DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2018-0740; Product Identifier 2016-SW-045-AD; Amendment 39-19631; AD 2019-08-10]

RIN 2120-AA64

Airworthiness Directives; Bell Helicopter Textron Canada Limited Helicopters

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: We are adopting a new airworthiness directive (AD) for Bell Helicopter Textron Canada Limited (Bell) Model 206A, 206B, 206L, 206L-1, 206L-3, 206L-4, and 407 helicopters. This AD requires inspecting and cleaning the oil supply restrictor (restrictor) to the freewheel assembly. This AD was prompted by reports of a blocked oil line restrictor in the freewheel lubrication system. The actions of this AD are intended to address an unsafe condition on these products.

DATES: This AD is effective June 24, 2019.

ADDRESSES: For service information identified in this final rule, contact Bell Helicopter Textron Canada Limited, 12,800 Rue de l'Avenir, Mirabel, Quebec J7J1R4; telephone (450) 437-2862 or (800) 363-8023; fax (450) 433-0272; or at http://www.bellcustomer.com/files/. 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.

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-2018-0740; 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 AD, the Transport Canada AD, the economic evaluation, any comments received, and other information. The street address for Docket Operations (phone: 800-647-5527) is U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.
SUPPLEMENTARY INFORMATION:

Discussion

On August 21, 2018, at 83 FR 42232, the Federal Register published our notice of proposed rulemaking (NPRM), which proposed to amend 14 CFR part 39 by adding an AD that would apply to Bell Model 206A, 206B, 206L, 206L-1, 206L-3, 206L-4, and 407 helicopters. The NPRM proposed to require inspecting and cleaning the freewheel oil supply system, and if there is blockage in the restrictor, disassembling and inspecting the freewheel assembly for condition and wear. Additionally, for Model 206A, 206B, 206L, 206L-1, 206L-3, and 206L-4 helicopters, the NPRM proposed to require replacing the reducer with a filter, part number 50-075-1. The proposed requirements were intended to detect blockage in the restrictor, which could cause failure of the freewheel assembly, failure of the main rotor mast, and subsequent loss of control of the helicopter.

The NPRM was prompted by Transport Canada AD No. CF-2016-13, dated May 2, 2016 (AD No. CF-2016-13), issued by Transport Canada, which is the aviation authority for Canada, to correct an unsafe condition for Bell Model 206A, 206B, 206L, 206L-1, 206L-3, 206L-4, and 407 helicopters. Transport Canada advises that they have received two reports of torsional overload failure of the main rotor mast caused by a blocked restrictor in the freewheel lubrication system. Transport Canada states the restrictor may become contaminated during maintenance, causing blockage. Transport Canada further states that a blocked restrictor could cause the freewheel assembly to malfunction and result in failure of the main rotor mast and loss of control of the helicopter.

Additionally, the Canadian AD advises that although certain later versions of these helicopters are equipped with a filter in the freewheel lubrication system that is designed to trap contaminants and prevent blockage of the restrictor, installation of the filter does not guarantee the restrictor will remain free of contaminants. According to Transport Canada, one occurrence of restrictor blockage resulted from contaminants being introduced downstream from the filter, which subsequently caused failure of the freewheel assembly. For these reasons, AD No. CF-2016-13 requires inspecting and cleaning the restrictors and filters, and depending on helicopter model, replacing the reducer with a filter. Additionally, AD No. CF-2016-13 requires a repetitive on-condition cleaning and inspection of the freewheel oil supply system.

The NPRM stated the incorrect date of May 16, 2016, for AD No. CF-2016-13. The correct issue date is May 2, 2016. We have corrected the date throughout this Final Rule.

In addition, the “Costs of Compliance” section in the preamble of the NPRM incorrectly provides the estimated cost “per inspection cycle.” However, the inspection and cleaning requirements are one-time requirements. “Per inspection cycle” has been removed in this section of the Final Rule. In this regard, we have added a section titled “Differences Between this AD and the Transport Canada AD” to this Final Rule to advise that the Transport Canada AD contains repetitive requirements and this AD does not.

Comments

We gave the public the opportunity to participate in developing this AD, but we did not receive any comments on the NPRM.

FAA's Determination

These helicopters have been approved by the aviation authority of Canada and are approved for operation in the United States. Pursuant to our bilateral agreement with Canada, Transport Canada, its
technical representative, has notified us of the unsafe condition described in its AD. We are issuing
this AD because we evaluated all of the information provided by Transport Canada and determined
the unsafe condition exists and is likely to exist or develop on other helicopters of these same type
designs and that air safety and the public interest require adopting the AD requirements as proposed.

Differences Between This AD and the Transport Canada AD

The Transport Canada AD includes a repetitive on-condition cleaning and inspection of the
freewheel oil supply system any time the freewheel oil supply system is opened upstream of the
restrictor. This AD does not require this type of repetitive on-condition cleaning and inspection
because it could be difficult to track.

Related Service Information

Bell has issued Alert Service Bulletin (ASB) 206-14-132 for Model 206A/B and TH-67
helicopters; ASB 206L-14-174 for Model 206L, 206L-1, 206L-3, and 206L-4 helicopters; and ASB
407-14-106 for Model 407 helicopters. Each ASB is Revision A and dated February 9, 2016. This
service information specifies removing, cleaning, inspecting, and reinstalling certain freewheel
assembly components. ASB 206-14-132 and ASB 206L-14-174 also contain procedures for replacing
the reducer with a filter if not already installed.

Costs of Compliance

We estimate that this AD affects 2,227 helicopters of U.S. Registry. We estimate that operators
may incur the following costs in order to comply with this AD.

At an average labor rate of $85 per work-hour, inspecting and cleaning the freewheel oil supply
system requires about 1 work-hour, for a cost per helicopter of $85 and $189,295 for the U.S. fleet.

If required, inspecting the freewheel assembly requires about 1 work-hour, for a cost per
helicopter of $85.

If required, replacing a restrictor with a filter requires about 1 work-hour and required parts cost
$125, for a cost per helicopter of $210.

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 helicopters 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,
(2) Is not a “significant rule” under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979),
(3) Will not affect intrastate aviation in Alaska, and
(4) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

We prepared an economic evaluation of the estimated costs to comply with this AD and placed it in the AD docket.

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 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 adding the following new airworthiness directive (AD):
2019-08-10 Bell Helicopter Textron Canada Limited (Bell): Amendment 39-19631; Docket No. FAA-2018-0740; Product Identifier 2016-SW-045-AD.

(a) Applicability

This AD applies to Bell Model 206A, 206B, 206L, 206L-1, 206L-3, 206L-4, and 407 helicopters, certificated in any category.

(b) Unsafe Condition

This AD defines the unsafe condition as a blocked oil line restrictor. This condition could cause failure of the freewheel assembly, which could result in failure of the main rotor mast and subsequent loss of control of the helicopter.

(c) Effective Date

This AD becomes effective June 24, 2019.

(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

Within 100 hours time-in-service:

1. For all helicopters:
   1. Inspect the oil line restrictor for blockage. If there is any blockage in the restrictor, before further flight, inspect the freewheel assembly clutch, inner shaft, outer shaft, forward seal, cap, and bearings for wear, corrosion, nicks, scratches, and cracks; the splines for wear, cracks, chipped teeth, and broken teeth; the housing for flaking; and for free rotation and engagement of the clutch and bearing. If there is any damage that exceeds allowable limits or if the clutch or bearing does not engage or freely rotate, before further flight, repair or replace the freewheel assembly.
   2. Clean, inspect, and flush each removed fitting, restrictor, tube, hose, and filter with dry cleaning solvent. Do not approve for return to service until each restrictor is free from contamination.

2. For Model 206A, 206B, 206L, 206L-1, 206L-3, and 206L-4 helicopters with a reducer, replace the reducer with a filter part number 50-075-1.

(f) Special Flight Permits

Special flight permits are prohibited.
(g) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Safety Management Section, Rotorcraft Standards Branch, FAA, may approve AMOCs for this AD. Send your proposal to: David Hatfield, Aviation Safety Engineer, Safety Management Section, Rotorcraft Standards Branch, FAA, 10101 Hillwood Pkwy., Fort Worth, TX 76177; telephone (817) 222-5110; email 9-ASW-FTW-AMOC-Requests@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) Bell Helicopter Alert Service Bulletin (ASB) 206-14-132, ASB 206L-14-174, and ASB 407-14-106, all Revision A and dated February 9, 2016, which are not incorporated by reference, contain additional information about the subject of this AD. For service information identified in this AD, contact Bell Helicopter Textron Canada Limited, 12,800 Rue de l'Avenir, Mirabel, Quebec J7J1R4; telephone (450) 437-2862 or (800) 363-8023; fax (450) 433-0272; or at http://www.bellcustomer.com/files/. You may review a copy of the service information at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy., Room 6N-321, Fort Worth, TX 76177.


(i) Subject

Joint Aircraft Service Component (JASC) Code: 6300, Main Rotor Drive System.

Issued in Fort Worth, Texas, on May 3, 2019.
Lance T. Gant,
Director, Compliance & Airworthiness Division,
Aircraft Certification Service.