

Emergency Airworthiness Directive

AD No.: 2024-0040-E

Issued: 08 February 2024

Note: This Emergency 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 s.r.o.

Type/Model designation(s):

M601 engines

Effective Date: 12 February 2024

TCDS Number(s): EASA.E.070

Foreign AD: Not applicable

Supersedure: None

ATA 72 – Engine – Centrifugal Compressor Case – Inspection

Manufacturer(s):

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

Applicability:

M601D, M601D-1, M601D-2, M601D-11, M601D-11NZ, M601E, M601E-11, M601E-11A, M601E-11AS, M601E-11S, M601E-21, M601F, M601FS and M601Z engines, all serial numbers.

These engines are known to be installed on, but not limited to, Aircraft Industries (formerly LET) L-410 series; Air Tractor AT-300, AT-400 and AT-500 series; Allied Ag Cat Productions Inc. (formerly Grumman) G-164 series; Pacific Aerospace FU-24; PZL "Warszawa-Okecie" PZL-106 (Kruk) series; GENERAL ATOMICS AeroTec Systems GmbH (formerly RUAG, Dornier) Do 28 series; Thrush Aircraft (formerly Quality, Ayres, Rockwell) S-2R series; Viking Air Ltd. (formerly de Havilland Canada) DHC-3 Otter aeroplanes; Zlin Aircraft a.s. Z 37 T and Z 137 T; and Pacific Aerospace Corporation (formerly Fletcher) FU-24 aeroplanes.

Definitions:

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

The ASB: GEAC Alert Service Bulletin (ASB) SB-000471/00.

Affected part: Centrifugal compressor case, having Part Number (P/N) M601-154.55 or P/N M601-154.65, except those which passed an inspection (no cracks found) in accordance with the instructions of the ASB.

Groups: Group 1 engines are those that have an affected part installed. Group 2 engines are those that do not have an affected part installed.

Reason:

A crack on the centrifugal compressor case mount pad weld area was reported on an engine, leading to an unscheduled engine removal. Further investigation identified a non-conforming welding in the location of the failure (lack of welding penetration).

This condition, if not detected and corrected could lead to crack propagation, possibly resulting in engine separation and reduced control of the aeroplane.

To address this potential unsafe condition, GEAC issued the ASB to provide instructions for a one-time detailed visual inspection (DVI) of affected parts, and, depending on findings, accomplishment of applicable corrective action(s).

For the reason described above, this AD requires a DVI of the affected parts and, depending on findings, accomplishment of corrective action(s). This AD also provides requirements for reporting and for installation of affected parts.

This AD is considered to be an interim action and further AD action may follow.

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

Required as indicated by this AD, unless the action(s) required by this AD have been already accomplished:

Inspection:

- (1) For Group 1 engines: Within 10 flight hours or 30 days after the effective date of this AD, whichever occurs first, inspect each affected part in accordance with the instructions of the ASB.

Corrective Action(s):

- (2) If, during the inspection as required by paragraph (1) of this AD, any crack is detected on an affected part, before next flight, contact GEAC for approved instructions and accomplish these instructions accordingly, or before next flight replace that affected part with a non-affected part, in accordance with the instructions of the ASB.

Reporting:

- (3) Within 30 days after the effective date of this AD, report the inspection results (including no findings) to GEAC. This can be accomplished using the Accomplishment Form of the ASB.

Part(s) Installation:

- (4) For Group 1 and Group 2 engines: From the effective date of this AD, do not (re)-install an affected part on an engine.



- (5) For Group 1 engines: From the effective date of this AD, it is allowed to install an engine on an aeroplane, provided that the affected part of that engine passed an inspection (no cracks detected) in accordance with the instructions of the ASB (see Note 1 of this AD).

Note 1: Removal of an engine from an aircraft and subsequent reinstallation of that engine on the same aircraft, accomplished during a single maintenance visit, is not considered as 'installation' as specified in paragraph (5) of this AD.

Ref. Publications:

GEAC ASB SB-000471/00 original issue dated 02 February 2024.

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. The results of the safety assessment have indicated the need for immediate publication and notification, without the full consultation process.
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.

