Pressure Setting, Accumulator Charge Manifold 597229



Figure 1 Valve Module

NOTICE

The accumulator charge valve is preset from the factory and does not need adjustment. This procedure is only needed if one or more of the preset cartridges have been changed.

Crush Hazard - Do not operate machine while personnel are under or near the machine.

1. Park the machine on a firm, level surface and lower the bucket to the ground.

- 2. Engage the parking brake, and turn the engine off.
- 3. Locate the valve module behind the cab.
- 4. Open accumulator drain needle valve 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).
- 5. Attach a pressure gauge at TP2. This gauge will remain attached throughout this procedure. A second gauge will be necessary at times, and may be switched between TP1, TP3, and TP4 as necessary.

- 6. Verify accumulators have correct nitrogen precharge (refer to hydraulic schematic).
- 7. 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).

8. Attach a pressure gauge at test port TP1 on the Accumulator Charge Manifold (see Figure 1).

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.

- Turn the engine ON. Make sure the implement pilot switch is on. Keep the machine at idle, and ensure the hydraulic oil temperature is 100°F minimum.
- 10. Set (5) pilot supply cartridge to 550-750 psi.
- 11. Shut down the engine. Attach pressure gauge at TP4.
- 12. Turn the engine ON. Set (11) pilot operating reducing cartridge to 450 +/-25 psi.
- 13. Shut down the engine. Attach pressure gauge at TP1.
- 14. Turn the engine ON. Set (5) pilot supply cartridge to 450 +/- 25 psi.
- 15. Shut down the engine. Attach pressure gauge at TP3.
- Turn the engine ON. Set (3) brake main relief valve cartridge to 3250 +/- 25 psi while watching gauge 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.
- Set (6) accumulator sense cartridge to 2550 +/-25 psi (High Limit), while watching gauge in TP2.

<u>Test</u>

- 1. Shut down the engine.
- Turn the engine ON. Make sure the implement pilot switch is on. Keep the machine at idle, and ensure the hydraulic oil temperature is 100°F minimum.
- 3. Open the needle valve on brake manifold (see Figure 1).
- 4. Check Accumulator pressure high (unload pressure) and low (reset pressure).
 - Unload pressure, 2550 +/- 25 psi.
 - Reset pressure, 2100-2200 psi (nominally 85% +/- 1% and +/- 25 psi of unload pressure).
 - Properly shut needle valve on brake manifold.
 - Turn engine off, key off.
- 5. Check Pilot Supply with engine off.
 - Place pressure gauge on TP4, pilot pressure circuit.
 - 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.
- 6. Check Accumulator bleed off.
 - Shut down the engine.
 - 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.