



**FEDERAL AVIATION ADMINISTRATION  
AIRWORTHINESS DIRECTIVES  
SMALL AIRCRAFT, ROTORCRAFT, GLIDERS,  
BALLOONS, & AIRSHIPS**

**BIWEEKLY 2010-19**

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

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Federal Aviation Administration  
Regulatory Support Division  
Delegation and Airworthiness Programs Branch, AIR-140  
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## SMALL AIRCRAFT, ROTORCRAFT, GLIDERS, BALLOONS, & AIRSHIPS

AD No.	Information	Manufacturer	Applicability
Info: E - Emergency; COR - Correction; S - Supersedes; R - Revision; - See AD for additional information;			
<b>Biweekly 2010-01</b>			
2009-26-05		Pilatus Aircraft Ltd	PC-7
2009-26-07	S 2009-12-51	Turbomeca	Engine: Arriel 1A1, 1A2, 1B, 1C, 1C1, 1C2, 1D, 1D1, 1E2, 1K1, 1S, and 1S1
2009-26-08	S 2006-21-12	AeroSpace Technologies of Australia Pty Ltd	N22B, N22S, and N24A
2009-26-12	S 2008-19-05	Engine Components, Inc. (ECi)	See AD
<b>Biweekly 2010-02</b>			
2009-21-08 R1		PIAGGIO AERO INDUSTRIES S.p.A.	P-180
2010-01-03		Fire Fighting Enterprises Limited	See AD
2010-02-01		Turbomeca S.A	Arriel 1B, 1D, and 1D1
2010-02-51	E	AGUSTA S.p.A	A109A, A109A II, A109C, and A109K2
<b>Biweekly 2010-03</b>			
2009-19-51		Agusta S.p.A	AB139 and AW139
2009-26-11	S 2006-07-15	Thrush Aircraft, Inc.	See AD
2010-02-07		Eurocopter France	Rotorcraft: SE3160, SA315B, SA316B, SA316C, and SA319B
2010-02-08		Turbomeca	Engine: Turmo IV A and IV C
2010-03-01		Eurocopter France	Rotorcraft: AS332L1, AS332L2, and EC225LP
2010-03-02		Lifesaving Systems Corp.	Appliance
<b>Biweekly 2010-04</b>			
2009-23-51		Sikorsky Aircraft Corporation	Rotorcraft: S-92A
2010-03-03		Bell Helicopter Textron, Inc	Rotorcraft: 205B and 212
2010-03-04		PIAGGIO AERO INDUSTRIES S.p.A	P-180
2010-03-06		Turbomeca	Engine: Arriel 2B and 2B1
2010-03-09		Piaggio Aero Industries S.p.A	P-180
<b>Biweekly 2010-05</b>			
2010-04-05	S 2003-12-05	McCaughey Propeller Systems	Propeller: 1A103/TCM
2010-04-06		Thielert Aircraft Engines GmbH	Engine: TAE 125-01
2010-04-07		Turbomeca	Engine: Arriel 2S1
2010-04-11		Extra Flugzeugproduktions- und Vertriebs- GmbH	EA-300/200, EA-300/L
2010-04-14		Augustair, Inc	2150, 2150 <sup>a</sup> , 2180
2010-04-15		SCHEIBE-Flugzeugbau GmbH	Glider: SF 25C
2010-04-16		SICLI	Appliance: portable fire extinguishers
2010-05-02	S 2009-08-10	Pilatus Aircraft Ltd	PC-12/47E
2010-05-51	E	Eurocopter	Rotorcraft: EC120B
<b>Biweekly 2010-06</b>			
2010-05-10		Hawker Beechcraft	B300, B300C
2010-06-02		Hawker Beechcraft	G58

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<b>Biweekly 2010-07</b>			
2010-06-03		Eurocopter France	Rotorcraft: AS355E, AS355F, AS355F1, AS355F2, and AS355N
2010-06-06	S 99-16-13	MD Helicopters, Inc	Rotorcraft: MD-900
2010-06-07		Eurocopter France	Rotorcraft: AS 332 C, L, L1, and L2; AS 350 B3; AS355 F, F1, F2, and N; SA 365N and N1; AS 365 N2 and N3; SA 366G1; EC 130 B4; and EC 155B and B1
2010-06-08		Sikorsky Aircraft Corporation	Rotorcraft: S-76C
2010-06-11		Honeywell International Inc.	Engine: TFE731-2, TFE731-2A, TFE731-2C, TFE731-3, TFE731-3A, TFE731-3AR, TFE731-3B, TFE731-3BR, TFE731-3C, TFE731-3CR, TFE731-3D, TFE731-3DR, TFE731-3R, TFE731-4, TFE731-4R, TFE731-5, TFE731-5AR, TFE731-5BR, and TFE731-5R
2010-06-12		Thielert Aircraft Engines GmbH	Engine: TAE 125-01 and TAE 125-02-99
<b>Biweekly 2010-08</b>			
2009-08-08 R1	R 2010-08-08	Turbomeca S.A	Engine: Arriel 1B, 1D, and 1D1, Arriel 2B and 2B1
2010-07-02	S 2006-22-05	Honeywell, Inc	Appliance: See AD
2010-07-07		Socata	TBM 700
2010-07-08		Kelly Aerospace Energy Systems, LLC	Appliance: See AD
2010-08-01		Aircraft Industries a.s	Glider: L 23 Super Blanik
<b>Biweekly 2010-09</b>			
2009-08-05R1	R	Liberty Aerospace Incorporated	XL-2
2010-08-04	2007-10-14	British Aerospace Regional Aircraft	HP.137 Jetstream Mk.1, Jetstream Series 200, Jetstream Series 3101, and Jetstream Model 3201
2010-09-08		General Electric Company	Engine: GE CJ610 series turbojet and CF700
<b>Biweekly 2010-10</b>			
2010-05-51	FR	Eurocopter France	Rotorcraft: EC120B
2010-09-01		Eurocopter France	Rotorcraft: AS350B, BA, B1, B2, B3, C, D and D1; and AS 355E, F, F1, F2, N, and NP
2010-09-02		British Aerospace Regional Aircraft	Jetstream Series 3101 and Jetstream Model 3201
2010-09-04		Honeywell International Inc	Appliance: Primus EPIC and Primus APEX flight management systems (FMS)
2010-09-09		Piaggio Aero Industries S.p.A.	P-180
2010-09-13		Turbomeca	Engine: Makila 2A
2010-10-01	S 2009-05-01	GA 8 Airvan (Pty) Ltd	Glider: GA8 and GA8-TC320
<b>Biweekly 2010-11</b>			
2010-10-02		Sikorsky Aircraft Corporation	Rotorcraft: S-76A, B, and C
2010-10-03		Sikorsky Aircraft Corporation	Rotorcraft: S-92A
2010-10-09	S 2008-07-01	Turbomeca	Engine: 1B (that incorporate Turbomeca Modification (mod) TU 148), Arriel 1D, 1D1, and 1S1
2010-10-10		Hawker Beechcraft	390
2010-10-14		Eurocopter France	Rotorcraft: AS332L2
2010-10-15		Eurocopter France	Rotorcraft: AS332L1 and AS332L2
2010-11-51	E	Eurocopter France	Rotorcraft: AS350B, BA, B1, B2, C, D, and D1 helicopters and Model AS355E, F, F1, F2, and N
2010-11-52	E	Sikorsky Aircraft	Rotorcraft: S-76A, B, and C

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<b>Biweekly 2010-12</b>			
2007-19-09 R1 2010-10-16	R	Turbomeca Bell Helicopter Textron and Agusta S.P.A.	Engine: ARRIEL 2B1 Rotorcraft: 205A, 205A-1, 205B, 212, 412, 412EP, and 412CF and Agusta S.p.A. Model AB412, AB412EP
2010-11-04 2010-11-05	S 2009-24-52	Teledyne Continental Motors AVOX Systems and B/E Aerospace	Engine: 240, 346, 360, 470, 520, and 550 and IO-240 See AD
2010-11-06	S 97-11-12	AeroSpace Technologies of Australia Pty Ltd	N22B, N22S, and N24A
2010-11-07 2010-11-08 2010-11-10 2010-11-15 2010-12-51	S 2008-11-20    E	Quartz Mountain Aerospace, Inc Stemme GmbH & Co. KG Turbomeca: Socata Agusta S.p.A.	11E S10-VT Engine: Astazou XIV B and XIV H TBM 700 Rotorcraft: A119 and AW119 MKII
<b>Biweekly 2010-13</b>			
2010-10-12 2010-10-16	S 2005-04-09	Bell Helicopter Textron Canada Bell Helicopter Textron and Agusta S.P.A	Rotorcraft: 222, 222B, 222U, 230, 430 Rotorcraft: 205A, 205A-1, 205B, 212, 412, 412EP, and 412CF and Agusta S.p.A. Model AB412, AB412EP
2010-11-09 2010-12-01 2010-12-02 2010-12-04 2010-13-01	S 2009-24-13	Thielert Aircraft Engines GmbH Cessna Aircraft Company Turbomeca S.A. PILATUS Aircraft Ltd Microturbo	Engine: TAE 125-01 and TAE 125-02-99 525A Engine: Makila 1A and 1A1 PC-7 Appliance: See AD
<b>Biweekly 2010-14</b>			
2010-13-07 2010-13-08 2010-13-10	S 2006-08-09	Piper Aircraft Air Tractor Ontic Engineering and Manufacturing, Inc	PA-32R-301T, PA046-350P AT-802 and AT-802A Appliance: See AD
<b>Biweekly 2010-15</b>			
2010-14-12		See AD	Rotorcraft: AH-1G, AH-1S, HH-1K, TH-1F, TH-1L, UH-1A, UH-1B, UH-1E, UH-1F, UH-1H, UH-1L, and UH-1P Helicopters; and Southwest Florida Aviation Model UH-1B (SW204 and SW204HP) and UH-1H (SW205)
2010-14-15 2010-14-20 2010-14-21 2010-15-51	   E	Aircraft Industries a.s. McCauley Propeller Systems Thielert Aircraft Engines GmbH Agusta S.p.A.	Glider: L-13 Blanik Propeller: 4HFR34C653/L106FA Engine: TAE 125-01 A119 and AW119 MKII
<b>Biweekly 2010-16</b>			
2010-13-07 2010-15-04 2010-15-05 2010-15-07	COR  S 2010-08-01	Piper Eurocopter France Aircraft Industries a.s Zakład Szybowcowy "Jeźów" Henryk Mynarski	PA-32R-301T, PA-46-350P Rotorcraft: EC225LP Glider: L 23 Super Blanik Sailplanes: PW-6U
2010-15-09 2010-15-10 2010-16-51	S 2009-23-11  E	Embraer Piper Eurocopter France	EMB-500 See AD Rotorcraft: SA330J
<b>Biweekly 2010-17</b>			
2010-15-03 2010-15-06 2010-16-08		Eurocopter France Grob-Werke GmbH Schweizer Aircraft Corp	Rotorcraft: EC 130 B4 Glider: G102 ASTIR CS and G102 STANDARD ASTIR III Rotorcraft: 269D

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Info: E - Emergency; COR - Correction; S - Supersedes; R - Revision; - See AD for additional information;			
<b>Biweekly 2010-18</b>			
2010-11-51	FR	Eurocopter France	Rotorcraft: AS350B, BA, B1, B2, C, D, and D1 helicopters and Model AS355E, F, F1, F2, and N
2010-15-03		Eurocopter France	Rotorcraft: EC 130 B4
2010-15-06		GROB-WERKE GMBH & CO KG	Glider: G102 ASTIR CS and G102 STANDARD ASTIR III
2010-15-51		Agusta S.p.A	Rotorcraft: A119 and AW119 MKII
2010-16-08		Schweizer Aircraft Corporation	Rotorcraft: 269D
2010-17-06		Pratt & Whitney Canada Corp	Engine: PW615F
2010-17-08		Various Aircraft	See AD
2010-17-09		Pilatus Aircraft Ltd	PC-12/47E
2010-17-15		Hawker Beechcraft	390
2010-17-18	S 2010-13-08	Air Tractor	AT-802 and AT-802A
2010-18-02		Thielert Aircraft Engines GmbH	Engine: TAE 125-01, TAE 125-02-99
2010-18-05	S 2010-14-15	Aircraft Industries a.s.	Glider: L-13 Blanik
2010-18-06	S 2005-22-02	GA 8 AIRVAN (PTY)	GA8 and GA8-TC320
2010-18-51	E	MD HELICOPTERS, INC	Rotorcraft: MD900
2010-18-52	E, S 2010-18-51	MD Helicopters, Inc.	MD900
 <b>Biweekly 2010-19</b>			
2010-10-01 R1		GA 8 Airvan	GA8, GA8-TC320
2010-11-09	COR	Thielert Aircraft Engines GmbH	Engine: TAE 125-01 and TAE 125-02-99
2010-12-51	FR	Agusta S.p.A	Rotorcraft: A119 and AW119 MKII
2010-16-51	FR	Eurocopter France	Rotorcraft: SA330J
2010-18-12	COR	Robert E. Rust, Jr.	DeHavilland DH.C1 Chipmunk 21, DH.C1 Chipmunk 22, and DH.C1 Chipmunk 22A
2010-18-14		Bombardier-Rotax GmbH	Engine: 912 F series and 912 S
2010-19-51	E	Bell Helicopter Textron Canada	Rotorcraft: 222, 222B, 222U, 230, and 430



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**2010-10-01 R1 GA 8 Airvan (Pty) Ltd.:** Amendment 39-16425; Docket No. FAA-2010-0463; Directorate Identifier 2010-CE-021-AD.

**Effective Date**

- (a) This airworthiness directive (AD) becomes effective October 7, 2010.

**Affected ADs**

- (b) This AD revises AD 2010-10-01, Amendment 39-16280.

**Applicability**

- (c) This AD applies to the following model and serial number airplanes, certificated in any category:

- (i) Group 1 Airplanes (retains the actions and applicability from AD 2009-05-01): Model GA8 airplanes, serial numbers GA8-00-004 and up; and
- (ii) Group 2 Airplanes: Model GA8-TC320 airplanes, all serial numbers.

**Subject**

- (d) Air Transport Association of America (ATA) Code 55: Stabilizers.

**Reason**

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

Inspection of a high time aircraft has revealed cracks in the Horizontal Stabiliser rear spar splice plate and inboard main ribs around the area of the Horizontal Stabiliser rear pivot attachment. Additionally, failure of some attach bolts in service may be due to improper assembly.

This amendment is issued to include an applicability matrix (Table 1, page 2) in the compliance section of the service bulletin for improved clarity.

The previous amendment included reference to the GA8-TC 320 variant in the applicability section.

Amendment 2 was issued because the requirement document now contains an inspection for cracking in horizontal stabilisers which have load transferring fittings installed.

Previous amendments of this AD listed the AD requirements in full. Due to the extensive use of diagrams and photographs, it is no longer appropriate or practical to write the requirements of the service bulletin out in full in this AD. All requirements, accomplishment instructions and illustrations are contained in the service bulletin.

The FAA is revising AD 2010-10-01 to allow the use of issue 6 or issue 5 of the service bulletin. An operator is in compliance if the operator chooses to only accomplish issue 5 of the SB. This proposed revision of the FAA's AD will make the FAA AD more consistent with the latest version of the MCAI.

## **Actions and Compliance**

(f) For Group 1 Airplanes: Unless already done, do the following actions:

(1) Within the next 10 hours time-in-service (TIS) after March 2, 2009 (the effective date retained from AD 2009-05-01):

(i) For all aircraft not incorporating computer numeric control (CNC) machined elevator hinges, inspect and repair the left and right horizontal stabilizer rear pivot attachment installation following instruction "3. Rear Pivot Attachment Inspection," of Gippsland Aeronautics Mandatory Service Bulletin SB-GA8-2002-02, Issue 5, dated November 13, 2008; or Gippsland Aeronautics Mandatory Service Bulletin SB-GA8-2002-02, Issue 6, dated April 21, 2010; and

(ii) For all aircraft, inspect the left and right rear attach bolt mating surfaces for damage or an out of square condition and replace the left and right rear attach bolts following instruction "5. Rear Attach Bolt Replacement," of Gippsland Aeronautics Mandatory Service Bulletin SB-GA8-2002-02, Issue 5, dated November 13, 2008; or Gippsland Aeronautics Mandatory Service Bulletin SB-GA8-2002-02, Issue 6, dated April 21, 2010. Reworking the mating surfaces by spotfacing is no longer acceptable. If the mating surfaces are damaged, not square, or were previously reworked by spotfacing the surface, replace the parts as specified in Gippsland Aeronautics Mandatory Service Bulletin SB-GA8-2002-02, Issue 5, dated November 13, 2008; or Gippsland Aeronautics Mandatory Service Bulletin SB-GA8-2002-02, Issue 6, dated April 21, 2010.

(2) Within the next 10 hours TIS after March 2, 2009 (the effective date retained from AD 2009-05-01) and repetitively thereafter at intervals not to exceed 100 hours TIS or 12 months, whichever occurs first, for all aircraft:

(i) Inspect the horizontal stabilizer externally following instruction "2. External Inspection (Lower flange, Stabilizer rear spar)," of Gippsland Aeronautics Mandatory Service Bulletin SB-GA8-2002-02, Issue 5, dated November 13, 2008; or Gippsland Aeronautics Mandatory Service Bulletin SB-GA8-2002-02, Issue 6, dated April 21, 2010; and

(ii) Inspect the horizontal stabilizer internally following instruction "4. Internal Inspection," of Gippsland Aeronautics Mandatory Service Bulletin SB-GA8-2002-02, Issue 5, dated November 13, 2008; or Gippsland Aeronautics Mandatory Service Bulletin SB-GA8-2002-02, Issue 6, dated April 21, 2010.

(3) If during the inspection required by paragraph (f)(2) of this AD any excessive local deflection or movement of the lower skin surrounding the lower pivot attachment, cracking, or working (loose) rivet is found, before further flight, obtain an FAA-approved repair scheme from the manufacturer and incorporate this repair scheme. Due to FAA policy, the repair scheme/modification for crack damage must include an immediate repair of the crack. The repair scheme cannot be by repetitive inspection only. The repair scheme/modification may incorporate repetitive inspections in addition to the repetitive inspections required in paragraph (f)(2) of this AD. Continued operational flight with un-repaired crack damage is not permitted.

(g) For Group 2 Airplanes: Unless already done, do the following actions:

(1) Within the next 10 hours TIS after May 10, 2010 (the effective date retained from AD 2010-10-01):

(i) For all aircraft not incorporating computer numeric control (CNC) machined elevator hinges, inspect and repair the left and right horizontal stabilizer rear pivot attachment installation following instruction "3. Rear Pivot Attachment Inspection," of Gippsland Aeronautics Mandatory Service Bulletin SB-GA8-2002-02, Issue 5, dated November 13, 2008; or Gippsland Aeronautics Mandatory Service Bulletin SB-GA8-2002-02, Issue 6, dated April 21, 2010; and,

(ii) For all aircraft, inspect the left and right rear attach bolt mating surfaces for damage or an out of square condition and replace the left and right rear attach bolts following instruction "5. Rear Attach Bolt Replacement," of Gippsland Aeronautics Mandatory Service Bulletin SB-GA8-2002-02, Issue 5, dated November 13, 2008; or Gippsland Aeronautics Mandatory Service Bulletin SB-GA8-2002-02, Issue 6, dated April 21, 2010. Reworking the mating surfaces by spotfacing is no longer acceptable. If the mating surfaces are damaged, not square, or were previously reworked by spotfacing the surface, before further flight, replace the parts as specified in Gippsland Aeronautics Mandatory Service Bulletin SB-GA8-2002-02, Issue 5, dated November 13, 2008; or Gippsland Aeronautics Mandatory Service Bulletin SB-GA8-2002-02, Issue 6, dated April 21, 2010.

(2) Within the next 10 hours TIS after May 10, 2010 (the effective date retained from AD 2010-10-01) and repetitively thereafter at intervals not to exceed 100 hours TIS or 12 months, whichever occurs first, for all aircraft:

(i) Inspect the horizontal stabilizer externally following instruction "2. External Inspection (Lower flange, Stabilizer rear spar)," of Gippsland Aeronautics Mandatory Service Bulletin SB-GA8-2002-02, Issue 5, dated November 13, 2008; or Gippsland Aeronautics Mandatory Service Bulletin SB-GA8-2002-02, Issue 6, dated April 21, 2010; and

(ii) Inspect the horizontal stabilizer internally following instruction "4. Internal Inspection," of Gippsland Aeronautics Mandatory Service Bulletin SB-GA8-2002-02, Issue 5, dated November 13, 2008; or Gippsland Aeronautics Mandatory Service Bulletin SB-GA8-2002-02, Issue 6, dated April 21, 2010.

(3) If during the inspection required by paragraph (g)(2) of this AD any excessive local deflection or movement of the lower skin surrounding the lower pivot attachment, cracking, or working (loose) rivet is found, before further flight, obtain an FAA-approved repair scheme from the manufacturer and incorporate this repair scheme. Due to FAA policy, the repair scheme/modification for crack damage must include an immediate repair of the crack. The repair scheme cannot be by repetitive inspection only. The repair scheme/modification may incorporate repetitive inspections in addition to the repetitive inspections required in paragraph (g)(2) of this AD. Continued operational flight with un-repaired crack damage is not permitted.

## FAA AD Differences

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

(1) "Requirement: 1. Daily Inspection (Stabilizer attach bolt)" of the service information requires a daily inspection of the stabilizer attach bolt. The daily inspection is not a requirement of this AD. Instead of the daily inspection, we require you to perform, within 10 hours TIS, "Requirement 3. Rear Pivot Attachment Inspection" and "Requirement 5. Rear Attachment Bolt Replacement" of the service information. Compliance with requirement 3. and 5. is a terminating action for the daily inspection, and we are requiring these within 10 hours TIS after the effective date of AD 2009-05-01 for Group 1 airplanes and AD 2010-10-01 for Group 2 airplanes.

(2) "Requirement: 2. External Inspection (Lower flange, Stabilizer rear spar)" of the service information does not specify any action if excessive local deflection or movement of lower skin, cracking, or working (loose) rivet is found. We require obtaining and incorporating an FAA-approved repair scheme from the manufacturer before further flight.

(3) The MCAI does not state if further flight with known cracks is allowed. FAA policy is to not allow further flight with known cracks in critical structure. We require that if any cracks are found when accomplishing the inspection required in paragraphs (f)(2) and (g)(2) of this AD, you must repair the cracks before further flight.

(4) The service information does not state that parts with spotfaced nut and bolt mating surfaces require replacement. However, the service information no longer allows reworking of the mating surfaces by spotfacing. We require that if any nut and bolt surfaces were previously reworked by spotfacing, you must replace the parts.

### **Other FAA AD Provisions**

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

(1) Alternative Methods of Compliance (AMOCs): The Manager, Standards 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: Doug Rudolph, Aerospace Engineer, FAA, Small Airplane Directorate, 901 Locust, Room 301, Kansas City, Missouri 64106; telephone: (816) 329-4059; fax: (816) 329-4090. Before using any approved AMOC on any airplane to which the AMOC applies, notify your appropriate principal inspector (PI) in the FAA Flight Standards District Office (FSDO), or lacking a PI, your local FSDO.

(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**

(h) Refer to MCAI Civil Aviation Safety Authority AD No. AD/GA8/5, Amdt 4, dated May 11, 2010; Gippsland Aeronautics Mandatory Service Bulletin SB-GA8-2002-02, Issue 5, dated November 13, 2008; and Gippsland Aeronautics Mandatory Service Bulletin SB-GA8-2002-02, Issue 6, dated April 21, 2010, for related information.

### **Material Incorporated by Reference**

(h) You must use Gippsland Aeronautics Mandatory Service Bulletin SB-GA8-2002-02, Issue 5, dated November 13, 2008; and Gippsland Aeronautics Mandatory Service Bulletin SB-GA8-2002-02, Issue 6, dated April 21, 2010, 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 Gippsland Aeronautics Mandatory Service Bulletin SB-GA8-2002-02, Issue 6, dated April 21, 2010, under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) On March 2, 2009 (74 FR 8159; February 24, 2009), the Director of the Federal Register previously approved the incorporation by reference of Gippsland Aeronautics Mandatory Service Bulletin SB-GA8-2002-02, Issue 5, dated November 13, 2008.

(3) For service information identified in this AD, contact Gippsland Aeronautics, Attn: Technical Services, P.O. Box 881, Morwell Victoria 3840, Australia; telephone: + 61 03 5172 1200; fax: +61 03 5172 1201; Internet: <http://www.gippsaero.com>.

(4) You may review copies of the service information incorporated by reference for this AD at the FAA, Central Region, Office of the Regional Counsel, 901 Locust, Kansas City, Missouri 64106. For information on the availability of this material at the Central Region, call (816) 329-3768.

(5) You may also review copies of the service information incorporated by reference for this AD 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](http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html).

Issued in Kansas City, Missouri, on August 25, 2010.

John R. Colomy,  
Acting Manager, Small Airplane Directorate,  
Aircraft Certification Service.



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**CORRECTION:** [*Federal Register: September 2, 2010 (Volume 75, Number 170)*]; Page 53846;  
[www.access.gpo.gov/su\\_docs/aces/aces140.html](http://www.access.gpo.gov/su_docs/aces/aces140.html)]

**2010-11-09 Thielert Aircraft Engines GmbH:** Amendment 39-16314. Docket No. FAA-2009-0201; Directorate Identifier 2008-NE-47-AD.

**Effective Date**

- (a) This airworthiness directive (AD) becomes effective July 13, 2010.

**Affected ADs**

- (b) None.

**Applicability**

(c) This AD applies to Thielert Aircraft Engines GmbH (TAE) models TAE 125-01 and TAE 125-02-99 reciprocating engines designated with part number (P/N) 05-7200-K000301 or 02-7200-14017R1. The engines are installed on, but not limited to, Diamond Aircraft Industries Model DA 42 airplanes.

**Reason**

(d) Engine in-flight shutdown incidents have been reported on Diamond Aircraft Industries DA 42 airplanes equipped with TAE 125 engines. The investigations showed that it was mainly the result of failure of the Proportional Pressure Reducing Valve (PPRV) (also known as Propeller Control Valve) due to high vibrations. This condition, if not corrected, could lead to further cases of engine in-flight shutdown, possibly resulting in reduced control of the aircraft.

Since the release of European Aviation Safety Agency (EASA) AD 2008-0145, the engine gearbox has been identified as the primary source of vibrations for the PPRV, and it has also been determined that failure of the electrical connection to the PPRV could have contributed to some power loss events or in-flight shutdowns.

We are issuing this AD to prevent engine in-flight shutdown, possibly resulting in reduced control of the aircraft.

**Actions and Compliance**

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

### **TAE 125-02-99 Reciprocating Engines**

(1) For TAE 125-02-99 reciprocating engines with engine P/N 05-7200-K000301, within 55 flight hours after the effective date of this AD:

(i) Replace the existing PPRV with PPRV, P/N 05-7212-E002801. Use paragraphs A. through B. of Thielert Service Bulletin (SB) No. TM TAE 125-1007 P1, Revision 2, dated April 29, 2009, to do the replacement.

(ii) Install a vibration isolator, P/N 05-7212-K022302, to the gearbox assembly. Use paragraphs 1 through 20 of Thielert SB No. TM TAE 125-1009 P1, Revision 3, dated October 14, 2009, to do the installation.

### **Repetitive PPRV Replacements**

(2) Thereafter, within every 300 flight hours, replace the PPRV, P/N 05-7212-E002801, with the same P/N PPRV.

### **TAE 125-01 Reciprocating Engines**

(3) For TAE 125-01 reciprocating engines with engine P/N 02-7200-14017R1, within 55 flight hours after the effective date of this AD:

(i) Replace the existing PPRV with a PPRV, P/N NM-0000-0124501 or P/N 05-7212-K021401. Use paragraph 1 of Thielert SB No. TM TAE 125-0018, Revision 1, dated November 12, 2008, to do the replacement.

(ii) Inspect the electrical connectors of the PPRV and replace the connectors if damaged, and install a vibration isolator, P/N 05-7212-K023801, to the gearbox assembly. Use paragraphs 1 through 27 of Thielert SB No. TM TAE 125-0020, Revision 1, dated November 25, 2009, to do the inspection and installation.

### **Repetitive PPRV Replacements**

(4) Thereafter, within every 300 flight hours, replace the PPRV with a PPRV, P/N NM-0000-0124501 or P/N 05-7212-K021401.

### **FAA Differences**

(f) We have found it necessary to not reference the second paragraph of the unsafe condition from the MCAI EASA AD 2009-0224. That sentence stated that the problem has only manifested itself on those Thielert engines installed on Diamond Aircraft Industries DA 42 aircraft. The affected engines which require a PPRV could be used on other make and model airplanes in the future.

(g) We also did not reference the February 28, 2010 compliance date, which is in EASA AD 2009-0193R1, or the January 31, 2010 compliance date which is in EASA AD 2009-0224.

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

(h) 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

(i) Refer to EASA AD 2009-0224, dated October 20, 2009 (TAE 125-02-99), and EASA AD 2009-0193R1, dated December 1, 2009 (TAE 125-01), for related information.

(j) Contact Tara Chaidez, Aerospace Engineer, Engine Certification Office, FAA, Engine and Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; e-mail: tara.chaidez@faa.gov; telephone (781) 238-7773; fax (781) 238-7199, for more information about this AD.

## Material Incorporated by Reference

(k) You must use the service information specified in Table 1 of this AD 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 Thielert Aircraft Engines GmbH, Platanenstrasse 14 D-09350, Lichtenstein, Germany, telephone: 37204-696-0; fax: 37204-696-2912; e-mail: info@centurion-engines.com.

(3) 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 1 – Material Incorporated by Reference**

<b>Thielert Service Bulletin No.</b>	<b>Page</b>	<b>Revision</b>	<b>Date</b>
TM TAE 125-1007 P1 Total Pages: 4	ALL	2	April 29, 2009
TM TAE 125-1009 P1 Total Pages: 26	ALL	3	October 14, 2009
TM TAE 125-0018 Total Pages: 2	ALL	1	November 12, 2008
TM TAE 125-0020, including Annexes A and B Total Pages: TM TAE 125-0020, 42; Annex A, 3; Annex B, 4	ALL	1	November 25, 2009

Issued in Burlington, Massachusetts, on May 19, 2010.

Tracy Murphy,  
Acting Manager, Engine and Propeller Directorate,  
Aircraft Certification Service.



**2010-12-51 AGUSTA S.p.A.:** Amendment 39-16409. Docket No. FAA-2010-0824; Directorate Identifier 2010-SW-045-AD.

**Applicability:** Model A119 and AW119 MKII helicopters, with a 90-degree tail rotor gearbox (TGB), part number (P/N) 109-0440-06-103, installed, certificated in any category.

**Compliance:** Required as indicated, unless accomplished previously.

To prevent abnormal vibration and damage to the tail rotor system, loss of the yaw control function, and subsequent loss of control of the helicopter, do the following:

(a) Before further flight, remove the forward boot, P/N 109-0135-10, from the hub-locking nut (nut), P/N 109-0135-12, as shown in Figure 1 of Agusta Alert Bollettino Tecnico No. 119-38, dated March 25, 2010 (ABT).

(1) Insert a 0.3 millimeter (mm) thickness gauge, not exceeding 10 mm in width, between the tail rotor control rod (rod) and the nut as shown in Figure 2 of the ABT until the gauge stops.

(2) From the face of the nut, measure the depth the gauge is inserted between the rod and the nut before it stops:

(i) If the depth measurement is between 4 mm and 6 mm, the bushing, P/N 109-0135-14-101, is installed. Within 5 hours time-in service, reidentify the TGB, P/N 109-0440-06-103, by using an etch pen to change the last three digits of the P/N from -103 to -105.

Note 1: Installing a new nameplate by following the Compliance Instructions, Part II, of the ABT satisfies the reidentification requirements of the TGB P/N in paragraph (a)(2)(i) of this AD.

(ii) If the depth measurement is greater than 6 mm, before further flight, replace the TGB, P/N 109-0440-06-103, with TGB, P/N 109-0440-06-105, and replace the associated parts listed in the Accomplishment Instructions, Part I, paragraph 4, of the ABT with the associated parts listed in the Accomplishment Instructions, Part I, paragraph 5, of the ABT.

(b) To request a different method of compliance or a different compliance time for this AD, follow the procedures in 14 CFR 39.19. Contact the Manager, Safety Management Group, FAA, ATTN: Eric Haight, Aviation Safety Engineer, FAA, Rotorcraft Directorate, Regulations and Guidance Group, 2601 Meacham Blvd., Fort Worth, Texas 76137, telephone (817) 222-5204, fax (817) 222-5961, for information about previously approved alternative methods of compliance.

(c) The Joint Aircraft System/Component (JASC) Code is 6520: Tail Rotor Gearbox.

(d) Replacing the associated parts and removing the boot, and measuring the insertion depth of the gauge shall be done by following the specified portions of Agusta Alert Bollettino Tecnico No. 119-38, dated March 25, 2010. The Director of the Federal Register approved this incorporation by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies may be obtained from

Agusta, Via Giovanni Agusta, 520 21017 Cascina Costa di Samarate (VA), Italy, telephone 39 0331-229111, fax 39 0331-229605/222595, or at [http://customersupport.agusta.com/technical\\_advice.php](http://customersupport.agusta.com/technical_advice.php). Copies may be inspected at the FAA, Office of the Regional Counsel, Southwest Region, 2601 Meacham Blvd., Room 663, Fort Worth, Texas, 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/code\\_of\\_federal\\_regulations/ibr\\_locations.html](http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html).

(e) This amendment becomes effective on September 17, 2010, to all persons except those persons to whom it was made immediately effective by Emergency AD 2010-12-51, issued June 1, 2010, which contained the requirements of this amendment.

Note 2: The subject of this AD is addressed in the European Aviation Safety Agency Emergency AD No. 2010-0059-E, dated March 26, 2010.

Issued in Fort Worth, Texas, on August 12, 2010.  
Mark R. Schilling,  
Acting Manager, Rotorcraft Directorate,  
Aircraft Certification Service.



**FAA**  
**Aviation Safety**

## AIRWORTHINESS DIRECTIVE

[www.faa.gov/aircraft/safety/alerts/](http://www.faa.gov/aircraft/safety/alerts/)  
[www.gpoaccess.gov/fr/advanced.html](http://www.gpoaccess.gov/fr/advanced.html)

**2010-16-51 EUROCOPTER FRANCE:** Amendment 39-16410. Docket No. FAA-2010-0825; Directorate Identifier 2010-SW-072-AD.

**Applicability:** Model SA330J helicopters, certificated in any category.

**Compliance:** Required as indicated.

To prevent rotor burst of the main gearbox (MGB) oil cooling fan assembly (fan), damage to the hydraulic lines and flight controls, and subsequent loss of control of the helicopter, do the following:

(a) Within 10 hours time-in-service (TIS), unless accomplished previously, and thereafter at intervals not to exceed 10 hours TIS, using a 0.2 millimeter (mm) (0.008 inch) feeler gauge attached to a rigid rod, inspect for a minimum gap of 0.2 mm between a fan rotor blade and the upper section of the guide vane bearing housing over the entire width of the blade as depicted in Figure 1 and as shown in Figure 2 of Eurocopter Emergency Alert Service Bulletin No. 05.96, dated July 12, 2010 (EASB), and by following the Accomplishment Instructions, paragraph 3.B., of the EASB.

(1) If the feeler gauge can be inserted between the blade and the housing (a gap greater than or equal to 0.2 mm), no further action is required.

(2) If the feeler gauge cannot be inserted between the blade and the housing (a gap less than 0.2 mm), before further flight, replace the two fan rotor shaft bearings, with two airworthy bearings, part number 704A33651114. Reinspect to ensure compliance with paragraph (a) of this AD after installing airworthy bearings. Replacing the two fan rotor shaft bearings does not constitute terminating action for the inspection requirements of this AD.

(b) To request a different method of compliance or a different compliance time for this AD, follow the procedures in 14 CFR 39.19. Contact the Manager, Safety Management Group, FAA, ATTN: Rao Edupuganti, Aviation Safety Engineer, Rotorcraft Directorate, Regulations and Policy Group, 2601 Meacham Blvd., Fort Worth, Texas 76137, telephone (817) 222-4389, fax (817) 222-5961, for information about previously approved alternative methods of compliance.

(c) The Joint Aircraft System/Component (JASC) Code is 6322: Main gearbox oil cooler fan.

(d) The inspections shall be done in accordance with the specified portions of Eurocopter Emergency Alert Service Bulletin No. 05.96, dated July 12, 2010. The Director of the Federal Register approved this incorporation by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies may be obtained from American Eurocopter Corporation, 2701 Forum Drive, Grand Prairie, TX 75053-4005, telephone (800) 232-0323, fax (972) 641-3710, or at <http://www.eurocopter.com>. Copies may be inspected at the FAA, Office of the Regional Counsel, Southwest Region, 2601 Meacham Blvd., Room 663, Fort Worth, Texas, 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/code\\_of\\_federal\\_regulations/ibr\\_locations.html](http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html).

(e) This amendment becomes effective on September 17, 2010, to all persons except those persons to whom it was made immediately effective by Emergency AD 2010-16-51, issued July 19, 2010, which contained the requirements of this amendment.

Issued in Fort Worth, Texas, on August 5, 2010.

Scott A. Horn,  
Acting Manager, Rotorcraft Directorate,  
Aircraft Certification Service.



**FAA**  
**Aviation Safety**

## **AIRWORTHINESS DIRECTIVE**

[www.faa.gov/aircraft/safety/alerts/](http://www.faa.gov/aircraft/safety/alerts/)  
[www.gpoaccess.gov/fr/advanced.html](http://www.gpoaccess.gov/fr/advanced.html)

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**CORRECTED:** This AD was issued with an AD number that had already been used. This copy has been corrected, and we will issue a correction to the Federal Register.

**2010-18-12 Robert E. Rust, Jr.:** Amendment 39-16426; Docket No. FAA-2010-0632; Directorate Identifier 2010-CE-025-AD.

### **Effective Date**

(a) This AD becomes effective on October 7, 2010.

### **Affected ADs**

(b) None.

### **Applicability**

(c) This AD applies to Models DeHavilland DH.C1 Chipmunk 21, DH.C1 Chipmunk 22, and DH.C1 Chipmunk 22A airplanes, all serial numbers, that are certificated in any category.

Note: These airplanes are also identified as CHIPMUNK 22A, CHIPMUNK DHC-1T10, CHIPMUNK T.10 MK-22, DH.C1 MK22A, DHC-1, DHC-1 CHIPMUNK, DHC-1 CHIPMUNK 22, DHC-1 SERIES 22, or DHC-1 T.MK. 10.

### **Subject**

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

### **Unsafe Condition**

(e) This AD results from a report of a latch plate supplied under part number (P/N) C1-CF-1489 failing in service. The part in question was not manufactured to the applicable de Havilland drawing. The unapproved latch plate was made of a shaft that was pressed into a plate, rather than being machined from bar material as one piece. The shaft and plate on the unapproved part can become separated or bent, resulting in rapid wear and failure of the part. This condition, if not corrected, could result in an un-commanded retraction of the flaps. This failure could lead to a stall during a landing approach.

### **Compliance**

(f) To address this problem, you must do the following, unless already done:

Actions	Compliance	Procedures
(1) Inspect the flap operating system to identify the P/N of the latch plate installed. If latch plate P/N C1-CF-1489 is installed, inspect the latch plate to determine if it is in compliance with the design standard. An unapproved latch plate P/N C1-CF-1489 is made from two pieces pressed together while one that complies with the design standard is machined in one piece from bar material.	Within 50 hours time-in-service (TIS) after October 7, 2010 (the effective date of this AD) or within 90 days after October 7, 2010 (the effective date of this AD), whichever occurs first.	Follow de Havilland Support Limited Technical News Sheet (TNS) CT(C1) No 208 Issue 1, dated January 30, 2009.
(2) If during the inspection required in paragraph (f)(1) of this AD an unapproved latch plate P/N C1-CF-1489 is found, replace the latch plate with a latch plate that complies with the design standard. The following U.S. standard hardware may be substituted for the hardware specified in the service information: (i) 1/16" diameter cotter pin that is P/N MS24665-153 (or equivalent) in place of split pin P/N SP90/C; and (ii) Washer that is P/N MS15795-806B (or equivalent) in place of washer P/N SP13/B.	Before further flight after the inspection where the unapproved latch plate P/N C1-CF-1849 was found.	Follow de Havilland Support Limited TNS CT(C1) No 208 Issue 1, dated January 30, 2009.

### Alternative Methods of Compliance (AMOCs)

(g) The Manager, Atlanta Aircraft Certification Office (ACO), FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. Send information to ATTN: Carey O'Kelley, Aerospace Engineer, FAA, Atlanta ACO, 1701 Columbia Avenue, College Park, Georgia 30337; telephone: (404) 474-5543; fax: (404) 474-5606. Before using any approved AMOC on any airplane to which the AMOC applies, notify your appropriate principal inspector (PI) in the FAA Flight Standards District Office (FSDO), or lacking a PI, your local FSDO.

### Material Incorporated by Reference

(h) You must use de Havilland Support Limited TNS CT(C1) No 208 Issue 1, dated January 30, 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 de Havilland Support Limited, Duxford Airfield, Cambridgeshire, CB22 4QR, England, phone: +44 (0) 1223 830090; fax: +44 (0) 1223 830085; e-mail: [info@dhsupport.com](mailto:info@dhsupport.com); Internet: <http://www.dhsupport.com/>.

(3) You may review copies of the service information incorporated by reference for this AD at the FAA, Central Region, Office of the Regional Counsel, 901 Locust, Kansas City, Missouri 64106. For information on the availability of this material at the Central Region, call (816) 329-3768.

(4) You may also review copies of the service information incorporated by reference for this AD 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](http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html).

Issued in Kansas City, Missouri, on August 25, 2010.

John R. Colomy,  
Acting Manager, Small Airplane Directorate,  
Aircraft Certification Service.



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**2010-18-14 Bombardier-Rotax GmbH (Formerly Motorenfabrik):** Amendment 39-16428.  
Docket No. FAA-2010-0499; Directorate Identifier 2010-NE-06-AD.

**Effective Date**

(a) This airworthiness directive (AD) becomes effective October 13, 2010.

**Affected ADs**

(b) None.

**Applicability**

(c) This AD applies to Bombardier-Rotax 912 F series and 912 S series reciprocating engines with fuel pumps, part numbers (P/Ns) 892230, 892232, 892540 (standard version) or P/Ns 892235, 892236, 892545 (version including flexible fuel line), installed. These engines are installed on, but not limited to, Diamond (formerly HOAC) HK-36R Super Dimona, Aeromot AMT-200S Super Ximango; Diamond DA20-A1 Katana; Scheibe SF 25C; Iniziative Industriali Italiane S.p.A. Sky Arrow 650 TC, and 650 TCN airplanes.

**Reason**

(d) This AD results from mandatory continuing airworthiness information (MCAI) issued by an aviation authority of another country to identify and correct an unsafe condition on an aviation product. The MCAI describes the unsafe condition as:

Due to high fuel pressure, caused by exceeding pressure in front of the mechanical fuel pump (e.g. due to an electrical fuel pump), in limited cases a deviation in the fuel supply could occur. This can result in exceeding of the fuel pressure and might cause engine malfunction and/or massive fuel leakage.

We are issuing this AD to prevent the pump from exceeding the fuel pressure, which could result in engine malfunction or a massive fuel leak. These conditions could cause loss of control of the airplane or a fire.

**Actions and Compliance**

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

(1) At the next maintenance, or within the next 25 hours of engine operation, whichever occurs first, after the effective date of this AD, remove affected fuel pumps, P/Ns 892230, 892232, 892235, 892236, 892540, or 892545.

(2) After the effective date of this AD, do not install fuel pump, P/Ns 892230, 892232, 892235, 892236, 892540, or 892545, on any engine.

### **FAA AD Differences**

(f) This AD differs from the MCAI and/or service information as follows: The MCAI requires replacing an affected fuel pump with fuel pump, P/N 892542 or 892546. This AD requires replacement of an affected fuel pump with a fuel pump eligible for installation on the airplane.

### **Other FAA AD Provisions**

(g) 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**

(h) Refer to MCAI AD 2007-0060R1-E, dated April 20, 2007, and Rotax Aircraft Engines Service Bulletin SB-912-053, dated April 13, 2007, for related information. Contact BRP-Rotax GmbH & Co. KG, Welser Strasse 32, A-4623 Gunskirchen, Austria, or go to: <http://www.rotax-aircraft-engines.com/>, for a copy of this service information.

(i) Contact Alan Strom, Aerospace Engineer, Engine Certification Office, FAA, Engine and Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; e-mail: [alan.strom@faa.gov](mailto:alan.strom@faa.gov); telephone (781) 238-7143; fax (781) 238-7199, for more information about this AD.

### **Material Incorporated by Reference**

(j) None.

Issued in Burlington, Massachusetts, on August 27, 2010.  
Thomas A. Boudreau,  
Acting Manager, Engine and Propeller Directorate,  
Aircraft Certification Service.



**DATE: September 1, 2010**

**AD #: 2010-19-51**

This Emergency Airworthiness Directive (AD) is prompted by a main rotor hydraulic servo actuator (servo actuator) malfunction and a subsequent investigation that revealed the output piston rod assembly (piston rod) had fractured at the threaded end because of stress corrosion cracking. Also, during the investigation of that servo actuator malfunction, a nonconforming grind relief was discovered on a separate piston rod. The actions specified by this AD are intended to detect corrosion or a nonconforming piston rod that, if not detected and corrected, could result in failure of the piston rod, failure of the servo actuator, and subsequent loss of control of the helicopter.

We have reviewed Bell Alert Service Bulletin (ASB) No. 222-10-109 for the Model 222 and 222B helicopters, ASB No. 222U-10-80 for the Model 222U helicopters, ASB No. 230-10-41 for the Model 230 helicopters, and ASB No. 430-10-44 for the Model 430 helicopters. Each ASB is dated August 18, 2010, and specifies a one-time inspection of all affected servo actuators to verify the condition of the piston rod. We have also reviewed Woodward HRT ASB No. 141600-67-02, dated August 18, 2010, attached to each Bell ASB, which specifies inspecting the piston rod for corrosion and nonconforming grind relief. It also contains instructions for reworking and reassembling the unit for operation.

Transport Canada, the airworthiness authority for Canada, notified us that an unsafe condition may exist on these helicopter models. Transport Canada advises that it has been determined that the piston rods of the servo actuators “may be corroded and, consequently, prone for corrosion cracking.” Also, in one case, an unapproved repair was found on the piston rod. This situation, if not corrected, could result in loss of control of the helicopter. Transport Canada classified the ASBs as mandatory and issued AD No. CF-2010-29, dated August 26, 2010, to ensure the continued airworthiness of these helicopters.

These helicopters have been approved by the aviation authority of Canada and are approved for operation in the United States. Pursuant to our bilateral agreement with Canada, they have notified us of the unsafe condition described in the Transport Canada AD.

We are issuing this AD because we evaluated all information provided by Transport Canada and determined the unsafe condition exists and is likely to exist or develop on other helicopters of these same type designs. Therefore, this AD requires, before further flight:

- Disassembling the actuator to gain access to the piston rod.
- Cleaning the entire piston rod and nut using Acetone and a nylon bristle brush removing all contaminants to allow for inspection.
- Inspecting the grind relief configuration for the piston rod and nut. If the grind relief is unacceptable, replacing the piston rod and the nut with airworthy parts.

- Using a 10x or higher magnifying glass, visually inspecting the nut for corrosion or damage to the threads. If you find any corrosion or damage to the threads, replacing the nut with an airworthy nut.
- Using a 10x or higher magnifying glass, visually inspecting the piston rod for any corrosion, visible lack of cadmium plate (gold or grey color), or damage to the piston rod. If you find any corrosion, visible lack of cadmium plate (gold or grey color), or damage to the piston rod in the “Critical Areas,” replacing the piston rod with an airworthy piston rod.
- If you find any corrosion or visible lack of cadmium plate on the piston rod in areas that are not considered “Critical Areas,” reworking the piston rod by removing any surface corrosion that has not penetrated into the base material by lightly buffing with scotch-brite. Cleaning the part using Acetone and a nylon bristle brush to remove any residue.
- If you find any corrosion that is red or orange in color, magnetic particle inspecting the piston rod for a crack. If you find a crack, replacing the piston rod with an airworthy piston rod.
- Inspecting the portion of the piston rod for any bare base metal that is not coated with cadmium plate. If you find any bare base metal on the piston rod in this area, reworking the piston rod by applying brush cadmium plating to all bare and reworked areas.
- Reassembling the servo actuator.
- After reassembling the servo actuator, marking it with the letter “B” following the serial number on the name plate using a scribe or vibrating stylus.
- Performing a hydraulic system check.

These actions must be accomplished by following specified portions of the ASBs described previously.

This AD differs from the Transport Canada AD in that we require the initial inspection before further flight rather than no later than 5 hours air time upon receiving the AD. Also, this AD requires replacing unairworthy parts with airworthy parts if certain conditions are found and this AD does not add a life limit to the servo actuator. Also, this AD does not require a one time rectification and a complete overhaul of the servo actuator after the initial inspection. This AD is an interim action; we may supersede this AD to require reducing the life limit and overhaul of the affected servo actuators.

This rule is issued under 49 U.S.C. Section 44701 pursuant to the authority delegated to me by the Administrator, and is effective immediately upon receipt of this emergency AD.

**2010-19-51 BELL HELICOPTER TEXTRON CANADA:** Directorate Identifier 2010-SW-079-AD.

Applicability: Model 222, 222B, 222U, 230, and 430 helicopters, with an installed main rotor hydraulic servo actuator, part number 222-382-001-107 (servo actuator), manufactured by Woodward HRT, certificated in any category.

Compliance: Before further flight, unless accomplished previously.

To detect corrosion or a nonconforming grind relief on the output piston rod assembly (piston rod), to prevent failure of the piston rod, failure of the servo actuator, and subsequent loss of control of the helicopter, do the following:

(a) Disassemble the actuator to gain access to the piston rod as shown in Figures 1 through 5 and by following the Accomplishment Instructions, paragraph 3.A., Part I., of Woodward HRT Alert Service Bulletin No. 141600-67-02, dated August 18, 2010 (Woodward ASB).

Note 1: Bell Helicopter Textron Canada (Bell) Alert Service Bulletin (ASB) No. 222-10-109 for the Models 222 and 222B, ASB No. 222U-10-80 for the Model 222U, ASB No. 230-10-41 for the Model 230, and ASB No. 430-10-44 for the Model 430 helicopters, all ASBs dated August 18, 2010, contain guidance pertaining to this AD.

(b) Clean the entire piston rod and nut using Acetone and a nylon bristle brush removing all contaminants to allow for inspection. Inspect the grind relief configuration for the piston rod and nut as shown in Figure 6 of the Woodward ASB. If the grind relief is unacceptable as shown in Figure 6, replace the piston rod and the nut with airworthy parts.

(c) Using a 10x or higher magnifying glass, visually inspect the nut for any corrosion or any damage to the threads. If you find any corrosion or any damage to the threads, replace the nut with an airworthy nut.

(d) Using a 10x or higher magnifying glass, visually inspect the piston rod as shown in Figure 7 of the Woodward ASB for any corrosion, visible lack of cadmium plate (gold or grey color), or damage to the piston rod.

Note 2: For the purposes of this AD, damage to the piston rod is defined as pitting, a visible scratch, a crack, or a visible abrasion.

(1) If you find any corrosion or visible lack of cadmium plate or any damage to the piston rod in the "Critical Areas," replace the piston rod with an airworthy piston rod.

(2) If you find any corrosion or visible lack of cadmium plate on the piston rod in areas that are not considered "Critical Areas," rework the piston rod by removing any surface corrosion that has not penetrated into the base material by lightly buffing with scotch-brite. Clean the part using Acetone and a nylon bristle brush to remove any residue.

(3) If you find any corrosion that is red or orange in color, magnetic particle inspect the piston rod for a crack. If you find a crack, replace the piston rod with an airworthy piston rod.

(e) Inspect the portion of the piston rod for any bare base metal, as shown in Figure 7 of the Woodward ASB, which is coated with cadmium plate. If you find any bare base metal on the piston rod in this area, rework the piston rod by applying brush cadmium plating to all bare and reworked areas by following the Accomplishment Instructions, paragraph B., Part II, 4.5. and paragraph C., Part III, C.1.1.1. through C.1.1.3., of the Woodward ASB.

(f) Reassemble the servo actuator by following the Accomplishment Instructions, paragraph C, Part III, 1.1.4. through 3.3.4. of the Woodward ASB.

(g) After reassembling the servo actuator, mark it with the letter “B” following the serial number on the name plate using a scribe or vibrating stylus.

(h) Perform a hydraulic system check.

(i) To request a different method of compliance or a different compliance time for this AD, follow the procedures in 14 CFR 39.19. Contact the Manager, Safety Management Group, FAA, ATTN: J. R. Holton, Jr., Aviation Safety Engineer, Rotorcraft Directorate, 2601 Meacham Blvd., Fort Worth, Texas 76137, telephone (817) 222-4964, fax (817) 222-5961, for information about previously approved alternative methods of compliance.

(j) The Joint Aircraft System/Component (JASC) Code is 6730: Rotorcraft Servo System.

(k) Copies of the applicable service information may be obtained from Bell Helicopter Textron Canada, 12,800 Rue de l’Avenir, Mirabel, Quebec J7J1R4, telephone (450) 437-2862 or (800) 363-8023, fax (450) 433-0272, or at <http://www.bellcustomer.com/files/>.

(l) Emergency AD 2010-19-51, issued August 31, 2010, becomes effective upon receipt.

Note 3: The subject of this AD is addressed in Transport Canada AD No. CF-2010-29, dated August 26, 2010.

FOR FURTHER INFORMATION CONTACT: J. R. Holton, Jr., Aviation Safety Engineer, FAA, Rotorcraft Directorate, Safety Management Group, 2601 Meacham Blvd., Fort Worth, Texas 76137, telephone (817) 222-4964, fax (817) 222-5961.

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Mark R. Schilling,  
Acting Manager, Rotorcraft Directorate,  
Aircraft Certification Service.