

**FEDERAL AVIATION ADMINISTRATION
AIRWORTHINESS DIRECTIVES**

**SMALL AIRPLANES, ROTORCRAFT, GLIDERS,
BALLOONS, & AIRSHIPS**

BIWEEKLY 2015-20

9/21/2015 - 10/4/2015



Federal Aviation Administration
Continued Operational Safety Policy Section, AIR-141
P.O. Box 25082
Oklahoma City, OK 73125-0460

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SMALL AIRCRAFT, ROTORCRAFT, GLIDERS, BALLOONS, & AIRSHIPS

AD No.	Information	Manufacturer	Applicability
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Information Key: E - Emergency; COR - Correction; S – Supersedes; R - Replaces

Biweekly 2015-01

2014-26-04		GROB-WERKE	G115EG and G120A
2014-26-05		Beechcraft Corporation	G58

Biweekly 2015-02

2014-26-02		Airbus Helicopters	EC155B1 and AS 365 N3 helicopters
2015-01-02		Mitsubishi Heavy Industries, Ltd.	MU-2B-30, MU-2B-35, MU-2B-36, MU-2B-36A and MU-2B-60

Biweekly 2015-03

2014-12-11 R1	R 2014-12-11	Sikorsky Aircraft Corporation	S-92A
2015-01-03		Pilatus Aircraft Ltd	PC-7
2015-02-01	S 2011-23-01	Technify Motors GmbH (TMG)	TAE 125-01 and TAE 125-02-99
2015-02-07		Lycoming Engines	AEIO-320-D1B; AEIO-360-A1E, -A1E6, -B1H, -H1B; AEIO-540-D4A5, -D4B5, -D4D5, -L1B5, -L1B5D, -L1D5; AEIO-580-B1A; and IO-540-K1K5
2015-02-09		Costruzioni Aeronautiche Tecnam srl	P2006T
2015-02-10		Viking Air Limited	DHC-2 Mk. I, DHC-2 Mk. II, and DHC-2 Mk. III
2015-02-15		Quest Aircraft Design, LLC	KODIAK 100
2015-02-22	S 2012-14-06	Rolls-Royce Corporation	250-B17, -B17B, -B17C, -B17D, -B17E, -B17F, -B17F/1, -B17F/2; and 250-C20, -C20B, -C20F, -C20J, -C20R, -C20R/1, -C20R/2, -C20R/4, -C20S, and -C20W
2015-02-27	S 2013-19-19	Airbus Helicopters	AS332C, AS332L, AS332L1, AS332L2, and EC225LP

Biweekly 2015-04

2014-22-51		Airbus Helicopters	EC130T2 helicopters
2015-02-21		Agusta S.p.A.	AB139 and AW139 helicopters
2015-04-51	E	Enstrom Helicopter Corporation	F-28A, 280, F-28C, F-28C-2, F-28C-2R, 280C, F-28F, F-28F-R, 280F, 280FX, and 480 helicopters

Biweekly 2015-05

2015-04-01		Short Brothers & Harland Ltd	SC-7 Series 3
2015-04-04		Bell Helicopter Textron Inc.	412 and 412EP
2015-04-05		Sikorsky Aircraft Corporation	S-76A, S-76B, S-76C, and S-76D
2015-05-51	E	Agusta S.p.A.	A109A and A109A II
2015-05-52	E	Agusta S.p.A.	A109, A109A, A109A II, A109C, A109K2, A109E, A119, A109S, AW119 MKII, and AW109SP

Biweekly 2015-06

2015-04-01	COR	Short Brothers & Harland Ltd	SC-7 Series 3 airplanes
2015-05-04		Bell Helicopter Textron Canada	407 helicopters
2015-05-05	S 2014-04-14	Agusta	A109S and AW109SP helicopters; A119 and AW119 MKII helicopters
2015-05-06		Flugzeugwerke Altenrhein AG	AS 202/15 "BRAVO", AS 202/18A "BRAVO", and AS 202/18A4 "BRAVO" airplanes
2015-06-01	S 2014-06-03	British Aerospace	Jetstream Series 3101 and Jetstream 3201 airplanes
2015-06-02		GA 8 Airvan	GA8-TC320 airplanes
2015-06-03		Stemme AG	S6 and S6-RT gliders

Biweekly 2015-07

2015-06-09		Pacific Aerospace Limited	750XL airplanes
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Biweekly 2015-08

2015-05-52		Agusta S.p.A.	A109, A109A, A109A II, A109C, A109K2, A109E, A119, A109S, AW119 MKII, and AW109SP
2015-07-03		Cessna Aircraft Company	402C and 414A
2015-07-04		Pilatus Aircraft Ltd.	PC-7
2015-08-51	E S 2015-04-51	The Enstrom Helicopter Corporation	F-28A, 280, F-28C, F-28C-2, F-28C-2R, 280C, F-28F, F-28F-R, 280F, and 280FX; and 480

SMALL AIRCRAFT, ROTORCRAFT, GLIDERS, BALLOONS, & AIRSHIPS

AD No.	Information	Manufacturer	Applicability
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Biweekly 2015-09

2014-17-08R1	R 2014-17-08	Pratt & Whitney Canada Corp. (P&WC)	PT6A-114 and PT6A-114A
2015-08-04	S 99-01-05 R1	Various Airplanes	See AD

Biweekly 2015-10

2015-08-07		Zodiac Aerotechnics	See Ad
2015-09-01		Airbus Helicopters	EC225LP
2015-09-04	S 2013-22-14 R1	DG Flugzeugbau GmbH	DG-1000T
2015-09-06	S 2014-26-04	GROB-WERKE	G115EG and G120A

Biweekly 2015-11

2015-08-51	S 2015-04-51	The Enstrom Helicopter Corporation	F-28A, 280, F-28C, F-28C-2, F-28C-2R, 280C, F-28F, F-28F-R, 280F, 280FX; 480
2015-10-05		Airbus Helicopters (previously Eurocopter France)	AS365N3, EC155B, and EC155B1
2015-10-06		Lycoming Engines	TIO-540-AJ1A
2015-10-07	S 2014-01-01	Turbomeca S.A.	Arrius 2F
2015-10-51	E	Avidyne Aerospace	Integrated Flight Displays
2015-11-01		Slingsby Aviation Ltd.	T67M260 and T67M260-T3A

Biweekly 2015-12

2015-11-06	S 2013-18-01	Airbus Helicopters	EC 155B, EC155B1, SA-365N, SA-365N1, AS-365N2, AS 365 N3, and SA-366G1
2015-11-07		Agusta S.p.A.	AB412 and AB412 EP
2015-11-08	S 2014-02-08	Agusta	A109C, A109S, A109K2, A109E, and AW109SP
2015-11-09		Sikorsky Aircraft Corporation	269D and 269D
2015-11-10		Sikorsky Aircraft Corporation	S-92A
2015-12-01		Airbus Helicopters	AS355E, AS355F, AS355F1, and AS355F2
2015-12-02		Bell	206L-1, 206L-3, and 206L-4

Biweekly 2015-13

2015-05-51		Agusta S.p.A.	A109A, A109A II
2015-10-51		Avidyne Corporation	Integrated Flight Displays (IFDs)
2015-12-04	COR R 2006-15-08	Honeywell International Inc.	TPE331-1, -2, -2UA, -3U, -3UW, -5, -5A, -5AB, -5B, -6, -6A, -10, -10AV, -10GP, -10GT, -10P, -10R, -10T, -10U, -10UA, -10UF, -10UG, -10UGR, -10UR, -11U, -12JR, -12UA, -12UAR, and -12UHR
2015-12-09		Airbus Helicopters Deutschland GmbH	EC135P1, EC135T1, EC135P2, EC135T2, EC135P2+, EC135T2+, and MBB-BK 117 C-2

Biweekly 2015-14

2015-13-03		Przedsiębiorstwo Doswiadczalno-Produkcyjne Szybownictwa "PZL-Bielsko"	SZD-50-3 "Puchacz"
2015-13-09		Piper Aircraft, Inc.	PA-46-350P and PA-46-500TP
2015-13-10	S 2011-17-07	M7 Aerospace LLC	SA226-T, SA226-T(B), SA226-TC, and SA226-AT
2015-13-11		Bell Helicopter Textron Canada	430

Biweekly 2015-15

2015-06-02 R1	R 2015-06-02	GA 8 Airvan (Pty) Ltd	TC320
2015-12-04	COR R2006-15-08	Honeywell International Inc.	TPE331-1, -2, -2UA, -3U, -3UW, -5, -5A, -5AB, -5B, -6, -6A, -10, -10AV, -10GP, -10GT, -10P, -10R, -10T, -10U, -10UA, -10UF, -10UG, -10UGR, -10UR, -11U, -12JR, -12UA, -12UAR, and -12UHR
2015-14-02		GE Aviation Czech s.r.o.	M601E-11, M601E-11A, and M601F
2015-14-04		Kaman Aerospace Corporation	K-1200
2015-14-10		Pilatus Aircraft LTD	PC-12/47 and PC-12/47E
2015-15-04		Bell Helicopter Textron, Inc.	204B, 205A, and 205A-1; and 212

Biweekly 2015-16

2015-12-04	COR R 2006-15-08	Honeywell International Inc.	TPE331-1, -2, -2UA, -3U, -3UW, -5, -5A, -5AB, -5B, -6, -6A, -10, -10AV, -10GP, -10GT, -10P, -10R, -10T, -10U, -10UA, -10UF, -10UG, -10UGR, -10UR, -11U, -12JR, -12UA, -12UAR, and -12UHR
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SMALL AIRCRAFT, ROTORCRAFT, GLIDERS, BALLOONS, & AIRSHIPS

AD No.	Information	Manufacturer	Applicability
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2015-13-04	S 2014-19-05	Turbomeca S.A.	Arriel 1A1, 1A2, 1B, 1C, 1C1, 1C2, 1D, 1D1, 1E2, 1K1, 1S, 1S1, 2B, 2B1, 2C, 2C1, 2C2, 2S1, and 2S2
2015-16-51	E	Bell Helicopter Textron Canada Limited (Bell)	429
Biweekly 2015-17			
2015-16-04		Kidde Graviner	See AD
2015-16-05		British Aerospace Regional Aircraft	Jetstream Series 3101 and Jetsream Model 3201
2015-16-06		British Aerospace Regional Aircraft	Jetstream Model 3201
2015-16-07		Reims Aviation S.A.	F406
2015-17-01	S 2013-21-01	Airbus Helicopters	AS350B, AS350BA, AS350B1, AS350B2, AS350B3, AS350C, AS350D, AS350D1, AS355E, AS355F, AS355F1, AS355F2, AS355N, and AS355NP
2015-17-02	S 2001-13-51	Bell Helicopter Textron Canada	206L-4, 407, 427, and 429
Biweekly 2015-18			
2015-17-10	S 2007-04-13	SOCATA	TBM 700
2015-17-11		Airbus Helicopters	AS350B, AS350BA, AS350B1, AS350B2, AS350B3, AS350C, AS350D, AS350D1, AS355E, AS355F, AS355F1, AS355F2, AS355N, AS355NP, EC130B4, and EC130T2
2015-17-18		Turbomeca S.A.	Arrius 2F
2015-17-20		GE Aviation Czech s.r.o	M601E-11, M601E-11A, and M601F
2015-18-01		Vulcanair S.p.A.	P.68R
Biweekly 2015-19			
2015-18-51	E	Airbus Helicopters	AS332C, AS332C1, AS332L, and AS332L1
2015-19-51	E	Sikorsky Aircraft Corporation	S-76A, S-76B, S-76C, and S-76D
Biweekly 2015-20			
2015-19-07	S 2011-26-04	Lycoming Engines	See AD
2015-19-10	S 97-02-02	M7 Aerospace	SA26-AT, SA26-T, SA226-AT, SA226-T, SA226-T(B), SA226-TC, SA227-AC (C-26A), SA227-AT, SA227-BC (C-26A), SA227-CC, SA227-DC (C-26B), SA227-TT
2015-19-11		PIAGGIO AERO INDUSTRIES S.p.A	P-180
2015-19-14		Airbus Helicopters Deutschland GmbH (AHD)	BO-105A, BO-105C, and BO-105S
2015-19-15		Pilatus Aircraft Ltd	PC-12, PC-12/45, and PC-12/47E
2015-20-51	E	See AD	UH-12-series



2015-19-07 Lycoming Engines (Type Certificate previously held by Textron Lycoming Division, AVCO Corporation) Fuel Injected Reciprocating Engines: Amendment 39-18269; Docket No. FAA-2007-0218; Directorate Identifier 92-ANE-56-AD.

(a) Effective Date

This AD is effective November 3, 2015.

(b) Affected ADs

This AD supersedes AD 2011-26-04, Amendment 39-16894 (76 FR 79051, December 21, 2011).

(c) Applicability

This AD applies to Lycoming Engines fuel injected reciprocating engine models identified in Table 1 to paragraph (c) of this AD, with externally mounted fuel injector fuel lines (stainless steel tube assembly), installed.

Table 1 to Paragraph (c)–Engine Models Affected

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

IGO-540	-B1A, -B1C.
IO-540	-A1A5, -AA1A5, -AA1B5, -AB1A5, -AC1A5, -AE1A5, -B1A5, -B1C5, -C1B5, -C1C5, -C4B5, -C4D5D, -D4A5, -D4B5, -E1A5, -E1B5, -G1A5, -G1B5, -G1C5, -G1D5, -G1E5, -G1F5, -J4A5, -V4A5D, -K1A5, -K1A5D, -K1B5, -K1C5, -K1D5, -K1E5, -K1E5D, -K1F5, -K1H5, -K1J5, -K1F5D, -K1G5, -K1G5D, -K1H5, -K1J5D, -K1K5, -K1E5, -K1E5D, -K1F5, -K1J5, -L1C5, -M1A5, -M1B5D, -M1C5, -N1A5, -P1A5, -R1A5, -S1A5, -T4A5D, -T4B5, -T4B5D, -T4C5D, -V4A5, -V4A5D, -W1A5, -W1A5D, -W3A5D.
IVO-540	-A1A.
LTIO-540	-F2BD, -J2B, -J2BD, -N2BD, -R2AD, -U2A, -V2AD, -W2A.
TIO-540	-A1A, -A1B, -A2A, -A2B, -A2C, -AE2A, -AH1A, -AA1AD, -AF1A, -AF1B, -AG1A, -AB1AD, -AB1BD, -AH1A, -AJ1A, -AK1A, -C1A, -E1A, -G1A, -F2BD, -J2B, -J2BD, -N2BD, -R2AD, -S1AD, -U2A, -V2AD, -W2A.
TIVO-540	-A2A.
IO-720	-A1A, -A1B, -D1B, -D1BD, -D1C, -D1CD, -B1B, -B1BD, -C1B.

Engine models IO-540-AG1A5, LIO-360-M1A, IO-390-A Series, AEIO-390-A Series, IO-540-AF1A5, IO-580-B1A, and AEIO-580-B1A, are not listed in Table 1. These engine models are accounted for in the Maintenance and Overhaul Manual with an Airworthiness Limitations Section. As Lycoming has more engine models certified they will add them to this list of engines with a Maintenance and Overhaul Manual. To determine if your engine has a Maintenance and Overhaul Manual you can either contact Lycoming, or you can refer to Lycoming's list of maintenance publications for engines that have a Maintenance and Overhaul Manual.

(d) Unsafe Condition

This AD was prompted by revised service information that added engine models to the applicability. This service information adds engine models requiring inspection and technical updates. We are issuing this AD to prevent failure of the fuel injector fuel lines, which could lead to uncontrolled engine fire, engine damage, and damage to the airplane.

(e) Compliance

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

(1) Initial Inspections

(i) Within 10 hours time-in-service (TIS) after the effective date of this AD, inspect the fuel injector fuel lines and clamps between the fuel manifold and the fuel injector nozzles. Use Lycoming Engines Mandatory Service Bulletin (MSB) No. 342G, dated July 16, 2013; Supplement No. 1 to MSB No. 342G, dated August 29, 2013; and Supplement No. 2 to MSB No. 342G, dated January 23, 2014 to perform the inspection. Replace any fuel injector fuel line or clamp that fails the inspection required by the Fuel Line Inspection and Installation Checklist in MSB No. 342G.

(ii) Thereafter, re-inspect after any maintenance is done on the engine where any clamp on a fuel injector fuel line was disconnected, moved, or loosened, and within every 110 hours TIS and after each engine overhaul. Use Lycoming Engines MSB No. 342G, dated July 16, 2013; Supplement No. 1 to MSB No. 342G, dated August 29, 2013; and Supplement No. 2 to MSB No. 342G, dated January 23, 2014 to perform the inspection and the Fuel Line Inspection and Installation Checklist in MSB No. 342G to perform the re-inspection.

(f) Credit for Previous Actions

If you inspected your fuel injector fuel lines and clamps using Lycoming Engines MSB No. 342F, dated June 4, 2010, or earlier versions, you met the initial inspection requirements of this AD. However, you must still comply with the repetitive inspection requirements of paragraph (e)(1)(ii) of this AD.

(g) Alternative Methods of Compliance (AMOCs)

The Manager, New York Aircraft Certification Office, FAA, may approve AMOCs to this AD. Use the procedures found in 14 CFR 39.19 to make your request. AMOCs previously approved for AD 2008-14-07, Amendment 39-15602 (73 FR 39574, July 10, 2008) ("AD 2008-14-07") and AD 2011-26-04, Amendment 39-16894 (76 FR 79051, December 21, 2011) ("AD 2011-26-04") are approved as AMOCs to the corresponding requirements in paragraph (e) of this AD.

(h) Related Information

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

(2) FAA Special Airworthiness Information Bulletin NE-07-49R1 contains additional information on this subject.

(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) Lycoming Engines Mandatory Service Bulletin (MSB) No. 342G, dated July 16, 2013.

(ii) Lycoming Engines MSB No. 342G, Supplement No. 1, dated August 29, 2013.

(iii) Lycoming Engines MSB No. 342G, Supplement No. 2, dated January 23, 2014.

(3) For Lycoming Engines service information identified in this AD, contact Lycoming Engines, 652 Oliver Street, Williamsport, PA 17701; phone: 800-258-3279; fax: 570-327-7101; Internet: <http://www.lycoming.com/Lycoming/SUPPORT/TechnicalPublications/ServiceBulletins.aspx>.

(4) You may view this service information at the 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 September 11, 2015.

Thomas A. Boudreau,
Acting Directorate Manager, Engine & Propeller Directorate,
Aircraft Certification Service.



2015-19-10 M7 Aerospace: Amendment 39-18272; Docket No. FAA-2015-2207; Directorate Identifier 2015-CE-003-AD.

(a) Effective Date

This AD is effective November 3, 2015.

(b) Affected ADs

This AD supersedes AD 97-02-02, Amendment 39-9886 (62 FR 2552, January 17, 1997).

(c) Applicability

This AD applies to M7 Aerospace LLC Models SA26-AT, SA26-T, SA226-AT, SA226-T, SA226-T(B), SA226-TC, SA227-AC (C-26A), SA227-AT, SA227-BC (C-26A), SA227-CC, SA227-DC (C-26B), SA227-TT, all serial numbers, certificated in any category.

(d) Subject

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

(e) Unsafe Condition

AD 97-02-02 (62 FR 2552, January 17, 1997) ("AD 97-02-02") resulted from reports of Fairchild SA227 series airplanes losing pitch control in-flight. This supersedure was prompted by an operator experiencing complete loss of elevator control because of failure of the bolt attaching the elevator control rod to the elevator walking beam under the cockpit floor. We are issuing this AD to prevent loss of pitch control, which if not corrected, could result in loss of airplane control.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done. Models SA227-CC and SA227-DC, serial numbers 892, 893, and 895 and up, have the revised (modified) configuration. Since those airplanes are already in compliance, they do not have to do the actions in paragraphs (h) or (i) of this AD, including all subparagraphs. Those airplanes must still do the actions required in paragraph (j) of this AD, including all subparagraphs.

(g) Credit for Actions Accomplished in Accordance With Previous Service Information

This AD allows credit for the control column pivot bearing torque check and initial replacement required in paragraph (i)(2) of this AD and the elevator rod bolt inspection and initial replacement required in paragraphs (j)(1) and (j)(3)(i) of this AD, if done before November 3, 2015 (the effective date of this AD), following the procedures specified in the Accomplishment Instructions of the applicable service information listed in paragraphs (g)(1) through (g)(4) of this AD:

- (1) M7 Aerospace SA227 Commuter Category Service Bulletin No. CC7-27-010, original issue or revision 1.
- (2) M7 Aerospace SA227 Series Service Bulletin No. 227-27-041, original issue or revision 1.
- (3) M7 Aerospace SA226 Series Service Bulletin No. 226-27-060, original issue or revision 1.
- (4) M7 Aerospace SA26 Series Service Bulletin No. 26-27-30-046, original issue or revision 1.

(h) Control Column Pivot Bearing Revised (Modified) Configuration

(1) On or before the airplane accumulates a total of 35,000 hours time-in-service (TIS) or within the next 1,000 hours TIS after November 3, 2015 (the effective date of this AD), whichever occurs later, you must revise (modify) the control column pivot bearing configuration with the improved design. Use the applicable service information listed in paragraphs (h)(1)(i) through (h)(1)(iv) of this AD. Revising (modifying) the configuration of the control column pivot bearing with the improved design terminates the actions for paragraph (i) of this AD, including all subparagraphs, but you must still complete the required actions in paragraph (j) of this AD, including all subparagraphs.

- (i) Fairchild Aircraft SA26 Series Service Bulletin No. 26-27-30-047, dated June 16, 1997;
- (ii) Fairchild Aircraft SA226 Series Service Bulletin No. 226-27-061, dated June 16, 1997;
- (iii) Fairchild Aircraft SA227 Series Service Bulletin No. 227-27-042, dated June 16, 1997; or
- (iv) Fairchild Aircraft SA227 Series Commuter Category No. CC7-27-011, dated June 16, 1997.

(2) You may at any time before 35,000 hours TIS revise (modify) the control column pivot bearing configuration with the improved design to terminate the repetitive replacement of the original control column pivot bearing using the applicable service information listed in paragraphs (h)(1)(i) through (h)(1)(iv) of this AD. This action terminates the requirements of paragraph (i) of this AD, including all subparagraphs, but you must still complete the required actions in paragraph (j) of this AD, including all subparagraphs.

(i) Torque Check or Replacement of the Control Column Pivot Bearing

(1) Use the service information, as applicable, listed in paragraphs (i)(1)(i) through (i)(1)(iv) of this AD to do a control column pivot bearing torque check or replacement at the applicable compliance times in paragraph (i)(2) or (i)(3) of this AD, including all subparagraphs:

- (i) M7 Aerospace LLC SA26 Series Service Bulletin No. 26-27-30-046 R2, dated December 5, 2014;
- (ii) M7 Aerospace LLC SA226 Series Service Bulletin No. 226-27-060 R2, dated December 5, 2014;
- (iii) M7 Aerospace LLC SA227 Series Service Bulletin No. 227-27-041 R2, dated December 5, 2014; or
- (iv) M7 Aerospace LLC SA227 Series Commuter Category Service Bulletin No. CC7-27-010 R2, December 5, 2014.

(2) For airplanes where the control column pivot bearing has been torque checked or replaced within the last 10,000 hours TIS before November 3, 2015 (the effective date of this AD) using the applicable service information listed in paragraph (g)(1) through (g)(4) or (i)(1)(i) through (i)(1)(iv) of this AD, do one of the following actions:

- (i) Within the next 10,000 hours TIS after the last control column pivot bearing replacement or within the next 1,000 hours TIS after November 3, 2015 (the effective date of this AD), whichever occurs later, and repetitively thereafter every 10,000 hours TIS, replace the control column pivot bearing following paragraph 2.B. of the Accomplishment Instructions of the applicable service information listed in paragraphs (i)(1)(i) through (i)(1)(iv) of this AD; or
- (ii) Within the next 10,000 hours TIS after the last control column pivot bearing replacement or within the next 1,000 hours TIS after November 3, 2015 (the effective date of this AD), whichever occurs later, revise (modify) the control column pivot bearing configuration with the improved design using the applicable service information listed in paragraphs (h)(1)(i) through (h)(1)(iv) of this AD.

Revising (modifying) the configuration of the control column pivot bearing with the improved design terminates the repetitive replacement of the original control column pivot bearing. No other actions are required for paragraph (i) of this AD, including all subparagraphs, but you must still complete the actions in paragraph (j) of this AD, including all subparagraphs.

(3) For airplanes where the control column pivot bearing has not been torque checked or replaced within the last 10,000 hours TIS before November 3, 2015 (the effective date of this AD) using the applicable service information listed in paragraphs (g)(1) through (g)(4) or (i)(1)(i) through (i)(1)(iv) of this AD, within the next 200 hours TIS after November 3, 2015 (the effective date of this AD), torque check the control column pivot bearing following paragraph 2.A. of the service information listed in paragraphs (i)(1)(i) through (i)(1)(iv) of this AD.

(4) If nut movement occurs during the torque check required in paragraph (i)(3) of this AD, do one of the following actions:

(i) Before further flight and repetitively thereafter at intervals not to exceed every 10,000 hours TIS, replace the control column pivot bearing following paragraph 2.B. of the Accomplishment Instructions of the applicable service information listed in paragraphs (i)(1)(i) through (i)(1)(iv) of this AD; or

(ii) Before further flight, revise (modify) the control column pivot bearing configuration with the improved design using the applicable service information listed in paragraphs (h)(1)(i) through (h)(1)(iv) of this AD. Revising (modifying) the configuration of the control column pivot bearing with the improved design terminates the repetitive replacement of the original control column pivot bearing. No other actions are required for paragraph (i) of this AD, including all subparagraphs, but you must still complete the actions in paragraph (j) of this AD, including all subparagraphs.

(5) If no nut movement occurs during the torque check required in paragraph (i)(3) of this AD, do one of the following actions:

(i) Within the next 1,000 hours TIS after November 3, 2015 (the effective date of this AD), replace the control column pivot bearing following paragraph 2.B. of the Accomplishment Instructions of the applicable service information listed in paragraphs (i)(1)(i) through (i)(1)(iv) of this AD; or

(ii) Within the next 1,000 hours TIS after November 3, 2015 (the effective date of this AD), revise (modify) the control column pivot bearing configuration with the improved design using the applicable service information listed in paragraphs (h)(1)(i) through (h)(1)(iv) of this AD. Revising (modifying) the configuration of the control column pivot bearing with the improved design terminates the repetitive replacement of the original control column pivot bearing.

(j) Inspect the Elevator Control Rod Ends and Hardware

(1) Within the next 200 hours TIS after November 3, 2015 (the effective date of this AD), inspect the elevator control rod ends and hardware for wear, creasing, or other damage and verify the elevator rod bolt and attachment hardware for correct configuration following paragraph 2.D. of the Accomplishment Instructions of the applicable service information listed in paragraphs (i)(1)(i) through (i)(1)(iv) of this AD.

(2) If any damage is found during the inspection required in paragraph (j)(1) of this AD or the elevator rod bolt and attachment hardware does not match the correct configuration, before further flight, replace the elevator rod bolt, rod ends, and associated hardware following paragraph 2.D. of the Accomplishment Instructions of the applicable service information listed in paragraphs (i)(1)(i) through (i)(1)(iv) of this AD.

(3) Replace the elevator rod end bolt and associated hardware following paragraph 2.D. of the Accomplishment Instructions of the applicable service information listed in paragraphs (i)(1)(i) through (i)(1)(iv) of this AD at whichever of the following compliance times applies and repetitively thereafter at intervals not to exceed 10,000 hours TIS:

(i) For airplanes where the elevator rod bolt has been replaced: Within the next 10,000 hours TIS after the last elevator rod bolt replacement or within the next 1,000 hours TIS after November 3, 2015 (the effective date of this AD), whichever occurs later; or

(ii) For airplanes where the elevator rod bolt has never been replaced: Within the next 200 hours TIS after November 3, 2015 (the effective date of this AD).

(k) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Fort Worth Airplane Certification Office, 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 paragraph (l)(1) 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.

(l) Related Information

(1) For more information about this AD, contact Andrew McAnaul, Aerospace Engineer, FAA, ASW-143 (c/o San Antonio MIDO), 10100 Reunion Place, Suite 650, San Antonio, Texas 78216; phone: (210) 308-3365; fax: (210) 308-3370; email: andrew.mcanaul@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.

(i) M7 Aerospace LLC SA26 Series Service Bulletin No. 26-27-30-046 R2, dated December 5, 2014.

(ii) M7 Aerospace LLC SA226 Series Service Bulletin No. 226-27-060 R2, dated December 5, 2014.

(iii) M7 Aerospace LLC SA227 Series Service Bulletin No. 227-27-041 R2, dated December 5, 2014.

(iv) M7 Aerospace LLC SA227 Series Commuter Category Service Bulletin No. CC7-27-010 R2, December 5, 2014.

(v) Fairchild Aircraft SA26 Series Service Bulletin No. 26-27-30-047, dated June 16, 1997.

(vi) Fairchild Aircraft SA226 Series Service Bulletin No. 226-27-061, dated June 16, 1997.

(vii) Fairchild Aircraft SA227 Series Service Bulletin No. 227-27-042, dated June 16, 1997.

(viii) Fairchild Aircraft SA227 Series Commuter Category No. CC7-27-011, dated June 16, 1997.

(3) For service information identified in this AD, contact M7 Aerospace LLC, 10823 NE Entrance Road, San Antonio, Texas 78216; phone: (210) 824-9421; fax: (210) 804-7766; Internet: <http://www.elbitsystems-us.com>; email: MetroTech@M7Aerospace.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 September 17, 2015.
Melvin Johnson,
Acting Manager, Small Airplane Directorate,
Aircraft Certification Service.



2015-19-11 PIAGGIO AERO INDUSTRIES S.p.A: Amendment 39-18273; Docket No. FAA-2015-2466; Directorate Identifier 2015-CE-018-AD.

(a) Effective Date

This airworthiness directive (AD) becomes effective November 3, 2015.

(b) Affected ADs

None.

(c) Applicability

This AD applies to PIAGGIO AERO INDUSTRIES S.p.A P-180 Model P-180 airplanes, serial numbers (S/N) 1004 through 1033, certificated in any category.

(d) Subject

Air Transport Association of America (ATA) Code 53: Fuselage.

(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 need to restore the safe fatigue life of the bulkhead structure. We are issuing this AD to correct the safe fatigue life of the airplane.

(f) Actions and Compliance

(1) Unless already done, do the actions in paragraphs (f)(2) through (f)(4) of this AD at whichever of the following compliance times occurs later:

(i) Within 1,500 hours time-in-service (TIS) after November 3, 2015 (the effective date of this AD), but not to exceed 6,000 hours total hours TIS on the airplane; or

(ii) Within 200 hours TIS after November 3, 2015 (the effective date of this AD) or 6 months after November 3, 2015 (the effective date of this AD), whichever occurs first.

(2) Inspect (visually or using a standard endoscope) the forward pressurized bulkhead to verify presence of bulkhead reinforcement following Part A1 of the Accomplishment Instructions of PIAGGIO AERO INDUSTRIES S.p.A. Service Bulletin 80-0081, Revision No. 3, dated: January 20, 2015.

(i) If the inspection results indicate that the reinforcements are properly installed, ascertain (visually or by means of standard endoscope equipment) that there are no cracks or defects. If cracks or defects are identified, before further flight, contact Piaggio Aero Industries at the address specified in paragraph (i)(3) of this AD for an FAA-approved repair scheme, approved specifically for this AD, and incorporate that repair.

(ii) If the inspection results indicate that the reinforcements are not installed, reinforce the forward pressurized bulkhead following Part A2 of the Accomplishment Instructions of PIAGGIO AERO INDUSTRIES S.p.A. Service Bulletin 80-0081, Revision No. 3, dated: January 20, 2015.

(3) Modify the forward pressurized bulkhead following Part C of the Accomplishment Instructions of PIAGGIO AERO INDUSTRIES S.p.A. Service Bulletin 80-0081, Revision No. 3, dated: January 20, 2015.

(4) This AD allows credit for the actions required in paragraphs (f)(2)(ii) and (f)(3) of this AD if done before November 3, 2015 (the effective date of this AD) following the instructions of PIAGGIO AERO INDUSTRIES S.p.A. Service Bulletin 80-0081, Original Issue, dated: April 28, 1997; PIAGGIO AERO INDUSTRIES S.p.A. Service Bulletin 80-0081, Revision No. 1, dated: May 11, 2010; or PIAGGIO AERO INDUSTRIES S.p.A. Service Bulletin 80-0081, Revision No. 2, dated: July 19, 2010.

(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: Mike Kiesov, Aerospace Engineer, FAA, Small Airplane Directorate, 901 Locust, Room 301, Kansas City, Missouri 64106; telephone: (816) 329-4144; fax: (816) 329-4090; email: mike.kiesov@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.: 2015-0071, dated April 30, 2015; PIAGGIO AERO INDUSTRIES S.p.A. Service Bulletin 80-0081, Original Issue, dated: April 28, 1997; PIAGGIO AERO INDUSTRIES S.p.A. Service Bulletin 80-0081, Revision No. 1, dated: May 11, 2010; and PIAGGIO AERO INDUSTRIES S.p.A. Service Bulletin 80-0081, Revision No. 2, dated: July 19, 2010, for related information. The MCAI can be found in the AD docket on the Internet at <http://www.regulations.gov/#!documentDetail;D=FAA-2015-2466-0002>.

(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) PIAGGIO AERO INDUSTRIES S.p.A. Service Bulletin 80-0081, Revision No. 3, dated: January 20, 2015.

(ii) Reserved.

(3) For PIAGGIO AEROSPACE service information identified in this AD, contact PIAGGIO AERO INDUSTRIES S.p.A, Airworthiness Office, Viale Generale Disegna, 1-17038 Villanova d'Albenga, Savona, Italy; telephone: +39 010 6481800; fax: +39 010 6481374; email: technicalsupport@piaggioaerospace.it; Internet: www.piaggioaerospace.it/en/customer-support#care.

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

(816) 329-4148. In addition, you can access this service information on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2015-2466.

(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 September 17, 2015.

Melvin Johnson,
Acting Manager, Small Airplane Directorate,
Aircraft Certification Service.



2015-19-14 Airbus Helicopters Deutschland GmbH (AHD) (formerly Eurocopter Deutschland GmbH) Helicopters: Amendment 39-18276; Docket No. FAA-2012-0503; Directorate Identifier 2011-SW-032-AD.

(a) Applicability

This AD applies to Model BO-105A, BO-105C, and BO-105S helicopters with a Mann oil filter part number (P/N) 6140063321 or a Purolator oil filter P/N 1740001-13, installed, certificated in any category.

(b) Unsafe Condition

This AD defines the unsafe condition as deterioration of the main gearbox (MGB) caused by oil contamination. This condition could result in MGB failure and subsequent loss of control of the helicopter.

(c) Effective Date

This AD becomes effective November 3, 2015.

(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) Within 100 hours time-in-service (TIS) or at the next MGB magnetic plug or chip detector inspection, whichever occurs first, and thereafter at intervals not to exceed 100 hours TIS if a Mann oil filter is installed or 600 hours TIS if a Purolator oil filter is installed, clean and inspect the MGB oil filter for chips and the MGB magnetic plug for fine particles (metallic fuzz) or chips. A "chip" is a solid piece of metal but not metallic fuzz.

(i) If there are no chips on the MGB oil filter or on the magnetic plug, and the metallic fuzz covers less than 25% of the magnetic plug, clean the magnetic plug.

(ii) If there are no chips on the MBG oil filter or on the magnetic plug, but the metallic fuzz covers 25% or more of the magnetic plug, flush the main transmission, change the oil, perform a ground run for 15 minutes at the flight-idle power setting, and then re-inspect the MGB oil filter and magnetic plug for a chip and the quantity of metallic fuzz on the metallic plug.

(iii) If there is a chip on the MGB oil filter or on the magnetic plug, or, after complying with paragraph (e)(1)(ii) of this AD, metallic fuzz covers 25% or more of the magnetic plug, replace the main transmission with an airworthy main transmission and clean the oil cooler and oil lines.

(2) At intervals not to exceed 10 hours TIS if a Mann oil filter is installed and 50 hours TIS if a Purolator oil filter, inspect the magnetic plug for a chip or metallic fuzz in accordance with the requirements of paragraph (e)(1) of this AD.

(3) If a Purolator oil filter has been installed on a helicopter, do not install a Mann oil filter on that helicopter.

(f) Special Flight Permit

A special flight permit will be permitted for up to 10 hours TIS for the purpose of operating the aircraft to a maintenance facility only.

(g) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Safety Management Group, FAA, may approve AMOCs for this AD. Send your proposal to: Matt Fuller, Senior Aviation Safety Engineer, Safety Management Group, Rotorcraft Directorate, FAA, 10101 Hillwood Pkwy., Fort Worth, Texas 76177; telephone (817) 222-5110; email 9-ASW-FTW-AMOC-Requests@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) Airbus Helicopters Alert Service Bulletin No. ASB B0105-10-125, Revision 3, dated May 27, 2014, and Eurocopter Service Bulletin B0105-10-126, Revision 1, dated August 6, 2013, which are not incorporated by reference, contain additional information about the subject of this AD. For service information identified in this AD, contact Airbus Helicopters, 2701 N. Forum Drive, Grand Prairie, TX 75052; telephone (972) 641-0000 or (800) 232-0323; fax (972) 641-3775; or at <http://www.airbushelicopters.com/techpub>. You may review a copy of the service information at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy., Room 6N-321, Fort Worth, Texas 76177.

(2) The subject of this AD is addressed in European Aviation Safety Agency (EASA) AD 2014-0230, dated October 21, 2014. You may view the EASA AD on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2012-0503.

(i) Subject

Joint Aircraft Service Component (JASC) Code: 6320 Main Gear Box.

Issued in Fort Worth, Texas, on September 17, 2015.

James A. Grigg,
Acting Manager, Rotorcraft Directorate,
Aircraft Certification Service.



2015-19-15 Pilatus Aircraft Ltd.: Amendment 39-18277; Docket No. FAA-2015-2775; Directorate Identifier 2015-CE-021-AD.

(a) Effective Date

This airworthiness directive (AD) becomes effective November 3, 2015.

(b) Affected ADs

None.

(c) Applicability

This AD applies to PILATUS AIRCRAFT LTD. Models PC-12, PC-12/45, and PC-12/47E airplanes, manufacturer serial numbers 244, 307, 409, 646, 1447 through 1450, 1461, 1462, 1466 through 1514, 1516 through 1520, and 1523, certificated in any category.

(d) Subject

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

(e) Reason

This AD results from 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 a malfunction of the universal joint. We are issuing this AD to replace defective aileron control system universal joints.

(f) Actions and Compliance

Unless already done, do the following actions in paragraphs (f)(1) and (f)(2) of this AD, to include all subparagraphs.

(1) For airplanes equipped with aileron control system universal joints part number (P/N) 944.61.73.012 or P/N 527.10.12.195, purchased between March 1, 2014, and February 28, 2015; or universal joints installed in service through an aileron control system inspection kit P/N 500.50.12.314, purchased between March 1, 2014, and February 28, 2015, do one of the following actions as applicable:

(i) For airplanes with less than 200 flight cycles since first flight of the airplane or less than 200 flight cycles since installation of an affected universal joint or inspection kit, whichever applies: Within 10 flight cycles after November 3, 2015 (the effective date of this AD) or 3 months after November 3, 2015 (the effective date of this AD), whichever occurs first, replace with a new universal joint P/N 527.10.12.195 purchased after March 1, 2015, and marked with a placard "RT iO" following the Accomplishment Instructions in PILATUS PC-12 Service Bulletin No: 27-022, dated March 17, 2015.

(ii) For airplanes with 200 flight cycles or more since first flight of the airplane or 200 flight cycles or more since installation of an affected universal joint or inspection kit, whichever applies: Within 12 months after November 3, 2015 (the effective date of this AD), replace with a new universal joint P/N 527.10.12.195 purchased after March 1, 2015, and marked with a placard "RT iO" following the Accomplishment Instructions in PILATUS PC-12 Service Bulletin No: 27-022, dated March 17, 2015.

(iii) For all airplanes where total flight cycles are not tracked: The conversion formula is one flight cycle equals one flight hour.

(2) For all airplanes: After November 3, 2015 (the effective date of this AD), do not install the following parts on any airplane after the modification of the airplane as required in paragraphs (f)(1)(i) and (f)(1)(ii) of this AD or any airplane that does not have an affected part installed:

(i) A universal joint P/N 944.61.73.012 or P/N 527.10.12.195 (except for a P/N 527.10.12.195 marked with a placard "RT iO").

(ii) Inspection kit P/N 500.50.12.314 purchased between March 1, 2014, and February 28, 2015.

(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: Doug Rudolph, Aerospace Engineer, FAA, Small Airplane Directorate, 901 Locust, Room 301, Kansas City, Missouri 64106; telephone: (816) 329-4059; fax: (816) 329-4090; email: doug.rudolph@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.

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

(h) Related Information

Refer to MCAI European Aviation Safety Agency (EASA) AD No.: 2015-0111, dated June 16, 2015, for related information. The MCAI can be found in the AD docket on the Internet at: <http://www.regulations.gov/#!documentDetail;D=FAA-2015-2775-0002>.

(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) PILATUS PC-12 Service Bulletin No: 27-022, dated March 17, 2015.

(ii) Reserved.

(3) For PILATUS AIRCRAFT LTD. service information identified in this AD, contact: PILATUS AIRCRAFT LTD, Customer Support Manager, CH-6371 STANS, Switzerland; phone: +41 (0)41 619 33 33; fax: +41 (0)41 619 73 11; email: SupportPC12@pilatus-aircraft.com; Internet: <http://www.pilatus-aircraft>.

(4) You may view this service information at the FAA, Small Airplane Directorate, 901 Locust, Kansas City, Missouri 64106. For information on the availability of this material at the FAA, call (816) 329-4148. In addition, you can access this service information on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2015-2775.

(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 September 18, 2015.

Melvin Johnson,
Acting Manager, Small Airplane Directorate,
Aircraft Certification Service.



DATE: September 25, 2015
AD #: 2015-20-51

This Emergency Airworthiness Directive (AD) 2015-20-51 is being sent to owners and operators of Model UH-12-series helicopters, with a main rotor blade (MRB) fork, part number 52110-3, with a serial number 11502P through 11537P, or 11551P through 11579P, excluding 11577P, certificated in any category.

Background

This Emergency AD was prompted by a pilot report of severe lateral vibrations on a Model UH-12D helicopter. After that incident, the operator of the helicopter discovered a crack in the main rotor blade (MRB) fork at the tension-torsion (TT) retention pin holes. The operator then inspected the rest of its UH-12 fleet and discovered another helicopter with a cracked MRB fork. The preliminary investigation suggests the failure of the forks may be a production issue with certain batches of forks. However, the investigation into the root cause of the failure of the forks is on-going. The crack in one of the forks was not detectable by the dye-penetrant inspection required by AD 86-17-02, Amendment 39-5367 (51 FR 28062, August 5, 1986), which addresses a similar unsafe condition. Accordingly, this Emergency AD requires a one-time magnetic particle inspection of the MRB fork at the TT retention pin hole. If there is a crack, this Emergency AD requires replacing the fork before further flight. This Emergency AD also requires reporting certain information to the FAA to enable us to obtain better insight into the cause of the cracking. These Emergency AD actions are intended to detect a crack in the MRB fork and prevent blade separation and subsequent loss of control of the helicopter. This Emergency AD does not supersede or affect the requirements in AD 86-17-02.

FAA's Determination

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

Related Service Information

We reviewed a Hiller customer letter, dated September 18, 2015, that states that failure of a main rotor fork may result in catastrophic loss of life and loss of the helicopter. Hiller further urges its customers to immediately comply with its preliminary service bulletin. The Hiller Aircraft Corporation (“Hiller”) Preliminary Service Bulletin has three different numbers: UH12-E Service Bulletin 51-10; UH-12 A, B, C Series Service Bulletin 91; and Turbine Hiller Service Bulletin 21-560; and is dated September 18, 2015 (Preliminary SB). The Preliminary SB reports that an operator found two main rotor forks, part number 52110-3, with circumferential cracks radiating from the tension torsion pin hole. According to the Preliminary SB, these forks had 751 and 782 hours time-in-service. The first cracked fork was found after the pilot reported increasingly severe vibrations during flight. The second cracked fork was found on a helicopter undergoing other maintenance. The operator reported that the crack on one of the forks was not detectable using visible dye penetrant but was detectable using florescent penetrant. The Preliminary SB consequently calls for a visual and magnetic particle inspection of the entire fork, and a second magnetic particle inspection and cadmium plating after any repair or rework. If cracks are found in the fork, the Preliminary SB calls for replacement of the TT pin and a florescent penetrant inspection of the main rotor hub. The Preliminary SB also specifies reporting the results of the inspections to Hiller.

Emergency AD Requirements

This Emergency AD requires, before further flight, performing a one-time magnetic particle inspection of the fork for a crack at the MRB pin holes. If there is a crack, we require replacing the MRB fork with an MRB fork that has been inspected per the requirements of this Emergency AD or with an airworthy MRB fork that is not listed in the applicability paragraph of this Emergency AD. Also required, within 10 days, is reporting certain information to the Manager of the Los Angeles Aircraft Certification Office.

Differences Between This Emergency AD and the Service Information

We require a one-time magnetic particle inspection of a 1-inch strip around the edge of each MRB fork TT retention pin hole. The Preliminary SB requires a visual inspection and a magnetic particle inspection of the fork. If there is a crack, we require replacing the MRB fork, while the Preliminary SB requires replacing the TT pin and a florescent penetrant inspecting the main rotor hub.

Interim Action

We consider this Emergency AD to be an interim action. The inspection report that is required by this Emergency AD will enable us to obtain better insight into the cause of the cracking and eventually to develop final action to address this unsafe condition. Once final action has been identified, we might consider further rulemaking.

Costs of Compliance

We estimate that this AD will affect 64 MRB forks installed on helicopters of U.S. Registry and that labor costs average \$85 a work-hour. Based on these estimates we expect the following costs.

- Magnetic particle inspecting each affected MRB fork will require 3 work hours for a labor cost of \$255. No parts are needed for a total U.S. fleet cost of \$16,320.
- Reporting the information requested in Appendix 1 requires 1/12 work-hour for a labor cost of about \$7 per MRB fork and \$455 for the U.S. fleet.
- If required, a replacement fork costs \$14,003.

Paperwork Reduction Act

A federal agency may not conduct or sponsor, and a person is not required to respond to, nor shall a person be subject to penalty for failure to comply with a collection of information subject to the requirements of the Paperwork Reduction Act unless that collection of information displays a current valid OMB control number. The control number for the collection of information required by this Emergency AD is 2120-0056. The paperwork cost associated with this Emergency AD has been detailed in the Costs of Compliance section of this document and includes time for reviewing instructions, as well as completing and reviewing the collection of information. Therefore, all reporting required by this Emergency AD is mandatory. Comments concerning the accuracy of this burden and suggestions for reducing the burden should be directed to the FAA at 800 Independence Ave., SW, Washington, DC 20591; ATTN: Information Collection Clearance Officer, AES-200.

Authority for this Rulemaking

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

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

Adoption of the Emergency Airworthiness Directive (AD)

We are issuing this Emergency AD under 49 U.S.C. Sections 106(g), 40113, and 44701 according to the authority delegated to me by the Administrator.

2015-20-51 **Model UH-12-Series Helicopters:** Directorate Identifier 2015-SW-067-AD.

(a) Applicability

This Emergency AD applies to Model UH-12-series helicopters, regardless of type certificate holder, with a main rotor blade (MRB) fork, part number 52110-3, with a serial number 11502P through 11537P, or 11551P through 11579P, excluding 11577P, certificated in any category.

(b) Unsafe Condition

This Emergency AD defines the unsafe condition as a crack in an MRB fork at the tension-torsion retention pin holes (pin holes). This condition, if not detected and corrected, could result in blade separation and subsequent loss of control of the helicopter.

(c) Effective Date

This Emergency AD is effective upon receipt.

(d) Compliance

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

(e) Required Actions

(1) Before further flight, unless done within the last 100 hours time-in-service, prepare the area for a one-time magnetic particle inspection by stripping any paint in the interior and exterior of each MRB fork. The inspection area is a 1-inch strip around the edge of each MRB pin hole. Magnetic particle inspect for a crack in the MRB fork at the pin holes, following the magnetic particle examination process and qualifications found in American Society for Testing and Material (ASTM) E1444 or equivalent. If there is a crack, replace the MRB fork with an MRB fork that has

been inspected per the requirements of this paragraph or with an airworthy MRB fork that is not listed in the applicability paragraph of this Emergency AD.

Note 1 to paragraph (e)(1) of this Emergency AD: This Emergency AD does not supersede or affect the requirements of AD 86-17-02, Amendment 39-5367 (51 FR 28062, August 5, 1986).

(2) Within 10 days after completing the magnetic particle inspection, report the information requested in Appendix 1 to this Emergency AD by mail to the Manager, Los Angeles Aircraft Certification Office, Federal Aviation Administration, ATTN: Nenita Odesa, 3960 Paramount Blvd., Lakewood, California 90712; by fax to (562) 627-5210; or email to neneta.odesa@faa.gov.

(f) Special Flight Permit

A special flight permit may only be issued if the MRB fork has no visible crack.

(g) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Los Angeles Aircraft Certification Office (LAACO), FAA, may approve AMOCs for this Emergency AD. Send your proposal to: Nenita Odesa, Aviation Safety Engineer, LAACO, Transport Directorate, 3960 Paramount Blvd., Lakewood, California 90712; telephone (562) 627-5234; email 9-ANM-LAACO-AMOC-REQUESTS@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 Emergency AD through an AMOC.

(g) Additional Information

For further information contact: Nenita Odesa, Aviation Safety Engineer, LAACO, Transport Directorate, FAA, 3960 Paramount Blvd., Lakewood, California 90712; telephone (562) 627-5234; email nenita.odesa@faa.gov.

(h) Subject

Joint Aircraft Service Component (JASC) Code: 6700 Rotor Flight Control.

Appendix 1 to Emergency AD 2015-20-51

Main Rotor Blade Fork Inspection (Sample Format)

Provide the following information to the Manager, Los Angeles Aircraft Certification Office, Federal Aviation Administration, ATTN: Nenita Odesa, 3960 Paramount Blvd., Lakewood, California 90712; by fax to (562) 627-5210; or email to nenita.odesa@faa.gov.

Aircraft Registration No.:

Helicopter Model:

Helicopter Serial Number:

Helicopter Owner or Operator:

Contact Phone No.:

Main Rotor Blade Fork (MRB Fork) Part Number and Serial Number:

Total Hours Time-in-Service (TIS) on the MRB Fork:

Total Hours TIS on Helicopter:

Who Performed the Inspection:

Date and Location Inspection was Accomplished:

Crack Found? If yes, describe the crack size, location, orientation (provide a sketch or picture):

TIS since the last dye penetrant inspection (per AD 86-17-02):

Provide Any Other Comments:

Issued in Fort Worth, Texas, on September 25, 2015.

Lance T. Gant,

Acting Manager, Rotorcraft Directorate,

Aircraft Certification Service