

1.09 Hydraulic Cart Under-pressure Accumulator Charging

Guidance

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This procedure has been prepared to cover the charging of the under-pressure accumulator AC-2 with compressed air and glycol. **This procedure is screwed up. There is an error in the process diagram wrt AC-2. For now, isolate AC-2 and don't use it.**

- 1) The Under-Pressure Accumulator AC-2 is a normally $\frac{1}{2}$ full of glycol and charged on its compressed air side to a value of 250 psig. In normal operations AC-2 is isolated from the hydraulic volume by EV-3, a solenoid valve that is energized closed. In the event of a power failure, EV-2 will open and AC-2 will maintain fluid pressure in the hydraulic system. When not in use, AC-2 can be isolated from the system using MV-4. MV-16 and MV-17 provide access through a pump-down port and a fill connection point that can be used to fill AC-2 with glycol.
- 2) To fill AC-2, connect a vacuum pump through the overflow tank to the quick flange off MV-17.
- 3) Connect the draw-pipe assembly to the capped fluid input port.
- 4) Energize EV-3 **[something wrong in the diagram. Isolate from cart...]**
- 5) **Pump down this section of plumbing and [OK. There is a problem here. Lets isolate AC-2 and not use it for Phase I. It isn't necessary here and we can fix the drawing and the fill procedure before Phase II.]**
- 6) The Accumulator is charged through its top Schrader Valve MV-7 while observing the charge pressure on the pressure indicator PI-2.
- 7) Using the accumulator charging kit that provides a fitting to connect to the Schrader valve and a separate knob to depress the valve stem.
- 8) The accumulator charging kit is rated to 3000 psi, but for caution we operate it from a regulator. This allows us to slowly raise the pressure to the nominal 250 psig value.