



Service Information Letter

S.I.L. NUMBER: HR 99-05

DATE: February, 1999

PRODUCT: Hy-Ram Hydraulic Impact Breakers

MODEL: 88 / 99 / 710,B / 720 / 730 / 740 / 745CS / 750,B,CS / 755CS / 770,B,CS / 775CS / 780,CS / 785CS / 790,CS / 795CS / 800,CS / 805CS / 905CS

SUBJECT: High-Pressure Accumulator

PURPOSE: To advise of the proper procedure for charging accumulators

EFFECTIVE POINT: All Field Units

DETAIL: The function of the high-pressure accumulator is to dampen input oil pulsations and assist in providing oil to the piston during the impact stroke. The accumulator found on the subject hammer models is divided into two distinct chambers by a flexible diaphragm. One side of the accumulator is connected internally to the inlet port of the hammer while the other contains a **nitrogen gas** charge.

To function properly the accumulator must be filled with **nitrogen gas** to the proper value. (Ref. SIL [HR 97-18](#) for proper charge pressures.) While in operation, it's normal for the hammer's whip hose's to pulsate a slight amount. If abnormally strong pulsations are observed, the hammer must be turned off immediately, since this is usually an indication of a "blown accumulator". Continued operation with a "blown accumulator" may result in damage to other components.

Causes of a "blown accumulator" are generally the result of:

- Wear (Usable service life has been reached)
- High operating pressure
- Low input oil flow
- Excessive oil temperature

Important! – When checking or charging the accumulator, all precautions in the individual hammer manuals and charge kit instructions must be carefully observed.

MATERIAL

REQUIREMENTS:	<u>Description</u>	<u>Part Number</u>
	Accumulator Rebuild Kit	SIL HR 97-18
	Accumulator Charging Tool*	657604

*The accumulator charging tool may be purchased (P/N 657604) or rented (P/N 657604R) by Allied Distributors. Contact Allied's Technical Service Department for further details on rental.

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Hy-Ram Accumulator Charging Instructions

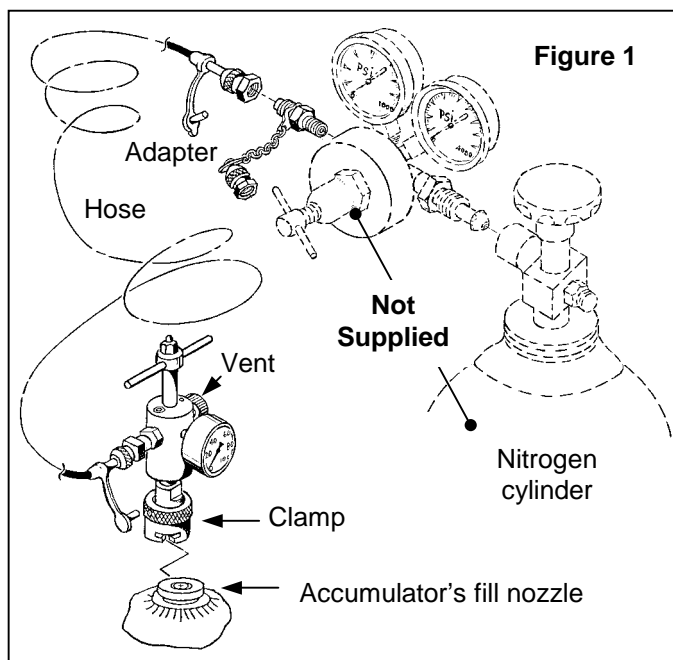
CAUTION

Improper handling of any pressurized vessel is dangerous and may result in equipment damage or personal injury.

Before attempting any service or repair, it is extremely important to read and thoroughly understand all instructions pertaining to the servicing and repair of Hy-Ram accumulators.

Contact Allied's Technical Service Department if further assistance is required. TEL. (800) 321-1046

Reference Figure 1. The charging kit, P/N 657604, includes charge tool, hose, adapter, and carrying case (Not shown). The regulator assembly and nitrogen cylinder are **NOT** supplied by Allied.



CAUTION

Never disassemble any accumulator without first discharging any remaining gas charge.

Accumulator Discharging

1. Slide charge tool over accumulator's fill nozzle, making sure T-handle is in upward position.
2. Tighten clamp.
3. Engage bit into screw head and loosen screw 3 turns.
4. Open vent (Rotate counterclockwise) and bleed off remaining gas.

CAUTION

Never attempt to repair damaged accumulator housings.
USE NITROGEN GAS ONLY

Accumulator Charging

1. Assemble charge kit as shown in figure 1.
2. Lubricate o-ring with oil and slip onto the special design screw. (CAUTION – NEVER USE A SUBSTITUTE SCREW!)
3. Thread screw into fill nozzle snug tight.
4. Slide charge tool over fill nozzle and tighten clamp.
5. Engage bit into screw head and loosen screw 3 turns.
6. Close vent. (Rotate knob clockwise)
7. Back off pressure regulator setting.
8. Open valve on nitrogen cylinder.
9. Slowly adjust regulator valve to specified pressure.
10. Allow 30 – 60 seconds to fill chamber.
11. Tighten screw.
12. Close valve on nitrogen cylinder.
13. Open vent.
14. Loosen clamp and remove charge tool.
15. Check for leaks. (Soap & water solution)
16. Install protective covers.