



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.
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 |
|------|------|------|------|------|------|------|------|
| 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 | |

