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

**BIWEEKLY 2009-20**

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
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Info: E - Emergency; COR - Correction; S - Supersedes; R - Revision; - See AD for additional information;

### Biweekly 2009-01

2008-17-51		MD Helicopters, Inc	Rotorcraft: MD900
2008-26-01	S 2008-11-17	Air Tractor, Inc	See AD
2008-26-02	S 2006-06-51	General Electric Company	Engine: CT7-8A
2008-26-05		Bombardier-Rotax GmbH	Engine: 914 F
2008-26-10		Cessna	See AD
2008-26-11		Piper	See AD
2008-26-12		Aircraft Industries a.s	Sailplane: L 23 Super Blanik

### Biweekly 2009-02

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

### Biweekly 2009-03

2009-01-11		Turbomeca	Engine: Arriel 2B and 2B1
2009-02-02		Polskie Zaklady Lotnicze Spolka zo.o	PZL M26 01
2009-02-03		Lycoming Engines, SeeAD	Engine: See AD

### Biweekly 2009-04

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

### Biweekly 2009-05

2008-02-08	S 2006-21-11	Turbomeca	Engine: Turmo IV A and IV C
2009-03-04		Turbomec	Engine: Arriel 1E2, 1S, and 1S1
2009-03-05		Pratt Whitney Canada	Engine: PW206A, PW206B, PW206B2, PW206C, PW206E, PW207C, PW207D, and PW207E
2009-04-01		Wytownia Sprzetu Komunikacyjnego	Engine: PZL-10W
2009-04-04		Cessna	401, 401A, 401B, 402, 402A, 402B
2009-04-05		Cessna	182Q and 182R
2009-04-08		BURKHART GROB LUFT- UND RAUMFAHRT GmbH & CO KG	Glider: G103 TWIN II, G103A TWIN II ACRO, G103C TWIN III ACRO, G 103 C TWIN III
2009-04-09	S 2008-11-10	Viking Air Limite	DHC-6-1, DHC-6-100, DHC-6-200, and DHC-6-300
2009-04-14		PILATUS AIRCRAFT LTD	PC-12/47E
2009-05-01	S 2007-04-12	Gippsland Aeronautics Pty. Ltd	GA8
2009-05-05		Avidyne Corporation	Primary Flight Displays
2009-05-06		Embraer	EMB-500

### Biweekly 2009-06

2009-05-07	S 2008-06-17	Pilatus Aircraft Ltd	PC-12, PC-12/45, PC-12/47, PC-12/47E
2009-05-12		Cessna	208 and 208B

### Biweekly 2009-07

2009-05-08		Trimble or Freeflight Systems	Appliance: Global positioning system (GPS)
2009-05-09		Bell Helicopter Textron, Inc.	Rotorcraft: 412, 412EP, 412CF
2009-06-01		Eurocopter France	Rotorcraft: EC 155B and EC155B1
2009-06-07		Agusta S.p.A.:	Rotorcraft: AB139 and AW139
2008-07-51	E	Bell Helicopter Textron Canada	Rotorcraft: 206A, 206B, and 206L and 407 and 427
2009-07-52	E, S 2009-07-52	Bell Helicopter Textron Canada	Rotorcraft: 206A, 206B, and 206L and 407 and 427
2009-07-53	E	Sikorsky Aircraft	Rotorcraft: S-92A

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<b>Biweekly 2009-08</b>			
2006-08-08 R1	R	Air Tractor, Inc.	AT-400, AT-401, AT-401B, AT-402, AT-402A, and AT-402B
2009-07-08		Piper	PA-46-350P and PA46R-350T
2009-07-09		DORNIER Luftfahrt GmbH	228-100, Dornier 228-101, Dornier 228-200, Dornier 228-201, Dornier 228-202, and Dornier 228-212
2009-07-13		MD Helicopters, Inc.	Rotorcraft: MD900
2009-07-14		Diamond Aircraft Industries GmbH	DA 40
2009-08-03	S 2007-19-52	Bell Helicopter Textron Canada Limited	Rotorcraft: 206A, 206B, 206L, 206L-1, 206L-3, 206L-4, 222, 222B, 222U, 230, 407, 427, and 430
2009-08-05		Liberty Aerospace Incorporated	XL-2
<b>Biweekly 2009-09</b>			
2009-07-52	FR	Bell Helicopter Textron Canada Limited	Rotorcraft: 206A series, 206B series, and 206L
2009-08-08		Turbomeca	Engine: Arriel 1B, 1D, and 1D1, Arriel 2B, and 2B1
2009-08-09		EADS SOCATA	TBM 700
2009-08-10	S 2009-04-14	Pilatus Aircraft Ltd	PC-12/47E
2009-08-11		Pilatus Aircraft Ltd	PC-12 and PC-12/45
2009-09-51	E	EUROCOPTER FRANCE	Rotorcraft: EC225LP
<b>Biweekly 2009-10</b>			
2009-07-53	FR	Sikorsky Aircraft Corporation	Rotorcraft: S-92A
2009-09-03		Turbomeca S.A.	Engine: Arriel 2B and 2B1
2009-09-04		EADS-PZL	PZL-104 WILGA 80
2009-09-09		Cessna	LC40-550FG, LC41-550FG, LC42-550FG
<b>Biweekly 2009-11</b>			
2009-10-04	S 2007-17-06	Diamond Aircraft	DA 40, DA 40F
2009-10-09		Cessna	See AD
2009-10-14		Hartzell	Propeller: See AD
2009-11-05	S 2008-10-12	Air Tractor, Inc.	AT-400, AT-400A, AT-402A, AT-402B, AT-502, AT-502A, AT-502B, AT-503A, AT-602, AT-802, AT-802A
<b>Biweekly 2009-12</b>			
2009-11-01	S 95-21-12	Eurocopter Deutschland GmbH	Rotorcraft: MBB-BK 117 A-1, A-3, A-4, B-1, B-2, and C-1
2009-11-06		M7 Aerospace LP	SA226-AT, SA226-T, SA226-TC, SA227-AC (C-26A), SA227-AT, SA227-BC (C-26A), SA227-CC, and SA227-DC (C-26B)
2009-11-10		Eurocopter Deutschland GmbH	EC135
2009-12-51	E	Turbomeca S.A.	Engine: Arriel 1A1, 1A2, 1B, 1C, 1C1, 1C2, 1D, 1D1, 1E2, 1K1, 1S, and 1S1
<b>Biweekly 2009-13</b>			
2009-12-01		Bell Helicopter Textron, Inc	See AD
2009-12-07		Agusta S.p.A	Rotorcraft : A109E, A109S, A119, and AW119MKII
2009-12-12		ATR-GIE Avions de Transport Régional	ATR42-500, ATR72-212A
2009-12-14		Aeromot-Industria Mecanico Metalurgica ltda	Glider: AMT-100, AMT-200, AMT-200S, AMT-300
2009-12-15		GROB-Werke	G120A
2009-12-16		Dornier Luftfahrt GmbH	228-100, 228-101, 228-200, 228-201, 228-202, 228-212
2009-13-01		Sikorsky	Rotorcraft: S-92A
2009-13-04		Dornier Luftfahrt GmbH	228-100, Dornier 228-101, Dornier 228-200, Dornier 228-201, Dornier 228-202, and Dornier 228-212
2009-13-05		Socata	TBM 700
2009-13-06		Piper	See AD

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<b>Biweekly 2009-14</b>			
2009-12-51	FR	Turbomeca S.A	Arriel 1A1, 1A2, 1B, 1C, 1C1, 1C2, 1D, 1D1, 1E2, 1K1, 1S, and 1S1
2009-13-10		British Aerospace Regional Aircraft	HP.137 Jetstream Mk.1, Jetstream Series 200 and 3101, and Jetstream Model 3201
2009-14-01		Turbomeca S.A	Arrius 2F
<b>Biweekly 2009-15</b>			
2009-14-10	S 2009-09-04	EADS-PZL Warszawa-Okecie S.A.	PZL-104 WILGA 80
2009-14-11		Turbomeca S.A.	Engine: ARRIUS 2F
2009-14-13	S 2003-14-07	Pilatus Aircraft Ltd	PC-12, PC-12/45, PC-12/47, PC-12/47
2009-15-01		Hawker Beechcraft Corporation	G36
2009-15-05		Cessna Aircraft Company	208, 208B
<b>Biweekly 2009-16</b>			
2009-03-05	COR	Pratt & Whitney Canada	Engine: PW206A, PW206B, PW206B2, PW206C, PW206E, PW207C, PW207D, and PW207E
2009-15-13		Honeywell International Inc.	Engine: T5313B, T5317A, T5317A-1, T5317B, and T5317BCV
<b>Biweekly 2009-17</b>			
2007-03-17	R1	Socata	TBM 700
2009-15-14		Agusta S.p.A	Rotorcraft: AB139, AW139
2009-15-15		Bell Helicopter Textron Canad	Rotorcraft: 427
2009-16-02		Pilatus Aircraft Limited	PC-7
2009-16-03		Superior Air Parts, Inc. (SAP)	See AD
<b>Biweekly 2009-18</b>			
2009-17-05		Honeywell International Inc.	Engine: TPE331-10 and TPE331-11
2009-18-03	S 2007-19-14	Pilatus Aircraft Ltd.	PC-6, PC-6-H1, PC-6-H2, PC-6/350, PC-6/350-H1, PC-6/350-H2, PC-6/A, PC-6/A-H1, PC-6/A-H2, PC-6/B-H2, PC-6/B1-H2, PC-6/B2-H2, PC-6/B2-H4, PC-6/C-H2, and PC-6/C1-H2
2009-18-04		Air Tractor, Inc.	AT-802, AT-802A
<b>Biweekly 2009-19</b>			
2009-18-17		Agusta S.p.A.	Rotorcraft: AB412 and AB412 EP
<b>Biweekly 2009-20</b>			
2009-19-03	S 2009-13-10	British Aerospace Regional Aircraft	HP.137 Jetstream Mk.1, Jetstream Series 200 and 3101, and Jetstream Model 3201
2009-19-07		Teledyne Continental Motors	Engine: O-470, IO-470, TSIO-470, IO-520, TSIO-520, IO-550, and IOF-550
2009-19-51	E	Agusta S.p.A.	Rotorcraft: AB 139 and AW 139



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**2009-19-03 British Aerospace Regional Aircraft:** Amendment 39-16020; Docket No. FAA-2009-0817; Directorate Identifier 2009-CE-046-AD.

**Effective Date**

(a) This airworthiness directive (AD) becomes effective October 5, 2009.

**Affected ADs**

(b) This AD supersedes AD 2009-13-10; Amendment 39-15949.

**Applicability**

(c) This AD applies to Model HP.137 Jetstream Mk.1, Jetstream Series 200 and 3101, and Jetstream Model 3201 airplanes, all serial numbers, certificated in any category.

**Subject**

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

**Reason**

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

BAE Systems have been notified by the main landing gear (MLG) radius rod manufacturer, APPH Ltd, that a batch of incorrectly manufactured Buffer Springs (part number 184818) has been supplied to their parts distributor and maintenance- and repair organisation (MRO) facilities in North America.

There is a risk that any radius rod fitted with one of these incorrectly manufactured Buffer Springs could jam in an unlocked position. This condition, if not corrected, could result in MLG collapse and consequent injury to occupants of the aeroplane. EASA issued AD 2009-0121-E to require the replacement of the affected radius rods.

BAE Systems (Operations) Ltd Alert Service Bulletin (ASB) 32-A-JA090640 Revision 2 (the ASB) has now been issued, which identifies an additional seven affected radius rods by serial number (s/n).

For the reasons described above, this AD retains the requirements of AD 2009-0121-E, which is superseded, and expands the applicability to include the replacement of the additional units.

## **Actions and Compliance**

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

(1) Before further flight after October 5, 2009 (the effective date of this AD) inspect the main landing gear (MLG) radius rods to identify if you have part number (P/N) 1847/D through 1847/N and 1862/D through 1862/N with one of the affected serial numbers listed in British Aerospace Jetstream Series 3100 and 3200 Alert Service Bulletin 32-A-JA090640, Revision 2, dated August 11, 2009. Perform the inspection following British Aerospace Jetstream Series 3100 and 3200 Alert Service Bulletin 32-A-JA090640, Revision 2, dated August 11, 2009. Only paragraphs (f)(3) and (f)(4) of this AD apply to you if one or both of the following exists:

(i) If you do not have one of the affected P/Ns installed; and/or

(ii) If you can positively show (maintenance records) that, during the inspection required by AD 2009-13-10, none of the serial number radius rods listed in British Aerospace Jetstream Series 3100 and 3200 Alert Service Bulletin 32-A-JA090640, Revision 2, dated August 11, 2009, are installed.

(2) If as a result of the inspection required in paragraph (f)(1) of this AD you find one of the affected P/N MLG radius rods installed on the airplane, before further flight, install one of the following MLG radius rods:

(i) A serviceable MLG radius rod that is not in one of the following P/N ranges: 1847/D through 1847/N or 1862/D through 1862/N; or

(ii) An affected P/N MLG radius rod that has already been inspected following APPH Ltd. Service Bulletin 1847-32-14 or 1862-32-14, as applicable, both dated June 2009, and found to be serviceable.

(3) As of October 5, 2009 (the effective date of this AD), do not install an affected part number MLG radius rod unless it has been inspected following APPH Ltd. Service Bulletin 1847-32-14 or 1862-32-14, as applicable, both dated June 2009, and found to be serviceable.

Note 1: The inspection requirements of paragraph (f)(3) above apply to any replacement required per AD 2007-21-17.

(4) Within 30 days after the inspection required in paragraph (f)(1) of this AD, send an Accomplishment (Inspection) Report to BAE Systems following the instructions in paragraph 2.C of British Aerospace Jetstream Series 3100 and 3200 Alert Service Bulletin 32-A-JA090640, Revision 2, dated August 11, 2009. Include the details of any radius rods removed.

## **FAA AD Differences**

Note 2: 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, 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: Taylor Martin, Aerospace Engineer, FAA, Small Airplane Directorate, 901 Locust, Room 301, Kansas City, Missouri 64106; telephone: (816) 329-4138; 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.

### **Special Flight Permit**

(h) Under 14 CFR 39.23, we are limiting special flight permits for the purpose of compliance with this AD under the following conditions:

(1) Operate the airplane only with the MLG in the down and verified locked position throughout the entire flight; and

(2) Coordinate additional flight restrictions with British Aerospace Regional Aircraft using the contact information provided in paragraph (j)(2) of this AD.

### **Related Information**

(i) Refer to MCAI EASA Emergency AD No. 2009-0181-E, dated August 12, 2009; British Aerospace Jetstream Series 3100 and 3200 Alert Service Bulletin 32-A-JA090640, Revision 2, dated August 11, 2009 (includes an attached Accomplishment Report); and APPH Ltd. Service Bulletins 1847-32-14 and 1862-32-14, both dated June 2009, for related information.

### **Material Incorporated by Reference**

(j) You must use British Aerospace Jetstream Series 3100 and 3200 Alert Service Bulletin 32-A-JA090640, Revision 2, dated August 11, 2009 (includes an attached Accomplishment Report); and APPH Ltd. Service Bulletins 1847-32-14 and 1862-32-14, both dated June 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 British Aerospace Jetstream Series 3100 and 3200 Alert Service Bulletin 32-A-JA090640, Revision 2, dated August 11, 2009 (includes an attached Accomplishment Report) under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) On June 26, 2009 (74 FR 29936, June 24, 2009), the Director of the Federal Register previously approved the incorporation by reference of APPH Ltd. Service Bulletins 1847-32-14 and 1862-32-14, both dated June 2009.

(3) For service information identified in this AD, contact BAE Systems (Operations) Ltd., Customer Information Department, Prestwick International Airport, Ayrshire, KA9 2RW, Scotland, United Kingdom; telephone: +44 1292 675207; fax: +44 1292 675704; e-mail: RApublications@baesystems.com; Internet: <http://www.baesystems.com/Capabilities/Air/>.

(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 September 1, 2009.

Kim Smith,  
Manager, Small Airplane Directorate,  
Aircraft Certification Service.



**FAA**  
**Aircraft Certification Service**

**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)

**CORRECTED:** The AD number has been corrected. We will issue a correction to the Federal Register.

**2009-19-07 Teledyne Continental Motors:** Amendment 39-16023. Docket No. FAA-2009-0367; Directorate Identifier 2009-NE-10-AD.

**Effective Date**

(a) This airworthiness directive (AD) becomes effective October 7, 2009.

**Affected ADs**

(b) None.

**Applicability**

(c) This AD applies to Teledyne Continental Motors (TCM) O-470, IO-470, TSIO-470, IO-520, TSIO-520, IO-550, and IOF-550 reciprocating engine models listed in Table 1 of this AD that have one or more affected TCM cylinders installed. To identify the affected cylinders, cross reference the engine models in Table 1 of this AD with the engine serial numbers found in Tables 1, 1A, 2, and 2A of TCM Mandatory Service Bulletin (MSB) No. MSB09-1B, dated July 14, 2009. Use the tables found in MSB No. MSB09-1B, dated July 14, 2009, to also identify spare EQ3 cylinders by cylinder part number and cylinder serial number that may have been installed on these engines.

**Table 1 - Engine Models Affected**

O-470-G, K, L, R, S, M, U
IO-470-C, D, E, F, H, L, M, N, S, U, V, VO
TSIO-470-B, C, D
IO-520-A, B, BA, BB, C, CB, D, E, F, J, K, L, M, MB
TSIO-520-AF, B, BB, C, CE, D, DB, E, EB, G, H, J, JB, K, KB, L, LB, M, N, NB, P, R, T, UB, VB, WB
IO-550-A, B, C, D, E, F, L
IOF-550-B, C, D, E, F, L

(d) These engines are installed on, but not limited to, Alexandria Aircraft LLC (formerly Bellanca) model 300 Super Viking; Beech Bonanza 33, 35 and 36 series, Beech Baron 56 and 58 series, Cessna 180, 182, 188, 205, 206, 207, 210, 303, 310, 320, 402, and 414 model series; Aero Commander 200 and 500; certain Rockwell (formerly Meyers) Windecker Eagle 200, and Navion airplanes.

## **Unsafe Condition**

(e) This AD results from reports of 35 EQ3 cylinders found cracked. We are issuing this AD to prevent loss of engine power due to cracks in the cylinder head, possible engine failure, and fire in the engine compartment.

## **Compliance**

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

## **Identification and Initial Visual Inspection**

(g) Within 20 flight hours after the effective date of this AD, identify EQ3 cylinders using Step 1 of TCM MSB No. MSB09-1B, dated July 14, 2009.

(1) Within 20 flight hours after the effective date of this AD, for EQ3 cylinders with 400 or more hours total time of operation on the effective date of this AD, perform an initial visual inspection of the cylinder for cracks using Step 2, paragraph B, of TCM MSB No. MSB09-1B, dated July 14, 2009.

(2) For EQ3 cylinders with fewer than 400 hours total time of operation on the effective date of this AD, perform an initial visual inspection of the cylinder for cracks before reaching 400 hours total time of operation, using Step 2, paragraph B, of TCM MSB No. MSB09-1B, dated July 14, 2009.

(3) Remove from service before flight, any cylinders found cracked.

## **Repetitive Visual Inspections**

(h) Repeat the visual inspections required by this AD every 50 hours of operation. Use Step 2, paragraph B, of TCM MSB No. MSB09-1B, dated July 14, 2009, to perform the inspection.

(i) Remove from service before flight, any cylinders found cracked.

## **Removal of All EQ3 Cylinders From Service**

(j) Within 1,300 hours total time of operation after the effective date of this AD, remove all EQ3 cylinders from service.

## **EQ3 Cylinder Installation Prohibition**

(k) After the effective date of this AD, do not install any EQ3 cylinder onto any engine, or any EQ3 cylinder-equipped engine, onto any aircraft.

**Previous Credit**

(l) Initial visual inspections done before the effective date of this AD per TCM MSB No. MSB09-1A, dated March 11, 2009, comply with the initial inspection requirements specified in this AD.

**Alternative Methods of Compliance**

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

**Special Flight Permits**

(n) Under 14 CFR 39.23, we are limiting the special flight permits for this AD to engines that have no evidence of fuel or combustion staining in the cylinder crack location, and for a total special flight time of 5 hours.

**Related Information**

(o) Contact Anthony Holton, Engineer, Propulsion, Atlanta Aircraft Certification Office, FAA, Small Airplane Directorate, 1701 Columbia Avenue, College Park, Georgia 30337; e-mail [anthony.holton@faa.gov](mailto:anthony.holton@faa.gov); telephone: (404) 474-5567; fax: (404) 474-5606, for more information about this AD.

**Material Incorporated by Reference**

(p) You must use Teledyne Continental Motors Mandatory Service Bulletin No. MSB09-1B, dated July 14, 2009, to perform the actions required by this AD. The Director of the Federal Register approved the incorporation by reference of this service bulletin in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Contact Teledyne Continental Motors, Inc., PO Box 90, Mobile, AL 36601; telephone (251) 438-3411, or go to: <http://tcmlink.com/servicebulletins.cfm>, for a copy of this service information. You may review copies at the FAA, New England Region, 12 New England Executive Park, Burlington, MA; or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: <http://www.archives.gov/federal-register/cfr/ibr-locations.html>.

Issued in Burlington, Massachusetts, on September 8, 2009.

Peter A. White,  
Assistant Manager, Engine and Propeller Directorate,  
Aircraft Certification Service.

# EMERGENCY AIRWORTHINESS DIRECTIVE



Aircraft Certification Service  
Washington, DC

U.S. Department  
of Transportation  
**Federal Aviation  
Administration**

[www.faa.gov/aircraft/safety/alerts/](http://www.faa.gov/aircraft/safety/alerts/)

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**DATE: September 16, 2009**

**AD #: 2009-19-51**

Send to all U.S. owners and operators of Agusta S.p.A. (Agusta) Model AB139 and AW139 helicopters.

This Emergency Airworthiness Directive (AD) is prompted by a mandatory continuing airworthiness information (MCAI) AD issued by the European Aviation Safety Agency (EASA), which is the Technical Agent for the Member States of the European Community. The MCAI states that while taxiing, the tailboom of a Model AW139 helicopter bent and collapsed. Also, EASA had received previous reports of evidence of debonding on some tailboom panels of the specified Agusta model helicopters. This condition, if not corrected, could result in failure of a tailboom and subsequent loss of control of the helicopter.

The FAA has reviewed Agusta Alert Bollettino Tecnico (ABT) Nos. 139-193 and 139-194, both dated September 3, 2009. These ABTs refer to the aircraft maintenance publications for inspecting the affected tail panels for signs of debonding. If you find evidence of debonding, the ABTs also advise you to contact the manufacturer for repair instructions.

EASA has issued AD No. 2009-0198-E, dated September 4, 2009, which supersedes EASA AD No. 2008-0157, dated August 13, 2008, to correct an unsafe condition for the specified model helicopters. The latest EASA AD requires repetitive inspections of the tailboom panels at closer intervals. In case of debonding, the EASA AD requires you to mark the debonded areas for identification, contact the manufacturer for instructions, and follow their corrective actions.

These helicopter models have been approved by the aviation authority of Italy and are approved for operation in the United States. Pursuant to our bilateral agreement with Italy, EASA, their technical agent, has notified us of the unsafe condition described in the MCAI AD. We are issuing this AD because we evaluated all information provided by EASA 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 inspecting the tail panels for debonding as follows:

- Using the *large* end of the head of a specified part-numbered aluminum hammer, tap inspect the full skin surface of the tailboom between Stations 8700 and 11019.5 for a hollow or dull sound. A bond separation will give a hollow or dull sound. A good bond will make a solid or clear sound. Do the inspections at the following intervals:

- For helicopters, serial number (S/N) 31006, 31020, 31022, 31042, 31136, 31157, and 31248, within 5-hours time-in-service (TIS), unless done previously, and thereafter at intervals not to exceed 50-hours TIS.

- For all helicopters, except S/N 31006, 31020, 31022, 31042, 31136, 31157, and 31248, within 25-hours TIS or 30 days, whichever occurs first, unless done previously, and thereafter at intervals not to exceed 50-hours TIS.

- If you find bond separation, use the *small* end of the head of the hammer to identify the edges of the debonded area. If the debonded area goes beyond the strake, remove the strake. Using a marking pen or chalk, mark the edge of the debonded area.

- Measure the surface area of each debonded area, the distance between the edges of the debonded areas, and the distance of the edge of each debonded area from the edge of the bond joint.

- Before further flight, repair the tailboom using FAA-approved data and procedures if:

- The debonded area exceeds 320 mm<sup>2</sup> (0.5 in<sup>2</sup>),

- The distance between the edges of any two debonded areas is less than or equal to three times the largest debond dimension of the two debonded areas measured on a line between the centers of the two debonded areas, or

- The edge of any debond area is less than 3 mm (0.118 in) from the edge of the panel bond joint.

This AD differs from the MCAI AD in that we refer to flight hours as hours TIS. Also, we do not require you to contact the manufacturer nor do we reference their ABT, which references the maintenance manual. We have also inserted the inspection requirements and the debonding limits in this AD as required in the maintenance manual.

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.

**2009-19-51 AGUSTA S.p.A.:** Directorate Identifier 2009-SW-50-AD.

Applicability: Model AB139 and AW139 helicopters, certificated in any category.

Compliance: Required as indicated.

To prevent failure of a tailboom and subsequent loss of control of the helicopter, do the following:

(a) Using the *large* end of the head of an aluminum hammer, part number 109-3101-58-1 (GF-06-00), tap inspect the full skin surface of the tailboom between Stations 8700 and 11019.5 for a hollow or dull sound, which will indicate a bond separation or debond area. Do the inspections at the following intervals:

(1) For helicopters, serial number (S/N) 31006, 31020, 31022, 31042, 31136, 31157, and 31248, within 5-hours time-in-service (TIS), unless done previously, and thereafter at intervals not to exceed 50-hours TIS.

Note 1: Following the Compliance Instructions of Agusta Alert Bollettino Tecnico Nos. 139-193, and 139-194, both dated September 3, 2009, accomplishes the requirements of this AD.

(2) For all helicopters, except S/N 31006, 31020, 31022, 31042, 31136, 31157, and 31248, within 25-hours TIS or 30 days, whichever occurs first, unless done previously, and thereafter at intervals not to exceed 50-hours TIS.

(b) If you find any bond separation, use the *small* end of the head of the hammer to identify the edges of the debonded area. If the debonded area goes beyond the strake, remove the strake. Using a marking pen or chalk, mark the edge of the debonded area.

(1) Measure the surface area of each debonded area, the distance between the edges of the debonded areas, and the distance of the edge of each debonded area from the edge of the bond joint.

(2) Before further flight, repair the tailboom using FAA-approved data and procedures if:

(i) The debonded area exceeds  $320 \text{ mm}^2$  ( $0.5 \text{ in}^2$ ),

(ii) The distance between the edges of any two debonded areas is less than or equal to three times the largest debond dimension of the two debonded areas measured on a line between the centers of the two debonded areas, or

(iii) The edge of any debonded area is less than 3 mm (0.118 in) from the edge of the panel bond joint.

(c) 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, ATTN: DOT/FAA Southwest Region, Sharon Miles, ASW-111, Aviation Safety Engineer, Rotorcraft Directorate, Regulations and Guidance Group, 2601 Meacham Blvd, Fort Worth,

Texas 76137, telephone (817) 222-5122, fax (817) 222-5961, for information about previously approved alternative methods of compliance.

(d) Special flight permits will not be issued.

(e) Copies of the applicable service information 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)

(e) The Joint Aircraft System/Component (JASC) Code for this part is Code 5302: Rotorcraft Tailboom.

(f) Emergency AD 2009-19-51, issued September 16, 2009, becomes effective upon receipt.

Note 2: The subject of this AD is addressed in European Aviation Safety Agency AD No. 2009-0198-E, dated September 4, 2009.

**FOR FURTHER INFORMATION CONTACT: DOT/FAA Southwest Region, Gary Roach, ASW-111, Aviation Safety Engineer, Rotorcraft Directorate, Regulations and Guidance Group, 2601 Meacham Blvd, Fort Worth, Texas 76137, telephone (817) 222-5130, fax (817) 222-5961.**

Issued in Fort Worth, Texas, on September 16, 2009.

Larry M. Kelly,  
Acting Manager, Rotorcraft Directorate,  
Aircraft Certification Service.