



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

**BIWEEKLY 2009-08**

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Federal Aviation Administration  
Regulatory Support Division  
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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 2009-01</b>			
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
<b>Biweekly 2009-02</b>			
No Small Aircraft ADs were issued during Biweekly 2009-02.			
<b>Biweekly 2009-03</b>			
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
<b>Biweekly 2009-04</b>			
No Small Aircraft ADs were issued during Biweekly 2009-04.			
<b>Biweekly 2009-05</b>			
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
<b>Biweekly 2009-06</b>			
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
<b>Biweekly 2009-07</b>			
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

## 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 2009-08**

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



**2006-08-08 R1 Air Tractor, Inc.:** Amendment 39-15849; Docket No. FAA-2006-23646; Directorate Identifier 2006-CE-005-AD.

**Effective Date**

- (a) This AD becomes effective on May 5, 2009.

**Affected ADs**

- (b) This AD revises AD 2006-08-08, Amendment 39-14563.

**Applicability**

(c) This AD applies to certain Models AT-400, AT-401, AT-401B, AT-402, AT-402A, and AT-402B airplanes that are certificated in any category. Use paragraph (c)(1) of this AD for affected airplanes that do not incorporate and never have incorporated Marburger winglets. Use paragraph (c)(3) of this AD for airplanes that have been modified to install lower spar caps, part number (P/N) 21058-1 and P/N 21058-2. Use paragraph (c)(4) of this AD for certain Models AT-401, AT-401B, AT-402, AT-402A, and AT-402B airplanes that incorporate or have incorporated Marburger winglets.

(1) The following table applies to airplanes that do not incorporate and never have incorporated Marburger winglets along with the safe life (presented in hours time-in-service (TIS)) of the wing lower spar cap for all affected airplane models and serial numbers (SNs):

Table 1 — Safe Life for Airplanes That Do Not Incorporate and Never Have Incorporated Marburger Winglets

<b>Model</b>	<b>SNs</b>	<b>Wing Lower Spar Cap Safe Life (Hours TIS)</b>
<b>AT-400</b>	<b>All beginning with 0416</b>	<b>13,300</b>
<b>AT-401</b>	<b>0662 through 0951</b>	<b>10,757</b>
<b>AT-401B</b>	<b>0952 through 1020, except 1015</b>	<b>6,948</b>
<b>AT-401B</b>	<b>1015 and 1021 through 1182</b>	<b>7,777</b>
<b>AT-402</b>	<b>0694 through 0951</b>	<b>7,440</b>
<b>AT-402A</b>	<b>0738 through 0951</b>	<b>7,440</b>
<b>AT-402A</b>	<b>0952 through 1020</b>	<b>2,000</b>
<b>AT-402A</b>	<b>1021 through 1182</b>	<b>2,300</b>
<b>AT-402B</b>	<b>0966 through 1020, except 1015</b>	<b>2,000</b>
<b>AT-402B</b>	<b>1015 and 1021 through 1182</b>	<b>2,300</b>

(2) If piston-powered aircraft have been converted to turbine power, you must use the limits for the corresponding serial number (SN) turbine-powered aircraft.

(3) If you have an aircraft that has been modified by installing lower spar caps, P/N 21058-1 and P/N 21058-2, you must use a wing lower spar cap safe life of 9,800 hours TIS. No inspections are required to reach this life.

(i) Airplane SNs beginning with 1183 and those that have been modified with replacement spar caps, P/N 21058-1 and P/N 21058-2, are not eligible to have Supplemental Type Certificate (STC) No. SA00490LA, Marburger winglets, installed.

(ii) If your airplane currently has spar caps, P/N 21058-1 and P/N 21058-2, and winglets installed, then you must remove the winglets before further flight and you must contact the FAA at the address in paragraph (m)(1) of this AD for a new safe life.

(4) The following table applies to airplanes that incorporate or have incorporated Marburger winglets. These winglets are installed following STC No. SA00490LA. Use the winglet usage factor in Table 2 of paragraph (c)(4) of this AD, the wing lower spar cap safe life specified in Table 1 of paragraph (c)(1) of this AD, and the instructions included in Appendix 1 to this AD to determine the new safe life of airplanes that incorporate or have incorporated Marburger winglets:

Table 2 — Winglet Usage Factor to Determine the Safe Life for Airplanes That Incorporate or Have Incorporated Marburger Winglets Per STC No. SA00490LA

<b>Model</b>	<b>SNs</b>	<b>Winglet Usage Factor</b>
<b>AT-401</b>	<b>0662 through 0951</b>	<b>1.6</b>
<b>AT-401B</b>	<b>0952 through 1020, except 1015</b>	<b>1.1</b>
<b>AT-401B</b>	<b>1015 and 1021 through 1182</b>	<b>1.1</b>
<b>AT-402</b>	<b>0694 through 0951</b>	<b>1.6</b>
<b>AT-402A</b>	<b>0738 through 0951</b>	<b>1.6</b>
<b>AT-402A</b>	<b>0952 through 1020</b>	<b>1.1</b>
<b>AT-402A</b>	<b>1021 through 1182</b>	<b>1.1</b>
<b>AT-402B</b>	<b>0966 through 1020, except 1015</b>	<b>1.1</b>
<b>AT-402B</b>	<b>1015 and 1021 through 1182</b>	<b>1.1</b>

### Unsafe Condition

(d) This AD is the result of fatigue cracking of the wing main spar lower cap at the center splice joint outboard fastener hole. The actions specified in this AD are intended to detect and correct cracks in the wing main spar lower cap, which could result in failure of the spar cap and lead to wing separation and loss of control of the airplane.

### Compliance

(e) Safe Life Record: For all affected airplanes, modify the applicable aircraft records (logbook) as follows to show the safe life for the wing lower spar cap listed in this AD (use the information from paragraph (c) of this AD and Appendix 1 to this AD, as applicable).

(1) Incorporate the following into the aircraft logbook: "Following this AD, the wing lower spar cap is life limited to — hours time-in-service (TIS)." Insert the applicable safe life number from the applicable tables in paragraph (c) of this AD and Appendix 1 to this AD.

(i) Do the logbook entry within the next 10 hours TIS after April 21, 2006 (the effective date of AD 2006-08-08).

(ii) A person holding at least a private pilot certificate as authorized by section 43.7 of the Federal Aviation Regulations (14 CFR 43.7) may modify the aircraft records. Make an entry into the aircraft logbook showing compliance with this portion of the AD in accordance with section 43.9 of the Federal Aviation Regulations (14 CFR 43.9).

(2) Wing Spar Replacement: For all affected airplanes, replace the wing lower spar cap following Snow Engineering Drawing Number 21088, dated November 3, 2004. Replace upon accumulating the safe life used in paragraph (e)(1) of this AD or within the next 50 hours TIS after April 21, 2006 (the effective date of AD 2006-08-08), whichever occurs later. The owner/operator may not do the spar cap replacement, unless he/she is a properly certified mechanic.

(f) Inspection Requirements: For all affected airplanes, except Model AT-402A, SNs 0952 through 1182, and except Model AT-402B, SNs 0966 through 1182, do the initial inspection of the outboard two lower spar cap bolt holes using the wing spar lower cap TIS schedules listed in Table 3.

Follow Snow Engineering Co. Process Specification 197, page 1, revised June 4, 2002, pages 2 through 4, dated February 23, 2001, and page 5, dated May 3, 2002. After the initial inspection, perform repetitive inspections at the repetitive inspection intervals listed in Table 3. Use the same procedure for the repetitive inspections as for the initial inspection. If not already done, install access panels at the time of the first inspection following Snow Engineering Service Letter 202, page 3, dated October 16, 2000.

Note: Hours listed in the table are in hours TIS and the phrase "within the — next hours" refers to "within the next — hours after April 21, 2006 (the effective date of AD 2006-08-08)."

Table 3 — Inspection Times

<b>Model</b>	<b>SNs</b>	<b>Current Wing Spar Lower Cap TIS Hours</b>	<b>Initial Inspection</b>	<b>Repetitive Inspection Interval (Hours)</b>
<b>AT-400</b>	<b>All beginning with 0416</b>	<b>Greater than 7,750</b>	<b>Within the next 50 hours TIS or upon the accumulation of 8,000 hours TIS, whichever is later</b>	<b>900</b>
<b>AT-401</b>	<b>0662-0951</b>	<b>Greater than 6,250</b>	<b>Within the next 50 hours TIS or upon the accumulation of 6,500 hours TIS, whichever is later</b>	<b>700</b>
<b>AT-401</b>	<b>0662-0951</b>	<b>Greater than 4,350 but less than or equal to 6,250</b>	<b>Within the next 250 hours TIS or upon the accumulation of 4,850 hours TIS, whichever is later</b>	<b>700</b>
<b>AT-401</b>	<b>0662-0951</b>	<b>Greater than 2,750 but less than or equal to 4,350</b>	<b>Within the next 500 hours TIS</b>	<b>700</b>
<b>AT-401</b>	<b>0662-0951</b>	<b>Less than or equal to 2,750</b>	<b>Upon the accumulation of 3,250 hours TIS</b>	<b>700</b>
<b>AT-401B</b>	<b>0952-1020 except 1015</b>	<b>Greater than 3,950</b>	<b>Within the next 50 hours TIS or upon the accumulation of 4,200 hours TIS, whichever is later</b>	<b>600</b>
<b>AT-401B</b>	<b>0952-1020 except 1015</b>	<b>Greater than 2,650 but less than or equal to 3,950</b>	<b>Within the next 250 hours TIS or upon the accumulation of 3,150 hours TIS, whichever is later</b>	<b>600</b>

<b>AT-401B</b>	<b>0952-1020 except 1015</b>	<b>Greater than 1,600 but less than or equal to 2,650</b>	<b>Within the next 500 hours TIS</b>	<b>600</b>
<b>AT-401B</b>	<b>0952-1020 except 1015</b>	<b>Less than or equal to 1,600</b>	<b>Upon the accumulation of 2,100 hours TIS</b>	<b>600</b>
<b>AT-401B</b>	<b>1015 and 1021-1124</b>	<b>Greater than 4,450</b>	<b>Within the next 50 hours TIS or upon the accumulation of 4,700 hours TIS, whichever is later</b>	<b>600</b>
<b>AT-401B</b>	<b>1015 and 1021-1124</b>	<b>Greater than 3,000 but less than or equal to 4,450</b>	<b>Within the next 250 hours TIS or upon the accumulation of 3,500 hours TIS, whichever is later</b>	<b>600</b>
<b>AT-401B</b>	<b>1015 and 1021-1124</b>	<b>Greater than 1,850 but less than or equal to 3,000</b>	<b>Within the next 500 hours TIS</b>	<b>600</b>
<b>AT-401B</b>	<b>1015 and 1021-1124</b>	<b>Less than or equal to 1,850</b>	<b>Upon the accumulation of 2,350 hours TIS</b>	<b>600</b>
<b>AT-401B</b>	<b>1125 through 1182</b>	<b>Greater than 4,450</b>	<b>Within the next 50 hours TIS or upon the accumulation of 4,700 hours TIS, whichever is later</b>	<b>1,000</b>
<b>AT-401B</b>	<b>1125 through 1182</b>	<b>Greater than 3,000 but less than or equal to 4,450</b>	<b>Within the next 250 hours TIS or upon the accumulation of 3,500 hours TIS, whichever is later</b>	<b>1,000</b>
<b>AT-401B</b>	<b>1125 through 1182</b>	<b>Greater than 1,850 but less than or equal to 3,000</b>	<b>Within the next 500 hours TIS</b>	<b>1,000</b>
<b>AT-401B</b>	<b>1125 through 1182</b>	<b>Less than or equal to 1,850</b>	<b>Upon the accumulation of 2,350 hours TIS</b>	<b>1,000</b>
<b>AT-402/ AT-402A</b>	<b>0694-0951</b>	<b>Greater than 4,250</b>	<b>Within the next 50 hours TIS or upon the accumulation of 4,500, whichever is later</b>	<b>700</b>
<b>AT-402/ AT-402A</b>	<b>0694-0951</b>	<b>Greater than 2,850 but less than or equal to 4,250</b>	<b>Within the next 250 hours TIS or upon the accumulation of 3,350 hours TIS, whichever is later</b>	<b>700</b>

<b>AT-402/ AT-402A</b>	<b>0694-0951</b>	<b>Greater than 1,750 but less than or equal to 2,850</b>	<b>Within the next 500 hours TIS</b>	<b>700</b>
<b>AT-402/ AT-402A</b>	<b>0694-0951</b>	<b>Less than or equal to 1,750</b>	<b>Upon the accumulation of 2,250 hours TIS</b>	<b>700</b>

(g) For all affected airplanes: Before further flight after the inspection in which cracks are found, replace any cracked wing lower spar cap following Snow Engineering Drawing Number 21088, dated November 3, 2004.

(h) For Models AT-400, AT-401, AT-401B, and AT-402 airplanes, SNs 0952 through 1182: Report to the FAA any cracks detected as the result of each inspection required by paragraph (f) of this AD on the form in Figure 1 of this AD.

(1) Only if cracks are found, send the report within 10 days after the inspection required in paragraph (f) of this AD.

(2) The Office of Management and Budget (OMB) approved the information collection requirements contained in this regulation under the provisions of the Paperwork Reduction Act and assigned OMB Control Number 2120-0056.

(i) For all affected airplanes: Upon the accumulation of the life used in paragraph (e)(1) of this AD or within the next 50 hours TIS after April 21, 2006 (the effective date of AD 2006-08-08), whichever occurs later, you must replace your wing lower spar cap before further flight following Snow Engineering Drawing Number 21088, dated November 3, 2004.

(j) For Model AT-402A airplanes, SNs 0952 through 1182; and Model AT-402B airplanes, SNs 0966 through 1182: In lieu of the safe life used in paragraph (e)(1) of this AD, you may eddy-current inspect and modify the wing lower spar cap as specified in the alternative method of compliance in AD 2006-08-08, which is approved for this AD (see paragraph (o) of this AD for more information).

(k) For all affected airplanes (those complying with the actions in the AD or alternative method of compliance (AMOC)): One of the following must do the inspection:

(1) A level 2 or 3 inspector certified in eddy current inspection using the guidelines established by the American Society for Nondestructive Testing or MIL-STD-410; or

(2) A person authorized to perform AD work and who has completed and passed the Air Tractor, Inc. training course on Eddy Current Inspection on wing lower spar caps.

AD 2006-08-08 R1 INSPECTION REPORT (REPORT <u>ONLY</u> IF CRACKS ARE FOUND)	
<b>1. Inspection Performed By:</b>	<b>2. Phone:</b>
<b>3. Aircraft Model:</b>	<b>4. Aircraft Serial Number:</b>
<b>5. Engine Model Number:</b>	<b>6. Aircraft Total Hours TIS:</b>
<b>7. Wing Total Hours TIS:</b>	<b>8. Lower Spar Cap Hours TIS:</b>
<b>9. Has the lower spar cap been inspected before?</b> (Eddy-current, Dye penetrant, magnetic particle, ultrasound) <input type="checkbox"/> Yes <input type="checkbox"/> No	<b>9a. If yes,</b> <div style="text-align: right;">Date: _____</div> <div style="text-align: right;">Inspection Method: _____</div> Lower Spar Cap Hours TIS: _____ Cracks found? <input type="checkbox"/> Yes <input type="checkbox"/> No
<b>10. Has there been any major repair or alteration performed to the spar cap?</b> <input type="checkbox"/> Yes <input type="checkbox"/> No	<b>10a. If yes, specify (Description and hours TIS)</b>
<b>11. Date of AD inspection: _____</b>	
<b>12. Inspection Results: (Note: Report only if cracks are found)</b>	<b>12a.</b> <input type="checkbox"/> Left Hand <input type="checkbox"/> Right Hand
<b>12b. Crack Length: _____</b>	<b>12c. Does drilling hole to next larger size remove all traces of the crack(s)?</b> <input type="checkbox"/> Yes <input type="checkbox"/> No
<b>12d. Corrective Action Taken:</b>	

Mail report to: Manager, Fort Worth ACO, ASW-150, 2601 Meacham Blvd., Fort Worth, TX 76193-0150; or fax to (817) 222-5960

**Figure 1**

### Special Flight Permit

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

- (1) Only operate in day visual flight rules (VFR).
- (2) Ensure that the hopper is empty.
- (3) Limit airspeed to 135 miles per hour (mph) indicated airspeed (IAS).
- (4) Avoid any unnecessary g-forces.
- (5) Avoid areas of turbulence.
- (6) Plan the flight to follow the most direct route.

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

(m) The Manager, Fort Worth or Los Angeles Airplane Certification Office (ACO), FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. 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. For AMOC approval, send information to ATTN:

(1) For the airplanes that do not incorporate and never have incorporated Marburger winglets: Rob Romero, Aerospace Engineer, FAA, Fort Worth Airplane Certification Office, 2601 Meacham Boulevard, Fort Worth, Texas 76193-0150; telephone: (817) 222-5102; facsimile: (817) 222-5960.

(2) For airplanes that incorporate or have incorporated Marburger winglets: John Cecil, Aerospace Engineer, Los Angeles Aircraft Certification Office, FAA, 3960 Paramount Boulevard, Lakewood, California 90712; telephone: (562) 627-5228; facsimile: (562) 627-5210.

(n) AMOCs approved for AD 2001-10-04, AD 2001-10-04 R1, or AD 2002-11-05 for the AT-400 series airplanes are not considered approved for this AD.

(o) AMOCs approved for the repetitive inspection requirements of AD 2006-08-08 are approved for this AD until the scheduled modification date required by this AD. That AMOC was included in AD 2006-08-08 and can be found in the docket at:

<http://www.regulations.gov/fdmspublic/component/main?main=DocketDetail&d=FAA-2006-23646>.

## **Material Incorporated by Reference**

(p) You must use Snow Engineering Co. Drawing 21088, dated November 3, 2004; Snow Engineering Co. Process Specification 197, page 1, revised June 4, 2002, pages 2 through 4, dated February 23, 2001, and page 5, dated May 3, 2002; and Snow Engineering Co. Service Letter 202, page 3, dated October 16, 2000, to do the actions required by this AD, unless the AD specifies otherwise.

(1) On April 21, 2006 (71 FR 19986, April 19, 2006) the Director of the Federal Register approved the incorporation by reference of Snow Engineering Co. Drawing 21088, dated November 3, 2004; Snow Engineering Co. Process Specification 197, page 1, revised June 4, 2002, pages 2 through 4, dated February 23, 2001, and page 5, dated May 3, 2002; and Snow Engineering Co. Service Letter 202, page 3, dated October 16, 2000, under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) For service information identified in this AD, contact Air Tractor, Incorporated, P.O. Box 485, Olney, Texas 76374; telephone: (940) 564-5616; facsimile: (940) 564-5612; Internet: <http://www.airtractor.com>; or Marburger Enterprises, Inc., 1227 Hillcourt, Williston, North Dakota 58801; telephone: (800) 893-1420 or (701) 774-0230; facsimile: (701) 572-2602.

(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).

## **Appendix 1 to AD 2006-08-08 R1**

The following provides procedures for determining the safe life for those Models AT-401, AT-401B, AT-402, AT-402A, and AT-402B airplanes that incorporate or have incorporated Marburger winglets. These winglets are installed following Supplemental Type Certificate (STC) No. SA00490LA.

### **What if I removed the Marburger winglets prior to further flight after April 21, 2006 (the effective date of AD 2006-08-08) or prior to April 21, 2006 (the effective date of AD 2006-08-08)?**

1. Review your airplane's logbook to determine your airplane's time in service (TIS) with winglets installed per Marburger STC No. SA00490LA. This includes all time spent with the winglets currently installed and any previous installations where the winglet was installed and later removed.

Example: A review of your airplane's logbook shows that you have accumulated 350 hours TIS since incorporating Marburger STC No. SA00490LA. Further review of the airplane's logbook shows that a previous owner had installed the STC and later removed the winglets after accumulating 150 hours TIS. Therefore, your airplane's TIS with the winglets installed is 500 hours.

If you determine that the winglet STC has never been incorporated on your airplane, then your safe life is presented in paragraph (c)(1) of this AD. Any future winglet installation will be subject to a reduced safe life per these instructions.

2. Determine your airplane's unmodified safe life from paragraph (c)(1) of this AD.

Example: Your airplane is a Model AT-401B, SN 1022. From paragraph (c)(1) of this AD, the unmodified safe life of your airplane is 7,777 hours TIS.

All examples from hereon will be based on the Model AT-401B, SN 1022 airplane.

3. Determine the winglet usage factor from paragraph (c)(4) of this AD.

Example: Again, your airplane is a Model AT-401B, SN 1022. From paragraph (c)(4) of this AD, your winglet usage factor is 1.1.

4. Adjust the winglet TIS to account for the winglet usage factor. Multiply the winglet TIS (result of Step 1 above) by the winglet usage factor (result of Step 3 above).

Example: Winglet TIS is 500 hours x a winglet usage factor of 1.1. The adjusted winglet TIS is 550 hours.

5. Calculate the winglet usage penalty. Subtract the winglet TIS (result of Step 1 above) from the adjusted winglet TIS (result of Step 4 above).

Example: Adjusted winglet TIS - the winglet TIS = winglet usage penalty. (550 hours) - (500 hours TIS) = (50 hours TIS).

6. Adjust the safe life of your airplane to account for winglet usage. Subtract the winglet usage penalty (result of Step 5 above) result from the unmodified safe life from paragraph (c)(1) of this AD (result of Step 2 above.).

Example: Unmodified safe life - winglet usage penalty = adjusted safe life. (7,777 hours TIS) - (50 hours TIS) = (7,727 hours TIS).

7. If you remove the winglets from your airplane before further flight or no longer have the winglets installed on your airplane, the safe life of your airplane is the adjusted safe life (result of Step 6 above). Enter this number in paragraph (e)(1) of this AD and the airplane logbook.

**What if I have the Marburger winglet installed as of April 21, 2006 (the effective date of AD 2006-08-08) and plan to operate my airplane without removing the winglet?**

1. Review your airplane's logbook to determine your airplane's TIS without the winglets installed.

Example: A review of your airplane's logbook shows that you have accumulated 1,500 hours TIS, including 500 hours with the Marburger winglets installed. Therefore, your airplane's TIS without the winglets installed is 1,000 hours.

2. Determine your airplane's unmodified safe life from paragraph (c)(1) of this AD.

Example: Your airplane is a Model AT-401B, SN 1022. From paragraph (c)(1) of this AD, the unmodified safe life of your airplane is 7,777 hours TIS.

All examples from hereon will be based on the Model AT-401B, SN 1022 airplane.

3. Determine the winglet usage factor from paragraph (c)(4) of this AD.

Example: Again, your airplane is a Model AT-401B, SN 1022. From paragraph (c)(4) of this AD, your winglet usage factor is 1.1.

4. Determine the potential winglet TIS. Subtract the TIS without the winglets installed (result of Step 1 above) from the unmodified safe life (result of Step 2 above).

Example: Unmodified safe life - TIS without winglets = Potential winglet TIS. (7,777 hours TIS) - (1,000 hours TIS) = (6,777 hours TIS).

5. Adjust the potential winglet TIS to account for the winglet usage factor. Divide the potential winglet TIS (result of Step 4 above) by the winglet usage factor (result of Step 3 above).

Example: Potential winglet TIS / Winglet usage factor = Adjusted potential winglet TIS. (6,777 hours TIS) / (1.1) = (6,155 hours TIS).

6. Calculate the winglet usage penalty. Subtract the adjusted potential winglet TIS (result of Step 5 above) from the potential winglet TIS (result of Step 4 above).

Example: Potential winglet TIS - Adjusted potential winglet TIS = Winglet usage penalty. (6,777 hours TIS) - (6,155 hours TIS) = (622 hours TIS).

7. Adjust the safe life of your airplane to account for the winglet installation. Subtract the winglet usage penalty (result of Step 6 above) from the unmodified safe life from paragraph (c)(1) of this AD (the result of Step 2 above).

Example: Unmodified safe life - Winglet usage penalty = Adjusted safe life. (7,777 hours TIS) - (622 hours TIS) = (7,155 hours TIS).

8. Enter the adjusted safe life (result of Step 7 above) in paragraph (e)(1) of this AD and the airplane logbook.

**What if I install or remove the Marburger winglet from my airplane in the future?**

If, at anytime in the future, you install or remove the Marburger winglet STC from your airplane, you must repeat the procedures in this Appendix to determine the airplane's safe life.

Issued in Kansas City, Missouri, on March 24, 2009.

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



**2009-07-08 Piper Aircraft, Inc.:** Amendment 39-15867; Docket No. FAA-2009-0007; Directorate Identifier 2008-CE-072-AD.

**Effective Date**

- (a) This AD becomes effective on May 5, 2009.

**Affected ADs**

- (b) None.

**Applicability**

(c) This AD applies to the following airplane models and serial numbers that are certificated in any category:

<b>Models</b>	<b>Serial Nos.</b>
PA-46-350P	4636375 through 4636447.
PA-46R-350T	4692001 through 4692068.

**Unsafe Condition**

(d) This AD results from three reports of incorrectly installed current limiters. We are issuing this AD to detect incorrect installation of 35-amp and 250-amp current limiters, which could result in failure of the 35-amp current limiter if installed in the 250-amp location. This failure could lead to a total loss of electrical power.

**Compliance**

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

<b>Actions</b>	<b>Compliance</b>	<b>Procedures</b>
(1) Insert the following into the Limitations section of the airplane flight manual (AFM): “Operate Only under Day Visual Flight Rules (VFR).” You may remove the limitations specified in this paragraph after doing the action required in paragraphs (e)(2) and (e)(3) of this AD, as applicable.	Before further flight after May 5, 2009 (the effective date of this AD).	Under 14 CFR 43.7, the owner/operator holding at least a private pilot certificate is allowed to insert the information into the AFM as specified in paragraph (e)(1) of this AD. You may insert a copy of this AD into the Limitations section of the AFM to comply with this action. Make an entry into the aircraft logbook showing compliance with this portion of the AD per compliance with 14 CFR 43.9.
(2) Inspect the 35-amp and 250-amp current limiters for installation in the proper location.	Within 100 hours time-in-service after May 5, 2009 (the effective date of this AD).	Follow Piper Aircraft, Inc. Service Bulletin No. 2000, dated September 16, 2008.
(3) If you find any current limiter not in the proper location, reinstall the current limiter in the proper location.	Before further flight after the inspection required in paragraph (e)(2) of this AD.	Follow Piper Aircraft, Inc. Service Bulletin No. 2000, dated September 16, 2008.

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

(f) 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: John Lee, Aerospace Engineer, One Crown Center, 1895 Phoenix Blvd., Suite 450, Atlanta, Georgia 30349; telephone: (770) 994-6736; fax: (770) 703-6097. 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**

(g) You must use Piper Aircraft, Inc. Service Bulletin No. 2000, dated September 16, 2008, to do the actions required by this AD, unless the AD specifies otherwise.

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

(2) For service information identified in this AD, contact Piper Aircraft, Inc., 2926 Piper Drive, Vero Beach, Florida 32960; telephone: (772) 978-6573; Internet: <http://www.newpiper.com/company/publications.asp>.

(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 March 24, 2009.  
John R. Colomy,  
Acting Manager, Small Airplane Directorate,  
Aircraft Certification Service.



**2009-07-09 DORNIER Luftfahrt GmbH:** Amendment 39-15868; Docket No. FAA-2009-0123; Directorate Identifier 2009-CE-005-AD.

**Effective Date**

- (a) This airworthiness directive (AD) becomes effective May 11, 2009.

**Affected ADs**

- (b) None.

**Applicability**

- (c) This AD applies to Dornier 228-100, Dornier 228-101, Dornier 228-200, Dornier 228-201, Dornier 228-202, and Dornier 228-212 airplanes, all serial numbers, certificated in any category.

**Subject**

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

**Reason**

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

It has been evidenced in-service that aileron trim actuator and rod spring lever attachment bracket—between frame 18 and 19 LH—on some aircraft may present loose rivets. If left uncorrected, this condition could lead to the separation of the attachment bracket which could result in loss of aileron trim and loss of artificial force feedback, and consequent reduced controllability of the airplane.

For the reasons described above, this Airworthiness Directive requires first an inspection of the trim lever attachment bracket and as a second step the replacement of the 4 existing rivets by Hi-Lock rivets.

**Actions and Compliance**

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

- (1) Within the next 10 hours time-in-service (TIS) after May 11, 2009 (the effective date of this AD), do the inspection for "unequal aileron steering wheel force" in accordance with paragraphs 2.A.(1) through 2.A.(3) of the ACCOMPLISHMENT INSTRUCTIONS of RUAG Aerospace Defence Technology Dornier 228 Service Bulletin No. SB-228-275, Revision No.: 0, dated October

8, 2008. If any defect is found, before further flight, modify the attachment bracket riveting in accordance with paragraph 2.B. of the ACCOMPLISHMENT INSTRUCTIONS of RUAG Aerospace Defence Technology Dornier 228 Service Bulletin No. SB-228-275, Revision No.: 0, dated October 8, 2008.

(2) Within 300 hours TIS after May 11, 2009 (the effective date of this AD), unless accomplished as required per paragraph (f)(1) of this AD, modify the attachment bracket riveting in accordance with paragraph 2.B. of the ACCOMPLISHMENT INSTRUCTIONS of RUAG Aerospace Defence Technology Dornier 228 Service Bulletin No. SB-228-275, Revision No.: 0, dated October 8, 2008.

### **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, 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: Greg Davison, Glider Program Manager, FAA, Small Airplane Directorate, 901 Locust, Room 301, Kansas City, Missouri 64106; telephone: (816) 329-4130; 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 European Aviation Safety Agency AD No.: 2008-0217, dated December 10, 2008; and RUAG Aerospace Defence Technology Dornier 228 Service Bulletin No. SB-228-275, Revision No.: 0, dated October 8, 2008, for related information.

### **Material Incorporated by Reference**

(i) You must use RUAG Aerospace Defence Technology Dornier 228 Service Bulletin No. SB-228-275, Revision No.: 0, dated October 8, 2008, to do the actions required by this AD, unless the AD specifies otherwise.

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

(2) For service information identified in this AD, contact RUAG Aerospace Services GmbH, Dornier 228 Customer Support, P.O. Box 1253, 82231 Wessling, Federal Republic of Germany, telephone: +49 (0) 8153-30-2280; fax: +49 (0) 8153-30-3030; E-mail: [custsupport.dorner228@ruag.com](mailto:custsupport.dorner228@ruag.com); Internet: <http://www.ruag.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 March 24, 2009.

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



**2009-07-13 MD Helicopters, Inc.:** Amendment 39-15872. Docket No. FAA-2008-0772; Directorate Identifier 2008-SW-30-AD.

**Applicability:** Model MD900 (including MD902 Configuration) helicopters that have not complied with MD Helicopters, Inc. (MDHI) Mandatory Service Bulletin SB900-099 R1, dated December 27, 2006, certificated in any category.

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

To prevent loss of directional control of the helicopter, accomplish the following:

(a) Within 30 days, reduce the gross weight limit to a maximum gross weight limit of 5,400 pounds by inserting a copy of this AD into the Limitations section of the Rotorcraft Flight Manual.

(b) As an optional terminating action for the weight reduction mandated by paragraph (a) of this AD, accomplish the following:

(1) Determine if a NOTAR fan felt seal part number (P/N) 900F3441025-103 is installed. If a NOTAR fan felt seal, P/N 900F3441025-103, is not installed, replace the installed seal with an airworthy NOTAR fan felt seal, P/N 900F3441025-103, before further flight.

(2) Install a thruster extension kit in accordance with the Accomplishment Instructions, paragraph B.(3). through (17). of MDHI Mandatory SB900-099 R1, dated December 27, 2006, before further flight. Contacting the manufacturer is not required by this AD.

(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, Los Angeles Aircraft Certification Office, ATTN: Chip Adam, Flight Test Pilot, FAA, Flight Test Branch, 3960 Paramount Blvd., Lakewood, California 90712-4137, telephone (562) 627-5369, fax (562) 627-5210, for information about previously approved alternative methods of compliance.

(d) Special flight permits will not be issued.

(e) The modification shall be done in accordance with the specified portions of MDHI Mandatory SB900-099 R1, dated December 27, 2006. 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 MD Helicopters Inc., Attn: Customer Support Division, 4555 E. McDowell Rd., Mail Stop M615, Mesa, Arizona 85215-9734, telephone 1-800-388-3378, fax 480-346-6813, or on the Web at <http://www.mdhelicopters.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).

(f) This amendment becomes effective on May 14, 2009.

Issued in Fort Worth, Texas, on March 26, 2009.

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



**2009-07-14 Diamond Aircraft Industries GmbH:** Amendment 39-15873; Docket No. FAA-2009-0125; Directorate Identifier 2009-CE-002-AD.

**Effective Date**

- (a) This airworthiness directive (AD) becomes effective May 11, 2009.

**Affected ADs**

- (b) None.

**Applicability**

(c) This AD applies to the following model and serial number airplanes, certificated in any category: DA 40 airplanes, serial numbers 40.377, 40.420, 40.422, 40.644 through 40.693, 40.695 through 40.842, 40.844, 40.846 through 40.887, 40.889 through 40.912, 40.915 through 40.917, 40.919 through 40.929, 40.931, 40.932, 40.934 through 40.940, 40.944 through 40.949, 40.951 through 40.953, 40.955 through 40.957, 40.961, 40.964, and 40.971; and DA 40F airplanes, serial numbers 40.FC007 through 40.FC029.

**Subject**

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

**Reason**

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

A number of wings manufactured by Diamond Aircraft Industries Inc. in Canada have been found to exhibit voids in the adhesive joint between the main spar caps and the upper wing skins. The available information indicates that wings with voids continue to meet the certification design limits, provided the voids are within established criteria. However, to detect any wings that may have voids exceeding these criteria, Diamond has issued Mandatory Service Bulletin MSB-40-060 and MSB-F4-016 (single document) that describes instructions for inspection of the aircraft that had these wings installed during manufacture. Aircraft that have voids within the inspection criteria may continue to operate without restriction, pending the outcome of ongoing investigations. Aircraft that have voids exceeding the inspection criteria must be repaired.

For the reasons described above, this EASA AD requires the inspection of the affected aircraft to measure the voids in the adhesive joint between the main spar caps and the upper wing skin, the reporting of all findings to Diamond Aircraft industries and the repair of any voids exceeding the criteria as specified in the MSB.

## **Actions and Compliance**

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

(1) Within the next 100 hours time-in-service (TIS) after May 11, 2009 (the effective date of this AD) or within the next 3 months after May 11, 2009 (the effective date of this AD), whichever occurs first, inspect the adhesive joint between the wing main spar caps and the upper wing skin for adhesive voids following Diamond Aircraft Industries GmbH Work Instructions WI-MSB-40-060 and WI-MSB-F4-016 (single document), dated October 20, 2008; as referenced in Diamond Aircraft Industries GmbH Mandatory Service Bulletins No. MSB-40-060 and No. MSB-F4-016 (single document), dated October 20, 2008.

(2) Within the next 30 days after the inspection required in paragraph (f)(1) of this AD or within 30 days after May 11, 2009 (the effective date of this AD), whichever occurs later, report the results to Diamond Aircraft Industries following Diamond Aircraft Industries GmbH Work Instructions WI-MSB-40-060 and WI-MSB-F4-016 (single document), dated October 20, 2008; as referenced in Diamond Aircraft Industries GmbH Mandatory Service Bulletins No. MSB-40-060 and No. MSB-F4-016 (single document), dated October 20, 2008.

(3) If, as a result of the inspection required by paragraph (f)(1) of this AD, an adhesive void is found that exceeds the criteria specified in the service information, before further flight, contact Diamond Aircraft Industries at Diamond Aircraft Industries GmbH, N.A. Otto-Straße 5, A-2700 Wiener Neustadt; telephone: +43 2622 26700; fax: +43 2622 26780; E-mail: office@diamond-air.at, for FAA-approved repair instructions and accomplish the repair accordingly.

## **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, 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: Sarjapur Nagarajan, Aerospace Engineer, FAA, Small Airplane Directorate, 901 Locust, Room 301, Kansas City, Missouri 64106; telephone: (816) 329-4145; 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 European Aviation Safety Agency (EASA) AD No.: 2008-0224, dated December 16, 2008; and Diamond Aircraft Industries GmbH Mandatory Service Bulletins No. MSB-40-060 and No. MSB-F4-016 (single document), dated October 20, 2008, for related information.

### **Material Incorporated by Reference**

(i) You must use Diamond Aircraft Industries GmbH Work Instructions WI-MSB-40-060 and WI-MSB-F4-016 (single document), dated October 20, 2008; and Diamond Aircraft Industries GmbH Mandatory Service Bulletins No. MSB-40-060 and No. MSB-F4-016 (single document), dated October 20, 2008, to do the actions required by this AD, unless the AD specifies otherwise.

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

(2) For service information identified in this AD, contact Diamond Aircraft Industries GmbH, N.A. Otto-Straße 5, A-2700 Wiener Neustadt; telephone: +43 2622 26700; fax: +43 2622 26780; e-mail: [office@diamond-air.at](mailto:office@diamond-air.at); Internet: <http://www.diamond-air.at/>.

(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 March 27, 2009.

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



**2009-08-03 Bell Helicopter Textron Canada Limited:** Amendment 39-15876. Docket No. FAA-2009-0301; Directorate Identifier 2008-SW-69-AD.

**Effective Date**

(a) This airworthiness directive (AD) becomes effective on April 24, 2009.

**Other Affected ADs**

(b) Supersedes AD 2007-19-52, Amendment 39-15264, Docket No. FAA-2007-0179, Directorate Identifier 2007-SW-36-AD (72 FR 65221, November 20, 2007).

**Applicability**

(c) This AD applies to Model 206A, 206B, 206L, 206L-1, 206L-3, 206L-4, 222, 222B, 222U, 230, 407, 427, and 430 helicopters, with a tail rotor blade (blade) installed that has a part number and serial number which is listed in the Rotor Blades, Inc. (RBI) document attached to the following Bell Helicopter Textron Alert Service Bulletins (ASBs), certificated in any category:

<b>ASB No.</b>	<b>Revision</b>	<b>Date</b>	<b>Helicopter Model</b>
206-07-116	A	September 19, 2007	206A and 206B
206L-07-148	A	September 19, 2007	206L, L-1, L-3, and L-4
222-07-106	C	September 20, 2007	222 and 222B
222U-07-77	C	September 20, 2007	222U
230-07-38	C	September 20, 2007	230
407-07-81	A	September 19, 2007	407
427-07-18	A	September 19, 2007	427
430-07-41	C	September 20, 2007	430

**Reason**

(d) The mandatory continuing airworthiness information (MCAI) states that there have been three reports of blade tip weights departing from the blade during flight. This AD corrects part numbers and serial numbers of blades, and adds additional blades to the previous AD listing, based on revised ASBs issued by Bell Helicopter Textron Canada Limited. The actions required by this AD are intended to prevent loss of a blade tip weight, loss of a blade, and subsequent loss of control of the helicopter.

## Actions and Compliance

(e) Before further flight, unless already accomplished, replace any affected blade with an airworthy blade. An airworthy blade is one that has a part number and a serial number that is not listed in the RBI document that is attached to each ASB listed in the Applicability section of this AD.

## Differences Between This AD and the MCAI AD

(f) The actions required by this AD only apply to those blades listed in the RBI document that is attached to the ASBs listed in paragraph (c). The MCAI allows use of those ASBs, or "later revisions approved by Chief, Continuing Airworthiness, Transport Canada."

## Other Information

(g) Alternative Methods of Compliance (AMOCs): The Manager, Safety Management Group, FAA, ATTN: Sharon Miles, Aviation Safety Engineer, FAA, Rotorcraft Directorate, Regulations and Policy Group, 2601 Meacham Blvd., Fort Worth, Texas 76193-0111, telephone (817) 222-5122, fax (817) 222-5961, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19.

## Air Transport Association of America (ATA) Tracking Code

(h) ATA Code 6410: Tail Rotor Blades.

## Material Incorporated by Reference

(i) You must use the following Bell Helicopter Textron Alert Service Bulletin for your model helicopter to determine which blades are subject to these AD actions:

ASB No.	Revision	Date	Helicopter Model
206-07-116	A	September 19, 2007	206A and 206B
206L-07-148	A	September 19, 2007	206L, L-1, L-3, and L-4
222-07-106	C	September 20, 2007	222 and 222B
222U-07-77	C	September 20, 2007	222U
230-07-38	C	September 20, 2007	230
407-07-81	A	September 19, 2007	407
427-07-18	A	September 19, 2007	427
430-07-41	C	September 20, 2007	430

(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 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/>.

(3) You may review copies at the FAA, Office of the Regional Counsel, Southwest Region, 2601 Meacham Blvd., 76193-0111, or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call (202) 741-6030, or e-mail to: <http://www.archives.gov/federal-register/cfr/ibr-locations.html>.

Issued in Fort Worth, Texas on March 26, 2009.

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



**2009-08-05 Liberty Aerospace Incorporated:** Amendment 39-15878; Docket No. FAA-2009-0329; Directorate Identifier 2009-CE-020-AD.

**Effective Date**

- (a) This AD becomes effective on April 20, 2009.

**Affected ADs**

- (b) None.

**Applicability**

- (c) This AD applies to Model XL-2 airplanes, serial numbers 0007, 0009, and subsequent, that are certificated in any category.

**Unsafe Condition**

- (d) This AD is the result of reports that eight cracks have been found in the exhaust muffler during maintenance and service inspections. We are issuing this AD to detect and correct cracks in the exhaust muffler, which could result in carbon monoxide entering the cabin heating system. This condition could lead to incapacitation of the pilot.

**Compliance**

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

<b>Actions</b>	<b>Compliance</b>	<b>Procedures</b>
<p>(1) Inspect the following:</p> <p>(i) The exhaust muffler for cracks. There are two different exhaust systems available for the affected airplanes. They are:</p> <p>(A) Standard exhaust system, part number (P/N) DEL200201-002 that incorporates muffler P/N DEL200201-101; and</p> <p>(B) Reduced sound exhaust system, P/N DEL200201-003 that incorporates muffler P/N 200201-104.</p> <p>(ii) The tail pipe and the tail pipe opening in the lower cowl for a 0.5-inch minimum clearance.</p> <p>(iii) Inspect the propeller for proper propeller clocking position.</p>	<p>Initially inspect within the next 10 hours time-in-service (TIS) after April 20, 2009 (the effective date of this AD) or at the next annual inspection, whichever occurs first. Repetitively inspect the exhaust muffler thereafter as specified in paragraph (e)(5) of this AD.</p>	<p>Follow Liberty Aerospace, Inc. Service Document Critical Service Bulletin (CSB) CSB-09-001, Revision Level B, Revised on March 18, 2009.</p>
<p>(2) As a result of the inspections required in paragraphs (e)(1)(ii) and (e)(1)(iii) of this AD:</p> <p>(i) If the clearance between the tail pipe and the tail pipe opening is less than the required 0.5-inch minimum, trim the lower cowl as needed to achieve the minimum clearance.</p> <p>(ii) If there is a discrepancy in the propeller clocking position, remove and reinstall the propeller at the correct position.</p>	<p>Before further flight after the inspection required in paragraph (e)(1) of this AD.</p>	<p>As specified in Liberty Aerospace, Inc. Service Document Critical Service Bulletin (CSB) CSB-09-001, Revision Level B, Revised on March 18, 2009.</p>

<p>(3) As a result of the initial inspection required in paragraph (e)(1)(i) of this AD or any repetitive inspection required in paragraph (e)(5) of this AD, if a crack is found, replace the exhaust muffler.</p> <p>(i) The manufacturer will provide the replacement exhaust system.</p> <p>(ii) A reduced sound exhaust system may be replaced with a standard exhaust system.</p> <p>(iii) Installing a reduced sound exhaust system as a replacement part also requires installing a bypass SCAT tube and a "Do Not Use" placard on or near the heater knob.</p>	<p>Before further flight after the initial inspection required in paragraph (e)(1) of this AD and before further flight after any repetitive inspection required in paragraph (e)(5) of this AD.</p>	<p>Follow Liberty Aerospace, Inc. Service Document Critical Service Bulletin (CSB) CSB-09-001, Revision Level B, Revised on March 18, 2009.</p>
<p>(4) If the airplane is equipped with a reduced sound exhaust system and no cracks are found during the initial inspection required in paragraph (e)(1) of this AD, install a bypass SCAT tube and a "Do Not Use" placard on or near the heater knob.</p>	<p>Within the next 10 hours TIS after April 20, 2009 (the effective date of this AD).</p>	<p>Follow Liberty Aerospace, Inc. Service Document Critical Service Bulletin (CSB) CSB-09-001, Revision Level B, Revised on March 18, 2009.</p>

(5) If no cracks are found in the exhaust muffler during the initial inspection required in paragraph (e)(1) of this AD or if the exhaust muffler was replaced as required in paragraph (e)(3) of this AD, repetitively inspect thereafter at the intervals specified in paragraphs (e)(5)(i), (e)(5)(ii), and (e)(5)(iii) of this AD.

(i) For airplanes equipped with a standard exhaust system and the optional bypass SCAT tube has not been installed, repetitively inspect thereafter every 25 hours TIS or every 12 months, whichever occurs first.

(ii) For airplanes equipped with a standard exhaust system and the optional bypass SCAT tube has been installed, repetitively inspect thereafter every 50 hours TIS or every 12 months, whichever occurs first.

(iii) For airplanes equipped with a reduced sound exhaust system and the required bypass SCAT tube has been installed, repetitively inspect thereafter every 50 hours TIS or every 12 months, whichever occurs first.

Follow Liberty Aerospace, Inc. Service Document Critical Service Bulletin (CSB) CSB-09-001, Revision Level B, Revised on March 18, 2009.

(6) Report the results of the following inspections required in this AD to the FAA.

(i) Initial inspection required in paragraph (e)(1) of this AD.

(ii) Repetitive inspections required in paragraph (e)(5) of this AD only if cracks are found.

(iii) The Office of Management and Budget (OMB) approved the information collection requirements contained in this regulation under the provisions of the Paperwork Reduction Act of 1980 (44 U.S.C. 3501 et seq.) and assigned OMB Control Number 2120-0056.

Within 10 days after each inspection required by this AD.

Use the form (Figure 1 of this AD) and submit it to FAA, Atlanta Aircraft Certification Office, One Crown Center, 1895 Phoenix Blvd., Suite 450, Atlanta, Georgia 30349.

<b>AD 2009-08-05 Inspection Report</b>		
Airplane Serial Number		
Airplane Tach Hours at time of inspection		
Propeller type (circle one)	MT	Sensenich
Propeller Tach Hours at time of inspection		
Exhaust Type (circle one)	Standard	Reduced Sound
Is Exhaust Cracked? (circle one)	Yes	No
Did lower cowl require trimming at the tail pipe opening? (circle one) Not applicable after initial inspection.	Yes	No
Did the propeller clocking position need to be corrected? (circle one) Not applicable after initial inspection.	Yes	No
Were any other discrepancies noticed during the inspection?		
Name:		
Telephone and/or e-mail address:		
Date:		
<i>Send report to:</i> Corey Spiegel, Aerospace Engineer, Atlanta ACO, One Crown Center, 1895 Phoenix Blvd., Suite 450, Atlanta Georgia 30349; <i>facsimile:</i> (770) 703-6097; <i>email:</i> corey.spiegel@faa.gov.		
<b>Figure 1</b>		

### Special Flight Permit

(f) Under 14 CFR part 39.23, we are limiting the special flight permits for this AD by the following conditions:

- (1) The cabin heat turned off; and
- (2) The fresh air vents are open.

### 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: Corey Spiegel, Aerospace Engineer, Atlanta ACO, One Crown Center, 1895 Phoenix Blvd., Suite 450, Atlanta, Georgia 30349. 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 Liberty Aerospace, Inc. Service Document Critical Service Bulletin (CSB) CSB-09-001, Revision Level B, Revised on March 18, 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 Liberty Aerospace, 100 Aerospace Drive, Melbourne, Florida 32901; telephone: (321) 752-0332 or (800) 759-5953; fax: (321) 752-0377; Internet: <http://www.libertyaircraft.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, MO, on April 3, 2009.

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