls-Royce plc, P.O. Box 31, Derby DE24 8BJ, UK; phone: 44 (0) 1332 242424; fax: 44 (0) 1332 249936.

(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 June 5, 2013.
Colleen M. D'Alessandro,
Assistant Manager, Engine & Propeller Directorate,
Aircraft Certification Service.



2013-13-05 The Boeing Company: Amendment 39-17493; Docket No. FAA-2013-0205; Directorate Identifier 2012-NM-226-AD.

(a) Effective Date

This AD is effective August 1, 2013.

(b) Affected ADs

None.

(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.

- (1) All Model 747SP airplanes.
- (2) Model 747-100B SUD airplanes, line numbers 636 and 655.
- (3) Model 747-300 airplanes, line numbers 692 through 695 inclusive.

(d) Subject

Joint Aircraft System Component (JASC)/Air Transport Association (ATA) of America Code 53, Fuselage.

(e) Unsafe Condition

This AD was prompted by an evaluation by the design approval holder indicating that the fuselage skin just above certain lap splice locations is subject to widespread fatigue damage. We are issuing this AD to detect and correct fatigue cracking of the fuselage skin, which could result in reduced structural integrity of the airplane and sudden loss of cabin pressure.

(f) Compliance

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

(g) Repetitive Inspections

Perform external sliding probe eddy current inspections of the fuselage skin for cracking, in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 747-53A2854, dated September 17, 2012, except where this service bulletin specifies to contact Boeing for inspection instructions, this AD requires doing the inspection using a method approved in accordance with the procedures specified in paragraph (h) of this AD. Do the inspection at the applicable initial compliance time specified in paragraph 1.E., "Compliance," of Boeing Alert Service Bulletin 747-53A2854, dated September 17, 2012, except that where this service bulletin 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.

(1) If no cracking is found during any inspection required by paragraph (g) of this AD, repeat the inspection thereafter at the applicable intervals specified in paragraph 1.E., "Compliance," of Boeing Alert Service Bulletin 747-53A2854, dated September 17, 2012.

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

(h) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Seattle Aircraft Certification Office (ACO), FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the ACO, send it to the attention of the person identified in the Related Information section of this AD. Information may be 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.

(i) Related Information

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.

(j) 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 747-53A2854, dated September 17, 2012.

(ii) Reserved.

(3) For Boeing service information identified in this AD, 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 review 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 June 12, 2013.
Jeffrey E. Duven,
Acting Manager, Transport Airplane Directorate,
Aircraft Certification Service.