



Notification of a Proposal to issue an Airworthiness Directive

PAD No.: 21-093R1

Issued: 13 July 2021

Note: This Proposed Airworthiness Directive (PAD) 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.

In accordance with the EASA Continuing Airworthiness Procedures, the Executive Director is proposing the issuance of an EASA Airworthiness Directive (AD), applicable to the aeronautical product(s) identified below.

All interested persons may send their comments, referencing the PAD Number above, to the e-mail address specified in the 'Remarks' section, prior to the consultation date indicated.

Design (Change) Approval Holder's Name:	Type/Model designation(s) / Modification Description:
AIRBUS	A318, A319, A320, A321, A330, A340, A350 and A380 aeroplanes
AIRBUS HELICOPTERS	AS 332, AS 365, EC 155, EC 175, EC 225, SA 330 and SA 365 helicopters
AIRBUS HELICOPTERS DEUTSCHLAND	EC135, EC635 and MBB-BK117 helicopters
ATR-GIE AVIONS de TRANSPORT REGIONAL	ATR 72 aeroplanes
LEONARDO	AB139, AB 204, AB 205, AB212, AB412, AS-61, AW139, AW169 and AW189 helicopters
SOCIETE AIR FRANCE	Portable Halon-free Fire Extinguishers
WSK PZL-ŚWIDNIK	PZL W-3A helicopters

Effective Date: [TBD - standard: 14 days after AD issue date]

TCDS Number(s): EASA.A.004, EASA.A.015, EASA.A.064, EASA.A.084, EASA.A.110, EASA.A.151, EASA.R.002, EASA.R.006, EASA.R.007, EASA.R.009, EASA.R.010, EASA.R.105, EASA.R.114, EASA.R.150, EASA.R.509 and EASA.R.510; Italy A 150 and A 270

STC Number: EASA Supplemental Type Certificate (STC) 10073853 (original issue or Revision 1)

Foreign AD: Not applicable

Supersedure: None



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

Manufacturer(s):

Airbus, formerly Airbus Industrie; Airbus Helicopters, formerly Eurocopter, Eurocopter France, Aerospatiale, Sud Aviation; Airbus Helicopters Deutschland, formerly Eurocopter Deutschland, Eurocopter Hubschrauber, Messerschmitt-Bölkow-Blohm; Airbus Helicopters Inc., formerly American Eurocopter LLC; ATR-GIE Avions de Transport Régional, formerly EADS ATR - Alenia, Aerospatiale Matra ATR - ALENIA, Aerospatiale - Alenia, Aerospatiale - Aeritalia; Leonardo, formerly Finmeccanica, AgustaWestland, Agusta.; The Boeing Company; and WSK “PZL - Świdnik”.

Applicability:

Airbus A318-111, A318-112, A318-121, A318-122, A319-111, A319-112, A319-113, A319-114, A319-115, A319-131, A319-132, A319-133, A319-151N, A319-153N, A319-171N, A320-211, A320-212, A320-214, A320-215, A320-216, A320-231, A320-232, A320-233, A320-251N, A320-252N, A320-253N, A320-271N, A320-272N, A320-273N, A321-111, A321-112, A321-131, A321-211, A321-212, A321-213, A321-231, A321-232, A321-251N, A321-251NX, A321-252N, A321-252NX, A321-253N, A321-253NX, A321-271N, A321-271NX, A321-272N, A321-272NX, A330-201, A330-202, A330-203, A330-223, A330-223F, A330-243, A330-243F, A330-301, A330-302, A330-303, A330-321, A330-322, A330-323, A330-341, A330-342, A330-343, A330-743L, A330-841, A330-941, A340-211, A340-212, A340-213, A340-311, A340-312, A340-313, A340-541, A340-542, A340-642, A340-643, A350-941, A350-1041, A380-841, A380-842 and A380-861 aeroplanes, all serial numbers (s/n);

Airbus Helicopters AS 332 C, C1, L, L1 and L2, AS 365 N2 and N3, EC 155 B and B1, EC 175 B, EC 225 LP, SA 330 J and SA 365 C1, C2, C3, N and N1 helicopters, all s/n;

Airbus Helicopters Deutschland EC135 P1, P2, P2+, P3, T1, T2, T2+ and T3, EC635 P2+, P3, T1, T2+ and T3, and MBB-BK117 A-1, A-3, A-4, B-1, B-2, C-1, C-2, D-2, D-3 and D-3m helicopters, all s/n;

ATR-GIE Avions de Transport Régional ATR 72-101, ATR 72-102, ATR 72-201, ATR 72-202, ATR 72-211, ATR 72-212 and ATR 72-212A aeroplanes, all s/n;

Leonardo AB139, AB 204 B, AB 205 A-1, AB212, AB412, AB412 EP, AS-61N, AS-61N1, AW139, AW169 and AW189 helicopters, all s/n; and

Boeing 777-200, 777-300ER, 777-F and 787-9 aeroplanes, all s/n on which EASA STC 10073853 has been embodied.

WSK “PZL - Świdnik” PZL W-3A and PZL W-3AS helicopters, all s/n.

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](#).



Affected part: umlaut Engineering GmbH (formerly P3 Engineering GmbH) HAFEX (Halon-free) hand-held fire extinguishers, having Part Number (P/N) P3APP003010A, P/N P3APP003010B or P/N P3APP003010C, all s/n. An affected P/N may have been installed on the aircraft during the manufacturing process (production line), or installed in-service either through a Supplemental Type Certificate, or using TC holder approved modification instructions, or through a minor modification approval.

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

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

Reason:

Occurrences have been reported of an issue on certain HAFEX fire extinguishers, manufactured by umlaut Engineering GmbH (formerly P3 Engineering GmbH), 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 in the fire extinguisher head can dislodge, making the fire extinguisher inoperative. Such conditions can occur if the aircraft is parked or stored in hot locations, however it is not possible for an operator to determine the environmental conditions an extinguisher has been exposed to.

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 parts, as defined in this AD.

For the reason described above, this AD requires repetitive inspections of affected parts, and, depending on findings, replacement of an affected part with a serviceable part, as defined in this AD.

This PAD is revised to expand the Applicability to include certain Boeing aeroplanes which embody EASA STC 10073853.

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

Required as indicated, unless accomplished previously:

Repetitive Inspections:

- (1) For Group 1 aircraft: Within 30 days after the effective date of this AD, and, thereafter, at intervals not to exceed 6 months, inspect each affected part in accordance with the instructions of paragraph 3.2 of the VSB, or equivalent maintenance instructions issued by the design (change) approval holder.



- (2) For a Group 1 aircraft that, at any time after the effective date of this AD, is parked or stored for a period of 30 days or more, before next flight inspect each affected part in accordance with the instructions of paragraph 3.2 of the VSB, or equivalent maintenance instructions issued by the design (change) approval holder. Thereafter, inspect each affected part on that aircraft 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, 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 part from service and replace it with a serviceable part in accordance with instructions provided by the applicable aircraft design approval holder.

Terminating Action:

- (4) None.

Part(s) Installation:

- (5) For Group 1 and Group 2 aircraft: From the effective date of this AD, it is allowed to install on any aircraft an affected part, provided it is a serviceable part, as defined in this AD, and that, following installation, it is inspected at intervals not to exceed 6 months, as required by this AD.

Ref. Publications:

umlaut Engineering GmbH VSB P3VSB000003 (formerly P3 Engineering GmbH) original issue (issue A) dated 10 May 2021.

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

Remarks:

1. This Proposed AD will be closed for consultation on 15 July 2021.
2. Enquiries regarding this PAD should be referred to the EASA Safety Information Section, Certification Directorate. E-mail: ADs@easa.europa.eu.
3. Information about any failures, malfunctions, defects or other occurrences, which may be similar to the unsafe condition addressed by this PAD, and which may occur, or have occurred on a product, part or appliance not affected by this PAD, 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 PAD 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.
4. For any question concerning the technical content of the requirements in this PAD, 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.

