



Emergency Airworthiness Directive

AD No.: 2017-0176-E

Issued: 14 September 2017

Note: This Emergency Airworthiness Directive (AD) is issued by EASA, acting in accordance with Regulation (EC) 216/2008 on behalf of the European Union, 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 Regulation (EU) 748/2012, Part 21.A.3B. In accordance with Regulation (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 [Regulation (EU) 1321/2014 Annex I, Part M.A.303] or agreed with the Authority of the State of Registry [Regulation (EC) 216/2008, Article 14(4) exemption].

Design Approval Holder's Name:

LEONARDO S.p.A.

Type/Model designation(s):

A109 helicopters

Effective Date: 18 September 2017

TCDS Number(s): EASA.R.005

Foreign AD: Not applicable

Supersedure: None

ATA 62 – Main Rotor – Main Rotor Blades – Inspection / Replacement

Manufacturer(s):

Leonardo S.p.A. Helicopters (formerly Finmeccanica S.p.A., AgustaWestland S.p.A., Agusta S.p.A.)

Applicability:

A109E, A109LUH, A109S, AW109SP, A119 and AW119MKII helicopters, all serial numbers.

Reason:

An occurrence was reported of in-flight loss of the main rotor blade (MRB) tip cap on an AW109SP helicopter. The pilot was able to maintain control of the helicopter and landed safely. Investigation determined an incorrect bonding procedure as cause of the occurrence, and identified the MRBs on which that procedure has been accomplished.

This condition, if not detected and corrected, could lead to loss of MRB tip cap, possibly resulting in increased pilot workload and reduced control of the helicopter.

Prompted by this occurrence, Leonardo issued Service Bulletin (SB) 109EP-157, SB 109L-090, SB 109S-077, SB 109SP-116 and SB 119-085, as applicable to helicopter model, providing instructions to accomplish tapping inspections of the affected MRBs and, as a precautionary measure and for a limited interval, the same inspection of certain MRBs manufactured (or repaired) in the same period as those affected by the incorrect bonding.



For the reasons described above, this AD requires repetitive inspections of affected MRBs and, depending on findings, accomplishment of applicable corrective action(s). This AD also requires replacement of affected MRBs with not affected ones.

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

Required as indicated, unless accomplished previously:

Note 1: SB 109EP-157, SB 109L-090, SB 109S-077, SB 109SP-116 and SB 119-085 are hereafter collectively referred to as “the applicable SB” in this AD.

Note 2: For the purpose of this AD, Group 1 helicopters are equipped with a Batch 1 MRB, as listed in Table 1 of this AD, or with a Batch 2 MRB, as listed in Table 2 of this AD, or equipped with both. Group 2 helicopters are not equipped with any Batch 1 or Batch 2 MRB.

Table 1 - Batch 1 – Part Number (P/N) 709-0104-01-111 MRB

Serial Numbers (s/n)
1307, 1320, 1346, 1365, 1372, 1380, 1414, 1426, 1436, 1475, 1485

Table 2 - Batch 2 MRB

P/N	s/n	Flight Hours (FH) (see Notes 3 and 4 of this AD)
709-0104-01-111	1237, 1256, 1261, 1267, 1269, 1276, 1277, 1278, 1284, 1288, 1291, 1292, 1294, 1303, 1306, 1314, 1316, 1318, 1324, 1341, 1342, 1345, 1347, 1357, 1366, 1370, 1374, 1375, 1377, 1381, 1383, 1387, 1391, 1392, 1396, 1402, 1403, 1406, 1410, 1415, 1417, 1419, 1420, 1421, 1422, 1424, 1432, 1434, 1435, 1437, 1438, 1439, 1441, 1442, 1446, 1450, 1460, 1461, 1462, 1471, 1472, 1473, 1474, 1478, 1479, 1483, 1484, 1486, 1490, 1495, 1505, 1506, 1508, 1511, 1513 and 1516	Less than 400 FH since first installation on a helicopter
	P451, P460, Q553, Q557, Q587, Q695, Q832, R2080, R2212 and V699	Less than 400 FH since repair
709-0103-01-111	681 and 683	Less than 400 FH since first installation on a helicopter
709-0104-01-101	K101 and DA38586004-1	Less than 400 FH since repair
709-0104-01-117	DA57139709-1	Less than 400 FH since repair

Note 3: MRB having a P/N and s/n listed in Table 2, and having accumulated more than 400 FH since first installation on a helicopter, or since repair, as applicable, are not (or no longer) Batch 2 MRB, and are consequently not affected by the inspections as required by this AD.



Note 4: For the purpose of this AD, a “repair” is a repair accomplished by Leonardo Helicopters (formerly Finmeccanica) between 01 January 2016 and 31 March 2017.

Repetitive Inspections:

- (1) For Group 1 helicopters: Within 5 FH after the effective date of this AD, and, thereafter, at intervals not to exceed 5 FH, inspect each Batch 1 MRB (see Table 1 of this AD) in accordance with the instructions of the applicable SB.
- (2) For Group 1 helicopters: Within 25 FH after the effective date of this AD, and, thereafter, at intervals not to exceed 25 FH, inspect each Batch 2 MRB (see Table 2 of this AD) in accordance with the instructions of the applicable SB.

Corrective Action(s):

- (3) If, during any inspection as required by paragraph (1) or (2) of this AD, as applicable, debonding is found on an MRB, which exceeds the acceptable limits as identified in the applicable maintenance manual, before next flight, replace that MRB with a serviceable MRB in accordance with the instructions of the applicable SB.

Replacement:

- (4) For Group 1 helicopters: Unless already accomplished as required by paragraph (3) of this AD, within 25 FH after the effective date of this AD, replace each Batch 1 MRB with a serviceable MRB in accordance with the instructions of the applicable SB.

Terminating Action:

- (5) Replacement of each Batch 1 MRB on a helicopter, as requested by paragraph (3) or (4) of this AD, constitutes terminating action for the repetitive inspections as required by paragraph (1) of this AD for that helicopter.

Parts Installation:

- (6) For Group 1 and Group 2 helicopters: From the effective date of this AD, do not install a Batch 1 MRB on a helicopter.
- (7) For Group 1 and Group 2 helicopters: From the effective date of this AD, it is allowed to install a Batch 2 MRB on a helicopter, provided that, following installation, it is inspected as required by this AD.

Ref. Publications:

Leonardo S.p.A. Helicopters SB 109EP-157 original issue dated 08 September 2017.

Leonardo S.p.A. Helicopters SB 109L-090 original issue dated 08 September 2017, or Revision A dated 11 September 2017.

Leonardo S.p.A. Helicopters SB 109S-077 original issue dated 08 September 2017.

Leonardo S.p.A. Helicopters SB 109SP-116 original issue dated 08 September 2017.



Leonardo S.p.A. Helicopters SB 119-085 original issue dated 08 September 2017, or Revision A dated 11 September 2017.

The use of later approved revisions of these documents 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 results of the safety assessment have indicated the need for immediate publication and notification, without the full consultation process.
3. Enquiries regarding this AD should be referred to the EASA Safety Information Section, Certification Directorate. E-mail: ADs@easa.europa.eu.
4. For any question concerning the technical content of the requirements in this AD, please contact: Leonardo S.p.A. Helicopters, Customer Support & Services, Product Support Engineering DPT, E-mail: aw109.mbx.aw@leonardocompany.com.

