

Chain Cross Transfer Troubleshooting

This chapter includes general guidelines and troubleshooting tables as an aid in isolating and recovering from malfunctions. **ONLY QUALIFIED, AUTHORIZED PERSONNEL SHOULD OPERATE OR MAINTAIN EQUIPMENT.**

Proper troubleshooting is finding the cause of a problem and correcting it in a safe and systematic manner. A change in the system often causes trouble. An understanding of the system, its modes of operation, and how these modes are to work will aid in finding the cause of the trouble.

WARNING

- Ensure that all requisite safety precautions are taken while diagnostic procedures are performed.
- Before attempting any maintenance or service operation, make sure that:
 - You do not begin any repair procedure until the proper shutdown procedures and the appropriate power lockout procedures have been applied.
 - The system is de-energized; main electrical switches are open.
- Some maintenance/troubleshooting procedures require the equipment to be running to perform the procedure. In this case only one person should be in command of operating the equipment in maintenance mode only. Constant communication with the person commanding the equipment should be maintained through the procedure.

Problem	Possible Causes	Remedy
Skid doesn't move	Gearmotor doesn't run.	• Check wiring and plugs.
		• Gearmotor diagnosis.
		• Replace motor.
	Chain broken.	• Replace chain.
	IDC out of order.	• Replace IDC.
Skid speed too high/low.	IDC out of order.	• Replace IDC.
Skid moves erratically.	Polygon effect, Chain tension too low.	• Check and readjust chain tension on both sides see drawing.
Noise with / without vibrations.	One main assembly is defective.	• Check all main assemblies on loose pieces and foreign parts.
Wrong stop position of the skid.	Position of proximity wrong.	• Readjust proximity switch see drawing.
	Proximity defect.	• Change proximity switch.

General Troubleshooting

Device Type	Typical Devices	Action
Re-settable	• Light screens • Access Gate Boxes/Safety Plugs • E-stops	Visually inspect the protection area devices and reset any tripped devices.
Power Distribution	• Circuit breakers • Contactors/Relays • Connection	Check that power is distributed to the control panels, field devices, and components.
Processing	• PLC Processor • Input/Output Modules	Check the Main Control Panel processors and I/O modules for proper operation.
Communication	• EtherNet Module • DeviceNet Module	Check the Main Control Panel EtherNet and DeviceNet Modules for proper operation.
Machinery	• VFDs • Motors • Switches/Sensors • Connection System (cables/cords)	Follow a clear and logical approach to determining a failed device. Eliminate components that are a quick fix.