

**FEDERAL AVIATION ADMINISTRATION  
AIRWORTHINESS DIRECTIVES**

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

**BIWEEKLY 2014-02**

*1/13/2014 - 1/26/2014*



Federal Aviation Administration  
Engineering Procedures Office, AIR-110  
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

**Biweekly 2014-01**

2013-26-09		Turbomeca S.A.	ASTAZOU XIV B and XIV H engines
2013-26-13		Sikorsky Aircraft Corporation	S-70, S-70A, S-70C, S-70C (M), and S-70C (M1)
99-01-05 R1		See AD	helicopters See AD

**Biweekly 2014-02**

2013-25-13		Sikorsky Aircraft Corporation	S-70, S-70A, and S-70C helicopters
2013-26-11		Eurocopter France Helicopters	EC225LP helicopters
2014-01-01		Turbomeca S.A.	Arrius 2F turboshaft engines



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**2013-25-13 Sikorsky Aircraft Corporation (Sikorsky):** Amendment 39-17709; Docket No. FAA-2013-0636; Directorate Identifier 2012-SW-065-AD.

**(a) Applicability**

This AD applies to Model S-70, S-70A, and S-70C helicopters, certificated in any category, with the following parts installed:

- (1) Spindle and liner assembly, part number (P/N) 38023-10374-041;
- (2) Main Rotor Hub, P/N 70070-10046-055 and -056;
- (3) Main Rotor Spindle nut, P/N 70102-08105-102;
- (4) Main Rotor Control Horn, P/N 70102-08111-047;
- (5) Main Rotor Hub, P/N 70103-08112-041 and -047;
- (6) Rotating Swashplate, P/N 70104-08001-044 and -045;
- (7) Main Rotor Shaft Extension, P/N 70351-08186-043;
- (8) Main Rotor Gear Box Housing, P/N 70351-38110-043, -044, and -045;
- (9) Main Rotor Shaft, P/N 70351-38131-042;
- (10) Output Bevel Gear and Shaft, P/N 70358-06620-101 and -102;
- (11) Left Tie Rod Assembly, P/N 70400-08115-043, -045, -046, and -047;
- (12) Forward Bellcrank Support Assembly, P/N 70400-08162-042;
- (13) Lateral Servo Bellcrank, P/N 70400-08166-041; or
- (14) Tail Rotor Servo Assembly, P/N 70410-06520-044 through -046.

**(b) Unsafe Condition**

This AD defines the unsafe condition as a critical part remaining in service beyond its life limit due to previously being installed on a different helicopter model with higher usage and flight loads. This condition could result in fatigue failure of a critical part and subsequent loss of control of the helicopter.

**(c) Effective Date**

This AD becomes effective February 25, 2014.

**(d) Compliance**

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

**(e) Required Actions**

- (1) Within 25 hours time-in-service (TIS):

- (i) Insert into the airworthiness limitation section of the maintenance manual or instructions for continued airworthiness the component life prorating formula in Section 1.1.3, Component Life Prorating, pages 1-25 and 1-26, of Sikorsky Technical Manual TM 1-70-23AW-2, Change 3, dated April 15, 2012.

(ii) Using the service life limits in Table 1 to Paragraph (e) of this AD, apply the component life prorating formula and calculate the new life limit for each specified part. If the number of hours of a part is unknown, that part cannot be installed on a Sikorsky Model S-70, S-70A, or S-70C helicopter. Do not calculate a new life limit for the part where the Model SH-60 life limit is higher than the life limit on Models S-70, S-70A, and S-70C.

**Table 1 to Paragraph (e)**

<b>P/N</b>	<b>Part description</b>	<b>S-70, S-70A, S-70C service life</b>	<b>UH-60M service life</b>	<b>SH-60B/F service life</b>
38023-10374-041	Spindle and Liner Assembly	8,000	6,400	10,000
70070-10046-055 and -056	Main Rotor Hub	5,100	3,100	<sup>1</sup> N/A
70102-08105-102	Main Rotor Spindle Nut	8,000	6,400	10,000
70102-08111-047	Main Rotor Control Horn	20,000/1,300 <sup>2</sup> /2,500 <sup>2</sup>	10,000	<sup>1</sup> N/A
70103-08112-041 and -047	Main Rotor Hub	5,100	3,100	<sup>1</sup> N/A
70104-08001-044-045	Rotating Swashplate	11,000	4,600	9,600
70351-08186-043	Main Rotor Shaft Extension	14,000	4,900	16,000
70351-38110-043, -044, and -045	Main Rotor Gear Box Housing	11,000	4,000	9,000
70351-38131-042	Main Rotor Shaft	17,000	5,200	19,000
70358-06620-101 and -102	Output Bevel Gear and Shaft	5,000	1,800	<sup>1</sup> N/A
70400-08115-043, -045, -046, and -047	Left Tie Rod Assembly	14,000	4,600	6,300
70400-08162-042	Forward Bellcrank Support Assembly	14,000/2,500 <sup>3</sup>	5,600	7,600
70400-08166-041	Lateral Servo Bellcrank	20,000	11,000	14,000
70410-06520-044 through -046	Tail Rotor Servo Assembly	15,000	11,000	<sup>1</sup> N/A

<sup>1</sup>There is no service life limit listed because the parts on Model SH-60B/F have a different P/N than the parts on Models S-70, S-70A, and S-70C.

<sup>2</sup>For serial number (S/N) 32479930 through 324791859, with CAGE code 60078, the life limit is 1,300 hours TIS.

For S/N A241-07543 through A241-07594, A241-07706 through A241-07755, A241-07768 through A241-07771, A241-07800 through A241-07831, R241-00101 through R241-00355, R241-00701 through R241-00966, and R241-01001 through R241-01166, the life limit is 2,500 hours TIS.

<sup>3</sup>For S/N A-367-00001 through A367-00035, with CAGE code 78286, the life limit is 2,500 hours TIS.

(iii) Record the newly-established life limit of each part on the part's component log card or equivalent record.

(2) After establishing the new life limit, replace each part that has reached or exceeded its new life limit with an airworthy part before further flight.

(3) Do not install the following parts on a Model S-70, S-70A, or S-70C helicopter if they have been previously installed on a Model UH-60M helicopter:

- (i) Bolt, self retaining, P/N 70103-08801-102;
- (ii) Bifilar, P/N 70107-08400-046;
- (iii) Aft Bellcrank, P/N 70400-08102-045;
- (iv) Aft Walking Beam Assembly, P/N 70400-08104-048; or
- (v) Close Tolerance Bolt, P/N 70400-26802-102 and -103.

#### **(f) Alternative Methods of Compliance (AMOC)**

(1) The Manager, Boston Aircraft Certification Office, FAA, may approve AMOCs for this AD. Send your proposal to: Michael Davison, Flight Test Engineer, Boston Aircraft Certification Office, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, Massachusetts 01803; telephone (781) 238-7156; email michael.davison@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) Subject**

Joint Aircraft Service Component (JASC) Code: 6220 Main Rotor Hub, 6230 Main Rotor Mast/Swashplate, 6320 Main Rotor Gearbox, 6310 Engine/Transmission Coupling, 6510 Tail Rotor Drive Shaft.

#### **(h) 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) Pages 1-25 and 1-26, Section 1.1.3, Component Life Prorating, of Sikorsky Technical Manual TM 1-70-23AW-2, Change 3, dated April 15, 2012.

(ii) Reserved.

(3) For Sikorsky service information identified in this AD, contact Sikorsky Aircraft Corporation, Customer Service Engineering, 124 Quarry Road, Trumbull, CT 06611; telephone 1-800-Winged-S or 203-416-4299; email sikorskywcs@sikorsky.com.

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

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

Issued in Fort Worth, Texas, on December 5, 2013.

Kim Smith,  
Directorate Manager, Rotorcraft Directorate,  
Aircraft Certification Service.



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**2013-26-11 Eurocopter France Helicopters (Eurocopter):** Amendment 39-17720; Docket No. FAA-2013-0635; Directorate Identifier 2012-SW-081-AD.

**(a) Applicability**

This AD applies to Eurocopter Model EC225LP helicopters with a main rotor hub (MRH) assembly with a rotating swashplate, part number (P/N) 332A31-3074-00 or 332A31-3076-00, and stationary swashplate, P/N 332A31-3079-00 or 332A31-3079-01, installed, certificated in any category.

**(b) Unsafe Condition**

This AD defines the unsafe condition as corrosion or a crack in the stationary or rotating swashplate of the MRH assembly, which could lead to failure of the swashplate and subsequent loss of helicopter control.

**(c) Effective Date**

This AD becomes effective February 18, 2014.

**(d) Compliance**

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

**(e) Required Actions**

(1) Within 110 hours time-in-service (TIS) or before the MRH assembly accumulates 1,320 hours TIS, whichever occurs later, and thereafter at intervals not to exceed 1,320 hours TIS, visually inspect the rotating and stationary swashplates for corrosion or a crack by following the Accomplishment Instructions, paragraph 3.B.2 and Figures 1 through 3, of Eurocopter Alert Service Bulletin No. EC225-05A030, Revision 0, dated July 12, 2012 (ASB).

(2) If a crack exists in the rotating or stationary swashplates, replace the MRH assembly with an airworthy MRH assembly.

(3) If corrosion exists without any visual indication of cracking, do the following:

(i) Before further flight, install a placard stating "NO FLIGHT IN OAT BELOW -30 °C" in the full view of the pilots and add the statement "NO FLIGHT IN OAT BELOW -30 °C" to the Operating Limitations Section of the helicopter's Rotorcraft Flight Manual (RFM) by making pen and ink changes or by inserting a copy of this AD in Section 2.3 Flight Envelope, Item 2 Temperature Limits.

(ii) Within 150 hours TIS or 6 months after the inspection when the corrosion was first detected, whichever occurs first, replace the MRH assembly with an airworthy assembly. Remove any placard that states "NO FLIGHT IN OAT BELOW -30 °C" from the helicopter and remove any related limitation from the RFM.

(4) Replacement of an MRH assembly does not constitute terminating action for the repetitive inspections required by paragraph (e)(1) of this AD.

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

(1) The Manager, Safety Management Group, FAA, may approve AMOCs for this AD. Send your proposal to: Gary Roach, Aviation Safety Engineer, Regulations and Policy Group, Rotorcraft Directorate, FAA, 2601 Meacham Blvd., Fort Worth, Texas 76137; telephone (817) 222-5110; email gary.b.roach@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) You may view EASA AD No. 2012-0131, dated July 31, 2012 at <http://www.regulations.gov> by searching for and locating it in Docket No. FAA-2013-0635.

**(h) Subject**

Joint Aircraft Service Component (JASC) Code: 6230, Main Rotor Mast/Swashplate.

**(i) Material Incorporated by Reference**

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

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

(i) Eurocopter Alert Service Bulletin No. EC225-05A030, Revision 0, dated July 12, 2012.

(ii) Reserved.

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

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

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

Issued in Fort Worth, Texas, on December 24, 2013.

Kim Smith,  
Directorate Manager, Rotorcraft Directorate,  
Aircraft Certification Service.



**2014-01-01 Turbomeca S.A.:** Amendment 39-17724; Docket No. FAA-2013-1003; Directorate Identifier 2013-NE-33-AD.

**(a) Effective Date**

This AD is effective February 6, 2014.

**(b) Affected ADs**

None.

**(c) Applicability**

This AD applies to all Turbomeca S.A. Arrius 2F turboshaft engines.

**(d) Reason**

This AD was prompted by an in-flight shutdown (IFSD) of an Arriel 1 engine as a result of incorrect bonding of the nozzle on the ejector assembly fitted to the engine. We are issuing this AD to prevent failure of the ejector assembly nozzle, which could lead to an IFSD of the engine, damage to the engine, and damage to the helicopter.

**(e) Actions and Compliance**

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

(1) For engines equipped with a lubricating device having a serial number (S/N) listed in Figure 1 to paragraph (e) of this AD, within 30 days after the effective date of this AD, inspect the nozzle of the ejector assembly and the tightening torque. Use paragraph 6.B.(2)(b)2 through 6.B.(2)(c)4.2, excluding paragraph 6.B.(2)(b)4, of Turbomeca Mandatory Service Bulletin (MSB) No. 319 79 4835, Version A, dated May 22, 2013, to do your inspection.

(2) For any part that fails the inspection required by paragraph (e)(1) of this AD, before further flight, remove and replace the failed part with a part eligible for installation.

**Figure 1 to Paragraph (e)–S/N's of Affected Lubricating Devices**

S/N's		
105M	108M	109M
112B	120	122B
129M	134B	138B
141M	142B	147M
149B	210M	231
247	254	266M

270	292M	333M
443M	445M	467M
479M	526M	563M

**(f) Installation Prohibition**

After the effective date of this AD, do not install onto any engine a nozzle ejector assembly subject to this AD, or install any engine onto any helicopter if the engine has an ejector assembly containing a lubricating device with an S/N listed in Figure 1 to paragraph (e) of this AD, unless the engine has been inspected per the requirements of paragraph (e) of this AD.

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

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

**(h) Related Information**

(1) For more information about this AD, contact Frederick Zink, Aerospace Engineer, Engine Certification Office, FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; phone: 781-238-7779; fax: 781-238-7199; email: frederick.zink@faa.gov.

(2) Refer to MCAI European Aviation Safety Agency AD 2013-0243, dated October 1, 2013. You may examine the MCAI in the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating it in Docket No. FAA-2013-1003.

(3) Turbomeca S.A. Arrius 2F Technical Instruction No. 319 79 4831, Revision No. 01, dated May 30, 2011, which is not incorporated by reference in this AD, pertains to the subject of this AD and can be obtained from Turbomeca S.A. using the contact information in paragraph (i)(3) of this AD.

**(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 this AD specifies otherwise.

(i) Turbomeca S.A. Mandatory Service Bulletin No. 319 79 4835, Version A, dated May 22, 2013.

(ii) Reserved.

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

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

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

Issued in Burlington, Massachusetts, on January 2, 2014.  
Colleen M. D'Alessandro,  
Assistant Directorate Manager, Engine & Propeller Directorate,  
Aircraft Certification Service.