

Troubleshooting – The top jaw does not want to travel upwards

REMEMBER – any hose or valve disconnections may relieve pressure in the system, allowing it to work properly again for a while. However the real problem still hasn't been fixed and pressure may build up to lock up the system again after awhile. If any hoses or valves are removed, check them carefully for signs of dirt in the oil.

Follow these steps to troubleshoot the problem:

1. Trace all of the hose connections from the power unit to the cutter to make sure they were connected correctly.

At this point, don't trust the hose markings to be accurate. Trace the hoses from end to end to be sure. Make sure the 1 ¼" large tank hose is connected to the filter. The elbow end of the other 1 ¼" hose should be connected to the unloader block. Make sure one of the ½" conveyor hoses wasn't switched with the drain line coming from the sequence block. The third and smaller pump hose should run directly to the small control valve on the cutter. The other ½" line from the small control valve should run back to the filter. The ½" drain line from the sequence valve block should T with one other line at the cutter then run directly back into the tank. Check for dirty hose ends where they may have been dropped and picked up dirt into the hose and therefore into the system.

2. If the jaw is not moving upwards when powered, watch to see if it cocks on one side.

This may tell you if one of the CKIB check valves on an outer cylinder is not opening. One side will want to go up and the other stay in place. They are torqued to 350 ft-lb, so replacing the entire sequence valve block may be easier.

3. Watch the hoses and check pressures when power is applied up and down.

See which ones tend to jump indicating flow is moving and stopping in that hose. If the jaw will not move, hold the control valve handle and check the pressure gauge at the power unit to see what the pressure builds up to. Pull the handle towards you to power the jaw down and hold it. Check the pressure gauge again. If everything is working correctly, the pressure in both directions should read between 2000 to 2600psi. If they are lower, a relief valve is not set properly. The top jaw needs from 600 to 900 psi to be powered up and down.

4. Check for a pressurized tank. If the filler/breather cap is not working properly, the tank may be building pressure and not letting the hoses drain properly. Loosen the filler cap and try it running the machine. Also try removing the ½" drain line and running it back into the filler neck.

5. On the center cylinder remove the nuts that hold the retaining plate when the top jaw is all of the way down. Power the center cylinder up and down to see if the problem is just in the center cylinder. If it also does not want to move up, the problem is either the CXGD-XCN check valve cartridge in the sequence valve block or an obstruction in one of the hoses. An obstruction may be a rubber hose flap inside the hose made from installing the fitting into the end or the inside wall of a hose collapsed. The hose will need to be replaced in these cases.

6. If the unbolted center cylinder goes up and down freely:

- a. **The problem could be the counterbalance valve is not opening.** Turning the CBEA-LIN valve screw in all of the way will open it. The jaw should then go up and down if this is the cause of the problem. A blocked pilot port in the sequence valve block may cause this valve not to work, even if the cartridge is good. CAUTION: if the jaw runs up and down, but slowly and at high pressure, the problem may be one of the large CKIB check valves.
- b. **The problem could be an obstruction in the ¾” tank hose or the ½” drain line coming from the sequence valve not allowing pressure to escape.** Check for a hose obstruction. Disconnect the tank ends of the hoses and watch to see if fluid comes out of them when the jaw is powered up. This will only work if the center cylinder is bolted to the top jaw. Look at both fitting ends for a rubber flap caused by installing the fitting.
- c. **The problem could be one or both of the check valves (CKIB-XCN) is not opening.** The cause would be a blocked pilot hole inside the sequence valve or just a stuck cartridge. Replace the sequence valve block.
- d. **The problem could be an obstruction in one of the hoses running to an outer cylinder.** Check for inner hose flaps near the fittings.