

SERVICE BULLETIN

SERVICE BULLETIN NO: 32-002

REF NO: 193

MODIFICATION NO: EC-06-0811

ATA CHAPTER: 32

LANDING GEAR - WHEELS AND BRAKES BRAKE PEDALS - FREEDOM OF MOVEMENT CHECK

1. Planning Information

A. Effectivity

PC-6 aircraft MSN 101 thru MSN 950 and MSN 2001 thru MSN 2092.

All rudder pedal assemblies P/N 6232.0011.00, P/N 6232.0255.52, P/N 116.35.06.050, P/N 116.35.06.053 and P/N 116.35.06.054 held as spare.

B. Concurrent Requirements

None

C. Reason

(1) Problem

PILATUS have found that free movement of the brake pedals is being prevented in some aircraft.

(2) Cause

Free movement of the brake pedals is being prevented because the clearance distances between the rudder bar lugs (which support the brake pedals) are not sufficient in some aircraft.

(3) Solution

(a) Do a check of the brake pedals for full and free movement.

(b) If necessary, increase the clearance distances between the applicable rudder bar lugs. It will also be necessary to replace the initially installed washers (6232.0011.16) with thinner washers when you do this.

PILATUS
PC-6
SERVICE BULLETIN

D. Description

This Service Bulletin gives the data and instructions necessary to:

- Do a check of the brake pedals for freedom of movement
- Increase the clearance distances between the applicable rudder bar lugs

Revision No. 1 to this Service Bulletin:

- Corrects the item numbers for the washers given in Para. 2.A.(2) and Para. 2.C.(1)
- Corrects the item number of the rudder bar assembly in Para. 3.D.(3)
- Corrects and clarifies the direction of installation of the parallel pins.

Revision No. 2 to this Service Bulletin:

- Changes the effectivity of the Service Bulletin from all PC-6 Series aircraft to MSN 101 to 950 and 2001 to 2092
- Corrects the part numbers of the assemblies from P/Ns 116.358.06.050 and 116.358.06.053 to P/Ns 116.35.06.050, P/N 116.35.06.053
- Adds the P/N 116.35.06.054 for the co-pilots installation.

E. Compliance

Mandatory.

Required not later than 100 flying hours or 12 months from the effective date of this Service Bulletin.

F. Approval


The technical content of this Service Bulletin is approved under the authority of DOA No. EASA. 21J. 357.

PILATUS advises Operators/Owners to check with their local Airworthiness Authorities for any changes, local regulations or sanctions that may affect the embodiment of this Service Bulletin.

G. Manpower

	Total	Total
Preparation	0.50	0.50
Examination	1.00	1.00
Modification		3.00
Close up	0.50	0.50
TOTAL MAN-HOURS	2.00	5.00

NOTE: The Modification man-hour total is given for one rudder bar assembly (pilot or co-pilot).


PC-6
SERVICE BULLETIN

H. Weight and Balance

(1) Weight Change

Not affected.

(2) Moment Change

Not affected.

I. Electrical Load Data

Not changed.

J. Software

Not changed.

K. References

Aircraft Maintenance Manual (AMM). 20-10-01.

L. Publications Affected

Illustrated Parts Catalog, 27-21-11 and 27-21-12.

M. Interchangeability of Parts

Pre and Post-Service Bulletin 32-002 items are not interchangeable.

PILATUS
PC-6
SERVICE BULLETIN

2. Material Information

Part Numbers, given in this Service Bulletin, are correct at the time of approval. PILATUS reserves the right to change part numbers as necessary.

A. Material Necessary for Each Aircraft

(1) Material to be Purchased

Not applicable. Modification kit not necessary for this Service Bulletin.

(2) Additional Material to be Purchased

Operators must make an order for the following parts as necessary for their aircraft

NEW PART NO.	DESCRIPTION	OLD PART NO.	QTY	DISP. CODE	FIG	ITEM
938.77.11.114	WASHER - FLAT (NAS1149F0432P)	6232.0011.16	A/R	D	1	4

Disposition Codes: D - Discard / R - Return to Pilatus

B. Operator Supplied Materials

PART NO.	DESCRIPTION	QTY	REMARKS
940.17.02.235	PIN - COTTER STEEL	8	MS24665-208
940.17.02.225	PIN - COTTER STEEL	4	MS24665-132

C. Material Necessary for Each Spare

(1) Material to be Purchased

NEW PART NO.	DESCRIPTION	OLD PART NO.	QTY	DISP. CODE	FIG	ITEM
938.77.11.114	WASHER - FLAT (NAS1149F0432P)	N/A	A/R	D	1	4

Disposition Codes: D - Discard / R - Return to Pilatus

(2) Operator Supplied Materials)

PART NO.	DESCRIPTION	QTY	REMARKS
940.17.02.235	PIN - COTTER STEEL	8	MS24665-208
940.17.02.225	PIN - COTTER STEEL	4	MS24665-132

≡PILATUS≡
PC-6
SERVICE BULLETIN

3. Accomplishment Instructions - Aircraft (Ref. Fig 1)

A. Removal

- (1) Remove and discard the cotter pins (8).
- (2) Remove the parallel pins (10) and washers (9).
- (3) Disconnect the bottoms of the cylinders (1) from the brake levers of the pedal (6) and (7).

NOTE: It is not necessary to disconnect the upper ends of the cylinders or the hydraulic pipes.

B. Check

- (1) Move each brake pedal (6) and (7) fully forward and aft with your hand until it touches the adjacent structure in the two directions. Hold the cylinders (1) away from the applicable brake pedal (6) or (7) when you do this. It must be possible for each brake pedal to move freely through its full range of movement under its own weight. Stiffness and/or limited movement of a brake pedal is not permitted.
- (2) Continue with the procedure given in Para D if there is no stiffness or limited movement of a brake pedal in the applicable rudder bar assembly
- (3) Increase the clearance distances between the applicable lugs of the rudder bar assembly (2) (Ref. Para C). This step is only applicable if you found stiffness and/or limited movement of the brake pedal in Step (1).

C. Modification

This modification procedure is only applicable if you found stiffness and/or limited movement of one or more brake pedals during the check (Ref. Para B, (1)).

- (1) Remove the applicable brake pedal/s.
 - (a) Remove and discard the cotter pins (5).
 - (b) Remove the parallel pins (3) and washers (4). Discard the washers.
 - (c) Disassemble the brake pedal/s from the rudder bar assembly (2).

CAUTION: BE CAREFUL WHEN YOU USE A LEVER TO INCREASE THE DISTANCES BETWEEN THE RUDDER BAR LUGS. YOU CAN CAUSE DISTORTION OF THE LUGS AND DAMAGE TO THE LAYERS OF PAINT AND PROTECTION.

- (2) Increase the distance/s between the applicable lugs of the rudder bar assembly (2) approximately 0,50 mm (0.02 in) with a suitable lever. Use a screwdriver or equivalent wrapped in suitable tape or cloth to do this.
- (3) Temporarily assemble the brake pedal/s.
 - (a) Put new washers (4) on two of the parallel pins (3).
 - (b) Put the brake pedals (6) and (7) in position and align the holes for the parallel pins (3).
 - (c) Install the parallel pins (3) and the remaining new washers (4).

≡PILATUS≡
PC-6
SERVICE BULLETIN

- (d) Loosely install the new cotter pins (5).
- (4) Do the check again (Ref. Para B.(1)). Do Para C.(1)(b) thru C.(4) again (as many times as necessary) if you find stiffness and/or limited movement of the brake pedal/s.
- (5) Install the applicable brake pedal/s.
 - (a) Put new washers (4) on two of the parallel pins (3).
 - (b) Put the brake pedals (6) and (7) in position and align the holes for the parallel pins (3).
 - (c) Install the parallel pins (3) and the remaining new washers (4). Install all the pins (3) in the same direction as shown in Figure 1.
 - (d) Install the cotter pins (5) (Ref. AMM, 20-10-01, Page Block 201).

D. Installation

- (1) Put a washer (9) in position on each of the parallel pins (10).
- (2) Put the bottoms of the cylinders (1) in position in the levers of the brake pedals (6) and (7). Align the holes for the parallel pins (10).
- (3) Install the parallel pins (10) and the remaining washers (9). Make sure the tails of the parallel pins point to the center bearing of the rudder bar assembly (2).
- (4) Install the cotter pins (8) (Ref. AMM, 20-10-01, Page Block 201).

E. Close up

- (1) Remove all tools and materials. Make sure the work areas are clean

F. Documentation

- (1) Make an entry in the Aircraft Logbook that this Service Bulletin has been incorporated.

≡PILATUS≡
PC-6
SERVICE BULLETIN

4. Accomplishment Instructions - Spares (Ref. Fig 1)

The following procedures are applicable to all pilot and co-pilot rudder bar and brake pedal assembly held as spare.

A. Removal

- (1) Remove and discard the cotter pins (8).
- (2) Remove the parallel pins (10) and washers (9).
- (3) Disconnect the bottoms of the cylinders (1) from the brake levers of the pedal (6) and (7).

NOTE: It is not necessary to disconnect the upper ends of the cylinders.

B. Check

- (1) Move the two brake pedals (6) and (7) fully forward and aft with your hand. Hold the applicable cylinder (1) away from the brake pedal when you do this. It must be possible for each brake pedal to move freely through its full range of movement under its own weight. Stiffness and/or limited movement of a brake pedal is not permitted.
- (2) Continue with the procedure given in Para D if there is no stiffness or limited movement of a brake pedal in the applicable rudder bar assembly
- (3) Increase the clearance distances between the applicable lugs of the rudder bar assembly (2) (Ref. Para C). This step is only applicable if you found stiffness and/or limited movement of the brake pedal in Step (1).

C. Modification

This modification procedure is only applicable if you found stiffness and/or limited movement of one or more brake pedals during the check (Ref. Para B, (1)).

- (1) Remove the applicable brake pedal/s.
 - (a) Remove and discard the cotter pins (5).
 - (b) Remove the parallel pins (3) and washers (4). Discard the washers.
 - (c) Disassemble the brake pedal/s from the rudder bar assembly (2).

CAUTION: BE CAREFUL WHEN YOU USE A LEVER TO INCREASE THE DISTANCES BETWEEN THE RUDDER BAR LUGS. YOU CAN CAUSE DISTORTION OF THE LUGS AND DAMAGE TO THE LAYERS OF PAINT AND PROTECTION.

- (2) Increase the distance/s between the applicable lugs of the rudder bar assembly (2) approximately 0,50 mm (0.02 in). Use a screwdriver or equivalent wrapped in suitable tape or cloth to do this.
- (3) Temporarily assemble the brake pedal/s.
 - (a) Put new washers (4) on two of the parallel pins (3).
 - (b) Put the brake pedals (6) and (7) in position and align the holes for the parallel pins (3).
 - (c) Install the parallel pins (3) and the remaining new washers (4).

≡PILATUS≡
PC-6
SERVICE BULLETIN

- (d) Loosely install the new cotter pins (5).
- (4) Do the check again (Ref. Para B.(1)). Do Para C.(1)(b) thru C.(4) again (as many times as necessary) if you find stiffness and/or limited movement of the brake pedal/s.
- (5) Install the applicable brake pedal/s.
 - (a) Put new washers (4) on the parallel pins (3).
 - (b) Put the brake pedals (6) and (7) in position and align the holes for the parallel pins (3).
 - (c) Install the parallel pins (3) and the remaining new washers (4). Install all the pins (3) in the same direction as shown in Figure 1.
 - (d) Install the cotter pins (5) (Ref. AMM, 20-10-01, Page Block 201).

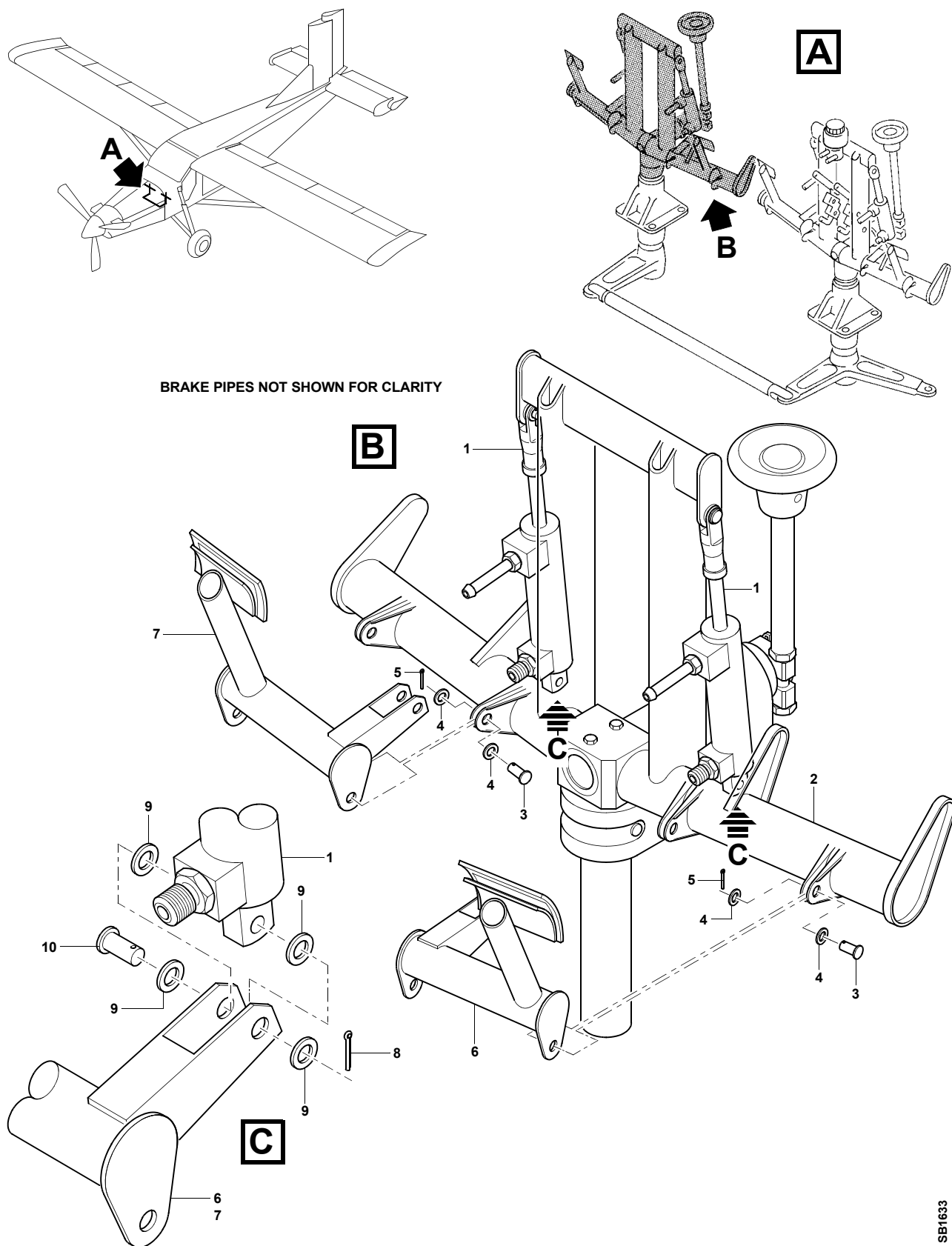
D. Installation

- (1) Put a washer (9) in position on each of the parallel pins (10).
- (2) Put the bottoms of the cylinders (1) in position in the levers of the brake pedals (6) and (7). Align the holes for the parallel pins (10).
- (3) Install the parallel pins (10) and the remaining washers (9). Make sure the tails of the parallel pins point to the center bearing of the rudder bar assembly (2).
- (4) Install the cotter pins (8) (Ref. AMM, 20-10-01, Page Block 201).

E. Documentation


- (1) Make an entry in the spare parts inventory list that this modification has been incorporated.

PILATUS PC-6 SERVICE BULLETIN



Brake Pedals - Check, Removal and Installation
Figure 1

SB1633

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PC-6
SERVICE BULLETIN

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SERVICE BULLETIN EVALUATION SHEET

The purpose of this Evaluation Form is to allow you, the customer, to comment on this Service Bulletin. Your comments will be used to further improve our Service Bulletin program.

SERVICE BULLETIN EVALUATION FOR SB No. 32-002, Rev. 2			
Title	LANDING GEAR - WHEELS AND BRAKES - BRAKE PEDALS - FREEDOM OF MOVEMENT CHECK		
Aircraft MSN		Total Airframe Hours	
Owner			
Operator			
Service center			
Please Tick as appropriate			
<input type="checkbox"/> We will embody/accomplish this SB	<input type="checkbox"/> Fully		
<input type="checkbox"/> We have embodied/accomplished this SB	<input type="checkbox"/> Partially		
<input type="checkbox"/> We will not embody/accomplish this SB	<input type="checkbox"/> Our experience does not justify embodiment		
<input type="checkbox"/> Decision deferred (please explain)	<input type="checkbox"/> Other (please explain)		
Comments (procedure, kit quality, suggested improvements, etc.)			

Please forward this form to:

PILATUS AIRCRAFT LTD,
TECHNICAL PUBLICATIONS DEPARTMENT (EZD),
CH 6371 STANS,
SWITZERLAND.

DATE:
NAME:

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