



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

**BIWEEKLY 2011-27**

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

U.S. Department of Transportation  
Federal Aviation Administration  
Regulatory Support Division  
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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 2011-01</b>			
2010-17-18 R1	R	Air Tractor	AT-802 and AT-802A
2010-22-08	COR	Eurocopter France	Rotorcraft: AS 350 B, BA, B1, B2, B3, and D, and Model AS355 E, F, F1, F2, and N
2010-26-04		Piper	PA-28-161
2010-26-09		Sikorsky	Rotorcraft: S-76A, B, and C
2010-26-11		Kaman Aerospace	Rotorcraft: K-1200
2011-01-52	E	Schweizer	Rotorcraft: 269A, A-1, B, C, C-1, and Th-55 series
2011-01-53	E	Piaggio	P-180
	S 2011-01-51		
<b>Biweekly 2011-02</b>			
2010-24-05	COR	Pratt & Whitney Canada	Engine: PW305A and PW305B
2010-26-54		Cessna	LC41-550FG, LC42-550FG
2011-01-03		GROB-WERKE	G102 ASTIR CS, G102 CLUB ASTIR III, G102 CLUB ASTIR IIIb, G102 STANDARD ASTIR III
2011-01-04		Embraer	EMB-500
2011-02-04		M7 Aerospace LP	SA26-AT, SA26-T, SA226-AT, SA226-T, SA226-T(B), SA226-TC, SA227-AC (C-26A), SA227-AT, SA227-BC (C-26A), SA227-CC, SA227-DC (C-26B), and SA227-TT
<b>Biweekly 2011-03</b>			
2011-01-53	S 2011-01-51	Piaggio Aero Industries	P-180
2011-02-02	S 2008-19-06	Socata	TBM 700
2011-02-08		Aircraft Industries	Gliders: L 23 Super Blanik
<b>Biweekly 2011-04</b>			
2011-01-14	S 2005-17-01	Pilatus	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
2011-01-53	COR	Piaggio Aero Industries	P-180
	S 2011-01-51		
2011-03-04	S 2009-09-09	Cessna	LC40-550FG (300), LC41-550FG (400), and LC42-550FG (350)
2011-03-05	S 2007-11-03	Dornier Luftfahrt GmbH	Dornier 228-100, Dornier 228-101, Dornier 228-200, Dornier 228-201, Dornier 228-202, and Dornier 228-212
<b>Biweekly 2011-05</b>			
2010-17-18 R1		Air Tractor	AT-802 and AT-802A
2011-05-01		Piaggio Aero Industries	P-180
2011-05-02		Viking Air Limited	DHC-3
2011-05-06		Thielert	Engine: TAE 125-02-99 and TAE 125-02-114 reciprocating
2011-05-51	E	Turbomeca	Engine: 1E2, 1S, and 1S1 turboshaft
<b>Biweekly 2011-06</b>			
2010-26-51	S 2009-08-03	Bell Helicopter Textron Canada Limited	Rotorcraft: 206A, 206B, 206L, 206L-1, 206L-3, 206L-4, 222, 222B, 222U, 230, 407, 427, and 430
2011-03-02		Eurocopter France	Rotorcraft: SA330F, SA330G, and SA330J
2011-03-03		Bell Helicopter Textron Canada Limited	Rotorcraft: 427
2011-03-06		Eurocopter France	Rotorcraft: AS-365N2, AS 365 N3, and SA-365N1
2011-05-07	S 2008-22-21	Allied Ag Cat Productions	G-164, G-164A, G-164B, G-164B with 73" wing gap, G-164B-15T, G-164B-20T, G-164B-34T, G-164C, G-164D, G-164D with 73" wing gap
2011-05-08	S 2011-05-51	Turbomeca	Engine: Arriel 1E2, 1S, and 1S1 turboshaft
2011-06-01		APEX Aircraft	CAP10 B and CAP10 B
2011-06-06	S 2008-24-07	Eclipse	EA500
<b>Biweekly 2011-07</b>			
2011-05-09		B-N Group Ltd	BN-2, BN-2A, BN-2A-2, BN-2A-3, BN-2A-6, BN-2A-8, BN-2A-9, BN-2A-20, BN-2A-21, BN-2A-26, BN-2A-27, BN-2B-20, BN-2B-21, BN-2B-26, BN-2B-27, BN-2T, and BN-2T-4R
2011-06-07		Eurocopter France	Rotorcraft: EC130 B4
2011-07-03	S 2007-02-12	Reims Aviation S.A.	F406

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<b>Biweekly 2011-08</b>			
2011-06-10	S 99-15-04 R1	Piper Aircraft	PA-46-310P, PA-46-350P, and PA-46R-350T
2011-07-09		Thielert Aircraft Engines GmbH	Engine: TAE 125-01, TAE 125-02-99, and TAE 125-02-114 reciprocating
2011-07-13		CPAC, Inc	112, 112B, 112TC, 112TCA, 114, 114A, 114B, and 114TC
2011-08-01	S 2010-25-51	Bell Helicopter Textron	212
<b>Biweekly 2011-09</b>			
2011-06-02		Cessna	172F, 172G, 172H, 172I, 172K, 172L, 172M, F172F, F172G, F172H, F172K, F172L, F172M, 172N, 172P, F172N, F172P, 172R and 172S
2011-08-06		Honeywell International Inc	LTS101-600A-2, -3, -3A, LTS101-700D-2, LTS101-650B-1, LTS101-650C-3, LTS101-650C-3A, LTS101-750B-1, LTS101-750B-2, LTS101-750C-1, and LTS101-850B-2 turboprop; and LTP101-600A-1A and LTP101-700A-1A turboprop
2011-09-08		Pacific Aerospace Limited	750XL
<b>Biweekly 2011-10</b>			
2011-04-02	COR	Hamilton Sundstrand Corporation	Propeller: 247F series
2011-09-16		DG Flugzeugbau GmbH	Gliders: DG-808C
2011-09-51	E	Piaggio Aero Industries S.p.A	P-180
<b>Biweekly 2011-11</b>			
2011-06-02	COR	Cessna	172F, 172G, 172H, 172I, 172K, 172L, 172M, F172F, F172G, F172H, F172K, F172L, F172M, 172N, 172P, F172N, F172P, 172R and 172S
2011-09-19		BURKHART GROB LUFT-UND	Glider: G 103 C Twin III SL
2011-09-51	COR	Piaggio Aero Industries S.P.A.	P-180
2011-10-09	S 2011-01-53	Cessna	See AD
2011-10-11	S 87-20-03 R2	Agusta S.p.A.	Rotorcraft: AB412
2011-10-12		Eurocopter France	Rotorcraft: AS350B, B1, B2, B3, BA, and EC130 B4
2011-10-13		Diamond Aircraft Industries GmbH	DA 42, DA 42-NG, and DA 42 M-NG
2011-11-01		British Aerospace	HP.137 Jetstream Mk.1, Jetstream Series 200, Jetstream Series 3101, and Jetstream Model 3201
<b>Biweekly 2011-12</b>			
2011-11-03		Various Aircraft	See AD
2011-11-04		L'Hotellier	Appliance: Portable Halon 1211 fire extinguisher
2011-11-07		Diamond Aircraft Industries GmbH	DA 42
2011-12-02		Viking Aircraft Limited	DHC-3 (Otter)
2011-12-03		Sikorsky Aircraft Corporation	Rotorcraft: S-92A
<b>Biweekly 2011-13</b>			
2011-12-04		BRP-Powertrain GmbH & Co. KG	Engine: 912 F3, 912 S2, 912 S3, 912, 914 F2, 914 F3, and 914 F4
2011-12-07		Eurocopter France	Rotorcraft: SA-365C, SA-365C1, SA-365C2, SA-365N, SA-365N1, AS-365N2, AS 365 N3, and SA-366G1
2011-12-08		Bell Helicopter Textron, Inc.	Rotorcraft: 205A, 205A-1, 205B, 212, 412, 412CF, and 412EP
2011-12-10	S 2007-26-12	Robinson Helicopter	Rotorcraft: R22, R22 Alpha, R22 Beta, R22 Mariner, R44 and R44 II

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<b>Biweekly 2011-14</b>			
2011-09-51	COR S 2011-01-53	Piaggio Aero Industries S.P.A.	P-180
2011-13-02		Costruzioni Aeronautiche Tecnam srl	P2006T
2011-13-03		Lycoming Engines and Teledyne Continental Motors	Engine: TSIO-520-BE, TSIO-360-MB, SB, TIO-540-AK1A, L/TSIO-360-RB, TIO-540-AE2A, TSIO-360-H, O-540-L3C5D, TSIO-520-T, L/TO-360-E1A6D, TIO-540-AG1A, TIO-540- AF1A, TIO-540-AF1B, TIO-540-AH1A, TIO-541-E1D4, TIO- 541-E1C4, TIGO-541-E, GTSIO-520-F, GTSIO-520-K, GTSIO- 520-D, GTSIO-520-H
<b>Biweekly 2011-15</b>			
2011-12-16	S 2011-01-52	Schweizer	Rotorcraft: 269A, A-1, B, C; C-1; and TH-55 series
2011-13-05		Turbomeca S.A.	Engine: ARRIEL 2B and 2B1 turboshaft
2011-14-05	S 2010-18-52	MD Helicopters, Inc.	Rotorcraft: MD900
2011-14-08		B/E Aerospace	Appliance: Continuous Flow Passenger Oxygen Mask Assembly
2011-14-09	S 2011-11-03	Various Aircraft	See AD
2011-15-05		Hawker Beechcraft	B300 and B300C (C-12W)
2011-15-51	E	Bell Helicopter Textron Canada	Rotorcraft: 407 and 427
<b>Biweekly 2011-16</b>			
None			
<b>Biweekly 2011-17</b>			
2011-15-10		Superior Air Parts and Lycoming Engines	Engine: See AD
2011-15-11		Cessna	337, 337A (USAF 02B), 337B, 337C, 337D, 337E, T337E, 337F, T337F, 337G, T337G, M337B, F 337E, FT337E, F 337F, FT337F, F 337G, and FT337GP
<b>Biweekly 2011-18</b>			
2009-10-09 R2	R 2009-10-09 R1	Cessna Aircraft Company	150F, 150G, 150H, 150J, 150K, 150L, 150M, A150K, A150L, A150M, F150F, F150G, F150H, F150J, F150K, F150L, F150M, FA150K, FA150L, FA150L or FRA150L, FA150M or FRA150M, 152, A152, F152, FA152
2011-15-11		Cessna	337, 337A (USAF 02B), 337B, 337C, 337D, 337E, T337E, 337F, T337F, 337G, T337G, M337B, F 337E, FT337E, F 337F, FT337F, F 337G, and FT337GP
2011-16-05		Eurocopter France	Rotorcraft: SA-365N and SA-365N1
2011-17-01	S 2010-02-51	Agusta S.p.A.	Rotorcraft: A109A, A109A II, A109C, and A109K2
2011-17-06		SOCATA	TBM 700
2011-17-07		M7 Aerospace LP	SA226-T, SA226-T(B), SA226-TC, SA226-AT
2011-17-13		Eurocopter France	Rotorcraft: EC120B
2011-17-14		Agusta S.p.A.	Rotorcraft: A109A, A109AII
2011-17-15		Embraer	EMB-500
2011-18-51	E	Honeywell International	Engine: TPE331
2011-18-52	E	Agusta S.p.A.	Rotorcraft: AB139 and AW139
<b>Biweekly 2011-19</b>			
2011-18-19	S 2010-23-09	Austro Engine GmbH	Engine: E4 diesel piston
<b>Biweekly 2011-20</b>			
2011-18-07		Wytownia Sprzetu Komunikacyjnego (WSK) PZL- Rzeszow" Spolka Akcyjna (SA)	Engine: WSK PZL-10W series turboshaft
2011-18-09		Lycoming Engines	IO-720-A1B
2011-18-11	S 2011-05-02	Viking Air Limited	DHC-3
2011-20-51	E	Pratt & Whitney Canada	Engine: PT6A-15AG, -27, -28, -34, -34AG, -34B, and -36 series turbo-prop

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<b>Biweekly 2011-21</b>			
2009-13-06 R1	R 2009-13-06	Piper Aircraft	See AD
2011-18-51 R1	R 2011-18-51	Honeywell International	Engines: TPE331
2011-19-02		Dowty Propellers	Propellers: R212/4-30-4/22 and R251/4-30-4/49
2011-19-03		General Electric	Engines: CT7-8, CT7-8A, CT7-8A1, CT7-8E, CT7-8F5
2011-21-51	E	Cessna	525C
<b>Biweekly 2011-22</b>			
2011-12-02	COR	Viking Aircraft Limited	DHC-3 (Otter)
2011-18-07	COR	Wytownia Sprzetu Komunikacyjnego	Engine: WSK PZL-10W series
2011-20-51		Pratt & Whitney Canada	Engine: PT6A-15AG, -27, -28, -34, -34AG, -34B, and -36 series
2011-21-10		Diamond Aircraft Industries	DA 40
2011-21-16		Diamond Aircraft Industries	Glider: H-36 "DIMONA"
2011-22-51	E	Sikorsky	Rotorcraft: S-70, S-70A, S-70C, S-70C(M), and S-70C(M1)
<b>Biweekly 2011-23</b>			
2010-26-52	S 2007-19-53	Bell Helicopter Textron, Inc.	Rotorcraft : 204B, 205A, 205A-1, 205B, 210, 212, 412, 412CF, and 412EP
2011-15-51		Bell Helicopter Textron, Inc.	Rotorcraft: 407 and 427
2011-16-04		Sikorsky Aircraft Corporation	Rotorcraft: S-92A
2011-18-16		Eurocopter France	Rotorcraft: AS332C, L, L1, and L2
2011-20-05		Eurocopter France	Rotorcraft: EC225LP
2011-20-06	S 2009-19-51	Agusta S.p.A.	Rotorcraft: AB139 and AW139
2011-20-08		Agusta S.p.A.	Rotorcraft: AB139 and AW139
2011-21-11		Eurocopter France	Rotorcraft: EC225LP
2011-21-12		Erickson Air-Crane Inc	Rotorcraft: S-64F
2011-21-13		Eurocopter Deutschland GmbH	Rotorcraft: MBB-BK 117 C-2
2011-21-17		General Electric	Engine: CT7-8A, CT7-8A1, CT7-8E, and CT7-8F5 turboshaft
2011-21-51		Cessna	525C
2011-22-03		Rolls-Royce Corporation	Engine: AE 3007A, AE 3007A1/1, AE 3007A1, AE 3007A1/3, AE 3007A1E, AE 3007A1P, and AE 3007A3 turboshaft
2011-23-02	S 2010-03-03	Bell Helicopter Textron, Inc.	Rotorcraft: 205A-1, 205B, 210 and 212
2011-23-03		SOCATA	TBM 700
<b>Biweekly 2011-24</b>			
2009-10-09 R2	COR	Cessna Aircraft Company	See AD
	R 2009-10-09 R1		
2011-22-05	S 2003-22-06	Eurocopter France	Rotorcraft: AS350B, B1, B2, B3, BA, C, D, D1; and Model AS355E, F, F1, F2, N, and NP
2011-22-08	S 2008-22-53	MD Helicopters Inc.	Rotorcraft: MD900
2011-23-01	S 2010-1-02	Thielert Aircraft Engines GmbH	Engine: TAE 125-01 and TAE 125-02-99
2011-23-11		Pacific Aerospace Limited	FU24-954 and FU24A-954
2011-23-13		Honeywell International Inc.	Engine: LTS101-600A-2, -3, -3A, and LTS101-700D-2
2011-24-01		Piaggio Aero Industries S.p.A.	P-180
<b>Biweekly 2011-25</b>			
2011-24-07		Turbomeca S.A.	Engine: Arriel 2B
2011-24-08		Turbomeca S.A.	Engine: Makila 1A2
2011-25-04		Quest Aircraft Design	Kodiak 100
2011-25-51	E	Continental Motors	TSIO-520, TSIO-550-K, TSIOF-550K, and IO-550-N
<b>Biweekly 2011-26</b>			
2011-21-18		Eurocopter France	Rotorcraft: EC 120B
2011-25-01		Apical Industries, Inc.	Appliance: Emergency Float Kit
2011-25-12		Pratt & Whitney Canada	Engine: PT6A-15AG, -27, -28, -34, -34AG, -34B, and -36 series
2011-25-51		Continental Motors	Engine: TSIO-520-B, BB, D, DB, E, EB, J, JB, K, KB, N, NB, UB, VB; TSIO-550-K; TSIOF-550-K; IO-550-N
2011-26-01		Piaggio Aero Industries S.p.A.	P-180
2011-26-02	R 2010-19-06	Turbomeca	Engine: Arriel 1A, 1A1, 1B, 1C, 1C1, 1C2, 1D, 1D1, and 1S1

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**Biweekly 2011-27**

2010-06-12R1	R 2010-06-12	Thielert Aircraft Engines	Engine: TAE 125-01 and TAE 125-02-99
2011-06-06R1	R 2011-06-06	Eclipse Aerospace	EA500
2011-26-04	S 2008-14-07	Lycoming Engines	Engine: See AD
2011-26-07	S 2002-13-04	Teledyne Continental Motors and Rolls-Royce	Engine: C-125, C-145, O-300, IO-360, TSIO-360, and LTSIO-520-AE serie
2011-27-01		Turbomeca	Engine: Arriel 1B
2011-27-04		Hawker Beechcraft	95-C55, D55, E55, 58, and 58A
2011-27-51	E	Hawker Beechcraft	1900, 1900C, and 1900D



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**2010-06-12R1 Thielert Aircraft Engines GmbH:** Amendment 39-16906 ; Docket No. FAA-2009-0948; Directorate Identifier 2009-NE-30-AD.

**(a) Effective Date**

This airworthiness directive (AD) is effective February 3, 2012.

**(b) Affected ADs**

This AD revises AD 2010-06-12, Amendment 39-16236 (75 FR 12439, March 16, 2010).

**(c) Applicability**

This AD applies to Thielert Aircraft Engines GmbH (TAE) models TAE 125-01 and TAE 125-02-99 reciprocating engines.

**(d) Reason**

This AD was prompted by the determination that our AD was inadvertently more restrictive than European Aviation Safety Agency AD 2008-0128. We are issuing this AD to prevent engine in-flight shutdown, possibly resulting in reduced control of the aircraft.

**(e) Actions and Compliance**

Unless already done, do the following actions.

**(1) TAE 125-02-99 Reciprocating Engines**

(i) For TAE 125-02-99 reciprocating engines, within 100 flight hours after the effective date of this AD, replace the existing rail pressure control valve with a rail pressure control valve P/N 05-7320-E000702. Modify the Vrail plug by removing the two existing single wire sealings and installing three new single wire sealings, P/N AMP-828904-1.

(ii) Guidance on the rail pressure control valve replacement and Vrail plug modification specified in paragraph (e)(1)(i) of this AD can be found in Thielert Repair Manual RM-02-02, Chapter 73-10.08, and Chapter 39-40.08, respectively.

**(2) TAE 125-01 Reciprocating Engines**

(i) For TAE 125-01 reciprocating engines, before 600 flight hours time-since-new, or within 100 flight hours after the effective date of this AD, whichever occurs later, replace the existing rail pressure control valve with a rail pressure control valve, P/N 02-7320-04100R3.

(ii) Guidance on the rail pressure control valve replacement specified in paragraph (e)(2)(i) of this AD can be found in Thielert Repair Manual RM-02-01, Chapter 29.0.

**(3) TAE 125-02-99 and TAE 125-01 Engines, Repetitive Replacements of Rail Pressure Control Valves**

Thereafter, for affected TAE 125-02-99 and TAE 125-01 engines, replace the rail pressure control valve with the same P/N valve within every 600 flight hours.

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

The Manager, Engine Certification Office, FAA, may approve AMOCs for this AD. Use the procedures found in 14 CFR 39.19 to make your request.

**(g) Related Information**

(1) For related information, refer to MCAI EASA AD 2008-0128, dated July 9, 2008, EASA AD 2008-0215, dated December 5, 2008, Thielert Service Bulletin No. TAE 125-1008 P1, Revision 1, dated September 29, 2008, and Thielert Repair Manual RM-02-02. For a copy of the service information referenced in this AD, contact Thielert Aircraft Engines GmbH, Platanenstrasse 14 D-09350, Lichtenstein, Germany; phone: 37204-696-0; fax: 37204-696-55; email: [info@centurion-engines.com](mailto:info@centurion-engines.com).

(2) For more information about this AD, contact Alan Strom, Aerospace Engineer, Engine Certification Office, FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; phone: (781) 238-7143; fax: (781) 238-7199; email: [alan.strom@faa.gov](mailto:alan.strom@faa.gov).

**(h) Material Incorporated by Reference**

None.

Issued in Burlington, Massachusetts, on December 23, 2011.

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



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**2011-06-06 R1 Eclipse Aerospace, Inc.:** Amendment 39-16890; Docket No. FAA-2011-0199; Directorate Identifier 2011-CE-005-AD.

**(a) Effective Date**

This AD is effective January 23, 2012.

**(b) Affected ADs**

This AD revises AD 2011-06-06, Amendment 39-16631 (76 FR 13078, March 10, 2011).

**(c) Applicability**

This AD applies to Eclipse Aerospace, Inc. Model EA500 airplanes, all serial numbers, that are:

- (1) Equipped with Pratt & Whitney Canada, Corp. Model PW610F-A engines, all serial numbers up to and including serial number PCE-LA0583; and
- (2) Certificated in any category.

**(d) Subject**

Joint Aircraft System Component (JASC)/Air Transport Association (ATA) of America Code 72, Engine.

**(e) Unsafe Condition**

This AD was prompted by several incidents of engine surge. We are issuing this AD to prevent hard carbon buildup on the static vane, which could result in engine surges. Engine surges may result in a necessary reduction in thrust and decreased power for the affected engine. In some cases, this could result in flight and landing under single-engine conditions. It is also possible this could affect both engines at the same time, requiring dual-engine shutdown.

**(f) Compliance**

Comply with this AD within the compliance times specified, unless already done.

**(g) Action Retained from AD 2011-06-06, Amendment 39-16631 (76 FR 13078, March 10, 2011)**

(1) Before further flight after March 21, 2011 (the effective date retained from AD 2011-06-06), incorporate the following language into Section 2, Limitations, of your airplane flight manual (AFM): "Per AD 2011-06-06, LIMIT THE MAXIMUM OPERATING ALTITUDE TO 30,000 FEET (9144M) PRESSURE ALTITUDE."

(2) 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 insert the operating limitations into Section 2, Limitations, of the AFM. 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).

(3) You may incorporate paragraph (g) of this AD into Section 2, Limitations, of your AFM to comply with this AD.

**(h) Optional Action To Restore Original Certificated Maximum Operating Altitude**

(1) You may, at any time after compliance with paragraph (g) of this AD, on both engines replace the turbofan engine combustion chamber liner assembly with one that has inner and outer liner assemblies that include heat shields. Do the replacements in accordance with Pratt & Whitney Canada Service Bulletin P&WC S.B. No. 60077, dated June 1, 2011. This includes the change to the weight and balance in paragraph 1.H. in the service bulletin.

(2) Before further flight after doing the replacement specified in paragraph (h)(1) of this AD, remove the limitation required in paragraph (g)(1) of this AD.

(3) Within 30 days after doing the replacement specified in paragraph (h)(1) of this AD or within 30 days after January 23, 2012 (the effective date of this AD), whichever occurs later, send a memo or email to Eric Kinney at the address specified in paragraph (k) of this AD notifying him of the completion of the replacement. In this notification, include the airplane serial number, engine serial numbers, and time-in-service (TIS) hours at the time of replacement.

**(i) Paperwork Reduction Act Burden Statement**

A federal agency may not conduct or sponsor, and a person is not required to respond to, nor shall a person be subject to a penalty for failure to comply with a collection of information subject to the requirements of the Paperwork Reduction Act unless that collection of information displays a current valid OMB Control Number. The OMB Control Number for this information collection is 2120-0056. Public reporting for this collection of information is estimated to be approximately 5 minutes per response, including the time for reviewing instructions, completing and reviewing the collection of information. All responses to this collection of information are mandatory. Comments concerning the accuracy of this burden and suggestions for reducing the burden should be directed to the FAA at: 800 Independence Ave. SW., Washington, DC 20591, Attn: Information Collection Clearance Officer, AES-200.

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

(1) The Manager, Fort Worth 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. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the ACO, send it to the attention of the person identified in the Related Information section of this AD.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(3) AMOCs approved for AD 2011-06-06, Amendment 39-16631 (76 FR 13078, March 10, 2011) are approved as AMOCs for this AD.

**(k) Related Information**

For more information about this AD, contact Eric Kinney, Aerospace Engineer, Fort Worth ACO, FAA, 2601 Meacham Blvd., Fort Worth, Texas 76137; telephone: (817) 222-5459; fax: (817) 222-5960; email: eric.kinney@faa.gov.

**(I) Material Incorporated by Reference**

(1) You must use Pratt & Whitney Canada Service Bulletin P&WC S.B. No. 60077, dated June 1, 2011, to do the actions required by this AD, unless the AD specifies otherwise. The Director of the Federal Register approved the incorporation by reference (IBR) under 5 U.S.C. 552(a) and 1 CFR part 51 on January 23, 2012.

(2) For service information identified in this AD, contact Pratt & Whitney Canada, 1000 Marie-Victorin Blvd., Longueuil, Quebec, J4G 1A1 Canada; telephone: (800) 268-8000; Internet: <http://www.P&WC.ca>.

(3) You may review copies of the service information at the FAA, Small Airplane Directorate, 901 Locust, Kansas City, Missouri 64106. For information on the availability of this material at the FAA, call (816) 329-4148.

(4) You may also review copies of the service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at an NARA facility, 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 December 6, 2011.

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



**2011-26-04 Lycoming Engines (formerly Textron Lycoming Division, AVCO Corporation):**  
Amendment 39-16894; Docket No. FAA-2007-0218; Directorate Identifier 92-ANE-56-AD.

**(a) Effective Date**

This airworthiness directive (AD) is effective January 25, 2012.

**(b) Affected ADs**

This AD supersedes AD 2008-14-07, Amendment 39-15602 (73 FR 39574, July 10, 2008).

**(c) Applicability**

(1) This AD applies to fuel injected reciprocating engines manufactured by Lycoming Engines that incorporate externally mounted fuel injection lines (engines with an "I" in the prefix of the engine model designation) as listed in the following Table 1:

**Table 1—Engine Models Affected**

<b>Engine</b>	<b>Model</b>
AEIO-320	-D1B, -D2B, -E1B, -E2B
AIO-320	-A1B, -B1B, -C1B
IO-320	-B1A, -B1C, -C1A, -D1A, -D1B, -E1A, -E1B, -E2A, -E2B
LIO-320	-B1A, -C1A
AEIO-360	-A1A, -A1B, -A1B6, -A1D, -A1E, -A1E6, -B1F, -B2F, -B1G6, -B1H, -B4A, -H1A, -H1B
AIO-360	-A1A, -A1B, -B1B
HIO-360	-A1A, -A1B, -B1A, -C1A, -C1B, -D1A, -E1AD, -E1BD, -F1AD, -G1A
IO-360	-A1A, -A1B, -A1B6, -A1B6D, -A1C, -A1D, -A1D6, -A2A, -A2B, -A3B6, -A3B6D, -B1B, -B1D, -B1E, -B1F, -B1G6, -B2F, -B2F6, -B4A, -C1A, -C1B, -C1C, -C1C6, -C1D6, -C1E6, -C1F, -C1G6, -F1A, -J1A6D, -M1B, -L2A, -M1A
IVO-360	-A1A
LIO-360	-C1E6, -M1A
TIO-360	-A1B, -C1A6D
IGO-480	-A1B6
AEIO-540	-D4A5, -D4B5, -D4D5, -L1B5, -L1B5D, -L1D5
IGO-540	-B1A, -B1C

IO-540	-A1A5, -AA1A5, -AA1B5, -AB1A5, -AC1A5, -AE1A5, -B1A5, -B1C5, -C1B5, -C4B5, -C4D5D, -D4A5, -E1A5, -E1B5, -G1A5, -G1B5, -G1C5, -G1D5, -G1E5, -G1F5, -J4A5, -V4A5D, -K1A5, -K1A5D, -K1B5, -K1C5, -K1D5, -K1E5, -K1E5D, -K1F5, K1H5, -K1J5, -K1F5D, -K1G5, -K1G5D, -K1H5, -K1J5D, -K1K5, -K1E5, -K1E5D, -K1F5, -K1J5, -L1C5, -M1A5, -M1B5D, -M1C5, -N1A5, -P1A5, -R1A5, -S1A5, -T4A5D, -T4B5, -T4B5D, -T4C5D, -V4A5, -V4A5D, -W1A5, -W1A5D, -W3A5D
I VO-540	-A1A
LTIO-540	-F2BD, -J2B, -J2BD, -N2BD, -R2AD, -U2A, -V2AD, -W2A
TIO-540	-A1A, -A1B, -A2A, -A2B, -A2C, -AE2A, -AH1A, -AA1AD, -AF1A, -AF1B, -AG1A, -AB1AD, -AB1BD, -AH1A, -AJ1A, -AK1A, -C1A, -E1A, -G1A, -F2BD, -J2B, -J2BD, -N2BD, -R2AD, -S1AD, -U2A, -V2AD, -W2A
TIVO-540	-A2A
IO-720	-A1A, -A1B, -D1B, -D1BD, -D1C, -D1CD, -B1B, -B1BD, -C1B

(2) Engine models in Table 1 of this AD are installed on, but not limited to, Piper PA-24 Comanche, PA-30 and PA-39 Twin Comanche, PA-28 Arrow, and PA-23 Aztec; Beech 23 Musketeer; Mooney 20, and Cessna 177 Cardinal airplanes.

(3) This AD is not applicable to engines having internally mounted fuel injection lines, which are not accessible. Those engine models are not included in Table 1 of this AD.

(4) This AD is not applicable to engines that have a Maintenance and Overhaul Manual with an Airworthiness Limitations Section that requires inspection of externally mounted fuel injector lines. Those engine models are not included in Table 1 of this AD.

#### **(d) Unsafe Condition**

This AD was prompted by Lycoming Engines revising their Mandatory Service Bulletin (MSB) to add engine models requiring inspection. We are issuing this AD to prevent failure of the fuel injector fuel lines that would allow fuel to spray into the engine compartment, resulting in an engine fire.

#### **(e) Compliance**

Comply with this AD within the compliance times specified, unless already done.

#### **(f) Engines That Have Had Initial Inspections**

For engines that have had initial inspections in accordance with Textron Lycoming MSB No. 342, dated March 24, 1972; Textron Lycoming MSB No. 342A, dated May 26, 1992; Textron Lycoming MSB No. 342B, dated October 22, 1993; Supplement No. 1 to MSB No. 342B, dated April 27, 1999; Textron Lycoming MSB No. 342C, dated April 28, 2000; Textron Lycoming MSB No. 342D, dated July 10, 2001; Lycoming Engines MSB No. 342E, dated May 18, 2004, or Lycoming Engines MSB 342F, dated June 4, 2010, inspect in accordance with paragraph (h) of this AD.

#### **(g) Engines That Have Not Had Initial Inspections**

For engines that have not had initial inspections previously done in accordance with Textron Lycoming MSB No. 342, dated March 24, 1972; Textron Lycoming MSB No. 342A, dated May 26,

1992; Textron Lycoming MSB No. 342B, dated October 22, 1993; Supplement No. 1 to MSB No. 342B, dated April 27, 1999; Textron Lycoming MSB No. 342C, dated April 28, 2000; Textron Lycoming MSB No. 342D, dated July 10, 2001; Lycoming Engines MSB No. 342E, dated May 18, 2004, or Lycoming Engines MSB 342F, dated June 4, 2010, inspect as follows:

(1) For engines that have not yet had any fuel line maintenance done, or have not had any fuel line maintenance done since new or since the last overhaul, inspect in accordance with paragraph (i) of this AD within 50 hours time-in-service (TIS) after the effective date of this AD.

(2) For all other engines, inspect in accordance with paragraph (i) of this AD within 10 hours TIS after the effective date of this AD.

#### **(h) Repetitive Inspections**

Thereafter, inspect at intervals of 100 hours TIS (not to exceed 110 hours), at each engine overhaul, and after any maintenance has been done on the engine where any clamp (or clamps) on a fuel injector line (or lines) has been disconnected, moved, or loosened, in accordance with paragraph (i) of this AD.

#### **(i) Inspection Criteria**

Inspect the fuel injector fuel lines and clamps between the fuel manifold and the fuel injector nozzles, and replace as necessary any fuel injector fuel line and clamp that does not meet all conditions specified in Lycoming Engines MSB No. 342F, dated June 4, 2010.

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

The Manager, New York Aircraft Certification Office, FAA, has the authority to approve AMOCs for this AD if requested using the procedures found in 14 CFR 39.19. AMOCs approved previously in accordance with AD 2008-14-07, Amendment 39-15602, are approved as AMOCs for the corresponding requirements in paragraph (h) of this AD.

#### **(k) Related Information**

(1) For more information about this AD, contact Norm Perenson, Aerospace Engineer, New York Aircraft Certification Office, FAA, Engine & Propeller Directorate, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; phone: (516) 228-7337; fax: (516) 794-5531; email: [Norman.perenson@faa.gov](mailto:Norman.perenson@faa.gov).

(2) FAA Special Airworthiness Information Bulletin No. NE-07-49, dated September 20, 2007, is not mandatory, but has additional information on this subject.

#### **(l) Material Incorporated by Reference**

(1) You must use Lycoming Engines Mandatory Service Bulletin No. 342F, dated June 4, 2010, to perform the actions required by this AD.

(2) 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.

(3) Contact Lycoming Engines, 652 Oliver Street, Williamsport, PA 17701, or go to [www.lycoming.textron.com](http://www.lycoming.textron.com) for a copy of this service information. You may review copies at the FAA, New England Region, 12 New England Executive Park, Burlington, MA.

(4) You may also review copies of the service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at an NARA facility, 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 Burlington, Massachusetts, on December 5, 2011.

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



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**2011-26-07 Teledyne Continental Motors (TCM) and Rolls-Royce Motors Ltd. (R-RM) Series Reciprocating Engines:** Amendment 39-16897; Docket No. FAA-2011-0085; Directorate Identifier 2000-NE-19-AD.

**(a) Effective Date**

This airworthiness directive (AD) is effective January 24, 2012.

**(b) Affected ADs**

This AD supersedes AD 2002-13-04, Amendment 39-12792 (67 FR 43230, June 27, 2002).

**(c) Applicability**

This AD applies to TCM and R-RM C-125, C-145, O-300, IO-360, TSIO-360, and LTSIO-520-AE series reciprocating engines with Champion Aerospace (formerly Unison Industries) Slick Magnetos, models 6314, 6324, and 6364, with magneto serial numbers (S/Ns) of 99110001 through 99129999, inclusive.

**(d) Unsafe Condition**

This AD was prompted by an error in the previous AD applicability in the range of magneto S/Ns affected, and by the need to include certain engines made by R-RM, under license of TCM. We are issuing this AD to prevent engine failure and loss of control of the airplane due to migration of the magneto impulse coupling stop pin out of the magneto frame and into the gear train of the engine.

**(e) Compliance**

Comply with this AD within 10 flight hours after the effective date of this AD, unless already done.

**(f) Replacement of Magneto**

Replace any magneto that has an S/N of 99110001 through 99129999, inclusive, with a magneto that does not have a serial number in that range. If a magneto is not in this S/N range, no further action is required by this AD.

**(g) Inspections**

Inspect each removed magneto to verify that the impulse coupling stop pin is present. If the pin is missing, do the following:

- (1) For C-125, C-145, O-300, IO-360, and TSIO-360 series engines, do the following:
  - (i) Remove magnetos, alternator or generator, and starter adapter from the accessory case.
  - (ii) Remove the accessory case from the crankcase and oil sump.
  - (iii) Visually inspect the entire engine gear train for damaged or broken gears and gear teeth.

(iv) Inspect visible portions of the engine crankcase and accessory case for damage due to the stop pin becoming lodged between the engine gear train and the crankcase or accessory case.

(v) If the accessory case is damaged, repair or replace the accessory case.

(vi) If the engine crankcase is damaged, disassemble the engine, and repair or replace the crankcase.

(vii) Inspect the oil pump drive gear teeth and inner cam gear teeth for damage. Replace any engine drive train component that has been damaged.

(viii) Replace any damaged gear, and magnaflux the mating gears using the applicable engine overhaul manual.

(2) For LTSIO-520-AE series engines, do the following:

(i) Remove the starter adapter, fuel pump, vacuum pumps, accessory drive pads, and both magnetos.

(ii) Visually inspect the entire engine gear train for damaged or broken gears and gear teeth.

(iii) If any damage has occurred, remove the engine from the airplane, disassemble the engine, and inspect it for damage. If any damage is found, repair as necessary.

(iv) Replace any damaged gear, and magnaflux the mating gears using the applicable engine overhaul manual.

(v) Inspect the interior portions of the engine crankcase for damage due to the stop pin becoming lodged between the gear train and the crankcase. If the crankcase is damaged, repair or replace the crankcase.

#### **(h) Installation Prohibition**

After the effective date of this AD, do not install any Champion Aerospace (formerly Unison Industries) Slick magnetos, model 6314, 6324, or 6364 that have an S/N of 99110001 through 99129999, inclusive, on any engine.

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

The Manager, Atlanta Aircraft Certification Office, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19.

#### **(j) Related Information**

(1) A cross-reference for part numbers (P/Ns) for Champion Aerospace (formerly Unison Industries) Slick magneto model 6314 (TCM P/N 653271), model 6324 (TCM P/N 653292), and model 6364 (TCM P/N 649696) can be found in TCM Mandatory Service Bulletin MSB00-6D, dated November 19, 2010.

(2) For more information about this AD, contact Juanita Craft, Aerospace Engineer, Propulsion, Atlanta Aircraft Certification Office, FAA, Small Airplane Directorate; 1701 Columbia Avenue, College Park, Georgia 30337; phone: (404) 474-5584; fax: (404) 474-5606; email: [juanita.craft@faa.gov](mailto:juanita.craft@faa.gov).

#### **(k) Material Incorporated by Reference**

None.

Issued in Burlington, Massachusetts, on December 8, 2011.

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



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**2011-27-01 Turbomeca:** Amendment 39-16902; Docket No. FAA-2010-0904; Directorate Identifier 2010-NE-33-AD.

**(a) Effective Date**

This airworthiness directive (AD) becomes effective January 27, 2012.

**(b) Affected ADs**

None.

**(c) Applicability**

This AD applies to Turbomeca Arriel 1B turboshaft engines with M03 modules modified by TU 76 or TU 202, and not modified by TU 148, and if fitted with a repaired 2nd stage turbine nozzle guide vane (NGV). The M03 module contains the 2nd stage turbine NGV, 1st stage turbine disc, and 2nd stage turbine disc. Guidance on determining if an engine has an unrepaired 2nd stage turbine NGV installed can be found in paragraph 1.C. of Turbomeca Mandatory Service Bulletin (MSB) No. A292 72 0829, Version B, dated December 13, 2010.

**(d) Reason**

This AD was prompted by an increase in hot gas ingestion and an increase of temperature in the gas generator (GG) turbine rotor, potentially resulting in turbine damage and an uncommanded in-flight shutdown. We are issuing this AD to prevent over-temperature damage of the GG turbine, which could result in an uncommanded in-flight engine shutdown, and a subsequent forced autorotation landing or accident.

**(e) Compliance**

Comply with this AD within the compliance times specified, unless already done.

**(f) Daily Checks**

(1) Starting from the effective date of this AD, perform a daily check (after last flight of the day) for:

- (i) Normal rundown time of the GG rotor; and
- (ii) The free rotation of the GG rotor; and
- (iii) No grinding noise during the rundown check, and during the free rotation check of the GG rotor.

(2) Guidance on performing the daily checks can be found in the Maintenance Manual, task 71-02-09-760-801 and task 05-20-01-200-801.

(3) If the engine fails any of these daily checks, remove the engine from service before further flight.

**(g) Inspection of Repaired 2nd Stage Turbine NGVs**

(1) Inspect the 2nd stage turbine NGV for a non-conforming hole configuration, at the compliance times in Table 1 of this AD. Guidance on 2nd stage turbine NGV non-conforming hole configuration can be found in Turbomeca MSB No. A292 72 0829, Version B, dated December 13, 2010.

**Table 1–Inspection Compliance Times**

<b>If accumulated GG Cycles-in-Service (CIS) on the effective date of this AD are:</b>	<b>Then inspect:</b>
(i) Fewer than 1,200 CIS on both the 1st and 2nd stage turbines	Before exceeding 1,500 GG CIS.
(ii) 1,200 or more but fewer than 1,800 CIS on either the 1st or 2nd stage turbines.	Before exceeding 300 GG CIS after the effective date of this AD but not to exceed 2,000 CIS on either the 1st or 2nd stage turbines.
(iii) 1,800 or more but fewer than 2,400 CIS on either the 1st or 2nd stage turbine.	Before exceeding 200 GG CIS after the effective date of this AD but not to exceed 2,500 CIS on either the 1st or 2nd stage turbines.
(iv) Greater than 2,400 CIS on either the 1st or 2nd stage turbine	Before exceeding 100 GG CIS after the effective date of this AD but not to exceed 3,000 CIS on either the 1st or 2nd stage turbine.

(2) If the configuration of the holes in the repaired 2nd stage turbine NGV are conforming, then no further action is required.

(3) If the configuration of the holes in the repaired 2nd stage turbine NGV are non-conforming, then before further flight:

(i) Replace the 2nd stage turbine NGV with a 2nd stage turbine NGV eligible for installation; and

(ii) Replace the 1st stage turbine disc and 2nd stage turbine disc with discs eligible for installation.

**(h) Terminating Action**

Complying with paragraph (g)(1) and either paragraph (g)(2) or paragraphs (g)(3)(i) through (g)(3)(ii) of this AD, or replacing the M03 module with an M03 module that is eligible for installation, is terminating action for the requirements of this AD.

**(i) Installation Prohibition**

(1) Do not reinstall the 1st stage turbine disc and the 2nd stage turbine disc removed in paragraph (g)(3)(ii) of this AD into any engine.

(2) After the effective date of this AD, do not install an M03 module that has incorporated TU 202 but not incorporated TU 148, unless the module is in compliance with the requirements of this AD.

(3) After the effective date of this AD, do not install an M03 module that has incorporated TU 76 but not incorporated TU 148, unless the module is in compliance with the requirements of this AD.

**(j) FAA AD Differences**

(1) This AD differs from the Mandatory Continuing Airworthiness Information (MCAI) and/or service information as follows:

(i) This AD does not require sending data to Turbomeca to confirm whether Turbomeca MSB No. A292 72 0829, Version B, dated December 13, 2010, is applicable to the operator's engine; the MCAI does.

(ii) This AD does not incorporate by reference (IBR) Turbomeca MSB No. A292 72 0829, Version B, dated December 13, 2010; the MCAI does.

(iii) This AD requires replacing non-conforming 2nd stage turbine NGVs and 1st stage and 2nd stage turbine discs that were operated with non-conforming 2nd stage turbine NGVs but does not require replacing affected M03 modules. The MCAI requires replacing affected M03 modules with M03 modules eligible for installation.

**(k) Definition**

For the purpose of this AD, a conforming repaired 2nd stage turbine NGV is one with cooling holes in the forward inner flange, and with no cooling holes in the rear flange.

**(l) 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.

**(m) Related Information**

(1) Refer to European Aviation Safety Agency AD 2010-0273R1, dated February 16, 2011, and Turbomeca MSB No. A292 72 0829, Version B, dated December 13, 2010, for related information. Contact Turbomeca, 40220 Tarnos, France; phone: 33 05 59 74 40 00; fax: 33 05 59 74 45 15; for a copy of this service information.

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

**(n) Material Incorporated by Reference**

None.

Issued in Burlington, Massachusetts, on December 16, 2011.  
Peter A. White,  
Manager, Engine & Propeller Directorate,  
Aircraft Certification Service.



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**2011-27-04 Hawker Beechcraft Corporation:** Amendment 39-16905; Docket No. FAA-2011-1420; Directorate Identifier 2011-CE-035-AD.

**(a) Effective Date**

This AD is effective December 29, 2011.

**(b) Affected ADs**

None.

**(c) Applicability**

This AD applies to Hawker Beechcraft Corporation Models 95-C55, D55, E55, 58, and 58A airplanes, all serial numbers that are:

- (1) equipped with Supplemental Type Certificate (STC) SA1762SO; and
- (2) certificated in any category.

Note 1: STC SA1762SO is sometimes referred to as the "Foxstar modification." This modification includes new Continental IO-550 engines, new Hartzell 4-bladed propellers, and the addition of winglets.

**(d) Subject**

Joint Aircraft System Component (JASC)/Air Transport Association (ATA) of America Code 34; Airspeed Indicator.

**(e) Unsafe Condition**

This AD was prompted by information that suggests the affected airplane models with STC SA1762SO installed may not have the correct minimum control speed (VMC) markings on the airspeed indicator(s). We are issuing this AD to correct the unsafe condition on these products.

**(f) Compliance**

Comply with this AD within the compliance times specified, unless already done.

**(g) VMC Markings**

Within the next 10 hours time-in-service (TIS) after December 29, 2011 (the effective date of this AD) or within the next 30 days after December 29, 2011 (the effective date of this AD), whichever occurs first, inspect all added placards, pilot operating handbooks (POHs), and airplane flight manual (AFM) supplements to identify modifications other than STC SA1762SO that state a VMC limitation.

Note 2: The abbreviation VMC for minimum control speed used in this AD may be identified in the AFM and AFM supplements as VMCA.

(1) If no modifications that state a VMC limitation are identified, other than STC SA1762SO, within the compliance time specified in paragraph (g) of this AD, inspect the VMC marking on the airspeed indicator(s) and airspeed limitations placard(s) to assure they are marked accurately to match the VMC specified in the AFM supplement associated with STC SA1762SO.

(i) If the VMC marking on both the airspeed indicator(s) and the airspeed limitations placard(s) do match the VMC specified in the AFM supplement associated with STC SA1762SO, paragraph (g)(1)(iii) is the only other action required by this AD.

(ii) If either the VMC marking on the airspeed indicator(s) or the airspeed limitations placard(s) do not match the VMC specified in the AFM supplement associated with STC SA1762SO, before further flight after the inspection required in paragraph (g)(1) of this AD, install a temporary placard(s) for the airspeed indicator(s) and/or install a temporary placard(s) over the VMC marked on the airspeed limitations placard(s), as applicable.

(A) The VMC as specified on both the airspeed indicator(s) or temporary placard(s) and the airspeed limitations placard(s) must match the VMC specified in the AFM supplement associated with STC SA1762SO, following the instructions in paragraph (h) of this AD.

(B) Before further flight after the inspection required in paragraph (g)(1) of this AD, you may have the airspeed indicator(s) permanently remarked and/or permanently remark the airspeed limitations placard(s) as required in paragraph (i), Remarking the Airspeed Indicator(s) and the Airspeed Limitations Placard(s), of this AD in lieu of installing the temporary placard(s) for the airspeed indicator(s) and/or installing the temporary placard(s) for the VMC on the airspeed limitations placard(s).

(iii) If the AFM lists an intentional one-engine-inoperative speed (VSSE), you must use the formula below in paragraph (g)(1)(iii)(A) of this AD and establish a new VSSE, unless the existing VSSE is equal to or greater than the VSSE determined by the formula. If the AFM does not state a VSSE, skip forward to the actions required in paragraph (h) of this AD, Temporary Airspeed Indicator(s) and Temporary Airspeed Limitations Placard(s) Installation.

(A)  $\text{New VSSE} = ((\text{VSSE from the AFM})/(\text{VMC from the AFM})) \times (\text{VMC from the AFM supplement associated with STC SA1762SO})$ .

(B) If necessary, insert the following language for the new VSSE into the AFM in all areas that refer to VSSE: "The revised VSSE is — in accordance with AD 2011-27-04."

(2) If modifications that state a VMC limitation are identified, in addition to STC SA1762SO, within the compliance time specified in paragraph (g) of this AD, inspect the VMC marking on the airspeed indicator(s) and the airspeed limitations placard(s) to assure they match and are marked accurately with the highest VMC specified in either the AFM or any placards and/or AFM supplements associated with any modifications that state a VMC limitation.

(i) If the VMC marking on the airspeed indicator(s) and the airspeed limitations placard(s) match and are marked with the highest VMC specified in either the AFM or any placards and/or AFM supplements associated with any modifications that affect VMC, skip forward to the actions required in paragraph (g)(2)(iii) of this AD.

(ii) If the VMC marking on the airspeed indicator(s) and the airspeed limitations placard(s) do not match and/or are not marked with the highest VMC specified in either the AFM or any placards and/or AFM supplements associated with any modifications that affect VMC, before further flight after the inspection required in paragraph (g)(2), install a temporary placard(s) for the airspeed indicator(s) and/or install a temporary placard(s) over the VMC marked on the airspeed limitations placard(s), as applicable.

(A) The VMC on both the airspeed indicator(s) and the airspeed limitations placard(s) must match the highest VMC specified in either the AFM or any placards and/or AFM supplements associated with any modifications that affect VMC, following the instructions in paragraph (h) of this AD, Temporary Airspeed Indicator(s) and Temporary Airspeed Limitations Placard(s) Installation.

(B) Before further flight after the inspection required in paragraph (g)(2), you may have the airspeed indicator(s) permanently remarked and/or permanently remark the airspeed limitations placard(s) as required in paragraph (i), Remark the Airspeed Indicator(s) and the Airspeed Limitations Placard(s), of this AD in lieu of installing the temporary placard(s) for the airspeed indicator(s) and/or installing the temporary placard(s) for the VMC on the airspeed limitations placard(s).

(iii) If the AFM or any of the AFM supplements that state a VMC limitation also list a VSSE, you must use the formula below in paragraph (g)(2)(iii)(A) of this AD and establish a new VSSE, unless the existing VSSE is equal to or greater than the VSSE determined by the formula. If the AFM or any of the AFM supplements do not list a VSSE, skip forward to the actions required in paragraph (h) of this AD, Temporary Airspeed Indicator(s) and Temporary Airspeed Limitations Placard(s) Installation.

(A)  $\text{New VSSE} = ((\text{VSSE from the AFM})/(\text{VMC from the AFM})) \times (\text{VMC as determined by paragraph (g)(2) of this AD})$ .

(B) If the VSSE listed in the AFM or any AFM supplements that state a VMC limitation is higher than the VSSE determined by paragraph (g)(2)(iii)(A) of this AD above, then the highest of all these values shall be the new VSSE.

(C) If necessary, insert the following language for the new VSSE into the AFM in all areas that refer to VSSE, including AFM supplements: "The revised VSSE is ——— in accordance with AD 2011-27-04."

#### **(h) Temporary Airspeed Indicator(s) and Temporary Airspeed Limitations Placard(s) Installation**

(1) If required by the actions in paragraph (g)(1)(ii) or (g)(2)(ii) of this AD, fabricate a temporary placard(s) (using at least 1/8-inch black letters on a white background) with the following words and install the placard(s) on the instrument panel in the nearest practical location to the airspeed indicator(s) within the pilot's clear view: "VMC = ——— ." Insert in the blank space the VMC as determined by the actions required in either paragraph (g)(1)(ii) or (g)(2)(ii) of this AD.

(2) If the VMC on the existing airspeed limitations placard is different than determined in either paragraph (g)(1)(ii) or (g)(2)(ii) of this AD, fabricate a temporary placard(s) (using letter sizes similar to those on the existing airspeed limitations placard(s) with black letters on a white background) with the VMC as determined by the actions required in either paragraph (g)(1)(ii) or (g)(2)(ii) of this AD and install the placard(s) over the VMC listed on the existing airspeed limitations placard(s).

Note 3: You may use FAA Advisory Circular 43.13-2B for additional guidance on installing placards. You can find Advisory Circular 43.13-2B at [http://rgl.faa.gov/Regulatory\\_and\\_Guidance\\_Library/rgAdvisoryCircular.nsf](http://rgl.faa.gov/Regulatory_and_Guidance_Library/rgAdvisoryCircular.nsf).

#### **(i) Remark the Airspeed Indicator(s) and the Airspeed Limitations Placard(s)**

(1) If during either of the inspections required in paragraphs (g)(1) or (g)(2) of this AD, the VMC marking on the airspeed indicator(s) was not marked accurately and required immediate temporary corrective action (placard), within the next 12 months after December 29, 2011 (the effective date of this AD), permanently remark the airspeed indicator(s) with the correct VMC marking. This instrument modification must be done by an appropriately rated repair facility.

(i) After the airspeed indicator(s) has been remarked, mark the airspeed indicator(s) instrument casing to clearly indicate that the markings comply with this AD stating "Modified in compliance with AD 2011-27-04, refer to AD 2011-27-04 for replacement part criteria."

(ii) Any replacement airspeed indicator must also meet the VMC marking requirements in paragraphs (i)(1) and (i)(1)(i) of this AD.

(iii) After the VMC has been remarked as required in this paragraph, you may remove the temporary placard(s) installed as required in paragraph (g)(1)(ii) and (g)(2)(ii) of this AD.

(iv) Instead of installing the temporary placard(s) after either of the inspections when it is determined the VMC marking on the airspeed indicator(s) is not marked accurately, you may permanently remark the airspeed indicator(s) as required in paragraph (i), Remark the Airspeed Indicator(s) and the Airspeed Limitations Placard(s), of this AD provided it is done before further flight.

(2) If during either of the inspections required in paragraphs (g)(1) or (g)(2) of this AD, the VMC marking on the airspeed limitations placard(s) was not marked accurately and required immediate temporary corrective action (placard), within the next 12 months after December 29, 2011 (the effective date of this AD), permanently remark or remake the airspeed limitations placard(s) with the correct VMC marking.

**(j) Alternative Methods of Compliance (AMOC)**

(1) 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. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the ACO, send it to the attention of the person identified in the Related Information section of this AD.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

**(k) Related Information**

For more information about this AD, contact Eric B. Potter, Aerospace Engineer, Atlanta ACO, FAA, 1701 Columbia Avenue, College Park, Georgia 30337; phone: (404) 474-5583; fax: (404) 474-5606; email: eric.potter@faa.gov.

Issued in Kansas City, Missouri, on December 21, 2011.  
Earl Lawrence,  
Manager, Small Airplane Directorate,  
Aircraft Certification Service.



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**DATE: December 23, 2011**

**AD #: 2011-27-51**

**Emergency airworthiness directive (AD) 2011-27-51 is sent to owners and operators of Hawker Beechcraft Corporation Models 1900, 1900C, and 1900D airplanes.**

### **Background**

This emergency AD was prompted by the following reported problems of the elevator bob-weight (stabilizer weight) traveling past its stop bolt, which allowed the attaching linkage to move over-center, reducing nose down elevator control.

In one instance, a Model 1900C airplane experienced jammed elevators on take-off after a loud bang was heard in the cockpit shortly after rotation. The flight crew noticed that they were unable to move the control column to a nose down position. Elevator movement was only available between neutral to full deflection nose up. The airplane pitch was controlled with the elevator trim and the airplane returned to base, landing safely. Upon inspection, mechanics noticed that the bob-weight interconnect link, part number (p/n) 101-524112-1, was upside down and trailing FORWARD from the control column weld assembly instead of trailing AFT as it should. With the link travel over-center, the geometry of the bob-weight was completely changed relative to its stop. This condition made the bob-weight hit its stop mid-travel, where it should actually have positive clearance from its stop at the full nose down position. The elevator could now only move between nose full up and neutral.

In another instance, on a Model 1900D airplane, during the takeoff roll the elevator controls felt heavy and appeared to be jammed/sticking, requiring more force than usual to rotate. The crew then aborted the takeoff run. Subsequent investigation revealed that the elevator bob-weight attaching link assembly traveled over-center, thus preventing full nose down elevator control authority.

The Model 1900 airplanes have the same type design and thus are subject to this unsafe condition.

This condition, if not corrected, could result in reduced nose down elevator control and loss of airplane control.

### **Relevant Service Information**

We reviewed Hawker Beechcraft Corporation Safety Communiqué #321, dated December 2011. The service information provides information to assist in doing the actions of this AD.

### **FAA's Determination**

We are issuing this AD because we evaluated all the relevant information and determined the unsafe condition described previously is likely to exist or develop in other products of the same type design.

## AD Requirements

This AD requires inspecting the elevator bob-weight and attaching linkage for correct installation and for damage or deformation to the weight and/or weight bracket with corrective action as necessary.

## Interim Action

We consider this AD interim action to address the immediate unsafe condition affecting these airplanes. We may take further AD action at a later date.

## Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, Section 106, describes the authority of the FAA Administrator. Subtitle VII, Aviation Programs, describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701, "General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

## Presentation of the Actual AD

We are issuing this AD under 49 U.S.C. Section 44701 according to the authority delegated to me by the Administrator.

**2011-27-51 Hawker Beechcraft Corporation:** Directorate Identifier 2011-CE-044-AD.

### (a) Effective Date

This Emergency AD is effective upon receipt.

### (b) Affected ADs

None.

### (c) Applicability

This AD applies to the following Hawker Beechcraft Corporation airplanes, certificated in any category:

	Models	Serial Numbers
(1)	1900	UA-3
(2)	1900C	UB-1 through UB-74 and UC-1 through UC-174
(3)	1900C (Military)	UD-1 through UD-6
(4)	1900D	UE-1 through UE-439

**(d) Subject**

Joint Aircraft System Component (JASC)/Air Transport Association (ATA) of America Code 27, Flight Controls.

**(e) Unsafe Condition**

This AD was prompted by reports of the elevator bob-weight (stabilizer weight) traveling past its stop bolt, which allowed the attaching linkage to move over-center. We are issuing this AD to detect and correct conditions that could result in reduced nose down elevator control and loss of control of the airplane.

**(f) Compliance**

Comply with this AD within the compliance times specified, unless already done.

**(g) Inspections**

Within the next 10 hours time-in-service after receipt of this emergency AD, inspect the elevator bob-weight installation for the following conditions. Use Hawker Beechcraft Corporation Safety Communiqué #321, dated December 2011.

NOTE: The term “nose down” corresponds to the airplane nose down, down elevator, and control column forward position as used in this AD and Hawker Beechcraft Corporation Safety Communiqué # 321, dated December 2011.

(1) The correct positioning of the elevator control column link assembly, (part number (P/N) 101-524112-1 (1900/1900C) or P/N 101-524112-5 (1900D)). With the elevator control column in the full nose down position (control column forward), the link must form an angle between the link attachment point at the control column and the bell crank pivot point as shown in the Hawker Beechcraft Corporation Safety Communiqué photo labeled “Correct Link Orientation.” The link should be trailing AFT from the control column assembly.

(2) The clearance of the bob-weight stop bolt. With the elevator control column in the full nose down position (control column forward), the stabilizer weight stop bolt must have positive clearance with the face of the stabilizer weight.

(3) The condition of the bob-weight and alignment with the stop bolt. Inspect for evidence of scraping along either side of the weight by the stop bolt. With side pressure applied by hand to the stabilizer weight, no part of the stop bolt should protrude beyond the face of the stabilizer weight on either edge.

(4) The condition of the bob-weight support bracket. Inspect for evidence of damage or deformation by contact with the weight assembly.

**(h) Corrective Actions**

If any discrepancies are found in the inspections required in paragraph (g) of this AD, before further flight, do the following:

(1) Contact Hawker Beechcraft Corporation Technical Support by telephone at (800) 429-5372 or (316) 676-3140 to obtain FAA-approved repair or replacement instructions.

- (2) Incorporate the repair or replacement specified in the FAA-approved instructions.

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

(1) The Manager, Wichita 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. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the ACO, send it to the attention of the person identified in the Related Information section of this AD.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

**(j) Related Information**

- (1) For further information about this AD, contact one of the following:

(i) Paul DeVore, Aerospace Engineer, Wichita ACO, FAA, 1801 Airport Road, Room 100, Wichita, Kansas 67209; telephone: (316) 946-4142; fax: (316) 946-4107; email: paul.devore@faa.gov; or

(ii) Don Ristow, Aerospace Engineer, Wichita ACO, FAA, 1801 Airport Road, Room 100, Wichita, Kansas 67209; telephone: (316) 946-4120; fax: (316) 946-4107; email: [donald.ristow@faa.gov](mailto:donald.ristow@faa.gov).

(2) For copies of the service information referenced in this AD, contact Hawker Beechcraft Corporation at P.O. Box 85, Wichita, Kansas 67201-0085; telephone: (800) 429-5372 or (316) 676-3140; Internet: <http://pubs.hawkerbeechcraft.com>.

(3) You may review copies of the referenced service information at the FAA, Small Airplane Directorate, 901 Locust, Kansas City, Missouri 64106. For information on the availability of this material at the FAA, call (816) 329-4148.

Issued in Kansas City, Missouri, on December 23, 2011.  
John Colomy,  
Acting Manager, Small Airplane Directorate,  
Aircraft Certification Service.