



ELECTRONIC POWER DESIGN

ELECTRICAL SYSTEMS INTEGRATOR

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DESIGNING A WORLD OF POWER



PCM120 PEDESTAL CRANE

UPGRADE PACKAGE



Electronic Power Design Battery Backup for Emergency Brake Release & Controls

The Complete System

Supplied Equipment at a Glance

Using the latest in digital control, the Electronic Power Design, Inc. Pedestal Crane Upgrade Package is the most versatile way to upgrade the equipment and improve the safety, operation, and serviceability of your Pedestal Crane.

Digital control components allow the functions of the system to be tuned or modified to respond exactly as you want. The ability to expand I/O to include additional sensors, add additional alarms, or be configured to meet your specific requirements means not having to say, "It would be nice if we had..." If you want it, chances are we include it. If not, just ask.

The Options

- Installation, Supervision and Commissioning
- Hook Load Instrumentation Panel
- High Speed Starter for Boom Motor
- Crane Spare Parts Kit
- Split Cabin Consoles
- Auxiliary Hook Control
- Dual Console Configuration
- Laptop Computer with Software & Communication Hardware

Emergency Brake Release and UPS

If crane power is lost, the emergency lowering system allows you to lower personnel in a controlled, safe manner, down to a safe deck location. The emergency backup power supply also maintains all 24 Volt DC control systems for safety and diagnostics.



PLC Master Control Panel

The PLC Master Control Panel communicates with the Control Console and SCR Drives, as well as monitors the crane's various sensors and switches. It also monitors the health of the system and shows maintenance personnel a central diagnostic interface.



Control Console(s)

Fitted with a Remote I/O rack in the Control Console(s), the operator control, indication and alarming are controlled from the PLC Master Control Panel.



Hoist and Slew Converter Panels

The Hoist and Slew motors are powered by Siemens 6RA80 DC Master drives, the latest in digital DC Drive technology. These drives provide regenerative braking, and are programmed with torque proving and "fail safe" brake control logic for added safety.



Safety Built In

Enclosed Equipment Creates a Safer Machinery Space

Serviceability has always been a problem when it comes to the machinery space of a pedestal crane. With exposed cables and components throughout, the power has to be removed for safe access into the area. This creates problems for maintenance personnel trying to troubleshoot an electrical problem.

With the Electronic Power Design, Inc. Pedestal Crane Upgrade Package, the components are housed in stainless steel enclosures to prevent accidental shock.



Before purchasing the Pedestal Crane Upgrade Package

Superior Value

Everything You Need, And More

Because the Electronic Power Design, Inc. Pedestal Crane Upgrade Package is a complete system solution, real value in upgrading your crane is realized. The package is designed to use many of the existing cables, distribution, and lighting panels, thus reducing cost of the installation.

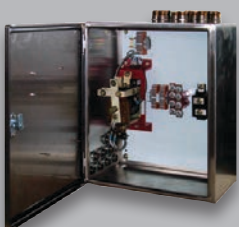
Which ones? We have even answered that question for you. Our manual includes guidelines for identifying the cables and components that stay and the ones that go. This work on the front end speeds up the entire process.

Feel up to a challenge? Have your qualified personnel complete as much, or little, of the work as you see fit. Our manual takes you through the entire procedure of retrofitting your crane. From identifying what you have, what you get, and what you do with it, we walk you through from start to finish. Since the system is programmed and tested at the factory, we even show you how to commission it.



Hoist and Slew Motor J-Boxes

Sometimes value can be found in the details. That is true of the addition of the motor junction boxes. With a local connection point for the motor leads, gone is the hassle of dealing with a ball of rubber and electrical tape.



Hoist Resistor Grid

In the event of a power loss, safety is the number one concern. The circulating currents from the motor will be redirected to the Hoist Resistor Grid, which will aid the electric brake in bringing a hanging load under control.



Boom Control Panel

The Boom AC starter can be selected for single or two speed operation. This allows you to select the configuration to achieve the performance you desire.



Surge Suppression Panel

Enclosing the incoming power feeds for the equipment is a great safety feature, but the Surge Suppression Panel does much more than that. It also absorbs the voltage spikes, which can damage the equipment and possibly cause an unsafe condition.



Features

- SINAMICS DC Master Drives for Hoist and Slew Control
 - Regenerative Braking
 - Internal Torque Proving and Brake Control Logic to prevent load slipping
- PLC Control System
 - Expandability for both function and additional I/O
 - PLC tools make troubleshooting the system easier than ever
- Increased protection of equipment and personnel
 - Surge Suppression panel to protect against voltage spikes
 - Enclosed equipment to prevent accident contact with energized equipment
 - Hoist Resistor Grid to aid the Hoist Motor Brake in case of power failure
- Reduced cost and downtime
 - Uses existing cabling, lighting, and distribution panels to reduce cost
 - Clear and concise instruction manual for installation, operation, and maintenance
- Non-proprietary parts means spares are available worldwide.
- Self verification of limit switch health system built into the PLC and displayed on the control console HMI
- Continuous emergency stop verification circuit to ensure that the main shunt trip circuit is operational



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