

# SERVICE LETTER

**SUBJECT: HONEYWELL SERVICE BULLETIN 131358-21-4179**

To all Customers and Operators:

Date: Jul 20/06

This Service Letter is issued to draw attention to the following information:

**HONEYWELL SERVICE BULLETIN 131358-21-4179**

Honeywell has reported that, on some auxiliary volume tanks, the base has separated from the tank, which causes leaks and affects the operation of the pressurization system. Although the auxiliary volume tanks had been assembled to the drawing specifications, the type of adhesive that was used to attach the base to the tank made the processes of surface preparation and adhesive application too dependent on the individual assemblers.

If an auxiliary volume tank does rupture in flight, the cabin would go to maximum differential pressure controlled by the two safety valves. Without Pilot interference, the maximum pressure differential would stay there during landing. The POH instructs the Pilot to make sure that there is 0 pressure differential as part of his final checks before landing. The PC-12 is not certified to land with the cabin pressurized and this could result in structural damage to the aircraft.

It is known that some of the defective tanks have been installed on the PC-12. The affected aircraft, listed in Table 1, includes, but is not limited to, the following MSNs.

Tank Serial No.	MSN	Tank Serial No.	MSN
65-7866	659	85-7897	680
75-7884	660	85-7895	681
65-7871	661	75-7882	683
65-7868	662	95-7900	685
65-7873	663	95-7899	686
65-7869	664	95-7901	687
65-7867	665	95-7906	688
65-7870	669	95-7902	689
75-7879	670	95-7898	690
65-7877	671	95-7903	692
75-7881	672	95-7909	693
65-7876	673	95-7905	694
65-7872	674	95-7907	695
65-7874	675	95-7911	698
75-7880	676	95-7910	699
75-7883	677	125-7951	708
75-7878	678	125-7947	710
75-7885	679		

**Table 1: Serial No. of known MSNs**

**PILATUS**  
**PC12**  
**SERVICE LETTER**

In addition, Customers and Operators who hold stock of the auxiliary volume tanks (P/N 959.90.91.111) should check the serial numbers. If you have an auxiliary volume tank with a serial number listed in Table 2, return the auxiliary volume tank to Honeywell for replacement.

Serial No.	Serial No.	Serial No.	Serial No.
85-7891	85-7894	115-7937	125-7942
85-7892	115-7932	125-7940	125-7943
85-7893	115-7933	125-7941	

**Table 2: Serial No. of Suspect Auxiliary Volume Tanks**

Pilatus recommends all Customers and Operators, with aircraft listed in the Table 1, carry out the Honeywell Service Bulletin 131358-21-4179 as soon as practicable. The removal and installation procedure for the auxiliary volume tank is in the Aircraft Maintenance Manual (AMM), Chapter 21-30-09.

Furthermore, Pilatus also recommends that all Customers and Operators check their stock of auxiliary volume tanks (P/N 959.90.91.111) for suspect serial numbers (Ref. Tables 1 and 2).

If maintenance has been carried out previously on the pressurization system, please check the serial number of the installed volume tank against Tables 1 and 2.

Operators requiring further information on this subject, please contact one of the addresses given below:

PILATUS AIRCRAFT LTD.,  
CUSTOMER SUPPORT MANAGER,  
CH-6371 STANS,  
SWITZERLAND.

General Aviation  
Tel : + 41 41 619 6208  
Fax: + 41 41 619 7311  
eMail: SupportPC12@pilatus-aircraft.com

PILATUS BUSINESS AIRCRAFT LTD.,  
PRODUCT SUPPORT DEPARTMENT,  
11755 AIRPORT WAY,  
BROOMFIELD, CO 80021,  
USA

Tel : 303 465 9099  
Fax: 303 465 6040  
eMail: Productsupport@PilBal.com

PILATUS AUSTRALIA (Pty.) LTD.,  
17 James Schofield Drive,  
Adelaide Airport SA 5950,  
AUSTRALIA

Tel : +61 (08) 8234 4433  
Fax: +61 (08) 8234 4499  
Free Call: 1800 445 007  
eMail: info@pilatus.com.au

**Attachments: Honeywell Service Bulletin 131358-21-1479**

### REVISION TRANSMITTAL SHEET

This sheet transmits Revision 1 to Service Bulletin Number 131358-21-4179.

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This is a PARTIAL revision with a COMPLETE REPRINT. The pages changed are shown below with the reason for revision. The pages which are not changed keep the same revision dates. Please remove and discard all pages of the other revisions and replace with the pages of this revision.

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#### Reason for Revision

NOTE: The equipment changed in the original service bulletin does not require any additional changes.

The shop procedures were changed to make sure that all returned volume tanks are either replaced or repaired.

#### Section 1

Page 1 The footer was changed to show this revision.

Page 2 Paragraph 1.C.(3) was changed to clarify the possible actions. Paragraph 1.D. was changed so that all volume tanks returned from the field are either replaced or repaired.

#### Section 2

Page 5 Paragraph 2.B.(4) and the note were changed to remove the words "check," "modified," and "modifications."

#### Section 3

Page 17 Step 3.B.(1) was changed so that all returned volume tanks are repaired. The other steps were re-sequenced. A note was added for the possibility that volume tanks can be replaced if they cannot be repaired.

#### List of Effective Pages:

<u>Page Number</u>	<u>Date</u>	<u>Page Number</u>	<u>Date</u>
1	Apr 20/06	11	Mar 13/06
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3	Mar 13/06	13	Mar 13/06
4	Mar 13/06	14	Mar 13/06
5	Apr 20/06	15	Mar 13/06
6	Mar 13/06	16	Mar 13/06
7	Mar 13/06	17	Apr 20/06
8	Mar 13/06	18	Mar 13/06
9	Mar 13/06	19	Mar 13/06
10	Mar 13/06	20	Mar 13/06



## SERVICE BULLETIN

Engines, Systems & Services - Tucson, Arizona

Previous Revisions:

Original, Mar 13/06

Apr 20/06

**131358-21-4179**

Page 2

AIR CONDITIONING - AUXILIARY VOLUME TANK - Check and Repair of Auxiliary Volume Tank Part Numbers 131358-2 Series 1 and 131358-3 Series 1.

1. Planning Information

A. Effectivity

This service bulletin is applicable to these auxiliary volume tanks:

Auxiliary Volume Tank Part Number	Application
131358-2 Series 1, -3 Series 1	Pilatus PC-12
	Piper Malibu
	Raytheon Hawker
	Socata TBM700

NOTE: Section 3 includes a list of affected auxiliary volume tank serial numbers.

B. Concurrent Requirements

None.

C. Reason

(1) Problem:

The auxiliary volume tank is a small sealed plastic chamber that includes a base for attachment to the aircraft. The auxiliary volume tank is used to increase the effective volume of a pneumatic rate pressure chamber in the associated cabin pressure controller (CPC). On some auxiliary volume tanks, the base has separated from the tank, which causes leaks and affects the operation of the CPC.

(2) Background:

Although auxiliary volume tanks have been assembled to the drawing specifications, the type of adhesive that was used to attach the base to the tank made the processes of surface preparation and adhesive application too dependent on individual assemblers.

Every occurrence of a faulty auxiliary volume tank has been found during tank installation at the aircraft manufacturer. No inflight cases of tank-base separation are known to have occurred. However, if an auxiliary volume tank does rupture in flight, the worst possible result would be a rapid increase of cabin pressure from a 10000-foot cabin altitude down to a sea level cabin altitude in approximately 30 seconds. The level of discomfort could be significant, but no injuries would occur.

This is not a safety-of-flight issue.

1. C. (3) Action:

A new adhesive is used to attach the base to the auxiliary volume tank. The new adhesive makes the assembly process less dependent on the processes of surface preparation and adhesive application, and eliminates the possibility of base separation. All volume tanks that are in the affected serial number range (see Table 1 in Section 3 of this bulletin) are either replaced or repaired at Honeywell's discretion.

(4) Technical Validation:

Not applicable.

(5) Benefits:

The reliability of the auxiliary volume tank is increased.

D. Description

(Aircraft operators) This service bulletin gives instructions to do a check to find any auxiliary volume tanks that are on the affected serial numbers list. If a tank is on the list, it should be sent to Honeywell for repair or replacement.

(Honeywell repair facility) This service bulletin gives instructions to:

- Replace or repair the returned tanks.
- Re-identify all tanks that have been repaired.

E. Compliance

This service bulletin, recommended by Honeywell, is done at the convenience of the operator.

F. Approval

Does not apply.

G. Manpower

The quantity of manpower does not apply.

H. Weight and Balance

No change.

I. Electrical Load Data

No change.

J. Software Accomplishment Summary

Does not apply.

1. K. References

The data used to prepare this service bulletin include Honeywell Engines, Systems & Services engineering documents and drawings.

L. Other Publications Affected

None.

M. Interchangeability or Intermixability of Parts

Does not apply.

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### 2. Material Information

#### A. Material - Price and Availability

The materials necessary to do this service bulletin are listed in paragraph 2.D. of this service bulletin.

#### B. Industry Support Information

- (1) Auxiliary volume tanks can be returned at the convenience of the operator.
- (2) Any repairs that are necessary on the returned auxiliary volume tank, other than the repair done by this no-charge service bulletin, will be chargeable.
- (3) Units must be sent to the authorized Honeywell repair facility as follows:

Honeywell Engines, Systems & Services  
11100 N. Oracle Road  
Tucson, AZ 85737-9588

Telephone: 1-520-469-6668

FAX: 1-520-469-5630

E-Mail: [mike.o'dea@honeywell.com](mailto:mike.o'dea@honeywell.com)

NOTE: At the release time of this service bulletin, the repair facility listed above is the only location at which this unit can be repaired. New contracts can be issued after the distribution date of the service bulletin to allow other authorized Honeywell repair facilities to do the repair. Contact Honeywell Engines, Systems & Services or your local Honeywell field service representative for other authorized Honeywell repair facilities.

- (4) Units returned to Honeywell for repair will have this service bulletin done without additional charge for a period of 24 months following release of this service bulletin.

2. B. (5) Send questions to:

Honeywell Engines, Systems & Services  
 P.O. Box 29003  
 Phoenix, AZ 85038-9003

Telephone: (Domestic) 1-800-601-3099  
 (International) 1-602-365-3099

FAX: 1-602-365-3343

E-Mail: honeywellcog@honeywell.com

- C. Information on Price and Availability of Parts Will Be Supplied By:

Does not apply.

- D. Material Necessary for Each Cabin Pressure Controller

- (1) The parts necessary to do this service bulletin are as follows:

New Part Number	Key Word	Old Part Number	Qty.	Unit Price	Special Instructions - Disposition
131358-2 Series 1 MR1	Auxiliary Volume Tank	131358-2 Series 1	N/A	N/A	C
131358-3 Series 1 MR1	Auxiliary Volume Tank	131358-3 Series 1	N/A	N/A	C

Disposition Code C: Rework the part as shown in this service bulletin.

- (2) The consumables necessary to do this service bulletin are as follows:

Consumable	Manufacturer	Qty
<u>NOTE:</u> Equivalent materials can be used.		
Brush (for paint)	Commercially available	1
Metal Stamp	Commercially available	1
Paint (Lusterless black) (FED-STD-595 Color 37030)	Commercially available	AR
Phenol Liquid Adhesive (Part Number A9311)	Fisher Scientific Co., 2170 Martin Ave., Santa Clara, CA 95050-2702 Phone: 831-425-7240	AR

2. E. Tooling - Price and Availability

Does not apply.

F. Re-identified Parts

New Part Number	Keyword	Old Part Number
131358-2 Series 1 MR1	Auxiliary Volume Tank	131358-2 Series 1
131358-3 Series 1 MR1	Auxiliary Volume Tank	131358-3 Series 1

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### 3. Accomplishment Instructions

Refer to Section 2 for all parts and consumables necessary to do this service bulletin.

**NOTE:** The procedures in Paragraph 3.A. are done by the aircraft operator. The procedures in Paragraphs 3.B. and subsequent are done only by personnel at the Honeywell repair facility.

A. (Aircraft operator) Do these procedures:

- (1) Use the procedures in the applicable aircraft maintenance manual (AMM) to get access to the auxiliary volume tank.
- (2) Look at the serial number and the modification (mod) record number on the auxiliary volume tank. If the mod record number is "1", the auxiliary volume tank is serviceable and does not need to be returned to Honeywell. If there is no mod record number shown on the identification plate and if the serial number matches a serial number listed in Table 1, use the procedures in the applicable AMM to remove the auxiliary volume tank. Send the auxiliary volume tank to Honeywell.
- (3) After a new or repaired auxiliary volume tank is returned by Honeywell, use the procedures in the applicable AMM to install it in the aircraft.
- (4) Use the procedures in the applicable AMM to do a functional test of the auxiliary volume tank.

Table 1. Auxiliary Volume Tank Serial Numbers

Part Number	Serial Numbers
131358-2	16-7961
131358-2	16-7962
131358-2	16-7963
131358-2	55-7849
131358-2	55-7850
131358-2	55-7851
131358-2	55-7853
131358-2	55-7855
131358-2	55-7856
131358-2	55-7857

Table 1. Auxiliary Volume Tank Serial Numbers (Cont.)

Part Number	Serial Numbers
131358-2	55-7858
131358-2	55-7860
131358-2	55-7863
131358-2	65-7866
131358-2	65-7867
131358-2	65-7868
131358-2	65-7869
131358-2	65-7870
131358-2	65-7871
131358-2	65-7872
131358-2	65-7873
131358-2	65-7874
131358-2	65-7875
131358-2	65-7876
131358-2	65-7877
131358-2	75-7878
131358-2	75-7879
131358-2	75-7880
131358-2	75-7881
131358-2	75-7882

Table 1. Auxiliary Volume Tank Serial Numbers (Cont.)

Part Number	Serial Numbers
131358-2	75-7883
131358-2	75-7884
131358-2	75-7885
131358-2	75-7888
131358-2	75-7889
131358-2	75-7890
131358-2	85-7891
131358-2	85-7892
131358-2	85-7893
131358-2	85-7894
131358-2	85-7895
131358-2	85-7897
131358-2	95-7898
131358-2	95-7899
131358-2	95-7906
131358-2	95-7907
131358-2	95-7908
131358-2	95-7909
131358-2	95-7910
131358-2	95-7911

Table 1. Auxiliary Volume Tank Serial Numbers (Cont.)

Part Number	Serial Numbers
131358-2	95-7912
131358-2	95-7913
131358-2	95-7914
131358-2	95-7915
131358-2	95-9700
131358-2	95-9701
131358-2	95-9702
131358-2	95-9703
131358-2	95-9704
131358-2	95-9705
131358-2	105-7916
131358-2	105-7917
131358-2	105-7918
131358-2	105-7919
131358-2	105-7920
131358-2	105-7921
131358-2	105-7922
131358-2	115-7923
131358-2	115-7924
131358-2	115-7925



Table 1. Auxiliary Volume Tank Serial Numbers (Cont.)

Part Number	Serial Numbers
131358-2	115-7926
131358-2	115-7927
131358-2	115-7928
131358-2	115-7929
131358-2	115-7930
131358-2	115-7931
131358-2	115-7932
131358-2	115-7933
131358-2	115-7934
131358-2	115-7935
131358-2	115-7936
131358-2	115-7937
131358-2	115-7938
131358-2	115-7939
131358-2	125-7940
131358-2	125-7941
131358-2	125-7942
131358-2	125-7943
131358-2	125-7944
131358-2	125-7945

Table 1. Auxiliary Volume Tank Serial Numbers (Cont.)

Part Number	Serial Numbers
131358-2	125-7946
131358-2	125-7947
131358-2	125-7948
131358-2	125-7949
131358-2	125-7950
131358-2	125-7951
131358-2	125-7952
131358-2	125-7953
131358-2	125-7954
131358-2	125-7955
131358-2	125-7956
131358-2	125-7957
131358-2	125-7958
131358-2	125-7959
131358-2	125-7960
131358-3	16-1190
131358-3	16-1191
131358-3	16-1192
131358-3	16-1193
131358-3	16-1194

Table 1. Auxiliary Volume Tank Serial Numbers (Cont.)

Part Number	Serial Numbers
131358-3	65-1154
131358-3	65-1155
131358-3	65-1156
131358-3	65-1157
131358-3	65-1158
131358-3	75-1160
131358-3	75-1161
131358-3	75-1162
131358-3	75-1163
131358-3	75-1164
131358-3	85-1165
131358-3	85-1167
131358-3	85-1168
131358-3	85-1169
131358-3	95-1170
131358-3	105-1171
131358-3	105-1172
131358-3	105-1173
131358-3	105-1174
131358-3	105-1175

Table 1. Auxiliary Volume Tank Serial Numbers (Cont.)

Part Number	Serial Numbers
131358-3	105-1176
131358-3	105-1177
131358-3	105-1178
131358-3	105-1179
131358-3	105-1180
131358-3	105-1181
131358-3	105-1182
131358-3	105-1183
131358-3	105-1184
131358-3	115-1185
131358-3	115-1186
131358-3	115-1187
131358-3	115-1188
131358-3	115-1189

3. B. (Honeywell repair facility only) Do these procedures:
  - (1) Refer to the applicable Honeywell engineering documents to repair the returned auxiliary volume tank.

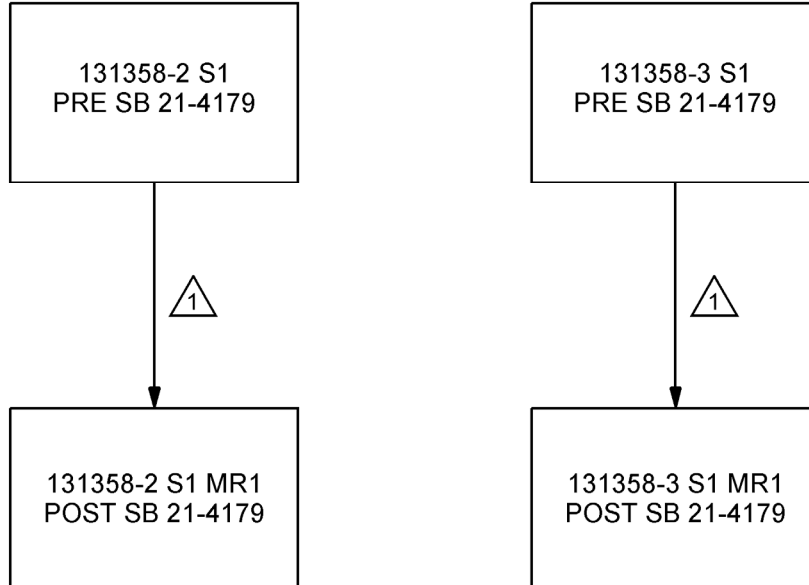
NOTE: It is possible that some volume tanks cannot be successfully repaired. In those cases, the tanks are replaced.
  - (2) Refer to the applicable Honeywell engineering documents to do a functional test of the repaired auxiliary volume tank.

If the auxiliary volume tank does not pass the test, repair the tank and do the test again. The auxiliary volume tank must pass the functional test before it is re-identified.
  - (3) Re-identify the auxiliary volume tank as Part Number 131358-2 Series 1 MR1 or Part Number 131358-3 Series 1 MR1 as follows:
    - (a) Use a metal stamp to mark a "1" in the mod record block of the auxiliary volume tank identification plate.
    - (b) Fill in the stamped number with lusterless black paint.
- C. This completes the check and repair of Auxiliary Volume Tank Part Numbers 131358-2 Series 1 and 131358-3 Series 1.

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4. Appendix

Family Tree Chart of Modification/Configuration History. See Figure A-1.



NOTE: UNLESS DIFFERENTLY SPECIFIED

 AFFECTED SERIAL NUMBERS ONLY.

E131358SB1

Modification/Configuration History Diagram  
Figure A-1

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