EASA	AIRWORTHINESS DIRECTIVE
	AD No.: 2010-0246R1 **Date: 10 December 2010** 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 EC 1702/2003, Part 21A.3B. In accordance with EC 2042/2003 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 [EC 2042/2003 Annex I, Part M.A.303] or agreed with the Authority of the State of Registry [EC 216/2008, Article 14(4) exemption].

Type Approval Holder Name :	**Type/Model designation(s) :**
Agusta S.p.A	AB212 helicopters

TCDS Number :	Italy (ENAC) SO/A 375
Foreign AD :	None
Revision :	This AD revises EASA Emergency AD 2010-0246-E dated 26 November 2010, which superseded EASA AD 2010-0243-E dated 23 November 2010.

ATA 62	**Rotors – Main Rotor Hub Inboard Strap Fitting – Identification / Inspection / Replacement**
Manufacturer(s):	Agusta S.p.A
Applicability:	Agusta AB212 helicopters, all serial numbers, if equipped with a main rotor hub inboard strap fitting Part Number (P/N) 212-010-103-007.
Reason:	Recently, an accident occurred with a Bell Helicopter Textron, Inc. (Bell) Model 212 helicopter that resulted in several fatalities. During the investigation of the accident, a crack was found on the main rotor hub inboard strap fitting. Subsequently, four additional fittings from the same manufacturing batch, which is suspected not to be in conformity with the approved design data, were inspected and two were found to exhibit the same type of cracking as found on the fitting installed on the helicopter involved in the accident. This condition, if not corrected, could result in failure of the fitting, loss of a main rotor blade, and subsequent loss of control of the helicopter. The FAA issued Emergency AD 2010-24-51, addressing this unsafe condition on Bell 212 helicopters, and requiring the replacement of the affected main rotor hub inboard strap fittings with P/N 212-010-103-007. Although the unsafe condition has been detected only on parts manufactured by Bell for installation on Model 212 helicopters, the possibility exists that the unsafe parts may be installed on Agusta AB212 helicopters, due to the P/N commonality of main rotor hub inboard strap fittings on these two type designs. Consequently, Agusta issued Alert Bollettino Tecnico (BT) 212-201. Prompted by the initial FAA AD and the Agusta BT, EASA issued AD 2010-0240-E to require the same actions for Agusta AB212 helicopters. Since FAA Emergency AD 2010-24-51 was issued, it has been discovered that

	three additional fittings from a different manufacturing batch have the same type of cracking as was found on the fitting installed on the accident helicopter. Prompted by these findings, the FAA issued Emergency AD 2010-24-52, expanding the Applicability to include the additional strap fittings. Consequently, Agusta issued Alert BT 212-201 Revision A. Prompted by FAA AD 2010-024-52 and the revised Agusta BT, EASA issued AD 2010-0243-E, retaining the requirements of EASA AD 2010-0240-E, which was superseded, and required the same actions for Agusta AB212 helicopters. Subsequently, it was determined that additional serial-numbered main rotor hub inboard strap fittings may not have been manufactured in accordance with the engineering design requirements and may fracture as a result of such a non-conformity. FAA AD 2010-24-52 has been superseded by AD 2010-25-51 to apply to these additional fittings. Consequently, Agusta has issued Alert BT 212-201 Revision B, listing the additional serial-numbered fittings. FAA AD 2010-25-51 requires, for the additional serial-numbered fittings, a magnetic particle inspection (MPI). Initially, EASA disagreed with the inspection requirement and instead issued AD 2010-0246-E to require replacement of all suspect fittings. For that reason, FAA AD 2010-25-51 was not adopted by EASA for the Bell 212 helicopters. More recently, Bell and the FAA have provided EASA with further data to substantiate the corrective action (Magnetic Particle Inspection – MPI) described in Bell Alert Service Bulletin (ASB) 212-10-142 and required by FAA AD 2010-25-51. These data have been considered suitable by Agusta and by EASA. Consequently, Agusta have issued Alert BT 212-201 Revision C to introduce an MPI for certain fittings, rather than immediate replacement. For the reasons described above, FAA AD 2010-25-51 has been adopted by EASA retroactively for the Bell 212 helicopters and this AD has been revised to apply only to Agusta AB212 helicopters and to allow, for certain serial-numbered P/N 212-010-103-007 main rotor hub inboard strap fittings, to be introduced into service again, provided the fittings pass the MPI. For certain other serial-numbered fittings, this AD still requires the identification and replacement of the affected fittings. This AD also prohibits the installation on a helicopter of certain affected strap fittings that may currently be held as spares.
Effective Date:	Revision 1: 10 December 2010 Original issue: 26 November 2010
Required Action(s) and Compliance Time(s):	Required as indicated, unless accomplished previously: (1) Before next flight after 26 November 2010 [the effective date of the original issue of this AD], accomplish the following actions concurrently: (1.1) Identify the serial number (s/n) of the P/N 212-010-103-007 main rotor hub inboard strap fittings installed on the helicopter. (1.2) If the s/n matches one of those listed in Table 1 of this AD, replace the main rotor hub inboard strap fitting with a serviceable part, in accordance with the instructions of Agusta Alert BT 212-201 Revision C. (1.3) If the s/n matches one of those listed in Table 2 of this AD, remove the inboard strap fitting from the helicopter and accomplish an MPI, in accordance with the instructions of Agusta Alert BT 212-201 Revision C. (1.4) If cracks are detected during the MPI as required by paragraph (1.3) of this AD, the affected fitting is no longer eligible for installation on a helicopter. (1.5) If no cracks are detected during the MPI as required by paragraph

(1.3) of this AD, before installing the fitting on a helicopter, re-identify the fitting in accordance with the instructions of Agusta Alert BT 212-201 Revision C.

Table 1 - affected fittings s/n's

A-9956 through A-10005 inclusive
SH-52, SH-54 and SH-55
SH-57 through SH-65 inclusive
SH-67, SH-69, SH-70, SH-71 and SH-73
SH-103, SH-112, SH-113, SH-137 and SH-139

Table 2 - affected fittings s/n's

A-009911 through A-009955 inclusive
A-010006 through A-010049 inclusive
A-010075 through A-010174 inclusive
A-010455 through A-010460 inclusive
A-010581 through A-010655 inclusive
A-010742 through A-010791 inclusive
A-010862 through A-010946 inclusive

(2) From 26 November 2010 [the effective date of the original issue of this AD], do not install on any helicopter a P/N 212-010-103-007 main rotor hub inboard strap fitting having a s/n that is listed in Table 1 of this AD.

(3) From the effective date of this AD, do not install on any helicopter a P/N 212-010-103-007 main rotor hub inboard strap fitting having a s/n that is listed in Table 2 of this AD, unless it has passed the MPI as required by paragraph (1.3) of this AD and has been re-identified as required by paragraph (1.5) of this AD.

Ref. Publications:

Agusta Alert BT 212-201 Revision A dated 22 November 2010, Revision B dated 22 November 2010 and Revision C dated 10 December 2010.

The use of later approved revisions of this 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 required actions and the risk allowance have granted the issuance of a Final AD with Request for Comments, postponing the public consultation process after publication.
3. Enquiries regarding this AD should be referred to the Airworthiness Directives, Safety Management & Research Section, Certification Directorate, EASA. E-mail: ADs@easa.europa.eu.
4. For any question concerning the technical content of the requirements in this AD, please contact:
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