



**FEDERAL AVIATION ADMINISTRATION
AIRWORTHINESS DIRECTIVES
LARGE AIRCRAFT**

BIWEEKLY 2009-09

This electronic copy may be printed and used in lieu of the FAA biweekly paper copy.

U.S. Department of Transportation
Federal Aviation Administration
Regulatory Support Division
Delegation and Airworthiness Programs Branch, AIR-140
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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 2009-01

2008-25-05	S 93-01-15	McDonnell Douglas	See AD
2008-26-04	S 2007-23-13	Cessna Aircraft Company	560
2008-26-06		Rolls-Royce Corporation	Engine: AE 3007A
2008-26-07		McDonnell Douglas	See AD
2008-26-08		Saab AB, Saab Aerosystems	340A (SAAB/SF340A) and SAAB 340B
2008-26-09		Bombardier, Inc	CL-600-2B19 (Regional Jet Series 100 & 440)
2009-01-01		CFM International, S. A	Engine: See AD

Biweekly 2009-02

No Large Aircraft ADs were issued during Biweekly 2009-02.

Biweekly 2009-03

2009-01-02		Boeing	737-600, -700, -700C, -800 and -900
2009-01-03		Bombardier, Inc.	DHC-8-400, DHC-8-401, and DHC-8-402
2009-01-04		Airbus	A318, A319, A320, and A321
2009-01-07		Bombardier, Inc	CL-600-2C10 (Regional Jet Series 700, 701, & 702), CL-600-2D24 (Regional Jet Series 900)
2009-01-10		Bombardier, Inc	CL-600-2C10 (Regional Jet Series 700, 701, & 702), CL-600-2D15 (Regional Jet Series 705), CL-600-2D24 (Regional Jet Series 900)
2009-02-03		Lycoming engines, See AD	See AD

Biweekly 2009-04

No Large Aircraft ADs were issued during Biweekly 2009-04.

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Biweekly 2009-05

2008-18-02	S 2004-14-07	BAE Systems	Jetstream 4101
2008-24-51		Boeing	737-600, -700, -700C, -800, and -900
2009-01-05		Embraer	EMB-145, -145ER, -145MR, -145LR, -145XR, -145MP, and -145EP
2009-01-06	S 2005-15-16	328 Support Services GmbH	328-300
2009-01-08	S 98-16-11	Airbus	A300, A310, A300-600
2009-01-09	S 2000-26-14	Airbus	A310
2009-02-01		Construcciones Aeronauticas, S.A.	C-212-DF
2009-02-04		Airbus	A300-600
2009-02-05		Boeing	777-200, -200LR, -300, and -300E
2009-02-07	S 98-17-12	BAE Systems	Jetstream 4101
2009-02-09		BAE Systems	BAe 146-100A, -200A, and -300A, Avro 146-RJ70A, 146-RJ85A, and 146-RJ100A
2009-02-10	S 2008-04-22	Fokker Services	F.28 Mark 0070 and 0100
2009-02-11		Bombardier Inc.	CL-600-2C10 (Regional Jet Series 700, 701, & 702), CL-600-2D24 (Regional Jet Series 900)
2009-03-01		Learjet	55, 55B, and 55C
2009-03-02	S 2004-05-20	McDonnell Douglas	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
2009-03-03		McDonnell Douglas	DC-9-14, DC-9-15, DC-9-15F, DC-9-21, DC-9-31, DC-9-32, DC-9-32 (VC-9C), DC-9-32F, DC-9-33F, DC-9-34, DC-9-34F, DC-9-32F (C-9A, C-9B), DC-9-41, and DC-9-51
2009-04-02		Pratt & Whitney	Engine: PW4090 and PW4090-3
2009-04-03		Rolls-Royce Corporation	Engine: AE 3007A1E and AE 1107C
2009-04-06	S 2004-16-09	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
2009-04-07		Airbus	A330-200 and -300; and A340-200, -300, -500, and -600, 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
2009-04-10	S 2002-07-12	General Electric Company	CF6-80A, CF6-80C2, and CF6-80E1
2009-04-11		Bombardier, Inc.	CL-600-2B19 (Regional Jet Series 100 & 440)
2009-04-12	S 2001-26-19	Boeing	767-200, -300, and -400ER
2009-04-13		Rolls-Royce Deutschland Ltd & Co KG	Engine: BR700-715A1-30, BR700-715B1-30, and BR700-715C1-30
2009-04-15	S 93-08-04	Boeing	737-100, -200, -200C, -300, -400, and -500
2009-04-16	S 2008-10-15	Boeing	747-100, 747-100B, 747-200B, 747-200C, 747-200F, 747-300, 747SR, and 747SP
2009-04-17		General Electric Company	Engine: CF6-45A, CF6-45A2, CF6-50A, CF6-50C, CF6-50CA, CF6-50C1, CF6-50C2, CF6-50C2B, CF6-50C2D, CF6-50E, CF6-50E1, CF6-50E2, and CF6-50E2B
2009-05-02		General Electric Company	Engine: See AD
2009-05-03		Boeing	727, 727C, 727-100, 727-100C, 727-200, and 727-200F
2009-05-04		Bombardier Inc	CL-215-6B11 (CL-215T variant), CL-215-6B11 (CL-415 variant)

Biweekly 2009-06

2009-02-06		Boeing	737-300, -400, and -500
2009-05-10		Airbus	A300, A340-200 and A340-300, A330
2009-05-11	S 2008-19-04	Boeing	777-200 and -300
2009-06-12	S 2008-01-04	Bombardier, Inc.	CL-600-2B19 (Regional Jet Series 100 & 440)

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Biweekly 2009-07

2009-05-08		Trimble or Freeflight Systems	Appliance: Global positioning system
2009-06-02		Boeing	747-100, 747-100B, 747-100B SUD, 747-200B, 747-200C, 747-200F, 747-300, 747-400, 747SR, and 747SP
2009-06-03		Viking Air Limited	DHC-7-1, DHC-7-100, DHC-7-101, DHC-7-102, and DHC-7-103
2009-06-04		Bombardier, Inc.	CL-600-2B19 (Regional Jet Series 100 & 440)
2009-06-05		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)
2009-06-06	S 2006-10-11 and 2005-15-10	Airbus	A310 and A300-600
2009-06-08		Boeing	767-200, -300, -300F, and -400ER
2009-06-09		328 Support Services GMBH	328-100
2009-06-10		Boeing	727-100 and 727-200
2009-06-11		Embraer	ERJ 190-100 STD, -100 LR, -100 IGW, -100ECJ, -200 STD, -200 LR, and -200 IGW
2009-06-13		Airbus	A321-131
2009-06-14		Fokker Services B.V	F.27 Mark 050
2009-06-15		Fokker Services B.V	F.27 Mark 050
2009-06-16		Embraer	ERJ 170-100 LR, -100 SE, -100 STD, -100 SU, -200 LR, -200 STD, and -200 SU airplanes; and Model ERJ 190-100 IGW, -100 LR, -100 STD, -100 ECJ, -200 IGW, -200 LR, and -200 STD
2009-06-17		Bombardier	CL-600-2B19 (Regional Jet Series 100 & 440)
2009-06-18		Bombardier, Inc	CL-600-2C10 (Regional Jet Series 700, 701, & 702)
2009-06-19		Boeing	767-200 and 767-300
2009-06-20		Boeing	757-200, 757-200PF, and 757-300
2009-06-21		Bombardier	DHC-8-102, -103, -106, -201, -202, -301, -311, and -315, DHC-8-400, -401 and -402
2009-06-22		Airbus	A318-111, -112, -121, and -122; A319-111, -112, -113, -114, -115, -131, -132, and -133; A320-111, -211, -212, -214, -231, -232, -233; and A321-111, -112, -131, -211, -212, -213, -231, and -232
2009-07-01		Rolls-Royce Deutschland Ltd & Co KG	Engine: BR700-715A1-30, BR700-715B1-30, and BR700-715C1-30
2009-07-02	S 96-03-07	Hawker Beechcraft	400, 400A, MU-300-10, MU-300
2009-07-03		General Electric Compnay	Engine: CF6-80C2 and CF6-80E1

Biweekly 2009-08

2009-04-18		Pratt & Whitney	Engine: JT9D-7, -7A, -7AH, -7H, -7F, and -7J
2009-07-04		McDonnell Douglas	Rotorcraft: MD-90-30
2009-07-05		ATR-GIE Avions de Transport Régional	ATR72-101, -102, -201, -202, -211, -212, and -212A
2009-07-07		McDonnell Douglas	717-200
2009-07-10		General Electric Company	Engine: CF6-80A, CF6-80A1, CF6-80A2, and CF6-80A3
2009-07-11	S 2004-22-05	Boeing	737-300, -400, -500
2009-07-12		General Electric Company	Engine: CF34-1A, -3A, -3A1, -3A2, -3B, and -3B1
2009-08-01	S 2007-07-12	Honeywell, Inc	Navigation computer
2009-08-02		McDonnell Douglas	See AD
2009-08-04		Hawker Beechcraft Corp.	BH.125 series 600A airplanes and Model HS.125 series 700A
2009-08-51	E		

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2009-08-06		General Electric Company	Engine: CF6-80A
2009-08-07		Honeywell International Inc	Engine: ALF502L-2 and ALF502L-2C
2009-09-01		Airbus	A318-111, A318-112, A318-121, A318-122, A319-111, A319-112, A319-113, A319-114, A319-115, A319-131, A319-132, A319-133, A320-111, A320-211, A320-212, A320-214, A320-231, A320-232, A320-233, A321-111, A321-112, A321-131, A321-211, A321-212, A321-213, A321-231, and A321-232
2008-09-02		Bombardier, Inc	DHC-8-400, DHC-8-401, and DHC-8-402

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

2009-08-06 General Electric Company: Amendment 39-15879. Docket No. FAA-2008-0827; Directorate Identifier 2008-NE-26-AD.

Effective Date

(a) This airworthiness directive (AD) becomes effective May 18, 2009.

Affected ADs

(b) None.

Applicability

(c) This AD applies to General Electric Company (GE) CF6-80A series turbofan engines with any of the following stage 1 high-pressure turbine (HPT) rotor disk part numbers (P/Ns), installed:

- (1) 1380M69G01; 1380M69G02; 1380M69G04; 1380M69G05; or 1380M69G06; or
- (2) 9234M67G12; 9234M67G13; 9234M67G14; 9234M67G15; or 9234M67G16; or
- (3) 9362M58G04; or
- (4) 9367M45G01; 9367M45G03; 9367M45G05; 9367M45G06; 9367M45G07; or 9367M45G08.

(d) These CF6-80A series turbofan engines are installed on, but not limited to, Airbus A310-200 series and Boeing 767-200 and -300 series airplanes.

Unsafe Condition

(e) This AD results from the FAA learning that those disks are susceptible to cracks developing at the aft chamfer of the blade dovetail slots. We are issuing this AD to prevent cracks developing at the aft chamfer of the blade dovetail slots that could propagate to a failure of the disk and cause an uncontained engine failure and damage to the airplane.

Compliance

(f) You are responsible for having the actions required by this AD performed within 30 days after the effective date of this AD, unless the actions have already been done.

(g) Remove from service HPT stage 1 rotor disks identified by P/N in paragraph (c) of this AD.

Prohibition of HPT Stage 1 Rotor Disks

(h) After the effective date of this AD, do not install any of the HPT stage 1 rotor disks, listed by P/N in paragraph (c) of this AD into any engine.

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Alternative Methods of Compliance

(i) 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

(j) Contact Robert Green, Aerospace Engineer, Engine Certification Office, FAA, Engine and Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; e-mail: robert.green@faa.gov; telephone: (781) 238-7754, fax: (781) 238-7199, for more information about this AD.

Material Incorporated by Reference

(k) None.

Issued in Burlington, Massachusetts, on April 6, 2009.
Peter A. White,
Assistant Manager, Engine and Propeller Directorate,
Aircraft Certification Service.

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

2009-08-07 Honeywell International Inc. (Formerly AlliedSignal and Lycoming): Amendment 39-15880. Docket No. FAA-2008-1207; Directorate Identifier 2007-NE-47-AD.

Effective Date

- (a) This airworthiness directive (AD) becomes effective May 18, 2009.

Affected ADs

- (b) None.

Applicability

(c) This AD applies to Honeywell International Inc. ALF502L-2 and ALF502L-2C turbofan engines with high pressure compressor (HPC) first stage discs, part numbers (P/Ns) 2-101-331-03, 2-101-331-04, and 2-101-331-10, installed. These engines are installed on, but not limited to, Bombardier CL-600-1A11 airplanes.

Unsafe Condition

(d) This AD results from reports of discs found with excessive material removed from the balancing locations of the disc. We are issuing this AD to prevent the discs from fracturing before reaching the currently published life limit. A disc fracture could result in an uncontained failure of the disc and damage to the airplane.

Compliance

(e) You are responsible for having the actions required by this AD performed at the next shop visit, but not later than 2,500 cycles-in-service after the effective date of this AD, unless the actions have already been done.

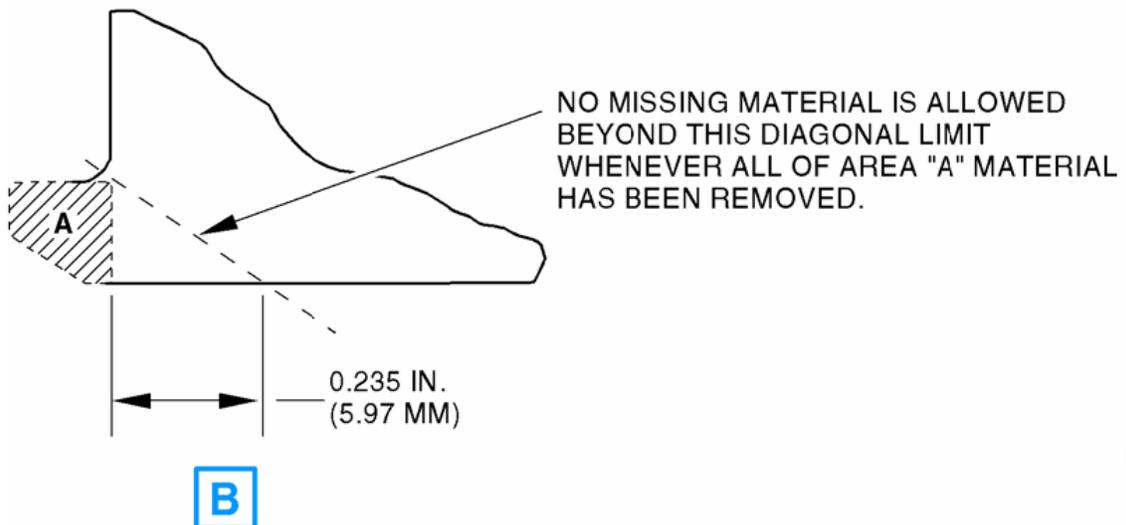
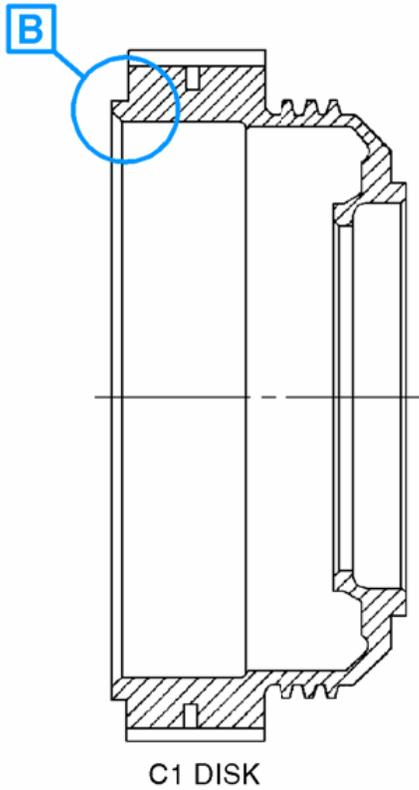
Visual Inspection

(f) For discs with 5,000 or more cycles-since-new on the effective date of this AD, perform a dimensional inspection of the HPC first stage disc to determine if excessive disc balance material was removed. See the following Figure 1 for limits.

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Limits for Removed Balance Material, Disc Forward Flange
Figure 1 (Sheet 1 of 2)

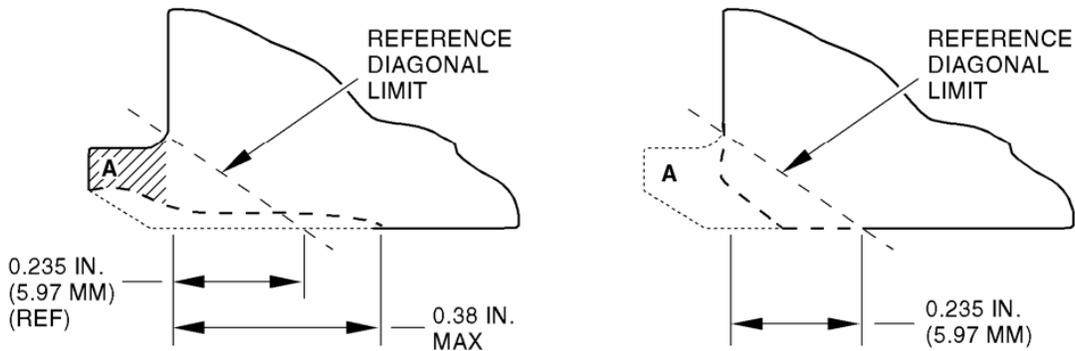
ID-191117

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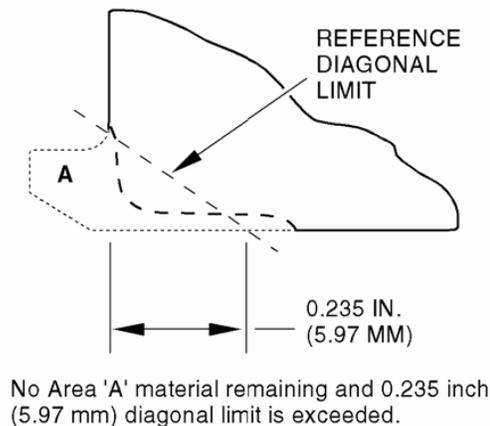
EXAMPLES OF ACCEPTABLE REMOVED MATERIAL CONDITION



Any remaining Area 'A' lip material is sufficient to permit axial material removal up to 0.38 inch (0.97 mm) limit. Surface shall have a smooth contour and 0.020 inch (0.51 mm) minimum blend radius.

Removal of all Area 'A' material is permitted when axial material removal is less than 0.235 inch (5.97 mm) diagonal limit. Surface shall have a smooth contour and 0.020 inch (0.51 mm) minimum blend radius.

EXAMPLE OF UNACCEPTABLE REMOVED MATERIAL CONDITION



ID-189762

Limits for Removed Balance Material, Disc Forward Flange

Figure 1 (Sheet 2 of 2)

(g) Replace the disc if excessive disc balance material was removed. See limits in Figure 1 of this AD.

(h) If the removed balance material condition is acceptable, perform a magnetic particle inspection of the disc rim and slots for cracks using a 3 to 7 power magnification glass. The Engine Overhaul Manual, 72-34-11, Inspection/Check, contains information on the magnetic particle inspection procedure. Contact Honeywell International Inc., 111 S. 34th Street, Phoenix, AZ 85034-2802, U.S.A.; telephone (800) 601-3099, Web site <http://portal.honeywell.com/wps/portal/aero>, for a copy of this service information.

(i) Replace the disc if you find any cracks.

Alternative Methods of Compliance

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(j) The Manager, Los Angeles 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.

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Related Information

(k) Honeywell Alert Service Bulletin ALF/LF A72-1102, dated April 24, 2007, contains information that pertains to the subject of this AD. Contact Honeywell International Inc., 111 S. 34th Street, Phoenix, AZ 85034-2802, U.S.A.; telephone (800) 601-3099, Web site <http://portal.honeywell.com/wps/portal/aero>, for a copy of this service information.

(l) Contact Robert Baitoo, Aerospace Engineer, Los Angeles Aircraft Certification Office, FAA, Transport Airplane Directorate, 3960 Paramount Blvd., Lakewood, CA 90712-4137; e-mail: robert.baitoo@faa.gov; telephone (562) 627-5245; fax (562) 627-5210, for more information about this AD.

Material Incorporated by Reference

(m) None.

Issued in Burlington, Massachusetts, on April 6, 2009.
Peter A. White,
Assistant Manager, Engine and Propeller Directorate,
Aircraft Certification Service.

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2009-09-01 Airbus: Amendment 39-15887. Docket No. FAA-2009-0360; Directorate Identifier 2009-NM-039-AD.

Effective Date

- (a) This airworthiness directive (AD) becomes effective May 6, 2009.

Affected ADs

- (b) None.

Applicability

(c) This AD applies to Airbus Model A318-111, A318-112, A318-121, A318-122, A319-111, A319-112, A319-113, A319-114, A319-115, A319-131, A319-132, A319-133, A320-111, A320-211, A320-212, A320-214, A320-231, A320-232, A320-233, A321-111, A321-112, A321-131, A321-211, A321-212, A321-213, A321-231, and A321-232 airplanes; certificated in any category; except airplanes identified in paragraph (c)(1), (c)(2), (c)(3), or (c)(4) of this AD.

(1) Any airplane for which the date of issuance of the original French or German airworthiness certificate or the date of issuance of the original French or German export certificate of airworthiness, is after February 24, 2009 (the effective date of European Aviation Safety Agency (EASA) Airworthiness Directive 2009-0025 [Corrected: February 11, 2009]).

(2) Any airplane for which it can be positively determined from records review that the bearing of any pendulum assembly has not been replaced or re-swaged since the date of issuance of the original French or German airworthiness certificate or the date of issuance of the original French or German export certificate of airworthiness.

(3) Any airplane inspected prior to the effective date of this AD in accordance with Airbus Service Bulletin A320-57A1146, dated September 21, 2007 (for Model A318, A319 and A320 series airplanes); or in accordance with Airbus Service Bulletin A320-57A1144, dated February 6, 2007, or A320-57-1144, Revision 01, dated June 18, 2007 (for Model A321 series airplanes), and on which it can be positively determined from a records review that thereafter no replacement with a pendulum assembly whose bearing has been replaced or re-swaged since new manufacture was performed.

(4) Any airplane inspected prior to the effective date of this AD in accordance with Airbus Service Bulletin A320-57A1146, dated September 21, 2007 (for Model A318, A319 and A320 series airplanes); or in accordance with Airbus Service Bulletin A320-57A1144, dated February 6, 2007, or A320-57-1144, Revision 01, dated June 18, 2007 (for Model A321 series airplanes), and on which it can be positively determined from a records review that thereafter no pendulum bearing replacement or re-swaging was performed.

Subject

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

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Reason

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

During a routine inspection on an Airbus A321 aircraft, the operator discovered that a bearing of the flap track No.1 pendulum assembly had migrated out of position. The investigation has confirmed that the pendulum bearing migration was probably due to the methods used during in-service replacement of the bearing during maintenance, whereby the necessary special tools, fixtures and equipment were not used. This condition, if not corrected, could lead to separation of the bearing/flap track assembly, resulting in the detachment of the affected flap surface from the wing and consequent loss of control of the aircraft.

For the reasons described above, this AD requires a one-time inspection of the affected flap track No.1 pendulum assembly for bearing migration and, in case any bearing is found to have migrated, the replacement of the affected flap track pendulum assembly.

Note: Based on this in-service experience, showing the potential safety effect of not following the TC Holder's accomplishment instructions, Airbus has removed the instructions to replace the bearing in the pendulum assembly from the A320 Family aircraft maintenance documentation. Component Maintenance Manual (CMM) references are 27-54-43 for the A318, A319 and A320, and 27-54-42 for the A321.

If no migration is found during the one-time inspection for migration, the required actions include an inspection for correct swaging of the spherical bearing in the No.1 flap track pendulum assembly. If the bearing is found incorrectly swaged, the corrective actions include contacting Airbus for repair instructions and doing the repair. You may obtain further information by examining the MCAI in the AD docket.

Actions and Compliance

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

(1) Within 600 flight hours after the effective date of this AD, inspect for migration, and correct swaging as applicable, of the pendulum assembly of flap track number 1 in accordance with the Accomplishment Instructions of Airbus Service Bulletin A320-57A1146, dated September 21, 2007 (for Model A318, A319 and A320 series airplanes); or in accordance with the Accomplishment Instructions of Airbus Service Bulletin A320-57-1144, Revision 01, dated June 18, 2007 (for Model A321 series airplanes).

(i) If the bearing of the pendulum assembly of flap track number 1 is found to have migrated, before further flight, replace the affected pendulum assembly with a new pendulum assembly, in accordance with the Accomplishment Instructions of Airbus Service Bulletin A320-57A1146, dated September 21, 2007 (for Model A318, A319 and A320 series airplanes); or in accordance with the Accomplishment Instructions of Airbus Service Bulletin A320-57-1144, Revision 01, dated June 18, 2007 (for Model A321 series airplanes).

(ii) If the bearing of the pendulum assembly of flap track number 1 is incorrectly swaged, before further flight, contact Airbus for repair instructions and accomplish the repair.

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(2) After the effective date of this AD, no person shall replace the bearing in the pendulum assembly of the flap track or install a pendulum assembly, unless:

- (i) The pendulum assembly is of new manufacture, or
- (ii) It can be positively determined from a records review that the bearing of the pendulum assembly has not been replaced or re-swaged since new.

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(3) Accomplishment of the actions required by paragraph (f)(1), (f)(2), and (f)(3) of this AD, before the effective date of this AD in accordance with Airbus Service Bulletin A320-57A1144, dated February 6, 2007, is acceptable for compliance with the corresponding requirements of paragraph (f) of this AD for Airbus Model A321 series airplanes.

FAA AD Differences

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

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: Tim Dulin, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind Avenue, SW., Renton, Washington 98057-3356; telephone (425) 227-2141; 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.

(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, the Office of Management and Budget (OMB) has approved the information collection requirements and has assigned OMB Control Number 2120-0056.

Related Information

(h) Refer to MCAI European Aviation Safety Agency Airworthiness Directive 2009-0025, dated February 10, 2009; Airbus Service Bulletin A320-57-1144, Revision 01, dated June 18, 2007; and Airbus Service Bulletin A320-57A1146, dated September 21, 2007, for related information.

Material Incorporated by Reference

(i) You must use Airbus Service Bulletin A320-57A1146, including Appendix 01, dated September 21, 2007; or Airbus Service Bulletin A320-57-1144, including Appendix 01, Revision 01, dated June 18, 2007; 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 Airbus, Airworthiness Office–EAS, 1 Rond Point Maurice Bellonte, 31707 Blagnac Cedex, France; telephone +33 5 61 93 36 96; fax +33 5 61 93 44 51; e-mail: account.airworth-eas@airbus.com; Internet <http://www.airbus.com>.

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(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 or 425-227-1152.

(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

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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 April 8, 2009.

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

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FAA
Aircraft Certification Service

AIRWORTHINESS DIRECTIVE

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

2009-09-02 Bombardier, Inc. (Formerly de Havilland, Inc.): Amendment 39-15888. Docket No. FAA-2009-0361; Directorate Identifier 2009-NM-046-AD.

Effective Date

- (a) This airworthiness directive (AD) becomes effective May 6, 2009.

Affected ADs

- (b) None.

Applicability

(c) This AD applies to Bombardier Model DHC-8-400, DHC-8-401, and DHC-8-402 series airplanes; certificated in any category, serial numbers 4001, 4003, and subsequent.

Subject

- (d) Air Transport Association (ATA) of America Code 32: Landing gear.

Reason

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

Several reports have been received on failures of the aft hinge of the main landing gear (MLG) forward stabilizer brace. Laboratory examinations have found that the fatigue cracks were initiated from the dowel pin hole at the aft hinge lug of the MLG forward stabilizer brace where the stop bracket is attached. Failure of the stabilizer brace could result in the collapse of the main landing gear.

Actions and Compliance

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

(1) At the applicable time specified in paragraph (f)(1)(i), (f)(1)(ii), (f)(1)(iii), or (f)(1)(iv) of this AD: Perform non-destructive inspections for damage of the MLG forward stabilizer brace assemblies part number (P/N) 46401-7, in accordance with Bombardier Repair Drawing 8/4-32-099, Issue 1, dated March 10, 2009; and Goodrich Service Concession Request 026-09, Revision B, dated March 10, 2009. Repeat the inspection thereafter at intervals not to exceed 2,000 flight cycles.

(i) For airplanes with MLG forward stabilizer braces that have accumulated 12,000 or more total flight cycles as of the effective date of this AD: Inspect within 50 flight cycles after the effective date of this AD.

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(ii) For airplanes with MLG forward stabilizer braces that have accumulated 9,000 or more total flight cycles but fewer than 12,000 total flight cycles as of the effective date of this AD: Inspect before the accumulation of 12,050 total flight cycles, or within 500 flight cycles after the effective date of this AD, whichever occurs earlier.

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(iii) For airplanes with MLG forward stabilizer braces that have accumulated 4,500 or more total flight cycles but fewer than 9,000 total flight cycles as of the effective date of this AD: Inspect before the accumulation of 9,500 total flight cycles, or within 1,500 flight cycles after the effective date of this AD, whichever occurs earlier.

(iv) For airplanes with MLG forward stabilizer braces that have accumulated fewer than 4,500 total flight cycles as of the effective date of this AD: Inspect before the accumulation of 6,000 total flight cycles.

(2) If any damage is found during any inspection required by paragraph (f)(1) of this AD, before further flight, do all applicable corrective actions in accordance with Goodrich Service Concession Request 026-09, Revision B, dated March 10, 2009, except as provided by paragraphs (f)(3), (f)(4), (f)(5), and (f)(6) of this AD.

(3) For airplanes on which step 24. of Goodrich Service Concession Request 026-09, Revision B, dated March 10, 2009, has been done: Within 1,200 flight cycles after the effective date of this AD, rework the MLG forward stabilizer brace, and except for airplanes on which the rework has been done, within 600 flight cycles after the effective date of this AD do a detailed visual inspection for damage of the stabilizer brace apex lugs, in accordance with Goodrich Service Concession Request 026-09, Revision B, dated March 10, 2009. If any damage is found, repair before further flight in accordance with Section C of Goodrich Service Concession Request 026-09, Revision B, dated March 10, 2009.

(4) At the applicable time specified in paragraph (f)(4)(i), (f)(4)(ii), or (f)(4)(iii) of this AD, replace the forward stabilizer brace assembly, in accordance with Goodrich Service Concession Request 026-09, Revision B, dated March 10, 2009.

(i) For airplanes on which cracking is found during any inspection required by this AD, and the cracking exceeds the limit specified in Section C of Goodrich Service Concession Request 026-09, Revision B, dated March 10, 2009: Replace the assembly before further flight.

(ii) For airplanes on which any cracking is found after the rework specified in Section C of Goodrich Service Concession Request 026-09, Revision B, dated March 10, 2009: Replace the assembly before further flight.

(iii) For airplanes on which no cracking is found after the rework specified in Section C of Goodrich Service Concession Request 026-09, Revision B, dated March 10, 2009: Replace the assembly within 2,700 flight cycles after doing the rework.

(5) If foreign object damage is found during any inspection required by this AD, or if damage is found to a forward stabilizer brace lug or stop bracket retention hole apex bushing, before further flight, repair using a method approved by either the Manager, New York Aircraft Certification Office, ANE-170, FAA; or Transport Canada Civil Aviation (TCCA) (or its delegated agent).

(6) If any crack is found during the visual inspection under 10X magnification, repair before further flight, in accordance with Goodrich Service Concession Request 026-09, Revision B, dated March 10, 2009.

(7) Before the accumulation of 6,000 total flight cycles on the MLG forward stabilizer braces, or within 600 flight hours after the effective date of this AD, whichever occurs later: Do a detailed visual inspection for cracking of both MLG forward stabilizer braces and do all applicable liquid penetrant inspections for cracking, in accordance with Bombardier Q400 All Operator Message 338, dated February 23, 2009. Repeat the inspection thereafter at intervals not to exceed 600 flight hours. If any cracking is found during any inspection required by this paragraph, repair before further flight in accordance with Bombardier Repair Drawing 8/4-32-099, Issue 1, dated March 10, 2009; and Goodrich Service Concession Request 026-09, Revision B, dated March 10, 2009.

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(8) Submit a report of all findings of the inspections required by paragraph (f)(1) of this AD to the Bombardier Technical Help Desk, e-mail: thd.qseries@aero.bombardier.com; fax: (416) 375-4539; telephone: (416) 375-4000; at the applicable time specified in paragraph (f)(8)(i) or (f)(8)(ii) of this AD. The report must include the information specified in sheets 3 and 4 of Bombardier Repair Drawing 8/4-32-099, Issue 1, dated March 10, 2009.

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(i) If the inspection was done on or after the effective date of this AD: Submit the report within 10 days after the inspection.

(ii) If the inspection was accomplished prior to the effective date of this AD: Submit the report within 10 days after the effective date of this AD.

FAA AD Differences

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

Other FAA AD Provisions

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

(1) Alternative Methods of Compliance (AMOCs): The Manager, New York Aircraft Certification Office, 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: Jon Hjelm, Aerospace Engineer, Airframe and Propulsion Branch, ANE-171, FAA, New York Aircraft Certification Office, 1600 Stewart Avenue, Suite 410, Westbury, New York 11590; telephone (516) 228-7323; 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 ensure 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, 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), provided that, within 10 flight cycles after detection of the discrepancy that requires repair, operators perform a detailed visual inspection for cracking of both MLG forward stabilizer braces and do all applicable non-destructive inspections (eddy current or visual liquid penetrant inspections) for cracking, in accordance with Bombardier Q400 All Operator Message 338, dated February 23, 2009; and repair any cracking before further flight in accordance with Goodrich Service Concession Request 026-09, Revision B, dated March 10, 2009.

Related Information

(h) Refer to MCAI Canadian Emergency Airworthiness Directive CF-2009-11, dated March 13, 2009; Bombardier Q400 All Operator Message 338, dated February 23, 2009; Bombardier Repair Drawing 8/4-32-099, Issue 1, dated March 10, 2009; and Goodrich Service Concession Request 026-09, Revision B, dated March 10, 2009; for related information.

Material Incorporated by Reference

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(i) You must use Bombardier Q400 All Operator Message 338, dated February 23, 2009; Bombardier Repair Drawing 8/4-32-099, Issue 1, dated March 10, 2009; and Goodrich Service Concession Request 026-09, Revision B, dated March 10, 2009; as applicable; to do the actions required by this AD, unless the AD specifies otherwise. (The issue date of Bombardier Q400 All

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Operator Message 338, dated February 23, 2009; and Bombardier Repair Drawing 8/4-32-099, Issue 1, dated March 10, 2009; is specified only on the first page of the documents.) Goodrich Service Concession Request 026-09, Revision B, dated March 10, 2009, contains the following effective pages:

Page No.	Revision level shown on page	Date shown on page
1-8	B	March 5, 2009.
9-22	B	March 10, 2009.

(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 Bombardier 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>. For Goodrich service information identified in this AD, contact Goodrich Corporation, Landing Gear, 1400 South Service Road, West Oakville L6L 5Y7, Ontario, Canada; telephone 905-825-1568; e-mail jean.breed@goodrich.com; Internet <http://www.goodrich.com/TechPubs>.

(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 or 425-227-1152.

(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 April 8, 2009.

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