



**FEDERAL AVIATION ADMINISTRATION
AIRWORTHINESS DIRECTIVES
LARGE AIRCRAFT**

BIWEEKLY 2010-20

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LARGE AIRCRAFT

AD No.	Information	Manufacturer	Applicability
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Info: E - Emergency; COR - Correction; S - Supersedes; R - Revision; FR - Final Rule of Emergency

Biweekly 2010-01

2008-04-11 R1		Boeing	707-100 long body, -200, -100B long body, and -100B short body series airplanes; Model 707-300, -300B, -300C, and -400 series airplanes; and Model 720 and 720B
2008-09-12 R1		Bombardier	CL-600-2B19 (Regional Jet Series 100 & 440)
2008-10-09 R1		Boeing	737-100, -200, -200C, -300, -400, and -500
2008-11-01 R1		Boeing	767-200, -300, -300F, and -400ER
2009-20-11	Cor	Boeing	737-300, -400, and -500
2009-24-11		General Electric	See AD
2009-26-03		Boeing	See AD
2009-26-04		Boeing	737-600, -700, -700C, -800, and -900
2009-26-10		Airbus	A380-841, -842, and -861
2009-26-12		Engine Components, Inc. (ECi)	See AD
2009-26-14		CONSTRUCCIONES AERONAUTICAS, S.A. (CASA)	CN-235, CN-235-100, CN-235-200, and CN-235-300
2009-26-15		Embraer	ERJ 170-100 LR, -100 STD, -100 SE, -100 SU, -200 LR, -200 STD, and -200 SU airplanes, certificated in any category, serial numbers 17000156 through 17000169 inclusive; and Model ERJ 190-100 LR, -100 IGW, -100 STD, -200 STD, -200 LR, and -200 IGW
2009-26-16		McDonnell Douglas	MD-11 and MD-11F
2009-26-17		MCDonnell	Model DC-10-10, DC-10-10F, DC-10-15, DC-10-30, DC-10-30F (KC-10A and KDC-10), DC-10-40, and DC-10-40F airplanes, and MD-10-10F and MD-10-30F

Biweekly 2010-02

2008-10-06 R1		Boeing	747-400, -400D, and -400F
2008-10-10 R1		Boeing	737-600, -700, -700C, -800, and -900
2009-26-06		Honeywell International Inc	Engine: ALF502L and ALF502R series, and LF507-1F and LF507-1H
2009-26-09	S 2007-05-16	General Electric Company	Engine: CF34-1A, -3A, -3A1, -3A2, -3B, and -3B1
2010-01-01	S 2006-05-02	Boeing	747-200F, 747-200C, 747-400, 747-400D, and 747-400F
2010-01-04	S 2009-24-11	General Electric Company	Engine: CF34-1A, CF34-3A, CF34-3A1, CF34-3A2, CF34-3B, and CF34-3B1
2010-01-03		Fire Fighting Enterprises Limited	See AD
2010-01-05		CFM International, S.A	Engine: See AD
2010-01-06		Bombardier, Inc.	DHC-8-400, DHC-8-401, and DHC-8-402
2010-01-07		Airbus	A340-211, -212, -213, -311, -312, -313, -541, and -642
2010-01-08		Boeing	737-600, -700, and -800
2010-01-09		Boeing	737-300, -400, and -500
2010-01-11		Fokker Services B.V.	F.28 Mark 0070 and Mark 0100
2010-01-12		Embraer	ERJ 170-100 LR, -100 STD, -100 SE, -100 SU, -200 LR, -200 STD, and -200 SU
2010-02-02		Dassault	Falcon 7X
2010-02-03		Airbus	A340-211, -212, -213, -311, -312, and -313
2010-02-04		Boeing	737-600, -700, -700C, -800, -900, and -900ER

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Biweekly 2010-03			
2009-21-10 R1		AVOX Systems and B/E Aerospace	Appliance: Oxygen cylinder assemblies
2009-26-13		Airbus	A330-201, -202, -203, -223, -243, -301, -302, -303, -321, -322, -323, -341, -342, and -343, 340-211, -212, -213, -311, -312, and -313
2010-01-02	S 2005-15-08	Boeing	747-100B SUD, -200B, -300, -400, and -400D
2010-01-10	S 2007-01-15	Boeing	747-100, 747-100B, 747-100B SUD, 747-200B, 747-200C, 747-200F, 747-300, 747SR, and 747SP
2010-02-06		Sicma Aero Seat	Appliance: 90xx and 92xx series passenger seats
2010-02-09		Airbus	A318
2010-02-10		Airbus	A330-201, -202, -203, -223, -243, -301, -302, -303, -321, -322, -323, -341, -342, and -343 series airplanes; Model A340-211, -212, -213, -311, -312, -313 series airplanes; and Model A340-541 and -642
2010-02-11		BAE Systems	BAe 146-100A, -200A, and -300A series airplanes; and BAE SYSTEMS (Operations) Limited Model Avro 146-RJ70A, 146-RJ85A, and 146-RJ100A
2010-02-12		Fokker Services B.V	F.28 Mark 0070 and 0100
Biweekly 2010-04			
2010-03-05		Boeing	747-200C and -200F
2010-03-07		Embraer	EMB-135BJ, EMB-135ER, -135KE, -135KL, -135LR, EMB-145, -145ER, -145MR, -145LR, -145XR, -145MP, and -145EP
2010-03-08	S 2003-03-02	Boeing	767-200, -300 and -300F
2010-04-01		Dassault Aviation	Falcon 900EX
2010-04-02		Airbus	A310-221, -222, -322, -324, and -325 airplanes, and Model A300 B4-620, B4-622, B4-622R, and F4-622R
2010-04-03		Airbus	A310-203, -204, -221, -222, -304, -322, -324, and -325
Biweekly 2010-05			
2009-06-05 R1		Bombardier, Inc	CL-600-1A11 (CL-600), CL-600-2A12 (CL-601), CL-600-2B16 (CL-601-3A & CL-601-3R), CL-600-2B16 (CL-604)
2010-04-04		Bombardier, Inc	CL-600-2C10 (Regional Jet Series 700, 701, & 702), CL-600-2D15 (Regional Jet Series 705)
2010-04-08		Embraer	ERJ 190-100 LR, -100 IGW, -100 STD, -200 STD, -200 LR, and -200 IGW
2010-04-09		Airbus	A330-201, -202, -203, -223, and -243, A340-211, -212, and -213 airplanes; and Model A340-311, -312, and -313
2010-04-10	S 2009-10-07	Airbus	A380-841, -842, and -861
2010-04-13		Airbus	A310-203, A310-221, and A310-222, A300 F4-605R and A300 F4-622R
2010-04-16		SICLI	Appliance: Portable fire extinguishers
2010-05-01		ATR-GIE Avions de Transport Régional	ATR42-200, -300, -320, and -500 airplanes; and Model ATR72-101, -201, -102, -202, -211, -212, and -212A
2010-05-04		McDonnell Douglas Corporation	MD-90-30
2010-05-05	S 2007-15-08	BAE Systems	ATP
2010-05-06		Airbus	A340-541 and -642
2010-05-07		Airbus	A340-211, -212, and -213 airplanes; and Model A340-311, -312, and -313

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Info: E - Emergency; COR - Correction; S - Supersedes; R - Revision; FR - Final Rule of Emergency			
Biweekly 2010-06			
2009-22-05	S 2008-23-16	Bombardier, Inc.	CL-600-2B19 (Regional Jet Series 100 & 440)
2010-04-09	COR	Airbus	A330-201, -202, -203, -223, and -243, A340-211, -212, and -213 airplanes; and Model A340-311, -312, and -313
2010-04-12		Bombardier, Inc.	DHC-8-101, DHC-8-102, DHC-8-103, DHC-8-106, DHC-8-201, DHC-8-202, DHC-8-301, DHC-8-311, and DHC-8-315
2010-05-03		Boeing	747-100, 747-100B, 747-100B SUD, 747-200B, 747-200C, 747-200F, 747-300, 747-400, 747-400D, 747-400F, 747SR, and 747SP
2010-05-09		Dowty Propellers	Propeller: R354/4-123-F/13, R354/4-123-F/20, R375/4-123-F/21, R389/4-123-F/25, R389/4-123-F/26, and R390/4-123-F/27
2010-05-11		Boeing	747-100, 747-200B, 747-300, and 747SR
2010-05-12		Bombardier, Inc	DHC-8-102, DHC-8-103, DHC-8-106, DHC-8-201, and DHC-8-202
2010-05-13	S 2006-07-12	Boeing	737-100, -200, -200C, -300, -400, and -500
2010-05-14		Bombardier, Inc	CL-600-2B19 (Regional Jet Series 100 & 440)
2010-06-01		Airbus	A319-111, -112, -113, -114, -115, -131, -132, and -133 airplanes; Model A320-111, -211, -212, -214, -231, -232, and -233 airplanes; and Model A321-111, -112, -131, -211, -212, -213, -231, and -232
2010-06-04		Airbus	See AD
2010-06-05		Airbus	See AD
2010-06-51	E	Boeing	737-600, -700, -700C, -800, -900, and -900ER
Biweekly 2010-07			
97-17-04 R1	R	Pratt & Whitney	Engine: JT8D-209, -217, -217C, and -219
2010-05-13	COR, S 2006-07-12	Boeing	737-100, -200, -200C, -300, -400, and -500
2010-06-09		Boeing	777-200, -200LR, -300, -300ER, and 777F
2010-06-13		Learjet	45
2010-06-15		General Electric Company	Engine: CF6-45A, CF6-45A2, CF6-50A, CF6-50C, CF6-50CA, CF6-50C1, CF6-50C2, CF6-50C2B, CF6-50C2D, CF6-50C2F, CF6-50C2R, CF6-50E, CF6-50E1, and CF6-50E2, 767-200, -300, -300F, and -400ER
2010-06-16		Boeing	767-200, -300, -300F, and -400ER
2010-06-18		International Aero Engines	Engine: V2500-A1, V2522-A5, V2524-A5, V2525-D5, V2527-A5, V2527E-A5, V2527M-A5, V2528-D5, V2530-A5, and V2533-A5
2010-07-04		Embraer	ERJ 170-100 LR, -100 STD, -100 SE, and -100 SU airplanes; Model ERJ 170-200 LR, -200 SU, and -200 STD airplanes; Model ERJ 190-100 STD, -100 LR, -100 ECJ, and -100 IGW
Biweekly 2010-08			
2010-06-10		Boeing	767-200, -300, and -300F
2010-06-14		Rolls-Royce plc	Engine: RB211-Trent 875-17, Trent 877-17, Trent 884-17, Trent 884B-17, Trent 892-17, Trent 892B-17, and Trent 895-17
2010-06-17		Boeing	757-200, -200CB, -200PF, and -300
2010-06-51		Boeing	737-600, -700, -700C, -800, -900, and -900ER
2010-07-01	S 2009-24-05	Rolls-Royce plc	See AD
2010-07-02	S 2006-22-05	Honeywell, Inc.	Appliance: Honeywell Primus II RNZ-850()/-851()
2010-07-03	S 2006-08-02	Boeing	747-200C and -200F
2010-07-06		Bombardier, Inc.	BD-100-1A10 (Challenger 300)
2010-07-08		Kelly Aerospace Energy Systems, LLC	Appliance: Kelly Aerospace Energy Systems
2010-07-09	S 2007-02-05	Rolls-Royce plc	Engine: RB211-Trent 768-60, RB211-Trent 772-60, and RB211-Trent 772B-60
2010-07-10		Airbus	A300 B2-1C, B2K-3C, B2-203, B4-2C, B4-103, and B4-20

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Biweekly 2010-09			
2010-08-02		Embraer	ERJ 170-100 LR, -100 STD, -100 SE, -100 SU, -200 LR, -200 STD, -200 SU, ERJ 190-100 STD, -100 LR, -100 IGW, -100 ECJ, -200 STD, -200 LR, and -200 IGW
2010-08-03 2010-08-05	S 2009-04-11	Bombardier, Inc. Airbus	CL-600-2B19 (Regional Jet Series 100 & 440) A330-201, -202, -203, -223, -243, -301, -302, -303, -321, -322, -323, -341, -342, and -343, A340-311, -312, and -313
2010-08-06		Embraer	ERJ 170-100 LR, -100 STD, -100 SE, -100 SU, -200 LR, -200 STD, and -200 SU, ERJ 190-100 STD, -100 LR, -100 IGW, -200 STD, -200 LR, and -200 IGW
2010-08-07		Airbus	A340-541 and -642
2010-08-08		Airbus	A330-243, -341, -342, and -343
2010-09-08		General Electric Company	Engine: CJ610 series turbojet and CF700
Biweekly 2010-10			
2002-23-20	COR	Dassault Aviation	900EX, Mystere Falcon 900
2010-01-04	COR, S 2009-24-11	General Electric Company	Engine: CF34-1A, CF34-3A, CF34-3A1, CF34-3A2, CF34-3B, and CF34-3B1
2010-06-04	COR	Airbus	A300 B2-1C, A300 B2-203, A300 B2K-3C, A300 B4-103, A300 B4-203, and A300 B4-2C, A310-203, A310-204, A310-221, A310-222, A310-304, A310-322, A310-324, and A310-325, A300 B4-601, A300 B4-603, A300 B4-605R, A300 B4-620, A300 B4-622, and A300 B4-622R
2010-09-02		British Aerospace Regional Aircraft	Jetstream Series 3101 and Jetstream Model 3201
2010-09-03		Boeing	747-200B
2010-09-04		Honeywell International Inc.	Appliance: Primus EPIC and Primus APEX flight management systems (FMS)
2010-09-05	S 2010-06-51	Boeing	737-600, -700, -700C, -800, -900, and -900ER
2010-09-06		Bombardier, Inc.	CL-600-2C10 (Regional Jet Series 700, 701 & 702), CL-600-2D15 (Regional Jet Series 705) and Model CL-600-2D24 (Regional Jet Series 900)
2010-09-07		Bombardier, Inc.	DHC-8-400, -401, and -402
2010-09-10	S 2003-04-21 R!	Bombardier, Inc.	CL-600-2B19 (Regional Jet Series 100 & 440)
2010-09-11	S 93-01-11	BAE Systems (Operations) Limited	BAe 146-100A, -200A, and -300A series airplanes, and Model Avro 146-RJ70A, 146-RJ85A, and 146-RJ100A
2010-09-12		McDonnell Douglas Corporation	Model DC-10-10, DC-10-10F, DC-10-15, DC-10-30, DC-10-30F (KC-10A and KDC-10), DC-10-40, DC-10-40F, MD-10-10F, MD-10-30F, MD-11, and MD-11F
2010-09-14	S 2009-01-01	CFM International, S.A.	Engine: CFM56-5B1/P, -5B2/P, -5B3/P, -5B3/P1, -5B4/P, -5B5/P, -5B6/P, -5B7/P, -5B8/P, -5B9/P, -5B1/2P, -5B2/2P, -5B3/2P, -5B3/2P1, -5B4/2P, -5B4/P1, -5B6/2P, -5B4/2P1, and -5B9/2P
2010-10-04		Bombardier, Inc.	DHC-8-400, -401, and -402

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Info: E - Emergency; COR - Correction; S - Supersedes; R - Revision; FR - Final Rule of Emergency			
Biweekly 2010-11			
2009-26-09	COR	General Electric Company	Engine: CF34-1A, -3A, -3A1, -3A2, -3B, and -3B1
2010-10-05	S 94-12-04	Boeing	747-100, 747-100B, 747-100B SUD, 747-200B, 747-300, 747SR, and 747SP
2010-10-07		Empresa Brasileira de Aeronautica S.A.	ERJ 170-100 LR, -100 STD, -100 SE, -100 SU, -200 LR, -200 STD, and -200 SU, ERJ 190-100 ECJ, -100 LR, -100 IGW, -100 STD, -200 STD, -200 LR, and -200 IGW
2010-10-08		Airbus	A318-111, -112, -121, and -122 airplanes; Model A319-111, -112, -113, -114, -115, -131, -132, and -133 airplanes; Model A320-111, -211, -212, -214, -231, -232, and -233 airplanes; and Model A321-111, -112, -131, -211, -212, -213, -231, and -232
2010-10-11		Empresa Brasileira de Aeronautica S.A.	EMB-135BJ, -135ER, -135KE, -135KL, -135LR, -145, -145ER, -145MR, -145LR, -145XR, -145MP, and -145EP
2010-10-13		BAE Systems	BAe 146-100A, -200A, and -300A series airplanes; and Model Avro 146-RJ70A, 146-RJ85A, and 146-RJ100A
2010-10-18		Bombardier, Inc.	BD-100-1A10 (Challenger 300)
2010-10-19	S 2010-02-03	Airbus	A340-211, -212, -213, -311, -312, and -313
2010-10-20		McDonnell Douglas	DC-9-31, DC-9-32, DC-9-32 (VC-9C), DC-9-32F, DC-9-33F, DC-9-34, DC-9-34F, and DC-9-32F (C-9A, C-9B), DC-9-41, and DC-9-51
2010-10-21		Bombardier, Inc.	CL-600-2C10 (Regional Jet Series 700, 701, & 702), CL-600-2D15 (Regional Jet Series 705) and CL-600-2D24 (Regional Jet Series 900)
2010-10-22	S 2005-23-12	BAE Systems	BAe 146-100A, -200A, and -300A series airplanes; and Model Avro 146-RJ70A, 146-RJ85A, and 146-RJ100A
2010-10-23	S 70-16-02	Dowty Propellers	R175/4-30-4/13; R175/4-30-4/13e; R184/4-30-4/50; R193/4-30-4/50; R193/4-30-4/61; R193/4-30-4/64; R193/4-30-4/65; R193/4-30-4/66; R.209/4-40-4.5/2; R212/4-30-4/22; R.245/4-40-4.5/13; R257/4-30-4/60; and R.259/4-40-4.5/17
2010-10-24		Dassault Aviation	FALCON 2000 and FALCON 2000EX
2010-10-25		Airbus	A330-201, -202, -203, -223, -243, -301, -302, -303, -321, -322, -323, -341, -342, and -343 airplanes; and Airbus Model A340-311, -312, and -313
2010-10-26	S 2007-14-02	Bombardier, Inc.	CL-600-1A11 (CL-600), CL-600-2A12 (CL-601), CL-600-2B16 (CL-601-3A, CL-601-3R, and CL-604)
2010-11-02	S 2007-03-05	Gulfstream Aerospace LP	100 airplanes; and Model Astra SPX and 1125 Westwind
2010-11-03		Airbus	A300 B2-1A, B2-1C, B2K-3C, B2-203, B4-2C, B4-103, B4-203, B4-601, B4-603, B4-620, B4-622, B4-605R, B4-622R, F4-605R, F4-622R, and C4-605R Variant F airplanes; and Model A310-203, -204, -221, -222, -304, -322, -324, and -325

Biweekly 2010-12

2006-09-11	COR	Airbus	A319-111, -112, -113, -114, -115, -131, -132, and -133 airplanes; Model A320-211, -212, -214, -231, -232, and -233 airplanes; Model A321-111, -112, and -131 airplanes; and Model A321-211 and -231
2010-11-01		Embraer	EMB-135BJ, -135ER, -135KE, -135KL, -135LR, -145, -145ER, -145MR, -145LR, -145XR, -145MP, and -145EP airplanes, certificated in any category, all serial numbers, except Model EMB-145LR
2010-11-12	S 99-25-14	McDonnell Douglas	MD-11 and MD-11F
2010-11-13		Embraer	ERJ 170-100 LR, -100 STD, -100 SE, -100 SU, -200 LR, -200 STD, and -200 SU
2010-11-14		Embraer	ERJ 190-100 STD, -100 LR, -100 IGW, -200 STD, -200 LR, and -200 IGW

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Biweekly 2010-13			
2010-10-17	S 97-25-02, 2000-02-05, 2006-15-07, 2006-17-01	Mitsubishi Heavy Industries, Ltd.	See AD
2010-11-11		Learjet Inc	60
2010-12-03		CFM International	Engine: CFM56-3 and -3B
2010-12-05	S 2009-06-18	Bombardier	CL-600-2C10 (Regional Jet Series 700, 701, & 702)
2010-12-06		Bombardier, Inc	DHC-8-400, DHC-8-401, and DHC-8-402
2010-12-07		Embraer	EMB-135ER, -135KE, -135KL, and -135LR airplanes; and EMBRAER Model EMB-145, -145ER, -145MR, -145LR, - 145XR, -145MP, and -145EP
2010-12-08		Airbus	A300 B2-1A, B2-1C, B2K-3C, B2-203, B4-2C, B4-103, B4-203, B4-601, B4-603, B4-620, B4-622, B4-605R, B4-622R, F4-605R, and F4-622R airplanes; Model C4-605R Variant F airplanes; and Model A310-203, -204, -221, -222, -304, -322, -324, and -325
2010-12-09		Honeywell International	Appliance: APU
2010-12-10	S 2010-06-15	General Electric	Engine: CF6-45A, CF6-45A2, CF6-50A, CF6-50C, CF6-50CA, CF6-50C1, CF6-50C2, CF6-50C2B, CF6-50C2D, CF6-50C2-F, CF6-50C2-R, CF6-50E, CF6-50E1, and CF6-50E2
Biweekly 2010-14			
2008-01-01		The Boeing Company	737-200, -300, -400, -500, -600, -700, -800, and -900 series airplanes; 747-400 series airplanes; 757-200 and -300 series airplanes; 767-200, -300, and -400ER series airplanes; 777-200 series airplanes
2009-15-16		McDonnell Douglas Corporation	DC-9-11, DC-9-12, DC-9-13, DC-9-14, DC-9-15, and DC-9-15F, DC-9-31, DC-9-32, DC-9-32 (VC-9C), DC-9-32F, DC-9-33F, DC- 9-34, DC-9-34F, and DC-9-32F (C-9A, C-9B), DC-9-81 (MD-81), DC-9-82 (MD-82), DC-9-83 (MD-83), DC-9-87 (MD-87), MD-88, and MD-90-30 airplanes
2010-13-02		Fokker Services B.V.	F.27 Mark 500 and 600 airplanes
2010-13-03		The Boeing Company	777-200LR and -300ER series airplanes
2010-13-04		Bombardier, Inc.	DHC-8-400, DHC-8-401, and DHC-8-402 series airplanes
2010-13-05	COR	Bombardier, Inc.	CL-600-2C10 (Regional Jet Series 700 & 701); CL-600-2D15 (Regional Jet Series 705) and Model CL-600-2D24 (Regional Jet Series 900) airplanes
2010-13-06		McDonnell Douglas Corporation	DC-10-10, DC-10-10F, and MD-10-10F airplanes
2010-13-09		CFM International, S.A	CFM56-5, -5B, and -7B series turbofan engines
2010-13-11		Fokker Services B.V.	F.28 Mark 0070 and Mark 0100 airplanes
2010-13-12		The Boeing Company	747-100, 747-100B, 747-100B SUD, 747-200B, 747-200C, 747- 200F, 747-300, 747-400, 747-400D, 747-400F, 747SR, and 747SP series airplanes
2010-14-01		The Boeing Company	747-100, 747-100B, 747-100B SUD, 747-200B, 747-200C, 747- 200F, 747-300, 747-400, 747-400F, 747SR, and 747SP series airplanes
2010-14-02		Bombardier, Inc.	CL-600-2B16 (CL-604 Variant) airplanes
2010-14-03	S 2009-06-17	Bombardier, Inc.	CL-600-2B19 (Regional Jet Series 100 & 440) airplanes
2010-14-04		Airbus	A330-243, -341, -342, and -343 airplanes; and A340-541 and -642 airplanes
2010-14-05		Bombardier, Inc.	CL-600-1A11 (CL-600), CL-600-2A12 (CL-601), CL-600-2B16 (CL-601-3A, CL-601-3R, and CL-604) airplanes
2010-14-06	S 2008-06-24	The Boeing Company	737-200, -300, -400, and -500 series airplanes
2010-14-07	S 2006-05-06	The Boeing Company	747-100, 747-100B, 747-100B SUD, 747-200B, 747-200C, 747- 200F, 747-300, 747-400, 747-400D, 747-400F, 747SR, and 747SP series airplanes
2010-14-08		The Boeing Company	747-400, 747-400D, and 747-400F series airplanes
2010-14-09		The Boeing Company	747-100B, 747-200B, 747-200F, 747-300, 747-400, 747-400F, and 747SP series airplanes
2010-14-10	S 94-17-01	The Boeing Company	747-100, 747-200B, and 747-200F series airplanes

LARGE AIRCRAFT

AD No.	Information	Manufacturer	Applicability
Info: E - Emergency; COR - Correction; S - Supersedes; R - Revision; FR - Final Rule of Emergency			
Biweekly 2010-15			
2010-10-06	S 2007-18-04	Airbus	A330-201, -202, -203, -223, -243, -301, -302, -303, -321, -322, -323, -341, -342, and -343
2010-14-11		Bombardier, Inc	DHC-8-400, -401, and -402
2010-14-13		Boeing	777-200, -200LR, -300, and -300ER
2010-14-16	S 2008-17-06	Bombardier, Inc	DHC-8-400, -401, and -402
2010-14-17		Boeing	747-100, 747-100B, 747-100B SUD, 747-200B, 747-200C, 747-200F, 747-300, 747-400, 747SR, and 747SP
2010-14-19		Airbus	A330-201, -202, -203, -223, -243, -301, -302, -303, -321, -322, -323, -341, -342 and -343, A340-211, -212, -213, -311, -312, -313, -541, and -642
2010-14-20		McCauley Propeller Systems	Propeller: 4HFR34C653/L106FA
2010-15-01		Boeing	757-200, -200CB, -200PF, 757-300, 767-200, -300, -300F, 767-400ER, 777-200 and -300
Biweekly 2010-16			
2010-14-14	S 2007-16-09	Embraer	Model ERJ 170-100 LR, -100 STD, -100 SE, and -100 SU airplanes; and Model ERJ 170-200 LR, -200 STD, and -200 SU, ERJ 190-100 ECJ, -100 LR, -100 IGW, -100 STD airplanes; and Model ERJ 190-200 STD, -200 LR, and -200 IGW
2010-14-18	S 2005-19-23	Boeing	767-200, -300, and -300F
2010-15-02		Airbus	A330-201, -202, -203, -223, -243, -301, -302, -303, -321, -322, -323, -341, -342, and -343 series airplanes, A340-211, -212, -213, -311, -312, and -313 series airplanes, and A340-541 and -642
2010-15-08	S 2003-24-08	Boeing	737-100, -200, -200C, -300, -400, and -500
Biweekly 2010-17			
2009-15-16 R1	R	McDonnell Douglas	DC-9-11, DC-9-12, DC-9-13, DC-9-14, DC-9-15, and DC-9-15F airplanes, Model DC-9-31, DC-9-32, DC-9-32 (VC-9C), DC-9-32F, DC-9-33F, DC-9-34, DC-9-34F, and DC-9-32F (C-9A, C-9B) airplanes, Model DC-9-81 (MD-81) airplanes, Model DC-9-82 (MD-82) airplanes, Model DC-9-83 (MD-83) airplanes, Model DC-9-87 (MD-87) airplanes, Model MD-88 airplanes, and Model MD-90-30
2010-14-19	COR	Airbus	A330-201, -202, -203, -223, -243, -301, -302, -303, -321, -322, -323, -341, -342 and -343, A340-211, -212, -213, -311, -312, -313, -541, and -642, A340-311, -312, -313, -541, and -642
2010-16-01	S 2008-13-14	Embraer	EMB-135ER, -135KE, -135KL, and -135LR airplanes, and Model EMB-145, -145ER, -145MR, -145LR, -145XR, -145MP, and -145EP
2010-16-02		Embraer	EMB-135BJ, -135ER, -135KE, -135KL, and -135LR airplanes; and Model EMB-145, -145ER, -145MR, -145LR, -145XR, -145MP, and -145EP
2010-16-03		McDonnell Douglas	MD-11 and MD-11F
2010-16-04		Boeing	767-200, -300 and -300F
2010-16-05		Boeing	747-100, 747-100B, 747-100B SUD, 747-200B, 747-200C, 747-200F, 747-300, 747-400, 747-400D, 747-400F, 747SR, and 747SP
2010-16-06		Boeing	737-300, -400, and -500, 737-600, -700, and -800
2010-16-07		Rolls-Royce plc	Engine: RB211-Trent 970-84, 970B-84, 972-84, 972B-84, 977-84, 977B-84, and 980-84
2010-16-09		BAE Systems	BAe 146-100A and -200A
2010-16-10		BAE Systems	BAe 146-100A, -200A, and -300A airplanes, and Avro 146-RJ70A, 146-RJ85A, and 146-RJ100A
2010-16-12		Boeing	777-200LR and -300ER
2010-16-13		Airbus	A300 B4-601, B4-603, B4-620, B4-622, B4-605R, B4-622R, F4-605R, F4-622R, and C4-605R Variant F airplanes; and Model A310-203, -204, -221, -222, -304, -322, -324, and -325

LARGE AIRCRAFT

AD No.	Information	Manufacturer	Applicability
Info: E - Emergency; COR - Correction; S - Supersedes; R - Revision; FR - Final Rule of Emergency			
Biweekly 2010-18			
2010-16-11		McDonnell Douglas Corporation	MD-90-30
2010-17-01		Pratt & Whitney Canada Corp	Engine: PW617F-E
2010-17-02		Airbus	A330-201, -202, -203, -223, -243, -301, -302, -303, -321, -322, -323, -341, -342, and -343 A340-211, -212, -213, -311, -312, -313, A340-541 and -642
2010-17-03		Boeing	767-300
2010-17-04		Airbus	A380-841, -842, and -861
2010-17-05		Boeing	737-600, -700, -700C, -800, and -900
2010-17-07		Airbus	A330-223, -321, -322, and -323
2010-17-10		Rolls-Royce plc	Engine: RB211-22B series and RB211-524B4-D-02, RB211-524D4-19, RB211-524D4-39, RB211-524D4-B-19, RB211-524D4-B-39, RB211-524D4X-19, and RB211-524D4X-B-19
2010-17-11		Dowty Propellers	Propeller: R408/6-123-F/17
2010-17-12	S 2009-22-01	Rolls-Royce Deutschland Ltd & Co KG	Engine: Tay 650-15, Tay 651-54
2010-17-13		Rolls-Royce plc	Engine: RB211-524C2-19 and RB211-524C2-B-19
2010-17-17		Bombardier, Inc	CL-600-2B19 (Regional Jet Series 100 & 440)
2010-17-19	S 2010-09-05	Boeing	737-600, -700, -700C, -800, -900, and -900ER
2010-18-01		Embraer	ERJ 170-100 LR, -100 STD, -100 SE, and -100 SU, ERJ 170-200 LR, -200 SU, and -200 STD, ERJ 190-100 STD, -100 LR, -100 ECJ, and -100 IGW, ERJ 190-200 STD, -200 LR, and -200 IGW
2010-18-03		Dassault	Falcon 7X
2010-18-04		Embraer	ERJ 170-100 LR, -100 STD, -100 SE, -100 SU, -200 LR, -200 STD, and -200 SU, ERJ 190-100 LR, -100 IGW, -100 STD, -200 STD, -200 LR, and -200 IGW
2010-18-07		Airbus	A318-111, -112, -121, and -122, A319-111, -112, -113, -114, -115, -131, -132, and -133, A320-111, -211, -212, -214, -231, -232, and -233, A321-111, -112, -131, -211, -212, -213, -231, and -232
2010-18-09		Pratt & Whitney Canada	PW530A, PW545A, and PW545B
Biweekly 2010-19			
2010-17-14		Boeing	737-100 and -200
2010-18-08	S 2009-10-10	Bombardier, Inc.	CL-600-2C10 (Regional Jet Series 700, 701, & 702)
2010-18-10		BAE Systems	BAe 146-100A, -200A, and -300A series airplanes and Model Avro 146-RJ70A, 146-RJ85A, and 146-RJ100A
2010-18-11		Bombardier, Inc.	CL-600-2C10 (Regional Jet Series 700, 701, & 702); Model CL-600-2D15 (Regional Jet Series 705); and Model CL-600-2D24 (Regional Jet Series 900)
Biweekly 2010-20			
2010-18-13		Pratt & Whitney	PW4052, PW4056, PW4060, PW4062, PW4062A, PW4074, PW4077, PW4077D, PW4084D, PW4090, PW4090-3, PW4152, PW4156A, PW4158, PW4164, PW4168, PW4168A, PW4460, and PW4462
2010-19-01	S 2009-08-51	Rolls-Royce Corporation	Engine: AE 3007A
2010-19-02		Bombardier	DHC-8-201, -202, -301, -311, and -315
2010-19-03		Boeing	737-700(IGW)
2010-19-04		Embraer	EMB-120, -120ER, -120FC, -120QC, and -120RT
2010-20-04		Gulfstream Aerospace LP	Galaxy and Gulfstream 200
2010-20-11		Rolls-Royce plc	Engine: RB211 Trent 768-60, 772-60, 772B-60, 875-17, 877-17, 884-17, 884B-17, 892-17, 892B-17, and 895-17



2010-18-13 Pratt & Whitney: Amendment 39-16427. Docket No. FAA-2010-0217; Directorate Identifier 2009-NE-23-AD.

Effective Date

(a) This airworthiness directive (AD) becomes effective October 18, 2010.

Affected ADs

(b) None.

Applicability

(c) This AD applies to Pratt & Whitney (PW) PW4052, PW4056, PW4060, PW4062, PW4062A, PW4074, PW4077, PW4077D, PW4084D, PW4090, PW4090-3, PW4152, PW4156A, PW4158, PW4164, PW4168, PW4168A, PW4460, and PW4462 turbofan engines. These engines are installed on, but not limited to, Boeing 747-400, 767-200, 767-300, 777-200, and 777-300 airplanes; McDonnell Douglas MD-11 airplanes; and Airbus A300-600, A310-300, and A330-200 airplanes.

Unsafe Condition

(d) This AD results from reports of cracked locking and loading slots in the high-pressure compressor (HPC) drum rotor disk assembly. We are issuing this AD to detect cracks in the locking and loading slots in the HPC drum rotor disk assemblies, which could result in rupture of the HPC drum rotor disk assembly and damage to the airplane.

Compliance

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

Local Fluorescent Penetrant Inspection

(f) Perform a local fluorescent penetrant inspection for cracks in the HPC drum rotor disk assembly blade locking and loading slots of the specific stages of the HPC drum rotor disk assemblies from which any of the blades are removed as specified in Table 1 of this AD.

Table 1 – Compliance Times and Service Bulletins by Engine Model

For Engine Model	Inspect whenever ...	Use...
(1) PW4074, PW4077, PW4077D, PW4084D, PW4090, and PW4090-3.	Any of the 13 th or 14 th stage blades are removed during a shop visit.	Paragraphs 1.A. through 1.B. of the Accomplishment Instructions of PW4G-112-72-264, Revision 2, dated February 23, 2010.
(2) PW4164, PW4168, and PW4168A.	Any of the 13 th , 14 th , or 15 th stage blades are removed during a shop visit.	Paragraphs 1.A. through 1.C of the Accomplishment Instructions of PW4G-100-72-186, Revision 1, dated September 2, 2004.
(3) PW4052, PW4056, PW4060, PW4062, PW4062A, PW4152, PW4156A, PW4158, PW4460, and PW4462.	Any of the 13 th , 14 th , or 15 th stage blades are removed during a shop visit.	Paragraphs 1.A. through 1.C. of the Accomplishment Instructions of PW4ENG 72-796, dated June 11, 2009.

(g) Remove from service any HPC drum rotor disk assembly found with a crack in the blade loading and locking slots of the HPC drum rotor disk assembly.

Alternative Methods of Compliance

(h) The Manager, Engine Certification Office, has the authority to approve alternative methods of compliance for this AD if requested using the procedures found in 14 CFR 39.19.

Related Information

(i) Contact Rose Len, Aerospace Engineer, Engine Certification Office, FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; e-mail: rose.len@faa.gov; telephone (781) 238-7772; fax (781) 238-7199, for more information about this AD.

Material Incorporated by Reference

(j) You must use the service information specified in the following Table 2 to perform the inspections required by this AD. The Director of the Federal Register approved the incorporation by reference of the documents listed in the following Table 2 in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Contact Pratt & Whitney, 400 Main St., East Hartford, CT 06108; telephone (860) 565-7700; fax (860) 565-1605, for a copy of this service information. You may review copies at the FAA, New England Region, 12 New England Executive Park, Burlington, MA; or 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>.

Table 2 – Incorporation by Reference

Pratt & Whitney Service Bulletin No.	Page	Revision	Date
PW4G-100-72-186 Total Pages: 11	ALL	1	September 2, 2004
PW4G-112-72-264 Total Pages: 11	ALL	2	February 23, 2010
PW4ENG 72-796 Total Pages: 22	ALL	Original	June 11, 2009

Issued in Burlington, Massachusetts, on August 26, 2010.

Thomas A. Boudreau,
Acting Manager, Engine and Propeller Directorate,
Aircraft Certification Service.



2010-19-01 Rolls-Royce Corporation (Formerly Allison Engine Company): Amendment 39-16429. Docket No. FAA-2009-0811; Directorate Identifier 2008-NE-41-AD.

Effective Date

(a) This airworthiness directive (AD) becomes effective October 27, 2010.

Affected ADs

(b) This AD supersedes AD 2009-08-51, Amendment 39-15905.

Applicability

(c) This AD applies to Rolls-Royce Corporation (RRC) AE 3007A series turbofan engines with high-pressure turbine (HPT) stage 2 wheels, part numbers (P/Ns) 23069438, 23069592, 23074462, 23074644, 23075345, or 23084520 installed. These engines are installed on, but not limited to, Empresa Brasileira de Aeronautica S. A. (EMBRAER) EMB-135 and EMB-145 airplanes.

Unsafe Condition

(d) This AD results from reports of cracked HPT stage 2 wheels. We are issuing this AD to prevent uncontained failure of the HPT stage 2 wheel and damage to the airplane.

Compliance

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

HPT Stage 2 Wheels Exempted From the Inspection Requirements of This AD

(f) The following engines are exempt from the inspection requirements of this AD:

(1) All engines with an HPT stage 2 wheel, P/N 23084520.

(2) All engines with an HPT stage 2 wheel, P/N 23075345, that has a serial number (S/N) specified in Table 1 of this AD, and

(3) All engines with an HPT stage 2 wheel, P/N 23074462, that has a S/N specified in Table 2 of this AD.

Table 1 – HPT Stage 2 Wheel, P/N 23075345 by S/N Excluded From Inspection Requirements (g) through (i) of this AD

MM507646	MM508211	MM508319
MM508144	MM508221	MM508320
MM508153	MM508241	MM508322
MM508176	MM508248	MM508337
MM508186	MM508251	MM508338
MM508188	MM508264	MM508382
MM508205	MM508305	MM508387
MM508208	MM508311	

Table 2 – HPT Stage 2 Wheel, P/N 23074462 by S/N Excluded From Inspection Requirements (g) through (i) of this AD

MM504890	MM505025	MM505054
MM504963	MM505034	MM505055
MM504990	MM505041	MM505056
MM504995	MM505045	MM505061
MM505007	MM505046	All 'MM' prefix S/Ns higher than MM505061
MM505017	MM505048	All S/Ns with 'MW' prefix

Initial Eddy Current Inspection (ECI) or Surface Wave Ultrasonic Testing (SWUT) Inspection

(g) For engines with an HPT stage 2 wheel, P/Ns 23069438, 23069592, 23074462, 23074644, or 23075345, remove the engine from service or perform an initial inspection of the wheel by the cycle limit specified in Table 3 of this AD. Use one of the following methods for the inspection:

(1) For HPT stage 2 wheels that have S/Ns listed in Table 4 of this AD, use paragraphs 2.A. through 2.C.(4) of RRC Alert Service Bulletin (ASB) AE 3007A-A-72-367, Revision 2 dated June 22, 2009, to inspect the wheel.

(2) For HPT stage 2 wheels that have S/Ns not listed in Table 4 of this AD, use paragraphs 2.A. through 2.C.(4) of RRC ASB AE 3007A-A-72-367, Revision 2, dated June 22, 2009, or use paragraphs 2.A. through 2.N. of RRC Service Bulletin (SB) AE 3007A-72-368, Revision 3, dated May 24, 2010; or use 2.A. through 2.V.(4) of RRC SB AE 3007A-72-369, Revision 2, dated November 5, 2009, to perform the inspections.

Table 3 – Compliance Times for Engine Removal or ECI or SWUT Inspection of the HPT Stage 2 Wheels by Cycles-Since-New (CSN)

For HPT stage 2 wheels with the following CSN on the effective date of this AD:	Remove engine from service or inspect wheel within the following cycles-in-service (CIS) after the effective date of this AD:
(3) 17,500 or more CSN.	Remove engine from service or inspect before next flight.
(4) 10,000 to 17,499 CSN.	15 CIS.
(5) 9,999 or fewer CSN.	Before accumulating 10,015 CSN.

Credit for Previous Inspections

(6) Inspections performed before the effective date of this AD using earlier versions of RRC ASB AE 3007A-A-72-367 or RRC SB AE 3007A-72-368 or RRC SB AE 3007A-72-369 comply with the requirements of paragraphs (g)(1) and (g)(2) of this AD.

Table 4 – S/Ns of HPT Stage 2 Wheels to be Inspected by SB AE 3007A-72-367 (ECI Method Only)

HPT Stage 2 Wheels Requiring ECI Method Only	
MM119400	MM183796
MM119480	MM183808
MM119508	MM183831
MM155847	MM228730
MM155907	MM228951
MM155908	MM503748
MM183236	MM504004
MM183362	MM57188
MM183754	MM57440
MM183762	MM57480

Installation Prohibition

(h) After the effective date of this AD, don't return to service, any HPT stage 2 wheel that was installed in any RRC AE 3007A series engine that has been removed as a result of the inspection requirements of this AD, unless the HPT stage 2 wheel was inspected as specified in RRC ASB AE 3007A-A-72-367, Revision 2, dated June 22, 2009; or RRC SB AE 3007A-72-368, Revision 3, dated May 24, 2010; or RRC SB AE 3007A-72-369, Revision 2, dated November 5, 2009.

Repetitive Inspection

(i) Thereafter, within 3,000 cycles-since-last inspection performed as a result of this AD or its predecessor ADs (Emergency ADs 2008-19-51, AD 2008-26-06, and 2009-08-51), remove the engine from service until an ECI or SWUT inspection is performed on the HPT stage 2 wheel. Use paragraphs 2.A. through 2.C.(4) of RRC ASB AE 3007A-A-72-367, Revision 2, dated June 22, 2009, or use paragraphs 2.A. through 2.N. of RRC SB AE 3007A-72-368, Revision 3, dated May 24, 2010; or use 2.A. through 2.V.(4) of RRC SB AE 3007A-72-369, Revision 2, dated November 5, 2009, to inspect the wheel.

New, Reduced Engine Cycle Life Limit and Removal From Service

(j) For HPT stage 2 wheels, P/N 23084520, do the following:

(1) For wheels that have 22,985 CSN or more on the effective date of this AD, remove the wheel from service within 15 CIS after the effective date of this AD.

(2) Thereafter, remove HPT stage 2 wheels, P/N 23084520, before exceeding the new, reduced engine cycle life limit (ECLL) of 23,000 CSN.

(k) For HPT stage 2 wheels, P/N 23075345 and 23074644, do the following:

(1) For wheels that have 19,985 CSN or more on the effective date of this AD, remove the wheel from service within 15 CIS after the effective date of this AD unless paragraph (k)(3) of this AD applies.

(2) Thereafter, remove HPT stage 2 wheels, P/N 23075345 and 23074644, before exceeding the new, reduced ECLL of 20,000 CSN.

(3) For HPT stage 2 wheels, P/N 23075345, that have a S/N listed in Table 5 of this AD and that have 22,985 CSN or more on the effective date of this AD, remove the wheel from service within 15 CIS after the effective date of this AD.

(4) Thereafter, for HPT stage 2 wheels, P/N 23075345, that have a S/N listed in Table 5 of this AD, remove the wheel from service before exceeding the new, reduced ECLL of 23,000 CSN.

Table 5 – S/Ns of HPT Stage 2 Wheel, P/N 23075345, Eligible to Remain In Service until 23,000 CSN

MM507646	MM508205	MM508251	MM508322
MM508144	MM508208	MM508264	MM508337
MM508153	MM508211	MM508305	MM508338
MM508176	MM508221	MM508311	MM508382
MM508186	MM508241	MM508319	MM508387
MM508188	MM508248	MM508320	

(l) For wheels, P/N 23069438, in engines that have not complied with RRC SB AE 3007A-72-176, Revision 5, dated September 2, 2008, or earlier version; or SB AE 3007A-72-215, Revision 2, dated September 28, 2009, or earlier version, remove the wheel before exceeding the new, reduced ECLL of 10,000 CSN.

(m) For wheels, P/N 23069438, in engines that have complied with RRC SB AE 3007A-72-176, Revision 5, dated September 2, 2008, or earlier version; or SB AE 3007A-72-215, Revision 2, dated September 28, 2009, or earlier version; do the following:

- (1) For wheels that have 19,985 CSN or more on the effective date of this AD, remove the wheel from service within 15 CIS after the effective date of this AD.
- (2) Thereafter, remove the wheel from service before exceeding the new, reduced ECLL of 20,000 CSN.

Alternative Methods of Compliance

(n) The Manager, Chicago Aircraft Certification Office, has the authority to approve alternative methods of compliance for this AD if requested using the procedures found in 14 CFR 39.19.

Special Flight Permits

(o) Under 14 CFR 39.23, we are limiting the special flight permits for this AD by restricting the flight to essential flight crew only.

Related Information

(p) Contact Kyri Zaroyiannis, Aerospace Engineer, Chicago Aircraft Certification Office, Small Airplane Directorate, FAA, 2300 E. Devon Ave., Des Plaines, IL 60018; e-mail: kyri.zaroyiannis@faa.gov; telephone (847) 294-7836; fax (847) 294-7834, for more information about this AD.

Material Incorporated by Reference

(q) You must use the service information specified in Table 6 of this AD to perform the inspections required by this AD. The Director of the Federal Register approved the incorporation by reference of the documents listed in Table 6 of this AD in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. You can get a copy from Rolls-Royce Corporation, P.O. Box 420, Indianapolis, IN 46206; telephone (317) 230-3774; fax (317) 230-8084; e-mail: indy.pubs.services@rolls-royce.com. You may review copies at the FAA, New England Region, 12 New England Executive Park, Burlington, MA; or 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>.

Table 6 – Incorporation by Reference

Rolls-Royce Corporation Service Information No.	Page	Revision	Date
Alert Service Bulletin AE 3007A-A-72-367	ALL	2	June 22, 2009
Total Pages: 8			
Service Bulletin AE 3007A-72-368	ALL	3	May 24, 2010
Total Pages: 23			
Service Bulletin AE 3007A-72-369	ALL	2	November 5, 2009
Total Pages: 22			

(Only the transmittal letter for Alert Service Bulletin (ASB) AE 3007A-A-72-367, Revision 2, dated June 22, 2009, identifies this service bulletin as an ASB; no other page of this document contains this information.)

Issued in Burlington, Massachusetts, on September 1, 2010.
Robert G. Mann,
Acting Manager, Engine and Propeller Directorate,
Aircraft Certification Service.



2010-19-02 Bombardier, Inc. Amendment 39-16430. Docket No. FAA-2010-0432; Directorate Identifier 2010-NM-001-AD.

Effective Date

- (a) This airworthiness directive (AD) becomes effective October 18, 2010.

Affected ADs

- (b) None.

Applicability

- (c) This AD applies to Bombardier, Inc. Model DHC-8-201, -202, -301, -311, and -315 airplanes, certificated in any category, having serial numbers 644 through 664 inclusive.

Subject

- (d) Air Transport Association (ATA) of America Code 28: Fuel.

Reason

- (e) The mandatory continuing airworthiness information (MCAI) states:

During a recent production fuel system test, it was found that all three flapper valves located in each collector tank did not conform to the design requirements, due to the fact that a valve spring was installed on the flapper hinge pin. This valve spring should have been removed prior to installation of the valves.

It was subsequently determined that this condition is restricted to the 21 aircraft listed in the Applicability section above.

With the valve spring installed, the flapper valve is held closed by the valve spring, preventing gravity feed. In the event of scavenge system failure, the collector tank fuel level can no longer be maintained, potentially leading to an in-flight engine shutdown.

In order to ensure adequate fuel transfer to the collector tank at all times, this directive mandates a one-time [detailed] inspection of each of the six flapper valves, removal of the valve spring, if installed, and application of an identification mark on each inspected valve.

Compliance

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

Actions

(g) Within 1,000 flight hours after the effective date of this AD, do a detailed inspection of each collector tank flapper valve for the presence of a valve spring, in accordance with the Accomplishment Instructions of Bombardier Service Bulletin 8-28-54, dated April 22, 2009. If the valve spring is not present, before further flight, apply an identification mark, in accordance with the Accomplishment Instructions of Bombardier Service Bulletin 8-28-54, dated April 22, 2009. If the valve spring is present, before further flight, remove the valve spring and apply an identification mark, in accordance with the Accomplishment Instructions of Bombardier Service Bulletin 8-28-54, dated April 22, 2009.

FAA AD Differences

Note 1: This AD differs from the MCAI and/or service information as follows: No differences.

Other FAA AD Provisions

(h) 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. Send information 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 on any airplane to which the AMOC applies, notify your principal maintenance inspector (PMI) or principal avionics inspector (PAI), as appropriate, or lacking a principal inspector, your local Flight Standards District Office. The AMOC approval letter must specifically reference this AD.

(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: For any reporting requirement in this AD, under the provisions of the Paperwork Reduction Act (44 U.S.C. 3501 et seq.), the Office of Management and Budget (OMB) has approved the information collection requirements and has assigned OMB Control Number 2120-0056.

Related Information

(i) Refer to MCAI Canadian Airworthiness Directive CF-2009-40, dated November 9, 2009; and Bombardier Service Bulletin 8-28-54, dated April 22, 2009; for related information.

Material Incorporated by Reference

(j) You must use Bombardier Service Bulletin 8-28-54, dated April 22, 2009, to do the actions required by this AD, unless the AD specifies otherwise.

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

(2) 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; e-mail thd.qseries@aero.bombardier.com; Internet <http://www.bombardier.com>.

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

(4) You may also review copies of the service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html.

Issued in Renton, Washington, on September 2, 2010.

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



2010-19-03 The Boeing Company: Amendment 39-16431. Docket No. FAA-2010-0037; Directorate Identifier 2009-NM-240-AD.

Effective Date

(a) This airworthiness directive (AD) is effective October 18, 2010.

Affected ADs

(b) None.

Applicability

(c) This AD applies to The Boeing Company Model 737-700 (IGW) series airplanes, certificated in any category; equipped with auxiliary fuel tanks installed in accordance with Configuration 3 of Supplemental Type Certificate ST00936NY.

Subject

(d) Air Transport Association (ATA) of America Code 28: Fuel.

Unsafe Condition

(e) This AD results from fuel system reviews conducted by the manufacturer. The Federal Aviation Administration is issuing this AD to prevent the potential of ignition sources inside fuel tanks, which, in combination with flammable fuel vapors, could result in fuel tank explosions and consequent loss of the airplane.

Compliance

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

Prevent Usage of Auxiliary Fuel Tanks or Modify Auxiliary Fuel System

(g) Within 6 months after the effective date of this AD: Accomplish the requirements specified in paragraph (g)(1) or (g)(2) of this AD.

(1) Deactivate the auxiliary fuel tanks, in accordance with a deactivation procedure approved by the Manager, New York Aircraft Certification Office (ACO). For any deactivation procedure to be approved, it must be shown that following deactivation, any auxiliary tank component that remains on the airplane must be secured and must be shown to meet the certification basis of the airplane. Deactivation must not result in the need for additional instructions for continued airworthiness.

Note 1: Appendix A of this AD provides criteria that should be included in the deactivation procedures. The proposed deactivation procedures should be submitted to the Manager, New York ACO, as soon as possible to ensure timely review and approval.

Note 2: For technical information, contact Mazdak Hobbi, Aerospace Engineer, Propulsion and Services Branch, ANE-173, FAA, New York ACO, 1600 Stewart Avenue, Suite 410, Westbury, New York 11590; telephone 516-228-7330; fax 516-794-5531.

(2) Modify the auxiliary fuel system by doing all the applicable actions in accordance with the Accomplishment Instructions of DeCrane Aerospace 737-700 IGW Service Bulletin ST00936NY-D-28-SB-001-K, dated August 25, 2008; and DeCrane Aerospace 737-700 IGW Service Bulletin ST00936NY-D-28-SB-021-K, dated January 8, 2009.

Credit for Actions Accomplished in Accordance With Previous Service Information

(h) Actions accomplished before the effective date of this AD according to the service information identified in Table 1 of this AD, are considered acceptable for compliance with the corresponding actions specified in paragraph (g)(2) of this AD.

Table 1 – Credit Service Information

Service Bulletin	Revision	Date
DeCrane Aerospace 737-700 IGW ST00936NY-D-28-SB-001_G	G	March 27, 2008
DeCrane Aerospace 737-700 IGW ST00936NY-D-28-SB-001_H	H	May 16, 2008
DeCrane Aerospace 737-700 IGW ST00936NY-D-28-SB-001_J	J	July 24, 2008
DeCrane Aerospace 737-700 IGW ST00936NY-D-28-SB-021_D	D	October 31, 2007
DeCrane Aerospace 737-700 IGW ST00936NY-D-28-SB-021_E	E	December 7, 2007
DeCrane Aerospace 737-700 IGW ST00936NY-D-28-SB-021_F	F	February 7, 2008
DeCrane Aerospace 737-700 IGW ST00936NY-D-28-SB-021_G	G	March 14, 2008
DeCrane Aerospace 737-700 IGW ST00936NY-D-28-SB-021_H	H	July 24, 2008
DeCrane Aerospace 737-700 IGW ST00936NY-D-28-SB-021_J	J	August 25, 2008
DeCrane Aircraft 737-700IGW ST00936NY-28-SB-001_IR	Initial Release	September 3, 2004
DeCrane Aircraft 737-700 IGW ST00936NY-28-SB-001_A	A	September 15, 2004
DeCrane Aircraft 737-700 IGW ST00936NY-28-SB-001_B	B	October 26, 2004
DeCrane Aircraft 737-700 IGW ST00936NY-28-SB-001_C	C	November 4, 2004
PATS Aircraft 737-700 IGW ST00936NY-D-28-SB-001_D	D	August 8, 2007
PATS Aircraft 737-700 IGW ST00936NY-D-28-SB-001_E	E	January 8, 2008
PATS Aircraft 737-700 IGW ST00936NY-D-28-SB-001_F	F	February 5, 2008

PATS Aircraft 737-700 IGW ST00936NY-D-28-SB-021_IR	Initial Release	January 31, 2007
PATS Aircraft 737-700 IGW ST00936NY-D-28-SB-021_A	A	May 17, 2007
PATS Aircraft 737-700 IGW ST00936NY-D-28-SB-021_B	B	July 3, 2007
PATS Aircraft 737-700 IGW ST00936NY-D-28-SB-021_C	C	August 8, 2007

Reporting Requirement

(i) Within 45 days after the effective date of this AD, submit a report to the Manager, New York ACO. The report must include the information listed in paragraphs (i)(1), (i)(2), and (i)(3) of this AD. Under the provisions of the Paperwork Reduction Act (44 U.S.C. 3501 et seq.), the Office of Management and Budget (OMB) has approved the information collection requirements contained in this AD, and assigned OMB Control Number 2120-0056.

(1) The airplane registration and operation status.

(2) The usage frequency in terms of total number of flights per year and total number of flights per year for which the auxiliary tank is used.

(3) Method of complying with paragraph (g)(1) of this AD.

Alternative Methods of Compliance (AMOCs)

(j)(1) 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. Send information 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 on any airplane to which the AMOC applies, notify your principal maintenance inspector (PMI) or principal avionics inspector (PAI), as appropriate, or lacking a principal inspector, your local Flight Standards District Office.

(2) To request a different method of compliance or a different compliance time for this AD, follow the procedures in 14 CFR 39.19. Before using any approved AMOC on any airplane to which the AMOC applies, notify your principal maintenance inspector (PMI) or principal avionics inspector (PAI), as appropriate, or lacking a principal inspector, your local Flight Standards District Office. The AMOC approval letter must specifically reference this AD.

Material Incorporated by Reference

(k) You must use DeCrane Aerospace 737-700 IGW Service Bulletin ST00936NY-D-28-SB-001-K, dated August 25, 2008; and DeCrane Aerospace 737-700 IGW Service Bulletin ST00936NY-D-28-SB-021-K, dated January 8, 2009; as applicable; to do the actions required by this AD, unless the AD specifies otherwise.

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

(2) For service information identified in this AD, contact DeCrane Aerospace, PATS Aircraft Systems, 21652 Nanticoke Avenue, Georgetown, Delaware 19947; telephone 302-253-6157; fax 302-855-0153; e-mail giuseppecoppola@decraneaerospace.com; Internet <http://www.decraneaerospace.com>.

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

(4) You may also review copies of the service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html.

Appendix A

Deactivation Criteria

The auxiliary fuel tank deactivation procedures required by paragraph (g)(1) of this AD should address the following actions.

(1) Permanently drain auxiliary fuel tanks, and clear them of fuel vapors to eliminate the possibility of out-gassing of fuel vapors from the emptied auxiliary tank.

(2) Disconnect all electrical connections from the fuel quantity indication system (FQIS), fuel pumps if applicable, float switches, and all other electrical connections required for auxiliary tank operation, and stow them at the auxiliary tank interface.

(3) Disconnect all pneumatic connections if applicable, cap them at the pneumatic source, and secure them.

(4) Disconnect all fuel feed and fuel vent plumbing interfaces with airplane original equipment manufacturer (OEM) tanks, cap them at the airplane tank side, and secure them in accordance with a method approved by the FAA; one approved method is specified in AC 25-8 Auxiliary Fuel System Installations. In order to eliminate the possibility of structural deformation during cabin decompression, leave open and secure the disconnected auxiliary fuel tank vent lines.

(5) Pull and collar all circuit breakers used to operate the auxiliary tank.

(6) Revise the weight and balance document, if required, and obtain FAA approval.

(7) Amend the applicable sections of the applicable airplane flight manual (AFM) to indicate that the auxiliary fuel tank is deactivated. Remove auxiliary fuel tank operating procedures to ensure that only the OEM fuel system operational procedures are contained in the AFM. Amend the Limitations Section of the AFM to indicate that the AFM Supplement for the STC is not in effect. Place a placard in the flight deck indicating that the auxiliary tank is deactivated. The AFM revisions specified in this paragraph may be accomplished by inserting a copy of this AD into the AFM.

(8) Amend the applicable sections of the applicable flight crew operating manual and airplane maintenance manual to remove auxiliary tank maintenance procedures.

(9) After the auxiliary fuel tank is deactivated, accomplish procedures such as leak checks and pressure checks deemed necessary before returning the airplane to service. These procedures must include verification that the airplane FQIS and fuel distribution systems have not been adversely affected.

(10) Revise the instructions for continued airworthiness, as required, after deactivation.

(11) Include with the operator's proposed procedures any relevant information or additional steps that are deemed necessary by the operator to comply with the deactivation and return the airplane to service.

Issued in Renton, Washington, on September 3, 2010.

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



2010-19-04 Empresa Brasileira de Aeronautica S.A. (EMBRAER): Amendment 39-16432.
Docket No. FAA-2009-0715; Directorate Identifier 2008-NM-211-AD.

Effective Date

- (a) This airworthiness directive (AD) becomes effective October 27, 2010.

Affected ADs

- (b) None.

Applicability

(c) This AD applies to Empresa Brasileira de Aeronautica S.A. (EMBRAER) Model EMB-120, -120ER, -120FC, -120QC, and -120RT airplanes, certified in any category; as identified in EMBRAER Service Bulletin 120-49-0023, Revision 01, dated June 30, 2008.

Subject

- (d) Air Transport Association (ATA) of America Code 49: Airborne Auxiliary Power.

Reason

- (e) The mandatory continuing airworthiness information (MCAI) states:

It has been found the occurrence of corrosion on the Auxiliary Power Unit (APU) mounting rods that could cause the APU rod to break, affecting the APU support structure integrity.

APU support structure failure could result in loss of power of the APU and possible loss of control of the airplane. The required action is doing an external detailed inspection for corrosion of the APU auxiliary and center mounting rods and rod ends, and corrective actions if necessary. Corrective actions include removing corrosion, applying anticorrosive treatment, and replacing mounting rods.

Actions and Compliance

- (f) Unless already done do the following actions:

(1) Within 1,500 flight hours or 6 months after the effective date of this AD, whichever occurs first, do an external detailed inspection for corrosion of the APU, auxiliary and center mounting rods, and rod ends. If any corrosion is found during any inspection, before further flight, do the actions required by paragraphs (f)(1)(i), (f)(1)(ii), and (f)(1)(iii) of this AD, as applicable. Do all actions required by this paragraph in accordance with the Accomplishment Instructions of EMBRAER Service Bulletin 120-49-0023, Revision 01, dated June 30, 2008.

(i) If light corrosion (characterized by discoloration or pitting) is found on a mounting rod, remove the corrosion and apply an anticorrosive treatment.

(ii) If moderate corrosion (characterized by surface blistering or evidence of scaling and flaking), or heavy corrosion (characterized by severe blistering exfoliation, scaling and flaking) is found, replace the affected mounting rod with a new mounting rod having the same part number.

(iii) If any corrosion is detected on the rod ends, remove the corrosion and apply an anticorrosive treatment.

(2) Accomplishing of the inspection and corrective actions required by paragraph (f)(1) of this AD before the effective date of this AD in accordance with EMBRAER Service Bulletin 120-49-0023, dated April 18, 2008, is acceptable for compliance with the corresponding requirements of paragraph (f)(1) of this AD.

(3) For mounting rods with moderate or heavy corrosion, submit a report of the positive findings (including level of corrosion such as moderate or heavy; guidance on corrosion can be found in Chapter 51-11-01 of the EMBRAER Corrosion Prevention Manual) of the inspection required by paragraph (f)(1) of this AD to Mr. Antonio Claret—Customer Support Group, Embraer Aircraft Holding, Inc, 276 S.W 34th Street Fort Lauderdale, FL 33315—USA; telephone (954) 359-3826; e-mail structure@embraer.com.br; at the applicable time specified in paragraph (f)(3)(i) or (f)(3)(ii) of this AD. The report must include the inspection results, a description of any discrepancies found, the airplane serial number, and the number of landings and flight hours on the airplane.

(i) If the inspection was done on or after the effective date of this AD: Submit the report within 30 days after the inspection.

(ii) If the inspection was accomplished prior to the effective date of this AD: Submit the report within 30 days after the effective date of this AD.

FAA AD Differences

Note 1: This AD differs from the MCAI and/or service information as follows:

(1) Although Brazilian Airworthiness Directive 2008-08-01, dated October 21, 2008, does not include a reporting requirement, the service bulletin identified in paragraph (f)(1) of this AD does specify reporting findings to EMBRAER. This AD requires that operators report the results of the inspections to EMBRAER because the required inspection report will help determine the extent of the corrosion in the affected fleet, from which we will determine if further corrective action is warranted. This difference has been coordinated with ANAC.

(2) Brazilian Airworthiness Directive 2008-08-01, dated October 21, 2008, allows replacement of the affected APU mounting rods by "new ones bearing a new P/N [part number] approved by ANAC [Agência Nacional de Aviação Civil]." However, paragraph (f)(1)(ii) of this AD requires replacing the affected mounting rod only with a new mounting rod having the same part number. Operators may request approval of an alternative method of compliance to install a new part number in accordance with the procedures specified in paragraph (g)(1) of this AD. This difference has been coordinated with ANAC.

Other FAA AD Provisions

(g) The following provisions also apply to this AD:

(1) Alternative Methods of Compliance (AMOCs): The Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. Send information to ATTN: Todd Thompson,

Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind Avenue, SW., Renton, Washington 98057-3356; telephone (425) 227-1175; fax (425) 227-1149. Before using any approved AMOC on any airplane to which the AMOC applies, notify your principal maintenance inspector (PMI) or principal avionics inspector (PAI), as appropriate, or lacking a principal inspector, your local Flight Standards District Office. The AMOC approval letter must specifically reference this AD.

(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:** For any reporting requirement in this AD, under the provisions of the Paperwork Reduction Act (44 U.S.C. 3501 et seq.), the Office of Management and Budget (OMB) has approved the information collection requirements and has assigned OMB Control Number 2120-0056.

(4) **Special Flight Permits:** Special flight permits may be issued in accordance with sections 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate the airplane to a location where the airplane can be modified (if the operator elects to do so), except if two or more center mounting rods or rod ends are heavily corroded or broken, a special flight permit is not permitted.

Related Information

(h) Refer to MCAI Brazilian Airworthiness Directive 2008-08-01, dated October 21, 2008; and EMBRAER Service Bulletin 120-49-0023, Revision 01, dated June 30, 2008; for related information.

Material Incorporated by Reference

(i) You must use EMBRAER Service Bulletin 120-49-0023, Revision 01, dated June 30, 2008, to do the actions required by this AD, unless the AD specifies otherwise.

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

(2) For service information identified in this AD, contact Empresa Brasileira de Aeronautica S.A. (EMBRAER), Technical Publications Section (PC 060), Av. Brigadeiro Faria Lima, 2170-Putim-12227-901 São Jose dos Campos-SP-BRASIL; telephone +55 12 3927-5852 or +55 12 3309-0732; fax +55 12 3927-7546; e-mail distrib@embraer.com.br; Internet <http://www.flyembraer.com>.

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

(4) You may also review copies of the service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html.

Issued in Renton, Washington, on August 30, 2010.

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



2010-20-04 Gulfstream Aerospace LP (Type Certificate Previously Held by Israel Aircraft Industries, Ltd.): Amendment 39-16438. Docket No. FAA-2010-0555; Directorate Identifier 2010-NM-053-AD.

Effective Date

(a) This airworthiness directive (AD) becomes effective October 28, 2010.

Affected ADs

(b) None.

Applicability

(c) This AD applies to Gulfstream Aerospace LP (Type Certificate previously held by Israel Aircraft Industries, Ltd.) Model Galaxy and Gulfstream 200 airplanes, all serial numbers, certificated in any category.

Subject

(d) Air Transport Association (ATA) of America Code 27: Flight controls.

Reason

(e) The mandatory continuing airworthiness information (MCAI) states:

Extension of airbrakes above 360 KIAS [knots indicated air speed]/0.79 Mi [Mach indicated] results in aerodynamic driven vibration of the airbrake which, if not limited per Revision 14 to the AFM [airplane flight manual], can lead to high cycle fatigue failure of the airbrake in-board hinge.

The unsafe condition is high cycle fatigue of the airbrake in-board hinge, which can result in loss of the airbrake, which in turn can lead to reduced controllability of the airplane.

Compliance

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

Actions

(g) Within 60 days after the effective date of this AD: Revise the Limitations section of the Gulfstream 200 AFM to include the following statement. This may be done by inserting a copy of this AD into the AFM.

"MAXIMUM AIR BRAKES OPERATION/EXTENDED SPEED

360 KIAS/0.79 Mi

NOTE

During emergency, air brakes may be used at speeds above 0.79 Mi."

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

Note 2: The Gulfstream 200 AFM applies to both the Model Galaxy and Gulfstream 200 airplanes.

FAA AD Differences

Note 3: This AD differs from the MCAI and/or service information as follows:
No differences.

Other FAA AD Provisions

(h) The following provisions also apply to this AD:

(1) Alternative Methods of Compliance (AMOCs): The Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. Send information to ATTN: Mike Borfitz, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind Avenue, SW., Renton, Washington 98057-3356; telephone (425) 227-2677; fax (425) 227-1149. Before using any approved AMOC on any airplane to which the AMOC applies, notify your principal maintenance inspector (PMI) or principal avionics inspector (PAI), as appropriate, or lacking a principal inspector, your local Flight Standards District Office. The AMOC approval letter must specifically reference this AD.

(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: For any reporting requirement in this AD, under the provisions of the Paperwork Reduction Act (44 U.S.C. 3501 et seq.), the Office of Management and Budget (OMB) has approved the information collection requirements and has assigned OMB Control Number 2120-0056.

Related Information

(i) Refer to MCAI Israeli Airworthiness Directive 01-10-01-07R1, dated January 20, 2010, for related information.

Material Incorporated by Reference

(j) None.

Issued in Renton, Washington, on September 10, 2010.
Jeffrey E. Duven,
Acting Manager, Transport Airplane Directorate,
Aircraft Certification Service.



FAA
Aviation Safety

AIRWORTHINESS DIRECTIVE

www.faa.gov/aircraft/safety/alerts/
www.gpoaccess.gov/fr/advanced.html

2010-20-11 Rolls-Royce plc: Amendment 39-16446. Docket No. FAA-2010-0364; Directorate Identifier 2009-NE-27-AD.

Effective Date

(a) This airworthiness directive (AD) becomes effective October 29, 2010.

Affected ADs

(b) None.

Applicability

(c) This AD applies to Rolls-Royce plc model (RR) RB211 Trent 768-60, 772-60, 772B-60, 875-17, 877-17, 884-17, 884B-17, 892-17, 892B-17, and 895-17 turbofan engines that have a compressor shaft listed by part number and serial number in Table 1 of this AD. These engines are installed on, but not limited to, Airbus A330 series and Boeing 777 series airplanes.

Reason

(d) This AD results from a review of engine manual repair/acceptance limits for titanium compressor shafts by RR. We are issuing this AD to prevent failure of the intermediate-pressure (IP) and high-pressure (HP) shaft, which could result in an overspeed condition, possible uncontained disc failure and damage to the airplane.

Actions and Compliance

(e) Unless already done, do the following actions.

(1) Perform a one-time, piece-part, full inspection, including all applicable focus inspection Subtasks, of the IP and HP compressor shafts listed by part number and serial number in Table 1 of this AD before exceeding the compliance period specified in Table 1 of this AD.

(2) Guidance on full and focused inspections and acceptance limits can be found in the current, applicable RR engine manual and RR Alert Non-Modification Service Bulletin (NMSB) RB.211-72-AG086.

Table 1 – List of Affected Shafts

Engine Series	Affected Component	Part No.	Shaft Serial No.	Compliance Period (flight cycles in service after December 4, 2008.)
Trent 800	1-8 IP Compressor Shaft	FK24100	MW0115238	750
Trent 800	1-4 HP Compressor Shaft	FK32580	MW0115512	750

Trent 800	1-4 HP Compressor Shaft	FK32580	MW0004708	2000
Trent 800	1-4 HP Compressor Shaft	FK32580	MW00063868	2500
Trent 800	1-8 IP Compressor Shaft	FK24100	DN65507	2500
Trent 800	1-8 IP Compressor Shaft	FK24100	DN65158	2500
Trent 800	1-4 HP Compressor Shaft	FK32580	MW0125467	3500
Trent 800	1-4 HP Compressor Shaft	FW11590	DN65189	3500
Trent 800	1-8 IP Compressor Shaft	FK24100	MW0091518	3500
Trent 800	1-8 IP Compressor Shaft	FK24100	MW0126365	3500
Trent 800	1-8 IP Compressor Shaft	FK24100	DN66422	4750
Trent 800	1-8 IP Compressor Shaft	FK24100	MW0203314	4750
Trent 700	1-8 IP Compressor Shaft	FK22279	DN63228	3250
Trent 700	1-8 IP Compressor Shaft	FK26048	MW0026046	4500

Other FAA AD Provisions

(f) Alternative Methods of Compliance (AMOCs): The Manager, Engine Certification Office, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19.

Related Information

(g) Refer to MCAI EASA Airworthiness Directive 2009-0021 (Corrected February 9, 2009), dated February 6, 2009, and RR Alert NMSB RB.211-72-AG086, for related information.

(h) Contact James Lawrence, Aerospace Engineer, Engine Certification Office, FAA, Engine and Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; e-mail: james.lawrence@faa.gov; telephone (781) 238-7176; fax (781) 238-7199, for more information about this AD.

Material Incorporated by Reference

(i) None.

Issued in Burlington, Massachusetts, on September 17, 2010.
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Acting Manager, Engine and Propeller Directorate,
Aircraft Certification Service.