



Bundesamt für Zivilluftfahrt (BAZL)  
Office fédéral de l'aviation civile (OFAC)  
Ufficio federale dell'aviazione civile (UFAC)  
Federal Office for Civil Aviation (FOCA)

3003 Bern/Berne/Berna

**Lufttüchtigkeitsanweisung  
Consigne de navigabilité  
Prescrizione di aeronavigabilità  
Airworthiness directive**

**HB 91-144**

Inkraftsetzung  
Date en vigueur  
Entrata in vigore  
Effective Date

**14.5.1991**

**Betroffene Muster – Types concernés – Applicabilità – Models affected**

All Pilatus PC-9 aircraft, models PC-9/A, PC-9/B and PC-9/F

**Anlass/Massnahmen – Objet/Mesures – Oggetto/Provvedimenti – Subject/Action**

Main Landing Gear (MLG) - Cracks in the MLG leg housing - Inspection and repair, if necessary

**Fristen – Délais – Scadenza – Compliance**

In accordance with Service Bulletin; the effective date on this page is applicable

**Herkunft – Provenance – Provenienza – Origin**

Pilatus Aircraft Ltd.

**Bezugnahme – Référence – Riferimento – Reference**

Pilatus Service Bulletin (SB) PC9-32-003, Ref. No. 015

**Bemerkungen – Observations – Osservazioni – Remarks**

"Planning Information" of SB PC9-32-003, pages 1-5 are attached

Rechtsmittelbelehrung siehe TM Nr.  
Voies de droit voir CT no. F 80.015-10  
Rimedi giuridici vedi CT no.  
Right to appeal see TC no.

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PILATUS AIRCRAFT LTD CH-6370 STANS SWITZERLAND

# SERVICE BULLETIN

SERVICE BULLETIN NO: PC9-32-003

REF NO: 015

MODIFICATION NO:

ATA CHAPTER: 32

## LANDING GEAR - CRACKS DETECTED IN MAIN LEG HOUSING

### 1. Planning Information

#### A. Effectivity

(1) All PC-9 Aircraft: - models PC-9, PC-9/A, PC-9/B and PC-9/F

(2) The following spares:

Landing Gear Shock Strut (LH) - Part Number 532.10.09.041 (or 532.10.09.045)

Landing Gear Shock Strut (RH) - Part Number 532.10.09.042 (or 532.10.09.046)

Cylinder inc Bushing (LH) - Part Number 114.35.07.023

Cylinder inc Bushing (LH) - Part Number 114.35.07.024

(3) This Service Bulletin will be incorporated prior to delivery on MSN 180 and subsequent.

#### B. Reason

During a heavy landing inspection on a PC-7 aircraft, cracks were found in the leg housings of the main landing gear. The cracks were found in the fabricated part of the leg housing, in the welded seams at the upper axle attachment points (Ref. Fig. 1). Subsequent inspections of PC-7 aircraft as a result of this development, have confirmed other cases of cracks in the same location.

The main leg housings on PC-9 aircraft are of similar construction to those installed on the PC-7. Inspection of a number of PC-9 aircraft has revealed cracks in identical locations.

The cracks can be extremely difficult to detect, and it is not possible to do an "in situ" inspection with accuracy. The main legs must be removed from the aircraft and they must be inspected using magnetic flaw detection techniques.

**NOTE:** The Dye Penetrant method of crack detection is not sufficiently accurate for this task.

#### C. Description

Accomplishment of this Service Bulletin consists of completing the following tasks:

##### Aircraft

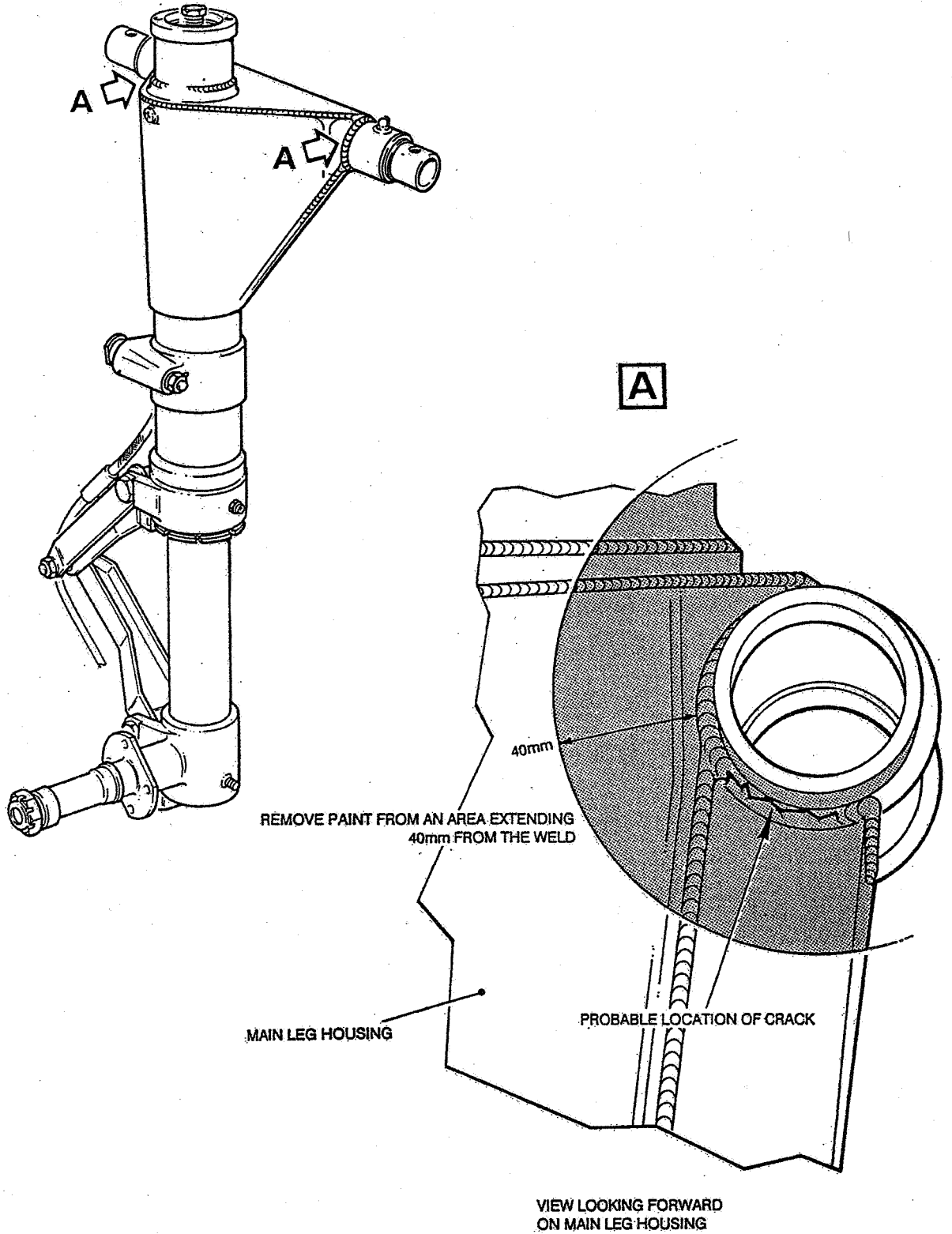
(1) Support the aircraft on jacks.

(2) Remove the mainwheels and the brake units.

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Main Landing Gear Installation - Location of Possible Cracks  
Figure 1

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- (3) Remove the main landing gear from the aircraft.
- (4) Install the main landing gear on the aircraft.
- (5) Install the brake units and mainwheels.
- (6) Do an Operational Test of the landing gear.
- (7) Lower the aircraft and remove the jacks.

**Bench Procedure**

- (1) Remove the paint from the area to be crack-tested.
- (2) Complete the applicable magnetic flaw detection test(s).
- (3) Repair any cracks which are detected using the TIG welding process.
- (4) Repair the paint finish on the main legs.

**D. Compliance**

**Mandatory - To be accomplished within 200 flying hours following receipt of this Service Bulletin.**  
- Depending on the results obtained, and unless a revision to the SB has been issued, do the following procedures as applicable.

- (i) If no cracks were found during the inspection procedure, repeat the accomplishment instructions of this SB after 1000 flying hours or 2000 landings (whichever comes first).
- (ii) If a crack was found during the inspection procedure and the repair was completed by the Operator, after a further 500 landings, repeat the instructions given in para 2C (Inspection) of the Accomplishment Instructions. If no cracks are found on this inspection, proceed as in para (i) above. If cracks are found, return the defective item(s) to Pilatus for repair.

**E. Approval**

The technical aspects of this Service Bulletin have been approved by the Federal Office for Civil Aviation (FOCA) of Switzerland as an Airworthiness Directive.

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F. Manpower	Manhours
Preparation	5.0
Inspection	3.0
Repair	5.0
Installation	6.0
Test	1.0
Close-up	2.0
<b>TOTAL MANHOURS</b>	<b>22.0</b>
<b>ELAPSED TIME (HOURS)</b>	<b>19.0</b>

Manhours figures are calculated for units installed in the aircraft and represent the total time estimated for both main legs. The time required to accomplish this Service Bulletin on an item held as a spare, is obviously considerably less.

**G. Material - Cost and Availability**

**(1) Material**

Operators should send orders for Service Bulletin modification kits, to:

PILATUS AIRCRAFT LTD  
 PRODUCT SUPPORT DEPARTMENT  
 CH 6370  
 STANS  
 SWITZERLAND                      FAX No.                      041/613 351

**NOTE:** Operators are requested to advise Pilatus Aircraft Ltd. of the Manufacturers Serial Number, and the flying hours and landings of aircraft which are allocated for this Service Bulletin. Please see Annexe A.

**(2) Cost and Availability**

Kit No.	Cost	Availability *
SB PC-9 32-003	No Charge	21

\* Calendar days from receipt of order

**H. Tooling**

None.

**I. Weight and Balance**

Not Affected.

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**J. References**

Maintenance Manual, Chapters 7-00-00, 32-00-01, 32-10-01, 32-30-01, 32-41-01 and 32-42-01.

**K. Publications Affected**

None.