Airworthiness Directive

AD No.: 2021-0185R2

Issued: 07 September 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].

Manufacturer Name:	Type/Model designation(s):
UMLAUT ENGINEERING GmbH	HAFEX (Halon-free) hand-held fire extinguishers

Effective Date:	Revision 2: 14 September 2022 Original issue and Revision 1: 19 August 2021
Foreign AD:	Not applicable
Revision:	This AD revises EASA AD 2021-0185R1 dated 11 August 2021.

ATA 26 – Fire Protection – Hand-operated Fire Extinguishers – Inspection / Replacement

Manufacturer(s):
umlaut engineering GmbH, formerly P3 Engineering GmbH

Applicability:
HAFEX (Halon-free) hand-held fire extinguishers, having Part Number (P/N) P3APP003010A, P/N P3APP003010B or P/N P3APP003010C, all serial numbers (s/n).

The affected fire extinguishers may be eligible for installation on any aircraft and may have been installed during the aircraft manufacturing process (production line), or in-service modification, either through a Supplemental Type Certificate, or using Type Certificate holder approved modification instructions, or through a minor modification approval.

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

The VSB: umlaut engineering GmbH (formerly P3 Engineering GmbH) Vendor Service Bulletin (VSB) P3VSB000003 issue C.

Serviceable part: Any hand-held fire extinguisher that is not affected (the P/N is not listed in the Applicability of this AD) which is eligible for installation on the aircraft; or an affected fire extinguisher that, prior to installation, has passed an inspection (no defect found) in accordance with the instructions of the VSB.

Reason:

A safety issue has been reported on the affected HAFEX fire extinguishers where, under certain environmental conditions, it might not be possible to discharge the extinguisher, resulting in a loss of extinguishing functionality of the equipment. Investigation determined that, after prolonged exposure to high temperature conditions, the spindle can dislodge in the fire extinguisher head, making the fire extinguisher inoperative. Such conditions can occur if an aircraft is parked or stored in hot locations, however, it is not possible for an operator to determine the exact environmental conditions the extinguisher has been (or will be) exposed to in service.

This condition, if not detected and corrected, could prevent proper extinguishing of a fire in the cabin or cockpit, possibly resulting in damage to the aircraft and injury to occupants.

To address this unsafe condition, umlaut engineering GmbH issued the VSB, as defined in this AD, providing instructions to identify and inspect affected fire extinguishers. Consequently, EASA issued AD 2021-0185 (later revised) to require repetitive inspections of each affected fire extinguisher, and, depending on findings, replacement with a serviceable part, as defined in this AD. That AD also required inspection of an affected fire extinguisher, prior to installation.

Since AD 2021-0185R1 was issued, it has been determined that the interval for the repetitive inspection of affected fire extinguishers may be extended from 6 to 12 months.

For the reason described above, this AD is revised to extend the repetitive inspection interval.

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

Required as indicated, unless accomplished previously:

Repetitive Inspections:

(1) Within 30 days after the effective date of this AD, or within 12 months after the last inspection, as applicable, and, thereafter, at intervals not to exceed 12 months, inspect each affected fire extinguisher installed on any aircraft, in accordance with the instructions of paragraph 3.2.C of the VSB, or in accordance with equivalent maintenance instructions issued by the aircraft design (change) approval holder (see Note 1 of this AD).

Note 1: Reporting of inspection results to the manufacturer or to the aircraft design (change) approval holder is not required by this AD.

(2) For an aircraft that, at any time after the effective date of this AD, is not in operation for a period of 30 days or more, before release to service of that aircraft, inspect each affected fire extinguisher installed on that aircraft, in accordance with the instructions of paragraph 3.2.C of the VSB, or in accordance with equivalent maintenance instructions issued by the aircraft design (change) approval holder. Thereafter, inspect each affected fire extinguisher on that

aircraft at intervals not to exceed 12 months (see Note 1 of this AD), as required by paragraph (1) of this AD.

Corrective Action(s):

(3) If, during any inspection as required by paragraph (1) or (2) of this AD, as applicable, it is determined that the safety pin does not touch the valve head, before next flight, or within the time and under the conditions allowed by the provisions specified in the applicable operator's approved Minimum Equipment List (or similar document), remove that affected fire extinguisher from service and replace it with a serviceable part in accordance with instructions provided by the applicable aircraft design (change) approval holder.

Credit:

(4) Inspections, accomplished on an affected fire extinguisher before the effective date of this AD in accordance with the instructions of the VSB at original issue (issue A) or issue B, or equivalent maintenance instructions issued by the aircraft design (change) approval holder, are acceptable to comply with the initial requirements of this AD for that fire extinguisher.

Terminating Action:

(5) None (see Note 2 of this AD).

Note 2: The inspections specified in paragraphs (1) and (2) of this AD are required for affected hand-held fire extinguishers only (the P/N is listed in the Applicability of this AD). No inspections are required on extinguishers which are eligible for installation on the aircraft and which have a P/N not listed in the Applicability of this AD.

Part(s) Installation:

(6) From the effective date of this AD, it is allowed to install (see Note 3 of this AD) on any aircraft an affected fire extinguisher, provided it is a serviceable part, as defined in this AD, and that, following installation, it is inspected at intervals not to exceed 12 months, as required by paragraph (1) of this AD.

Note 3: Removal of an affected fire extinguisher from an aircraft and subsequent reinstallation of that fire extinguisher on that aircraft during the same maintenance visit is not considered ‘install’ as specified in paragraph (6) of this AD.

Ref. Publications:

umlaut Engineering GmbH VSB P3VSB000003 (formerly P3 Engineering GmbH) original issue (issue A) dated 10 May 2021, or issue B dated 14 July 2021, or issue C dated 04 August 2021.

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 original issue of this AD was initially posted on 01 July 2021 as PAD 21-093 for consultation until 15 July 2021, republished on 13 July 2021 as PAD 21-093R1 for consultation until 15 July 2021, and republished on 20 July 2021 as PAD 21-093R2 for consultation until 30 July 2021. The Comment Response Documents can be found in the EASA Safety Publications Tool, in the compressed (zipped) file attached to the record for this AD.

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: umlaut engineering GmbH (formerly P3 Engineering GmbH), Blohmstraße 12, 21079 Hamburg, Germany, website: https://www.umlaut.com/en/hafex, E-mail: hafex@umlaut.com.