

**FEDERAL AVIATION ADMINISTRATION  
AIRWORTHINESS DIRECTIVES**

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

**BIWEEKLY 2015-08**

*4/6/2015 - 4/19/2015*



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		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		Agusta S.p.A.	A109A and A109A II
2015-05-52		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



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**2015-05-52 Agusta S.p.A.:** Amendment 39-18136; Docket No. FAA-2015-0908; Directorate Identifier 2015-SW-007-AD.

**(a) Applicability**

This AD applies to Agusta S.p.A. Model A109, A109A, A109A II, A109C, A109K2, A109E, A119, A109S, AW119 MKII, and AW109SP helicopters, certificated in any category, with a tail rotor pitch control link (pitch link) part number 109-0130-05-117 with 100 hours or less time-in-service since overhaul.

**(b) Unsafe Condition**

This AD defines the unsafe condition as failure of a pitch link. This condition could result in loss of tail rotor pitch control and subsequent loss of control of the helicopter.

**(c) Effective Date**

This AD becomes effective April 29, 2015 to all persons except those persons to whom it was made immediately effective by Emergency AD 2015-05-52, issued on March 4, 2015, which contains the requirements of this AD.

**(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, inspect the pitch link for freedom of movement while it is installed on the helicopter.

(i) If there is rotation resistance or binding, before further flight, perform the actions in paragraphs (e)(2) through (e)(3) of this AD.

(ii) If there is no rotation resistance and no binding, within 5 hours time-in-service, perform the actions in paragraphs (e)(2) through (e)(3) of this AD.

(2) Remove the pitch link and inspect each pitch link spherical bearing for corrosion. If there is any corrosion, the pitch link is unairworthy.

(3) Determine the force required to rotate each pitch link spherical bearing as depicted in Figure 1 of AgustaWestland Alert Bollettino Tecnico (BT) No. 109-145, 109EP-141, 109K-65, 109S-065, 109SP-087, or 119-072, all Revision A, and all dated February 27, 2015, as applicable to your model helicopter.

(i) If the force required to rotate a spherical bearing in either end of the pitch link is greater than 7.30 N (1.64 pounds force), the pitch link is unairworthy.

(ii) If the force required to rotate the spherical bearings in both ends of the pitch link is equal to or less than 7.30 N (1.64 pounds force), after cleaning the pitch link rod using aliphatic naphtha or equivalent and a soft non-metallic bristle brush, visually inspect the pitch link rod for a crack in the

area depicted in Figure 1 of AgustaWestland Alert BT No. 109-145, 109EP-141, 109K-65, 109S-065, 109SP-087, or 119-072, all Revision A, and all dated February 27, 2015, as applicable to your model helicopter, using a 10x or higher power magnifying glass or by dye penetrant inspection. If there is a crack, the pitch link is unairworthy.

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

(1) The Manager, Safety Management Group, FAA, may approve AMOCs for this AD. Send your proposal to: Martin Crane, Aviation Safety Engineer, Safety Management Group, Rotorcraft Directorate, FAA, 2601 Meacham Blvd., Fort Worth, Texas 76137; telephone (817) 222-5110; email [martin.r.crane@faa.gov](mailto:martin.r.crane@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) Emergency AD No. 2015-0035-E, dated February 27, 2015. You may view the EASA AD on the Internet at <http://www.regulations.gov> in Docket No. FAA-2015-0908.

**(h) Subject**

Joint Aircraft Service Component (JASC) Code: 6720, Tail Rotor Controls.

**(i) Material Incorporated by Reference**

(1) The Director of the Federal Register approved the incorporation by reference 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) AgustaWestland Alert Bollettino Tecnico (BT) No. 109-145, Revision A, dated February 27, 2015.

(ii) AgustaWestland Alert BT No. 109EP-141, Revision A, dated February 27, 2015.

(iii) AgustaWestland Alert BT No. 109K-65, Revision A, dated February 27, 2015.

(iv) AgustaWestland Alert BT No. 109S-065, Revision A, dated February 27, 2015.

(v) AgustaWestland Alert BT No. 109SP-087, Revision A, dated February 27, 2015.

(vi) AgustaWestland Alert BT No. 119-072, Revision A, dated February 27, 2015.

(3) For AgustaWestland service information identified in this AD, contact AgustaWestland, Product Support Engineering, Via del Gregge, 100, 21015 Lonate Pozzolo (VA) Italy, ATTN: Maurizio D'Angelo; telephone 39-0331-664757; fax 39 0331-664680; or at <http://www.agustawestland.com/technical-bulletins>.

(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 April 6, 2015.  
Lance T. Gant,  
Acting Directorate Manager, Rotorcraft Directorate,  
Aircraft Certification Service.



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**2015-07-03 Cessna Aircraft Company:** Amendment 39-18131; Docket No. FAA-2015-0839; Directorate Identifier 2015-CE-006-AD.

**(a) Effective Date**

This AD is effective April 24, 2015.

**(b) Affected ADs**

None.

**(c) Applicability**

This AD applies to Cessna Aircraft Company Model 402C airplanes, serial numbers 402C0001 through 402C1020, and Model 414A airplanes, serial numbers 414A0001 through 414A1212, certificated in any category.

**(d) Subject**

Joint Aircraft System Component (JASC)/Air Transport Association (ATA) of America Code 54, Nacelles/Pylons.

**(e) Unsafe Condition**

This AD was prompted by reports of cracks found on the engine mount beams. We are issuing this AD to prevent failure of the engine mount beams, which could lead to engine separation with consequent loss of power and loss of control.

**(f) Compliance**

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

**(g) Inspect Engine Mount Beams**

At the compliance times specified in paragraphs (g)(1) through (g)(4) of this AD, inspect each engine mount beam using radiographic (x-ray), eddy current, and visual methods following the Accomplishment Instructions in Cessna Aircraft Company Multi-engine Service Letter No. MEL-54-01, dated March 20, 2015. If total hours time-in-service (TIS) on an engine mount beam is unknown, use the airplane's total hours TIS.

(1) For each engine mount beam that has accumulated less than 20,000 hours TIS, initially inspect at whichever of the following that occurs later and repetitively thereafter at intervals not to exceed 200 hours TIS as long as no cracks are found:

(i) At or before the accumulation of 15,000 hours TIS on each engine beam; or

(ii) Within the next 100 hours TIS after the effective date of this AD or within the next 90 days after the effective date of this AD, whichever occurs first.

(2) For each engine mount beam that has accumulated 20,000 hours TIS but no more than 24,999 hours TIS, initially inspect at whichever of the following that occurs first and repetitively thereafter at intervals not to exceed 200 hours TIS as long as no cracks are found:

- (i) Within the next 75 hours TIS after the effective date of this AD; or
- (ii) Within the next 60 days after the effective date of this AD.

(3) For each engine mount beam that has accumulated 25,000 hours TIS but no more than 30,000 hours TIS, initially inspect at whichever of the following that occurs first and repetitively thereafter at intervals not to exceed 200 hours TIS as long as no cracks are found:

- (i) Within the next 50 hours TIS after the effective date of this AD; or
- (ii) Within the next 45 days after the effective date of this AD.

(4) For each engine mount beam that has accumulated more than 30,000 hours TIS, initially inspect at whichever of the following that occurs first and repetitively thereafter at intervals not to exceed 200 hours TIS as long as no cracks are found:

- (i) Within the next 25 hours TIS after the effective date of this AD; or
- (ii) Within the next 30 days after the effective date of this AD.

#### **(h) Contact Cessna Aircraft Company**

If any cracks are found during any inspection required in paragraphs (g)(1) through (g)(4) of this AD, before further flight, contact Cessna Aircraft Company at the address specified in paragraph (m)(3) of this AD for an FAA-approved corrective action developed specifically for this AD.

#### **(i) Reporting Requirement**

Within 10 days after each inspection required in paragraphs (g)(1) through (g)(4) of this AD or within 10 days after the effective date of this AD, whichever occurs later, using the undated Attachment, "Inspection Results Form," to Cessna Aircraft Company Multi-engine Service Letter No. MEL-54-01, dated March 20, 2015, report the results to the FAA, Wichita Aircraft Certification Office (ACO) at the address specified in paragraph (l) of this AD. Report the result of each inspection to the FAA, Wichita ACO, for one year after the date of the initial inspection required in paragraphs (g)(1) through (g)(4) of this AD. Also report the results of the initial inspection to Cessna at the address specified in paragraph (m)(3) of this AD.

#### **(j) Paperwork Reduction Act Burden Statement**

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

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

(1) The Manager, Wichita 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 paragraph (l) 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**

Gary Park, Aerospace Engineer, Wichita ACO, FAA, 1801 S. Airport Road, Room 100, Wichita, Kansas 67209; phone: (316) 946-4123; fax: (316) 946-4107; continued operational safety email: 9-ACE-Wichita-COS@faa.gov; engineer contact email: gary.park@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) Cessna Aircraft Company Multi-engine Service Letter No. MEL-54-01, dated March 20, 2015, including the undated Attachment, "Inspection Results Form."

(ii) Reserved.

(3) For Cessna Aircraft Company service information identified in this AD, contact Cessna Aircraft Company, Customer service, P.O. Box 7706, Wichita, KS 67277; telephone: (316) 517-5800; fax: (316) 517-7271; email: [customercare@cessna.textron.com](mailto:customercare@cessna.textron.com); Internet: <http://www.cessnasupport.com>.

(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. It is also available on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2015-0839.

(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 March 30, 2015.

Pat Mullen,  
Acting Manager, Small Airplane Directorate,  
Aircraft Certification Service.



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**2015-07-04 Pilatus Aircraft Ltd.:** Amendment 39-18132; Docket No. FAA-2015-0132; Directorate Identifier 2014-CE-038-AD.

**(a) Effective Date**

This airworthiness directive (AD) becomes effective May 19, 2015.

**(b) Affected ADs**

None.

**(c) Applicability**

This AD applies to Pilatus Aircraft Ltd. Model PC-7 airplanes, all serial numbers, that:

- (1) have not incorporated the actions of any version of PILATUS PC-7 Service Bulletin No: 21-006, which allows for the installation of a different air conditioning compressor mounted at a different location and makes the unsafe condition nonexistent; and
- (2) are certificated in any category.

**(d) Subject**

Air Transport Association of America (ATA) Code 21: Air Conditioning.

**(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 potential for a spring on the air conditioning compressor clutch plate to shear the oil cooler inlet-hose due to the close routing of these parts without a protective cover. We are issuing this AD to correct the unprotected routing of the oil cooler inlet-hose, which could lead to damage of the oil hose resulting in an engine oil spill into the engine bay.

**(f) Actions and Compliance**

Unless already done, within the next 120 days after May 19, 2015 (the effective date of this AD), install a cover assembly on the attachment points of the compressor following the Accomplishment Instructions in PILATUS PC-7 Service Bulletin No: 21-012, dated November 4, 2014.

**(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 Federal Office of Civil Aviation (FOCA) AD HB-2014-008, dated December 9, 2014; and any version of PILATUS PC-7 Service Bulletin No: 21-006, for related information. The MCAI can be found in the AD docket on the Internet at:  
<http://www.regulations.gov/#!documentDetail;D=FAA-2014-1002-0002>.

#### **(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 Aircraft Ltd. Pilatus PC-7 Service Bulletin No: 21-012, dated November 4, 2014.

(ii) Reserved.

(3) For Pilatus Aircraft Ltd. service information identified in this AD, contact Pilatus Aircraft Ltd., Customer Technical Support (MCC), P.O. Box 992, CH-6371 Stans, Switzerland; phone: +41 (0)41 619 67 74; fax: +41 (0)41 619 67 73; email: Techsupport@pilatus-aircraft.com; Internet: <http://www.pilatus-aircraft.com>.

(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-2015-0132.

(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 March 31, 2015.

Pat Mullen,  
Acting Manager, Small Airplane Directorate,  
Aircraft Certification Service.



**DATE: April 10, 2015**  
**AD #: 2015-08-51**

This superseding emergency Airworthiness Directive (EAD) 2015-08-51 is being sent to owners and operators of Enstrom Helicopter Corporation (Enstrom) Model F-28A, 280, F-28C, F-28C-2, F-28C-2R, 280C, F-28F, F-28F-R, 280F, 280FX helicopters, all serial numbers; and Enstrom Model 480 helicopters with a serial number (S/N) 5001 through 5006; with a main rotor spindle (spindle), part number (P/N) 28-14282-11 or P/N 28-14282-13.

### **Background**

On February 12, 2015, we issued EAD 2015-04-51, which was prompted by a fatal accident. Preliminary results of the investigation indicated that the accident was caused by a crack in the spindle which resulted in the main rotor blade separating from the helicopter. The crack was discovered at the last thread of the spindle retention nut threads. While the investigation could not determine when the crack initiated, it was able to determine that the crack existed, undetected, for a significant amount of time before the separation. EAD 2015-04-51 required, before further flight, conducting a magnetic particle inspection (MPI) to determine if a crack exists in any spindle that has 5,000 or more hours time-in-service (TIS) or where the hours TIS of the spindle is not known. If there was a crack in the spindle, EAD 2015-04-51 required replacing it before further flight. EAD 2015-04-51 also required reporting the inspection results to the FAA within 72 hours.

Since we issued EAD 2015-04-51, inspection reports received by the FAA indicate approximately 20% of the spindles had evidence of cracks. The inspection reports include spindles with cracks at less than 5,000 hours TIS. With analysis of available data, we have determined the need to expand the applicability to include spindles with 1,500 or more hours TIS.

### **FAA's Determination**

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

### **Related Service Information**

Enstrom has issued Service Directive Bulletin No. 0119, Revision 1, dated April 1, 2015, for all S/Ned Model F-28A, F-28C, F-28F, 280, 280C, 280F, and 280FX helicopters with a main rotor spindle, P/N 28-14282-11 and 28-14282-13. Enstrom has also issued Service Directive Bulletin

No. T-050, Revision 1, dated April 1, 2015, for Model 480 helicopters, S/N 5001 through 5004 and 5006, and with a main rotor spindle, P/N 28-14282-13, except those aircraft modified with tension-torsion straps. Both service directives specify, for any spindle that has been in service more than 3,500 hours, within 5 hours TIS, sending the spindle to Enstrom for an MPI. For any spindle with less than 3,500 hours TIS, the service directives specify sending the spindle to Enstrom for an MPI at or before it reaches 3,500 hours TIS. The service directives also specify repeating the MPI every 300 hours for spindles with over 3,500 hours TIS.

## **EAD Requirements**

This EAD requires before further flight, conducting an MPI to determine if a crack exists in any spindle that has 1,500 or more hours TIS or where the hours TIS of the spindle is not known. If there is a crack in the spindle, this EAD requires replacing it before further flight. The MPI of the spindle must be conducted by a Level II or Level III inspector qualified in the MPI method in the Aeronautics Sector according to the EN4179 or NAS410 standard or equivalent. This EAD also requires, within 72 hours, reporting certain information to the FAA.

## **Costs of Compliance**

We estimate that this EAD affects 323 helicopters of U.S. Registry and that operators may incur the following costs to comply with this EAD. Inspecting the spindles will take about 15 work-hours per helicopter and reporting the required inspection information will take about 0.5 work-hour. We estimate an average labor rate of \$85 per work-hour, for a total cost of \$1,318 per helicopter and \$425,714 for the U.S. fleet. Replacing a spindle will cost \$8,164 for parts and no additional work-hours.

## **Differences Between This EAD and the Service Information**

This EAD requires that the MPI be conducted by a Level II or Level III inspector or equivalent and that the results of the MPI be reported to the FAA, whereas the service information specifies that the MPI be accomplished by or reported to Enstrom. This EAD requires an MPI on spindles with 1,500 or more hours TIS, whereas the service information specifies performing an initial MPI on spindles with 3,500 or more hours TIS. This EAD does not require a recurring inspection, whereas the service information specifies to repeat the MPI every 300 hours TIS for spindles with over 3,500 hours TIS. This EAD requires the MPI before further flight, whereas the service information specifies that it be accomplished within 5 hours TIS.

## **Interim Action**

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

## **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 EAD is 2120-0056. The paperwork cost associated with this EAD 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 EAD 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 (EAD)**

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

2015-08-51 **The Enstrom Helicopter Corporation (Enstrom):** Directorate Identifier 2015-SW-014-AD.

### **(a) Applicability**

This EAD applies to Enstrom Model F-28A, 280, F-28C, F-28C-2, F-28C-2R, 280C, F-28F, F-28F-R, 280F, and 280FX helicopters, all serial numbers; and Enstrom Model 480 helicopters, serial numbers 5001 through 5006; with a main rotor spindle (spindle), part number (P/N) 28-14282-11 or 28-14282-13, installed, certificated in any category. This EAD applies to any helicopter that has a spindle with 1,500 or more hours time-in-service (TIS) or where the hours TIS of the spindle is not known.

### **(b) Unsafe Condition**

This EAD defines the unsafe condition as a crack in the spindle, which, if not detected, could result in loss of a main rotor blade and subsequent loss of control of the helicopter.

### **(c) Effective Date**

This EAD is effective upon receipt.

### **(d) Affected Ads**

This EAD supersedes EAD 2015-04-51, Directorate Identifier 2015-SW-002-AD, issued on February 12, 2015.

### **(e) Compliance**

You are responsible for performing each action required by this EAD within the specified compliance time unless it has been accomplished on or after February 11, 2015.

**(f) Required Actions**

(1) Before further flight, conduct a magnetic particle inspection (MPI) of the spindle to determine if a crack exists, paying particular attention to the threaded portion of the spindle. The MPI of the spindle must be conducted by a Level II or Level III inspector qualified in the MPI in the Aeronautics Sector according to the EN4179 or NAS410 standard or equivalent. If there is a crack in the spindle, replace it with an airworthy spindle before further flight.

(2) Within 72 hours after accomplishing the MPI, report the information requested in Appendix 1 to this EAD by mail to the Manager, Chicago Aircraft Certification Office, Federal Aviation Administration, ATTN: Gregory J. Michalik, 2300 East Devon Ave., Des Plaines, IL, 60018; by fax to (847) 294-7834; or email to [gregory.michalik@faa.gov](mailto:gregory.michalik@faa.gov).

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

(1) The Manager, Chicago Aircraft Certification Office, FAA, may approve AMOCs for this EAD. Send your proposal to: Gregory J. Michalik, Senior Aerospace Engineer, Chicago Aircraft Certification Office, Small Airplane Directorate, FAA, 2300 East Devon Ave., Des Plaines, IL, 60018; (847) 294-7135; email [gregory.michalik@faa.gov](mailto:gregory.michalik@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 EAD through an AMOC.

(3) Any AMOC approved previously in accordance with EAD 2015-04-51, dated February 12, 2015, is approved as an AMOC for the corresponding requirements in paragraph (f)(1) of this EAD.

**(h) Additional Information**

(1) For further information contact: Gregory J. Michalik, Senior Aerospace Engineer, Chicago Aircraft Certification Office, Small Airplane Directorate, FAA, 2300 East Devon Ave., Des Plaines, IL, 60018; (847) 294-7135; email [gregory.michalik@faa.gov](mailto:gregory.michalik@faa.gov).

(2) For a copy of the service information referenced in this AD, contact: Enstrom Helicopter Corporation, 2209 22<sup>nd</sup> Street, Menominee, MI; telephone (906) 863-1200; fax (906) 863-6821; or at [www.enstromhelicopter.com](http://www.enstromhelicopter.com).

**(i) Subject**

Joint Aircraft Service Component (JASC) Code: 6220, Main Rotor Head.

## Appendix 1 to EAD 2015-08-51

**Spindle Inspection (Sample Format)**

Provide the following information by mail to the Manager, Chicago Aircraft Certification Office, Federal Aviation Administration, ATTN: Gregory J. Michalik, 2300 East Devon Ave., Des Plaines, IL, 60018; by fax to (847) 294-7834; or email to gregory.michalik@faa.gov.

Aircraft Registration No.:

Helicopter Model:

Helicopter Serial Number:

Helicopter Owner or Operator:

Contact Phone No.:

Spindle Part Number and Serial Number:

Total Hours Time-in-Service (TIS) on Spindle:

Total Hours TIS on Helicopter (if hours TIS on spindle were not available):

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):

Provide Any Other Comments:

Issued in Fort Worth, Texas, on April 10, 2015.

Bruce E. Cain,

Acting Directorate Manager, Rotorcraft Directorate,  
Aircraft Certification Service.