FEDERAL AVIATION ADMINISTRATION
AIRWORTHINESS DIRECTIVES
SMALL AIRCRAFT, ROTORCRAFT, GLIDERS, BALLOONS, & AIRSHIPS

BIWEEKLY 2009-12

This electronic copy may be printed and used in lieu of the FAA biweekly paper copy.

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Federal Aviation Administration
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Delegation and Airworthiness Programs Branch, AIR-140
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SMALL AIRCRAFT, ROTORCRAFT, GLIDERS, BALLOONS, & AIRSHIPS

AD No.	Information	Manufacturer	Applicability

Info: E - Emergency; COR - Correction; S - Supersedes; R - Revision; - See AD for additional information;

Biweekly 2009-01

2008-17-51		MD Helicopters, Inc	Rotorcraft: MD900
2008-26-01	S 2008-11-17	Air Tractor, Inc	See AD
2008-26-02	S 2006-06-51	General Electric Company	Engine: CT7-8A
2008-26-05		Bombardier-Rotax GmbH	Engine: 914 F
2008-26-10		Cessna	See AD
2008-26-11		Piper	See AD
2008-26-12		Aircraft Industries a.s	Sailplane: L 23 Super Blanik

Biweekly 2009-02

No Small Aircraft ADs were issued during Biweekly 2009-02.

Biweekly 2009-03

2009-01-11		Turbomeca	Engine: Arriel 2B and 2B1
2009-02-02		Polskie Zaklady Lotnicze Spolka zo.o	PZL M26 01
2009-02-03		Lycoming Engines, SeeAD	Engine: See AD

Biweekly 2009-04

No Small Aircraft ADs were issued during Biweekly 2009-04.

Biweekly 2009-05

2008-02-08	S 2006-21-11	Turbomeca	Engine: Turmo IV A and IV C
2009-03-04		Turbomec	Engine: Arriel 1E2, 1S, and 1S1
2009-03-05		Pratt Whitney Canada	Engine: PW206A, PW206B, PW206B2, PW206C, PW206E, PW207C, PW207D, and PW207E
2009-04-01		Wytwornia Sprzetu Komunikacyjnego	Engine: PZL-10W
2009-04-04		Cessna	401, 401A, 401B, 402, 402A, 402B
2009-04-05		Cessna	182Q and 182R
2009-04-08		BURKHART GROB LUFT– UND RAUMFAHRT GmbH & CO KG	Glider: G103 TWIN II, G103A TWIN II ACRO, G103C TWIN III ACRO, G 103 C TWIN III
2009-04-09	S 2008-11-10	Viking Air Limite	DHC-6-1, DHC-6-100, DHC-6-200, and DHC-6-300
2009-04-14		PILATUS AIRCRAFT LTD	PC-12/47E
2009-05-01	S 2007-04-12	Gippsland Aeronautics Pty. Ltd	GA8
2009-05-05		Avidyne Corporation	Primary Flight Displays
2009-05-06		Embraer	EMB-500

Biweekly 2009-06

2009-05-07	S 2008-06-17	Pilatus Aircraft Ltd	PC-12, PC-12/45, PC-12/47, PC-12/47E
2009-05-12		Cessna	208 and 208B

Biweekly 2009-07

2009-05-08		Trimble or Freeflight Systems	Appliance: Global positioning system (GPS)
2009-05-09		Bell Helicopter Textron, Inc.	Rotorcraft: 412, 412EP, 412CF
2009-06-01		Eurocopter France	Rotorcraft: EC 155B and EC155B1
2009-06-07		Agusta S.p.A.:	Rotorcraft: AB139 and AW139
2008-07-51	E	Bell Helicopter Textron Canada	Rotorcraft: 206A, 206B, and 206L and 407 and 427
2009-07-52	E, S 2009-07-52	Bell Helicopter Textron Canada	Rotorcraft: 206A, 206B, and 206L and 407 and 427
2009-07-53	E	Sikorsky Aircraft	Rotorcraft: S-92A

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Biweekly 2009-08

2006-08-08 R1	R	Air Tractor, Inc.	AT-400, AT-401, AT-401B, AT-402, AT-402A, and AT-402B
2009-07-08		Piper	PA-46-350P and PA46R-350T
2009-07-09		DORNIER Luftfahrt GmbH	228-100, Dornier 228-101, Dornier 228-200, Dornier 228-201, Dornier 228-202, and Dornier 228-212
2009-07-13		MD Helicopters, Inc.	Rotorcraft: MD900
2009-07-14		Diamond Aircraft Industries GmbH	DA 40
2009-08-03	S 2007-19-52	Bell Helicopter Textron Canada Limited	Rotorcraft: 206A, 206B, 206L, 206L-1, 206L-3, 206L-4, 222, 222B, 222U, 230, 407, 427, and 430
2009-08-05		Liberty Aerospace Incorporated	XL-2

Biweekly 2009-09

2009-07-52	FR	Bell Helicopter Textron Canada Limited	Rotorcraft: 206A series, 206B series, and 206L
2009-08-08		Turbomeca	Engine: Arriel 1B, 1D, and 1D1, Arriel 2B, and 2B1
2009-08-09		EADS SOCATA	TBM 700
2009-08-10	S 2009-04-14	Pilatus Aircraft Ltd	PC-12/47E
2009-08-11		Pilatus Aircraft Ltd	PC-12 and PC-12/45
2009-09-51	E	EUROCOPTER FRANCE	Rotorcraft: EC225LP

Biweekly 2009-10

2009-07-53	FR	Sikorsky Aircraft Corporation	Rotorcraft: S-92A
2009-09-03		Turbomeca S.A.	Engine: Arriel 2B and 2B1
2009-09-04		EADS-PZL	PZL-104 WILGA 80
2009-09-09		Cessna	LC40-550FG, LC41-550FG, LC42-550FG

Biweekly 2009-11

2009-10-04	S 2007-17-06	Diamond Aircraft	DA 40, DA 40F
2009-10-09		Cessna	See AD
2009-10-14		Hartzell	Propeller: See AD
2009-11-05	S 2008-10-12	Air Tractor, Inc.	AT-400, AT-400A, AT-402A, AT-402B, AT,502, AT-502A, AT-502B, AT-503A, AT-602, AT-802, AT-802A

Biweekly 2009-12

2009-11-01	S 95-21-12	Eurocopter Deutschland GmbH	Rotorcraft: MBB-BK 117 A-1, A-3, A-4, B-1, B-2, and C-1
2009-11-06		M7 Aerospace LP	SA226-AT, SA226-T, SA226-TC, SA227-AC (C-26A), SA227-AT, SA227-BC (C-26A), SA227-CC, and SA227-DC (C-26B)
2009-11-10		Eurocopter Deutschland GmbH	EC135
2009-12-51	E	Turbomeca S.A.	Engine: Arriel 1A1, 1A2, 1B, 1C, 1C1, 1C2, 1D, 1D1, 1E2, 1K1, 1S, and 1S1

2009-11-01 Eurocopter Deutschland GmbH: Amendment 39-15911. Docket No. FAA-2009-0453; Directorate Identifier 2008-SW-63-AD.

Effective Date

(a) This airworthiness directive (AD) becomes effective on June 12, 2009

Other Affected ADs

(b) Supersedes AD 95-21-12, Amendment No. 39-9399, Docket Number 94-SW-19-AD (60 FR 53507, October 16, 1995).

Applicability

(c) This AD applies to Model MBB-BK 117 A-1, A-3, A-4, B-1, B-2, and C-1 helicopters, certificated in any category, with the following main rotor blade (blade) installed:

Blade Part Number (P/N)
117-15001
117-150021
117-150061
117-151321
117-151341, 117-151341V001
117-151351, 117-151351V001
117-151361, 117-151361V001
117-151421V001
117-151441, 117-151441V001
117-151441V002, 117-151441V003
117-151451, 117-151451V001
117-151451V002, 117-151451V003
117-151461, 117-151461V001

Reason

(d) Redesigned blades have become available that are not fitted with lead balance weights. Only a blade equipped with a lead balance weight may contain the unsafe condition. This AD retains the requirements of the current AD but limits the applicability to those part-numbered blades that are fitted with lead balance weights. The actions are intended to detect the blades fitted with lead balance weights that could move and cause severe vibrations leading to blade failure and subsequent loss of control of the helicopter.

Actions and Compliance

(e) Required as indicated:

(1) Within 5 hours time-in-service (TIS), unless already done, and thereafter at intervals not to exceed 50 hours TIS, visually inspect the upper and lower surfaces of each affected main rotor blade (blade) in the area of the outboard lead balance weight in the marked inspection area for bulging.

(i) If a marked inspection area is not visible, mark the area using a water-resistant and indelible marking pencil and then inspect the upper and lower surfaces of each blade in the area of the outboard lead balance weight for bulging.

Note: For guidance, the current MBB-BK117 Maintenance Manual at Figure 14-5A contains the dimensions and placement of the inspection area.

(ii) If bulging exceeds 1 millimeter (mm) (0.040 inch) in height, before further flight, remove the blade and replace it with an airworthy blade that is not listed in the applicability of this AD.

(2) Replacing the affected blade with an airworthy blade that is not listed in the applicability of this AD is terminating action for the requirements of this AD.

Differences Between This AD and the MCAI AD

(f) We refer to flight hours as hours TIS. We retained the compliance time from the current AD and the Eurocopter ASB, dated August 18, 1994, and did not include the option of accumulating 1,800 flight hours since the first flight as stated in the MCAI. We do not incorporate ASB, Revision 3, damage inspection. We do not require that you contact ECD for instructions for corrective action. This AD requires that you contact the FAA for an Alternate Method of Compliance.

Other Information

(g) Alternative Methods of Compliance (AMOCs): The Manager, Safety Management Group, FAA, ATTN: Sharon Miles, Aviation Safety Engineer, Rotorcraft Directorate, Regulations and Guidance Group, Fort Worth, Texas 76193-0111, telephone (817) 222-5122, fax (817) 222-5961, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19.

Related Information

(h) European Aviation Safety Agency (EASA) AD No. 2008-0156, dated August 19, 2008, and Eurocopter Alert Service Bulletin MBB-BK117 No. ASB-MBB-BK117-10-108, Revision 3, dated August 7, 2008, contains related information.

Air Transport Association of America (ATA) Tracking Code

(i) ATA Code No. 6210 Main Rotor Blades.

Issued in Fort Worth, Texas, on May 7, 2009.
Mark R. Schilling,
Acting Manager, Rotorcraft Directorate,
Aircraft Certification Service.

2009-11-06 M7 Aerospace LP: Amendment 39-15916; Docket No. FAA-2009-0119; Directorate Identifier 2008-CE-068-AD.

Effective Date

(a) This AD becomes effective on July 2, 2009.

Affected ADs

(b) This AD supersedes AD 2008-12-16, Amendment 39-15560.

Applicability

(c) This AD applies to Models SA226-AT, SA226-T, SA226-TC, SA227-AC (C-26A), SA227-AT, SA227-BC (C-26A), SA227-CC, and SA227-DC (C-26B) airplanes, all serial numbers, that are certificated in any category.

Unsafe Condition

(d) This AD results from five reports of chafing between the bleed air tube assembly and the electrical starter cables on M7 Aerospace LP SA226 and SA227 series airplanes with one incident resulting in a fire. We are issuing this AD to detect and correct chafing of electrical wires and components, hydraulic tube assemblies, and bleed air tube assemblies. This condition could result in arcing of the exposed wires with consequent burning of a hole in a hydraulic line or the bleed air line. This failure could lead to a possible hydraulic fluid leak and fire in the engine nacelle compartment.

Compliance

(e) To address this problem, you must do the following, unless already done:

Table 1–Actions, Compliance, and Procedures

Actions	Compliance	Procedures
(1) For the following model and serial number (S/N) airplanes, inspect the main battery leads running forward from the battery compartment for deterioration, cover the four-gauge wires leaving the battery box with firesleeving, and secure them with a clamp: (i) SA226-AT, S/N AT-001 through AT-419; (ii) SA226-T, S/N T-201 through T-248; (iii) SA226-TC, S/N TC-201 through TC-419; (iv) SA227-AC (C-26A), S/N AC-420 through AC-539, AC-541, AC-543, AC-544, AC-547 through AC-551; and (v) SA227-AT, S/N AT-423 through AT-551.	Within 250 hours time-in-service (TIS) after July 23, 2008 (the effective date of AD 2008-12-16).	Use the following service information as applicable: (A) For Models SA226-AT, SA226-T, and SA226-TC airplanes: Follow M7 Aerospace SA226 Series Service Bulletin No. 226-24-019, revised: November 21, 2008; or Fairchild Aircraft Corporation SA226 Series Service Bulletin No. SB 24-019, revised: May 17, 1983; or (B) For Models SA227-AC (C-26A) and SA227-AT airplanes: Follow M7 Aerospace SA227 Series Service Bulletin No. 227-24-001, revised: November 21, 2008; or Fairchild Aircraft Corporation SA227 Series Service Bulletin No. SB24-001, revised: May 17, 1983.
(2) For the following model and S/N airplanes, reroute the hydraulic tube assemblies in the right wing leading edge, reroute the battery cables and 22-gauge wire bundle, and install a new access panel forward of the battery box: (i) SA226-AT, S/N AT-001 through AT-074; (ii) SA226-TC, S/N TC-201 through TC-419; (iii) SA227-AC (C-26A), S/N AC-420 through AC-539, AC-541, AC-543, AC-544, AC-547 through AC-550; and (iv) SA227-AT, S/N AT-423 through AT-551.	Before further flight after the modification required in paragraph (e)(1) of this AD and you were not able to obtain a minimum 0.50-inch clearance between the bleed air line and the tubing on the battery cables.	Use the following service information as applicable: (A) For Models SA226-AT, and SA226-TC airplanes: Follow M7 Aerospace SA226 Series Service Bulletin No. 226-24-020, revised: August 4, 2008; or Fairchild Aircraft Corporation SA226 Series Service Bulletin No. SB 24-020, revised: February 15, 1984; or (B) For Models SA227-AC (C-26A) and SA227-AT, airplanes: Follow M7 Aerospace SA227 Series Service Bulletin No. 227-24-002, revised: November 21, 2008; or Fairchild Aircraft Corporation SA227 Series Service Bulletin No. SB24-002, revised: February 15, 1984.

(3) For model SA226-AT, SA226-T, SA226-TC, SA227-AC (C-26A), SA227-AT, SA227-CC, and SA227-DC (C-26B) airplanes, all S/N: Inspect electrical wires and components, hydraulic tube assemblies, and bleed air tube assemblies at the left hand and right hand (LH/RH) inboard wing leading edge/battery box areas, LH/RH wing stations 51.167 to 81.174, and at all feed-through locations into the LH/RH inboard keelson for any evidence of chafing or arcing.	Within 250 hours TIS after July 23, 2008 (the effective date of AD 2008-12-16). Repetitively thereafter inspect at intervals not to exceed 12 months.	Use the following service information as applicable: (i) For Models SA226-AT, SA226-T, and SA226-TC airplanes: Follow M7 Aerospace SA226 Series Service Bulletin No. 226-24-036, revised November 21, 2008; or M7 Aerospace SA226 Series Service Bulletin No. 226-24-036, issued: September 19, 2007; (ii) For Models SA227-AC (C-26A) and SA227-AT, airplanes: Follow M7 Aerospace SA227 Series Service Bulletin No. 227-24-019, revised: November 21, 2008; or M7 Aerospace SA227 Series Service Bulletin No. 227-24-019, issued: September 19, 2007; or (iii) For Models SA227-CC and SA227-DC (C-26B) airplanes: Follow SA227 Series Commuter Category Service Bulletin No. CC7-24-010, revised November 21, 2008; or SA227 Series Commuter Category Service Bulletin No. CC7-24-010, issued September 19, 2007.
(4) For model SA227-BC (C-26A) airplanes, all S/N: Inspect the main battery leads running forward from the battery compartment for any evidence of insulation deterioration.	Within 250 hours TIS after July 2, 2009 (the effective date of this AD).	Follow M7 Aerospace SA227 Series Service Bulletin No. 227-24-001, revised: November 21, 2008.

(5) For model SA227-BC (C-26A) airplanes, all S/N: Inspect electrical wires and components, hydraulic tube assemblies, and bleed air tube assemblies at LH/RH inboard wing leading edge/battery box areas, LH/RH wing stations 51.167 to 81.174, and at all feed-through locations into the LH/RH inboard keelson for any evidence of insulation deterioration, chafing, or arcing.	Within 250 hours TIS after July 2, 2009 (the effective date of this AD). Repetitively thereafter inspect at intervals not to exceed 12 months.	Follow M7 Aerospace SA227 Series Service Bulletin No. 227-24-019, revised: November 21, 2008.
(6) For all model and S/N airplanes: Clear, repair, and/or replace all electrical wires and components, hydraulic tube assemblies, and bleed air tube assemblies, in the inspection area and feed-through locations that show any sign of insulation deterioration, chafing, or arcing, as required.	Before further flight after any inspection required in paragraphs (e)(1), (e)(3), (e)(4), and (e)(5) of this AD where any evidence of insulation deterioration, chafing, or arcing was found.	Use the service information from paragraphs (e)(1), (e)(3), (e)(4), and (e)(5) of this AD, as applicable.

Note: Although not a requirement of this AD, you may incorporate Swearingen Aviation Corporation SA226 Series Service Bulletin No. 57-010, revised: December 5, 1975, on those airplanes that have not installed the access panel. Installation of the access panel will simplify the incorporation of the service bulletins referenced in this AD and future inspections of the areas of concern.

Alternative Methods of Compliance (AMOCs)

(f) 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. Send information to ATTN: Werner Koch, Aerospace Engineer, ASW-150, Fort Worth Airplane Certification Office, 2601 Meacham Blvd., Fort Worth, Texas 76137; telephone: (817) 222-5133; fax: (817) 222-5960. 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

Material Incorporated by Reference

(g) You must use the service information specified in Table 2 or Table 3 of this AD to do the actions required by this AD, unless the AD specifies otherwise.

(1) The Director of the Federal Register approved the incorporation by reference of the service information listed in Table 2 of this AD under 5 U.S.C. 552(a) and 1 CFR part 51.

Table 2–Material Incorporated by Reference

Service Bulletin No.	Date
(i) M7 Aerospace SA226 Series Service Bulletin No. 226-24-019	Revised: November 21, 2008
(ii) M7 Aerospace SA226 Series Service Bulletin No. 226-24-020	Revised: August 4, 2008
(iii) M7 Aerospace SA226 Series Service Bulletin No. 226-24-036	Revised: November 21, 2008
(iv) M7 Aerospace SA227 Series Service Bulletin No. 227-24-001	Revised: November 21, 2008
(v) M7 Aerospace SA227 Series Service Bulletin No. 227-24-002	Revised: November 21, 2008
(vi) M7 Aerospace SA227 Series Service Bulletin No. 227-24-019	Revised: November 21, 2008
(vii) M7 Aerospace SA227 Series Commuter Category Service Bulletin No. CC7-24-010	Revised: November 21, 2008

(2) On July 23, 2008 (73 FR 34615, June 18, 2008), the Director of the Federal Register approved the incorporation by reference of the service information listed in Table 3 of this AD.

Table 3–Previous Material Incorporated by Reference

Service Bulletin No.	Date
(i) Fairchild Aircraft Corporation SA226 Series Service Bulletin No. SB 24-019	Revised: May 17, 1983
(ii) Fairchild Aircraft Corporation SA226 Series Service Bulletin No. SB 24-020	Revised: February 15, 1984
(iii) M7 Aerospace SA226 Series Service Bulletin No. 226-24-036	Issued: September 19, 2007
(iv) Fairchild Aircraft Corporation SA227 Series Service Bulletin No. SB24-001	Revised: May 17, 1983
(v) Fairchild Aircraft Corporation SA227 Series Service Bulletin No. SB24-002	Revised: February 15, 1984
(vi) M7 Aerospace SA227 Series Service Bulletin No. 227-24-019	Issued: September 19, 2007
(vii) M7 Aerospace SA227 Series Commuter Category Service Bulletin No. CC7-24-010	Issued: September 19, 2007

(3) For service information identified in this AD, contact M7 Aerospace Repair Station, 10823 NE Entrance Road, San Antonio, Texas 78216; telephone: (210) 824-9421; fax: (210) 804-7766; Internet: http://www.m7aerospace.com.

(4) You may review copies of the service information incorporated by reference for this AD at the FAA, Central Region, Office of the Regional Counsel, 901 Locust, Kansas City, Missouri 64106. For information on the availability of this material at the Central Region, call (816) 329-3768.

(5) You may also review copies of the service information incorporated by reference for this AD 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/code_of_federal_regulations/ibr_locations.html.

Issued in Kansas City, Missouri, on May 18, 2009.

Kim Smith,
Manager, Small Airplane Directorate,
Aircraft Certification Service.

2009-11-10 Eurocopter Deutschland GmbH: Amendment 39-15920. Docket No. FAA-2009-0482; Directorate Identifier 2008-SW-54-AD.

Effective Date

(a) This airworthiness directive (AD) becomes effective on June 12, 2009.

Other Affected ADs

(b) None.

Applicability

(c) This AD applies to Eurocopter Deutschland GmbH (Eurocopter) Model EC135 helicopters with a main transmission with a serial number of 0001 through 1420 and 1500 through 1749 installed, certificated in any category.

Reason

(d) The mandatory continuing airworthiness information (MCAI) states that an operator reported unusual vibrations during the start phase of the main rotor blade on one helicopter. The vibrations stopped after the application of torque. Subsequently, maintenance personnel found that six of the eight attachment screws of the lower hub-shaft bearing support were loose. This condition was discovered in two additional helicopters. Loose screws in the bearing support, if not detected and corrected, could result in abnormal main rotor blade vibrations and subsequent damage to the main transmission.

Actions and Compliance

(e) Within 3 hours time-in-service (TIS) if unusual vibrations are detected during the start phase or the shutdown phase when the main rotors are not at full operation RPM, or within 50 hours TIS after the effective date of this AD, whichever occurs first, do the following:

(1) Remove the lower transmission cover.

Note 1: You may drain the oil into a clean container so that it can be reused.

(2) Measure the clearance between the outer race and the transmission housing at four positions offset by 90° using a feeler gauge as depicted in Figure 1 of Eurocopter Alert Service Bulletin EC135-63A-013, Revision 02, dated September 12, 2008 (ASB). If the measured maximum clearance is:

(i) Less than or equal to 0.1 mm–install locking washers, tighten all screws, and re-measure the clearance by following paragraphs 3.B.(3) through 3.B.(7) of the ASB.

(ii) More than 0.1 mm–determine the difference between the smallest and the largest clearance and:

(A) If the difference is less than 0.4 mm–install locking washers, tighten all screws, and re-measure the clearance by following paragraphs 3.B.(2) through 3.B.(7) of the ASB.

(B) If the difference is equal to or more than 0.4 mm–replace the transmission before further flight with an airworthy transmission that has been modified in accordance with paragraph 3.B. of the ASB.

(iii) If the re-measured clearances obtained in accordance with paragraphs (e)(2)(i) or (e)(2)(ii)(A) of this AD are not less than or equal to 0.05 mm, replace the transmission with an airworthy transmission that has been modified in accordance with paragraph 3.B. of the ASB.

(3) Reinstall the lower transmission cover and replenish the transmission oil.

Note 2: If the transmission oil was drained into a clean container, it can be reused. Also, if the O-ring on the lower transmission cover is not damaged, it can be reused once.

(f) After the effective date of this AD, install only main transmissions that have been modified in accordance with paragraph 3.B.(3) of the ASB.

Differences Between This AD and the MCAI AD

(g) This AD does not require sending the main transmission to the manufacturer and does not refer to the transmission part numbers. Also, this AD uses the term "hours time-in-service", the MCAI AD uses the term "flight cycles".

Other Information

(h) The Manager, Safety Management Group, FAA, ATTN: Chinh Vuong, Aviation Safety Engineer, FAA, Rotorcraft Directorate, Safety Management Group, Fort Worth, Texas 76193-0111, telephone (817) 222-5116, fax (817) 222-5961 has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19.

Related Information

(i) European Aviation Safety Agency (EASA) MCAI Emergency AD No. 2008-0175-E, dated September 16, 2008, contains related information.

Air Transport Association of America (ATA) Tracking Code

(j) ATA Code 63: Main rotor drive.

Material Incorporated by Reference

(k) You must use the specified portions of Eurocopter Alert Service Bulletin EC135-63A-013, Revision 02, dated September 12, 2008, to do the actions required.

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

(2) For service information identified in this AD, contact American Eurocopter Corporation, 2701 Forum Drive, Grand Prairie, TX 75053-4005, telephone (972) 641-3460, fax (972) 641-3527, or at http://www.eurocopter.com.

(3) You may review copies at the FAA, Office of the Regional Counsel, Southwest Region, 2601 Meacham Blvd., Room 663, Fort Worth, Texas; or 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 May 19, 2009.

Mark R. Schilling,

Acting Manager, Rotorcraft Directorate,

Aircraft Certification Service.

EMERGENCY AIRWORTHINESS DIRECTIVE

Aircraft Certification Service
Washington, DC

U.S. Department
of Transportation
**Federal Aviation
Administration**

www.faa.gov/aircraft/safety/alerts/

DATE: June 4, 2009
AD #: 2009-12-51

This emergency airworthiness directive (AD) 2009-12-51 is sent to all owners and operators of Turbomeca S.A. Arriel 1A1, 1A2, 1B, 1C, 1C1, 1C2, 1D, 1D1, 1E2, 1K1, 1S, and 1S1 turboshaft engines.

Background

This emergency AD results from reports of oil leaks from certain reduction gearbox (module M05) front casings. The engine manufacturer reported that the lubrication duct plug was not properly bonded/ glued in place. This condition, if not corrected, could result in loss of the lubrication duct plug, followed by a rapid draining of the oil tank, without indication to the cockpit through low oil pressure warning. This condition can lead to uncommanded in-flight engine shutdown, possible engine fire, and an emergency autorotation landing.

Explanation of Relevant Service Information

We have reviewed Turbomeca S.A. Mandatory Service Bulletin (MSB) No. A292 72 0825, Version A, dated May 27, 2009. The MSB identifies the affected modules M05 by serial number, and describes procedures for initial and repetitive visual inspections for oil leaks, and repair of affected modules M05.

FAA's Determination and Requirements of the Rule

We have identified an unsafe condition that is likely to exist or develop on other Turbomeca S.A. Arriel turboshaft engines of this same type design. This AD requires initial and repetitive visual inspections of affected modules M05 for oil leakage, repair if leaking, and repair of all affected modules as terminating action to the repetitive inspections. You must use the service information described previously to perform these actions.

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.

Determination of Rule's Effective Date

We are issuing this AD under 49 U.S.C. Section 44701 according to the authority delegated to me by the Administrator, and it is effective immediately upon receipt.

2009-12-51 Turbomeca S.A.: Directorate Identifier 2009-NE-17-AD.

Effective Date

(a) Emergency AD 2009-12-51, issued on June 4, 2009, is effective upon receipt.

Affected ADs

(b) None.

Applicability

(c) This AD applies to Turbomeca S.A. Arriel 1A1, 1A2, 1B, 1C, 1C1, 1C2, 1D, 1D1, 1E2, 1K1, 1S, and 1S1 turboshaft engines if modified by Turbomeca Modification TU332 and fitted with modules M05 as listed by serial number in Figure 1 of Turbomeca S.A. Mandatory Service Bulletin (MSB) No. A292 72 0825, Version A, dated May 27, 2009. These engines are installed on, but not limited to, Eurocopter France AS350B, AS350BA, AS365N, AS350B1, AS350B2, Eurocopter Deutschland GmbH MBB-BK117-C1, Agusta A109K2, and Sikorsky S-76A+ , S-76A++ and S-76C helicopters.

Unsafe Condition

(d) This AD results from reports of oil leaks from certain reduction gearbox (module M05) front casings. The engine manufacturer reported that the lubrication duct plug was not properly bonded/ glued in place. This condition, if not corrected, could result in loss of the lubrication duct plug, followed by a rapid draining of the oil tank, without indication to the cockpit through low oil pressure warning. This condition can lead to uncommanded in-flight engine shutdown, possible engine fire, and an emergency autorotation landing.

Compliance

(e) You are responsible for having the actions required by this AD performed within the compliance times specified unless the actions have already been done.

Initial Visual Inspection Before Further Flight

(f) Before further flight:

(1) Visually inspect the module M05 lubrication duct for oil leakage. Use paragraph 1.C.(1)(a), paragraph 2.A., and Figure 2 of Turbomeca S.A. MSB No. A292 72 0825, Version A, dated May 27, 2009, to do the inspection.

(2) If oil leakage is found, repair the module M05 lubrication duct. Use paragraph 2.B.1, Figure 3, and Figure 4 in Turbomeca S.A. MSB No. A292 72 0825, Version A, dated May 27, 2009, to do the repair.

Repetitive Visual Inspections

(g) If no oil leakage is found, repeat the visual inspection every four flight hours, or after the last flight of each day, whichever comes first.

(h) The actions required by paragraph (g) of this AD may be performed by the owner/operator holding at least a private pilot certificate, and must be entered into the aircraft records showing compliance with this AD in accordance with 14 CFR 43.9 and 14 CFR 91.417(a)(2)(v).

Optional Terminating Action

(i) As optional terminating action to the repetitive visual inspections in paragraph (g) of this AD, repair the affected modules M05 as specified in paragraph (f)(2) of this AD.

Alternative Methods of Compliance

(j) The Manager, Engine Certification Office, has the authority to approve alternative methods of compliance for this AD if requested using the procedures found in 14 CFR 39.19.

Related Information

(k) European Aviation Safety Agency emergency airworthiness directive 2009-0117-E, dated June 2, 2009, also addresses the subject of this AD.

Contact Information

(l) For further information, contact: James Lawrence, Aerospace Engineer, Engine Certification Office, FAA, Engine and Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; e-mail: james.lawrence@faa.gov; telephone (781) 238-7176; fax (781) 238-7199, for more information about this AD.

Issued in Burlington, Massachusetts, on June 4, 2009.

Peter A. White,
Assistant Manager, Engine and Propeller Directorate,
Aircraft Certification Service.