

POTAIN®

MDT CCS Range

THE NEXT GENERATION IS HERE





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IS HERE**

Now with new Crane Control System

With the new Manitowoc Crane Control System (CCS), Potain MDT CCS Range cranes help you get more work done faster and with greater precision. Get outstanding lift performance, time-saving setup, ultimate operator control and outstanding ROI* with the next generation of cranes.

The Crane Control System (CCS) is available on the Potain Topless tower cranes MDT CCS Range:

> **MDT 249 | MDT 259 | MDT 269 | MDT 319 | MDT 349 | MDT 389**

- Highest safety standards in the industry
- Increased performance
- Optimized ergonomic control
- Integrated maintenance
- Fast, easy setup on the jobsite

**Return on investment.*



Delivering a new standard of security in the tower crane industry

With proven components and innovative design, the CCS system allows MDT cranes to set the new benchmark in the tower crane industry.

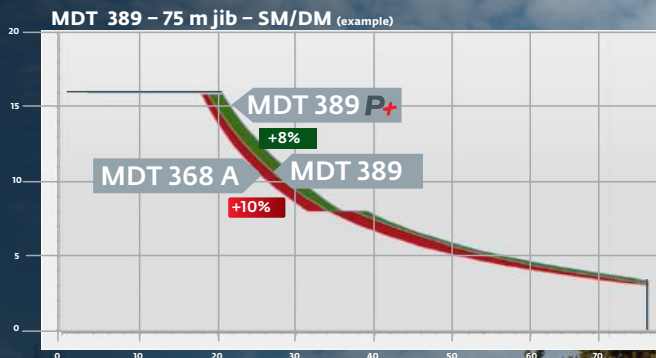
Using fully tested and certified, reliable components, CCS constantly controls and monitors all crane movements and structural stresses in real time using a superior redundant sensor design.



Increased performance

The CCS allows a more precise information exchange and analysis on the crane, which maximizes lifting capacities and provides more flexibility on the jobsite.

- CCS provides increased load chart with the maximum speed potential.
- Utilizing the Potain Plus function, generates an extra load chart increase. This function can be switched on directly from the joystick.





Ultra visibility and comfort

The Ultra View cab takes comfort, ergonomics and functionality to new heights. The new design makes it easy for the crane operator to maximize all of the features of the new Manitowoc Crane Control System.

Optimized ergonomic control

Premium Ultra View cab is equipped with a complete new driver control unit for enhanced ergonomics and comfort.

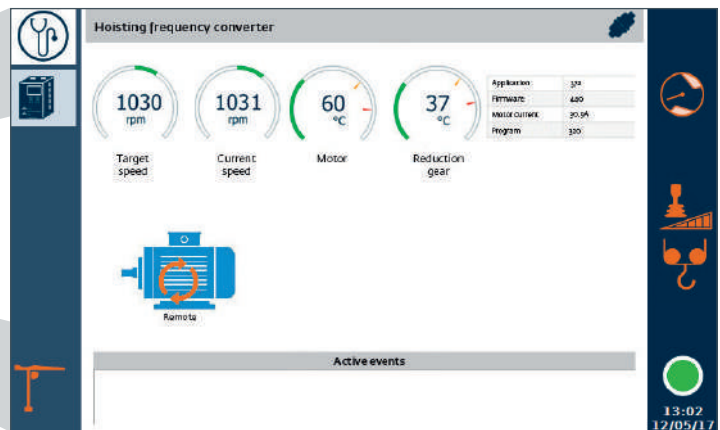
- Ergonomic design for reduced operator fatigue and increased productivity on the worksite
- All commands can be done from the joysticks for ultimate operator ergonomics
- Jog Dial provides easy on-screen navigation
- Speed limiter function provides great control and accuracy by adjusting the speed for all crane motions by 25 percent increments
- Operator customization mode allows to define the speed and dynamism of the crane motions
- Auto-switch between the cab control unit and the remote control does not require plug-unplug operation



Integrated maintenance

MDT CCS Range cranes provide CCS for an integrated on-site maintenance tool to diagnose and centralize maintenance.

A remote version is available via Potain CONNECT for easy maintenance and operational cost savings.



^ Maintenance screen provides system status at a glance

< Operator can monitor maintenance screen from the crane cab

> Real-time maintenance information is also available from any computer screen



Fast and easy setup

All crane configuration limit settings are completed using the CCS display from within the cab.

With CCS, it takes only 15 minutes to configure the crane, calibrate sensors for crane movement, set the trolley limit switch and set jib length. The crane will then automatically know its stopping points.



Simple, fast and efficient erection

The first step toward better productivity

The MDT CCS Range offers simplified installation to reduce the time needed to put the crane in service. Crane sections are compact and can be folded for easy transport to the jobsite. Easy pinning and multiple slinging points provide greater control while assembling and lifting the jib. Reduced installation time maximizes your crane investment.

> Optimized crane transport

The compact package simplifies transport with the complete upper part of the crane capable of being transported on four trucks.

- ✓ The winch is linked to the slewing unit in a single package



- > After removal of the guardrail, the cab is rotated manually and locked in the working position.



> Installation of the cab-mast

The cab-mast is a single, compact section. A dual-function guardrail protects the cab during transportation.

Slings from three points offers excellent balance. While packed for transportation, access to the cab and electrical cabinet is prevented.

✓ Installation of the slewing unit platform.

✓ The cabin-mast is spliced on the pivot using four pins. Secure pin with pin loader and retaining sling.



> Assembly of the counter-jib on the ground

The compact counter-jib has a reduced footprint, ballast supports and stabilizer plates designed to be folded away for transport.



^ The compact counter-jib provides a reduced footprint.

^ No bolting is required; the counter-jib can be unfolded quickly.

> Erection of the counter-jib

Erection of the counter-jib is achieved in a few basic steps. Simplified assembly is completed using only two pins, which are tapered for easier fastening.



^ Balanced slinging points enhance lifting.



^ Notches guide and center while connecting counter-jib to mast.

> Assembly of the jib on the ground

Pinning is quick and simple thanks to the centering pins of the sections. The centering pins allow seamless and automatic adjustment and centering of the lower member.

✓ Fishplate for centering pin and port to enable quick and easy pinning.

✓ Maintenance safety rope on each 5 meter jib-section.

✓ Assembly is simplified by centering of jib sections and wedge-locking of the pins.



> Fitting and pinning the jib

Utilizing the convenient slinging points provides simplified handling for any length of jib.



^ Fitting and pinning the jib requires only one pin at the top.

> Fitting the counter-weight.

Counter-jib ballast blocks with inclined bases are used for simpler dismantling on the ground, since they can be laid down easily. Two types of ballast blocks are necessary for all the different configurations of the jib.

The MDT CCS Topless concept makes transport, assembly, erection and even maintenance easy and quick. Optimum productivity and enhanced security make MDT CCS cranes the best alternative for all operators and owners.

Mechanisms

Potain technology sets the standard for operator productivity and comfort. Standard variable frequency lifting helps to provide even higher performance.

> Trolleying

With the Crane Control System (CCS), DVF Optima (trolleying with variable frequency) allow MDT CCS cranes to adapt the trolleying speed to the load.

Using progressive speed variation with proportional control, trolleying speeds can reach up to 120 m/min. The DVF Optima mechanism is easily accessible at the jib-foot.

> Hoisting

High-speed hoisting winches enable MDT CCS range cranes to reach high rates of productivity.

- LVF Optima (hoisting with variable frequency) adapts the hoist speed as needed with the load. This ensures optimum productivity by using the full capacity of the engine. LVF Optima provides 25 percent extra lowering speed.
- HPL™ winch (High Performance Lifting) offers the LVF high level of reliability combined with improved performance: shorter lifting cycles, extended speed range allowing MDT CCS range cranes to work with four-rope reeving for high productivity, and smooth operation.

> Slewing

RVF Optima+ (slewing with variable frequency)

The RVF Optima+ mechanism offers complete, progressive control that adapts slewing and counter-slewing speed to the crane operator's particular control behavior.

- In traditional operation, the action is controlled by stopping the command. The slow-down phase of the jib is managed by the frequency variator in this case.
 - Slow-down phase of the jib is controlled by an inverter command called a "counter-orientation" command.
 - Crane operator is able to control deceleration and stopping, and the mast torque is always automatically controlled.
- ✓ All mechanisms are accessible from the central area around the crane cabin.



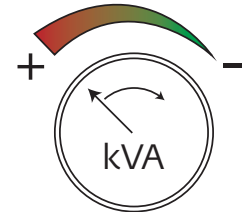
Technical solutions

The latest generation of technical solutions.

> Power control

Power limiter functionality

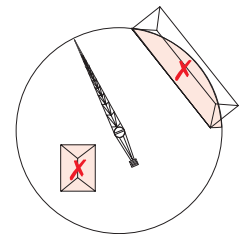
Thanks to CCS, it is possible to supply power to the winch and reduce the power required by the crane. This provides flexibility on the jobsite and saves energy.



> Top Site

Zone control system

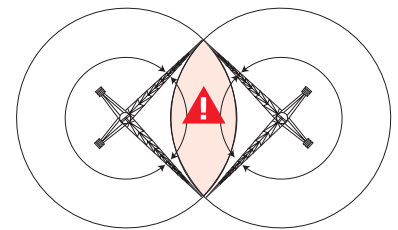
Integrated directly inside the CCS, Top Site creates a forbidden boundaries for job site operation.



> Top Tracing 3

Zone and / or interference control system

This is the latest generation of devices for controlling working zones and interference between cranes. This system can monitor up to 16 cranes for interference. It has a full screen display for better viewing of the crane and its environment (including forbidden zones and interfering cranes).



> Crane configuration optimizer

Potain provides a calculation of each mast composition and base ballast definition for each jib length or combination. This allows adaption to the jobsite and maximizes transportation and logistics.



> Potain CONNECT

The Potain CONNECT app revolutionizes the customer experience by enabling remote crane maintenance, monitoring and management for increased performance and durability.



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