



**ECCN**  
**9E991**

# **AERONAUTICAL ACCESSORIES, INC.**

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## **ALERT SERVICE BULLETIN**

**ASB No. AA-05005**

**Revision A**

**SUBJECT:** Replacement Nitrogen Reservoir  
P/N 212-372-050

**MODELS AFFECTED:** Bell Helicopter Textron Model 212/412/412EP with  
the Aeronautical Accessories, Inc. P/N 212-372-  
050 Reservoir Assembly installed in accordance  
with STC SH2820SO.

**COMPLIANCE:** This bulletin shall be complied within 24 flight  
hours of receipt or prior to next system charging.

**DESCRIPTION:** This Alert Service Bulletin is being issued in  
response to the determination that the P/N 212-  
371-002 Adapter located between the neck of  
the P/N 212-372-050 Reservoir Assembly and  
the inflation valve may have been manufactured  
incorrectly resulting in a weakened condition that  
could lead to the rupture of the Adapter fitting  
while under pressure.

**FA/DER APPROVAL:** The engineering design change represented by  
this Alert Service Bulletin complies with  
applicable Federal Aviation Regulations and is  
FAA approved.

**MANPOWER:** Approximately 2.0 hours.

IF OWNERSHIP OF AIRCRAFT HAS CHANGED, PLEASE FORWARD THIS BULLETIN TO NEW OWNER

**MATERIAL:**

59214 Pipe Sealant (Loctite Corp.)

P/N 212-371-002 Adapter (if found to be discrepant per Accomplishment Instructions)

**REQUIRED TOOLS:**

Dial Calipers (accurate to within  $\pm .001$ " )

Pressure intensifier (capable of an output pressure of at least 3225 psig)  
(Haskel Type AAD-30, Model 17934 or equivalent)

Three standard nitrogen cylinders (nine inches in diameter and 51 inches high) with a free volume of 1.52 SCF and a charged volume, at 2250 psig, of 225.0 SCF

Connecting manifold with pressure regulator

**WEIGHT AND BALANCE:**

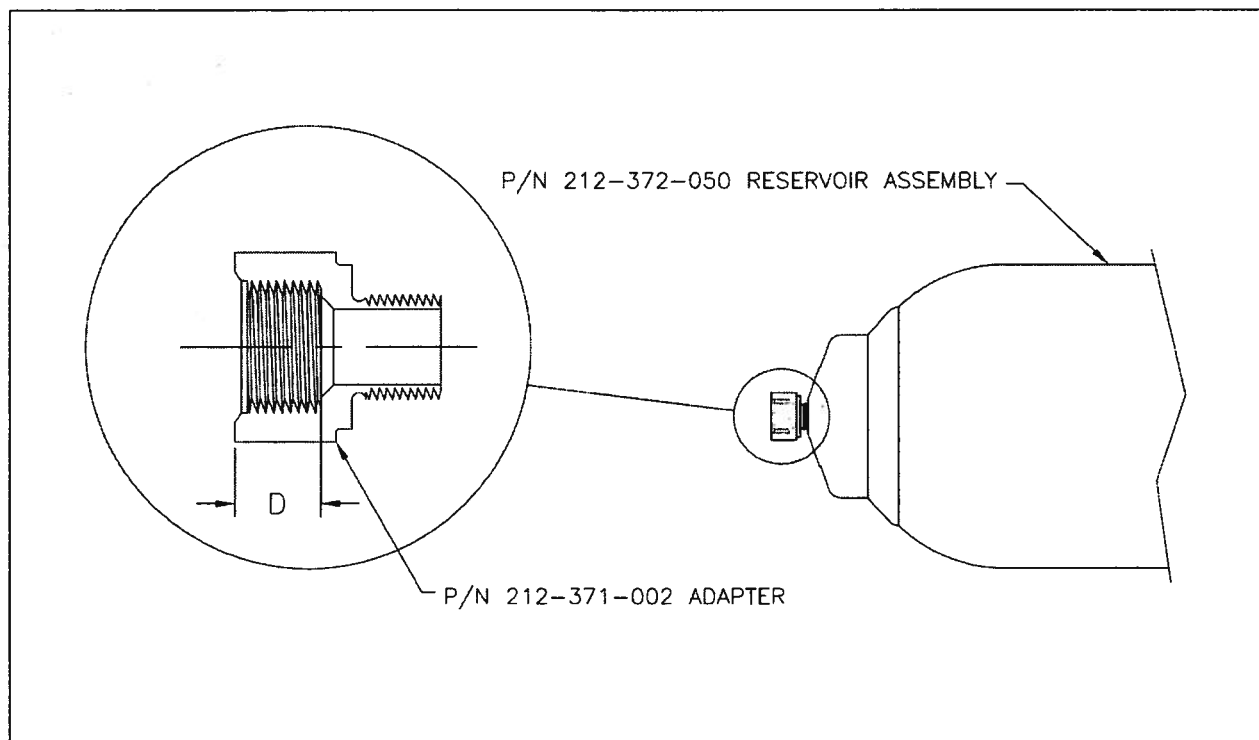
Not affected

**PUBLICATIONS AFFECTED:**

None affected

**PART I – ACCOMPLISHMENT INSTRUCTIONS**

1. In accordance with **Part II – FLOATATION SYSTEM DISCHARGING** carefully vent the nitrogen from the Reservoir Assembly.
2. Remove valve assembly and air line from the P/N 212-371-002 Adapter and inspect the counterbore depth (dimension "D") as shown in Figure 1.
3. If dimension "D" is found to be  $.850" \pm .010"$  the P/N 212-371-002 Adapter is good and the valve assembly and air line can be reattached and the P/N 212-372-050 Reservoir Assembly can be returned to service in accordance with **Part III – FLOATATION SYSTEM CHARGING**.
4. If dimension "D" exceeds  $.860"$  the P/N 212-371-002 Adapter is to be returned to Aeronautical Accessories, Inc. along with the P/N 212-372-050 Reservoir Assembly and a replacement reservoir assembly with adapter will be supplied.
5. Inspection Complete.
6. Make a notation in the helicopter's log indicating that ASB No. AA-05005 has been accomplished.

**FIGURE 1 – P/N 212-371-002 Adapter**

**PART II – FLOATATION SYSTEM DISCHARGING**

1. Gain access to the emergency floatation system nitrogen reservoir inflation valve and charging Schrader valve.
2. Remove the protective cap from the Schrader valve.
3. Slowly vent the pressurized nitrogen into the atmosphere until the system reservoir pressure gage indicates zero pressure.

**NOTE**

During discharging, the system reservoir will decrease in temperature rapidly. Adjust rate of nitrogen release as required to minimize hazard and avoid unprotected contact with reservoir during this process.

4. Close charging valve and allow the system reservoir temperature to stabilize.
5. Replace protective cap on Schrader valve. Place protective caps and/or plugs on all disconnected charging fittings and hoses to prevent contamination.

**PART III – FLOATATION SYSTEM CHARGING**

(Refer to Figures 2 and 3)

**NOTE**

Required equipment for accomplishment of these instructions will be a pressure intensifier capable of an output pressure of at least 3225 psig (Haskel Type AAD-30, Model 17934 or equivalent.) In addition, three standard nitrogen cylinders and connecting manifold with pressure regulator are typically utilized. The standard nitrogen cylinder is nine inches in diameter and 51 inches high with a free volume of 1.52 SCF and when charged to 2250 psig the cylinder contains 225.0 SCF. See Figure 2.

1. Position the nitrogen cylinders and pressure intensifier next to helicopter on the left side aft of the copilot door. Connect the high pressure hose from the manifold pressure regulator to the input fitting on pressure intensifier.
2. Gain access to the emergency floatation system nitrogen reservoir inflation valve and charging Schrader valve as follows:
3. Remove the protective cap from the Schrader valve.
4. Connect the high pressure outlet hose from the pressure intensifier to the system reservoir Schrader service valve. Assure all pressure fittings and hose connections are tight before proceeding to the next step.
5. Assure nitrogen cylinder manifold pressure regulator is turned to OFF at the lowest pressure setting.
6. Slowly open nitrogen cylinder valve to manifold and floatation system Schrader service valve.
7. Turn the charging manifold pressure regulator slowly to an increased pressure setting. This will initiate system reservoir charging.
8. Charge cylinder assembly per cylinder pressure limits decal (P/N 212-372-021) (Figure 3). To determine charge pressure from inflation decal, follow vertical line through ambient temperature on lower margin to intersection with diagonal black line in green area. Read bottle charge pressure on left margin opposite intersection.
9. Monitor system reservoir pressure gage and continue charging in accordance with the cylinder pressure limits decal. A cylinder pressure limits decal is also located on the left-hand beam assembly and is visible through the copilot (left) chin bubble.

**NOTE**

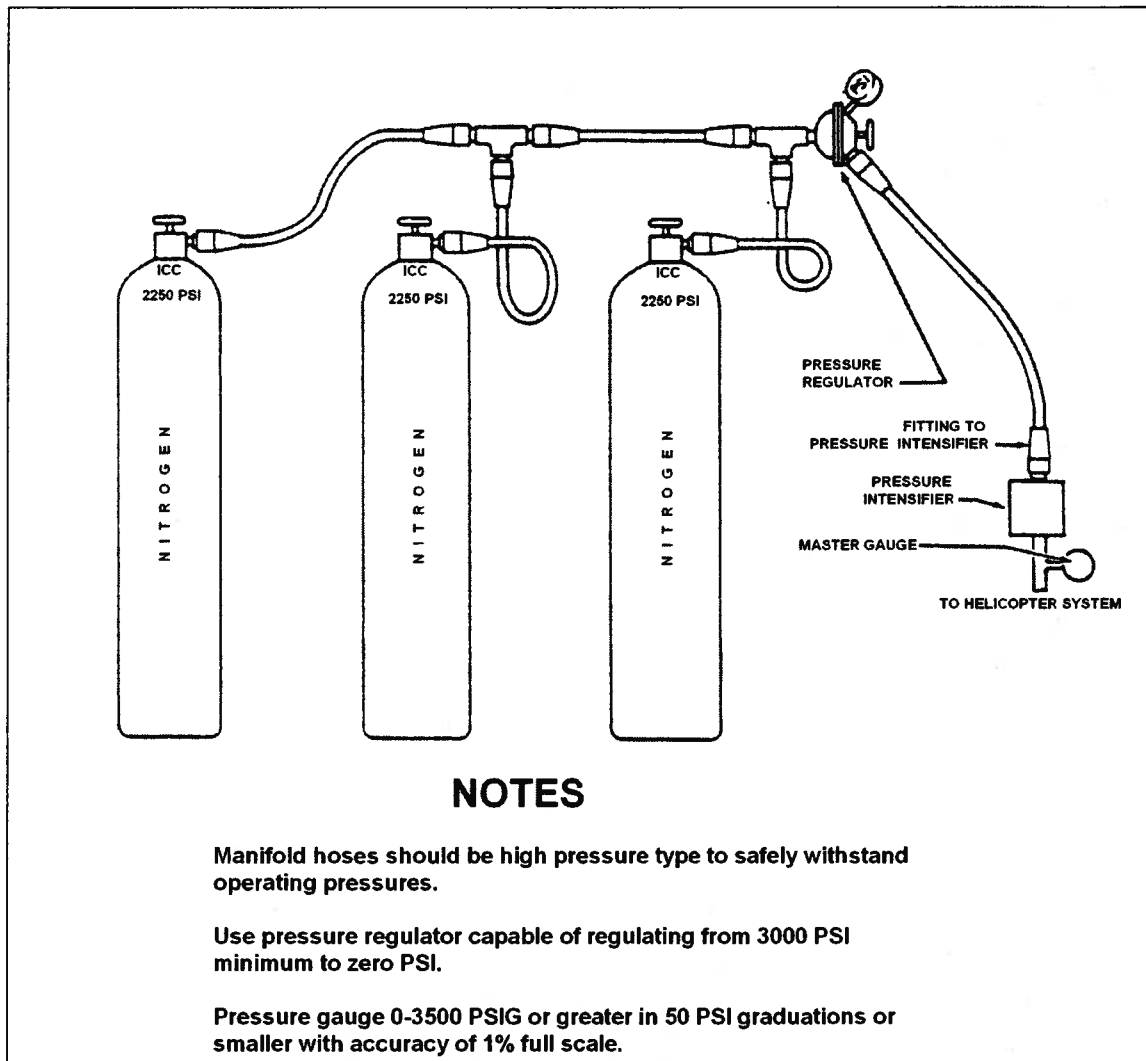
For operation at anticipated landing surfaces above sea level, the cylinder fill pressure should be reduced below the pressure indicated on the cylinder inflation decal by 100 psig per 1000 feet to prevent excessive float inflation pressures during inflation cycle.

10. When system reservoir pressure gage indicates the desired pressure, close charging valve and allow the system reservoir temperature to stabilize.

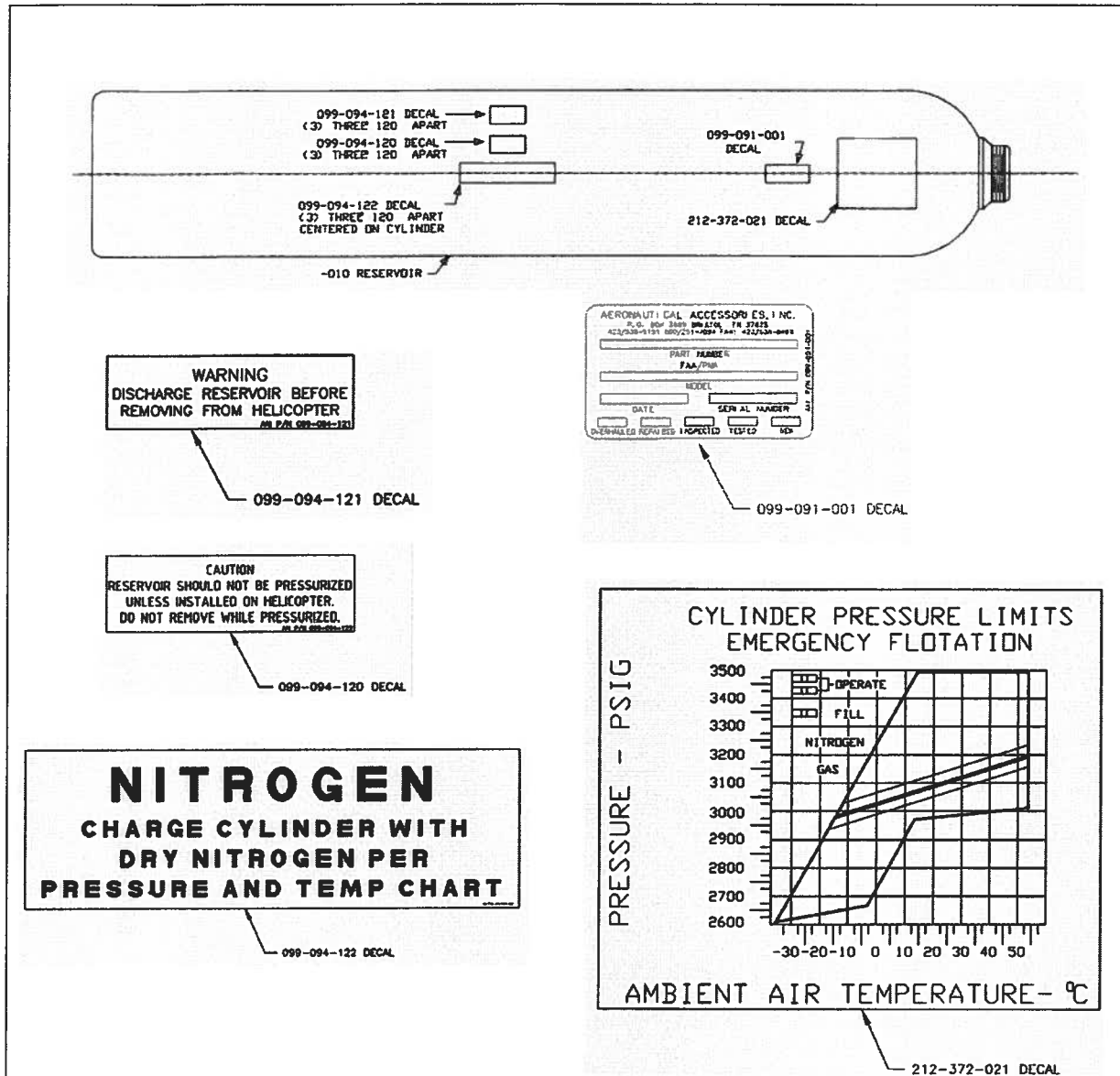
**NOTE**

During charging, the system reservoir will increase in temperature. Thus during cool down the pressure in the reservoir cylinder will drop and will require additional charging.

11. After charging system reservoir, close charging valve.
12. Adjust pressure regulator to lower pressure setting.
13. Slowly bleed pressure from charging system and hoses.
14. Disconnect charging hose from reservoir Schrader valve.
15. Replace protective cap on Schrader valve. Place protective caps and/or plugs on all disconnected charging fittings and hoses to prevent contamination.
16. Apply a soap solution to all connections between reservoir and valves. No leakage is permitted.



**FIGURE 2 – Emergency Floatation System Reservoir Charging Setup  
(Nitrogen Cylinders, Charging Manifold, and Pressure Regulator)**



**FIGURE 3 – P/N 212-372-010**  
**Emergency Floatation System Reservoir and Associated Decals**

Any questions regarding this bulletin should be addressed to:

**AERONAUTICAL ACCESSORIES, INC.**  
**PRODUCT SUPPORT**  
**1-800-251-7094**

**AERONAUTICAL ACCESSORIES, INC.**