



Airbus Helicopters Inc.
Technical Support
2701 Forum Drive
Grand Prairie, TX 75052

January 18, 2017

Subject: Global AMOC for AD 2013-16-14

Attachments: AD 2013-16-14 dated October 9, 2013
AMOC for AD 2013-16-14 dated January 18, 2017
ASB EC135-63A-017 Rev 2 dated December 5, 2016

To all EC135 Operators,

On October 9, 2013, AD 2013-16-14 was issued for the Eurocopter Helicopter EC135 covering the P1, P2, P2+, T1, T2, and T2+ models.

In Paragraph (e)(2) **Required Actions (1)** Within 4,000 hours, time-in-service or at the next main transmission repair or overhaul, whichever occurs first, machine the main transmission housing upper part in accordance with Annex A of ZF Luftharttechnik GmbH Service Instruction No. EC135FS108-1659-1009, dated September 14, 2010.

The FAA has granted the attached AMOC as of January 18, 2017 to eliminate this requirement at 4,000 hours in accordance with ASB EC135-63-017 Rev 2 that has extended the requirement to machine the upper case no later than 5150 flight hours or at the next major repair or overhaul.

This letter is to bring to our customer's attention that this 4000 hour requirement has been canceled with the attached AMOC. For any questions on this issue please contact Dave Vogel.

Office PH 972-641-3573
Cell PH 817-201-1196
dave.vogel@airbus.com

Best Regards,

A handwritten signature in black ink, appearing to read "Larry Huntley", written over a horizontal line.

Larry Huntley
Director, Technical Support
Airbus Helicopters Inc.
WK PH 972-641-5204
FAX 972-641-3710
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[Federal Register Volume 78, Number 171 (Wednesday, September 4, 2013)]
[Rules and Regulations]
[Pages 54383-54384]
From the Federal Register Online via the Government Printing Office [www.gpo.gov]
[FR Doc No: 2013-19500]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2013-0239; Directorate Identifier 2010-SW-087-AD; Amendment 39-17552; AD 2013-16-14]

RIN 2120-AA64

Airworthiness Directives; Eurocopter Deutschland GmbH Helicopters

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: We are adopting a new airworthiness directive (AD) for all Eurocopter Deutschland GmbH (ECD) EC 135 P1, P2, P2+, T1, T2, and T2+ helicopters equipped with a certain main transmission housing upper part. This AD requires installing a corrugated washer in the middle of the main transmission filter housing upper part and modifying the main transmission housing upper part. This AD was prompted by an inspection of housing upper parts that revealed the bypass inlet in the oil filter area was not manufactured in accordance with applicable design specifications. The actions of this AD are intended to prevent failure of the main transmission and subsequent loss of control of the helicopter.

DATES: This AD is effective October 9, 2013.

The Director of the Federal Register approved the incorporation by reference of certain documents listed in this AD as of October 9, 2013.

ADDRESSES: For service information identified in this AD, contact American Eurocopter Corporation, 2701 N. Forum Drive, Grand Prairie, TX 75052, telephone (972) 641-0000 or (800) 232-0323, fax (972) 641-3775, or at <http://www.eurocopter.com/techpub>. You may review the referenced service information at the FAA, Office of the Regional Counsel, Southwest Region, 2601 Meacham Blvd., Room 663, Fort Worth, Texas 76137.

Examining the AD Docket

You may examine the AD docket on the Internet at <http://www.regulations.gov> or in person at the Docket Operations Office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this AD, the foreign authority's AD, any incorporated-by-reference service information, the economic evaluation, any comments received, and other information. The

street address for the Docket Operations Office (phone: 800-647-5527) is U.S. Department of Transportation, Docket Operations Office, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

FOR FURTHER INFORMATION CONTACT: Chinh Vuong, Aviation Safety Engineer, Safety Management Group, Rotorcraft Directorate, FAA, 2601 Meacham Blvd., Fort Worth, Texas 76137; telephone (817) 222-5110; email chinh.vuong@faa.gov.

SUPPLEMENTARY INFORMATION:

Discussion

On March 14, 2013, at 78 FR 16196, the Federal Register published our notice of proposed rulemaking (NPRM), which proposed to amend 14 CFR part 39 to include an AD that would apply to ECD Model EC135 P1, P2, P2+, T1, T2, and T2+ helicopters with a certain serial numbered main transmission FS108 housing upper part, part number (P/N) 4649 301 034. The NPRM proposed to require installing a corrugated washer in the filter housing of the housing upper part and modifying each affected main transmission housing upper part by machining the oil filter bypass inlet. The proposed requirements were intended to prevent failure of the main transmission and subsequent loss of control of the helicopter.

The NPRM was prompted by AD No. 2010-0213, dated October 14, 2010, issued by the European Aviation Safety Agency (EASA), which is the Technical Agent for the Member States of the European Union. EASA issued AD No. 2010-0213 to correct an unsafe condition for the ECD model EC 135 and EC635 helicopters. EASA advises that a recent inspection on some housing upper parts for the main transmission FS108 revealed the bypass inlet in the oil filter area had not been manufactured in accordance with the applicable design specifications. EASA advises that this condition, if not detected and corrected, could adversely affect the oil-filter bypass function, which is essential for continued safe flight. The EASA AD requires a temporary modification of the main transmission housing upper part by installing a corrugated washer, and then a "rework" of the oil filter area to bring the affected parts within the applicable design specifications.

Comments

We gave the public the opportunity to participate in developing this AD, but we did not receive any comments on the NPRM (78 FR 16196 March 14, 2013).

FAA's Determination

These helicopters have been approved by the aviation authority of the Republic of Germany and are approved for operation in the United States. Pursuant to our bilateral agreement with the Republic of Germany, EASA, its technical representative, has notified us of the unsafe condition described in the EASA AD. We are issuing this AD because we evaluated all information provided by EASA and determined the unsafe condition exists and is likely to exist or develop on other helicopters of these same type designs and that air safety and the public interest require adopting the AD requirements as proposed.

Related Service Information

ECD has issued Alert Service Bulletin (ASB) ASB EC135-63A-017, Revision 0, dated October 11, 2010 (EC135-63A-017), which specifies removing the oil filter element and installing a corrugated washer. EC135-63A-017 also specifies reworking the affected filter housing upper part at the next repair or major overhaul of the main transmission, no later than 4,000 flight hours after

receipt of the service bulletin. EASA classified this ASB as mandatory and issued AD 2010-0213 to ensure the continued airworthiness of these helicopters.

We have also reviewed ZF Luftfahrttechnik GmbH Service Instruction No. EC135FS108-1659-1009, dated September 14, 2010, which specifies procedures for repairing the main transmission upper housing, and includes dimensions and tolerances for machining the housing upper part.

Costs of Compliance

We estimate that this AD will affect 227 helicopters of U.S. Registry. Based on an average labor rate of \$85 per work hour, we estimate that operators may incur the following costs in order to comply with this AD. Installing the corrugated washer will require about .5 work hour, and required parts cost about \$10, for a cost per helicopter of about \$53, and a total cost to the U.S. operator fleet of \$12,031. Machining the housing upper part requires about 5 work-hours and required parts cost about \$73, for a total cost per helicopter of \$498, and a total cost to U.S. operators of \$113,046.

According to the ECD ASB, some of the costs of this AD may be covered under warranty, thereby reducing the cost impact on affected individuals. We do not control warranty coverage by Eurocopter. Accordingly, we have included all costs in our cost estimate.

Authority for This Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: "General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on helicopters identified in this rulemaking action.

Regulatory Findings

This AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

- (1) Is not a "significant regulatory action" under Executive Order 12866;
- (2) Is not a "significant rule" under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979);
- (3) Will not affect intrastate aviation in Alaska to the extent that it justifies making a regulatory distinction; and
- (4) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

We prepared an economic evaluation of the estimated costs to comply with this AD and placed it in the AD docket.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

Adoption of the Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

PART 39—AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):



2013-16-14 Eurocopter Deutschland GmbH: Amendment 39-17552; Docket No. FAA-2013-0239; Directorate Identifier 2010-SW-087-AD.

(a) Applicability

This AD applies to Eurocopter Deutschland GmbH Model EC135 P1, P2, P2+, T1, T2, and T2+ helicopters with a main transmission FS108 housing upper part, part number (P/N) 4649 301 034 and a serial number listed in Table 1 of Eurocopter Alert Service Bulletin EC135-63A-017, Revision 0, dated October 11, 2010 (ASB EC135-63A-017), certificated in any category.

(b) Unsafe Condition

This AD defines the unsafe condition as an improperly manufactured bypass inlet in the oil filter area. This condition could adversely affect the oil-filter bypass function, resulting in failure of the main transmission and subsequent loss of control of the helicopter.

(c) Effective Date

This AD becomes effective October 9, 2013.

(d) Compliance

You are responsible for performing each action required by this AD within the specified compliance time unless it has already been accomplished prior to that time.

(e) Required Actions

(1) Within 3 months, remove the oil filter element and install a corrugated washer, P/N 0630100377, in the middle of the filter housing of the housing upper part as depicted in Figure 2 of ASB EC135-63A-017.

(2) Within 4,000 hours time-in-service or at the next main transmission repair or overhaul, whichever occurs first, machine the main transmission housing upper part in accordance with Annex A of ZF Luftfahrttechnik GmbH Service Instruction No. EC135FS108-1659-1009, dated September 14, 2010.

(3) Do not install a main transmission upper part, P/N 4649 301 034, on any helicopter unless it has been modified as required by paragraphs (e)(1) through (e)(2) of this AD.

(f) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Safety Management Group, FAA, may approve AMOCs for this AD. Send your proposal to: Chinh Vuong, Aviation Safety Engineer, Safety Management Group, Rotorcraft Directorate, FAA, 2601 Meacham Blvd., Fort Worth, Texas 76137; telephone (817) 222-5110; email chinh.vuong@faa.gov.

(2) For operations conducted under a 14 CFR part 119 operating certificate or under 14 CFR part 91, subpart K, we suggest that you notify your principal inspector, or lacking a principal inspector,

the manager of the local flight standards district office or certificate holding district office, before operating any aircraft complying with this AD through an AMOC.

(g) Additional Information

The subject of this AD is addressed in European Aviation Safety Agency AD No. 2010-0213, dated October 14, 2010. You may view the EASA AD in the AD docket on the Internet at <http://www.regulations.gov>.

(h) Subject

Joint Aircraft Service Component (JASC) Code: 6320: Main Rotor Gearbox.

(i) Material Incorporated by Reference

(1) The Director of the Federal Register approved the incorporation by reference (IBR) of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless the AD specifies otherwise.

(i) Eurocopter Alert Service Bulletin EC135-63A-017, Revision 0, dated October 11, 2010.

(ii) ZF Luftfahrttechnik GmbH Service Instruction No. EC135FS108-1659-1009, dated September 14, 2010.

(3) For service information identified in this AD, contact American Eurocopter Corporation, 2701 N. Forum Drive, Grand Prairie, TX 75052, telephone (972) 641-0000 or (800) 232-0323, fax (972) 641-3775, or at <http://www.eurocopter.com/techpub>.

(4) You may view this service information that is incorporated by reference in the AD docket on the Internet at <http://www.regulations.gov>.

(5) You may also view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call (202) 741-6030, or go to: <http://www.archives.gov/federal-register/cfr/ibr-locations.html>.

Issued in Fort Worth, Texas, on August 2, 2013.

Lance T. Gant,
Acting Directorate Manager, Rotorcraft Directorate,
Aircraft Certification Service.



U.S. Department
of Transportation
**Federal Aviation
Administration**

Southwest Region
Arkansas, Louisiana,
New Mexico, Oklahoma,
Texas

Fort Worth, Texas 76177

January 18, 2017

Mr. Dave Vogel
Sr. Technical Representative
Technical Support Group
Airbus Helicopters Inc.
2701 Forum Drive
Grand Prairie, TX 75052-7099

Dear Mr. Vogel,

We have reviewed your request for a Global Alternate Means of Compliance (AMOC) for Federal Aviation Administration (FAA) Airworthiness Directive (AD) 2013-16-14, paragraph (e)(2), required actions, for Airbus Helicopters Inc. (AHI) models EC 135 P1, P2, P2+, T1, T2, and T2+, requesting extension of time before overhaul (TBO) hours from 4000 to 5150 for the main transmission.

FAA AD 2013-16-14, (e) required Actions, paragraph (2) states:

“Within 4000 hours time-in-service (TIS) or at the next main transmission repair or overhaul, whichever occurs first, machine the main transmission housing upper part in accordance with Annex A of ZF Luftfahrttechnik GmbH Service instruction No. EC 135FS108-1659-1009, dated September 14, 2010.”

Your proposal is to substitute 4000 hours TIS with 5150 hours TIS by stating that the retrofit of an affected housing upper part must be accomplished within the framework of the next major repair or a major overhaul measure for the main transmission, but no later than 5150 hours TIS after receipt of revision 0 of the ASB EC135-63A-017. The main transmissions that are in compliance with ASB EC135-63A-017 Rev 2 by installing the corrugated washer should be permitted to continue in service to 5150 hours TIS.

The above proposed Global AMOC for AHI helicopter models EC 135 P1, P2, P2+, T1, T2, and T2+, affected by FAA AD 2013-16-14 dated October 9, 2013, is approved for paragraph (e)(2) of the section titled “Required actions”.

Note that the granting of this AMOC does not relieve, alter or waive any other maintenance operations required for the effected helicopter models, other than those specifically mentioned herein.

This AMOC does not invalidate other similar AMOCs that have been issued. This FAA AMOC is transferable with the aircraft to an operator who operates the aircraft under U.S. registry.

Before using this AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district/office certificate holding district office.

All provisions of AD 2013-16-14 that are not specifically referenced above remain fully applicable and must be complied with accordingly.

This AMOC only applies to the FAA AD listed above. The FAA does not have the authority to approve this as an AMOC to any AD issued by another Civil Aviation Authority (CAA). Approval of an AMOC to another CAA's AD must come from that CAA. A copy of this response will be forwarded to the CAA where these aircraft are registered for their consideration.

If you have questions, please contact Mr. Rao Edupuganti at (817) 222-4389.

Sincerely,



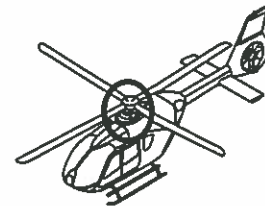
Stephen Barbini
Acting Manager, Safety Management Group
Aircraft Certification Service


 Valid for Version(s): T1, T2, T2+, T3, P1, P2, P2+, P3
 635 T1, 635 T2+, 635 T3, 635 P2+, 635 P3

ALERT SERVICE BULLETIN

SUBJECT: MAIN ROTOR DRIVE - Main Transmission

Retrofit of a corrugated washer in the filter housing



Revision number	Issue date
Revision 0	2010-10-11
Revision 1	2016-09-29
Revision 2	2016-12-05

Summary:

On some of the housing upper parts for the main transmission FS108 which are manufactured by ZFL an inspection has shown that the bypass inlet in the oil filter area has not been worked i.a.w. the design document. With this Alert Service Bulletin an equivalent structural design is established for the oil supply to the bypass by installing a corrugated washer.

Reason for last Revision 1:

The time between overhaul (TBO) was increased from 4000 Fh to 5000 Fh (+ 150 Fh tolerance) for some versions of the main transmission FS108. Therefore the compliance time for the retrofit of the affected housings will also be increased to 5000 Fh (+ 150 Fh tolerance).

Reason for last Revision 2:

With Revision 1 of this ASB the P/N of the affected upper housings were specified. With Revision 2 of this ASB a wrongly added P/N was deleted. If Revision 0 or 1 of this ASB has already been accomplished no further work is required due to this Revision. Incorporated changes of Revision 1 and 2 are marked with revision bars.

Compliance:

Compliance with this Alert Service Bulletin is prescribed. See Section 1.E.1 and 1.E.2.

1. PLANNING INFORMATION**1.A. EFFECTIVITY****1.A.1. Helicopters/installed equipment**

- (a) EC135 T1, T2, T2+, T3, P1, P2, P2+, P3, 635 T1, 635 T2+, 635 T3, 635 P2+, 635 P3. All S/N.
- (b) Main transmission housing upper part P/N 4649 301 034, 4649 301 067, 4649 301 088. Affected housing upper part S/N see table 1.

NOTE The S/N of the housing upper part is given in the log card of the main transmission and on the housing upper part (see Figure 1).

1.A.2. Non-installed equipment

See Section 1.A.1.(b)

1.B. ASSOCIATED REQUIREMENTS

Not applicable.

1.C. REASON

On some of the housing upper parts for the main transmission FS108 which are manufactured by ZFL an inspection has shown that the bypass inlet in the oil filter area has not been worked i.a.w. the design document. With this Alert Service Bulletin an equivalent structural design is established for the oil supply to the bypass by installing a corrugated washer. In the course of the next repair or a major overhaul measure for the main transmission but no later than **5000 Fh (+ 150 Fh tolerance) after receipt of Revision 0 of this Alert Service Bulletin** the filter housing has to be reworked. The corrugated washer will be deleted then.

1.D. DESCRIPTION

Remove the oil filter element. Install the corrugated washer. Install the oil filter element.

1.E. COMPLIANCE**1.E.1. Compliance at the works**Helicopters/installed equipment:

- (a) The retrofit of the corrugated washer in the filter housing of the housing upper part of the main transmission must be accomplished no later than by December 31, 2010 i.a.w. Section 3.B.2.(a) of this Alert Service Bulletin.
- (b) The retrofit of an affected housing upper part must be accomplished within the framework of the next major repair or a major overhaul measure for the main transmission, but no later than **5000 Fh (+ 150 Fh tolerance) after receipt of Revision 0 of this Alert Service Bulletin**. The retrofit must be done i.a.w. Section 3.B.2.(b) by the manufacturer or an service station authorized by the manufacturer.

Non-installed equipment:

- (c) The retrofit of the corrugated washer in the filter housing of the housing upper part of the main transmission must be accomplished no later than by December 31, 2010 i.a.w. Section 3.B.2.(a) of this Alert Service Bulletin.
- (d) The retrofit of an affected housing upper part must be accomplished within the framework of the next major repair or a major overhaul measure for the main transmission, but no later than **5000Fh (+ 150 Fh tolerance) after receipt of Revision 0 of this Alert Service Bulletin**. The retrofit must be done i.a.w. Section 3.B.2.(b) by the manufacturer or an service station authorized by the manufacturer.

1.E.2. Compliance in service
Helicopters/installed equipment:

See Section 1.E.1.

Non-installed equipment:

See Section 1.E.1.

1.F. APPROVAL
Approval of this document:

The technical content of this document is approved under the authority of DOA No. EASA.21J.700.

1.G. MANPOWER

Qualification	Mechanic	Electrician	Pilot	Others
Time	approx. 5 h	-	-	-

1.H. WEIGHT AND BALANCE

Not applicable.

1.I. EFFECT ON ELECTRICAL LOADS

Not applicable.

1.J. SOFTWARE MODIFICATION EMBODIMENT RECORD

Not applicable.

1.K. REFERENCES

AMM EC135 and AMM EC135/635.

1.L. OTHER DOCUMENTS AFFECTED

Not applicable.

1.M. INTERCHANGEABILITY OR MIXABILITY OF PARTS
Interchangeability:

Not applicable.

Mixability:

Not applicable.

2. MATERIAL INFORMATION**2.A. MATERIAL: PRICE - AVAILABILITY - PROCUREMENT**

Information on price and availability of required material kit SB-135-63A-017-2C will be provided by AHD, Dept. Spares Order Administration on request.

All material kits required will be provided free of cost by AHD only within the time limits that apply for the compliance (Section 1.E). Material that is ordered outside the time limits given in the ASB will be charged according to the ruling prices.

2.B. INFORMATION CONCERNING INDUSTRIAL SUPPORT

Not applicable.

2.C. MATERIAL REQUIRED FOR EACH HELICOPTER/COMPONENT

Kits or components to be ordered for one helicopter or one assembly:

Material kit SB-135-63A-017-2C.

No.	Keyword	Qty	New P/N	Old P/N	Disposition
1	Corrugated washer	1	0630100377	-	-
2	O-ring	1	0634313445	0634313445	-
3	O-ring	1	0634313198	0634313198	-

Consumable material to be ordered separately:

Consumable materials must be separately ordered at the INTERTURBINE AVIATION LOGISTICS company. The given CM numbers are i.a.w. the AMM List of Consumable Materials.

Website: <http://www.interturbine.com>

Tel.: +49.41.91.809.300

AOG: +49.41.91.809.444.

No.	Keyword	Qty	Material part number	CM	Disposition
1	Lubricating oil	a.n.*	MIL-PRF-23699 or O-156 (NATO) or CMS N49999X0040 or DERD 2499	103	A, B
2	Lubricating oil	a.n.*	ZFN-L-3001	1001	A, B
3	Dry cleaning solvent	a.n.*	MIL-PRF-680 or TL6810-0012/1a or S-752 (NATO)	202	A

*a.n. = as needed

Disposition:

A = Required to wet the O-rings when the oil filter element is installed i.a.w. AMM, 63-21-00, 4-5.

B = Choose the lubricating oil given in No. 1 and 2 corresponding to the transmission oil used.

3. ACCOMPLISHMENT INSTRUCTIONS

3.A. GENERAL INFORMATION

Not applicable.

3.B. OPERATIONAL PROCEDURE

3.B.1. Preliminary steps

Not applicable.

3.B.2. Procedure

(a) Retrofit of the corrugated washer:

- 1 Remove LH and RH transmission fairings i.a.w. AMM, 71-11-00, 4-4.
- 2 Remove oil filter element i.a.w. AMM, 63-21-00, 4-5.
- 3 Install the corrugated washer (7, Figure 2) in the middle of the filter housing (8) of the housing upper part of the main transmission (see also Figure 3).
- 4 Install oil filter element i.a.w. AMM, 63-21-00, 4-5.
- 5 Install LH and RH transmission fairings i.a.w. AMM, 71-11-00, 4-4.
- 6 Enter the following in the log card of the main transmission: "ASB EC135-63A-017 accomplished. Housing upper part of the main transmission must be reworked at the next major repair or major overhaul measure for the main transmission, but no later than 5000 Fh (+ 150 Fh tolerance) after receipt of Revision 0 of this Alert Service Bulletin".

(b) Rework of the housing upper part by the manufacturer or a service station authorized by the manufacturer:

NOTE With accomplishment of this rework corrugated washer 0630100377 is deleted.

- 1 Rework housing upper part i.a.w. Service Instruction EC135FS108-1659-1009 by ZFL.
- 2 Confirm accomplishment of this rework by an entry in the log card of the main transmission.

3.B.3. Final steps

Not applicable.

3.C. IDENTIFICATION

Not applicable.

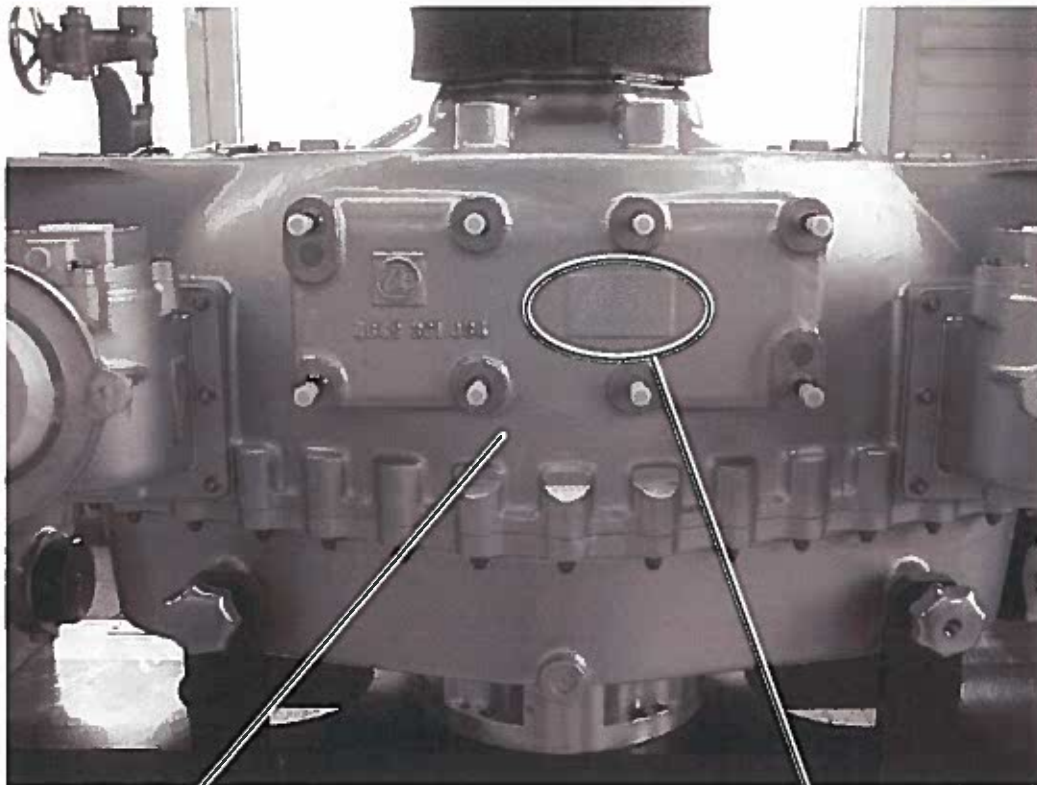
3.D. OPERATING AND MAINTENANCE INSTRUCTIONS

Flight manual:

Not applicable.


AMM/maintenance manual:

Not applicable.

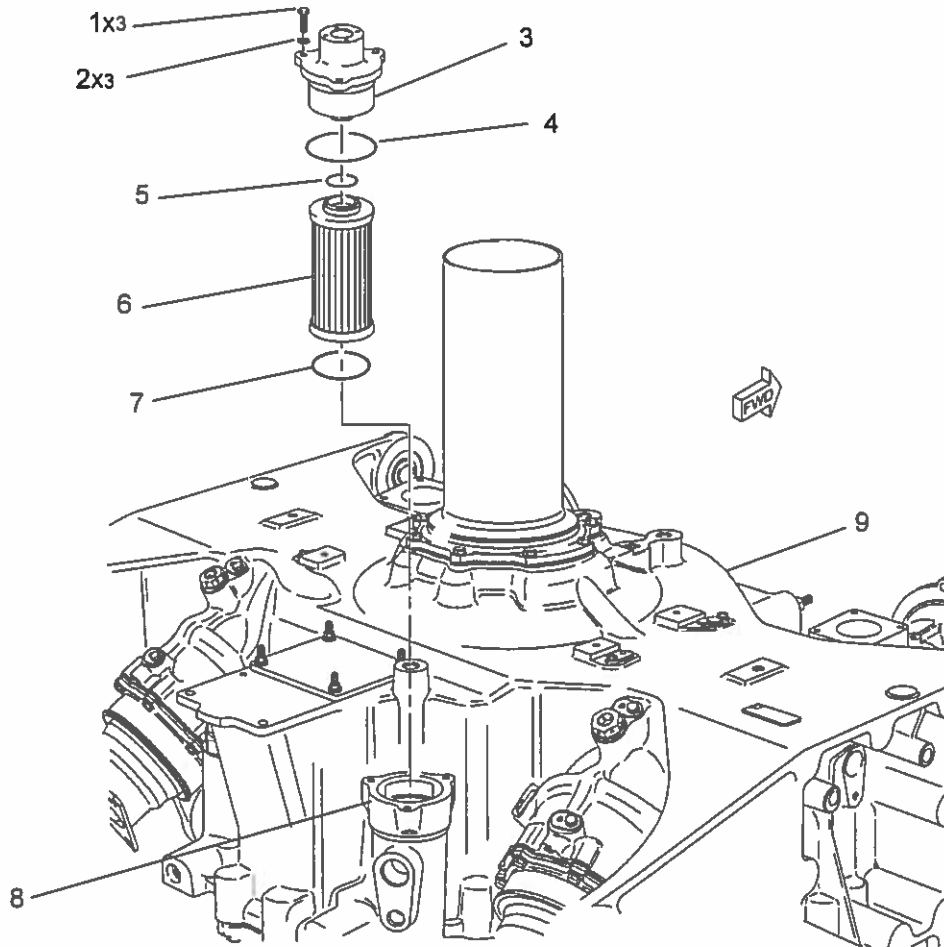



 S/N of the housing upper part

Housing upper part

-  Main transmission shown when removed.
It is not required to remove the main transmission and the main transmission drive in order to identify the S/N of the housing upper part.

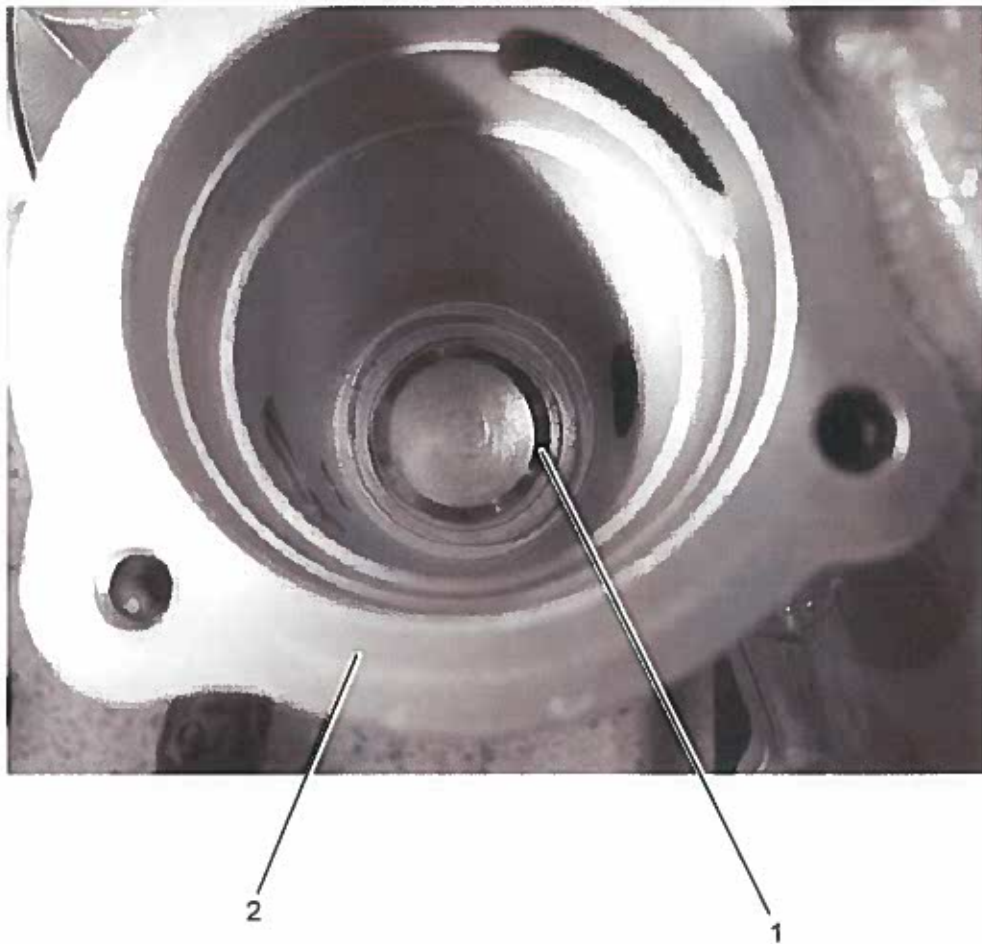
S/N Position of the Housing Upper Part
Figure 1



- 1 Screw
- 2 Washer
- 3 Filter cover
- 4 O-ring 0634313445
- 5 O-ring 0634313198
- 6 Oil filter element
- 7 Corrugated washer 0630100377 
- 8 Filter housing
- 9 Housing upper part

 Install corrugated washer in the middle of the filter housing.

Housing Upper Part - Installation of corrugated washer
Figure 2



- 1 Corrugated washer 0630100377 
- 2 Filter housing

 Install corrugated washer in the middle of the filter housing.

Housing Upper Part – Installation of corrugated washer
Figure 3

List of housing upper part S/N affected by ASB EC135-63A-017. List updated by ZF Luffahrttechnik. (Issue of 21.10.2016)

Housing S/N	Housing S/N	Housing S/N	Housing S/N	Housing S/N	Housing S/N	Housing S/N	Housing S/N
111	186	265	332	1013	1052	1088	1125
115	187	267	333	1014	1053	1089	1126
119	188	268	335	1015	1054	1090	1127
127	189	269	336	1016	1055	1091	1128
130	190	271	337	1017	1056	1092	1129
136	193	272	338	1018	1057	1093	1130
137	195	273	339	1019	1058	1094	1131
144	200	274	341	1020	1059	1095	1132
151	201	276	342	1021	1060	1096	1133
152	202	277	343	1022	1061	1097	1134
153	203	279	345	1023	1062	1098	1135
155	209	280	346	1024	1063	1099	1136
156	215	281	347	1025	1064	1100	1137
157	217	289	348	1026	1066	1102	1138
158	218	292	349	1027	1067	1103	1139
159	220	294	351	1029	1068	1104	1140
161	223	295	355	1030	1069	1105	1141
162	224	296	357	1031	1070	1106	1142
163	227	297	358	1032	1071	1107	1143
165	242	300	360	1034	1072	1108	1144
166	244	302	363	1035	1073	1109	1145
167	249	304	364	1036	1074	1110	1146
168	250	305	366	1037	1075	1111	1147
170	245	307	1000	1039	1076	1112	1149
171	246	309	1001	1040	1077	1113	1150
173	247	310	1002	1041	1078	1114	1151
175	248	313	1003	1042	1079	1115	1152
176	251	316	1004	1043	1080	1116	1153
177	254	318	1005	1044	1081	1117	1154
178	255	319	1006	1045	1082	1118	1155
179	257	322	1008	1046	1083	1119	1156
181	259	323	1009	1047	1084	1120	1157
183	260	329	1010	1048	1085	1122	1158
184	262	330	1011	1050	1086	1123	1159
185	263	331	1012	1051	1087	1124	1160

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Housing S/N	Housing S/N	Housing S/N	Housing S/N	Housing S/N	Housing S/N	Housing S/N	Housing S/N
1161	1197	1235	1273	1311	1348	1386	1424
1162	1199	1236	1274	1312	1349	1387	1425
1163	1200	1237	1275	1313	1350	1388	1426
1164	1201	1238	1276	1315	1351	1389	1427
1165	1202	1239	1277	1316	1352	1390	1428
1166	1203	1240	1278	1317	1353	1391	1430
1167	1204	1241	1279	1318	1354	1392	1431
1168	1205	1242	1280	1319	1355	1393	1432
1169	1206	1243	1281	1320	1356	1394	1433
1170	1207	1245	1282	1321	1357	1395	1434
1171	1208	1246	1283	1322	1358	1396	1435
1172	1209	1247	1284	1323	1359	1397	1436
1173	1210	1248	1285	1324	1361	1398	1437
1174	1211	1249	1286	1325	1362	1399	1438
1175	1212	1250	1287	1326	1363	1400	1439
1176	1213	1251	1288	1327	1364	1401	1440
1177	1214	1252	1289	1328	1365	1402	1441
1178	1216	1253	1290	1329	1366	1403	1442
1179	1217	1254	1291	1330	1367	1404	1443
1180	1218	1255	1292	1331	1368	1405	1444
1181	1219	1256	1293	1332	1369	1406	1445
1182	1220	1257	1294	1333	1370	1407	1446
1183	1221	1258	1296	1334	1371	1408	1447
1184	1222	1259	1297	1335	1372	1409	1449
1185	1223	1260	1298	1336	1373	1410	1450
1186	1224	1261	1299	1337	1375	1412	1451
1187	1225	1262	1300	1338	1376	1413	1452
1188	1226	1263	1301	1339	1377	1414	1453
1189	1227	1264	1302	1340	1378	1415	1454
1190	1228	1265	1303	1341	1379	1416	1455
1191	1229	1267	1304	1342	1380	1417	1456
1192	1230	1268	1305	1343	1381	1419	1457
1193	1231	1269	1307	1344	1382	1420	1458
1194	1232	1270	1308	1345	1383	1421	1459
1195	1233	1271	1309	1346	1384	1422	1460
1196	1234	1272	1310	1347	1385	1423	1461

Table 1 (Page 2 of 3)

Housing S/N	Housing S/N	Housing S/N	Housing S/N	Housing S/N	Housing S/N	Housing S/N	Housing S/N
1462	1500	1533	1569	1602	1636	1672	1705
1464	1502	1534	1570	1603	1637	1673	1706
1465	1503	1535	1571	1604	1638	1674	1707
1466	1504	1536	1572	1606	1639	1675	1708
1467	1505	1538	1573	1607	1640	1676	1709
1468	1506	1540	1574	1608	1641	1677	1711
1469	1507	1541	1575	1609	1642	1678	1712
1470	1508	1542	1576	1610	1643	1679	1713
1471	1509	1543	1577	1611	1645	1680	1714
1472	1510	1544	1578	1612	1646	1681	1716
1478	1511	1545	1579	1613	1649	1682	1717
1479	1512	1546	1580	1614	1650	1684	1718
1480	1513	1547	1581	1615	1651	1685	1720
1481	1514	1548	1582	1616	1652	1686	1721
1482	1515	1549	1583	1617	1653	1687	1722
1483	1516	1550	1584	1618	1654	1688	1723
1484	1517	1551	1586	1619	1655	1689	1724
1485	1518	1552	1587	1620	1656	1690	1725
1486	1519	1553	1588	1621	1658	1691	1726
1487	1520	1554	1589	1622	1659	1692	1727
1488	1521	1555	1590	1623	1660	1693	1728
1489	1522	1557	1591	1624	1661	1694	1729
1490	1523	1558	1592	1625	1662	1695	1730
1491	1524	1559	1593	1626	1663	1696	1732
1492	1525	1560	1594	1627	1664	1697	1733
1493	1526	1561	1595	1628	1665	1698	1735
1494	1527	1562	1596	1629	1666	1699	1736
1495	1528	1563	1597	1630	1667	1700	1742
1496	1529	1564	1598	1631	1668	1701	
1497	1530	1565	1599	1632	1669	1702	
1498	1531	1567	1600	1633	1670	1703	
1499	1532	1568	1601	1635	1671	1704	

Note: The crossed out housing upper part S/Ns were reworked by ZF Luffahrttechnik and are no longer affected by ASB EC135-63A-017 Revision 2.

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