



## Notification of a proposal to issue an Airworthiness Directive

**PAD No.: 16-166**

**Issued: 07 December 2016**

Note: This Proposed Airworthiness Directive (PAD) 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.

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 Approval Holder's Name:** AIRBUS HELICOPTERS DEUTSCHLAND GmbH  
**Type/Model designation(s):** EC135 and EC635 helicopters

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

**TCDS Number(s):** EASA.R.009

**Foreign AD:** Not applicable

**Supersedure:** This AD supersedes EASA AD 2010-0213 dated 14 October 2010, including its Correction dated 03 December 2010.

### ATA 63 – Main Rotor Drive – Main Transmission Housing Upper Part – Modification

#### Manufacturer(s):

Airbus Helicopters Deutschland GmbH (AHD), formerly Eurocopter Deutschland GmbH (ECD), Eurocopter España S.A.

#### Applicability:

EC135 P1, EC135 P2, EC135 P2+, EC135 P3, EC135 T1, EC135 T2, EC135 T2+, EC135 T3, EC635 P2+, EC635 P3, EC635 T1, EC635 T2+ and EC635 T3 helicopters, all serial numbers (s/n).

#### Reason:

During an inspection it was identified that, on some housing upper parts for the main transmission FS108, the bypass inlet in the oil filter area has not been manufactured in accordance with the applicable design specifications.

This condition, if not corrected, could adversely affect the oil-filter bypass function, which is essential for continued safe flight.

To address this unsafe condition, Eurocopter Deutschland issued Alert Service Bulletin (ASB) EC135-63A-017, providing the list of affected parts and reworking instructions. Consequently, EASA issued AD 2010-0213 (later corrected), requiring a temporary modification of each affected Part



Number (P/N) 4649 301 034 main transmission upper part, by installing a corrugated washer, which establishes an equivalent structural design for the oil supply to the bypass. That AD also required rework of the oil filter area to bring the affected parts (back) within the applicable design specifications, within a compliance interval consistent with the Time Between Overhaul (TBO) of the main transmission.

After that AD was issued, it was identified that some of the affected upper part housing have been re-identified with P/N 4649 301 067 or P/N 4649 301 088, as applicable to some EC135 models, without change of the s/n. Furthermore, the main transmission TBO interval has been extended, and Airbus Helicopters (AH) revised twice ASB EC135-63A-017 (Revision 2, hereafter referred to as 'the ASB' in this AD) accordingly.

For the reasons described above, this AD retains the requirements of EASA AD 2010-0213, which is superseded, expands the Applicability, as well as the list of affected main transmission housing upper part P/N, and extends the compliance time for accomplishment of the final solution, consistent with the new recommended TBO.

This AD also contains some editorial changes to clarify which actions can be performed at helicopter level, and to meet current AD writing standards, without affecting the technical content or requirements of AD 2010-0213.

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

Required as indicated, unless accomplished previously:

Note: For the purpose of this AD, an affected main transmission is a main transmission FS108 which upper part housing has P/N 4649 301 034, or P/N 4649 301 067, or P/N 4649 301 088, having a s/n listed in Appendix 1 of this AD, and which has not been reworked in accordance with the instructions of paragraph 3.B.2 (b) of the ASB.

- (1) Within 3 months after the effective date of this AD, modify the filter housing of the housing upper part of each affected main transmission (see Note of this AD) in accordance with the instructions of paragraph 3.B.2 (a) of the ASB.
- (2) Modification of a helicopter, before the effective date of this AD in accordance with the instructions of ECD ASB EC135-63A-017, original issue or Revision 01, is an acceptable method to comply with the requirements of paragraph (1) of this AD for that helicopter.
- (3) From the effective date of this AD, do not install on any helicopter an affected main transmission (see Note of this AD), unless it has been modified in accordance with the instructions of the ASB.
- (4) Within 5 150 flight hours after 28 October 2010 [the effective date of EASA AD 2010-0213], modify the helicopter in accordance with the instructions of the ASB, replacing each affected main transmission (see Note of this AD) with a serviceable part, not affected by this AD.



**Ref. Publications:**

ECD ASB EC135-63A-017 original issue dated 11 October 2010, or AH ASB EC135-63A-017 Revision 01 dated 29 September 2016, or Revision 02 dated 05 December 2016.

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

**Remarks:**

1. This Proposed AD will be closed for consultation on 04 January 2017.
2. Enquiries regarding this PAD should be referred to the EASA Safety Information Section, Certification Directorate. E-mail: [ADs@easa.europa.eu](mailto:ADs@easa.europa.eu).
3. For any question concerning the technical content of the requirements in this PAD, please contact: Airbus Helicopters Deutschland GmbH, Industriestrasse 4, 86609 Donauwörth, Federal Republic of Germany  
Telephone: + 49 (0)151-1422 8976; Facsimile: + 49 (0)906-71 4111.



Appendix 1 – Affected Main Transmission Housing Upper Parts  
P/N 4649 301 034, P/N 4649 301 067, and P/N 4649 301 088

s/n	s/n	s/n	s/n	s/n	s/n	s/n	s/n
111	218	1003	1066	1120	1184	1239	1297
119	224	1004	1068	1122	1185	1240	1298
127	242	1005	1070	1123	1186	1243	1299
136	245	1006	1071	1126	1187	1247	1300
151	247	1008	1074	1129	1188	1248	1301
152	248	1011	1075	1133	1189	1254	1302
153	250	1012	1076	1134	1190	1257	1303
156	251	1013	1078	1135	1191	1258	1305
157	257	1014	1079	1136	1193	1259	1307
158	260	1015	1080	1137	1194	1261	1309
159	267	1016	1083	1138	1196	1262	1310
161	269	1020	1085	1139	1197	1263	1313
163	271	1021	1086	1140	1200	1264	1315
166	273	1022	1087	1141	1201	1265	1316
167	274	1023	1088	1142	1203	1267	1317
168	280	1024	1089	1145	1204	1268	1318
170	281	1025	1090	1146	1205	1269	1320
171	310	1026	1091	1150	1209	1270	1321
175	316	1027	1092	1151	1210	1271	1324
176	318	1030	1096	1155	1211	1275	1326
178	323	1031	1098	1156	1212	1276	1327
179	333	1034	1099	1157	1213	1277	1328
181	335	1035	1100	1158	1214	1278	1330
183	336	1037	1104	1159	1218	1279	1333
184	337	1039	1105	1160	1219	1280	1334
185	339	1047	1107	1161	1222	1281	1335
187	342	1050	1108	1162	1223	1283	1336
188	345	1051	1109	1166	1225	1284	1337
189	346	1054	1110	1171	1227	1285	1338
193	348	1055	1111	1173	1228	1286	1339
195	351	1057	1113	1174	1231	1288	1340
200	357	1059	1114	1176	1233	1290	1341
201	358	1060	1115	1177	1234	1291	1343
202	360	1061	1116	1179	1235	1293	1344
203	363	1062	1117	1182	1237	1294	1345
209	1001	1064	1119	1183	1238	1296	1346



Appendix 1 – Affected Main Transmission Housing Upper Parts  
P/N 4649 301 034, P/N 4649 301 067, and P/N 4649 301 088  
(continued)

s/n	s/n	s/n	s/n	s/n	s/n	s/n	s/n
1347	1393	1449	1506	1561	1615	1666	1706
1348	1394	1450	1507	1562	1616	1668	1707
1349	1395	1451	1508	1563	1617	1669	1708
1350	1398	1452	1509	1564	1618	1670	1709
1351	1399	1454	1510	1565	1621	1671	1711
1352	1400	1456	1513	1567	1622	1672	1712
1353	1402	1458	1515	1569	1623	1673	1713
1354	1403	1459	1516	1570	1624	1674	1714
1355	1404	1460	1517	1572	1625	1675	1716
1356	1407	1461	1519	1573	1626	1676	1717
1357	1408	1462	1520	1574	1627	1677	1718
1358	1410	1465	1521	1575	1629	1678	1720
1359	1413	1466	1522	1576	1630	1679	1721
1361	1414	1468	1523	1577	1632	1680	1722
1362	1415	1469	1524	1578	1635	1681	1723
1363	1416	1470	1525	1580	1636	1682	1724
1364	1417	1472	1526	1581	1637	1684	1725
1366	1420	1478	1528	1582	1638	1685	1726
1367	1422	1479	1529	1583	1639	1686	1727
1368	1423	1480	1531	1587	1640	1687	1728
1371	1424	1481	1532	1588	1642	1688	1729
1372	1425	1482	1533	1591	1643	1690	1730
1373	1426	1484	1534	1594	1645	1691	1732
1375	1427	1485	1541	1596	1646	1692	1733
1376	1430	1486	1542	1597	1649	1693	1735
1378	1431	1487	1543	1598	1650	1694	1736
1380	1432	1489	1545	1599	1651	1695	1742
1381	1435	1491	1547	1600	1652	1696	
1383	1436	1492	1548	1601	1654	1697	
1384	1437	1495	1549	1603	1655	1698	
1386	1439	1496	1550	1604	1656	1699	
1387	1440	1497	1552	1607	1658	1700	
1388	1441	1500	1553	1608	1659	1701	
1390	1442	1502	1555	1610	1660	1703	
1391	1444	1504	1559	1612	1662	1704	
1392	1446	1505	1560	1613	1665	1705	

