



Airworthiness Directive

AD No.: 2021-0125R1

Issued: 30 January 2023

Note: This Airworthiness Directive (AD) is issued by EASA, acting in accordance with Regulation (EU) 2018/1139 on behalf of the European Union, its Member States and of the European third countries that participate in the activities of EASA under Article 129 of that Regulation.

This AD is issued in accordance with Regulation (EU) 748/2012, Part 21.A.3B. In accordance with Regulation (EU) 1321/2014 Annex I Part M.A.301, or Annex Vb Part ML.A.301, as applicable, the continuing airworthiness of an aircraft shall be ensured by accomplishing any applicable ADs. Consequently, no person may operate an aircraft to which an AD applies, except in accordance with the requirements of that AD, unless otherwise specified by the Agency [Regulation (EU) 1321/2014 Annex I Part M.A.303, or Annex Vb Part ML.A.303, as applicable] or agreed with the Authority of the State of Registry [Regulation (EU) 2018/1139, Article 71 exemption].

Design Approval Holder's Name:

GE AVIATION CZECH

Type/Model designation(s):

M601 engines

Effective Date: Revision 1: 06 February 2023
Original issue: 11 May 2021

TCDS Number(s): EASA.E.070

Foreign AD: Not applicable

Revision: This AD revises EASA Emergency AD 2021-0125-E dated 07 May 2021.

ATA 72 – Engine – Critical Parts – Replacement

Manufacturer(s):

GE Aviation Czech (GEAC) s.r.o., formerly Walter Engines a.s.

Applicability:

M601E engines that have a centrifugal compressor case Part Number (P/N) M601-154.61 installed.

These engines are known to be installed on, but not limited to, Aircraft Industries (formerly LET) L-410 series.

Definitions:

For the purpose of this AD, the following definitions apply:

The ASB: GEAC ASB-M601E-72-30-00-0105.

The ALS: The Airworthiness Limitations Section of the GEAC Engine Maintenance Manual (EMM) No. 0982309 Revision 21, No. 0982055 Revision 21, No. 0982302 Revision 20 and No. 0982051 Revision 17, or later approved revisions.

Critical part: Centrifugal compressor case having P/N M601-154.61.



Recalculated life: For a critical part, the consumed life calculated in accordance with the instructions of section 2.1 of the ASB at Revision 2. The same instructions were provided in Section 2.2 of ASB-M601D-72-00-00-0075, ASB-M601E-72-00-00-0106, ASB M601F 72 00-00-0057 and ASB-M601Z-72-00-00-0057 (issued as a single document).

Reason:

Errors were identified in the ALS section of the EMM, including errors in the formula to determine the equivalent flight cycles of certain critical parts, and certain P/Ns. It was also determined that, inadvertently, some M601E engines have a centrifugal compressor case P/N M601-154.61 installed, the life limit of which is not listed in the ALS section of the applicable EMM.

These conditions, if not corrected, could lead to operation of an engine beyond the life limit of one or more critical parts, possibly resulting in failure of the engine and consequent reduced control of the aeroplane.

To address these potential unsafe conditions, GEAC issued the ASB-M601D-72-00-00-0075, ASB-M601E-72-00-00-0106, ASB M601F 72 00-00-0057 and ASB-M601Z-72-00-00-0057 (single document), providing instructions to recalculate the consumed life of certain critical parts, and ASB-M601E-72-30-00-0105 (later revised), providing instructions for certain M601E engines to replace the centrifugal compressor case with an eligible part. Consequently, EASA issued Emergency AD 2021-0125-E, to require replacement of certain critical parts, the recalculated life of which exceeded the applicable life limit, and replacement of the centrifugal compressor case on certain M601E engines.

Since that AD was issued, GEAC published the ALS, taking over certain requirements addressed by EASA AD 2021-0125-E, and EASA published AD 2023-0020, requiring accomplishment of the actions specified in the ALS.

For the reason described above, this AD is revised to limit the Applicability and to remove the requirements that have been included in the ALS.

Required Action(s) and Compliance Time(s):

Required as indicated, unless accomplished previously:

Replacement:

- (1) Before the recalculated life, as defined in this AD, of a critical part exceeds 11 000 equivalent flight cycles, or within 350 flight hours after 11 May 2021 [the effective date of original issue of this AD], whichever occurs first, replace that critical part with a centrifugal compressor case having P/N M601-154.6, P/N M601-154.65 or P/N M601-153.5 in accordance with the instructions of the ASB.

Life Limit Implementation:

- (2) [Deleted].
- (3) [Deleted].



Part(s) Installation:

(4) [Deleted].

Engine Installation:

(5) [Deleted].

Ref. Publications:

GEAC ASB-M601E-72-30-00-0105 original issue dated 07 May 2021, or Revision 1 dated 02 July 2021, or Revision 2 dated 17 January 2023.

The use of later approved revisions of the above-mentioned document is acceptable for compliance with the requirements of this AD.

Remarks:

1. If requested and appropriately substantiated, EASA can approve Alternative Methods of Compliance for this AD.
2. Based on the required actions and the compliance time, EASA have decided to issue a Final AD with Request for Comments, postponing the public consultation process until after publication.
3. Enquiries regarding this AD should be referred to the EASA Safety Information Section, Certification Directorate. E-mail: ADs@easa.europa.eu.
4. Information about any failures, malfunctions, defects or other occurrences, which may be similar to the unsafe condition addressed by this AD, and which may occur, or have occurred on a product, part or appliance not affected by this AD, can be reported to the [EU aviation safety reporting system](#). This may include reporting on the same or similar components, other than those covered by the design to which this AD applies, if the same unsafe condition can exist or may develop on an aircraft with those components installed. Such components may be installed under an FAA Parts Manufacturer Approval (PMA), Supplemental Type Certificate (STC) or other modification.
5. For any question concerning the technical content of the requirements in this AD, please contact: GE Aviation Czech, Beranových 65, 199 02 Praha 9 – Letňany, Czech Republic, Telephone: +420 222 538 999, Website: <https://www.geaviation.cz/customer-support>, E-mail: tp.ops@ge.com.

