

Airworthiness Directive

AD No.: 2024-0192**Issued:** 10 October 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 that 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 with the 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: 17 October 2024**TCDS Number(s):** EASA.A.037**Foreign AD:** Not applicable**Supersedure:** This AD supersedes EASA AD 2024-0176 dated 11 September 2014.

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) 41050-7 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.

Serviceable 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 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 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 (DET) for cracking of the affected parts, as defined in this AD, and for replacement of each found cracked part. Consequently, EASA issued AD 2024-0176, requiring repetitive inspections of each affected part and replacement of any found cracked part with a serviceable part, as defined in this AD.

Since that AD was issued, it has been determined that the interval for the required repetitive DET has to be also based on number of flight cycles (FC).

For the reason described above, this AD retains the requirements of EASA AD 2024-0176, which is superseded, introducing an updated definition of the interval for accomplishment of the repetitive DET.

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 18 September 2024 [the effective date of EASA AD 2024-0176] and, thereafter, once on a flight day, at intervals not to exceed 48 hours or 8 FC, whichever occurs first, accomplish a DET 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 DET 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. This can be accomplished in accordance with the applicable instructions of the Fokker 70/100 aircraft maintenance manual.



Reporting:

- (3) Within 15 days after the initial 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 follow-on inspections accomplished as required by paragraph (1) of this AD.

Terminating Action:

- (4) Replacement on an aeroplane of all affected parts with serviceable parts constitutes 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 on it, is installed on that aeroplane.

Parts Installation:

- (5) For Group 1 and Group 2 aeroplanes: From 18 September 2024 [the effective date of EASA AD 2024-0176], it is allowed to install on any aeroplane an affected part or a MLG strut with an affected part installed on it, provided that, before next flight after installation, the affected part passed an inspection (no crack(s) 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 2024.

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 have 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, referencing the AD Number, to the E-mail address specified in below Remark 3, prior to 07 November 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 ('zipped') 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 design to 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 B.V., 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: technicalservices@fokkerservices.com.
The referenced publication can be downloaded from www.myfokkerfleet.com.

