



Airworthiness Directive

AD No.: 2016-0246

Issued: 13 December 2016

Note: This 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):

AB139 and AW139 helicopters

Effective Date: 20 December 2016

TCDS Number(s): EASA.R.006

Foreign AD: Not applicable

Supersedure: None

ATA 65 – Tail Rotor Drive – Tail Gearbox Central Housing – Dimensional Check / Replacement

Manufacturer(s):

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

Applicability:

AB139 and AW139 helicopters, all serial numbers (s/n).

Reason:

Some tail gearbox (TGB) central housings have been identified having a section thickness not conforming to the type design.

This condition, if not detected and corrected, could lead to premature cracks in the TGB central housing, possibly resulting in failure of the tail gear rotor transmission and consequent reduced control of the helicopter.

To address this potential unsafe condition, Leonardo published Mandatory Bollettino Tecnico (BT) 139-274 providing instructions for identification and a dimensional check of the affected TGB central housing to verify its thickness.



For the reasons described above, this AD requires a one-time dimensional check of the affected TGB central housing and, depending on findings, replacement with a serviceable part.

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

Required as indicated, unless accomplished previously:

Note 1: For the purpose of this AD, an affected TGB central housing is a part having Part Number (P/N) 3T6522A05144 or P/N 3T6522A05146, all s/n, except those listed in Table 1 of this AD, and is installed on a TGB assembly P/N 3T6522A00239, P/N 3T6522A00242, P/N 3T6522A00243, or P/N 3T6522A00246.

Table 1 – TGB Central Housings – Not Affected

s/n of unaffected parts					
TAE0239	TAP5835	TAW1636	TBF7054	TBJ5541	TBK4816
TFA0291	TFA0861	TFA0918	TFA1048	TFA1162	TFA1163
TFA1166 to TFA1170 inclusive			TFA1172 to TFA1177 inclusive		
TFA1361	TFA1373		TFA1380 to TFA1399 inclusive		
TFA1402 to TFA1413 inclusive			TFA1415 to TFA1419 inclusive		
TFA1503 to TFA1509 inclusive			TFA1517 to TFA1527 inclusive		

Dimensional Check:

- (1) Within the compliance time as specified in Table 2 of this AD, as applicable, accomplish a dimensional check of the affected TGB central housing in accordance with the instructions of Leonardo BT 139-274.

Table 2 – TGB central housing dimensional check

Flight Hours (FH) accumulated (see Note 2 of this AD)	Compliance Time	BT Part to be used
Less than 7 500 FH	At the first return to shop or service station for TGB overhaul or TGB repair after the effective date of this AD, but not later than 7 500 FH accumulated by the TGB	Part I; as an alternative using Part II is acceptable
7 500 FH or more	Within 300 FH after the effective date of this AD	Part II

Note 2: The number of FH specified in Table 2 of this AD are those accumulated by the TGB central housing since its first installation (new) on a helicopter.

Corrective Actions:

- (2) If, during any dimensional check as required by paragraph (1) of this AD, a TGB central housing wall thickness is found below 2.65 mm, before next flight, replace the TGB central housing or the TGB assembly, as applicable, with a serviceable part in accordance with the instructions of Leonardo BT 139-274.



Parts Installation:

- (3) From the effective date of this AD, installation on a helicopter of an affected TGB central housing, or a TGB assembly with an affected TGB housing installed, as applicable, is allowed, provided the part has passed the dimensional check as required by paragraph (1) of this AD.

Ref. Publications:

Leonardo S.p.A. Helicopters BT 139-274 original issue, dated 14 September 2016.

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. Based on the required actions and the compliance time, EASA have decided to issue a Final AD with Request for Comments, postponing the public consultation process until after publication.
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, E-mail: CSE.AW139.AW@leonardocompany.com

