

CRYSTEEL MFG. INC. HYCO CYLINDER TROUBLE SHOOTING GUIDE (CYLINDER CHATTERS)

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This document describes the steps to take to diagnose a warranty problem if the customer says that the cylinder chatters.

What to do if the customer says: *The cylinder chatters*

- The first thing to check is the cylinder alignment. Excess friction due to misalignment can cause cylinder chatter. Check to see if the cylinder is mounted and aligned correctly. Correct any mounting or alignment problems.
- Check for air in the hydraulic system. Most cylinders have an internal auto-bleed design. Follow the initial start-up procedure to bleed the cylinder of air. Look for any other places where air might be introduced into the system, such as the pump inlet line.
- Check fluid level in the reservoir to make sure the system has enough fluid to extend the cylinder completely. Add fluid as needed.
- Check that the reservoir air breather is not blocked. If the breather appears dirty, replace or clean the breather.
- Confirm that the pump capacity is large enough for the system and body requirement.
- Check that the pump is functioning and not worn.
- Check that unloading or relief valves are not misadjusted. These valves may be set too low and bypassing some of the pump flow.
- Check for excessive back-pressure on external drain valves. Should the pressure be too high look at plumbing the lines directly back to tank.
- Check for any check valves in the system and confirm that they are working properly.
- The main control valve may have a broken spring controlling the valve spool. Check that the spring is good and that the control valve is working properly.
- The cylinder may be sized too close to the load requirement. Either reduce the load or install a larger cylinder.
- The Cylinder may have internal damage. A determination must be made as to how to have the cylinder repaired or replaced.