

6.4 Charging AC-2

Operational Guidance

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These instructions cover the charging of accumulator tank AC-2.

This document serves as an operational guidance to glycol filling. These instructions may be modified as the situation or hardware warrants. The internal surface area of AC-2 and it's plumbing is less than 300cm², so no respirators should be required when pumping down the system.

1. Charge the rest of the hydraulic system as be Procedure 3.1 or 3.2. MV-4 should be closed after these procedures.
2. Open EV-3 by unplugging it.
3. Determine if glycol resides in the plumbing connected to AC-2. If there is glycol in the line, skip steps 4 and 5. If there is air trapped with this glycol, this part of the system will have to be drained as per Procedure 3.4. If the plumbing only contains glycol residue or it clean, continue with this procedure.
4. Assemble a vacuum pump, vacuum lines, and a fluid trap. Ensure that all the components are clean of glycol. Connect to the vacuum port MV-17.
5. Turn on the vacuum pump and open MV-17. Evacuate AC-2 and related plumbing. Close MV-17. Disassemble the vacuum system and stow it.
6. Charge AC-2 with 100psig of compressed nitrogen or other compressed gas. Avoid compressed air if possible as ozone contamination will eventually damage the diaphragm of the accumulator.
7. Compress the hydraulic cart to 200psi. Record the pneumatic cylinder position.
8. Open MV-4 to the main hydraulic system to let glycol flow into AC-2.
9. Go watch some water boil.
10. When the air pressure in AC-2 maximizes near 200psi, plug in EV-3 to close the valve.
11. Lower the hydraulic ram to bring the pneumatic cylinder back up to it's previous position.
12. Restart normal operations.