

CP-1 REVERSING VALVE PROBLEMS

If the Clark pump cycles properly when the pressure release is open ½ turn but is asymmetrical and makes a hissing noise on one stroke when pressurized, and output is very low to none, then one of the annular rings has failed. If it cycles OK when depressurized but stalls completely when the pressure release is closed, the problem may be a broken spool valve. A damaged spool valve sealing ring can cause similar problems.

See the manual or website for complete instructions on how to remove and replace the annular rings and spool. The best way to do it is to remove the complete top section of the pump by disconnecting the top high pressure line and the brine discharge hose. Remove the four allen screws that hold it down. Take care not to damage the bottom sealing surface. Remove both valve end blocks. Push out the black spool valve (P/N KIT-HP-10VSA) in the center valve body. If it is not broken, inspect it for any damage on the white seals. If the spool is broken replace it with a new one or it can be temporarily repaired (see bulletin CP-5 SPOOL VALVE REPAIR).

If you suspect a cracked annular ring (P/N HP-TB-AR), mark the outside of the white annular rings that the spool valve rides in with a felt tip pen. Tap the rings out from the opposite side with a wood dowel or plastic end of a screwdriver. There is probably an imperceptible crack running from one of the holes to the edge. You probably can't see the crack unless you pull on the ring to open it. If no replacement is available, the ring can be reused by turning it around and putting the crack to the outside. Reinstall the rings with the marked ends to the inside center of the valve body (crack to the outside). Reassemble and test. Note that the end blocks are left and right hand. Line up the ports to make sure you have the end blocks on the proper sides.

NOTE: You must remove the annular rings to see the crack, pull from the inside with your fingers and look for the crack.

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