

ACCUMULATOR CHARGING TOOL

Max. Operating Pressure: 5,000 PSI

Construct an accumulator charging system (as shown in Figure 1) by using Hytec's #500149 Accumulator Charging Tool and an appropriate regulator, gauge, shut-off valve, hose and bleed valve.



WARNING: To help prevent personal injury,

- All components in this charging system must have working pressure ratings that exceed the maximum pressure of the nitrogen source.
- Do not attempt to use this procedure to inspect or modify the charge pressure of an accumulator which is hydraulically pressurized. During usage, the charge pressure can increase to as high as the maximum pressure of the hydraulic system and should not exceed the pressure rating of any of the supplied components in the system.

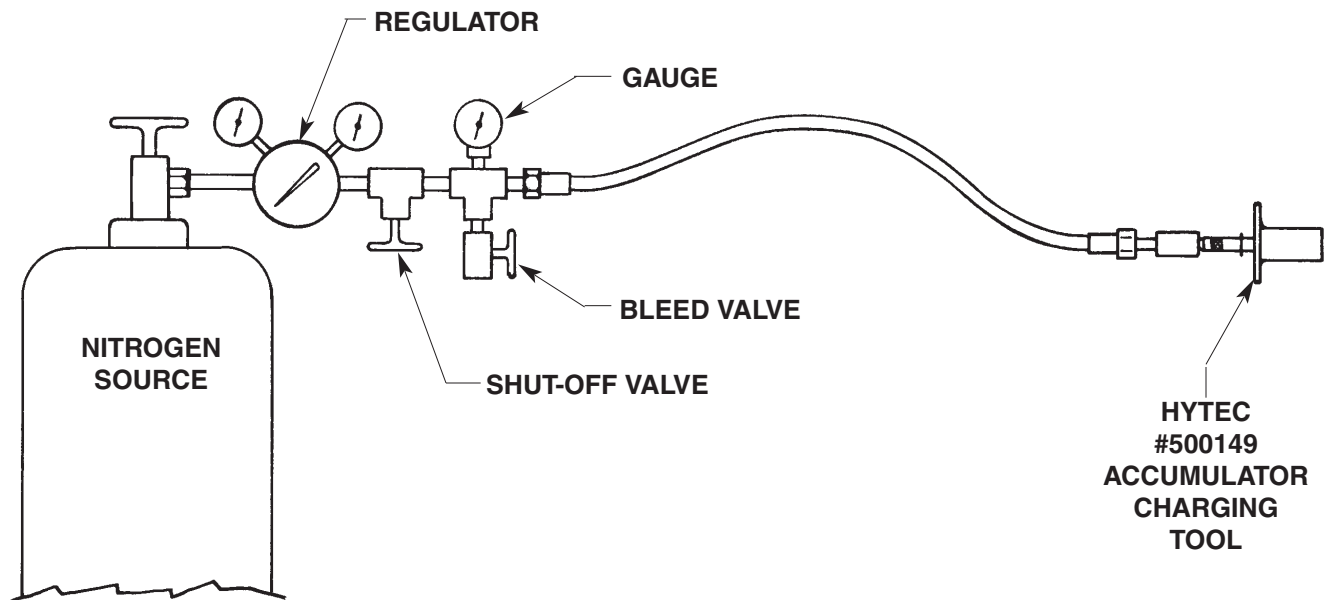


Figure 1

To Inspect The Accumulator Charge Pressure:

1. Release all hydraulic pressure from the inlet of the accumulator.
2. Remove guards or covers to provide access to the accumulator's charging valve.
3. Remove the cap from the accumulator's valve stem.
4. Thread the center shaft of accumulator charging tool over the valve stem on the accumulator valve. There is an o-ring seal at the bottom of the bore in the center shaft. **IMPORTANT: Do not overtighten.**
5. Close the bleed valve and the shut-off valve.
6. Use the T-handle on the #500149 accumulator charging tool to open the accumulator's valve by loosening it's upper swivel hex. **Note: Careful to loosen the accumulator valve's upper swivel hex only.** The pressure gauge will now read the current charge pressure.
7. If no change is required, close the accumulator's valve with the T-handle.
8. Open the bleed valve to allow the pressure in the charging system to exhaust.
9. Remove the accumulator charging tool from the accumulator.
10. Replace the valve stem cover.
11. Replace all guards or covers removed earlier.

To Decrease The Accumulator Charge Pressure:

Complete steps 1-6 above.

7. To decrease the charge pressure, slowly open the bleed valve until the pressure has decreased to the desired level.
8. Close the bleed valve.
9. Close the accumulator's valve with the T-handle.
10. Open the bleed valve to allow the pressure in the charging system to exhaust.
11. Remove the accumulator charging tool from the accumulator.
12. Replace the valve stem cover.
13. Replace all guards or covers removed earlier.

Note: If an accumulator's charge pressure has increased from its original setting (at equal temperatures), it is an indication that hydraulic oil may have built up in the gas side of the accumulator. This oil should be drained and the accumulator repaired before it is returned to service. Even if there is no visible wear or damage to the accumulator piston seals, this condition can be caused by the rapid release of the hydraulic pressure in the accumulator, allowing the seals to "hydroplane". This can be solved by slowing the release of the hydraulic pressure in the accumulator. Hytec has valves designed specifically for this purpose. Contact the factory for more information.

To Increase The Accumulator Charge Pressure:

Complete steps 1-6 above.

7. Open the main valve on the top of the nitrogen bottle.
8. Adjust the regulator to the desired pressure.
9. Open the shut-off valve to allow nitrogen flow into the accumulator.
10. Once the pressures at the regulator and the charging system have equalized, close the accumulator's valve with the T-handle.
11. Close the main valve on the top of the nitrogen bottle.
12. Open the bleed valve to allow the pressure (in the charging system) to exhaust.
13. Remove the accumulator charging tool from the accumulator.
14. Replace the valve stem cover.
15. Replace all guards or covers removed earlier.