

CRYSTEEL MFG. INC.

AIR TAILGATE CYLINDER TROUBLESHOOTING GUIDE

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This document describes the steps to take to diagnose a warranty problem on an air tailgate cylinder.

Note: Crysteel Mfg Inc will not offer warranty on air cylinders that have been painted, have over-spray, or under-coating on them. These contaminants shorten the seal life and are a cause for premature failure. In addition, if the mufflers are painted or undercoated, proper airflow will be inhibited. Properly protect the entire cylinder when applying paint or undercoating to the body.

What to do if the customer says:

The cylinder does not extend / retract:

- *First, check to see that there is 12VDC present at the switch. If there is no voltage, check the voltage at the source for the switch and termination points.*
- *Assuming there is 12VDC at the switch, check for 12VDC at the valve. If there is no voltage at the valve, check the wiring from the switch to the valve.*
- *Assuming there is 12VDC at the valve, check the air pressure. If there is no air pressure check the main air supply.*
- **IF THE AIR PRESSURE IS OVER 120 PSI ADD A REGULATOR KIT.**
- *If the air pressure is 120 PSI or less, pushing the manual override button will check the valve. The manual override is located on the back of the solenoid and can be pushed with a pen or a small screwdriver. **Make sure the cylinder is disconnected from the body. The cylinder will extend when this is pushed, if the valve is functioning properly.***
- *If the valve is working, check the cylinder. What is the condition of the rod? There can be a few things that can affect the rod. Make sure that the rod has not been painted. Also, check to see if the rod has been bent. Another check is to make sure the clevis pins are still in place.*

The valve does not work:

- *More often than not, the valve will be working correctly. There may be cases where the solenoid went bad or there is contamination inside the valve causing it to stick. It is more likely that there is a bad connection to the solenoid. Check to make sure the wires are connected. If they are, check the manual override. If the cylinder retracts, then the solenoid is bad. **Make sure the cylinder is disconnected from the body. The cylinder will extend when the manual override is pushed.***

The Cylinder leaks:

- *The first thing to do is to check that all air lines and fittings are intact. Make sure the truck air pressure is less than 120 psi, as this could account for some leakage. Then, spray the valve at the mufflers with soapy water. If there are air bubbles present, there could be a leak in the cylinder or valve. **All air valves will have a small amount of leakage. This should not result in any performance loss of the cylinders.** On a bench, take the valve off the cylinder and run the shop air pressure into the cap end of the cylinder. **Make sure that the shop air pressure is less than 120 PSI.** The cylinder will extend. Listen for leaks. If you can't hear anything, the cylinder is good. Send the valve back for evaluation.*