

Federal Department of the Environment, Transport, Energy and Communications DETEC

Federal Office of Civil Aviation FOCA

Safety Division - Aircraft

Swiss Confederation

Lufttüchtigkeitsanweisung (LTA) Consigne de Navigabilité (CN) Direttive sulla Navigabilità (DN) Airworthiness Directive (AD)		FOCA AD HB-2013-007
Inkraftsetzung Mise en vigueur Entrata in vigore Effective Date	17 October 2013	Pilatus – PC-7 MkII FOCA TC/TCDS No: F 56-25

Issue Date: 03 October 2013

ATA Chapter: ATA 51 – Standard Practices and Structures

Subject: Standard Practices and Structures – Aircraft Structure –

**Identification of Material Specification, Inspection** 

Supersedure / Revised

AD(s):

Not applicable

Type Certificate Holder's Name:

Pilatus Aircraft Ltd.

Manufacturer(s): Pilatus Aircraft Ltd.

Applicability: Model PC-7 MkII aircraft, Manufacturer Serial Numbers (MSN) 010,

MSN 101 through MSN 160, MSN 601 through MSN 604, MSN 608

through MSN 616 and MSN 675 through MSN 684.

**Reason:** This Airworthiness Directive (AD) is prompted due to the possibility of

cracks in some critical parts. It is possible that stress corrosion cracks may occur on various parts of the aircraft structure initially made of aluminium alloy AA2024-T351 which is susceptible to Stress Corrosion Cracking (SCC). Later in production, the material specification was changed to aluminium alloy AA2124-T851 to decrease the risk of stress corrosion. The Part Number (P/N) of the affected structural parts are not

always changed when the new material was introduced.

Such a condition, if left uncorrected, could lead to failure of critical parts on the aircraft structure and will prejudice the structural integrity of the

aircraft.

In order to correct and control the situation, this AD requires a one-time check to identify the material specification and inspect the affected areas of the airframe that are made of aluminium alloy AA2024-T351. Any structural parts of the aircraft structure found to be cracked must be reported to

Pilatus prior to further flight.

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

Required as indicated below, unless already accomplished:

(1) Within the next 365 days after the effective date of this AD, perform a conductivity test to identify the material specification of the affected parts on the aircraft structure and on parts held in stores as defined by paragraphs (§) 1.A.(2) and § (4) of PILATUS PC-7 MkII Service Bulletin No. 51-001.

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- (2) If during the conductivity tests required by § (1) of this AD, any parts on the aircraft structure made of aluminium alloy AA2124-T851 are found, re-identify the part numbers as required by § 2.D. of PILATUS PC-7 MkII Service Bulletin No. 51-001 and make an entry in the aircraft logbook as required by § 3.D.(3) of PILATUS PC-7 MkII Service Bulletin No. 51-001.
- (3) If during the conductivity tests required by § (1) of this AD, any parts on the aircraft structure made of aluminium alloy AA2024-T351 in the items 1 through 8 and 13 and 14 as referenced in PILATUS PC-7 MkII Service Bulletin No. 51-001 are found, perform a one time inspection for cracks.
  - **Note 1**: Mandatory repetitive inspections will be added to Chapter 5 of the Aircraft Maintenance Manual (AMM). The inspections will give instructions on how to examine the parts for cracks. The repetitive inspections will only be applicable to parts made from aluminium alloy AA2024-T351 installed on the aircraft structure.
- (4) If during the inspection of § (3) of this AD, any cracked parts on the aircraft structure in the items 1 through 8 and 13 and 14 as referenced in PILATUS PC-7 MkII Service Bulletin No. 51-001 are found, prior to further flight, contact Pilatus for a repair solution.
- (5) If during the conductivity test required by § (1) of this AD, any parts held in stores made of aluminium alloy AA2024-T351 are found, replace the affected parts with new parts made from aluminium alloy AA2024-T851.
- (6) If during the conductivity tests required by § (1) of this AD, any parts on the aircraft structure made of aluminium alloy AA2024-T351 in the items 9 through 12 as referenced in PILATUS PC-7 Mk Service Bulletin No. 51-001 are found, before further flight, replace the affected parts with new parts made from aluminium alloy AA2124-T851.

## Ref. Publication(s):

PILATUS PC-7 MkII Service Bulletin No. 51-001, initial issue.

The use of later approved revisions of this document is acceptable for compliance with the requirements of this AD.

## For further information contact:

The applicable manufacturer's documentation may be obtained directly from:

PILATUS AIRCRAFT LTD.
Customer Technical Support (MCC)
P.O. Box 992
CH-6371 Stans, Switzerland

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