



Airbus Helicopters, Inc.
Technical Support
2701 Forum Drive
Grand Prairie, TX 75052

January 8, 2020

Subject: **GLOBAL AMOC for AD 2000-18-13**
Attachments: AD 2000-18-13 Issue Dated September 5, 2000
GLOBAL AMOC Dated December 19, 2019
MM Chapter 101-15.2 Rev 7

To all BO105LSA3 Operators,

On September 5, 2000, AD 2000-18-13 became effective for the Airbus Helicopter model BO105LSA3. The Maintenance Manual for the above model has increased the Life Limit of the Tension Torsion Straps identified as 117-14111 from 10 years or 40,000 flights to 12 years or 40,000 flights.

This letter is to bring to our customers attention that the attached AMOC letter is to allow the current Maintenance Manual service life limits listed in Chapter 101 Rev 7 to be used for Tension Torsion Straps with PN 117-14111.

Best Regards,

A handwritten signature in black ink, appearing to read "Ken Arnold", written over a horizontal line.

Ken Arnold
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Airworthiness Directive

► Federal Register Information

▼ Header Information

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39 [65 FR 55452 9/14/2000]

Docket No. 99-SW-68-AD; Amendment 39-11899; AD 2000-18-13

RIN 2120-AA64

Airworthiness Directives; Eurocopter Canada Ltd. Model BO 105 LS A-3 Helicopters
PDF Copy (If Available):

▼ Preamble Information

AGENCY: Federal Aviation Administration, DOT

ACTION: Final rule

SUMMARY: This amendment supersedes an existing airworthiness directive (AD) that applies to Eurocopter Canada Ltd. Model BO 105 LS A-3 helicopters. That AD currently requires, before further flight, creating a component log card or equivalent record and determining the calendar age and number of flights on each tension-torsion (TT) strap, and inspecting and removing, as necessary, certain unairworthy TT straps. This amendment establishes a life limit for certain main rotor TT straps. This amendment is prompted by an accident in which a main rotor blade (blade) separated from a Eurocopter Deutschland GMBH (ECD) Model MBB-BK 117 helicopter due to fatigue failure of a TT strap. The same part-numbered TT strap is used on the Model BO 105 LS A-3 helicopters. The actions specified by this AD are intended to prevent fatigue failure of a TT strap, loss of a blade, and subsequent loss of control of the helicopter.

DATES: Effective October 19, 2000.

FOR FURTHER INFORMATION CONTACT: Charles Harrison, Aviation Safety Engineer, FAA, Rotorcraft Directorate, Rotorcraft Standards Staff, Fort Worth, Texas 76193-0110, telephone (817) 222-5128, fax (817) 222-5961.

SUPPLEMENTARY INFORMATION: A proposal to amend part 39 of the Federal Aviation Regulations (14 CFR part 39) by superseding AD 99-20-13, Amendment 39-11371 (64 FR 56156, October 18, 1999), which applies to Eurocopter Canada Ltd. Model BO 105 LS A-3

helicopters, was published in the Federal Register on June 19, 2000 (65 FR 37924). That action proposed to require establishing a life limit for the TT straps of 120 months or 25,000 flights, whichever occurs first.

Interested persons have been afforded an opportunity to participate in the making of this amendment. No comments were received on the proposal or the FAA's determination of the cost to the public. The FAA has determined that air safety and the public interest require the adoption of the rule as proposed.

The FAA estimates that 20 helicopters of U.S. registry will be affected by this AD, that it will take approximately 16 work hours per helicopter to accomplish the required actions, and that the average labor rate is \$60 per work hour. Required parts will cost approximately \$10,400 per helicopter. Based on these figures, the total cost impact of the AD on U.S. operators is estimated to be \$227,200.

The regulations adopted herein 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. Therefore, it is determined that this final rule does not have federalism implications under Executive Order 13132.

For the reasons discussed above, I certify that this action (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); and (3) 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. A final evaluation has been prepared for this action and it is contained in the Rules Docket. A copy of it may be obtained from the Rules Docket at the FAA, Office of the Regional Counsel, Southwest Region, 2601 Meacham Blvd., Room 663, Fort Worth, Texas.

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 removing Amendment 39-11371 (64 FR 56156, October 18, 1999), and by adding a new airworthiness directive (AD), Amendment 39-11899, to read as follows:

▼ Regulatory Information

2000-18-13 EUROCOPTER CANADA LTD.: Amendment 39-11899. Docket No. 99-SW-68-AD. Supersedes AD 99-20-13, Amendment 39-11371, Docket No. 99-SW-56-AD.

Applicability: Model BO 105 LS A-3 helicopters, with part number (P/N) 2604067 (Bendix) or J17322-1 (Lord) rotor tension torsion (TT) strap, installed, certificated in any category.

NOTE 1: This AD applies to each helicopter identified in the preceding applicability provision, regardless of whether it has been otherwise modified, altered, or repaired in the area subject to the requirements of this AD. For helicopters 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 (d) 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 fatigue failure of a TT strap, loss of a main rotor blade (blade), and subsequent loss of control of the helicopter, accomplish the following:

(a) Before further flight,

(1) Create a component log card or equivalent record for each TT strap.

(2) Review the history of each helicopter and TT strap. Determine the age since initial installation on any helicopter (age) and the number of flights on each TT strap. Enter both the age and the number of flights for each TT strap on the component log card or equivalent record. When the number of flights is unknown, multiply the number of hours time-in-service (TIS) by 5 to determine the number of flights. If a TT strap has been previously used at any time on Model BO-105LS A-3 "SUPER LIFTER", BO-105 CB-5, BO-105 CBS-5, BO-105 DBS-5, or any MBB-BK 117 series helicopter, multiply the total number of flights accumulated on those other models by a factor of 1.6 and then add that result to the number of flights accumulated on the helicopters affected by this AD.

(3) Remove any TT strap from service if the total hours TIS or number of flights and age cannot be determined.

(b) Remove any TT strap, P/N 2604067 or J17322-1, that has been in service 120 months since initial installation on any helicopter or accumulated 40,000 flights (a flight is a takeoff and a landing). Replace the TT strap with an airworthy TT strap.

(c) This AD revises the Airworthiness Limitations Section of the maintenance manual by establishing a life limit for the TT strap, P/N 2604067 and J17322-1, of 120 months or 40,000 flights, whichever occurs first.

(d) 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, Regulations Group, Rotorcraft Directorate, FAA. Operators shall submit their requests through an FAA Principal Maintenance Inspector, who may concur or comment and then send it to the Manager, Regulations Group.

NOTE 2: Information concerning the existence of approved alternative methods of compliance with this AD, if any, may be obtained from the Regulations Group.

(e) 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 helicopter to a location where the requirements of this AD can be accomplished.

(f) This amendment becomes effective on October 19, 2000.

NOTE 3: The subject of this AD is addressed in Transport Canada Civil Aviation, Canada, AD CF-99-24R1, dated September 22, 1999.

▼ Footer Information

Issued in Fort Worth, Texas, on September 5, 2000.
Henry A. Armstrong,
Manager, Rotorcraft Directorate,
Aircraft Certification Service.

▼ Comments



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

Southwest Region
Arkansas, Louisiana,
New Mexico, Oklahoma,
Texas

Fort Worth, TX 76177

December 19, 2019

Mr. Dave Vogel
Senior Technical Representative
Airbus Helicopters
2701 Forum Drive
Grand Prairie, TX 75052

Dear Mr. Vogel:

The Federal Aviation Administration (FAA) received your letter dated 25 November 2019, requesting FAA approval of an Alternate Method of Compliance (AMOC) to paragraphs (a) (3), (b) and (c) of AD 2000-18-13 on behalf of all operators of BO105 LS A3 helicopters.

Paragraph (b) of this AD instructs the user to remove any TT strap that has been in service 120 months since new or accumulated 40,000 flights (a flight is a takeoff and a landing). Paragraph (c) of this AD revises the Airworthiness Limitations Section of the Maintenance Manual by establishing a life limit for the TT strap, P/N J17322-1 (new P/N 117-14111), of 120 months or 40,000 flights, whichever occurs first.

The AMOC requests using Revision 7 of the BO105 LS A3 Maintenance Manual Service Life Limit Table 101-15.2 which has extended the life limit for the tension torsion strap (117-14111) from 120 months or 25,000 flights to 144 months or 40,000 flights (whichever occurs first).

Your AMOC is FAA approved for paragraphs (b) and (c).

This FAA AMOC is transferable with the aircraft to an operator who operates the aircraft under U.S. registry.

Before using this AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

All provisions of AD 2000-18-13 that are not specifically referenced above remain fully applicable and must be complied with accordingly.

This AMOC only applies to the FAA AD listed above. The FAA does not have the authority to approve this as an AMOC to any AD issued by another civil aviation authority (CAA). Approval of an AMOC to another CAA's AD must come from that CAA.

A copy of this response will be forwarded to the CAA where these aircraft are registered for their consideration.

If there are any questions regarding this approval, please contact Matthew Fuller by mail, telephone (817) 222-5161, or email matthew.fuller@faa.gov.

Sincerely,



Stephen Barbini
Manager, Safety Management Section, Policy & Innovation Division
Aircraft Certification Service

Cc: Fort Worth FSDO, Fort Worth AE

101 - 15.2 Service Times of Life Limited Parts of the Helicopter

PART	PART No.	RETIREMENT TIME
LIFTING SYSTEM		
Rotor Mast	4639 305 002 4639 305 095	11400 hours on condition
Tension-Torsion Strap	117-14110 (2604067) ^④	25000 flights 10 years ^② ^③
Tension-Torsion Strap	117-14111 (J17922-1) ^④	40000 flights 12 years ^② ^③
Hexagon Bolt	117-13103.13	7400 hours
Hexagon Bolt	105-101021.13	7400 hours
Nut	105-142241.01	122850 flights or 18900 hours ^②
Bolts	105-141041.22/23	109200 flights or 16800 hours ^②
TAIL UNIT		
Laminated Pile Assy	105-31727	11700 flights ^①
Laminated Pile Assy	105-317261	25350 flights or 3900 hours ^②
Fitted Bolt	105-317391.12	25350 flights or 3900 hours ^②
Fitted Bolt	1121-31712.10	11700 flights ^①
FLIGHT CONTROLS		
Flat Spring	D133-741.11E	2400 hours or 15500 flights ^②
Flat Spring	105-456214.11	2400 hours or 15500 flights ^②
Flat Spring	105-457211.14	2400 hours or 15500 flights ^②
Bearing Bracket	105-42123	1500 hours
Fixed Bolt	105-101021.17 (LN 9038 K08018)	6000 hours
Hinged Support Assembly	105-42124	1500 hours
Hinged Support Assembly	105-42125	1500 hours

For time change items of engine, refer to vendor documentation 250-C28C

- ^① If the numbers of flight cannot be determined, 1800 hours shall be utilized.
- ^② Whichever occur first.
- ^③ The calendar life of a TT-strap starts when installed in a main rotor hub and subjected to first rotation on the helicopter. At that date the storage time of 5 years from date of cure must not be exceeded.
- ^④ This part number have been changed by ASB-BO 105 LS-10-10. The old part number are shown for information in brackets.

Figure 101-39 Service Times of Life Limited Parts of the Helicopter (Sheet 1 of 2)