Airworthiness Directive

AD No.: 2022-0212

Issued: 18 October 2022

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:
PILATUS AIRCRAFT Ltd

Type/Model designation(s):
PC-12 aeroplanes

Effective Date: 01 November 2022

TCDS Number(s): EASA.A.089

Foreign AD: Not applicable

Supersedure: None

ATA 21 – Air Conditioning – Vapour Cycle Cooling System / Compressor Condenser Cables – Inspection / Modification

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Manufacturer(s):
Pilatus Aircraft Ltd (Pilatus)

Applicability:
PC-12, PC-12/45, PC-12/47 and PC-12/47E aeroplanes, manufacturer serial numbers 466, 467, 725, 861, 1032, 1052, 1082, 1115, 1232, 1411, 1428, 1439, 1530, 1541, 1663, 1725 and 1802.

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

The SB: Pilatus PC-12 Service Bulletin (SB) 21-016.

Reason:
An occurrence has been reported of burning smell coming from the air conditioning vents during the climb phase of a PC-12/47E aeroplane. Troubleshooting has identified insufficient grounding of the Vapour Cycle Cooling System (VCCS) compressor/condenser at frame 37, resulting in severe heat damage to the baseplate and adjacent metal support structure. It has been determined that this condition may occur on aeroplanes equipped in production with large oxygen bottle installation on the right-hand side of the rear fuselage.

This condition, if not detected and corrected, could lead, in case of damage to the oxygen supply line, to an uncontrolled fire and consequent damage to the aeroplane.

To address this potential unsafe condition, Pilatus identified the population of the affected aeroplanes and issued the SB to provide inspection and modification instructions.

For the reason described above, this AD requires a one-time inspection of the power return and chassis grounding cable attachment point at frame 37 and the attachment parts, and the modification of the installation of the VCCS.

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

Required as indicated, unless accomplished previously:

One-Time Inspection:

(1) Within 2 months after the effective date of this AD, inspect the power return and chassis grounding cable attachment points at frame 37, including the attachment parts, in accordance with the instructions of the SB.

Corrective Action(s):

(2) If, during the inspection as required by paragraph (1) of this AD, any discrepancy, as identified in the SB, is detected, before next flight, contact Pilatus for approved corrective action instructions and accomplish those instructions accordingly.

Modification:

(3) Within 2 months after the effective date of this AD, modify the installation of the VCCS compressor/condenser power return cables and install an additional isolated VCCS chassis ground cable in accordance with the instructions of the SB.

Ref. Publications:

Pilatus PC-12 SB 21-016 original issue dated 15 August 2022.

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. This AD was posted on 16 September 2022 as PAD 22-126 for consultation until 14 October 2022. No comments were received during the consultation period.

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: Pilatus Aircraft Ltd Technical Support, CH-6371 Stans, Switzerland, Telephone: +41 848 247 365, E-mail: techsupport.ch@pilatus-aircraft.com, Website: www.pilatus-aircraft.com.