

Airworthiness Directive

AD No.: 2024-0176

Issued: 11 September 2024

Note: This Airworthiness Directive (AD) is issued by EASA, acting in accordance with Regulation (EU) 2018/1139 on behalf of the European Union, its Member States and of the European third countries that participate in the activities of EASA under Article 129 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, or Annex Vb Part ML.A.301, as applicable, 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 the AD, unless otherwise specified by the Agency [Regulation (EU) 1321/2014 Annex I Part M.A.303, or Annex Vb Part ML.A.303, as applicable] or agreed by the Competent Authority of the State of Registry [Regulation (EU) 2018/1139, Article 71 exemption].

Design Approval Holder's Name:

FOKKER SERVICES B.V.

Type/Model designation(s):

F28 aeroplanes

Effective Date: 18 September 2024

TCDS Number(s): EASA.A.037

Foreign AD: Not applicable

Supersedure: None

ATA 32 – Landing Gear – Main Landing Gear Piston Inspection

Manufacturer(s):

Fokker Aircraft B.V.

Applicability:

F28 Mark 0070 and Mark 0100 aeroplanes, equipped with a Collins Aerospace (Collins) main landing gear (MLG) having Part Number (P/N) 41060-1 to -16 (inclusive) or P/N 41060-3 to -6 (inclusive), except those that (already) incorporated Fokker Services Service Bulletin (SB) SBF100-32-172.

Definitions:

For the purpose of this AD, the following definitions apply:

Affected part: Any MLG piston manufactured by Collins having P/N 41141-5, which is modified by the Australian landing gear shop Aerospace NDI Pty Ltd (ANDI) in accordance with SB 41000-32-29.

Service part(s): MLG pistons manufactured by Collins, having P/N 41141-5, which are not an affected part, as defined by this AD; or MLG pistons manufactured by Collins having P/N 41141-7.

The SB: Fokker Services SB SBF100-32-177.

Groups: Group 1 aeroplanes are those having an affected part installed. Group 2 aeroplanes are those which do not have an affected part installed.



Reason:

An occurrence was reported where, during a pre-flight inspection (visual check) of a Fokker F28 Mark 0070 aeroplane, a crack was identified on the lower aft side of a right-hand MLG piston.

The following investigation revealed that the affected main landing gear unit had been overhauled by an Australian landing gear shop, whereby the MLG piston had been modified; (whereafter the P/N was changed from 41141-3 to 41141-5). The affected piston was sent to the original equipment manufacturer (OEM) Collins for detailed investigation, who, although the investigation is still ongoing, determined that the crack in the lower end of the piston originated from stress corrosion cracking, most likely caused by the determined lack of the required nickel plating in the wire conduit hole of the part.

This condition, if not detected and corrected, could lead to structural failure and consequent collapse of the MLG, possibly resulting in damage to the aeroplane and injury to occupants.

To address this potential unsafe condition, Fokker Services issued the SB, as defined in this AD, which provides instructions for a detailed inspection for cracking of the affected parts, as defined in this AD, and for replacement of each found cracked part.

For the reason described above, this AD requires repetitive inspection of all affected parts and replacement of every found cracked part with a serviceable part as defined in this AD.

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

Required as indicated by this AD, unless the action(s) required by this AD have been already accomplished:

Inspection(s):

- (1) For Group 1 aeroplanes: Within 30 days after the effective date of this AD and, thereafter, before each first flight of the day, accomplish a detailed inspection of the lower aft side of each affected part in accordance with the instructions of the SB, as defined in this AD.

Corrective Action(s):

- (2) If, during any detailed inspection as required by paragraph (1) of this AD, any cracked affected part is detected, before next flight, replace that affected part, or replace the complete MLG strut, in accordance with the applicable instructions of the Fokker 70/100 aircraft maintenance manual.

Reporting:

- (3) Within 15 days after the final inspection as required by paragraph (1) of this AD report the results (including no findings) to Fokker Services and, thereafter, report each finding detected during the following inspections accomplished as required by paragraph (1) of this AD.

Terminating Action(s):

- (4) Replacement on the aeroplane of all affected parts with serviceable parts constitutes the terminating action for the repetitive inspections as required by paragraph (1) of this AD for that aeroplane, provided that, thereafter, no affected part, or MLG strut with an affected part installed, is installed on that aeroplane.



Parts Installation:

- (5) For Group 1 and Group 2 aeroplanes: From the effective date of this AD, it is required to install on any aeroplane an affected part or a MLG strut with an affected part installed, provided that, before next flight after installation, the affected part passed an inspection [no cracks found] in accordance with the instructions of the SB and, thereafter, it is repetitively inspected as required by paragraph (1) of this AD.

Ref. Publications:

Fokker Services SB SBF100-32-177 original issue dated 04 September 2011.

The use of later approved revisions of the above-mentioned 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 has decided to issue a Final AD with Request for Comments, postponing the public consultation process until after publication. All interested persons may send their comments, referring to the AD Number, to the E-mail address specified in below Remark 3, prior to 15 October 2024. Only if any comment is received during the consultation period, a Comment Response Document will be published in the [EASA Safety Publications Tool](#), in a compressed (zip) file, attached to the record for this AD.
3. Enquiries regarding this AD should be referred to the EASA Safety Information Section, Certification Directorate. E-mail: ADs@easa.europa.eu.
4. Information about any failures, malfunctions, defects or other occurrences, which may be similar to the unsafe condition addressed by this AD, and which may occur, or have occurred on a product, part or appliance not affected by this AD, can be reported to the [EU aviation safety reporting system](#). This may include reporting on the same or similar components, other than those covered by the defect which this AD applies, if the same unsafe condition can exist or may develop on an aircraft with those components installed. Such components may be installed under an FAA Parts Manufacturer Approval (PMA), Supplemental Type Certificate (STC) or other modification.
5. For any question concerning the technical content of the requirements in this AD, please contact: Fokker Services, Technical Services Dept., P.O. Box 1357, 2130 EL, Hoofddorp, The Netherlands; Telephone +31 88 6280 350, Fax +31 88 6280 111, or E-mail: technical_services@fokkerservices.com.
The referenced publication can be downloaded from www.myfokkerfleet.com.

