

Bundesamt für Zivilluftfahrt (BAZL) Office fédéral de l'aviation civile (OFAC) Ufficio federale dell'aviazione civile (UFAC) Federal Office for Civil Aviation (FOCA) Maulbeerstrasse 9 CH-3003 Berne Switzerland	Lufttüchtigkeitsanweisung (LTA) Consigne de Navigabilité (CN) Prescrizione di Aeronavigabilità (PA) Airworthiness Directive (AD)	FOCA AD HB 2002-642
Inkraftsetzung Mise en vigueur Entrata in vigore Effective Date	PILATUS - PC-6 FOCA TC/TCDS No.: F 56-10 ATA 27	

**TITLE: PILATUS AIRCRAFT LTD. – PC-6
BELLCRANK ASSEMBLIES – BEARING HOUSINGS - Inspection/Replacement.**

APPLICABILITY:

PILATUS AIRCRAFT LTD.

Model PC-6 Series airplanes.

All Manufacturers Serial Numbers (MSN) up to and including MSN 939.

REASON:

This Airworthiness Directive (AD) is prompted by an incident involving a PC-6 airplane where increased friction in the aileron flight-control system was noticed. It has been found that axial movement of bellcrank assemblies (P/N's 6132.0071.51, 6132.0071.52 and 6232.0118.00) can occur in the aileron control systems which could cause the heads of the control cable attachment bolts to interfere with the adjacent structure.

The axial movement occurs if the bearings P/N's 940.83.18.301 and 940.83.18.303 become loose in the bearing housings of bellcrank assemblies. This is caused by deterioration of the bond between the surfaces of the bearings and their housings.

To prevent increased friction in the aileron flight-control system this Airworthiness Directive requires inspection of the bellcrank assemblies and related components and modification, if necessary.

EFFECTIVE DATE:

15 November 2002


COMPLIANCE:

Required as indicated below, unless already accomplished.

(a) Within the next 100 hours time-in-service (TIS) or 3 months after the effective date of this AD,

- (1) Inspect wing bellcrank assemblies P/Ns 6132.0071.51 and 6132.0071.52 (before removal) to identify if the housings have circlips (P/N N237) installed. The circlips prevent axial movement of the bellcranks on their bearings.
If circlips are installed, perform the actions required in paragraph (b)(3) and (b) (4).
- (2) If during the inspection required by paragraph (a)(1) of this AD it is found that no circlips are installed; perform all actions required by paragraph (b) of this AD.
- (3) Inspect the fuselage bellcrank assembly 6232.0118.00 (before removal) to identify if the housing has a circlip. The circlip prevents axial movement of the bellcrank on its bearing.
If a circlip is installed, make sure that the fuselage bellcrank assembly is installed with the flange of the housing to the rear (towards frame 3).
- (4) If during the inspection required by paragraph (a)(3) of this AD it is found that the bellcrank has either no circlip and/or is not installed as required, perform the actions in paragraph (c).

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(b) WING BELLCRANK ASSEMBLIES AND RELATED COMPONENTS

- (1) Remove the wing bellcranks assemblies P/N 6132.0071.51 and P/N 6132.0071.52. Inspect the housings for wear, damage and signs of axial movement of the bearings in the housings. Replace worn or damaged bearings.
- (2) Stake and lock the bearing in the housing of the wing bellcranks P/N 6132.0071.51 and P/N 6132.0071.52 in accordance with the Accomplishment Instructions specified in PILATUS PC-6 Service Bulletin No. 27-001.
- (3) Inspect the control-cable attachment bolts for correct type and for signs of rub damage on the heads. Discard bolts which are damaged and/or have a total length (including head) of more than 21,5 mm (0.85 in.).

NOTE: It is not sufficient to do a check of the bolt part numbers. This is because it is possible for bolts of different lengths to have the same identification

- (4) Do an inspection of the support plate for signs of rub damage caused by the bolts. If damage is found; apply to PILATUS for repair instructions.

(c) FUSELAGE BELLCRANK ASSEMBLY

- (1) Remove the fuselage bellcrank assembly P/N 6232.0118.00 and inspect the housing for wear, damage and signs of axial movement of the bearing in the housing. Replace worn or damaged bearings. If any signs of axial movement of a bearing in the housing is found apply to PILATUS for a repair procedure.
- (2) Reinstall the fuselage bellcrank assembly P/N 6232.0118.00. Ensure that the fuselage bellcrank assembly is installed that surface of the bellcrank with the flange of the housing is installed to the rear (adjacent to Frame 3). The effect of this is to lock the bellcrank on the bearing tube and thus prevent movement.

(d) SPARE PARTS:

- (1) As of the effective date of this AD, no person shall install any bellcrank assemblies P/N 6132.0071.51, 6132.0071.52 and 6232.0118.00, on any Model PILATUS PC-6 Series airplane, unless the aileron assembly has been inspected, modified and installed in accordance with the Accomplishment Instructions specified in PILATUS PC-6 Service Bulletin No. 27-001, dated 05 June 2002, or later revisions approved by the Swiss Federal Office for Civil Aviation (FOCA).

(e) REF. PUBLICATIONS:

- (1) The actions required by this AD shall be done in accordance with the manufacturer's documentation listed in this paragraph, and/or later revisions approved by the Swiss Federal Office for Civil Aviation (FOCA):
 - PILATUS PC-6 Service Bulletin No. 27-001, dated 05 June 2002.
 - PILATUS PC-6 Illustrated Parts Catalog (IPC) Temporary Revision No.27-01, dated 05 June 2002.

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

PILATUS AIRCRAFT LTD
CUSTOMER LIAISON MANAGER
CH-6371 STANS , Switzerland

TEL No.: +41 41 619 6580
FAX No.: +41 41 610 3351
Email: : fodermatt@pilatus-aircraft.com

FOR FURTHER INFORMATION CONTACT:

FEDERAL OFFICE FOR CIVIL AVIATION (FOCA)
Type Certification (MZ)
Maulbeerstrasse 9
CH-3003 Berne, Switzerland

FAX No.: +41 31 325 8051 (or)
FAX No.: +41 31 322 5918

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