Pressure Setting of 590181 Accumulator Charge Manifold

⚠ WARNING

Crush Hazard - Do not operate machine while personnel is under or near machine. Failure to do so may cause serious injury or death.

⚠ WARNING

Crush Hazard - Apply parking brake and block wheels before performing any service procedures. Failure to do so may cause serious injury or death.

1. Park on firm level surface and lower carriage to ground.
2. Engage parking brake, turn engine off.
3. Locate brake manifold inside chassis. Location varies.

   Note: If the brake manifold assembly does not include a needle valve, apply brakes several times until accumulators are drained completely. Skip ahead to item 6.
4. Open accumulator drain needle valves on brake manifold to relieve hydraulic pressure. Turn the locking nut counterclockwise (CCW) until it is against the adjusting nut. Turn the locking nut and adjustable nut CCW all the way out (see Figure 1).

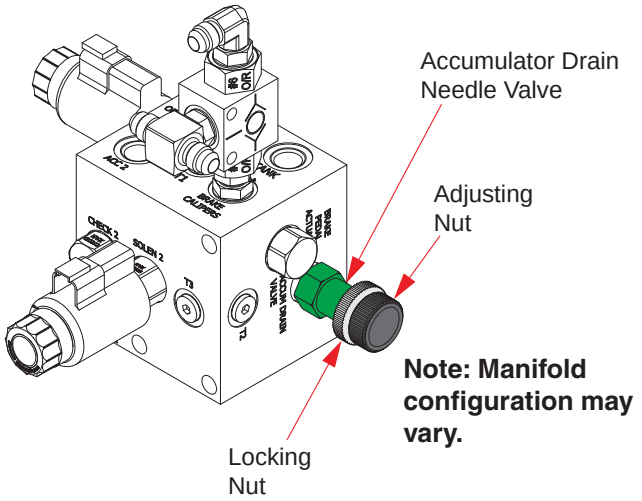

Figure 1 - Brake Manifold

5. Verify accumulators have correct nitrogen pre charge (refer to hydraulic schematic and 80-1076 Hydraulic Piston Accumulators Service Form). Close accumulator drain needle valves (see Figure 1).

   IMPORTANT! In order to properly close the needle valve, turn the locking nut CCW until it is against the adjusting nut. Turn the adjusting nut with locking nut clockwise (CW) until it stops. Turn the locking nut CW until it stops and is hand tight (see Figure 1).
6. Locate accumulator charge manifold inside chassis. Location varies.
7. Engine OFF, attach pressure gauge at test port TP1 (see Figure 2).
8. Engine ON, implement pilot switch ON, machine at idle, hydraulic oil temperature 100°F minimum.

⚠ WARNING

Pressurized Hot Oil Hazard - Always shut down machine before installing or removing pressure gauge from test port. Failure to do so may cause serious injury or death.

9. Engine ON, temporally set (5) pilot supply cartridge to 550-750 psi.
10. Engine OFF, attach pressure gauge at TP4.
11. Engine ON, set (11) Pilot Operating reducing cartridge to 450 +/-25 psi.

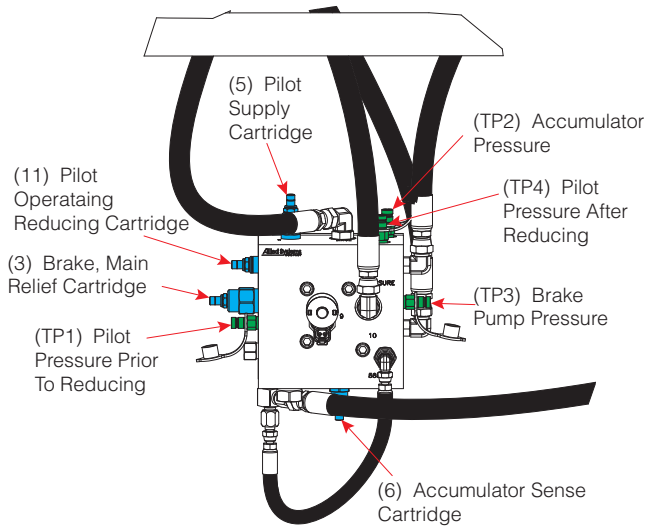

Figure 2 - Accumulator Charge Manifold

12. Engine OFF, attach pressure gauge at TP1.

13. Engine ON, set (5) pilot supply cartridge to 450 +/- 25 psi.

14. Engine OFF, attach pressure gauges at TP2 and TP3.

15. Engine ON, set (3) brake main relief valve cartridge to 2300 +/- 25 psi while watching gage on TP3. This will require increasing (6) accumulator sense valve cartridge. It will also require cracking accumulator drain valve to cycle the accumulator sense cartridge.

16. Engine ON, set (6) accumulator sense cartridge to 1800 +/- 25 psi (High Limit), while watching gauge in TP2.

Test

1. Engine OFF, attach pressure gauge at TP2, accumulator circuit (see Figure 2).

2. Engine ON, idle.

3. Drain accumulators (see page 1).

4. Check Accumulator pressure high (unload pressure) and low (reset pressure).
   - Unload pressure, 1800 +/- 25 psi.
   - Reset pressure, 1500-1575 psi (nominally 85% +/- 1% and +/- 25 psi of unload pressure).
   - Properly shut needle valve on brake manifold (if equipped).
   - Turn engine off, key off.

5. Check Pilot Supply with engine off.
   - Place pressure gauge on TP4, pilot pressure circuit.
   - Engine OFF, pressure should be at 0 psi.
   - With the key in the ON position (engine OFF) and implement pilot switch on, pressure should be 450 +/- 25 psi.
   - Engine OFF, attach pressure gauge on TP2, accumulator pressure.
   - The accumulator pressure will decrease by a rate of 200 +/-100 psi per minute until the accumulator charge pressure is reached at which point the accumulator pressure will drop to 0 psi.