

**DATE: 18 December 2000**

**REVISION: Orig.**

**AIRCRAFT: PITTS SPECIAL**

**SUBJECT: Propeller Accumulator**

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**Engineering aspects are FAA Approved.**

**1. EFFECTIVITY**

Pitts S-2B equipped with Hartzell HC-C3YR/7690C Propeller (3 blade composite)  
S-2C S/N 6001-6041 inclusive

**2. PURPOSE**

Accumulator Relocation

**3. BACKGROUND**

Hartzell Service Bulletin HC-HB-61-247 requires the relocation of the accumulator from the bottom of the engine to an airframe location. The vibration level associated with the engine has caused through bolts on the accumulator to fail. This bulletin provides instructions for relocation.

**4. COMPLIANCE**

**Within 10 flight hours or 30 days.**

The current location of the accumulator must be changed to prevent damage and/or possible failure of the accumulator and loss of engine oil and propeller control.

## 5. INSTALLATION INSTRUCTIONS

**NOTES:** Refer to Appendix A for parts list.

Refer to figures in Appendix B for additional information.

### A. Removal.

1. Remove engine cowling for access. Remove right side panel aft of firewall.
2. Remove 24" hose between propeller governor and accumulator. Hose will not be reused.
3. Remove accumulator and brackets from engine. Replace bolt through engine splitline. It will be necessary to use additional washers in order to tighten the bolt properly.
4. Remove attaching brackets from accumulator. These brackets will not be reused

### B. Preparation for Installation

1. Remove the nuts from the bottom bolts attaching the oil system inverter valve to the firewall. Pull the bolts back through the firewall.
2. Slide template #DT-7892 between the firewall and forward fuselage truss tubes in lower right quadrant. Labels on the template should be aft. Match the curve of the template to the curve of the firewall. Align the two holes that match the bolts removed from inverter valve. Slide the bolts through the firewall and template.
3. Position the SS-126-JJ-10 clamps on the inboard tube, and SS-126-JJ-12 clamps on the outboard tube per fig. 1. Assure that the holes in the clamps match the holes in the drill template. If the holes do not align properly, remove the inverter valve bolts from the template and slide template up or down slightly to obtain proper fit.
4. Drill 4 #10 holes through firewall at the points marked with DT-7892 template.
5. If the accumulator is not identified as P/N 8907-040, this should be changed per Hartzell Service Letter HC-SL-61-200. Apply placard B-6507-1 and adjust pressure to 15-25psi.

### C. Installation:

1. Install accumulator to brackets 2-9000-62 and 2-9000-63 as shown in fig. 1. Use AN507-1032R10 bolts with AN960-10 washers and AN365-1032C nuts.
2. Wrap electrical tape (2 wraps) around fuselage tubes to cushion JJ clamps. Bolt accumulator brackets to clamps through the firewall, heads fwd. Use AN3-13A bolts on the outboard bracket and AN3-12A bolts on the inboard bracket. Use AN960-10 washers on both ends, secure with AN365-1032C nuts.
3. Replace bolts and nuts removed from inverter valve.
4. Install AN823-6D fitting in fluid end of accumulator with flare end pointing up.
5. Install 00624-624040-6-0514hose. Straight fitting attaches to fitting on accumulator. Route over top of engine intake pipes, through existing grommet on fwd. Baffle. Attach 45 degree end to governor fitting.
6. Secure hose with cushion clamps at engine mount tube, rear intake pipe and front intake pipe. Use MS21919-14 clamps on hose, -12 on engine mount tube, -28 on rear intake pipe and -35 on fwd intake pipe boss. Existing fuel hose may prevent use of the -35 clamp. In this case plastic tie wraps may be used. Secure clamps with AN526-1032R9 bolts, AN960-10 washers and AN365-1032C nuts.

**E. Completion.**

1. Check all connections for proper fit and safety.
2. Replace panels and cowling
3. Run engine, cycle propeller and check for leaks.
5. Make aircraft log entry to note maintenance performed referencing this service bulletin.
6. Prior to return to service perform the requirements of FAR 91.407(b) including test flight of the aircraft to verify proper propeller operation, operational check of maintenance and log of the flight in the aircraft records.

**6. ADDITIONAL INSTRUCTIONS****A. Weight and balance**

The weight of the accumulator and brackets is 4.64 lb. The original location is 45” aft of Datum, the new location is 63.75” aft of Datum. Add 87 in-lb. to the moment weight of the aircraft, and divide by the empty weight to obtain new Empty Weight Center of Gravity.

**B. Airplane flight manual**

No changes.

**C. Repetitive Inspections**

None required. This is terminating action to Hartzell Bulletin HC-SB-61-247

**E. Continuing Maintenance**

Refer to the Pitts Special S-2B/S-2C Aircraft Maintenance Manual.  
(Aviat PN 70206-001).

**Appendix A**  
**Parts List**

The following materials are required to accomplish this bulletin (Kit # S-2-525) and are available from Aviat Aircraft.

<b>Code</b>	<b>Part No.</b>	<b>Description</b>	<b>No. Rqd.</b>
	2-9000-062	Bracket, Outboard	1
	2-9000-063	Bracket, Inboard	1
88648	00624-62404-6-0514	Hose Assembly	1
60850	SS-126-JJ-10	Clamp	2
60852	SS-126-JJ-12	Clamp	2
50151	AN3-12A	Bolt	2
50176	AN3-13A	Bolt	2
56855	AN526-1032R9	Screw	3
55392	AN365-1032C	Nut	15
58740	AN960-10	Washer	19
56572	AN507-1032R10	Screw	8
57472	MS21919WF35	Cushion Clamp	1
57467	MS21919-DG28	Cushion Clamp	1
57451	MS21919-DG14	Cushion Clamp	3
57441	MS21919-DG12	Cushion Clamp	1
57950	AN823-6D	45 degree Fitting	1
61550	B-6507-1	Placard	1
	DT#7892	Drill Template	1

**Appendix B**  
**Illustrations**

Figure 1  
Accumulator Installation

**Appendix C**  
**COMPLIANCE LETTER**

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This is to certify that I have relocated the propeller accumulator in accordance with Aviat Service Bulletin 31.

Pitts S-2B/S-2C Serial Number: \_\_\_\_\_

Registration: \_\_\_\_\_

Date: \_\_\_\_\_

Aircraft Total Time: \_\_\_\_\_

Signed By: \_\_\_\_\_

Title: \_\_\_\_\_

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Return one copy to: Chief Engineer  
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