

**FEDERAL AVIATION ADMINISTRATION  
AIRWORTHINESS DIRECTIVES**

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

**BIWEEKLY 2012-20**

*9/24/2012 - 10/7/2012*



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 2012-01**

2010-19-06 R1	COR	Turbomeca	Engine: Arriel 1A, 1A1, 1B, 1C, 1C1, 1C2, 1D, 1D1, and IS1 turboshaft
2011-26-10		Enstrom Helicopter Corporation	Rotorcraft: F-28C, F-28C-2, F-28F, 280C, 280F, 280FX, TH-28, 480, and 480B
2011-27-09		Socata	TBM 700
2012-01-01		Various Aircraft	See AD
2012-01-02		Schempp-Hirth Flugzeugbau	Glider: Discus 2cT

**Biweekly 2012-02**

2011-18-12	S 82-13-05R1	Eurocopter France	Rotorcraft: AS350B, B1, B2, B3, BA, and D; and AS355E, F, F1, F2, and N
2011-27-08		Agusta S.p.A.	Rotorcraft: A109S and AW109SP
2011-27-51		Hawker Beechcraft	1900, 1900C, 1900C (Military), 1900D
2012-01-07		BRP-Powertrain GmbH	Engine: Rotax 914 F2, 914 F3, and 914 F4 reciprocating
2012-01-11		Cirrus Design	SR22T
2012-02-05		Thielert Aircraft Engines GmbH	Engine: TAE 125-02-99 and TAE-125-02-114 reciprocating

**Biweekly 2012-03**

71-13-01R1		Lycoming Engines	Engine: TIO-540-A series
2012-01-03		Eurocopter France	Rotorcraft: AS332L2 and EC225LP
2012-02-02	S 2008-03-02	Cessna	172R and 172S
2012-02-06		Honeywell International	Engine: TPE331-10, -10AV, -10GP, -10GT, -10N, -10P, -10R, -10T, -10U, -10UA, -10UF, -10UG, -10UGR, -10UR, and TPE331-11U
2012-02-10	S 2011-07-13	CPAC	112, 112B, 112TC, 112TCA, 114, 114A, 114B, and 114TC
2012-02-13		Eurocopter France	Rotorcraft: EC130B4
2012-02-51	E	Bell Helicopter Textron Canada Limited	Rotorcraft: 206L, L-1, L-3, and L-4
2012-03-06	S 2011-15-10	Superior Air Parts, Lycoming Engines, and Continental Motors	Engine: Fuel injected reciprocating engines
2012-03-52	E	Mooney Aviation	M20TN and M20R

**Biweekly 2012-04**

2012-03-01		Eurocopter Deutschland	Rotorcraft: EC135 helicopters
2012-03-07		Lycoming Engines	Engine: See AD
2012-03-11	S 2010-03-06	Turbomeca S.A.	Engine: Arriel 2B and 2B1 turboshaft engines

**Biweekly 2012-05**

2010-11-09R1	R	Thielert Aircraft Engines GmbH	Engine: TAE 125-01 and TAE 125-02-99 reciprocating engines
2011-12-10	COR	Robinson Helicopter Company	R22, R22 Alpha, R22 Beta, and R22 Mariner helicopters; R44 and R44 II helicopters
2011-27-04	COR	Hawker Beechcraft Corporation	95-C55, D55, E55, 58, and 58A airplanes
2012-03-52		Mooney	M20R and M20TN airplanes
2012-04-03		BRP-Powertrain GmbH & Co. KG	912 S2 and 912 S3 reciprocating engines; 914 F2 reciprocating engines

**Biweekly 2012-06**

2012-04-10		Burl A. Rogers	15AC and S15AC airplanes
2012-05-01		Eurocopter France	SA-365C, SA-365C1, SA-365C2, SA-365N, SA-365N1, AS-365N2, AS 365 N3, and SA-366G1 helicopters
2012-05-09	S 2012-03-52	Mooney Aviation	M20B, M20C, M20D, M20E, M20F, M20G, M20J, M20K, M20L, M20M, M20R, M20S, and M20TN airplanes

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**Biweekly 2012-07**

2012-06-13		DG Flugzeugbau GmbH	Gliders: DG-500 Elan Orion, DG-500 Elan Trainer, DG-500/20 Elan, DG-500/22 Elan, DG-500M, and DG-500MB PC-6, PC-6-HI, PC-6-H2, PC-6/350, PC-6/350-HI, PC-6/350-H2, PC-6/A, PC-6/A-HI, PC-6/A-H2, PC-6/B-H2, PC-6/BI-H2, PC-6/B2-H2, PC-6/B2-H4, PC-6/C-H2, and PC-6/CI-H2 Rotorcraft: AB412
2012-06-16		Pilatus Aircraft	
2012-07-01		Agusta S.p.A.	

**Biweekly 2012-08**

2011-18-52		Agusta S.p.A.	AB139 and AW139 helicopters
2012-02-51		Bell Helicopter Textron Canada Limited	206L, 206L-1, 206L-3, and 206L-4 helicopters
2012-06-15		DG Flugzeugbau GmbH	DG-500 Elan Orion, DG-500 Elan Trainer, DG-500/20 Elan, and DG-500/22 Elan sailplanes, DG-500M and DG-500MB powered sailplanes
2012-06-24	S 2009-14-11	Sikorsky	S-92A helicopters
2012-07-09		Turbomeca S.A.	Arrius 2F turboshaft engines
2012-08-01		Sikorsky	S-92A helicopters

**Biweekly 2012-09**

2012-08-18		Turbomeca	Arriel 2B and 2B1 turboshaft engines
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**Biweekly 2012-10**

2012-10-02		Hawker Beechcraft	58, G58
2012-10-51	E	Eurocopter Deutschland GmbH	EC135 P1, EC135 P2, EC135 P2+, EC135 T1, EC135 T2, and EC135 T2+ helicopters
2012-10-52	E	Hartzell Engine Technologies	Appliance: Turbocharger HET P/N 406610-0005 or P/N 406610-9005, P/N 406610-0005 or P/N 406610-9005, P/N 409836-0005
2012-10-53	E S 2012-10-51	Eurocopter Deutschland GmbH	EC135 P1, EC135 P2, EC135 P2+, EC135 T1, EC135 T2, and EC135 T2+ helicopters

**Biweekly 2012-11**

2012-10-01		Bell Helicopter Textron Canada Limited	427
2012-10-04		Cessna Aircraft Company	210G, T210G, 210H, T210H, 210J, T210J, 210K, T210K, 210L, T210L, 210M, T210M, 210N, T210N, P210N, 210R, T210R, P210R
2012-10-09	S 80-11-06	Piper Aircraft Inc	PA-31T, PA-31T1
2012-10-13	S 2011-25-51	Continental Motors Inc	TSIO-520-B, BB, D, DB, E, EB, J, JB, K, KB, N, NB, UB, VB; TSIO-550-K; TSIOF-550-K; IO-550-N

**Biweekly 2012-12**

2012-09-10		Pratt & Whitney Canada	PT6A-38, -41, -42, -42A, -61, -64, -66, -66B, -110, -112, -114, -114A, -121, -135, and -135A series turboprop engines
2012-09-11		Eurocopter Deutschland GMBH	MBB-BK 117 C-1 and C-2 helicopters
2012-10-11		Burkhart GROB Luft- und Raumfahrt GmbH	GROB G 109 and GROB G 109B powered sailplanes
2012-10-52		Hartzell Engine Technologies	Appliance: See AD
2012-11-08		WACO Classic Aircraft Corporation	2T-1A, 2T-1A-1, 2T-1A-2:
2012-11-10		Alpha Aviation Concept Limited	R2160

**Biweekly 2012-13**

2012-10-14		SOCATA	TBM 700
2012-11-02		Eurocopter Deutschland	EC135 helicopters
2012-11-05		Enstrom	F-28C, F-28C-2, F-28F, 280C, 280F, 280FX, TH-28, 480, and 480B helicopters
2012-11-12		Agusta	AW139 helicopters
2012-11-13		Aeronautical Accessories	See AD
2012-12-10		Agusta	AB139 and AW139 helicopters
2012-12-11		Bell Canada	206, 206A, 206A-1, 206B, 206B-1, 206L, 206L-1, 206L-3,

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			and 206L-4 helicopters
2012-12-20		Turbomeca	Arriel 2C1, 2C2, and 2S2 turboshaft engines
2012-12-21		Eurocopter Deutschland	MBB-BK 117 C-2 helicopters
<b>Biweekly 2012-14</b>			
2012-13-04		Embraer	EMB-505
2012-14-06		Rolls-Royce Corporation	250-C20, -C20B, and -C20R/2 turboshaft engines
<b>Biweekly 2012-15</b>			
2012-13-10		PZL Swidnik S.A.	PZL W-3A helicopters
2012-13-11		Eurocopter Deutschland GmbH	MBB-BK 117 A-1, MBB-BK 117 A-3, MBB-BK 117 A-4, MBB-BK 117 B-1, MBB-BK 117 B-2, MBB-BK 117 C-1, MBB-BK 117 C-2, and BO-105LS A-3 helicopters
2012-14-07	S 2011-15-51	Bell Helicopter Textron Canada	407 and 427 helicopters
2012-14-08		Sikorsky Aircraft	S-92A helicopters
2012-14-10		Boeing Vertol	107-II helicopters
		Kawasaki Heavy Industries	KV107-II and KV107-IIA helicopters
2012-14-11		See AD	OH-58A, OH-58A+, and OH-58C helicopters
2012-14-14		Eurocopter Deutschland GmbH	MBB-BK 117 A-3, MBB-BK 117 A-4, MBB-BK B-1, MBB-BK 117 B-2, and MBB-BK 117 C-1 helicopters
2012-14-15		Honeywell International	Appliance: KGS200 Mercury <sup>2</sup>
2012-15-04		Eurocopter France	EC155B1 helicopters
<b>Biweekly 2012-16</b>			
2012-14-12		See AD	See AD
2012-15-01		See AD	See AD
2012-15-07		Glasflugel	Club Libelle, Kestrel, Mosquito, Standard Libelle-201B gliders
2012-16-03		HPH s. r.o.	304C, 304CZ, and 304CZ-17 sailplanes
<b>Biweekly 2012-17</b>			
2012-12-21	COR	Eurocopter Deutschland	MBB-BK 117 C-2 helicopters
2012-15-08		Sikorsky	S-76A helicopters
2012-16-02		Eurocopter France	EC155B and EC155B1 helicopters
2012-16-13		BRP-Powertrain	Rotax 912 F2; 912 F3; 912 F4; 912 S2; 912 S3; and 912 S4 reciprocating engines
<b>Biweekly 2012-18</b>			
2012-08-06	S 52-02-02	Univair Aircraft Corporation	(ERCO) 415-C, 415-CD, 415-D, E, G; (Forney) F-1 and F-1A; (Alon) A-2 and A2-A; and (Mooney) M10
2012-16-14		Honeywell International Inc.	TFE731-20R, -20AR, -20BR, -40, -40AR, -40R, -50R, and -60 turbofan engines
2012-17-02		Eurocopter France	SA-365N, SA-365N1, SA-366G1, AS-365N2, AS 365 N3, EC 155B, and EC155B1 helicopters
2012-17-03		Eurocopter France	AS350B, AS350BA, AS350D, AS350B1, AS350B2, and AS350B3 helicopters
2012-17-05		Honeywell International Inc.	TFE731-5, TFE731-5AR and -5BR series, TFE731-4, -4R, -5AR, -5BR, and -5R series turbofan engines
2012-17-07		Diamond Aircraft Industries GmbH	DA 42, DA 42 NG, and DA 42 M-NG
2012-18-01		M7 Aerospace LLC	SA226-AT, SA226-T, SA226-T(B), SA226-TC, SA227-AC (C-26A), SA227-BC (C-26A), SA227-CC, SA227-DC (C-26B), SA227-AT, and SA227-TT
<b>Biweekly 2012-19</b>			
2012-15-07 R1		Glasflugel	Club Libelle 205, Kestrel, Mosquito, Standard Libelle-201B
2012-17-06		Piper	PA-24, PA-24-250, PA-24-260
2012-17-09		Eurocopter France	
2012-17-10		Various Restricted Category Helicopters	HH-1K, TH-1F, TH-1L, UH-1A, UH-1B, UH-1E, UH-1F, UH-1H, UH-1L, and UH-1P helicopters
2012-18-02		Agusta	AB412 and AB412EP helicopters
2012-18-04		Costruzioni Aeronautiche	P2006T airplanes
2012-18-06		Piaggio	P-180 airplanes

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2012-18-08		Eurocopter France	SA330F, SA330G, SA330J, AS332C, AS332L, AS332L1, and AS332L2 helicopters
2012-18-09		Bell Helicopter Textron Canada	407 helicopters
2012-18-10		GA200 (Pty) Ltd	GA200 and GA200C airplanes
2012-18-18		Turbomeca	Arriel 2B, 2B1, 2S2, and 2C2 turboshaft engines
2012-19-01		Lycoming Engines	(L)O-360, (L)IO-360, AEIO-360, IO-390, AEIO-390, O-540, IO-540, AEIO-540, (L)TIO-540, IO-580, AEIO-580, and IO-720 series reciprocating engines
<b>Biweekly 2012-20</b>			
2012-19-09		Eurocopter France	EC 155B, EC155B1, SA-365N1, AS-365N2 and AS 365 N3 helicopters
2012-20-02		Alpha Aviation Concept Limited	R2160



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**2012-19-09 Eurocopter Helicopters:** Amendment 39-17204; Docket No. FAA-2012-1018; Directorate Identifier 2011-SW-052-AD.

**(a) Applicability**

This AD applies to Eurocopter Model EC 155B, EC155B1, SA-365N1, AS-365N2 and AS 365 N3 helicopters, with a tail rotor hub (TRH) part number 365A33351100, 365A33351101, or 365A33351102 installed, certificated in any category.

**(b) Unsafe Condition**

This AD defines the unsafe condition as a crack in the TRH that could lead to a tail rotor jam, and subsequent reduced or loss of control of the helicopter.

**(c) Effective Date**

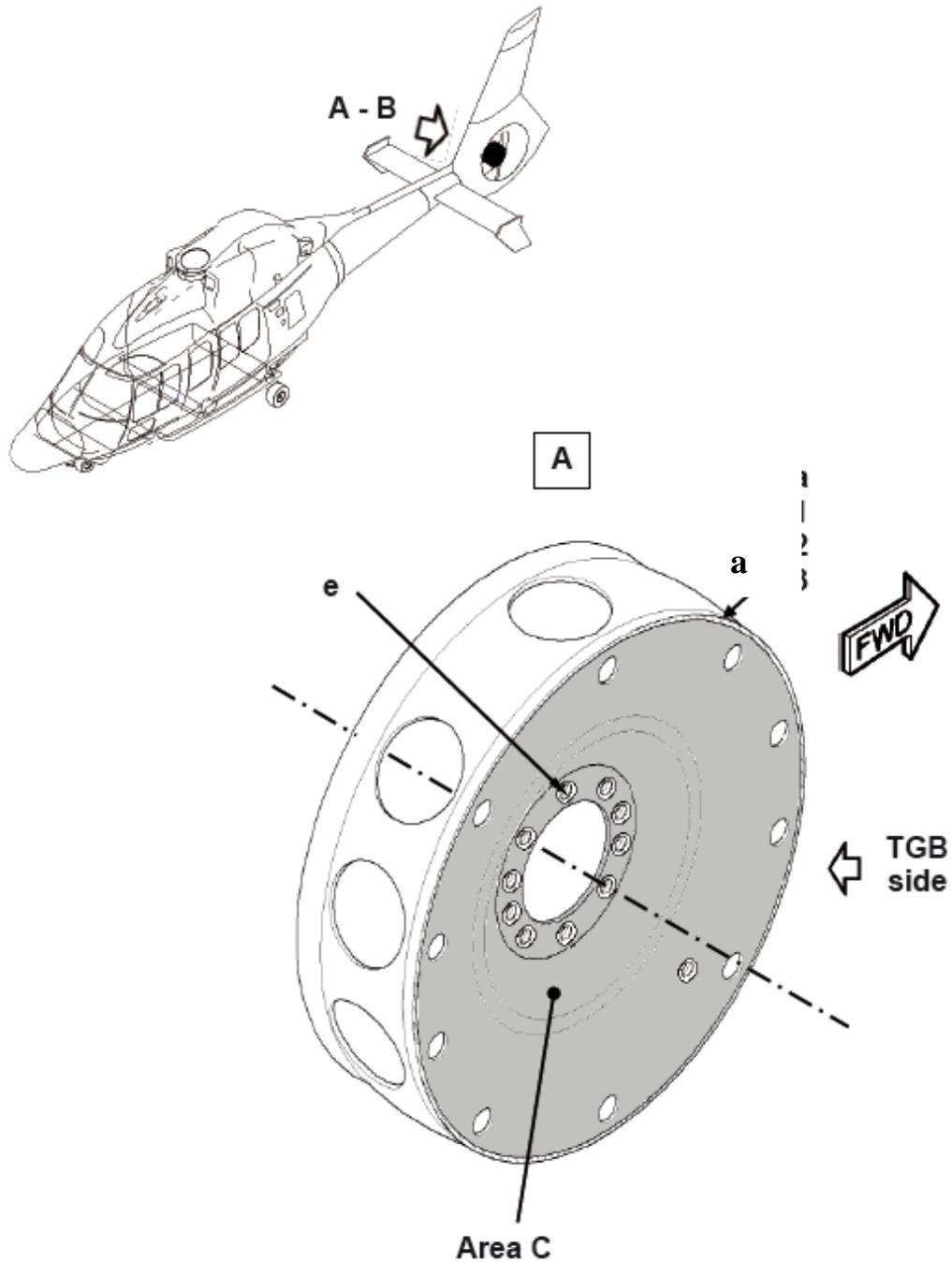
This AD becomes effective October 10, 2012.

**(d) Compliance**

You are responsible for performing each action required by this AD within the specified compliance time.

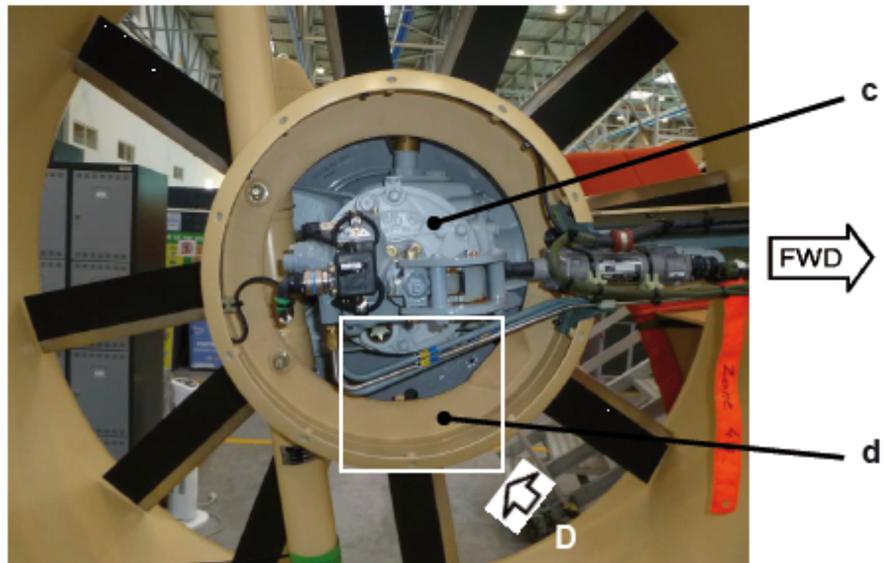
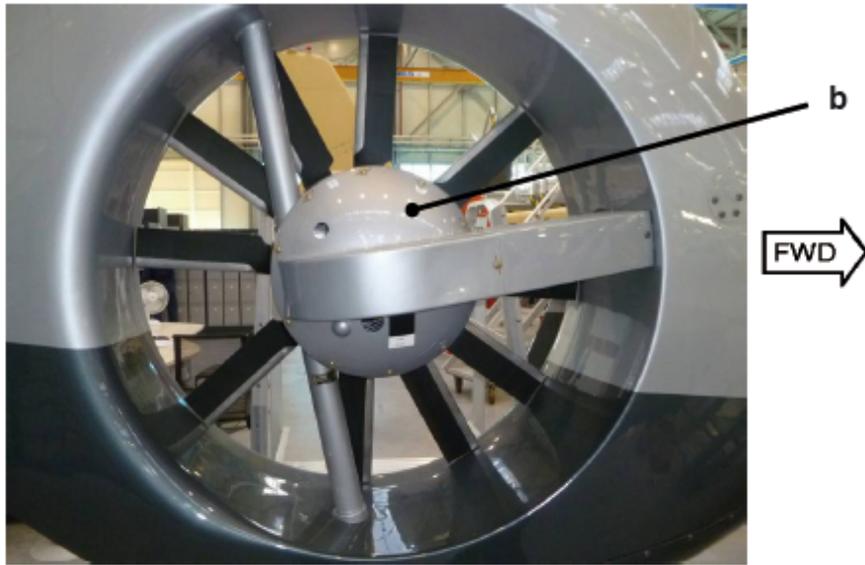
**(e) Required Actions**

(1) Within 55 hours time-in-service (TIS), and thereafter at intervals not to exceed 55 hours TIS, using a light, visually inspect the TRH for a crack in the entire area shown as Area C of the TRH (a) in Figure 1 to paragraph (e)(1) of this AD. The inspection area is on the tail gearbox (TGB) side of the TRH. The TGB is shown as (c) in Figures 2 and 3 to paragraph (e)(1) of this AD. You must pay particular attention to the area around the screws, shown as (e) in Figure 3 to paragraph (e)(1) of this AD, and the TRH between the lower part of the TGB and its fairing, shown as (d) in Figures 2 and 3 to paragraph (e)(1) of this AD, using details D and E of Figure 3 to paragraph (e)(1) of this AD. You must turn the tail rotor by hand to inspect the entire Area C.

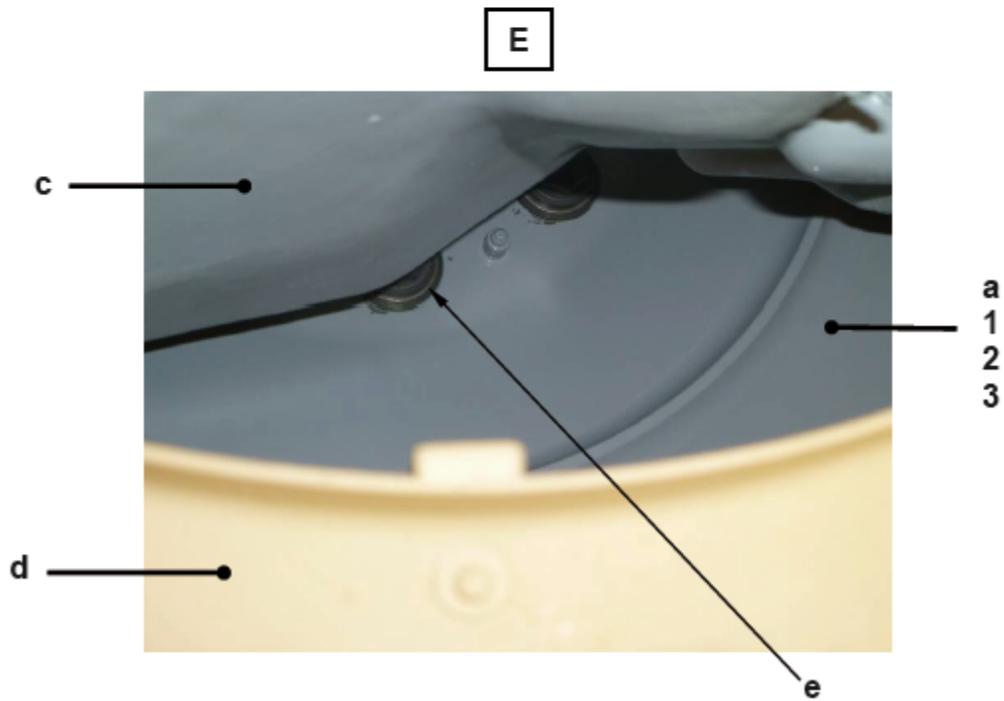
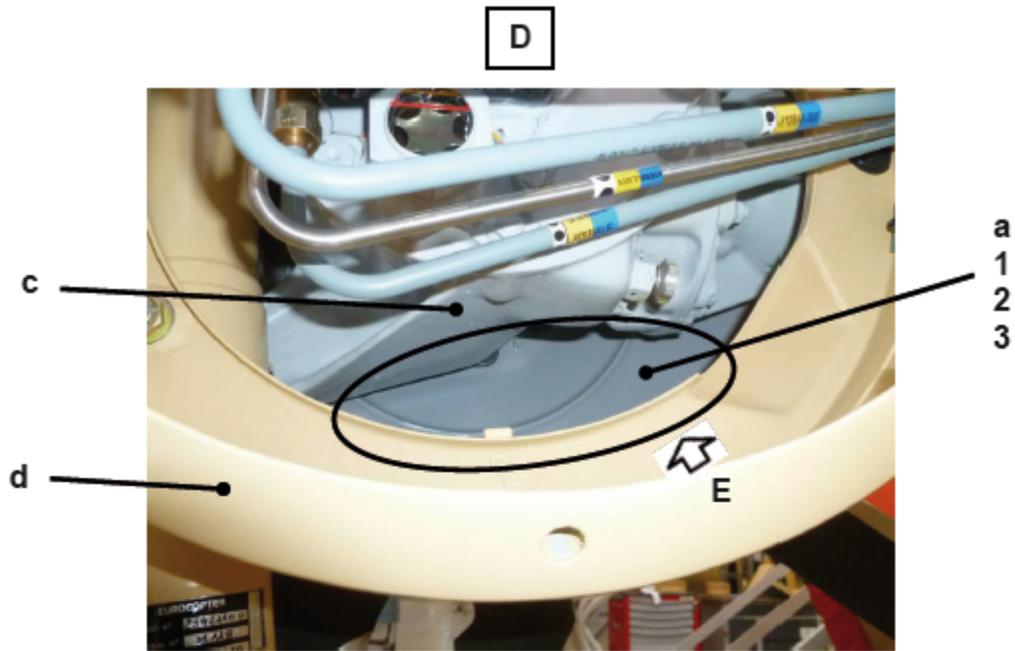


**Figure 1 to Paragraph (e)(1) TRH Hub**

**B**



**Figure 2 to Paragraph (e)(1) Location of the area to be inspected (Area C)**



**Figure 3 to Paragraph (e)(1) Visual Inspection of Area C**

(2) If there is a crack on the TRH, remove the TRH from service.

**(f) Special Flight Permits**

No special flight permits will be permitted.

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

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

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

**(h) Additional Information**

(1) Eurocopter Alert Service Bulletin (ASB) No. AS365-05.00.60, Revision 1, dated July 20, 2011, and Eurocopter ASB No. EC 155-05A021, Revision 1, dated July 20, 2011, which are not incorporated by reference, contain additional information about the subject of this AD. For service information identified in this AD, contact American Eurocopter Corporation, 2701 N. Forum Drive, Grand Prairie, TX 75052; telephone (972) 641-0000 or (800) 232-0323; fax (972) 641-3775; or at <http://www.eurocopter.com/techpub>. You may review a copy of the service information at the FAA, Office of the Regional Counsel, Southwest Region, 2601 Meacham Blvd., Room 663, Fort Worth, Texas 76137.

(2) The subject of this AD is addressed in European Aviation Safety Agency (EASA) AD No. 2011-0144, dated July 26, 2011.

**(i) Subject**

Joint Aircraft Service Component (JASC) Code: 6420, Tail Rotor Head.

Issued in Fort Worth, Texas, on September 14, 2012.

Lance T. Gant,  
Acting Manager, Rotorcraft Directorate,  
Aircraft Certification Service.



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**2012-20-02 Alpha Aviation Concept Limited:** Amendment 39-17208; Docket No. FAA-2012-0798; Directorate Identifier 2012-CE-023-AD.

**(a) Effective Date**

This airworthiness directive (AD) becomes effective November 9, 2012.

**(b) Affected ADs**

None.

**(c) Applicability**

This AD applies to Alpha Aviation Concept Limited Model R2160 airplanes, all serial numbers, certificated in any category.

**(d) Subject**

Air Transport Association of America (ATA) Code 71: Power Plant.

**(e) Reason**

This AD was prompted by reports of possible installation of non-conforming air filter elements that are not fitted with metallic mesh and could internally collapse resulting in disruption of the powerplant operation. We are issuing this AD to inspect the air filter element and replace if applicable.

**(f) Actions and Compliance**

Unless already done, do the following actions following Alpha Aviation Service Bulletin AA-SB-71-006, dated May 2012:

(1) Within the next 30 days time-in-service (TIS) after November 9, 2012 (the effective date of this AD), inspect the air filter part number (P/N) 57.34.00.010 to determine if it has been fitted with a perforated metal liner.

(2) If, after the inspection required in paragraph (f)(1) of this AD, the air filter part number (P/N) 57.34.00.010 is found to include the perforated metal liner, no further action is required.

(3) If, after the inspection required in paragraph (f)(1) of this AD, the air filter is found to not contain the perforated metal liner, before further flight, replace the air filter with a new air filter P/N 57.34.00.010 that does contain the perforated metal liner.

(4) After November 9, 2012 (the effective date of this AD), do not install any air filter P/N 57.34.00.010 that does not have the perforated metal liner depicted in Alpha Aviation Service Bulletin AA-SB-71-006, dated May 2012.

**(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: Karl Schletzbaum, Aerospace Engineer, FAA, Small Airplane Directorate, 901 Locust, Room 301, Kansas City, Missouri 64106; telephone: (816) 329-4146; fax: (816) 329-4090; email: karl.schletzbaum@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 DCA/R2000/41 issued by the Civil Aviation Authority (CAA), which is the aviation authority for New Zealand, dated June 8, 2012; and Alpha Aviation Service Bulletin AA-SB-71-006, dated May 2012, for related information. For service information related to this AD, contact Alpha Aviation, 59 Hautapu Road, RD 1, Cambridge 3493, New Zealand; telephone: +64 7 827 0528; fax: +64 7 929 2878; Internet: [www.alphaaviation.co.nz/publications.shtml](http://www.alphaaviation.co.nz/publications.shtml). You may review copies of the referenced service information at the FAA, Small Airplane Directorate, 901 Locust, Kansas City, Missouri 64106. For information on the availability of this material at the FAA, call (816) 329-4148.

**(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) Alpha Aviation Service Bulletin AA-SB-71-006, dated May 2012.

(ii) Reserved.

(3) For Alpha Aviation service information identified in this AD, contact Alpha Aviation, 59 Hautapu Road, RD 1, Cambridge 3493, New Zealand; telephone: +64 7 827 0528; fax: +64 7 929 2878; Internet: [www.alphaaviation.co.nz/publications.shtml](http://www.alphaaviation.co.nz/publications.shtml).

(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 26, 2012.  
Earl Lawrence,  
Manager, Small Airplane Directorate,  
Aircraft Certification Service.