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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2019-0641; Product Identifier 2019-SW-020-AD; Amendment 39-19720; AD 2019-16-16]

RIN 2120-AA64

Airworthiness Directives; Airbus Helicopters

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule; request for comments.

SUMMARY: The FAA is superseding Airworthiness Directive (AD) 2018-18-12 for Airbus Helicopters (Airbus) Model AS350B, AS350B1, AS350B2, AS350B3, and AS350BA helicopters with a certain part-numbered Pall Aerospace Corporation Inlet Barrier Filter (IBF) element installed. AD 2018-18-12 required revising the Rotorcraft Flight Manual Supplement (RFMS) for your helicopter to prohibit operating a helicopter with an IBF element in wet weather and drying or replacing the IBF element if wet. This AD retains the requirements of AD 2018-18-12 but no longer allows reinstallation of a filter after it has been removed. This AD also expands the applicability, provides an optional terminating action for the RFMS revision for your helicopter, and prohibits installing the affected IBFs on any helicopter. This AD was prompted by further review of the unsafe condition and the determination that additional part-numbered IBF elements are affected by the unsafe condition. The actions of this AD are intended to address an unsafe condition on these products.

DATES: This AD is effective September 26, 2019.

The FAA must receive any comments on this AD by October 28, 2019.

ADDRESSES: You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

Federal eRulemaking Portal: Go to http://www.regulations.gov. Follow the instructions for submitting comments.

Fax: 202-493-2251.

Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.

Hand Delivery: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

Examining the AD Docket

You may examine the AD docket on the internet at http://www.regulations.gov by searching for and locating Docket No. FAA-2019-0641; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this final rule, the regulatory evaluation, any comments received and other information. The street address for Docket Operations is listed above. Comments will be available in the AD docket shortly after receipt.

For service information identified in this final rule, contact Pall Aerospace Corporation, 10540 Ridge Road, Suite 300, Newport Richey, FL 34654; telephone 727-514-6491; email cam_dipronio@pall.com; website www.pall.com/aerospace. You may review the referenced service information at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy., Room 6N-321, Fort Worth, TX 76177.

FOR FURTHER INFORMATION CONTACT: Gary Wechsler, Aerospace Engineer, Atlanta ACO Branch, Compliance and Airworthiness Division, FAA, 1701 Columbia Ave., College Park, GA, 30337, telephone 404-474-5575, email Gary.Wechsler@faa.gov.

SUPPLEMENTARY INFORMATION:
Comments Invited

This AD is a final rule that involves requirements affecting flight safety, and the FAA did not provide you with notice and an opportunity to provide your comments before it becomes effective. However, the FAA invites you to send any written data, views, or arguments about this final rule. Send your comments to an address listed under the ADDRESSES section. Include Docket No. FAA-2019-0641; Product Identifier 2019-SW-020-AD, at the beginning of your comments. The FAA specifically invites comments on the overall regulatory, economic, environmental, and energy aspects of this final rule. The FAA will consider all comments received by the closing date and may amend this final rule because of those comments.

The FAA will post all comments the FAA receives, without change, to http://www.regulations.gov, including any personal information you provide. The FAA will also post a report summarizing each substantive verbal contact the FAA receives about this final rule.

Discussion

The FAA issued AD 2018-18-12, Amendment 39-19391 (83 FR 45545, September 10, 2018), ("AD 2018-18-12"), for Airbus Model AS350B, AS350B1, AS350B2, AS350B3, and AS350BA helicopters with a Pall Aerospace IBF element part number (P/N) CE01301F2 or CE01301F2B installed. AD 2018-18-12 required, within 30 days, revising the RFMS for your helicopter by inserting Appendix A of the AD into the limitations section. AD 2018-18-12 resulted from a forced landing after an engine flameout. The FAA issued AD 2018-18-12 to prevent ingestion of an excessive amount of water by the engine. This condition could result in engine flame out and failure, leading to loss of helicopter control.

Actions Since AD 2018-18-12 Was Issued

Since the FAA issued AD 2018-18-12, Pall Corporation revised its Service Information Letter (SIL) CE01301F2SINFOL Revision A, dated July 15, 2015 (SIL Revision A), to SIL CE01301F2SINFOL Revision B, dated October 12, 2018 (SIL Revision B) to notify affected owners

of FAA AD requirements. Further, a public comment from the European Aviation Safety Agency (EASA), and additional in-service incidents and information from both Pall Aerospace and Transport Canada, have revealed that IBF elements P/N CE01303F2 and CE01303F2B are also affected by the unsafe condition. This AD now expands the applicability to include those part-numbered IBF elements.

The FAA has also determined that reinstallation of a filter after it has been removed may lead to an unsafe condition; therefore reinstallation of a filter after it has been removed is now prohibited. Additionally, the FAA has determined that prohibiting the installation of IBF element P/N CE01301F2, CE01301F2B, CE01303F2, or CE01303F2B on any helicopter is necessary to prevent the unsafe condition. Finally, the FAA is providing an optional terminating action for the RFMS revision for your helicopter which consists of removing the affected IBF element from service. The FAA is currently considering removing the IBF element as a requirement rather than an option, however, the planned compliance time for that requirement would allow enough time to provide notice and opportunity for prior public comment on the merits of the removal.

Comments to AD 2018-18-12

After AD 2018-18-12 was published, the FAA received comments from two commenters.

Request

Andrew Greene requested the FAA provide field reports and other data used in support of the AD, including any findings from the FAA's testing or analysis.

As described in AD 2018-18-12 and FAA Special Airworthiness Information Bulletin SW-17-30, dated October 13, 2017, the first reported[thinsp]incident pertaining to this unsafe condition involved an Airbus Helicopters Model AS350B3 helicopter fitted with an IBF. Post-incident inspection of the helicopter's turbine engine showed that violent water ingestion damaged six axial compressor blades. Pall Aerospace conducted an internal assessment proving that water accumulation is possible and can be introduced to the engine with a Pall Aerospace IBF. Pall Aerospace also confirmed through laboratory testing that engine flameout or loss of power is possible due to water accumulation in the pleats and water collection downstream of the filter at the intake. These conditions can subsequently lead to violent water ingestion as the collected water is released by an increase in engine power or a nose-down attitude. Other realized associated risks include increased pilot workload and phase of flight risks, particularly during transient phases at nose down attitudes. During investigation of the first incident, two reports of previous incidents were received that involved helicopters equipped with IBFs or induction filter installations. One incident resulted in difficultly starting the helicopter, but once the water was removed from the filter, no further problems occurred. The other incident occurred in-flight during heavy rain conditions resulting in an amber filter light illuminating, indicating a blocked or clogged filter. In this incident, the operator opened the bypass door and returned to base. Further, additional incidents have occurred since AD 2018-18-12 was issued that support that AD action is necessary. An incident was reported with an IBF element P/N CE01303F2 installed on a helicopter that was stored outside and uncovered during a snowfall. The operator could not start the helicopter due to accumulated moisture. Another incident occurred in which a helicopter with an IBF element P/N CE01303F2B also experienced issues with starting the engine. The filter had been removed for routine maintenance and was allowed to dry. After reinstallation, the operator attempted two starts that failed. Once the Pall IBF element was replaced with a filter from a different manufacturer, the engine started successfully.

Mr. Greene also requested a list of the regulations Pall Aerospace was required to address and the method used to demonstrate compliance for each approval of the replacement elements.

Showing compliance to regulations is part of the certification process, which generally involves proprietary information. This comment does not address whether this AD is necessary or the

requirements to correct the unsafe condition presented by the affected IBF elements. The FAA did not make any changes based on this comment.

EASA requested AD 2018-18-12 be changed to add Pall Aerospace IBF elements P/Ns CE01303F2 and P/N CE01303F2B to the applicability paragraph. EASA states it is unclear why Pall Aerospace IBF elements P/Ns CE01303F2 and P/N CE01303F2B were omitted in AD 2018-18-12 and that this omission conflicts with SIL Revision A.

The FAA agrees and has included P/Ns CE01303F2 and CE01303F2B in the applicability paragraph of this AD.

Related Service Information

The FAA reviewed SIL Revision B, which recommends covering the engine inlet if the helicopter is outside while not operating and conducting pre-flight inspections to ensure the engine inlet is clear of water. SIL Revision B also notifies all affected operators of FAA AD requirements.

FAA's Determination

The FAA is issuing this AD after evaluating all the relevant information, considering the comments received to AD 2018-18-12, and determining the unsafe condition described previously is likely to exist or develop in other products of these same type designs.

AD Requirements

This AD requires, for Airbus Helicopters Model AS350B, AS350B1, AS350B2, AS350B3, and AS350BA helicopters with an IBF element CE01301F2, CE01301F2B, CE01303F2, or CE01303F2B installed, within 30 days, revising the RFMS for your helicopter by inserting Appendix A of this AD into the limitations section. Alternatively, as an optional termination action to the RFMS revision for your helicopter, this AD allows removing the IBF element from service. This AD also prohibits the installation of an affected IBF element on any helicopter.

Differences Between This AD and the Service Information

The service information allows for removing water and reinstalling the IBF element if there is standing water on the engine inlet. This AD prohibits reinstalling any IBF element after it has been removed.

Justification for Immediate Adoption and Determination of the Effective Date

Section 553(b)(3)(B) of the Administrative Procedure Act (APA) (5 U.S.C.) authorizes agencies to dispense with notice and comment procedures for rules when the agency, for “good cause,” finds that those procedures are “impracticable, unnecessary, or contrary to the public interest.” Under this section, an agency, upon finding good cause, may issue a final rule without seeking comment prior to the rulemaking.

An unsafe condition exists that requires the immediate adoption of this AD without providing an opportunity for public comments prior to adoption. The FAA has found that the risk to the flying public justifies foregoing notice and comment prior to adoption of this rule because the unsafe condition requires corrective action within 30 days. Accordingly, notice and opportunity for prior public comment are impracticable and contrary to public interest pursuant to 5 U.S.C. 553(b)(3)(B). In addition, for the reasons stated above, the FAA finds that good cause exists pursuant to 5 U.S.C. 553(d) for making this amendment effective in less than 30 days.

Costs of Compliance

The FAA estimates that this AD affects 81 helicopters of U.S. Registry. Labor costs are estimated at $85 per work-hour. Based on these numbers, the FAA estimates the following costs to comply with this AD.

Revising the RFMS for your helicopter takes about 1 work-hour for an estimated cost of $85 per helicopter and $6,885 for the U.S. fleet. Removing the IBF element takes about 2 work-hours and parts cost about $3,995 for an estimated cost of $4,165 per helicopter.

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.

The FAA is 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.

Regulatory Findings

This AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

(1) Is not a “significant regulatory action” under Executive Order 12866,

and

(2) Will not affect intrastate aviation in Alaska.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

Adoption of the Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA amends part 39 of the Federal Aviation Regulations (14 CFR part 39) as follows:

PART 39–AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by removing Airworthiness Directive (AD) 2018-18-12, Amendment 39-19391 (83 FR 45545, September 10, 2018) and adding the following new AD:

2019-16-16 Airbus Helicopters: Amendment 39-19720; Docket No. FAA-2019-0641; Product Identifier 2019-SW-020-AD.

(a) Effective Date

This AD is effective September 26, 2019.

(b) Affected ADs

This AD replaces AD 2018-18-12, Amendment 39-19391 (83 FR 45545, September 10, 2018).

(c) Applicability

This AD applies to Airbus Helicopters Model AS350B, AS350B1, AS350B2, AS350B3, and AS350BA helicopters, certificated in any category, with a Pall Aerospace Inlet Barrier Filter (IBF) element part number (P/N) CE01301F2, CE01301F2B, CE01303F2, or CE01303F2B installed.

(d) Subject

Joint Aircraft System Component (JASC) Code: 7160, Engine Air Intake System.

(e) Unsafe Condition

This AD defines the unsafe condition as ingestion of an excessive amount of water by the engine. This condition could result in engine flame out and failure, leading to loss of helicopter control.

(f) Compliance

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

(g) Required Actions

(1) Within 30 days, revise the Rotorcraft Flight Manual Supplement for your helicopter by inserting Appendix A of this AD into the limitations section.

(2) As an optional terminating action to the requirement in paragraph (g)(1) of this AD, remove the affected Pall Aerospace IBF element from service.

(3) After the effective date of this AD, do not install IBF element P/N CE01301F2, CE01301F2B, CE01303F2, or CE01303F2B on any helicopter.

(h) Special Flight Permit

Special flight permits are prohibited.

(i) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Atlanta ACO Branch, 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 certification office, send it to the attention of the person identified in paragraph (j) 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.

(j) Related Information

For more information about this AD, contact Gary Wechsler, Aerospace Engineer, Atlanta ACO Branch, Compliance and Airworthiness Division, FAA, 1701 Columbia Ave., College Park, GA 30337, telephone 404-474-5567, email Gary.Wechsler@faa.gov.

Appendix A to AD 2019-16-16

Rotorcraft Flight Manual Supplement

(1) Helicopter operation is prohibited if the filter is wet or when visible moisture (rain/snow/ice/water) is present in the inlet or on the filter (inspect filter by hand for wetness). If the filter is wet, remove the filter from service prior to operation.

(2) Helicopter flight is prohibited in visible moisture.

(3) If the helicopter inadvertently enters precipitation (rain/snow/ice/water), open bypass doors (if equipped), avoid sudden and rapid power transients, and land as soon as practical.

(4) Inlet covers must be installed when the rotorcraft is not in flight to prevent moisture from collecting in the inlet or on the filter.

(5) Inspect inlet and filter for visible moisture accumulation prior to flight. If moisture is present, helicopter operation is prohibited.

Issued in Fort Worth, Texas, on August 16, 2019.
Lance T. Gant,
Director, Compliance & Airworthiness Division,
Aircraft Certification Service.