FEDERAL AVIATION ADMINISTRATION
AIRWORTHINESS DIRECTIVES

SMALL AIRPLANES, ROTORCRAFT, GLIDERS, BALLOONS, & AIRSHIPS

BIWEEKLY 2013-26

12/16/2013 - 12/29/2013

Federal Aviation Administration
Engineering Procedures Office, AIR-110
P.O. Box 25082
Oklahoma City, OK 73125-0460

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AD No.	Information	Manufacturer	Applicability
Information Key: E - Emergency; COR - Correction; S – Supersedes			
Biweekly 2013-01			
2012-26-07		Eurocopter France	AS350BA helicopters
2012-26-09		Burkhart GROB Luft-und Raumfahrt GmbH	GROB G 109 and GROB G 109B sailplanes
2012-26-10		Eurocopter France	SA-365N, SA-365N1, AS-365N2, AS 365 N3, EC 155B, EC155B1, SA-366G1, SA-365C, SA-365C1, and SA-365C2 helicopters
2012-26-11		Bell Helicopter Textron Inc	205A, 205A-1, and 205B helicopters
2012-26-12		Thielert Aircraft Engines	TAE 125-02-99 and TAE 125-02-114 reciprocating engines
2012-26-13	S 2011-07-09	Thielert Aircraft Engines GmbH	TAE 125-01, TAE 125-02-99, and TAE 125-02-114 reciprocating engines
2012-26-15		Honeywell International Inc	See AD
2012-27-02		Turbomeca S.A.	ARRIEL 1A1, 1A2, 1B, 1C, 1C1, 1C2, 1D, 1D1, 1E2, 1K1, 1S, and 1S1 turboshaft engines
Biweekly 2013-02			
2012-17-08		Bell Helicopter Textron Inc	204B, 205A, 205A-1, 205B, and 212 helicopters
2012-24-09	COR	Lycoming Engines and Continental Motors, Inc.	TIO-540-AK1A, TSIO-360-MB, TSIO-360-SB, and TSIO-360-RB reciprocating engines
2013-01-06		Pilatus Aircraft Ltd	PC-7
2013-02-01		Bell Helicopter Textron Inc	206L, 206L-1, and 206L-3 helicopters, and Model 206L-4 helicopters
Biweekly 2013-03			
2013-01-04		Bell Helicopter Textron, Inc	412 and 412EP helicopters
2013-01-05		Eurocopter France	AS350B3 and EC130B4 helicopters
2013-01-07		Turbomeca S.A.	Arriel 2D turboshaft engines
2013-02-13		Piper Aircraft, Inc	PA-28-236, PA-28-140, PA-28-150, PA-28-151, PA-28-160, PA-28-161, PA-28-180, PA-28-181, PA-28-201T, PA-28R-201, PA-28-235, PA-28R-201T, PA-28S-160, PA-28S-180, PA-28R-180, PA-28R-200, PA-28RT-201, PA-28RT-201T, PA-32-260, PA-32-301, PA-32-301T, PA-32-300, PA-32R-300, PA-32R-301T, PA-32R-301 (SP), PA-32R-301 (HP), PA-32RT-300, PA-32RT-300T, PA-32S-300, PA-32-301FT, PA-32-301XTC, PA-34-200, PA-34-200T, PA-34-220T, PA-44-180, and PA-44-180T
2013-03-03		MD Helicopters, Inc.	500N, 600N, and MD900 helicopters
Biweekly 2013-04			
2012-26-16	S 2009-14-13	Pilatus Aircraft Ltd.	PC-12, PC-12/45, PC-12/47, and PC-12/47E
2013-03-01	S 2010-20-18	Pacific Aerospace Limited	FU24-954 and FU24A-954
2013-03-02	S 2012-19-09	Eurocopter France	EC 155B, EC155B1, SA-365N1, AS-365N2 AS 365 N, and AS 365 N3 helicopters
2013-03-04		Sikorsky Aircraft Corporation	269D and Model 269D
2013-03-09		DG Flugzeugbau GmbH	DG-1000T gliders
2013-03-10		Lindstrand Hot Air Balloons Ltd	Appliance: Female ACME threaded hose connectors
2013-03-14		Pratt & Whitney Canada Corp.	PT6C-67C turboshaft engines
2013-03-15		Cessna Aircraft Company	172R and 172S
2013-03-16	S 2011-08-01	Bell Helicopter Textron	204B, 205A, 205A-1, 205B, 210 and 212 helicopters
2013-03-21		Pratt & Whitney Canada Corp.	PW206B, PW206B2, PW206C, PW207C, PW207D, PW207D1, PW207D2, and PW207E turboshaft engines
2013-04-02		Reims Aviation S.A.	F406
Biweekly 2013-05			
2013-04-06		Eurocopter France	AS332C, AS332L, and AS332L1 helicopters
2013-04-08		Diamond Aircraft Industries GmbH	H-36, HK 36 R, HK 36 TS, and HK 36 TTS
2013-04-09		Costruzioni Aeronautiche Tecnam srl	P2006T
2013-05-01	S 2011-24-08	Turbomeca S.A.	Makila 1A2 turboshaft engines

AD No.	Information	Manufacturer	Applicability

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Biweekly 2013-06

2012-26-06	S 97-10-15	Erickson Air-Crane Incorporated	S-64F helicopters
2013-04-06		Eurocopter France	AS332C, AS332L, and AS332L1 helicopters
2013-05-14		Bell Helicopter Textron, Inc.	412 and 412EP helicopters
2013-05-17		Sikorsky Aircraft Corporation	S-61A, D, E, L, N, NM, R, and V helicopters
2013-05-23		Eurocopter France	AS332C, L, and L1 helicopters
2013-06-02		Diamond Aircraft Industries GmbH	DA 42 M-NG and DA 42 NG

Biweekly 2013-07

2004-21-08 R1		Cessna Aircraft Company	190, 195 (L-126A,B,C), 195A, and 195B
2008-07-11 R1		Pilatus Aircraft Ltd.	PC-12, PC-12/45, and PC-12/47
2013-03-10		Lindstrand Hot Air Balloons Ltd	Appliance: female ACME threaded hose connectors
2013-05-15		Robinson Helicopter Company	R44 and R44 II helicopters
2013-05-16		MD Helicopters, Inc.	369D, E, F, and FF helicopters
2013-05-21		Eurocopter France	EC130 B4 helicopters
2013-05-22		Agusta S.p.A.	A109, A109A, A109A II, A109C, A109K2, A109E, A109S, and A119 helicopters
2013-06-04		Reims Aviation S.A.	F406
2013-06-07		Eurocopter France	SA-365N1, AS-365N2, and AS 365 N3 helicopters
2013-06-51		See AD	See Ad

Biweekly 2013-08

2013-07-01		Diamond Aircraft Industries GmbH	DA 42, DA 42 M-NG, and DA 42 NG
2013-07-05		Eurocopter France	EC130B4 helicopters
2013-07-06		Eurocopter France	AS332C, AS332L, AS332L1, AS332L2, and EC225LP helicopters
2013-07-12		BRP Powertrain GmbH & Co KG Rotax	912 F2; 912 F3, 912 F4, 912 S2; 912 S3, 912 S4, 914 F2; 914 F3; and 914 F4 engines
2013-08-04		Grob-Werke	G115EG
2013-08-06		Bell Helicopter Textron Canada	430 helicopters
2013-08-07		Eurocopter France	AS332C, L, and L1 helicopters

Biweekly 2013-09

2004-21-08 R1		Cessna Aircraft Company	190, 195 (L-126A,B,C), 195A, and 195B
2012-25-01		Eurocopter France	AS350B, AS350BA, AS350B1, AS350B2, AS350B3, AS350C, AS350D, AS350D1, AS355E, AS355F, AS355F1, AS355F2, AS355N, and AS355NP helicopters
2012-25-04		Eurocopter France	AS350B3 helicopters
2013-03-18		Eurocopter Deutschland GmbH	MBB-BK 117 C-2 helicopters
2013-08-05		Cessna Aircraft Company	525
2013-08-17		Eurocopter France	SA-365N, SA-365N1, AS-365N2, AS 365 N3, and SA-366G1 helicopters
2013-08-19		Eurocopter France	AS350B, BA, B1, B2, B3, C, D, D1, AS355E, F, F1, F2, and N helicopters
2013-08-21		Diamond Aircraft Industries GmbH	DA 40 NG
2013-08-22		Turbomeca S.A.	1A1, 1A2, 1B, 1C, 1C1, 1C2, 1D, 1D1, 1E2, 1K1, 1S, and 1S1 turboshaft engines

Biweekly 2013-10

2013-04-08 R1		Diamond Aircraft Industries GmbH	HK 36 R, HK 36 TS, and HK 36 TTS powered gliders
2013-08-14	S 2005-12-02	Revo, Incorporated	COLONIAL C-1, COLONIAL C-2, LAKE LA-4, LAKE LA-4A, LAKE LA-4P, and LAKE LA-4-200
2013-09-05		Twin Commander Aircraft LLC	690, 690A, and 690B
2013-09-06		Agusta	A119 and AW119 MKII helicopters
2013-09-09	S 98-22-15	Slingsby Sailplanes Ltd.	Dart T.51, Dart T.51/17, and Dart T.51/17R sailplanes
2013-10-01		Spectrolab Nightsun XP Searchlight	Appliance: See AD
2013-10-51	E	Eurocopter France	AS350B, AS350BA, AS350B1, AS350B2, AS350B3, AS350C, AS350D, AS350D1, AS355E, AS355F, AS355F1, AS355F2, AS355N, and AS355NP helicopters

AD No.	Information	Manufacturer	Applicability

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Biweekly 2013-11

2013-10-05		Eurocopter Deutschland GmbH	MBB-BK 117 C-2 helicopters
2013-11-02		Aircraft Industries a.s.	L-420
2013-11-09	S 2001-08-14R1	Turbomeca S.A.	Arrius 2B1 and 2F turboshaft engines

Biweekly 2013-12

2013-10-04	S 82-16-05 R1	Piper Aircraft, Inc.	PA-31, PA-31-325, and PA-31-350
2013-11-01		Iniziative Industriali Italiane S.p.A.	Sky Arrow 650 TC, Sky Arrow 650 TCN, Sky Arrow 650TCS, and Sky Arrow 650TCNS
2013-11-05		Bell	214B, 214B-1, and 214ST helicopters
2013-11-13		Rolls-Royce plc	Viper Mk. 601-22 turbojet engines

Biweekly 2013-13

2013-06-51		Goodrich	Appliance: See AD
2013-11-08	S 2011-01-14	Pilatus Aircraft Ltd.	PC-6, PC-6-H1, PC-6-H2, PC-6/350, PC-6/350-H1, PC-6/350-H2, PC-6/A, PC-6/A-H1, PC-6/A-H2, PC-6/B-H2, PC-6/B1-H2, PC-6/B2-H2, PC-6/B2-H4, PC-6/C-H2, and PC-6/C1-H2
2013-11-10		Cessna Aircraft Company	LC40-550FG, LC41-550FG, and LC42-550FG
2013-11-11	S 2000-04-01	Cessna Aircraft Company	172R, 172S, 182S, 182T, T182T, 206H and T206H
2013-11-15		Eurocopter Deutschland GmbH	BO-105A, BO-105C, BO-105S, BO-105LS A-1, BO 105 LS A-3, EC135 P1, EC135 P2, EC135 P2+, EC135 T1, EC135 T2, EC135 T2+, MBB-BK117 A-1, MBB-BK117 A-3, MBB-BK117 A-4, MBB-BK117 B-1, MBB-BK117 B-2, and MBB-BK117 C-1, MBB-BK117 C-2 helicopters
2013-12-04		Eurocopter France	EC 155B, EC155B1, SA-366G1, SA-365N, SA-365N1, AS-365N2, and AS 365 N3 helicopters
2013-12-07		Bell Helicopter Textron Canada	407 helicopters
2013-13-02		B-N Group Ltd.	BN-2, BN-2A, BN2A MK. III, BN2A MK. III-2, BN2A MK. III-3, BN-2A-2, BN-2A-20, BN-2A-21, BN-2A-26, BN-2A-27, BN-2A-3, BN-2A-6, BN-2A-8, BN-2A-9, BN-2B-20, BN-2B-21, BN-2B-26, BN-2B-27, BN-2T, and BN-2T-4R

Biweekly 2013-14

2012-23-13	COR	Sikorsky Aircraft Corporation	S-70, S-70A, and S-70C helicopters
2013-12-06		Eurocopter Deutschland	MBB-BK 117 A-3, MBB-BK 117 A-4, MBB-BK 117 B-1, and MBB-BK 117 C-2 helicopters
2013-13-01		Piper Aircraft, Inc.	PA–46–310P (Malibu), PA–46–350P (Mirage), PA–46R–350T (Matrix), and PA–46–500TP (Meridian)
2013-13-10		Pilatus Aircraft Ltd.	PC-7
2013-13-14		See AD	See AD

Biweekly 2013-15

2013-10-51		Eurocopter France	AS350B, AS350BA, AS350B1, AS350B2, AS350B3, AS350C, AS350D, AS350D1, AS355E, AS355F, AS355F1, AS355F2, AS355N, and AS355NP helicopters
2013-12-05		Eurocopter Deutschland GmbH	MBB-BK 117 C-2 helicopters
2013-14-01		Pilatus Aircraft Ltd.	PC-6/B2-H4
2013-14-08		Austro Engine GmbH	E4 engines
2013-15-03		Eurocopter France	AS350B, AS350BA, AS350B1, AS350B2, AS350B3, AS350C, AS350D and AS350D1 helicopters
2013-15-04		Hartzell Propeller, Inc.	HC-(1,D)2(X,V,MV)20-7, HC-(1,D)2(X,V,MV)20-8, and HC-(1,D)3(X,V,MV)20-8 propellers

Biweekly 2013-16

2013-13-06		See AD	See AD
2013-15-02	S 2008-10-03	Bell Helicopter Textron	205A, 205A-1, 205B, 210, 212, 412, 412CF, and 412EP helicopters
2013-16-06		Eurocopter Deutschland GmbH	BO-105A, BO-105C, BO-105LS A-1, BO-105LS A-3, and BO-105S helicopters

AD No.	Information	Manufacturer	Applicability
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Biweekly 2013-17			
2011-22-05	COR, S 2003-22-06	EUROCOPTER FRANCE	AS350B, B1, B2, B3, BA, C, D, D1, AS355E, F, F1, F2, N, and NP helicopters
2012-11-02	COR, S 2008-22-51	Eurocopter Deutschland GmbH	EC135 helicopters
2012-25-04	COR, S 2012-21-51	Eurocopter France	AS350B3 helicopters
2013-15-19	S 2013-07-12	BRP Powertrain GmbH & Co KG Rotax	Rotax 912F, Rotax 912S, Rotax 914F, Rotax 912F, 912S, and 914F engines
2013-16-01		Beechcraft Corporation and Hawker Beechcraft Corporation	See AD
2013-16-04		Eclipse Aerospace, Inc.	EA500
2013-16-07		Eurocopter France	AS332C, AS332L, AS332L1, AS332L2, and EC225LP helicopters
2013-16-10		Hamilton Standard Division and Hamilton Sundstrand Corporation	See AD
2013-16-13		Eurocopter Deutschland GmbH	O-105A, BO-105C, BO-105S, BO-105LS A-1, BO-105LS A-3, MBB-BK 117 A-1, MBB-BK 117 A-3, MBB-BK 117 A-4, MBB-BK117 B-1, MBB-BK 117 B-2, and MBB-BK 117 C-1 helicopters
2013-16-16		Agusta S.p.A. and Bell Helicopter Textron Helicopters	See AD
2013-16-19		Eurocopter France	EC120B and EC130B4 helicopters
2013-16-20		Eurocopter Deutschland GmbH	MBB-BK 117 C-2 helicopters
99-07-10 R1		PIAGGIO AERO INDUSTRIES S.p.A	P-180
Biweekly 2013-18			
2013-10-04	COR	Piper Aircraft, Inc.	PA-31, PA-31-325, and PA-31-350 airplanes
2013-16-05	S 64-07-05	Alexander Schleicher	AS -K13, Ka2B, Ka 6, Ka 6 B, Ka 6 BR, Ka 6 C, Ka 6 CR, K7, K8, and K 8 B sailplanes
2013-16-14		Eurocopter Deutschland	EC135 P1, P2, P2+, T1, T2, and T2+ helicopters
2013-17-01		Eurocopter France	AS350B, AS350BA, AS350B1, AS350B2, AS350C, AS350D, AS350D1, AS355E, AS355F, AS355F1, and AS355F2; AS350B3; AS355N and AS355NP helicopters
2013-17-04		Various Aircraft	Equipped with a Rotax Aircraft Engines 912 A series engine (See AD)
2013-18-03		Bell Helicopter Textron Canada	206A and 206B; 206L helicopters
Biweekly 2013-19			
2013-13-01	COR	Piper Aircraft, Inc.	PA–46–310P (Malibu), PA–46–350P (Mirage), PA–46R–350T (Matrix), PA–46–500TP (Meridian)
2013-16-03		Eurocopter France	AS350C, D, D1, B, BA, B1, B2, and B3; and AS355E, F, F1, F2, N, and NP helicopters
2013-18-01		Eurocopter France	C 155B, EC155B1, SA-365N, SA-365N1, AS-365N2, AS 365 N3, and SA-366G1 helicopters
2013-18-04		Piaggio Aero Industries S.p.A	P-180
2013-18-05		Eurocopter Deutschland GmbH	EC135P1, EC135P2, EC135P2+, EC135T1, EC135T2, and EC135T2+ helicopters
2013-18-06		Bell Helicopter Textron Canada Limited	206A, 206B, 206L, 206L-1, 206L-3, 206L-4, 222, 222B, 222U, 230, 407, 427, and 430 helicopters
2013-18-07	S 76-12-07	Bell Helicopter Textron	204B and 205A-1 helicopters
2013-19-01		AgustaWestland S.p.A.	A119 and AW119 MKII helicopters
Biweekly 2013-20			
2013-15-01		AgustaWestland S.p.A.	AB139 and AW139 helicopters
2013-19-05		Bell Helicopter Textron, Inc.	214B, 214B-1, and 214ST helicopters
2013-19-06		Robinson Helicopter Company	R22, R22 Alpha, R22 Beta, and R22 Mariner helicopters
2013-19-07		Eurocopter France	SA-365N, SA-365N1, AS-365N2, AS 365 N3, EC 155B, EC155B1, AS332C, AS332L, AS332L1, AS332L2, and EC225LP helicopters
2013-19-16		Sikorsky Aircraft Corporation	S-92A helicopters
2013-19-19		Eurocopter France	AS332C, AS332L, AS332L1, AS332L2, and EC225LP helicopters

AD No.	Information	Manufacturer	Applicability
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2013-20-51		AgustaWestland S.p.A	A109A, A109A II, A109C, A109E, A109K2, A109S, AW109SP, A119, and AW119 MKII helicopters
Biweekly 2013-21			
Due to the partial shutdown of the US Government, there were no AD's published in this Bi-weekly period.			
Biweekly 2013-22			
2013-19-24	S 2003-08-51	MD Helicopters, Inc.	369A, 369D, 369E, 369H, 369HE, 369HM, 369HS, 369F and 369FF helicopters
2013-20-01		Agusta	A109A, A109AII, and A109C helicopters
2013-20-02		Bell	230 helicopters
2013-20-03		Bell	430 helicopters
2013-20-05		Bell	407 helicopters
2013-20-15	S 97-19-10	Erickson Air-Crane Incorporated	CH-54A helicopters
2013-20-16		MD Helicopters, Inc.	MD 900 helicopters
2013-20-18		Bell Helicopter Textron, Inc.	412, 412EP, and 412CF helicopters
2013-20-51	S 2009-05-09	AgustaWestland S.p.A	A109A, A109A II, A109C, A109E, A109S, A109K2, AW109SP, A119 and AW119 MKII helicopters
2013-21-01		Eurocopter France	AS350B, AS350BA, AS350B1, AS350B2, AS350B3, AS350C, AS350D, AS350D1, AS355E, AS355F, AS355F1, AS355F2, AS355N, and AS355NP helicopters
2013-21-02	S 2012-24-09	Lycoming and Continental Motors, Inc.	See Ad
2013-21-05		Eurocopter Deutschland GmbH	EC135 P1, P2, P2+, T1, T2, and T2+ helicopters
2013-22-01		Bell Helicopter Textron Canada	206L-4 and 407 helicopters
Biweekly 2013-23			
2013-20-13		Bell	206B, 206A; and 206L helicopters
2013-20-17		Eurocopter Deutschland GMBH	BO105C (C-2 and CB-2 Variants) and BO105S (CS-2 and CBS-2 Variants) helicopters
2013-22-12		DG Flugzeugbau GmbH	DG-800A, DG-800B, and DG-500MB gliders
2013-22-13		PILATUS Aircraft Ltd.	PC-7
2013-22-14		DG Flugzeugbau GmbH	DG-1000T gliders
2013-22-15		Sikorsky Aircraft Corporation	S-76A, S-76B, and S-76C helicopters
2013-22-16		Agusta S.p.A.	AW139 helicopters
2013-22-17		Eurocopter France	AS332C, AS332L, AS332L1, AS332L2, and EC225LP helicopters
2013-22-20		Embraer	EMB-505
2013-22-21		Bell Helicopter Textron, Inc.	206A, 206B, 206L, 206L-1, 206L-3, 206L-4, and 407 helicopters
2013-22-22	S 2013-01-07	Turbomeca S.A.	Arriel 2D turboshaft engines
2013-22-23		Aermacchi S.p.A.	F.260, F.260B, F.260C, F.260D, F.260E, and F.260F, S.208 and S.208A
Biweekly 2013-24			
2013-23-07	S 90-26-12	Erickson Air-Crane Incorporated	S-64E and S-64F helicopters
2013-23-08		Aquila–Aviation by Excellence AG	AT01
2013-23-09		Eurocopter France	AS350B, AS350BA, AS350B1, AS350B2, AS350B3, AS350C, AS350D, AS350D1, AS355E, AS355F, AS355F1, AS355F2, AS355N, and AS355NP helicopters
2013-23-10		Eurocopter France	AS350B, BA, B1, B2, B3, D, AS355E, F, F1, F2, and N helicopters
2013-23-11		Eurocopter France	AS332L2 and EC225LP helicopters
2013-23-19		XtremeAir GmbH	XA42
2013-24-06		Thielert Aircraft Engines GmbH	TAE 125-01 reciprocating engines
Biweekly 2013-25			
2013-24-03		Beechcraft Corporation	1900, 1900C, 1900C (C-12J), and 1900D
2013-24-14		Diamond Aircraft Industries	DA 40, DA 40 F
99-01-05 R1	R 99-01-05	Various Aircraft	See AD

AD No.	Information	Manufacturer	Applicability

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Biweekly 2013-26

2013-21-06	Eurocopter Deutschland GmbH	EC135 P1, EC135 P2, EC135 P2+, EC135 T1, EC135 T2, EC135 T2+, and MBB-BK 117 C-2 helicopters
2013-24-05	Turbomeca S.A.	Arriel 1A1, 1A2, 1B, 1C, 1C1, 1C2, 1D, 1D1, 1E2, 1K1, 1S, and 1S1 turboshaft engines
2013-24-16	Schempp-Hirth Flugzeugbau GmbH	Duo Discus T gliders
2013-24-19	Eurocopter France	AS332C, AS332L, AS332L1, AS332L2 and EC225LP helicopters
2013-25-09	AgustaWestland S.p.A.	AB139 and AW139 helicopters
2013-25-10	Bell Helicopter Textron Canada	206L, 206L-1, 206L-3, and 206L-4 helicopters
98-15-18 R1	Maule Aerospace Technology, Inc.	Bee Dee M-4, M-4, M-4C, M-4S, M-4T, M-4-180C, M-4-180S, M-4-180T, M-4-210, M-4-210C, M-4-210S, M-4-210T, M-4-220, M-4-220C, M-4-220S, M-4-220T, M-5-180C, M-5-200, M-5-210C, M-5-210TC, M-5-220C, M-5-235C, M-6-180, M-6-235, M-7-235, M-7-235A, M-7-235B, M-7-235C, MT-7-235, MX-7-160, MX-7-180, MX-7-180A, MX-7-180B, MX-7-235, MX-7-420, MXT-7-160, MXT-7-180, MXT-7-180A, M-8-235
99-26-19 R1	Piper Aircraft, Inc.	J-2

2013-21-06 Eurocopter Deutschland GmbH Helicopters: Amendment 39-17630; Docket No. FAA-2013-0340; Directorate Identifier 2010-SW-081-AD.

(a) Applicability

This AD applies to Eurocopter Deutschland GmbH (Eurocopter) Model EC135 P1, EC135 P2, EC135 P2+, EC135 T1, EC135 T2, and EC135 T2+ helicopters with a Goodrich Corporation (Goodrich) external mounted hoist system (hoist) with boom support assembly (boom) Part Number (P/N) 44301-500, 44307-500, or 44307-500-1 installed, and Model MBB-BK 117 C-2 helicopters with a Goodrich hoist with boom P/N 44307-500 installed, certificated in any category.

(b) Unsafe Condition

This AD defines the unsafe condition as a crack in the boom. This condition could result in loss of the boom and attached loads, and subsequent loss of helicopter control.

(c) Effective Date

This AD becomes effective January 31, 2014.

(d) Compliance

You are responsible for performing each action required by this AD within the specified compliance time unless it has already been accomplished prior to that time.

(e) Required Actions

(1) Before further flight, and thereafter before the first flight of each day until you have performed the inspection required by paragraph (e)(2) of this AD, clean the hoist and visually check for a crack, paying particular attention to the areas that are circled as depicted in Figure 1 to paragraph (e) of this AD. The actions required by this paragraph may be performed by the owner/operator (pilot) holding at least a private pilot certificate, and must be entered into the aircraft records showing compliance with this AD in accordance with 14 CFR 43.9(a)(1)-(4) and 14 CFR 91.417(a)(2)(v). The record must be maintained as required by 14 CFR 91.417, 121.380, or 135.439.

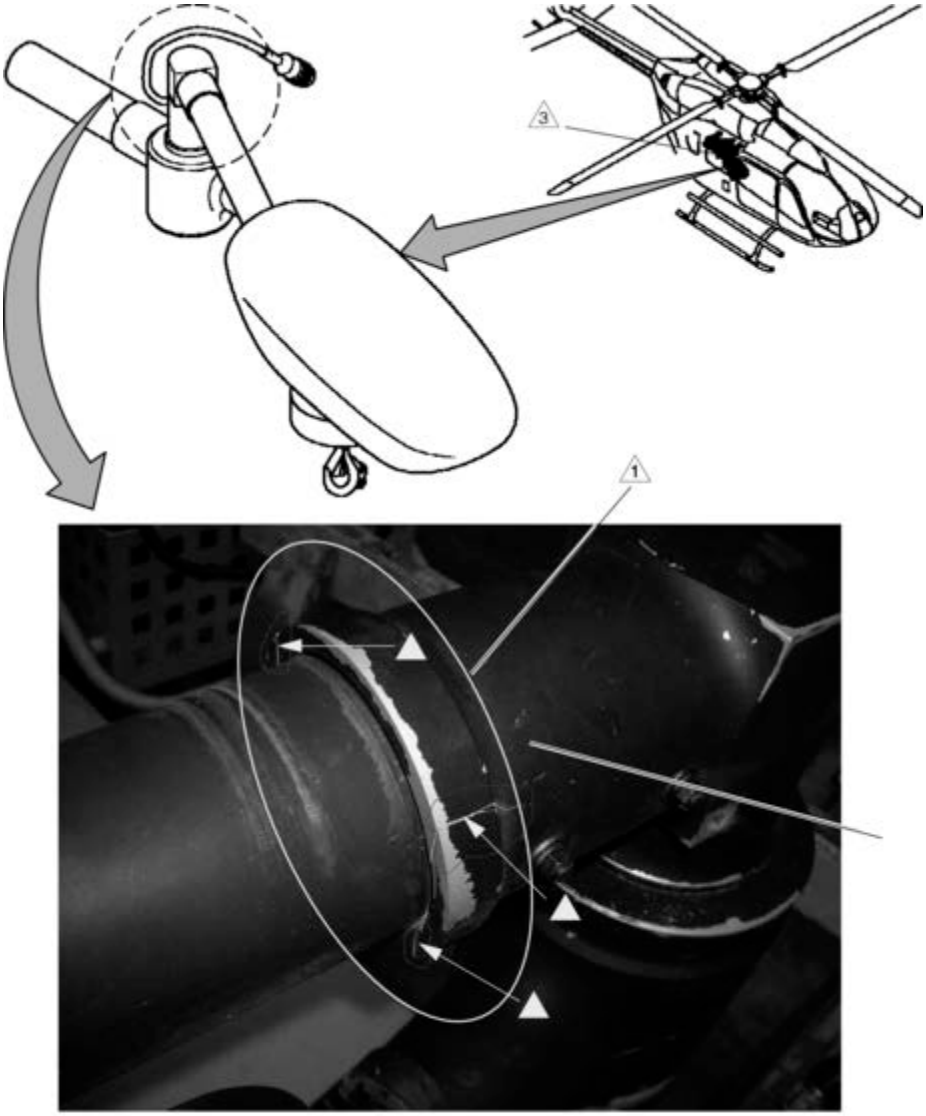

Figure 1 to Paragraph (e)

(2) Within 30 days, perform a dye penetrant inspection of the boom in accordance with the Accomplishment Instructions, Section 2.D, of the Goodrich Service Bulletin 44307-500-03, Revision 2, dated April 30, 2010 (SB).

Note 1 to paragraph (e)(2) of this AD: A copy of the SB is attached to Eurocopter Emergency Alert Service Bulletin (EASB) EC135-85A-036, Revision 2, and Eurocopter EASB MBB BK117 C-2-85A-024, Revision 1, both dated June 23, 2010.

(3) If a crack exists in the boom, replace the cracked boom with an airworthy boom before further flight.

(f) Special Flight Permits

Special flight permits would be allowed provided the hoist is disabled during the ferry flight.

(g) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Safety Management Group, FAA, may approve AMOCs for this AD. Send your proposal to: Matt Wilbanks, Aviation Safety Engineer, Rotorcraft Certification Office,

Rotorcraft Directorate, FAA, 2601 Meacham Blvd., Fort Worth, Texas 76137; telephone (817) 222-5110; email matt.wilbanks@faa.gov.

(2) For operations conducted under a 14 CFR part 119 operating certificate or under 14 CFR part 91, subpart K, we suggest that you notify your principal inspector, or lacking a principal inspector, the manager of the local flight standards district office or certificate holding district office, before operating any aircraft complying with this AD through an AMOC.

(h) Additional Information

(1) Eurocopter EASB EC135-85A-036, Revision 2, and Eurocopter EASB MBB BK117 C-2-85A-024, Revision 1, both dated June 23, 2010, which are not incorporated by reference, contain additional information about the subject of this AD. For Eurocopter service information identified in this AD, contact American Eurocopter Corporation, 2701 N. Forum Drive, Grand Prairie, TX 75052; telephone (972) 641-0000 or (800) 232-0323; fax (972) 641-3775; or at http://www.eurocopter.com/techpub. You may review a copy of the service information at the FAA, Office of the Regional Counsel, Southwest Region, 2601 Meacham Blvd., Room 663, Fort Worth, Texas 76137.

(2) The subject of this AD is addressed in European Aviation Safety Agency (EASA) AD No. 2010-0154, dated August 13, 2010, which supersedes EASA AD No. 2009-0093-E, dated April 17, 2009. You may view the EASA ADs on the Internet at http://www.regulations.gov in Docket No. FAA-2013-0340.

(i) Subject

Joint Aircraft Service Component (JASC) Code: 5345, Fuselage, Equipment Attach Fittings.

(j) Material Incorporated by Reference

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

(2) You must use this service information as applicable to do the actions required by this AD, unless the AD specifies otherwise.

(i) Goodrich Service Bulletin 44307-500-03, Revision 2, dated April 30, 2010.

(ii) Reserved.

(3) For Goodrich service information identified in this AD, contact American Eurocopter Corporation, 2701 N. Forum Drive, Grand Prairie, TX 75052; telephone (972) 641-0000 or (800) 232-0323; fax (972) 641-3775; or at http://www.eurocopter.com/techpub, and contact the UTC Aerospace Systems (formerly the Goodrich Corporation), 2727 East Imperial Highway, Brea, CA 92821; telephone (714) 984-1461; fax 714-984-1675, or at www.goodrich.com.

(4) You may view this service information at FAA, Office of the Regional Counsel, Southwest Region, 2601 Meacham Blvd., Room 663, Fort Worth, Texas 76137. For information on the availability of this material at the FAA, call (817) 222-5110.

(5) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call (202) 741-6030, or go to: http://www.archives.gov/federal-register/cfr/ibr-locations.html.

Issued in Fort Worth, Texas, on September 27, 2013.
Lance T. Gant,
Acting Directorate Manager, Rotorcraft Directorate,
Aircraft Certification Service.

2013-24-05 Turbomeca S.A.: Amendment 39-17679; Docket No. FAA-2013-0557; Directorate Identifier 2013-NE-22-AD.

(a) Effective Date

This AD becomes effective January 28, 2014.

(b) Affected ADs

None.

(c) Applicability

This AD applies to Turbomeca S.A. Arriel 1A1, 1A2, 1B, 1C, 1C1, 1C2, 1D, 1D1, 1E2, 1K1, 1S, and 1S1 turboshaft engines equipped with free turbine (FT) module (M04) identified by the part and serial numbers listed in Figure 2 of Turbomeca S.A. Alert Mandatory Service Bulletin (MSB) No. A292 72 0838, Version A, dated May 24, 2013.

(d) Reason

This AD was prompted by a "chip illumination event" in flight on a Turbomeca S.A. Arriel 1 engine. We are issuing this AD to prevent a loss of FT bearing lubrication, resulting in FT module failure, damage to the engine, and damage to the aircraft.

(e) Actions and Compliance

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

(1) For Arriel 1B, 1D, and 1D1 engines with an FT module (M04) with a part and serial number listed in Figure 2 of Turbomeca S.A. Alert MSB No. A292 72 0838, Version A, dated May 24, 2013, within 50 flight hours (FHs) from the effective date of this AD, inspect the FT module (M04). Use the instructions in paragraph 6 of Turbomeca S.A. Alert MSB No. A292 72 0838, Version A, dated May 24, 2013 to do the inspection.

(2) For Arriel 1A1, 1A2, 1C, 1C1, 1C2, 1E2, 1K1, 1S, and 1S1 engines with an FT module (M04) with a part and serial number listed in Figure 2 of Turbomeca S.A. Alert MSB No. A292 72 0838, Version A, dated May 24, 2013, within 300 FHs from the effective date of this AD, inspect the FT module (M04). Use the instructions in paragraph 6 of Turbomeca S.A. Alert MSB No. A292 72 0838, Version A, dated May 24, 2013, to do the inspection.

(3) If you find that the FT module (M04) is not eligible for return to service, remove the FT module (M04) before further flight.

(f) Installation Prohibition

After the effective date of this AD, do not install any affected FT module (M04) with a part and serial number listed in Figure 2 of Turbomeca S.A. Alert MSB No. A292 72 0838, Version A, dated

May 24, 2013, onto any engine, or an engine with an affected FT module (M04) onto any helicopter, unless the module has passed the inspections required by paragraphs (e)(1) and (e)(2) of this AD.

(g) Alternative Methods of Compliance (AMOCs)

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

(h) Related Information

(1) For more information about this AD, contact Robert Morlath, Aerospace Engineer, Engine Certification Office, FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; phone: 781-238-7154; fax: 781-238-7199; email: robert.c.morlath@faa.gov.

(2) Refer to MCAI European Aviation Safety Agency AD 2013-0120, dated June 4, 2013, for more information. You may examine the MCAI in the AD docket on the Internet at http://www.regulations.gov/#!documentDetail;D=FAA-2013-0557-0002.

(i) Material Incorporated by Reference

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

(2) You must use this service information as applicable to do the actions required by this AD, unless the AD specifies otherwise.

(i) Turbomeca S.A. Alert Mandatory Service Bulletin No. A292 72 0838, Version A, dated May 24, 2013.

(ii) Reserved.

(3) For Turbomeca service information identified in this AD, contact Turbomeca, S.A., 40220 Tarnos, France; phone: 33 (0)5 59 74 40 00; telex: 570 042; fax: 33 (0)5 59 74 45 15.

(4) You may view this service information at FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA. For information on the availability of this material at the FAA, call 781-238-7125.

(5) You may view this service information at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: http://www.archives.gov/federal-register/cfr/ibr-locations.html.

Issued in Burlington, Massachusetts, on November 14, 2013.
Colleen M. D'Alessandro,
Assistant Directorate Manager, Engine & Propeller Directorate,
Aircraft Certification Service.

2013-24-16 Schempp-Hirth Flugzeugbau GmbH: Amendment 39-17693; Docket No. FAA-2013-0661; Directorate Identifier 2013-CE-009-AD

(a) Effective Date

This airworthiness directive (AD) becomes effective January 28, 2014.

(b) Affected ADs

None.

(c) Applicability

This AD applies to Schempp-Hirth Flugzeugbau GmbH Model Duo Discus T gliders, serial numbers (S/N) 1 through 240, certificated in any category.

(d) Subject

Air Transport Association of America (ATA) Code 5: Time Limits.

(e) Reason

This AD was prompted by mandatory continuing airworthiness information (MCAI) originated by an aviation authority of another country to identify and correct an unsafe condition on an aviation product. The MCAI describes the unsafe condition as the instructions provided to inspect the propeller hub and blades are insufficient for detecting cracks and/or other damage, and other operating instructions provided by the flight and maintenance manual are incorrect and insufficient. We are issuing this AD to ensure that the instructions for inspecting the propeller hub and blades are sufficient to detect cracks and/or other damage and instructions of the flight and maintenance manual are correct and sufficient.

(f) Actions and Compliance

Unless already done, do the following actions as specified in paragraphs (f)(1) through (f)(6) of this AD, including all subparagraphs:

(1) Within 30 days after January 28, 2014 (the effective date of this AD), incorporate amended pages into the applicable FAA-approved sailplane flight manual (SFM), following Action 1 of Schempp-Hirth Flugzeugbau GmbH Technical Note No. 890-13, 2nd issue, dated March 5, 2013.

(2) Within 60 days after January 28, 2014 (the effective date of this AD), do the actions specified in paragraphs (f)(2)(i) through (f)(2)(iii) of this AD:

(i) Incorporate amended pages into the FAA-approved SFM and sailplane maintenance manual (SMM), as applicable, following Action 2 and Action 3 of Schempp-Hirth Flugzeugbau GmbH Technical Note No. 890-13, 2nd issue, dated March 5, 2013.

(ii) Install the amended cockpit placards following Action 4 of Schempp-Hirth Flugzeugbau GmbH Technical Note No. 890-13, 2nd issue, dated March 5, 2013. Replace previous placard as necessary.

(iii) Transfer weight and balance data from weight and balance report into the weight and balance log sheet following Action 5 of Schempp-Hirth Flugzeugbau GmbH Technical Note No. 890-13, 2nd issue, dated March 5, 2013.

(3) The actions required by paragraph (f)(1) and (f)(2)(i) of this AD may be performed by the owner/operator (pilot) holding at least a private pilot certificate and must be entered into the aircraft records showing compliance with this AD following 14 CFR § 43.9 (a)(1) through (4) and 14 CFR 91.417(a)(2)(v). The record must be maintained as required by 14 CFR 91.417, 121.380, or 135.439.

(4) Initially within 30 days after January 28, 2014 (the effective date of this AD) and repetitively thereafter at intervals not to exceed 12 calendar months, visually inspect (pre-flight) the power plant (propeller hub and propeller blades) for cracks or other damage using the following service information in paragraphs (f)(4)(i) and (f)(4)(ii) of this AD:

(i) For S/N 1 through 174: Use step (4)(c) of the Visual inspection of the power plant section on page 4.3.3 of Schempp-Hirth Flugzeugbau GmbH Duo Discus T Flight Manual issue May 2000, Revision No. 12, Date of issue November 2011; as specified in Schempp-Hirth Flugzeugbau GmbH Technical Note No. 890-13, 2nd issue, dated March 5, 2013.

(ii) For S/N 175 through 240: Use step (4)(c) of the Visual inspection of the power plant section on page 4.3.3, of Schempp-Hirth Flugzeugbau GmbH Duo Discus T Flight Manual issue October 2007, Revision No. 2, Date of issue November 2011; as specified in Schempp-Hirth Flugzeugbau GmbH Technical Note No. 890-13, 2nd issue, dated March 5, 2013.

Note 1 to paragraph (f)(4)(ii) of this AD: The flight manual references TN 890-13 and MB 890-8; however, neither are part of the flight manual. Also, MB 890-8 does not apply to the airplanes included in the Applicability of this AD.

(5) If any cracks or other damage is found during any inspection required by paragraph (f)(4) of this AD, before further flight, replace any parts found with cracks and repair any damage.

(6) The revised SFM pages require pre-flight checks that may be done by the pilot. However, the inspection actions required in paragraph (f)(4) of this AD, to include all subparagraphs, are separate from the pilot pre-flight checks and must be done by a properly certificated aircraft mechanic.

(g) Other FAA AD Provisions

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: Jim Rutherford, Aerospace Engineer, FAA, Small Airplane Directorate, 901 Locust, Room 301, Kansas City, Missouri 64106; telephone: (816) 329-4165; fax: (816) 329-4090; email: jim.rutherford@faa.gov. 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.

(h) Related Information

Refer to MCAI European Aviation Safety Agency (EASA) AD No.: 2013-0054, dated March 5, 2013, for more information. You may examine the MCAI in the AD docket on the Internet http://www.regulations.gov/#!documentDetail; D=FAA-2013-0661-0002.

(i) Material Incorporated by Reference

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

(2) You must use this service information as applicable to do the actions required by this AD, unless the AD specifies otherwise.

(i) Schempp-Hirth Flugzeugbau GmbH Technische Mitteilung Nr. 890-13, 2. Augabe, dated March 5, 2013 (English translation: Schempp-Hirth Flugzeugbau GmbH Technical Note No. 890-13, 2nd Issue, dated March 5, 2013);

(ii) Schempp-Hirth Flugzeugbau GmbH Duo Discus T FLUGHANDBUCH Ausgabe Oktober 2007, Lfd. Nr. der Berichtigung 2, Datum der Berichtigung November 2011 (English translation: Schempp-Hirth Flugzeugbau GmbH Duo Discus T Flight Manual issue October 2007, Revision No. 2, Date of issue November 2011); and

(iii) Schempp-Hirth Flugzeugbau GmbH Duo Discus T FLUGHANDBUCH Ausgabe Mai 2000, Lfd. Nr. der Berichtigung 12, Datum der Berichtigung November 2011 (English translation: Schempp-Hirth Flugzeugbau GmbH Duo Discus T Flight Manual issue May 2000, Revision No. 12, Date of issue November 2011).

Note 2 to paragraphs (i)(2)(i) through (i)(2)(iii) of this AD: This service information contains German to English translation. EASA used the English translation in referencing the documents from Schempp-Hirth Flugzeugbau GmbH. For enforceability purposes, we will refer to the Schempp-Hirth Flugzeugbau GmbH service information as the titles appear on the documents.

(3) For Schempp-Hirth Flugzeugbau GmbH service information identified in this AD, contact Schempp-Hirth Flugzeugbau GmbH, Krebenstrasse 25, 73230 Kirchheim/Teck, Germany; telephone: +49 7021 7298-0; fax: +49 7021 7298-199; email: info@schempp-hirth.com; Internet: http://www.schempp-hirth.com.

(4) You may view this service information at 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.

(5) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: http://www.archives.gov/federal-register/cfr/ibr-locations.html

Issued in Kansas City, Missouri, on November 26, 2013.

Earl Lawrence,
Manager, Small Airplane Directorate,
Aircraft Certification Service.

2013-24-19 Eurocopter France Helicopters: Amendment 39-17696; Docket No. FAA-2013-0524; Directorate Identifier 2012-SW-084-AD.

(a) Applicability

This AD applies to Eurocopter France (Eurocopter) Model AS332C, AS332L, AS332L1, AS332L2 and EC225LP helicopters, certificated in any category, that have never undergone a window-jettison test.

(b) Unsafe Condition

This AD defines the unsafe condition as the presence of sealant on an emergency exit window panel. This condition could result in the window failing to jettison, preventing the helicopter occupants from exiting the aircraft during an emergency.

(c) Effective Date

This AD becomes effective January 24, 2014.

(d) Compliance

You are responsible for performing each action required by this AD within the specified compliance time unless it has already been accomplished prior to that time.

(e) Required Actions

Within 110 hours time-in-service (TIS), visually inspect each jettisonable emergency exit window panel (window) by doing the following:

(1) Lift the extrusion slightly using a flat tool that does not cause scoring.

(2) Inspect for sealant on the inside and outside of the window between the window and the extrusion and between the extrusion and the structure.

Note 1 to paragraph (e)(2) of this AD: The presence of a sealant bead on the extrusion parting lines, on the window pull-out seal parting lines, and on the pull-out straps is expected, as shown in Figure 1 of Eurocopter Alert Service Bulletin (ASB) No. AS332-56.00.04 or ASB No. EC225-56A002, both Revision 0, and both dated August 8, 2012, as applicable to your model helicopter.

(3) If there is no sealant as shown in Photo 1 of Figure 2 of Eurocopter ASB No. AS332-56.00.04 or ASB No. EC225-56A002, as applicable to your model helicopter, no further action is required.

(4) If there is sealant between the structure and the profile as shown in Photo 2 of Figure 2 of Eurocopter ASB No. AS332-56.00.04 or ASB No. EC225-56A002, as applicable to your model helicopter, or if you cannot determine whether there is sealant, remove the extrusion.

(5) Remove all sealant from the extrusion, the window, and the structure.

(6) If there is any crazing, cracking or other damage on the extrusion, replace with an airworthy extrusion.

(f) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Safety Management Group, FAA, may approve AMOCs for this AD. Send your proposal to: Robert Grant, Aviation Safety Engineer, Safety Management Group, FAA, 2601 Meacham Blvd., Fort Worth, Texas 76137; telephone 817-222-5110; email robert.grant@faa.gov.

(2) For operations conducted under a 14 CFR part 119 operating certificate or under 14 CFR part 91, subpart K, we suggest that you notify your principal inspector, or lacking a principal inspector, the manager of the local flight standards district office or certificate holding district office, before operating any aircraft complying with this AD through an AMOC.

(g) Additional Information

The subject of this AD is addressed in European Aviation Safety Agency (EASA) AD No. 2012-0152, dated August 13, 2012. You may view the EASA AD at http://www.regulations.gov in Docket No. FAA-2013-0524.

(h) Subject

Joint Aircraft Service Component (JASC) Code: 5220, Emergency Exits.

(i) Material Incorporated by Reference

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

(2) You must use this service information as applicable to do the actions required by this AD, unless the AD specifies otherwise.

(i) Eurocopter Alert Service Bulletin No. AS332-56.00.04, Revision 0, dated August 8, 2012.

(ii) Eurocopter Alert Service Bulletin No. EC225-56A002, Revision 0, dated August 8, 2012.

(3) For Eurocopter service information identified in this AD, contact American Eurocopter Corporation, 2701 N. Forum Drive, Grand Prairie, TX 75052; telephone (972) 641-0000 or (800) 232-0323; fax (972) 641-3775; or at http://www.eurocopter.com/techpub.

(4) You may view this service information at FAA, Office of the Regional Counsel, Southwest Region, 2601 Meacham Blvd., Room 663, Fort Worth, Texas 76137. For information on the availability of this material at the FAA, call (817) 222-5110.

(5) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call (202) 741-6030, or go to: http://www.archives.gov/federal-register/cfr/ibr-locations.html.

Issued in Fort Worth, Texas, on November 27, 2013.
Lance T. Gant,
Acting Directorate Manager, Rotorcraft Directorate,
Aircraft Certification Service.

2013-25-09 AGUSTAWESTLAND S.P.A. (TYPE CERTIFICATE FORMERLY HELD BY AGUSTA S.P.A.) HELICOPTERS: Amendment 39-17705; Docket No. FAA-2013-0604; Directorate Identifier 2012-SW-110-AD

(a) Applicability

This AD applies to AgustaWestland S.p.A. (Agusta) Model AB139 and AW139 helicopters, serial number 31005, 31006, 31008 through 31157, 31201 through 31398, 31400 through 31412, 31414, 31416, 31418, 31419, 31421, 31425, 31426, 31428, 31432, 31440, 41001 through 41023, 41201 through 41275, 41277 through 41286, 41288, 41293, 41300, 41301, 41303, 41307, 41308, and 41310, with a nose landing gear (NLG) pin part number 1661-0001 installed, certificated in any category.

(b) Unsafe Condition

This AD defines the unsafe condition as an incorrect installation of an NLG pin, which could result in collapse of the NLG during taxi or landing.

(c) Effective Date

This AD becomes effective January 28, 2014.

(d) Compliance

You are responsible for performing each action required by this AD within the specified compliance time unless it has already been accomplished prior to that time.

(e) Required Actions

Within 50 hours time-in-service:

(1) Inspect the NLG pin installations on the left and right arms to determine whether the bolt (item 2), washer (item 3) under the bolt head, washer (item 4) between the NLG arm and pin, pin (item 5), washer (item 6) under the nut, nut (item 7), and cotter pin (item 8) are installed as depicted in Figure 1 of Agusta Bollettino Tecnico (BT) No. 139-306, dated December 12, 2012 (BT 139-306).

(2) If any part is not installed as depicted in Figure 1 of BT 139-306, before further flight, disassemble items 2 through 8 and accomplish the following:

(i) Inspect each bolt and nut for corrosion. If there is any corrosion on a bolt or nut, remove the bolt and nut from service.

(ii) Inspect each pin for corrosion and damage. If there is any corrosion or damage:

(A) Remove the corrosion and damage with an abrasive stone or glass fiber brush.

(B) Measure the pin diameter. If the pin diameter is less than 25.36 mm (0.998 inch), remove the pin from service.

(iii) Inspect each pin for a crack. If there is a crack, remove the pin from service.

(iv) Dye penetrant inspect the pin flange for a crack. If there is a crack, remove the pin from service.

(3) If items 2 through 8 are installed as depicted in Figure 1 of BT 139-306, inspect each bolt head and nut for corrosion. If there is any corrosion on a bolt head or nut, before further flight, remove the bolt or nut from service.

(f) Special Flight Permits

Special flight permits are prohibited.

(g) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Safety Management Group, FAA, may approve AMOCs for this AD. Send your proposal to: Robert Grant, Aviation Safety Engineer, Safety Management Group, FAA, 2601 Meacham Blvd., Fort Worth, Texas 76137; telephone 817-222-5328; email robert.grant@faa.gov.

(2) For operations conducted under a 14 CFR part 119 operating certificate or under 14 CFR part 91, subpart K, we suggest that you notify your principal inspector, or lacking a principal inspector, the manager of the local flight standards district office or certificate holding district office, before operating any aircraft complying with this AD through an AMOC.

(h) Additional Information

(1) The Aircraft Maintenance Plan, DM No. 39-A-60-40-00-01A-351A-D, which is not incorporated by reference, contains additional information about the subject of this AD. For service information identified in this AD, contact Agusta Westland, Customer Support & Services, Via Per Tornavento 15, 21019 Somma Lombardo (VA) Italy, ATTN: Giovanni Cecchelli; telephone 39-0331-711133; fax 39 0331 711180; or at http://www.agustawestland.com/technical-bullettins. You may review the referenced service information at the FAA, Office of the Regional Counsel, Southwest Region, 2601 Meacham Blvd., Room 663, Fort Worth, Texas 76137.

(2) The subject of this AD is addressed in European Aviation Safety Agency AD No. 2012-0262, dated December 14, 2012, which you may view in the AD Docket on the internet at http://www.regulations.gov in Docket No. 2013-0604.

(i) Subject

Joint Aircraft Service Component (JASC) Code: 3221: Nose Landing Gear Attach Section.

(j) Material Incorporated by Reference

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

(2) You must use this service information as applicable to do the actions required by this AD, unless the AD specifies otherwise.

(i) Agusta Bollettino Tecnico (BT) No. 139-306, dated December 12, 2012.

(ii) Reserved.

(3) For Agusta service information identified in this AD, contact Agusta Westland, Customer Support & Services, Via Per Tornavento 15, 21019 Somma Lombardo (VA) Italy, ATTN: Giovanni Cecchelli; telephone 39-0331-711133; fax 39 0331 711180; or at http://www.agustawestland.com/technical-bullettins.

(4) You may view this service information at FAA, Office of the Regional Counsel, Southwest Region, 2601 Meacham Blvd., Room 663, Fort Worth, Texas 76137. For information on the availability of this material at the FAA, call (817) 222-5110.

(5) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call (202) 741-6030, or go to: http://www.archives.gov/federal-register/cfr/ibr-locations.html.

Issued in Fort Worth, Texas, on December 5, 2013.
Kim Smith,
Directorate Manager, Rotorcraft Directorate,
Aircraft Certification Service.

2013-25-10 Bell Helicopter Textron Canada (BHTC): Amendment 39-17706; Docket No. FAA-2013-0603; Directorate Identifier 2009-SW-079-AD.

(a) Applicability

This AD applies to BHTC Model 206L, 206L-1, 206L-3, and 206L-4 helicopters with an upper left attachment fitting part number 206-032-409-001 installed, certificated in any category.

(b) Unsafe Condition

This AD defines the unsafe condition as a crack in a tailboom attachment fitting, which could result in loss of the tailboom and subsequent loss of control of the helicopter.

(c) Effective Date

This AD becomes effective January 31, 2014.

(d) Compliance

You are responsible for performing each action required by this AD within the specified compliance time unless it has already been accomplished prior to that time.

(e) Required Actions

(1) At the next 100-hour inspection, and thereafter at intervals not to exceed 110 hours time-in-service, inspect each tailboom upper left attachment fitting (fitting) for a crack, a loose rivet, corrosion, or damage as depicted in Figure 2 of BellAlert Service Bulletin 206L-09-158, Revision B, dated June 1, 2011 (ASB 206L-09-158).

(2) If there is a crack, corrosion, or damage beyond the acceptable limits of Figure 2 of ASB 206L-09-158, before further flight, replace the fitting with an airworthy fitting.

(3) If there is corrosion or damage within the acceptable limits of Figure 2 of ASB 206L-09-158, before further flight, repair the fitting as described in the Accomplishment Instructions, Part I, paragraphs 5.b.(1) through 5.b.(6), of ASB 206L-09-158.

(4) If there is a loose rivet, before further flight, replace the loose rivet with an airworthy rivet.

(f) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Safety Management Group, FAA, may approve AMOCs for this AD. Send your proposal to: Sharon Miles, Aerospace Engineer, FAA, Regulations and Policy Group, 2601 Meacham Blvd., Fort Worth, Texas 76137; telephone: (817) 222-5122; fax: (817) 222-5961; email: sharon.y.miles@faa.gov.

(2) For operations conducted under a 14 CFR part 119 operating certificate or under 14 CFR part 91, subpart K, we suggest that you notify your principal inspector, or lacking a principal inspector, the manager of the local flight standards district office or certificate holding district office, before operating any aircraft complying with this AD through an AMOC.

(g) Additional Information

The subject of this AD is addressed in Transport Canada Civil Aviation (TCCA) AD No. CF-2009-41, dated November 16, 2009. You may view the TCCA AD at http://www.regulations.gov in Docket No. FAA-2013-0603.

(h) Subject

Joint Aircraft Service Component (JASC) Code: 5302: Rotorcraft Tailboom.

(i) Material Incorporated by Reference

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

(2) You must use this service information as applicable to do the actions required by this AD, unless the AD specifies otherwise.

(i) Bell Alert Service Bulletin 206L-09-158, Revision B, dated June 1, 2011.

(ii) Reserved.

(3) For Bell service information identified in this AD, contact Bell Helicopter Textron Canada Limited, 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/.

(4) You may view this service information at FAA, Office of the Regional Counsel, Southwest Region, 2601 Meacham Blvd., Room 663, Fort Worth, Texas 76137. For information on the availability of this material at the FAA, call (817) 222-5110.

(5) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call (202) 741-6030, or go to: http://www.archives.gov/federal-register/cfr/ibr-locations.html.

Issued in Fort Worth, Texas, on December 5, 2013.
Kim Smith,
Directorate Manager, Rotorcraft Directorate,
Aircraft Certification Service.

98-15-18 R1 Maule Aerospace Technology, Inc.: Amendment 39-17690; Docket No. FAA-2013-0725; Directorate Identifier 98-CE-01-AD.

(a) Effective Date

This AD is effective January 21, 2014.

(b) Affected ADs

This AD revises AD 98-15-18, Amendment 39-10669 (63 FR 39018, July 21, 1998), which superseded AD 95-26-18, Amendment 39-9476 (61 FR 623, January 9, 1996.)

(c) Applicability

This AD applies to the following Maule Aerospace Technology, Inc. airplanes, all serial numbers, identified in figure 1 of paragraph (c) of this AD, that are:

(1) Equipped with original equipment manufacturer (OEM) Maule Aerospace Technology, Inc. rear wing lift struts, part number (P/N) 2079E (or FAA-approved equivalent part numbers), and/or front wing lift struts, P/N 2080E (or FAA-approved equivalent part numbers), excluding airplanes equipped with four Maule sealed lift struts, P/N 2200E and P/N 2201E, which are identified by two raised weld spots on the upper end of the strut just below the serial number plate. Removal of the upper cuff is needed to locate the weld spots; and

(2) certificated in any category.

Figure 1 to Paragraph (c) of This AD–Applicability

Models				
Bee Dee M-4	M-4	M-4C	M-4S	M-4T
M-4-180C	M-4-180S	M-4-180T	M-4-210	M-4-210C
M-4-210S	M-4-210T	M-4-220	M-4-220C	M-4-220S
M-4-220T	M-5-180C	M-5-200	M-5-210C	M-5-210TC
M-5-220C	M-5-235C	M-6-180	M-6-235	M-7-235
M-7-235A	M-7-235B	M-7-235C	MT-7-235	MX-7-160
MX-7-180	MX-7-180A	MX-7-180B	MX-7-235	MX-7-420
MXT-7-160	MXT-7-180	MXT-7-180A	M-8-235	

(d) Subject

Joint Aircraft System Component (JASC)/Air Transport Association (ATA) of America Code 57, Wings.

(e) Unsafe Condition

(1) The subject of this AD was originally prompted by reports of corrosion damage found on the wing lift struts. We are revising AD 98-15-18, Amendment 39-10669 (63 FR 39018, July 21, 1998), because of reports that the language in paragraph (b) had been misinterpreted and caused confusion. Since we issued AD 98-15-18, we were informed by the manufacturer that Model MXT-7-420 airplanes are no longer in existence, are no longer type certificated, and should be removed from the Applicability section. This AD removes Model MXT-7-420 airplanes from the Applicability section and clarifies the intent of the language in paragraph (b) of AD 98-15-18, which is being removed by this AD.

(2) This AD clarifies the FAA's intention that if a sealed wing lift strut assembly is installed as a replacement part, the repetitive inspection requirement is terminated only if the seal is never improperly broken. If the seal is improperly broken, then that wing lift strut becomes subject to continued repetitive inspections. We did not intend to promote drilling holes into or otherwise unsealing a sealed strut. This AD retains all the actions required in AD 98-15-18 and does not add any actions over that already required in AD 98-15-18. This AD does not add any additional burden to the owners/operators of the affected airplanes.

(3) We are issuing this AD to detect and correct corrosion on the front and rear wing lift struts, which could cause the wing lift strut to fail. This failure could result in the wing separating from the airplane.

(f) Paragraph Designation Changes to AD 98-15-18

Since AD 98-15-18, Amendment 39-10669 (63 FR 39018, July 21, 1998), was issued, the AD format has been revised, and certain paragraphs have been rearranged. As a result, the corresponding paragraph identifiers have changed in this AD, as listed in the following table:

Table 1 to Paragraph (f) of This AD–Revised Paragraph Identifiers

Requirement in AD 98-15-18	Corresponding requirement in this AD
paragraph (a)	paragraph (h)
paragraph (a)(1)	paragraph (i)(1)
paragraph (a)(1)(i)	paragraph (i)(1)(i)
paragraph (a)(1)(ii)	paragraph (i)(1)(ii)
paragraph (a)(2)	paragraph (i)(2)
paragraph (a)(2)(i)	paragraph (i)(2)(i)
paragraph (a)(2)(ii)	paragraph (i)(2)(ii)
paragraph (a)(3)	paragraph (j)(1)
paragraph (a)(4) and (c)	paragraph (j)(2)
paragraph (b)	Removed

(g) Compliance

Unless already done (compliance with AD 98-15-18, Amendment 39-10669 (63 FR 39018, July 21, 1998)), do the following actions within the compliance times specified in paragraphs (h) through (j) of this AD, including all subparagraphs. Properly unsealing and resealing a sealed wing lift strut is

still considered a terminating action for the repetitive inspection requirements of this AD as long as all appropriate regulations and issues are considered, such as static strength, fatigue, material effects, immediate and long-term (internal and external) corrosion protection, resealing methods, etc. Current FAA regulations in 14 CFR 43.13(b) specify that maintenance performed will result in the part's condition to be at least equal to its original or properly altered condition. Any maintenance actions that unseal a sealed wing lift strut should be coordinated with the Atlanta Aircraft Certification Office (ACO) through the local airworthiness authority (e.g., Flight Standards District Office). There are provisions in paragraph (k) of this AD for approving such actions as an alternative method of compliance (AMOC).

(h) Remove Wing Lift Struts

At whichever of the compliance times specified in paragraphs (h)(1), (h)(2), or (h)(3) of this AD that occurs later, remove the wing lift struts following the INSTRUCTIONS section in PART I of Maule Service Bulletin (SB) No. 11, dated October 30, 1995. Before further flight after the removal, do the actions in one of the following paragraphs (i)(1), (i)(2), (j)(1), or (j)(2) of this AD, including all subparagraphs.

(1) Upon accumulating 2 years time-in-service on an OEM Maule wing lift strut, P/N 2079E and/or P/N 2080E;

(2) Within 3 calendar months after September 9, 1998 (the effective date retained from AD 98-15-18, Amendment 39-10669 (63 FR 39018, July 21, 1998)); or

(3) Within 2 years after the last inspection done in accordance with AD 95-26-18, Amendment 39-9476 (61 FR 623, January 9, 1996) (which was superseded by AD 98-15-18).

(i) Inspect Wing Lift Struts

Before further flight after the removal required in paragraph (h) of this AD, inspect each wing lift strut following paragraph (i)(1) or (i)(2) of this AD, including all subparagraphs, or do the wing lift strut replacement following one of the options in paragraph (j)(1) or (j)(2) of this AD.

(1) Inspect each wing lift strut for corrosion and perceptible dents following the INSTRUCTIONS section in PART I of Maule SB No. 11, dated October 30, 1995.

(i) If no corrosion is visible and no perceptible dents are found on any wing lift strut during the inspection required in paragraph (i)(1) of this AD, before further flight, apply corrosion inhibitor to each wing lift strut following the INSTRUCTIONS section in PART I of Maule SB No. 11, dated October 30, 1995. Repetitively thereafter inspect each wing lift strut at intervals not to exceed 24 calendar months following the procedures in paragraph (i)(1) or (i)(2) of this AD, including all subparagraphs.

(ii) If corrosion or perceptible dents are found on any wing lift strut during the inspection required in paragraph (i)(1) of this AD or during any repetitive inspection required in paragraph (i)(1)(i) of this AD, before further flight, replace the affected wing lift strut with one of the replacement options specified in paragraph (j)(1) or (j)(2) of this AD. Do the replacement following the procedures specified in those paragraphs, as applicable.

(2) Inspect each wing lift strut for corrosion following the procedures in the Appendix to this AD. This inspection must be done by a Level 2 or Level 3 inspector certified using the guidelines established by the American Society for Non-destructive Testing or the "Military Standard for Nondestructive Testing Personnel Qualification and Certification" (MIL-STD-410E), which can be found on the Internet at http://aerospacedefense.thomasnet.com/Asset/ MIL-STD-410.pdf.

(i) If no corrosion is found on any wing lift strut during the inspection required in paragraph (i)(2) of this AD and all requirements in the Appendix to this AD are met, before further flight, apply corrosion inhibitor to each wing lift strut following the INSTRUCTIONS section in PART I of Maule SB No. 11, dated October 30, 1995. Repetitively thereafter inspect each wing lift strut at intervals not

to exceed 24 calendar months following the procedures in paragraph (i)(1) or (i)(2) of this AD, including all subparagraphs.

(ii) If corrosion is found on any wing lift strut during the inspection required in paragraph (i)(2) of this AD or during any repetitive inspection required in paragraph (i)(2)(i) of this AD, or if any requirement in the Appendix of this AD is not met, before further flight after any inspection in which corrosion is found or the Appendix requirements are not met, replace the affected wing lift strut with one of the replacement options specified in paragraph (j)(1) or (j)(2) of this AD. Do the replacement following the procedures specified in those paragraphs, as applicable.

(j) Wing Lift Strut Replacement Options

Before further flight after the removal required in paragraph (h) of this AD, replace the wing lift struts following one of the options in paragraph (j)(1) or (j)(2) of this AD, or inspect each wing lift strut following paragraph (i)(1) or (i)(2) of this AD, including all subparagraphs.

(1) Install OEM Maule P/N wing lift struts (or FAA-approved equivalent part numbers) that have been inspected following the procedures in either paragraph (i)(1) or (i)(2) of this AD, including all subparagraphs, and are found to be airworthy. Do the installations following the INSTRUCTIONS section in PART II of Maule SB No. 11, dated October 30, 1995. Repetitively thereafter inspect the newly installed wing lift struts at intervals not to exceed 24 calendar months following the procedures in either paragraph (i)(1) or (i)(2) of this AD, including all subparagraphs.

(2) Install new Maule sealed wing lift struts, P/N 2200E or P/N 2201E, as applicable (or FAA-approved equivalent part numbers) following the INSTRUCTIONS section in PART II of Maule SB No. 11, dated October 30, 1995. Installing one of these new sealed wing lift strut assemblies terminates the repetitive inspection requirements in paragraphs (i)(1) or (i)(2) of this AD, including all subparagraphs, for that wing lift strut assembly.

(k) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Atlanta 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 98-15-18, Amendment 39-10669 (63 FR 39018, July 21, 1998) and AD 95-26-18, Amendment 39-9476 (61 FR 623, January 9, 1996) are approved as AMOCs for this AD.

(l) Related Information

For more information about this AD, contact Gregory K. Noles, Aerospace Engineer, FAA, Atlanta ACO, 1701 Columbia Avenue, College Park, Georgia 30337; phone: (404) 474-5551; fax: (404) 474-5606; email: gregory.noles@faa.gov.

(m) Material Incorporated by Reference

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

(2) You must use this service information as applicable to do the actions required by this AD, unless the AD specifies otherwise.

(3) The following service information was approved for IBR on January 26, 1996 (61 FR 623, January 9, 1996).

(i) Maule Service Bulletin No. 11, dated October 30, 1995.

(ii) Reserved.

(4) For Maule Aerospace Technology, Inc. service information identified in this AD, contact Maule Air, Inc., 2099 GA Hwy 133 South, Moultrie, Georgia 31768; telephone: (229) 985-2045; fax: (229) 890-2402; Internet: http://www.mauleairinc.com/pdf/servicebulletins/service_bulletin_11_old.pdf.

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

(6) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: http://www.archives.gov/federal-register/cfr/ibr-locations.html.

Appendix to AD 98-15-18 R1

Procedures and Requirements for Ultrasonic Inspection of Maule Wing Lift Struts

Equipment Requirements

1. A portable ultrasonic thickness gauge or flaw detector with echo-to-echo digital thickness readout capable of reading to 0.001-inch and an A-trace waveform display will be needed to do this inspection.

2. An ultrasonic probe with the following specifications will be needed to do this inspection: 10 MHz (or higher), 0.283-inch (or smaller) diameter dual element or delay line transducer designed for thickness gauging. The transducer and ultrasonic system shall be capable of accurately measuring the thickness of AISI 4340 steel down to 0.020-inch. An accuracy of 0.002-inch throughout a 0.020-inch to 0.050-inch thickness range while calibrating shall be the criteria for acceptance.

3. Either a precision machined step wedge made of 4340 steel (or similar steel with equivalent sound velocity) or at least three shim samples of same material will be needed to do this inspection. One thickness of the step wedge or shim shall be less than or equal to 0.020-inch, one shall be greater than or equal to 0.050-inch and at least one other step or shim shall be between these two values.

4. Glycerin, light oil, or similar non-water based ultrasonic couplants are recommended in the setup and inspection procedures. Water-based couplants, containing appropriate corrosion inhibitors, may be utilized, provided they are removed from both the reference standards and the test item after the inspection procedure is completed and adequate corrosion prevention steps are then taken to protect these items.

- NOTE: Couplant is defined as "a substance used between the face of the transducer and test surface to improve transmission of ultrasonic energy across the transducer/strut interface."
- NOTE: If surface roughness due to paint loss or corrosion is present, the surface should be sanded or polished smooth before testing to assure a consistent and smooth surface for making contact with the transducer. Care shall be taken to remove a minimal amount of structural material. Paint repairs may be necessary after the inspection to prevent further corrosion damage from occurring. Removal of surface irregularities will enhance the accuracy of the inspection technique.

Instrument Setup

1. Set up the ultrasonic equipment for thickness measurements as specified in the instrument's user's manual. Because of the variety of equipment available to perform ultrasonic thickness

measurements, some modification to this general setup procedure may be necessary. However, the tolerance requirement of step 13 and the record keeping requirement of step 14, must be satisfied.

2. If battery power will be employed, check to see that the battery has been properly charged. The testing will take approximately two hours. Screen brightness and contrast should be set to match environmental conditions.

3. Verify that the instrument is set for the type of transducer being used, i.e. single or dual element, and that the frequency setting is compatible with the transducer.

4. If a removable delay line is used, remove it and place a drop of couplant between the transducer face and the delay line to assure good transmission of ultrasonic energy. Reassemble the delay line transducer and continue.

5. Program a velocity of 0.231-inch/microsecond into the ultrasonic unit unless an alternative instrument calibration procedure is used to set the sound velocity.

6. Obtain a step wedge or steel shims per item 3 of the Equipment Requirements. Place the probe on the thickest sample using couplant. Rotate the transducer slightly back and forth to "ring" the transducer to the sample. Adjust the delay and range settings to arrive at an A-trace signal display with the first backwall echo from the steel near the left side of the screen and the second backwall echo near the right of the screen. Note that when a single element transducer is used, the initial pulse and the delay line/steel interface will be off of the screen to the left. Adjust the gain to place the amplitude of the first backwall signal at approximately 80% screen height on the A-trace.

7. "Ring" the transducer on the thinnest step or shim using couplant. Select positive half-wave rectified, negative half-wave rectified, or filtered signal display to obtain the cleanest signal. Adjust the pulse voltage, pulse width, and damping to obtain the best signal resolution. These settings can vary from one transducer to another and are also user dependent.

8. Enable the thickness gate, and adjust the gate so that it starts at the first backwall echo and ends at the second backwall echo. (Measuring between the first and second backwall echoes will produce a measurement of the steel thickness that is not affected by the paint layer on the strut). If instability of the gate trigger occurs, adjust the gain, gate level, and/or damping to stabilize the thickness reading.

9. Check the digital display reading and if it does not agree with the known thickness of the thinnest thickness, follow your instrument's calibration recommendations to produce the correct thickness reading. When a single element transducer is used this will usually involve adjusting the fine delay setting.

10. Place the transducer on the thickest step of shim using couplant. Adjust the thickness gate width so that the gate is triggered by the second backwall reflection of the thick section. If the digital display does not agree with the thickest thickness, follow your instruments calibration recommendations to produce the correct thickness reading. A slight adjustment in the velocity may be necessary to get both the thinnest and the thickest reading correct. Document the changed velocity value.

11. Place couplant on an area of the lift strut which is thought to be free of corrosion and "ring" the transducer to surface. Minor adjustments to the signal and gate settings may be required to account for coupling improvements resulting from the paint layer. The thickness gate level should be set just high enough so as not to be triggered by irrelevant signal noise. An area on the upper surface of the lift strut above the inspection area would be a good location to complete this step and should produce a thickness reading between 0.034-inch and 0.041-inch.

12. Repeat steps 8, 9, 10, and 11 until both thick and thin shim measurements are within tolerance and the lift strut measurement is reasonable and steady.

13. Verify that the thickness value shown in the digital display is within 0.002-inch of the correct value for each of the three or more steps of the setup wedge or shims. Make no further adjustments to the instrument settings.

14. Record the ultrasonic versus actual thickness of all wedge steps or steel shims available as a record of setup.

Inspection Procedure

1. Clean the lower 18 inches of the wing lift struts using a cleaner that will remove all dirt and grease. Dirt and grease will adversely affect the accuracy of the inspection technique. Light sanding or polishing may also be required to reduce surface roughness as noted in the Equipment Requirements section.

2. Using a flexible ruler, draw a 1/4-inch grid on the surface of the first 11 inches from the lower end of the strut as shown in Maule Air, Inc. Service Bulletin No. 11, dated October 30, 1995, as applicable. This can be done using a soft (2) pencil and should be done on both faces of the strut. As an alternative to drawing a complete grid, make two rows of marks spaced every 1/4 inch across the width of the strut. One row of marks should be about 11 inches from the lower end of the strut, and the second row should be several inches away where the strut starts to narrow. Lay the flexible ruler between respective tick marks of the two rows and use tape or a rubber band to keep the ruler in place. See Figure 1.

3. Apply a generous amount of couplant inside each of the square areas or along the edge of the ruler. Re-application of couplant may be necessary.

4. Place the transducer inside the first square area of the drawn grid or at the first 1/4-inch mark on the ruler and "ring" the transducer to the strut. When using a dual element transducer, be very careful to record the thickness value with the axis of the transducer elements perpendicular to any curvature in the strut. If this is not done, loss of signal or inaccurate readings can result.

5. Take readings inside each square on the grid or at 1/4-inch increments along the ruler and record the results. When taking a thickness reading, rotate the transducer slightly back and forth and experiment with the angle of contact to produce the lowest thickness reading possible. Pay close attention to the A-scan display to assure that the thickness gate is triggering off of maximized backwall echoes.

NOTE: A reading shall not exceed .041 inch. If a reading exceeds .041 inch, repeat steps 13 and 14 of the Instrument Setup section before proceeding further.

6. If the A-trace is unsteady or the thickness reading is clearly wrong, adjust the signal gain and/or gate setting to obtain reasonable and steady readings. If any instrument setting is adjusted, repeat steps 13 and 14 of the Instrument Setup section before proceeding further.

7. In areas where obstructions are present, take a data point as close to the correct area as possible.

NOTE: The strut wall contains a fabrication bead at approximately 40% of the strut chord. The bead may interfere with accurate measurements in that specific location.

8. A measurement of 0.024 inch or less shall require replacement of the strut prior to further flight.

9. If at any time during testing an area is encountered where a valid thickness measurement cannot be obtained due to a loss of signal strength or quality, the area shall be considered suspect. These areas may have a remaining wall thickness of less than 0.020-inch, which is below the range of this setup, or they may have small areas of localized corrosion or pitting present. The latter case will result in a reduction in signal strength due to the sound being scattered from the rough surface and may result in a signal that includes echoes from the pits as well as the backwall. The suspect area(s) shall be tested with a Maule "Fabric Tester" as specified in Maule Air, Inc. Service Bulletin No. 11, dated October 30, 1995.

10. Record the lift strut inspection in the aircraft log book.

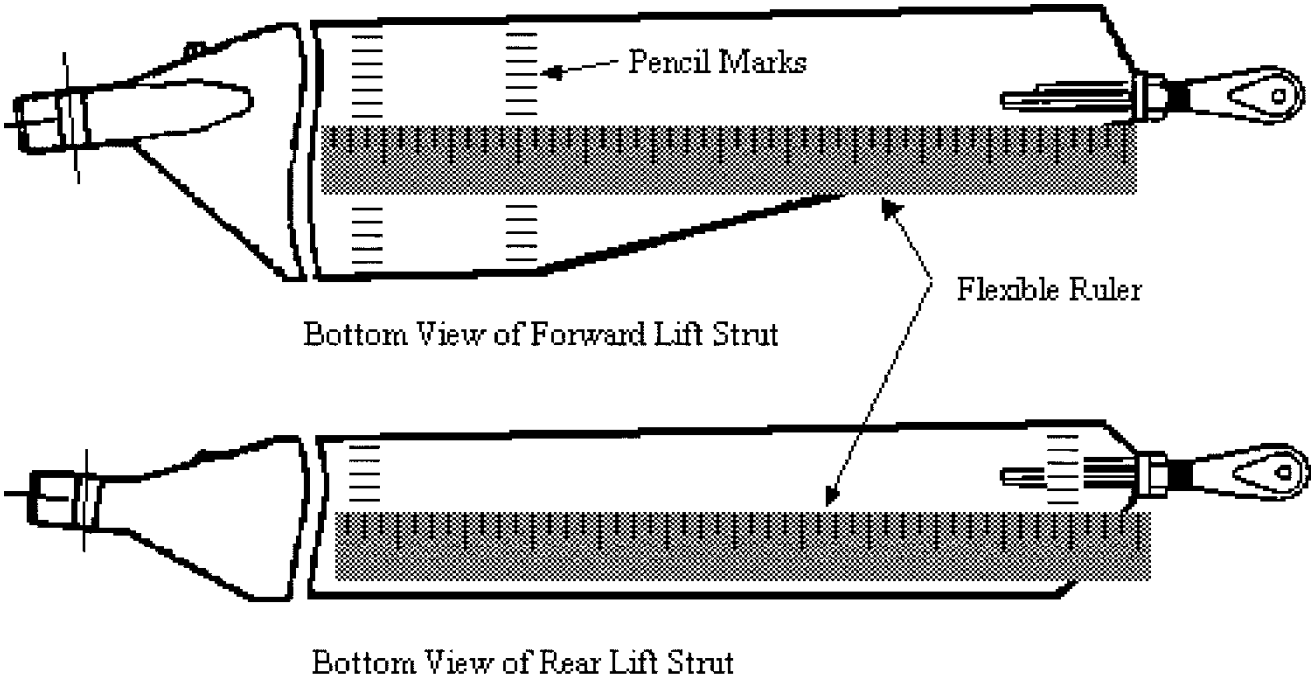

Figure 1

Issued in Kansas City, Missouri, on November 22, 2013.
Earl Lawrence,
Manager, Small Airplane Directorate,
Aircraft Certification Service.

99-26-19 R1 Piper Aircraft, Inc.: Amendment 39-17691; Docket No. FAA-2013-0724; Directorate Identifier 99-CE-013-AD.

(a) Effective Date

This AD is effective January 21, 2014.

(b) Affected ADs

This AD revises AD 99-26-19, Amendment 39-11479 (64 FR 72524, December 28, 1999). AD 99-01-05, Amendment 39-10972 (63 FR 72132, December 31, 1998), which superseded AD 93-10-06, Amendment 39-8586 (58 FR 29965, May 25, 1993), also relates to the subject of this AD.

(c) Applicability

This AD applies to Piper Aircraft, Inc. Model J-2 airplanes, serial numbers 500 through 1975, that are:

(1) equipped with wing lift struts; and

(2) certificated in any category.

(d) Subject

Joint Aircraft System Component (JASC)/Air Transport Association (ATA) of America Code 57, Wings.

(e) Unsafe Condition

(1) The subject of this AD was originally prompted by reports of corrosion damage found on the wing lift struts. We are revising AD 99-26-19, Amendment 39-11479 (64 FR 72524, December 28, 1999), because of reports that paragraph (c) had been misinterpreted and caused confusion. This AD removes the language in paragraph (c) of AD 99-26-19, which caused the confusion.

(2) This AD clarifies the FAA's intention that if a sealed wing lift strut assembly is installed as a replacement part, the repetitive inspection requirement is terminated only if the seal is never improperly broken. If the seal is improperly broken, then that wing lift strut becomes subject to continued repetitive inspections. We did not intend to promote drilling holes into or otherwise unsealing a sealed strut. This AD retains all the actions required in AD 99-26-19 and this AD does not require any actions over that already required in AD 99-26-19. This AD does not add any additional burden to the owners/operators of the affected airplanes.

(3) We are issuing this AD to detect and correct corrosion and cracking on the front and rear wing lift struts and forks, which could cause the wing lift strut to fail. This failure could result in the wing separating from the airplane.

(f) Paragraph Designation Changes to AD 99-26-19

Since AD 99-26-19, Amendment 39-11479 (64 FR 72524, December 28, 1999), was issued, the AD format has been revised, and certain paragraphs have been rearranged. As a result, the corresponding paragraph identifiers have changed in this AD, as listed in the following table:

Table 1 to Paragraph (f) of This AD–Revised Paragraph Identifiers

Requirement in AD 99-26-19	Corresponding requirement in this AD
paragraph (a)	paragraph (h)
paragraph (a)(1)	paragraph (i)(1)
paragraph (a)(1)(i)	paragraph (i)(1)(i)
paragraph (a)(1)(ii)	paragraph (i)(1)(ii)
paragraph (a)(2)	paragraph (i)(2)
paragraph (a)(2)(i)	paragraph (i)(2)(i)
paragraph (a)(2)(ii)	paragraph (i)(2)(ii)
paragraph (a)(3)	paragraph (j)(1)
paragraph (a)(4)	paragraph (j)(2)
paragraph (b)	paragraph (k)
paragraph (b)(1) through (b)(1)(ii)	paragraph (l)
paragraph (b)(1)(ii)(A)	paragraph (l)(1)
paragraph (b)(1)(ii)(B) and (b)(1)(iv)	paragraph (l)(2)
paragraph (b)(1)(ii)(C) and (b)(1)(iv)	paragraph (l)(3)
paragraph (b)(1)(iii) and (b)(2)	paragraph (m)(1)
paragraph (b)(3) through (b)(3)(ii)	paragraph (m)(2)
Paragraph (c)	Removed
paragraph (d)	paragraph (n)(1)
paragraph (d)(1)	paragraph (n)(1)(i)
paragraph (d)(2)	paragraph (n)(1)(ii)
N/A	Paragraph (n)(2)

(g) Compliance

Unless already done (compliance with AD 99-26-19, Amendment 39-11479 (64 FR 72524, December 28, 1999)), do the following actions within the compliance times specified in paragraphs (h) through (n) of this AD, including all subparagraphs. Properly unsealing and resealing a sealed wing lift strut is still considered a terminating action for the repetitive inspection requirements of this AD as long as all appropriate regulations and issues are considered, such as static strength, fatigue, material effects, immediate and long-term (internal and external) corrosion protection, resealing

methods, etc. Current FAA regulations in 14 CFR 43.13(b) specify that maintenance performed will result in the part's condition to be at least equal to its original or properly altered condition. Any maintenance actions that unseal a sealed wing lift strut should be coordinated with the Atlanta Aircraft Certification Office (ACO) through the local airworthiness authority (e.g., Flight Standards District Office). There are provisions in paragraph (o) of this AD for approving such actions as an alternative method of compliance (AMOC).

(h) Remove Wing Lift Struts

At whichever of the compliance times specified in paragraphs (h)(1) or (h)(2) of this AD that occurs later, remove the wing lift struts following Piper Service Bulletin (SB) No. 528D, dated October 19, 1990. Before further flight after the removal, do the actions in one of the following paragraphs (i)(1), (i)(2), (j)(1), or (j)(2) of this AD, including all subparagraphs.

(1) Within 1 calendar month after February 14, 2000 (the effective date retained from AD 99-26-19, Amendment 39-11479 (64 FR 72524, December 28, 1999)); or

(2) Within 24 calendar months after the last inspection done in accordance with AD 93-10-06, Amendment 39-8586 (58 FR 29965, May 25, 1993).

(i) Inspect Wing Lift Struts

Before further flight after the removal required in paragraph (h) of this AD, inspect each wing lift strut following paragraph (i)(1) or (i)(2) of this AD, including all subparagraphs, or do the wing lift strut replacement following one of the options in paragraph (j)(1) or (j)(2) of this AD.

(1) Inspect each wing lift strut for corrosion and perceptible dents following Piper SB No. 528D, dated October 19, 1990.

(i) If no corrosion is visible and no perceptible dents are found on any wing lift strut during the inspection required in paragraph (i)(1) of this AD, before further flight, apply corrosion inhibitor to each wing lift strut following Piper SB No. 528D, dated October 19, 1990. Repetitively thereafter inspect each wing lift strut at intervals not to exceed 24 calendar months following the procedures in paragraph (i)(1) or (i)(2) of this AD, including all subparagraphs.

(ii) If corrosion or perceptible dents are found on any wing lift strut during the inspection required in paragraph (i)(1) of this AD or during any repetitive inspection required in paragraph (i)(1)(i) of this AD, before further flight, replace the affected wing lift strut with one of the replacement options specified in paragraph (j)(1) or (j)(2) of this AD. Do the replacement following the procedures specified in those paragraphs, as applicable.

(2) Inspect each wing lift strut for corrosion following the procedures in the Appendix to this AD. This inspection must be done by a Level 2 or Level 3 inspector certified using the guidelines established by the American Society for Non-destructive Testing or the "Military Standard for Nondestructive Testing Personnel Qualification and Certification" (MIL-STD-410E), which can be found on the Internet at http://aerospacedefense.thomasnet.com/Asset/MIL-STD-410.pdf.

(i) If no corrosion is found on any wing lift strut during the inspection required in paragraph (i)(2) of this AD and all requirements in the Appendix to this AD are met, before further flight, apply corrosion inhibitor to each wing lift strut following Piper SB No. 528D, dated October 19, 1990. Repetitively thereafter inspect each wing lift strut at intervals not to exceed 24 calendar months following the procedures in paragraph (i)(1) or (i)(2) of this AD, including all subparagraphs.

(ii) If corrosion is found on any wing lift strut during the inspection required in paragraph (i)(2) of this AD or during any repetitive inspection required in paragraph (i)(2)(i) of this AD, or if any requirement in the Appendix of this AD is not met, before further flight after any inspection in which corrosion is found or the Appendix requirements are not met, replace the affected wing lift strut with one of the replacement options specified in paragraph (j)(1) or (j)(2) of this AD. Do the replacement following the procedures specified in those paragraphs, as applicable.

(j) Wing Lift Strut Replacement Options

Before further flight after the removal required in paragraph (h) of this AD, replace the wing lift struts following one of the options in paragraph (j)(1) or (j)(2) of this AD, or inspect each wing lift strut following paragraph (i)(1) or (i)(2) of this AD, including all subparagraphs.

(1) Install original equipment manufacturer (OEM) part number wing lift struts (or FAA-approved equivalent part numbers) that have been inspected following the procedures in either paragraph (i)(1) or (i)(2) of this AD, including all subparagraphs, and are found to be airworthy. Do the installations following Piper SB No. 528D, dated October 19, 1990. Repetitively thereafter inspect the newly installed wing lift struts at intervals not to exceed 24 calendar months following the procedures in either paragraph (i)(1) or (i)(2) of this AD, including all subparagraphs.

(2) Install new sealed wing lift strut assemblies (or FAA-approved equivalent part numbers) (these sealed wing lift strut assemblies also include the wing lift strut forks) following Piper SB No. 528D, dated October 19, 1990. Installing one of these new sealed wing lift strut assemblies terminates the repetitive inspection requirements in paragraphs (i)(1) and (i)(2) of this AD, and the wing lift strut fork removal, inspection, and replacement requirements in paragraphs (k) and (l) of this AD, including all subparagraphs, for that wing lift strut assembly.

(k) Remove Wing Lift Strut Forks

Within the next 100 hours time-in-service (TIS) after February 14, 2000 (the effective date retained from AD 99-26-19, Amendment 39-11479 (64 FR 72524, December 28, 1999)) or within 500 hours TIS after the last inspection done in accordance with AD 93-10-06, Amendment 39-8586 (58 FR 29965, May 25, 1993), whichever occurs later, remove the wing lift strut forks (unless already replaced in accordance with paragraph (j)(2) of this AD). Do the removal following Piper SB No. 528D, dated October 19, 1990. Before further flight after the removal, do the actions in one of the following paragraphs (l) or (m) of this AD, including all subparagraphs.

(l) Inspect Wing Lift Strut Forks

Before further flight after the removal required in paragraph (k) of this AD, inspect the wing lift strut forks following paragraph (l) of this AD, including all subparagraphs, or do the wing lift strut fork replacement following one of the options in paragraph (m)(1) or (m)(2) of this AD. Inspect the wing lift strut forks for cracks using magnetic particle procedures, such as those contained in FAA Advisory Circular (AC) 43.13-1B, Chapter 5, which can be found in the Internet at http://rgl.faa.gov/Regulatory_and_Guidance_Library/rgAdvisoryCircular.nsf/0/99c827db9baac81b86256b4500596c4e/$FILE/Chapter%2005.pdf. Repetitively thereafter inspect at intervals not to exceed 500 hours TIS until the replacement time requirement specified in paragraph (l)(2) or (l)(3) of this AD is reached provided no cracks are found.

(1) If cracks are found during any inspection required in paragraph (l) of this AD or during any repetitive inspection required in paragraph (l)(2) or (l)(3) of this AD, before further flight, replace the affected wing lift strut fork with one of the replacement options specified in paragraph (m)(1) or (m)(2) of this AD. Do the replacement following the procedures specified in those paragraphs, as applicable.

(2) If no cracks are found during the initial inspection required in paragraph (l) of this AD and the airplane is currently equipped with floats or has been equipped with floats at any time during the previous 2,000 hours TIS since the wing lift strut forks were installed, at or before accumulating 1,000 hours TIS on the wing lift strut forks, replace the wing lift strut forks with one of the replacement options specified in paragraph (m)(1) or (m)(2) of this AD. Do the replacement following the procedures specified in those paragraphs, as applicable. Repetitively thereafter inspect the newly installed wing lift strut forks at intervals not to exceed 500 hours TIS following the procedures specified in paragraph (l) of this AD, including all subparagraphs.

(3) If no cracks are found during the initial inspection required in paragraph (l) of this AD and the airplane has never been equipped with floats during the previous 2,000 hours TIS since the wing lift strut forks were installed, at or before accumulating 2,000 hours TIS on the wing lift strut forks, replace the wing lift strut forks with one of the replacement options specified in paragraph (m)(1) or (m)(2) of this AD. Do the replacement following the procedures specified in those paragraphs, as applicable. Repetitively thereafter inspect the newly installed wing lift strut forks at intervals not to exceed 500 hours TIS following the procedures specified in paragraph (l) of this AD, including all subparagraphs.

(m) Wing Lift Strut Fork Replacement Options

Before further flight after the removal required in paragraph (k) of this AD, replace the wing lift strut forks following one of the options in paragraph (m)(1) or (m)(2) of this AD, or inspect the wing lift strut forks following paragraph (1) of this AD, including all subparagraphs

(1) Install new OEM part number wing lift strut forks of the same part numbers of the existing part (or FAA-approved equivalent part numbers) that were manufactured with rolled threads. Wing lift strut forks manufactured with machine (cut) threads are not to be used. Do the installations following Piper SB No. 528D, dated October 19, 1990. Repetitively thereafter inspect and replace the newly installed wing lift strut forks at intervals not to exceed 500 hours TIS following the procedures specified in paragraph (l) of this AD, including all subparagraphs.

(2) Install new sealed wing lift strut assemblies (or FAA-approved equivalent part numbers) (these sealed wing lift strut assemblies also include the wing lift strut forks) following Piper SB No. 528D, dated October 19, 1990. This installation may have already been done through the option specified in paragraph (j)(2) of this AD. Installing one of these new sealed wing lift strut assemblies terminates the repetitive inspection requirements in paragraphs (i)(1) and (i)(2) of this AD, and the wing lift strut fork removal, inspection, and replacement requirements in paragraphs (k) and (l) of this AD, including all subparagraphs, for that wing lift strut assembly.

(n) Install Placard

(1) Within 1 calendar month after February 14, 2000 (the effective date retained from AD 99-26-19, Amendment 39-11479 (64 FR 72524, December 28, 1999), or within 24 calendar months after the last inspection required by AD 93-10-06, Amendment 39-8586 (58 FR 29965, May 25, 1993), whichever occurs later, and before further flight after any replacement of a wing lift strut assembly required by this AD, do the actions in one of the following paragraphs (n)(1)(i) or (n)(1)(ii) of this AD:

(i) Install "NO STEP" decal, Piper (P/N) 80944-02, on each wing lift strut approximately 6 inches from the bottom of the wing lift strut in a way that the letters can be read when entering and exiting the airplane; or

(ii) Paint the words "NO STEP" approximately 6 inches from the bottom of the wing lift strut in a way that the letters can be read when entering and exiting the airplane. Use a minimum of 1-inch letters using a color that contrasts with the color of the airplane.

(2) The "NO STEP" markings required by paragraph (n)(1)(i) and (n)(1)(ii) of this AD must remain in place for the life of the airplane.

(o) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Atlanta 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 93-10-06, Amendment 39-8586 (58 FR 29965, May 25, 1993) and AD 99-26-19, Amendment 39-11479 (64 FR 72524, December 28, 1999) are approved as AMOCs for this AD.

(p) Related Information

For more information about this AD, contact Gregory K. Noles, Aerospace Engineer, FAA, Atlanta ACO, 1701 Columbia Avenue, College Park, Georgia 30337; phone: (404) 474-5551; fax: (404) 474-5606; email: gregory.noles@faa.gov.

(q) Material Incorporated by Reference

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

(2) You must use this service information as applicable to do the actions required by this AD, unless the AD specifies otherwise.

(3) The following service information was approved for IBR on February 14, 2000 (64 FR 72524, December 28, 1999).

(i) Piper Service Bulletin No. 528D, dated October 19, 1990.

(ii) Reserved.

(4) For Piper Aircraft, Inc. service information identified in this AD, contact Piper Aircraft, Inc., Customer Services, 2926 Piper Drive, Vero Beach, Florida 32960; telephone: (772) 567-4361; Internet: www.piper.com.

(5) You may view this service information at 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.

(6) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: http://www.archives.gov/federal-register/cfr/ibr-locations.html.

Appendix to AD 99-26-19 R1

Procedures and Requirements for Ultrasonic Inspection of Piper Wing Lift Struts

EQUIPMENT REQUIREMENTS

1. A portable ultrasonic thickness gauge or flaw detector with echo-to-echo digital thickness readout capable of reading to 0.001-inch and an A-trace waveform display will be needed to do this inspection.

2. An ultrasonic probe with the following specifications will be needed to do this inspection: 10 MHz (or higher), 0.283-inch (or smaller) diameter dual element or delay line transducer designed for thickness gauging. The transducer and ultrasonic system shall be capable of accurately measuring the thickness of AISI 4340 steel down to 0.020-inch. An accuracy of +/- 0.002-inch throughout a 0.020-inch to 0.050-inch thickness range while calibrating shall be the criteria for acceptance.

3. Either a precision machined step wedge made of 4340 steel (or similar steel with equivalent sound velocity) or at least three shim samples of same material will be needed to do this inspection. One thickness of the step wedge or shim shall be less than or equal to 0.020-inch, one shall be greater than or equal to 0.050-inch, and at least one other step or shim shall be between these two values.

4. Glycerin, light oil, or similar non-water based ultrasonic couplants are recommended in the setup and inspection procedures. Water-based couplants, containing appropriate corrosion inhibitors, may be utilized, provided they are removed from both the reference standards and the test item after the inspection procedure is completed and adequate corrosion prevention steps are then taken to protect these items.

NOTE: Couplant is defined as "a substance used between the face of the transducer and test surface to improve transmission of ultrasonic energy across the transducer/strut interface."

NOTE: If surface roughness due to paint loss or corrosion is present, the surface should be sanded or polished smooth before testing to assure a consistent and smooth surface for making contact with the transducer. Care shall be taken to remove a minimal amount of structural material. Paint repairs may be necessary after the inspection to prevent further corrosion damage from occurring. Removal of surface irregularities will enhance the accuracy of the inspection technique.

INSTRUMENT SETUP

1. Set up the ultrasonic equipment for thickness measurements as specified in the instrument's user's manual. Because of the variety of equipment available to perform ultrasonic thickness measurements, some modification to this general setup procedure may be necessary. However, the tolerance requirement of step 13 and the record keeping requirement of step 14, must be satisfied.

2. If battery power will be employed, check to see that the battery has been properly charged. The testing will take approximately two hours. Screen brightness and contrast should be set to match environmental conditions.

3. Verify that the instrument is set for the type of transducer being used, i.e. single or dual element, and that the frequency setting is compatible with the transducer.

4. If a removable delay line is used, remove it and place a drop of couplant between the transducer face and the delay line to assure good transmission of ultrasonic energy. Reassemble the delay line transducer and continue.

5. Program a velocity of 0.231-inch/microsecond into the ultrasonic unit unless an alternative instrument calibration procedure is used to set the sound velocity.

6. Obtain a step wedge or steel shims per item 3 of the EQUIPMENT REQUIREMENTS. Place the probe on the thickest sample using couplant. Rotate the transducer slightly back and forth to "ring" the transducer to the sample. Adjust the delay and range settings to arrive at an A-trace signal display with the first backwall echo from the steel near the left side of the screen and the second backwall echo near the right of the screen. Note that when a single element transducer is used, the initial pulse and the delay line/steel interface will be off of the screen to the left. Adjust the gain to place the amplitude of the first backwall signal at approximately 80% screen height on the A-trace.

7. "Ring" the transducer on the thinnest step or shim using couplant. Select positive half-wave rectified, negative half-wave rectified, or filtered signal display to obtain the cleanest signal. Adjust the pulse voltage, pulse width, and damping to obtain the best signal resolution. These settings can vary from one transducer to another and are also user dependent.

8. Enable the thickness gate, and adjust the gate so that it starts at the first backwall echo and ends at the second backwall echo. (Measuring between the first and second backwall echoes will produce a measurement of the steel thickness that is not affected by the paint layer on the strut). If instability of the gate trigger occurs, adjust the gain, gate level, and/or damping to stabilize the thickness reading.

9. Check the digital display reading and if it does not agree with the known thickness of the thinnest thickness, follow your instrument's calibration recommendations to produce the correct thickness reading. When a single element transducer is used this will usually involve adjusting the fine delay setting.

10. Place the transducer on the thickest step of shim using couplant. Adjust the thickness gate width so that the gate is triggered by the second backwall reflection of the thick section. If the digital display does not agree with the thickest thickness, follow your instruments calibration

recommendations to produce the correct thickness reading. A slight adjustment in the velocity may be necessary to get both the thinnest and the thickest reading correct. Document the changed velocity value.

11. Place couplant on an area of the lift strut which is thought to be free of corrosion and "ring" the transducer to surface. Minor adjustments to the signal and gate settings may be required to account for coupling improvements resulting from the paint layer. The thickness gate level should be set just high enough so as not to be triggered by irrelevant signal noise. An area on the upper surface of the lift strut above the inspection area would be a good location to complete this step and should produce a thickness reading between 0.034-inch and 0.041-inch.

12. Repeat steps 8, 9, 10, and 11 until both thick and thin shim measurements are within tolerance and the lift strut measurement is reasonable and steady.

13. Verify that the thickness value shown in the digital display is within +/- 0.002-inch of the correct value for each of the three or more steps of the setup wedge or shims. Make no further adjustments to the instrument settings.

14. Record the ultrasonic versus actual thickness of all wedge steps or steel shims available as a record of setup.

INSPECTION PROCEDURE

1. Clean the lower 18 inches of the wing lift struts using a cleaner that will remove all dirt and grease. Dirt and grease will adversely affect the accuracy of the inspection technique. Light sanding or polishing may also be required to reduce surface roughness as noted in the EQUIPMENT REQUIREMENTS section.

2. Using a flexible ruler, draw a 1/4-inch grid on the surface of the first 11 inches from the lower end of the strut as shown in Piper SB No. 528D, dated October 19, 1990, or Piper SB No. 910A, dated October 10, 1989. This can be done using a soft (2) pencil and should be done on both faces of the strut. As an alternative to drawing a complete grid, make two rows of marks spaced every 1/4-inch across the width of the strut. One row of marks should be about 11 inches from the lower end of the strut, and the second row should be several inches away where the strut starts to narrow. Lay the flexible ruler between respective tick marks of the two rows and use tape or a rubber band to keep the ruler in place. See Figure 1.

3. Apply a generous amount of couplant inside each of the square areas or along the edge of the ruler. Re-application of couplant may be necessary.

4. Place the transducer inside the first square area of the drawn grid or at the first 1/4-inch mark on the ruler and "ring" the transducer to the strut. When using a dual element transducer, be very careful to record the thickness value with the axis of the transducer elements perpendicular to any curvature in the strut. If this is not done, loss of signal or inaccurate readings can result.

5. Take readings inside each square on the grid or at 1/4-inch increments along the ruler and record the results. When taking a thickness reading, rotate the transducer slightly back and forth and experiment with the angle of contact to produce the lowest thickness reading possible. Pay close attention to the A-scan display to assure that the thickness gate is triggering off of maximized backwall echoes.

- NOTE: A reading shall not exceed .041 inch. If a reading exceeds .041-inch, repeat steps 13 and 14 of the INSTRUMENT SETUP section before proceeding further.

6. If the A-trace is unsteady or the thickness reading is clearly wrong, adjust the signal gain and/or gate setting to obtain reasonable and steady readings. If any instrument setting is adjusted, repeat steps 13 and 14 of the INSTRUMENT SETUP section before proceeding further.

7. In areas where obstructions are present, take a data point as close to the correct area as possible.

- NOTE: The strut wall contains a fabrication bead at approximately 40% of the strut chord. The bead may interfere with accurate measurements in that specific location.

8. A measurement of 0.024-inch or less shall require replacement of the strut prior to further flight.

9. If at any time during testing an area is encountered where a valid thickness measurement cannot be obtained due to a loss of signal strength or quality, the area shall be considered suspect. These areas may have a remaining wall thickness of less than 0.020-inch, which is below the range of this setup, or they may have small areas of localized corrosion or pitting present. The latter case will result in a reduction in signal strength due to the sound being scattered from the rough surface and may result in a signal that includes echoes from the pits as well as the backwall. The suspect area(s) shall be tested with a Maule "Fabric Tester" as specified in Piper SB No. 528D, dated October 19, 1990, or Piper SB No. 910A, dated October 10, 1989.

10. Record the lift strut inspection in the aircraft log book.

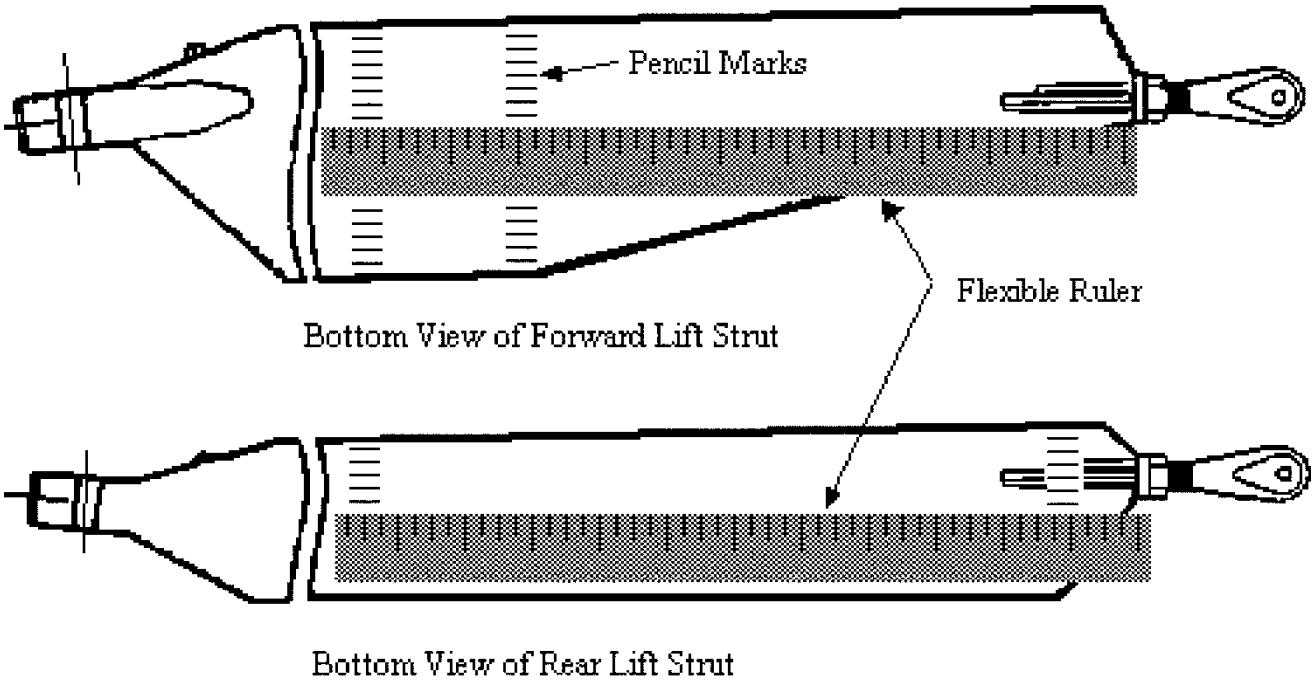

Figure 1

Issued in Kansas City, Missouri, on November 22, 2013.

Earl Lawrence,
Manager, Small Airplane Directorate,
Aircraft Certification Service.