### EASA

## **AIRWORTHINESS DIRECTIVE**

#### AD No.: 2015-0167



#### Date: 12 August 2015

Note: This Airworthiness Directive (AD) is issued by EASA, acting in accordance with Regulation (EC) No 216/2008 on behalf of the European Community, its Member States and of the European third countries that participate in the activities of EASA under Article 66 of that Regulation.

This AD is issued in accordance with EU 748/2012, Part 21.A.3B. In accordance with EU 1321/2014 Annex I, Part M.A.301, 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 [EU 1321/2014 Annex I, Part M.A.303] or agreed with the Authority of the State of Registry [EC 216/2008, Article 14(4) exemption].

**Design Approval Holder's Name:** AIRBUS HELICOPTERS

# Type/Model designation(s):

AS 332 and EC 225 helicopters

TCDS Number: EASA.R.002

Foreign AD: Not applicable

Supersedure:

This AD supersedes EASA AD 2012-0111 dated 22 June 2012.

ATA 52	Doors – Sliding / Plugging Cabin Doors – Limitation / Modification / Inspection
Manufacturer(s):	Airbus Helicopters (formerly Eurocopter, Eurocopter France, Aerospatiale)
Applicability:	AS 332 C, AS 332 C1, AS 332 L, AS 332 L1, AS 332 L2 and EC 225 LP helicopters, all serial numbers, if equipped with one or two cabin lateral sliding and plugging doors incorporating a sliding lateral plug door fitting Part Number (P/N) 332A223314.00 or P/N 332A221366.06 or P/N 332A090856.02.
Reason:	In 2011, in-flight loss of a lateral right-hand (RH) side (sliding and plugging) cabin door was reported on an AS532 military Super-Puma helicopter. The helicopter took off with the door open and it was then attempted to close it in flight. On completion of the door sliding, the operator failed to plug/lock the door. One of the crew members intervened to help the operator. At that very moment, the door detached from the structure and caused the crew member to fall outside the helicopter.
	Subsequent investigations of this accident determined that the door loss was caused by a static failure of the middle fitting of the cabin door. This part is the shaft supporting the roller that allows the door to slide in its fuselage external middle rail. The design of the cabin doors is identical on the civil AS 332 and EC 225 models and the same unsafe condition may therefore exist or develop on those helicopters.
	This condition, if not detected and corrected, could result in detachment of a cabin door and consequent damage to the helicopter, or injury to occupants or persons on the ground.
	To address this unsafe condition, EASA issued Emergency AD 2011-0044-E which required, as an interim measure, a change to the rotorcraft flight manual

	(RFM) by introducing a new flight operating limitation that prohibited the cabin lateral (sliding and plugging) doors from opening or closing in flight over people on the ground, unless flying in a stabilized hover.
	After that AD was issued, Eurocopter issued AS332 Alert Service Bulletin (ASB) No. 01.00.79 and EC225 ASB No. 04A007 to provide a procedure for safe operation of the cabin doors, and installation of relevant door operation placards/markings (modification 0726828), in order to limit the impact loads on the stop fittings during door closing.
	Prompted by these design improvements, EASA AD 2012-0111 was issued, retaining the requirements of EASA Emergency AD 2011-0044-E, which was superseded, and requiring installation of sliding lateral plug door operation placards/markings (modification 0726828) and repetitive inspections of the door fittings to detect cracks. After modification and inspection, the flight operating limitations required by AD 2011-0044-E were no longer required and could be removed from the helicopter.
	Since EASA AD 2012-0111 was issued, the requirements thereof for flight operating limitation of the cabin sliding lateral plug doors have expired. Moreover, Airbus Helicopters have developed a reinforced design (modification 0726841) of the affected door fitting(s), which is available for in-service application through Service Bulletin (SB) AS332-52.00.43 or SB EC225-52-008, as applicable to helicopter model.
	For the reason described above, this AD partially retains the non-expired requirements of EASA AD 2012-0111, which is superseded, and requires installation of the reinforced cabin sliding lateral plug door fittings of modification 0726841 as terminating action to the repetitive inspections of the door fitting.
Effective Date:	26 August 2015
Required Action(s)	Required as indicated, unless accomplished previously:
and Compliance Time(s):	(1) Within 100 flight hours (FH) or 12 months, whichever occurs first after 25 June 2012 [the effective date of AD 2012-0111], install sliding lateral plug door operation placards/markings (modification 0726828) in accordance with the instructions of paragraph 3.B.2 of Airbus Helicopters (formerly Eurocopter) ASB No. 01.00.79 Revision 1 (or any later revision), or ASB No. 04A007 Revision 1 (or any later revision), as applicable to helicopter model.
	(2) Before next flight after installation of the placards/markings as required by paragraph (1) of this AD, and, thereafter, at intervals not to exceed 110 FH or 24 months, whichever occurs first, inspect each sliding lateral plug door fitting for cracks, in accordance with the instructions of paragraph 3.B.3 of Airbus Helicopters (formerly Eurocopter) ASB No. 01.00.79 Revision 1 (or any later revision), or ASB No. 04A007 Revision 1 (or any later revision), as applicable to helicopter model.
	(3) If, during any inspection as required by paragraph (2) of this AD, any crack is found, before next flight, replace each cracked fitting with a reinforced part different from P/N 332A223314.00 or P/N 332A221366.06 or P/N 332A090856.02, as applicable to helicopter model and door configuration, in accordance with instructions of Airbus Helicopters SB AS332-52.00.43, or SB EC225-52-008, as applicable to helicopter model.
	Replacement of a fitting installed on a door by a reinforced part constitutes terminating action for the repetitive inspections required by paragraph (2) of this AD for the fitting of that door.
	(4) Unless accomplished as required by paragraph (3) of this AD on all doors, within 22 months after the effective date of this AD, replace all affected door fittings with reinforced parts different from P/N 332A223314.00 or P/N 332A221366.06 or P/N 332A090856.02, as applicable to helicopter model

	and door configuration, (modification 0726841), in accordance with the instructions of Airbus Helicopters SB AS332-52.00.43 or SB EC225-52-008, as applicable to helicopter model.
	(5) Modification of a helicopter by replacing all affected door fittings constitutes terminating action for the repetitive inspections required by paragraph (2) of this AD for that helicopter.
	(6) Until all doors are modified as required by paragraph (4) of this AD, as an alternative to the requirements of paragraphs (2) and (3) of this AD, at the operator's discretion, prohibition of in-flight operation of the sliding lateral plug doors can be accomplished in accordance with the instructions of paragraph 3.B.5 of Airbus Helicopters (formerly Eurocopter) ASB No. 01.00.79 Revision 1, or ASB No. 04A007 Revision1, as applicable to helicopter model. Compliance with either paragraphs (2) and (3) or paragraph (4) of this AD cancels the prohibition specified by this paragraph.
	(7) From the effective date of this AD, installation of a sliding lateral plug door on a helicopters is allowed as specified in paragraph (7.1) or (7.2) of this AD, as applicable:
	(7.1) The door is equipped with a reinforced fitting different from P/N 332A223314.00 or P/N 332A221366.06 or P/N 332A090856.02 as specified by paragraph (3), or
	(7.2) Until all doors are modified as required by paragraph (4) of this AD: The door has been repetitively inspected and, depending on findings corrected, in accordance with requirements of this AD.
Ref. Publications:	Eurocopter AS332 ASB No. 01.00.79 Revision 1 dated 06 June 2012 and Airbus Helicopters AS332 ASB No. 01.00.79 Revision 2 dated 23 June 2015.
	Eurocopter EC225 ASB No. 04A007 Revision 1, dated 06 June 2012, and Airbus Helicopters EC225 ASB No. 04A007 Revision 2, dated 23 June 2015.
	Airbus Helicopters SB AS332-52.00.43 original issue, dated 23 June 2015.
	Airbus Helicopters SB EC225-52-008 original issue, dated 23 June 2015.
	The use of later approved revisions of these documents is acceptable for compliance with the requirements of this AD.
Remarks:	<ol> <li>If requested and appropriately substantiated, EASA can approve Alternative Methods of Compliance for this AD.</li> </ol>
	<ol> <li>This AD was posted on 10 July 2015 as PAD 15-093 for consultation until 07 August 2015. No comments were received during the consultation period.</li> </ol>
	<ol> <li>Enquiries regarding this AD should be referred to the Safety Information Section, Certification Directorate, EASA. E-mail: <u>ADs@easa.europa.eu</u>.</li> </ol>
	<ol> <li>For any question concerning the technical content of the requirements in this AD, please contact: Airbus Helicopters (EBSESB) – Aéroport de Marseille Provence 13725 Marignane Cedex, France; Telephone +33 (4) 42 85 97 97; Fax +33 (4) 42 85 99 66; E-mail: <u>Directive.technical-support@airbus.com</u>.</li> </ol>