Service Bulletin No:	**32-031**	**Ref No:**	**492**
Modification No:	**EC-26-0119**	**ATA Chapter:**	**32**

LANDING GEAR - WHEELS AND BRAKES
MODIFICATION TO REPLACE THE LH AND RH BRAKE PIPES

1. Planning Information

A. Effectivity

PC-12/47G series aircraft MSN 3001 thru MSN 3058, MSN 3060 and MSN 3062.

B. Concurrent requirements

None.

C. Reason

(1) Problem

Due to an issue seen during production, the provisions for the Emergency Autoland (EAL) braking system (brake pipe going to the EAL Brake Shuttle Valve (BSV) and the brake pipe going from the BSV to the landing gear) need to be replaced with previously certified brake pipes.

(2) Solution

On both LH and RH side the brake pipes, provisioned for EAL, are modified as follows:

- The pipe going into the EAL BSV, and the pipe going from the BSV to the landing gear are to be removed and replaced by the previously certified pipes
- The shuttle valves (LH and RH) remain installed and the ports are to be capped
- Provision fittings for EAL remain installed on the shuttle valves.

D. Description

This Service Bulletin gives the data and instructions necessary to do the modification to replace the brake pipes.

E. Reason for revision

Not applicable.

F. Compliance

Mandatory.
To be embodied no later than 28 days from the Issue date of this Service Bulletin.

G. Approval

The technical content of this document is approved under the authority of the DOA ref. EASA.21J.357.

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

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I. Manpower

Description	Man-Hours
Preparation	0.25
Modification	2.00
Close up	0.75
TOTAL MAN-HOURS	**3.00**

NOTE: The man-hours do not include the time necessary to cure sealants, paints and adhesives.

J. Weight and balance

Negligible.

K. Electrical load change data

Not changed.

L. Software

Not changed.

M. References

Aircraft Maintenance Manual (AMM)

12-B-20-20-01-00A-040A-A 12-B-20-31-00-00A-070A-A

12-B-32-40-00-00A-902A-A

Tool and Equipment Manual (TEM)

12-B-00-00-00-00A-060A-A

N. Publications affected

Illustrated Parts Data (IPD).

O. Interchangeability of parts

Not Interchangeable.

2. Material Information

A. Material - Price and availability

Operators that require additional information and/or Service Bulletin material can contact their authorized Pilatus Service Center, or Pilatus Customer Support on: https://www.pilatus-aircraft.com → contact us.

NOTE: Part numbers given in this Service Bulletin are correct at the time of approval. Pilatus Aircraft Ltd reserves the right to change the part numbers as necessary. Part numbers of items delivered are correct when dispatched. This could lead to differences between those part numbers quoted in this Service Bulletin and the delivered parts, if parts are superseded. Operators are requested to check the Illustrated Parts Data (IPD) for delivered parts that differ from those listed in the Service Bulletin Materials List.

Operators are requested to advise Pilatus Aircraft Ltd of the Manufacturer's Serial Number (MSN), the flying hours and landings of aircraft that are allocated for this Service Bulletin.

B. Warranty

Credit will be issued for parts and labour for all affected aircraft on approval of a warranty claim, provided the work is accomplished by an authorized Service Center no later than 2 months from the issue date of this Service Bulletin.

C. Material necessary for each aircraft

NOTE: Referenced AMM procedures may contain additional materials to be procured.

(1) Material to order from Pilatus

Modification kit number	Price	Availability
500.51.12.091	Contact as above	Approximately 2 weeks

Modification kit P/N 500.51.12.091

New part No.	Description	Old part No.	Qty	Disp. code	Fig	Item
532.42.12.137	PIPE ASSY, HYDRAULIC, LH	-	1	N	1	10
		532.42.12.174	1	D	1	2
		532.42.12.173	1	D	1	3
532.42.12.139	PIPE ASSY, HYDRAULIC, RH	-	1	N	1	11
		532.42.12.176	1	D	1	8
		532.42.12.175	1	D	1	6
946.29.15.835	FITT, CAP, ASSY	-	4	N	-	-

Disposition Codes: D - Discard / N - New / R - Return to Pilatus / E - Exchange Part

(2) Additional material to procure

None.

(3) Locally supplied materials

NOTE: Referenced AMM procedures may contain additional consumables to be used.

To identify the materials used in this procedure, look in the Consumable materials list.
Refer to AMM 12-B-20-31-00-00A-070A-A.

Material No.	Description	Qty	Remarks
P02-031	Absorbent paper	AR	Or equivalent
P10-006	Hydraulic fluid AeroShell Fluid 31	AR	-

D. Material necessary for each spare

Not applicable.

E. Re-identified parts

Not applicable.

F. Tools and equipment

NOTE: Referenced AMM procedures may contain additional tools to be used.

To identify the AGE and tools used in this procedure, look in the list of AGE and tools.
Refer to TEM 12-B-00-00-00-00A-060A-A.

Tools and equipment	Recommended Pilatus part
Tool kit, mechanic	Local supply
Brake bleeding rig (TEM Tool No. T32-070 or T32-140)	-
Brake bleeding adapter kit (TEM Tool No. T32-075)	-
Safety clip (TEM Tool No. T12-030)	-

3. Accomplishment Instructions

WARNING: BE CAREFUL WHEN YOU DO WORK ON THE ELECTRICAL SYSTEM OR A SYSTEM THAT USES ELECTRICAL POWER. MAKE SURE THAT IT IS SAFE BEFORE YOU APPLY ELECTRICAL POWER TO THE AIRCRAFT OR ENERGIZE THE AIRCRAFT ELECTRICAL SYSTEMS. ELECTRICAL POWER CAN CAUSE DEATH OR INJURY TO PERSONNEL AND / OR DAMAGE TO EQUIPMENT.

WARNING: BE CAREFUL WHEN YOU USE THE CONSUMABLE MATERIALS. OBEY THE MANUFACTURER´S HEALTH AND SAFETY INSTRUCTIONS AND ALL THE APPLICABLE LOCAL INSTRUCTIONS. CONSUMABLE MATERIALS CAN BE DANGEROUS AND CAN CAUSE DEATH OR INJURY TO PERSONNEL AND / OR DAMAGE TO EQUIPMENT.

NOTE: All torque related information necessary for this procedure is given in the standard practices. Refer to AMM 12-B-20-20-01-00A-040A-A.

A. Preparation

(1) Put chocks in front of and behind the LH and RH main wheel.

(2) Set the parking brake handle to ON but do not apply brake pressure with the brake pedals.

(3) Open access panels 21PZ, 12EL and 12ER.

B. Modification
Refer to Figure 1

(1) Left EAL BSV modification:

(a) Put absorbent paper (Material No. P02-031) below the brake shuttle valve (5) at wing rib 1.

(b) Disconnect and remove the hydraulic pipe assembly (2) (P/N 532.42.12.174) from between the fitting on wing rib 1 (1) and the brake shuttle valve (5).

(c) Disconnect and remove the hydraulic pipe assembly (3) (P/N 532.42.12.173) from between the brake shuttle valve (5) and the fitting on the fuselage (4).

(d) Install a new cap assembly (P/N 946.29.15.835) on the two empty brake shuttle valve (5) ports.

(e) Connect the new hydraulic pipe assembly (10) (P/N 532.42.12.137) between the fitting on wing rib 1 (1) and the fitting on the fuselage (4).

(f) Use absorbent paper (Material No. P02-031) to clean any spilled hydraulic fluid.

(2) Right EAL BSV modification:

(a) Put absorbent paper (Material No. P02-031) below the brake shuttle valve (5) at wing rib 1.

(b) Disconnect and remove the hydraulic pipe assembly (8) (P/N 532.42.12.176) from between the fitting on wing rib 1 (9) and the brake shuttle valve (5).

(c) Disconnect and remove the hydraulic pipe assembly (6) (P/N 532.42.12.175) from between the brake shuttle valve (5) and the fitting on the fuselage (7).

(d) Install a new cap assembly (P/N 946.29.15.835) on the two empty brake shuttle valve (5) ports.

(e) Connect the new hydraulic pipe assembly (11) (P/N 532.42.12.139) between the fitting on wing rib 1 (9) and the fitting on the fuselage (7).

(f) Use absorbent paper (Material No. P02-031) to clean any spilled hydraulic fluid.

(3) Bleed the brake system. Refer to AMM 12-B-32-40-00-00A-902A-A.

C. Close Up

(1) Engage the emergency/parking brake.

(2) Remove the chocks from the main wheels.

(3) Remove all the equipment, tools and materials from the work area. Make sure that the work area is clean.

(4) Close access panels 21PZ, 12EL and 12ER.

D. Documentation

(1) Make an entry in the Aircraft Logbook to record the incorporation of this Service Bulletin.

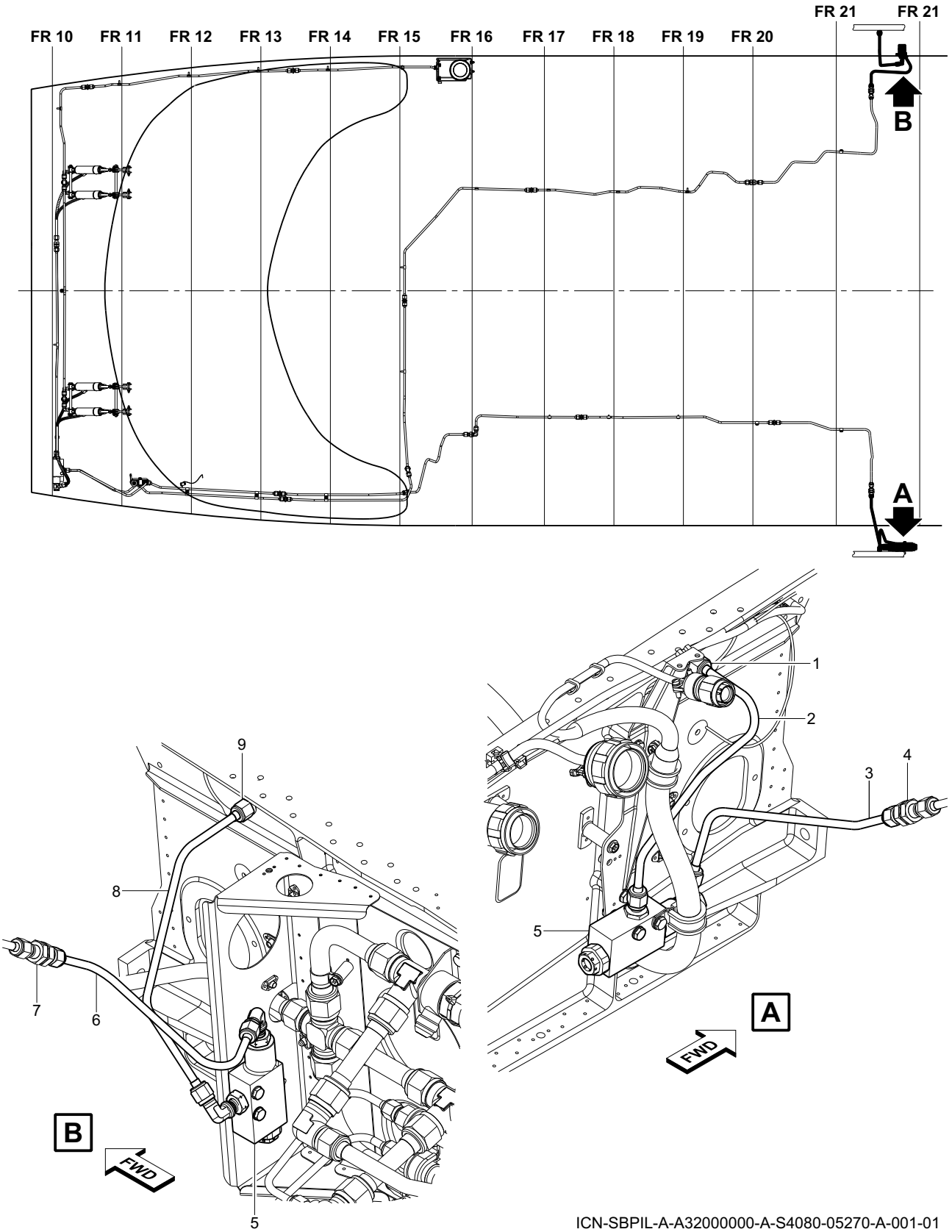
(2) Make sure that the Aircraft Logbook shows any new Pilatus Part Number(s) and/or Serial Number(s), as applicable.

(3) Make an entry in the applicable Pilot's Operating Handbook (POH) / Airplane Flight Manual (AFM) to record the incorporation of this Service Bulletin

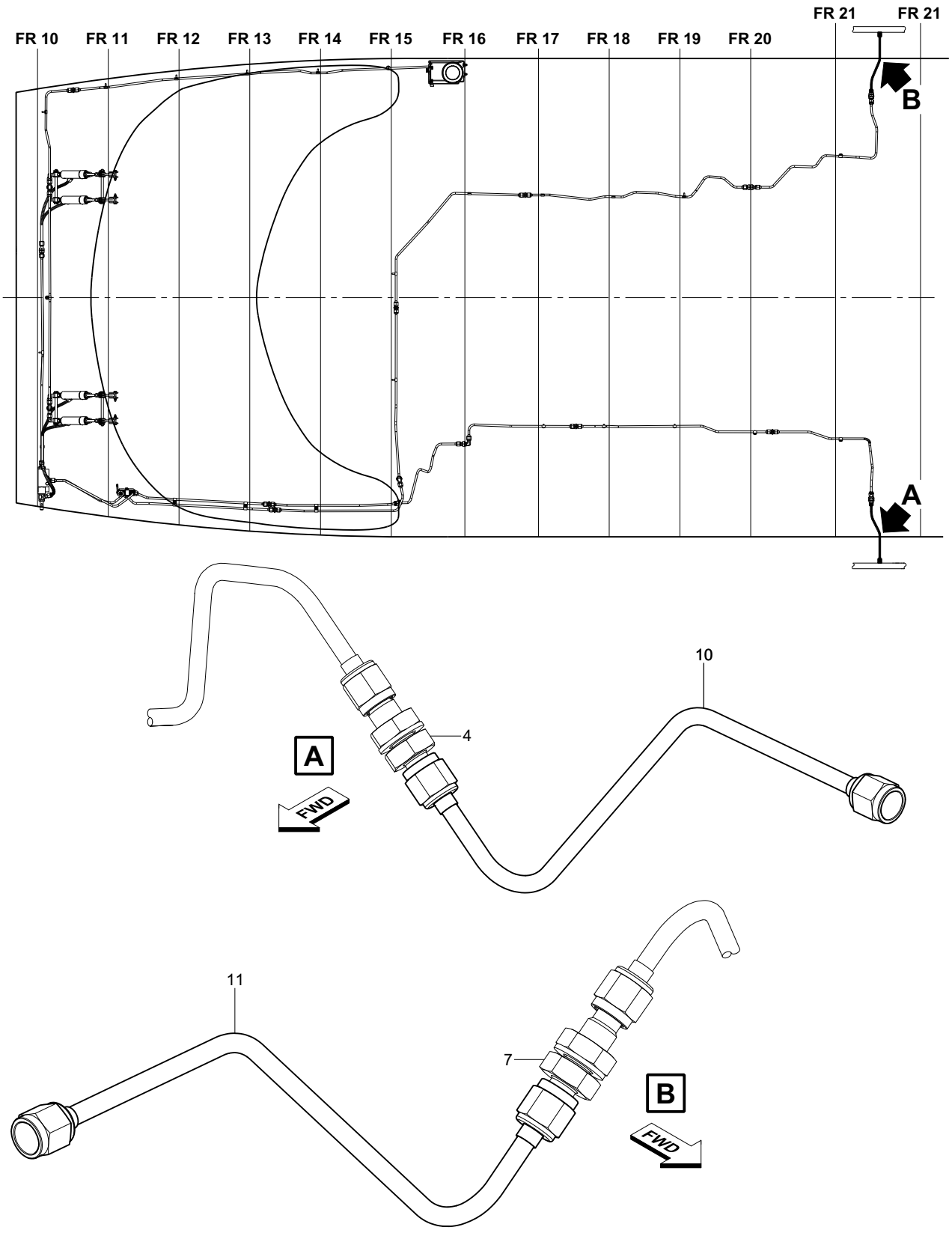
(4) Make sure that all applicable Aircraft Documentation is updated.

(5) Inform CAMP of the incorporation of this Service Bulletin and any new Pilatus Part Number(s) and/or Serial Number(s), as applicable. Send the completed CAMP feedback sheet to: fax@campsystems.com

(6) Send the completed Pilatus feedback sheet with the serial number of the aircraft to Pilatus Aircraft Ltd Technical Support email: techsupport.ch@pilatus-aircraft.com



Brake Pipes - Pre Service Bulletin
Figure 1 (Sheet 1 of 2)



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Brake Pipes - Post Service Bulletin
Figure 1 (Sheet 2 of 2)

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Feedback Sheet for the Accomplishment of SB 32-031

The purpose of this feedback sheet is to provide CAMP
with the current information on each individual PC-12 aircraft.
Please complete the grey cells as appropriate using black ink and block letters.

Print out and send the completed feedback sheet to: fax@campsystems.com

Aircraft MSN		**Aircraft Registration**		**Total Airframe Hours**	
Service Center				**Total Landings**	

SB Accomplishment Information

We have embodied/accomplished this SB		Fully		Partially
The undersigned confirms the accomplishment of this Service Bulletin				
Date of accomplishment		Name		Signature

Comments (procedure, kit quality, suggested improvements etc.)

CAMP Feedback Sheet

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Feedback Sheet for the Accomplishment of SB 32-031

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Send the completed feedback sheet to Pilatus Aircraft Ltd Technical Support email:
techsupport.ch@pilatus-aircraft.com

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Service Center				**Total Landings**	

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