

HMK Upgrades



State-of-the-Art Controls PLC Replacement for Mobile Harbour Cranes

Systematic Upgrades

Leading-edge Control Units

Upgrades are a Key Aspect of our Service Portfolio

Having sold some 1,300 crane units, we are the world's No.1 in the field of Mobile Harbour Cranes. In operation for many decades, Gottwald cranes have proved to be reliable and economical.

To ensure that these features are guaranteed throughout the crane's service life and to adapt it to meet current and future technical and commercial demands, more and more customers are applying upgrades.

Control Unit Upgrades

Since their launch, Mobile Harbour Cranes have been subject to a programme of continuous improvement. Both powerful and versatile, they are indispensable in today's cargo handling environment.

In line with these developments, considerable progress has also been achieved in crane control systems. State-of-the-art control systems guarantee not only more accurate positioning and regulation of the electronic components but also provide the terminal operator with a wide range of diagnostic tools.

Broadly Based Upgrades

To enable Gottwald cranes to be fitted with the latest control systems with a view to enhancing availability and reliability, we have developed a number of upgrades based on the Siemens S7 PLC 400 CPU which are

designed not only to meet customers' needs but also to reflect their budgets. The upgrades cover the full range from a basic PLC upgrade through to a full control unit overhaul including the PLC, panels and drives.

Upgrading your Control Unit Provides many Benefits

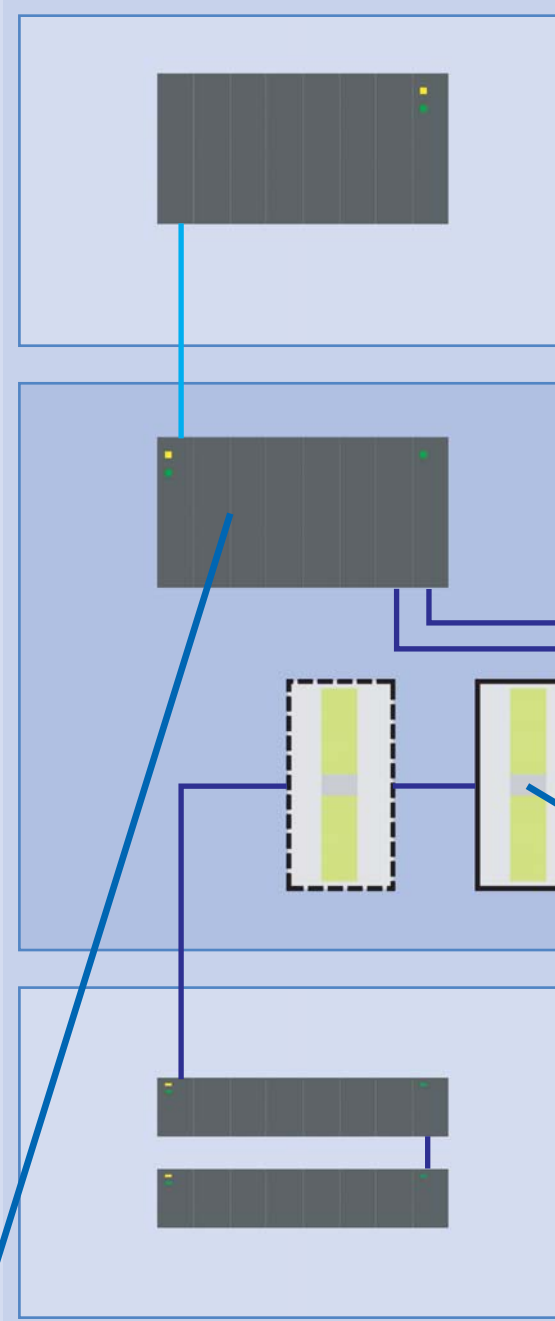
Retrofitting a new unit – from the basic upgrade to a full system refit – will provide you with the following benefits:

- State-of-the-art, reliable hardware components
- Long-term availability of spare parts
- Use of a single Profi Data Bus
- Continued use of your existing secondary control components such as relays, circuit breakers etc.
- The latest Siemens notebook with the S7 multitasking environment
- Latest drive systems with improved functionality

Basic PLC Upgrade

The basic PLC upgrade involves replacing older Siemens S5 controllers with an S7 PLC 400 CPU solution. This is a replacement of the S5 system with the S7 equivalent and involves replacement of some hardware components.

Schematic layout of the crane control unit

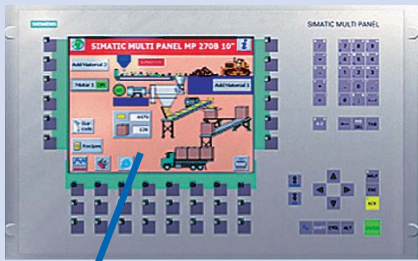


Order our Control Unit Upgrade and you will receive:

- In-depth advice and planning
- Refitting and test-run
- Full warranty for 12 months



PLC 400 with Siemens S7 control system



Clear layout of all required information



Tower Cab



Superstructure

Chassis

Basic PLC and Panels Upgrade

This upgrade level involves not only the adaptation of the S5 to S7 and the replacement of certain hardware components but also two new HMI panels with the corresponding displays in the electrics room and tower cab.

These displays are directly connected to the new system data bus and show all required operating data. The display in the electrics room also shows additional crane specific data which allows the crane owner to keep tabs on key operating and status data in realtime.

Comprehensive Diagnostics Capabilities

- Latest technology based on tried-and-tested components
- Powerful CPU for high-end performance
- Compact modules enable the number of cards to be reduced
- Enhanced visual fault checking via the new electrics room panel
- Precise identification of faulty modules via graphic user interface (including chassis)
- Single Profi Bus throughout
- Single CPU and interface
- Fanless system
- Improved operating system
- Latest Siemens Colour Field PG, W2000 environment with S7 preinstalled
- Improved diagnostics for drive faults
- Does not require separate monitor interface card
- Superstructure monitor can be "slaved" to tower cab monitor

State-of-the-art Siemens master drives



Option

6RA70 Drive

Apart from the S7 PLC 400 CPU, the extended upgrade package incorporates the HMI panels and replacement Siemens master drives. This complete solution, in particular, guarantees you the most comprehensive diagnostics capabilities and spare-part availability coupled with enhanced reliability and service back-up.

Comprehensive Service from Gottwald

Rich in Ideas, Innovative, Responsive and Flexible

As the world's leading manufacturer of Mobile Harbour Cranes, providing our customers with the full range of skilled and capable services is a matter of pride. These services are not merely based on a comprehensive range of existing services, but are constantly reviewed to ensure currency and compliance with customer needs.

Our service portfolio currently includes field service, troubleshooting, spare parts, service agreements, 24-hour call-up, crane personnel instruction and documentation.

We are supported by a worldwide network of Service Representatives who possess excellent technical skills and have a good command of the respective local language, paving the way for smooth communication.

Within the context of our highly customer-driven service strategy, we have developed a wide range of upgrades.

Upgrades for Mobile Harbour Cranes

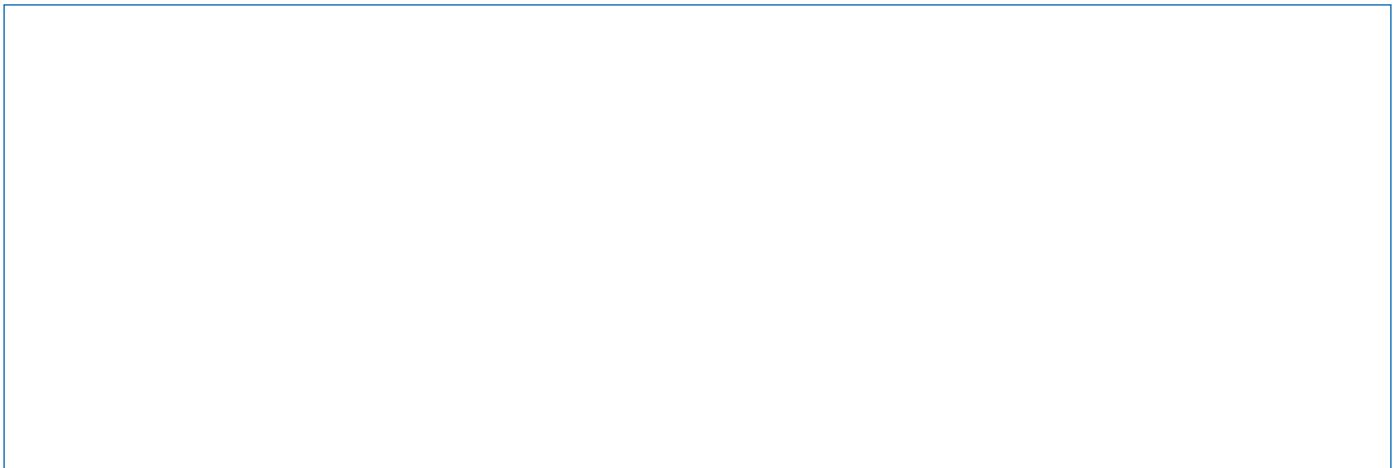
- Diesel engine
- Diesel generator unit (Powerpack)
- Controller system from S5 to S7
- External power supply
- Slot PLC
- Radio remote control system



Using an external power supply ensures a sustained reduction in operating overheads

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Regional Service Station



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