
Sektion 2. Utlandstillverkad flygmateriel

TITEL: Kontroll/byte av bultar för vevaxelns drivhjul

GÄLLER: Modell O-540-F1B5 installerad i men ej begränsad till helikopter Robinson R44.

ÅTGÄRD: Utför åtgärder angivna i bifogad kopia av FAA AD 99-03-05

TID FÖR ÅTGÄRD: Inom 10 flygtimmar eller 3 dagar vilket som först inträffar räknat från 18 februari 1999

UNDERLAG: FAA AD 99-03-05

REFERENS: FAA AD 99-03-05

BESLUTSDATUM: 1999-02-12

LFS 1999:27

Åtgärder enligt LVD utgör nödvändig förutsättning för ifrågavarande flygmateriels luftvärdighet. Referens BCL M 1.11.

Anteckning om åtgärd, som vidtagits i enlighet med LVD, skall införas i teknisk journal för berörd flygmateriel med hänvisning till ifrågavarande LVD-nummer. Angivet underlag refererar till senast gällande revision/utgåva. LVD utges i luftfartsverkets författningssamlingar LFS.

Postadress	Gatuadress	Telefonnummer	Telegram	Telex
601 79 NORRKÖPING	Vikboplan 11	011-192000	Civilair Norrköping	62450

[4910-13-U]

Bilaga till LVD 2943

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39 [64 FR 5149 NO. 22 02/03/99]

[Docket No. 98-ANE-73-AD; Amendment 39-11019; AD 99-03-05]

RIN 2120-AA64

Airworthiness Directives; Textron Lycoming Model O-540-F1B5 Reciprocating Engines

AGENCY: Federal Aviation Administration, DOT.

ACTION: Final rule; request for comments.

SUMMARY: This amendment adopts a new airworthiness directive (AD) that is applicable to Textron Lycoming Model O-540-F1B5 reciprocating engines. This action requires the removal and replacement of the crankshaft gear retaining bolts. This amendment is prompted by 2 reported failures of the crankshaft gear retaining bolts. The actions specified in this AD are intended to prevent failure of the crankshaft gear retaining bolts, which can result in engine failure and subsequent autorotation and forced landing.

DATES: Effective February 18, 1999.

Comments for inclusion in the Rules Docket must be received on or before April 5, 1999.

ADDRESSES: Submit comments in triplicate to the Federal Aviation Administration (FAA), New England Region, Office of the Regional Counsel, Attention: Rules Docket No. 98-ANE-73-AD, 12 New England Executive Park, Burlington, MA 01803-5299. Comments may also be sent via the Internet using the following address: "9-ad-engineprop@faa.gov". Comments sent via the Internet must contain the docket number in the subject line.

Information regarding this AD may be examined at the FAA, New England Region, Office of the Regional Counsel, 12 New England Executive Park, Burlington, MA; or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

FOR FURTHER INFORMATION CONTACT: Rocco Viselli, Aerospace Engineer, New York Aircraft Certification Office, FAA, Engine and Propeller Directorate, 10 Fifth St., 3rd Floor, Valley Stream, NY 11581-1200; telephone (516) 256-7531, fax (516) 568-2716.

SUPPLEMENTARY INFORMATION: The Federal Aviation Administration (FAA) has received reports of 2 failures of the crankshaft gear retaining bolts on Textron Lycoming Model O-540-F1B5 reciprocating engines, installed on Robinson R44 series rotorcraft. The investigation revealed that the head of the retaining bolts sheared off allowing the crankshaft gear to disengage. The crankshaft gear drives both magnetos and the camshaft. Failure of the retaining bolt results in total loss of power without prior warning. The FAA has determined that the 2 crankshaft gear bolts to fail in service failed from a condition known as hydrogen embrittlement. This condition results from the underbaking process during manufacturing, which leads to incomplete hydrogen relief, and as such, the bolts can be susceptible to hydrogen embrittlement. Therefore, the FAA has determined that this condition affects only a specific population of retaining bolts, and has identified by serial number the specific engines that require replacement of the suspect bolts. This condition, if not corrected, could result in failure of the crankshaft gear retaining bolts, which can result in engine failure and subsequent autorotation and forced landing.

The suspect crankshaft gear retaining bolts must be replaced by either Textron Lycoming or Robinson Helicopter company maintenance personnel. In order to allow the removal and replacement of the suspect bolts without removing the engine from the helicopter, a complex procedure is required. This procedure requires removal of the accessory gear case without removal of the oil sump, which is beyond the scope of current engine service instructions.

Since an unsafe condition has been identified that is likely to exist or develop on engines of the same type design, this AD is being issued to prevent crankshaft gear retaining bolt failure. This AD requires removal and replacement of the crankshaft gear retaining bolts. The actions are required to be accomplished in accordance with the service documents described previously.

Since a situation exists that requires the immediate adoption of this regulation, it is found that notice and opportunity for prior public comment hereon are impracticable, and that good cause exists for making this amendment effective in less than 30 days.

Comments Invited

Although this action is in the form of a final rule that involves requirements affecting flight safety and, thus, was not preceded by notice and an opportunity for public comment, comments are invited on this rule. Interested persons are invited to comment on this rule by submitting such written data, views, or arguments as they may desire. Communications should identify the Rules Docket number and be submitted in triplicate to the address specified under the caption "ADDRESSES." All communications received on or before the closing date for comments will be considered, and this rule may be amended in light of the comments received. Factual information that supports the commenter's ideas and suggestions is extremely helpful in evaluating the effectiveness of the AD action and determining whether additional rulemaking action would be needed.

Comments are specifically invited on the overall regulatory, economic, environmental, and energy aspects of the rule that might suggest a need to modify the rule. All comments submitted will be available, both before and after the closing date for comments, in the Rules Docket for examination by interested persons. A report that summarizes each FAA-public contact concerned with the substance of this AD will be filed in the Rules Docket.

Commenters wishing the FAA to acknowledge receipt of their comments submitted in response to this notice must submit a self-addressed, stamped postcard on which the following statement is made: "Comments to Docket Number 98-ANE-73-AD." The postcard will be date stamped and returned to the commenter.

The regulations adopted herein will not have substantial direct effects 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. Therefore, in accordance with Executive Order 12612, it is determined that this final rule does not have sufficient federalism implications to warrant the preparation of a Federalism Assessment.

The FAA has determined that this regulation is an emergency regulation that must be issued immediately to correct an unsafe condition in aircraft, and is not a "significant regulatory action" under Executive Order 12866. It has been determined further that this action involves an emergency regulation under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979). If it is determined that this emergency regulation otherwise would be significant under DOT Regulatory Policies and Procedures, a final regulatory evaluation will be prepared and placed in the Rules Docket. A copy of it, if filed, may be obtained from the Rules Docket at the location provided under the caption "ADDRESSES."

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Safety.

Adoption of the Amendment

Accordingly, pursuant to the authority delegated to me by the Administrator, the Federal Aviation Administration 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. Section 39.13 is amended by adding the following new airworthiness directive:

AIRWORTHINESS DIRECTIVE
REGULATORY SUPPORT DIVISION
P.O. BOX 26460
OKLAHOMA CITY, OKLAHOMA 73125-0460



The following Airworthiness Directive issued by the Federal Aviation Administration in accordance with the provisions of Federal Aviation Regulations, Part 39, applies to an aircraft model of which our records indicate you may be the registered owner. Airworthiness Directives affect aviation safety and are regulations which require immediate attention. You are cautioned that no person may operate an aircraft to which an Airworthiness Directive applies, except in accordance with the requirements of the Airworthiness Directive (reference FAR Subpart 39.3).

99-03-05 Textron Lycoming: Amendment 39-11019. Docket 98-ANE-73-AD.

Applicability: Textron Lycoming Model O-540-F1B5 reciprocating engines, with the following Textron Lycoming Engine Serial Numbers, installed on but not limited to Robinson Helicopters Co. Model R-44 rotorcraft.

L-24545-40A	L-25087-40A	L-25126-40A	L-25161-40A
L-24628-40A	L-25088-40A	L-25127-40A	L-25162-40A
L-24766-40A	L-25089-40A	L-25128-40A	L-25164-40A
L-24772-40A	L-25090-40A	L-25129-40A	L-25166-40A
L-25050-40A	L-25091-40A	L-25130-40A	L-25167-40A
L-25052-40A	L-25092-40A	L-25131-40A	L-25168-40A
L-25053-40A	L-25093-40A	L-25132-40A	L-25169-40A
L-25054-40A	L-25094-40A	L-25133-40A	L-25170-40A
L-25063-40A	L-25095-40A	L-25134-40A	L-25171-40A
L-25064-40A	L-25096-40A	L-25135-40A	L-25172-40A
L-25065-40A	L-25097-40A	L-25136-40A	L-25173-40A
L-25066-40A	L-25098-40A	L-25137-40A	L-25174-40A
L-25067-40A	L-25099-40A	L-25138-40A	L-25175-40A
L-25068-40A	L-25100-40A	L-25139-40A	L-25176-40A
L-25069-40A	L-25101-40A	L-25140-40A	L-25177-40A
L-25070-40A	L-25102-40A	L-25141-40A	L-25178-40A
L-25071-40A	L-25103-40A	L-25142-40A	L-25179-40A
L-25072-40A	L-25104-40A	L-25143-40A	L-25180-40A
L-25073-40A	L-25105-40A	L-25144-40A	L-25181-40A
L-25074-40A	L-25106-40A	L-25145-40A	L-25182-40A
L-25075-40A	L-25116-40A	L-25146-40A	L-25183-40A
L-25076-40A	L-25117-40A	L-25149-40A	L-25184-40A
L-25077-40A	L-25118-40A	L-25150-40A	L-25185-40A
L-25078-40A	L-25119-40A	L-25154-40A	L-25186-40A
L-25080-40A	L-25120-40A	L-25155-40A	L-25188-40A
L-25081-40A	L-25121-40A	L-25156-40A	L-25189-40A
L-25083-40A	L-25122-40A	L-25157-40A	L-25190-40A
L-25084-40A	L-25123-40A	L-25158-40A	L-25191-40A

L-25085-40A	L-25124-40A	L-25159-40A	L-25192-40A
L-25086-40A	L-25125-40A	L-25160-40A	L-25193-40A
L-25198-40A	L-25200-40A	L-25201-40A	L-25202-40A
L-25204-40A	L-25206-40A	L-25207-40A	L-25208-40A
L-25211-40A	L-25212-40A	L-25213-40A	L-25214-40A
L-25216-40A	L-25217-40A	L-25218-40A	L-25219-40A
L-25221-40A	L-25222-40A	L-25223-40A	L-25228-40A
L-25229-40A	L-25230-40A	L-25231-40A	L-25232-40A
L-25233-40A	L-25234-40A	L-25235-40A	L-25236-40A
L-25237-40A	L-25238-40A	L-25239-40A	L-25240-40A
L-25242-40A	L-25243-40A	L-25244-40A	L-25246-40A
L-25249-40A	L-25250-40A	L-25251-40A	L-25252-40A
L-25257-40A			

Note 1: This airworthiness directive (AD) applies to each engine identified in the preceding applicability provision, regardless of whether it has been modified, altered, or repaired in the area subject to the requirements of this AD. For engines that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must request approval for an alternative method of compliance in accordance with paragraph (b) of this AD. The request should include an assessment of the effect of the modification, alteration, or repair on the unsafe condition addressed by this AD; and, if the unsafe condition has not been eliminated, the request should include specific proposed actions to address it.

Compliance: Required as indicated, unless accomplished previously.

To prevent failure of the crankshaft gear retaining bolts, which can result in engine failure and subsequent autorotation and forced landing, accomplish the following:

(a) Within 10 hours time in service, or 3 days after the effective date of this AD, whichever occurs first, have the crankshaft gear retaining bolt, part number STD-2209, replaced by Textron Lycoming or Robinson Helicopter Company.

(b) An alternative method of compliance or adjustment of the compliance time that provides an acceptable level of safety may be used if approved by the Manager, New York Aircraft Certification Office. Operators shall submit their requests through an appropriate FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager, New York Aircraft Certification Office.

Note 2: Information concerning the existence of approved alternative methods of compliance with this airworthiness directive, if any, may be obtained from the New York Aircraft Certification Office.

(c) Special flight permits may be issued in accordance with sections 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate the aircraft to a location where the requirements of this AD can be accomplished.

(d) This amendment becomes effective on February 18, 1999.

FOR FURTHER INFORMATION CONTACT: Rocco Viselli, Aerospace Engineer, New York Aircraft Certification Office, FAA, Engine and Propeller Directorate, 10 Fifth St., 3rd Floor, Valley Stream, NY 11581-1200; telephone (516) 256-7531, fax (516) 568-2716.