

Bettis™ Electro-Hydraulic Operator (EHO) Troubleshooting Guide

Symptom	Possible Cause	Corrective Action	Reference Material
Unit not powering on	Incorrect voltage applied	Apply correct voltage	Refer to Wiring Diagram
	Incorrect terminals used	Terminate on correct terminals	Refer to Wiring Diagram
	Fuses blown	Replace Fuses	Refer to Wiring Diagram
	Motor Control Module (MCM) failure due to wrong voltage applied	Check MCM and replace if necessary	Refer to Wiring Diagram
Power on but motor not running	Incorrect phasing	Check that motor phase is correct	Refer to Wiring Diagram
	Power supply insufficient	Ensure proper power applied	Refer to Wiring Diagram
	Field power wiring size is inadequate	Apply proper power wiring	Refer to Wiring Diagram
	Thermal overload tripped	Reset thermal overload	
Power on but motor not running (locally)	Local/Off/Auto switch in wrong position	Set switch in Local and try again	
	Actuator needs self calibration	Run self calibration and try local commands again	Video - 4.7 Self Calibration
Power on but motor not running (remotely)	Command signal integrity	Check command signal is sufficient . Ensure control signal wires are terminated properly.	Refer to Wiring Diagram
Motor running but not building pressure	Manual bypass valve (19) is open	Close manual bypass valve (19)	Video 4.9 Function Test with Local Controls
	Pump running backward	Check for proper motor rotation	Video 4.6 Check Motor Rotation
	Low fluid level in reservoir	Fill with fluid to proper level	IOM 2.7 - Hydraulic Fluid
	Hand pump isolation valve (8)	Open hand pump isolation valve (8)	Video - 4.4 Hand Pump Operation
	ESD solenoid not energized	Check signal voltage to ESD	Video - 4.3 Initial Connections
	Relief valve cracking open	Check that relief valve is set properly	
Motor runs, no pressure on gauge, no movement	NC opening solenoid not energizing	Check voltage from field board	
Fluid leaking from breather	Overfill of unit	Remove fluid from unit	
	Breather clogged	Take apart breather and clean/or replace	
Handpump not building pressure	Handpump isolation valve open	Close handpump isolation valve	Video - 4.4 Hand Pump Operation
Unit Stuck at end of power stroke	Handpump isolation valve closed	Open handpump isolation valve	Video - 4.4 Hand Pump Operation
Breather leaking fluid	Threads not sealed	Use thread sealant on threads and tighten	
	Breather clogged	Pull breather apart and clean	
Self Calibration Failing	Flow controls pinched off	Open flow controls to allow unit to calibrate	Video - 4.7 Self Calibration
	Pressure settings incorrect (PS,Pr,tP)	Check settings	Video - 4.7 Self Calibration
Ha alarm after closing stroke (fail stroke)	Encoder position off	Self Calibration	Video - 4.7 Self Calibration