

METRIC RIVET ISSUE - FERRY FLIGHT CONDITION

1 INTRODUCTION

Metric rivets with an ultimate shear allowable of about 50% were installed on several PC-6 assemblies on new production aircraft and some spare parts. The affected in-service PC-6 are MSN 735, 863, 909, 923, 948, 956, 958, 977, 978, 979, 980, 981, 982, 985 and 986.

The affected rivets are Solid Rivet, Universal Head, Aluminium Alloy 2117-T4 with a diameter 3.0mm and 3.5mm having specific lengths. The affected P/N's are:

- P/N 939.16.81.275 Solid Rivet, Universal Head, Aluminium Alloy 2117-T4, 3.0*6
- P/N 939.16.81.277 Solid Rivet, Universal Head, Aluminium Alloy 2117-T4, 3.0*7
- P/N 939.16.81.301 Solid Rivet, Universal Head, Aluminium Alloy 2117-T4, 3.5*8
- P/N 939.16.81.303 Solid Rivet, Universal Head, Aluminium Alloy 2117-T4, 3.5*10
- P/N 939.16.81.304 Solid Rivet, Universal Head, Aluminium Alloy 2117-T4, 3.5*11

The affected rivets must be replaced. A ferry flight to a repair station might be necessary.

The scope of this memo is to define the ferry flight condition and a pre-flight inspection.

2 MAIN SECTION

2.1 AFFECTED STRUCTURE

The affected PC-6 are not affected to the same extent. Figure 6-3 and Table 7-1 provide an overview of the affected structural areas and serve as basis for the pre-flight inspection defined in the next chapter.

Not affected are the components flap, horizontal stabilizer, elevator, cockpit doors and cabin doors.

2.2 INSPECTION BEFORE FERRY FLIGHT

Before a potentially necessary ferry flight the following pre-flight inspection shall be performed.

Perform a visual inspection of the aircraft skins as being identified as affected in the previous chapter. The inspection focus is on loose or missing rivets.

If affected by the wing, perform an additional visual inspection as follows.

TO	EASA					
CC						
Department	ECE	ECE	EC	ECV	E	
Approvals	Author	Checked	Approved	Verified	Approved	
Name	M. Keller Mangold	M. Keiser	D. Bretscher	A. von Rotz	B. Cervia	
Signature						
Date	16.05.2013	16.5.13	16.5.13	16.05.13	16.5.13	

- Remove access panels LB10 and RB9 to get access to wing strut fitting installation area as per AMM 57-00-02. See Figure 6-1.
- Inspect shear field and vertical stiffener rivet positions 1 to 8 as identified Figure 6-2 with the aid of a lamp and inspection mirror for any signs of rivet deterioration. If any sign of deterioration is found, contact Pilatus for assistance.

2.3 FERRY FLIGHT CONDITION

The scope of the ferry flight condition is to define a minimum airframe loading for a potentially necessary ferry flight to the repair station.

- Flight to be made in calm air conditions
- No abrupt manoeuvres
- Maximum bank angle of 45°
- Maximum speed not to exceed $VC = VA = 119$ knots IAS
- Minimum Fuel required for ferry flight
- Empty cabin except empty seats

3 PILATUS POSITION

Successful completion of the pre-flight inspection and considering the ferry flight condition defined in this memo the PC-6 affected by the rivet issue satisfies the continued airworthiness for a one time ferry flight to a repair station.

4 REFERENCES

[1] **Document No. 01975**, PC-6 B2-H2/B2-H4 Aircraft Maintenance Manual

5 REVISIONS

Issue 01: Initial Issue

6 FIGURES

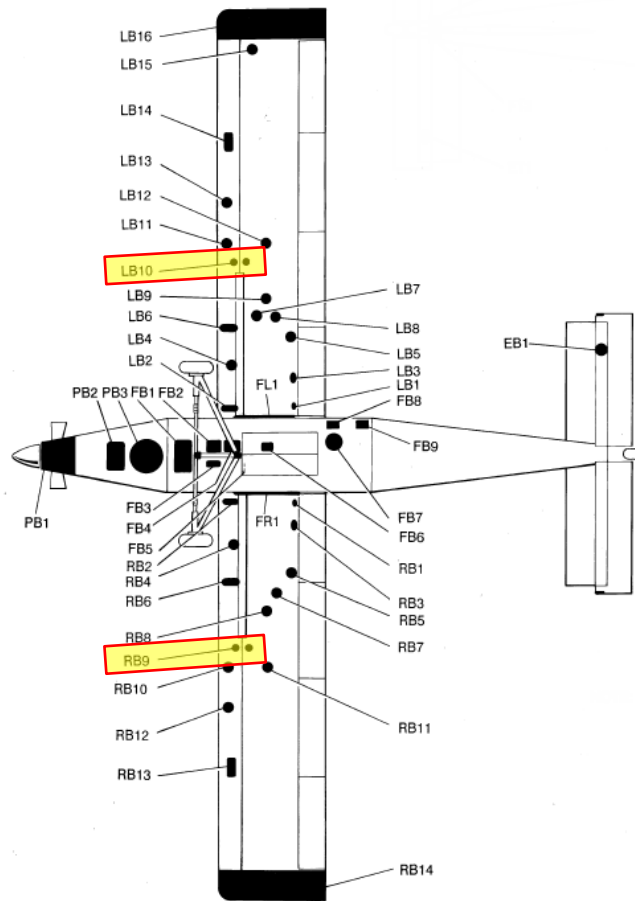


Figure 6-1 Wing Access Panels LB10 and RB09

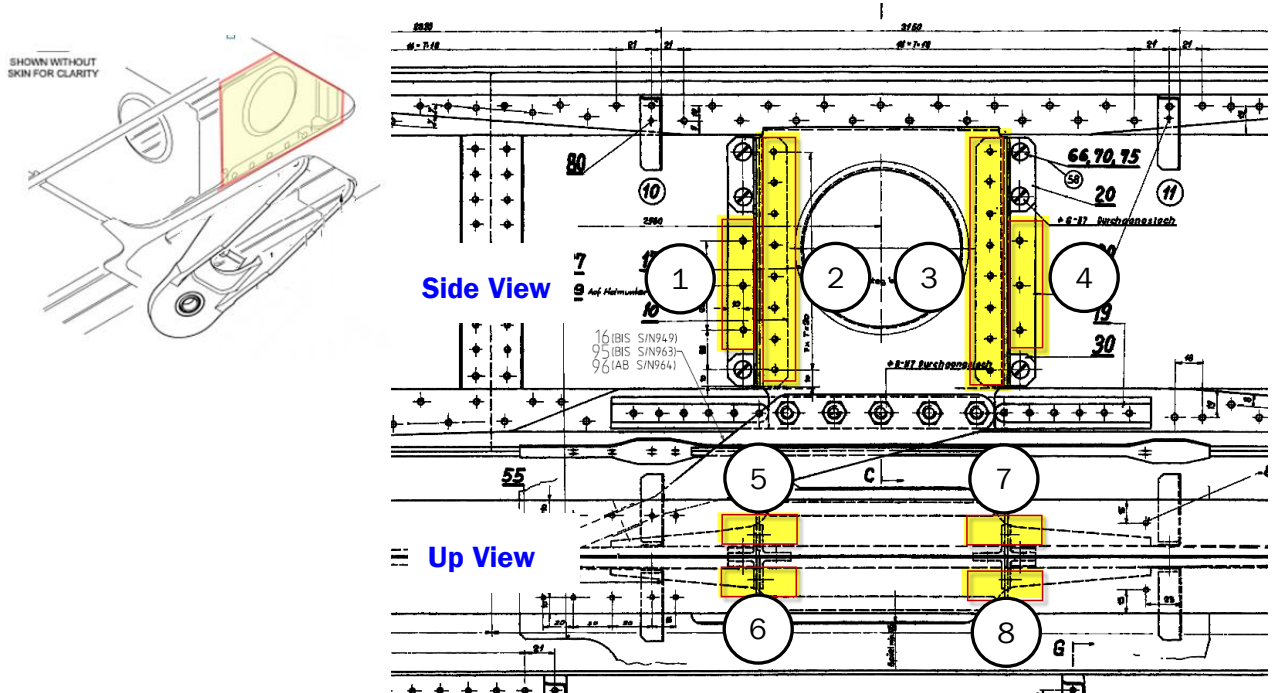


Figure 6-2 Shear Field and Vertical Stiffeners above Wing Strut Attachment Fitting

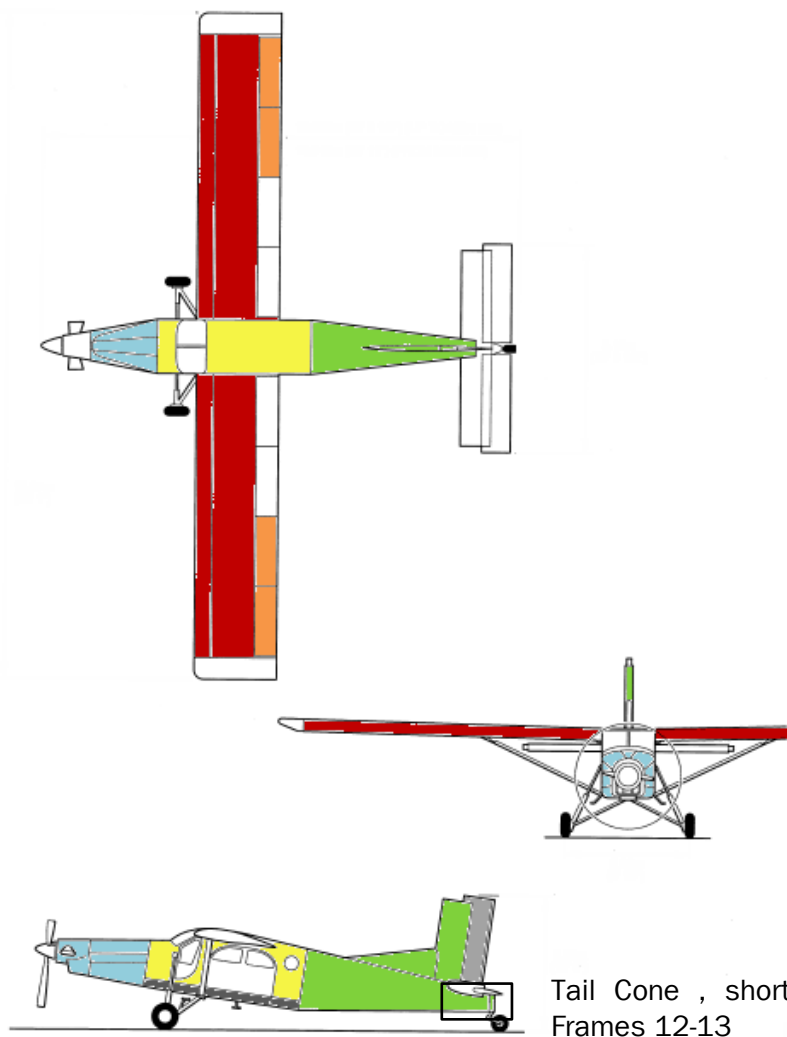


Figure 6-3 Affected Skins

7 TABLES

	MSN	Wing	Aileron	Engine Cowling	Fuselage	Floor	Rear Fuselage	Rudder	Tail Cone, short
New Production	977	X							
	978	X			X				
	979	X			X				
	980	X	X	X	X	X	X	X	
	981	X	X	X	X	X	X	X	
	982	X	X	X	X	X	X	X	
	985	X	X	X	X	X	X	X	
	986	X	X	X	X	X	X	X	
Spares	735								X
	863	X							
	909							X	
	923							X	
	948							X	
	956								X
	958								X

Table 7-1 Affected Skins per MSN