

# SERVICE BULLETIN

SERVICE BULLETIN NO: 53-004

REF NO: 200

MODIFICATION NO:

ATA CHAPTER: 53

## FUSELAGE - CENTER FUSELAGE FR21, IN THE AREA OF THE WING UPPER-ATTACHMENT LUGS - INSPECTION

### 1. Planning Information

#### A. Effectivity

(1) All PC-12 and PC-12/45 up to, and including, MSN 617.

#### B. Concurrent Requirements

None.

#### C. Reason

##### (1) Problem

Operators have reported that damage has been found on FR21 in the area adjacent to the wing upper-attachment lugs, left and right.

##### (2) Cause

It is thought the damage occurred during assembly of the aircraft.

##### (3) Solution

Carry out an inspection of FR21 adjacent to the wing upper-attachment lugs, left and right, and repair, if necessary.

#### D. Description

This Service Bulletin gives the data and instructions necessary to:

- Do the inspection of FR21, adjacent to the wing upper-attachment lugs, left and right
- Repair the damage to FR21, if necessary.

#### E. Compliance

Mandatory.

Required within 12 months after the effective date of this Service Bulletin, unless already accomplished.

**NOTE:** Pilatus recommends that Operators accomplish this Service Bulletin at the next annual servicing.

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**F. Approval**

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

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 For each Repair No. 1	Total For each Repair No. 2
Preparation	0.50		
Inspection of the Lugs	1.00		
Repair No. 1		0.50	
Repair No. 2			2.00
Close up	1.00		
<b>TOTAL MAN-HOURS</b>	<b>2.50</b>	<b>0.50</b>	<b>2.00</b>

**NOTE:** Man-hours figures do not include the time required to cure sealants and adhesives.

**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). 06-20-00

**L. Publications Affected**

Not applicable.

**M. Interchangeability of Parts**

Not applicable.

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**2. Material Information**

**A. Material - Price and Availability**

No modification kit is necessary to accomplish this Service Bulletin.

Operators are requested to advise Pilatus Aircraft Ltd, of the Manufacturer's Serial Number (MSN) and the flying hours of aircraft which are affected by this Service Bulletin.

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**Warranty Statement**

Credit will be issued for all affected aircraft on approval of a warranty claim, provided the work is accomplished by an authorized Service Center within 12 months from the effective date of this Service Bulletin.

**B. Material Necessary for Each Aircraft**

**(1) Material to be Procured**

No modification kit is necessary to accomplish this Service Bulletin.

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**(2) Operator Supplied Materials**

Part No.	Description	Qty	Remarks
P01-010	Solvent	A/R	
P02-002	Aluminium wool	A/R	
P02-003	Cloth	A/R	Lint free
P02-009	Silicon carbide paper	A/R	Grade 120
P02-010	Silicon carbide paper	A/R	Grade 180
P02-011	Silicon carbide paper	A/R	Grade 240
P02-012	Silicon carbide paper	A/R	Grade 280
P02-013	Silicon carbide paper	A/R	Grade 320
P02-014	Silicon carbide paper	A/R	Grade 400
P07-001	Alodine	A/R	Brush applied
P07-007	Epoxy Primer	A/R	

**C. Material Necessary for Each Spare**

Not applicable.

**D. Re identified Parts**

Not applicable.

**E. Tooling - Cost and Availability**

Part No.	Description	Qty	Remarks
-	Brush	A/R	To apply the Alodine
-	Non metal scraper	A/R	To remove the old sealant

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**3. Accomplishment Instructions**

**A. Preparation**

- (1) Remove the access panels 12BL and 12BR (Ref. AMM, 06-20-00, Page Block 1).

**WARNING:** BE CAREFUL WHEN YOU USE THE CONSUMABLE MATERIALS. OBEY THE MANUFACTURERS' HEALTH AND SAFETY INSTRUCTIONS.

**B. Inspection of the FR21 (Ref. Fig. 1)**

- (1) Identify the area where the four cherrymax rivets are installed, either side of the wing upper attachment-lugs at FR21, left and right.
- (2) Use the non metal scraper to remove all the old sealant from the area on FR21, left and right, adjacent to the cherrymax rivets.
- (3) Use a cloth (Material No. P02-003) made moist with solvent (Material No. P01-010) and clean the area.
- (4) Use a source of bright light and do an inspection of FR21 in the area adjacent to the cherrymax rivets. Examine particular for marks or scratches that have been made with a drill.
- (5) On the frame outer attachment-lug (Ref. Fig. 1, Detail F):
- For damage less than 0.1 mm (0.004 in.) deep, refer to Para. 3.C.(1)
  - For damage more than 0.1 mm (0.004 in.) deep refer to Para.3.C.(3).
- (6) On the top-surface of the upper-wing attachment-lug (Ref. Fig. 1, Detail E):
- For damage less than 1 mm (0.040 in.) deep (Ref. Para. 3.C.(2))
  - For damage more than 1 mm (0.040 in.), refer to Para.3.C.(3).
- (7) If you do not find damage, continue the Service Bulletin from Para. D.

**C. Repair Procedures (Ref. Fig. 1)**

- (1) Repair No. 1 (On the frame outer attachment-lug, less than 0.1 mm (0.004 in.) deep)  
Ref. Fig. 1, Detail F.
- (a) Use the silicon carbide paper (Material No. P02-009), silicon carbide paper (Material No. P02-010), silicon carbide paper (Material No. P02-011), silicon carbide paper (Material No. P02-012), silicon carbide paper (Material No. P02-013), silicon carbide paper (Material No. P02-014) and the aluminum wool (Material No. P02-002) to polish the damage and make it smooth with the adjacent area.
- (b) Clean the repair area with cleaning cloth (Material No. P02-003) made moist with solvent (Material No. P01-010).
- (c) Use a brush to apply a layer of the alodine (Material No. P07-001). Let the alodine dry.
- (d) Apply a layer of the epoxy primer (Material No. 07-007).

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- (2) Repair No. 2 (On the top-surface of the upper-wing attachment-lug, less than 1 mm (0.040 in.) deep)

Ref. Fig. 1, Detail E.

- (a) Measure the depth of the damage.
- (b) If the damage is:
- Less than 0.3 mm (0.012 in.) deep, the polished area must be a minimum of 6 mm (0.236 in.) in diameter
  - Between than 0.3 mm (0.012 in.) and 1 mm (0.040 in.) deep, the polished area must be approximately 20 times the depth of the damage, up to a maximum of 20 mm (0.787 in.) in diameter.
- (c) Use silicon carbide paper (Material No. P02-009), silicon carbide paper (Material No. P02-010), silicon carbide paper (Material No. P02-011), silicon carbide paper (Material No. P02-012), silicon carbide paper (Material No. P02-013), silicon carbide paper (Material No. P02-014) and the aluminum wool (Material No. P02-002) to polish the damage and make it smooth with the adjacent area.
- (d) Clean the repair area with cleaning cloth (Material No. P02-003) made moist with solvent (Material No. P01-010).
- (e) Use a brush to apply a layer of the alodine (Material No. P07-001). Let the alodine dry.
- (f) Apply a layer of the epoxy primer (Material No. 07-007).
- (3) If the damage:
- On the frame outer attachment-lug is more than 0.1 mm (0.004 in.) deep (Ref. Fig. 1, Detail F)
  - On the upper wing attachment-lug is more than 1.0 mm (0.040 in.) deep (Ref. Fig. 1, Detail E)
  - Is not covered by this Service Bulletin,

Contact Pilatus Aircraft. Give as much detail as you can, including photographs and sketches, to show the damage location and the size and depth of the damage.

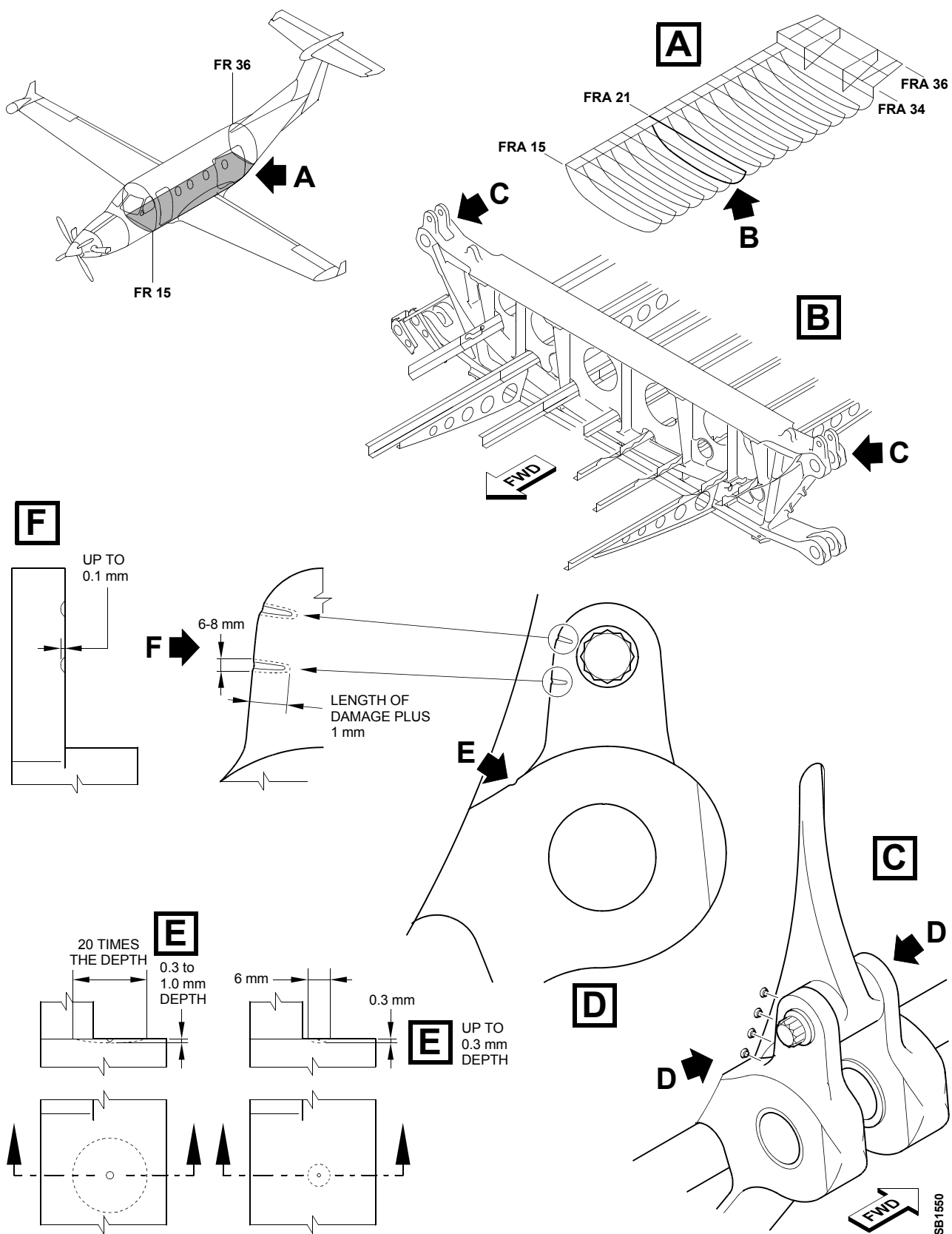
**D. Close up**

- (1) Make sure the work area is clean and clear of tools and other items.
- (2) Install the access panels 12BL and 12BR (Ref. AMM, 06-20-00, Page Block 1).

**E. Documentation**

- (1) Make an entry in the Aircraft Logbook that this Service Bulletin has been incorporated.
- (2) Use the Service Bulletin Evaluation Sheet to report your results and the serial number of the modified aircraft to PILATUS.

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Damage Location and Repair  
Figure 1