



# MLC650

The new leader in the 600 USt – 750 USt (600 t – 700 t) crawler class

**Maximum capacity:** 716 USt (650 t)

**Maximum load moment:** 28,114 kip-ft (3887 t-m)

**Maximum load moment with VPC-MAX:** 65,473 kip-ft (9052 t-m)

**Maximum boom length:** 341 ft (104 m)

**Maximum luffing jib length:** 331 ft (101 m)

**NEW!**

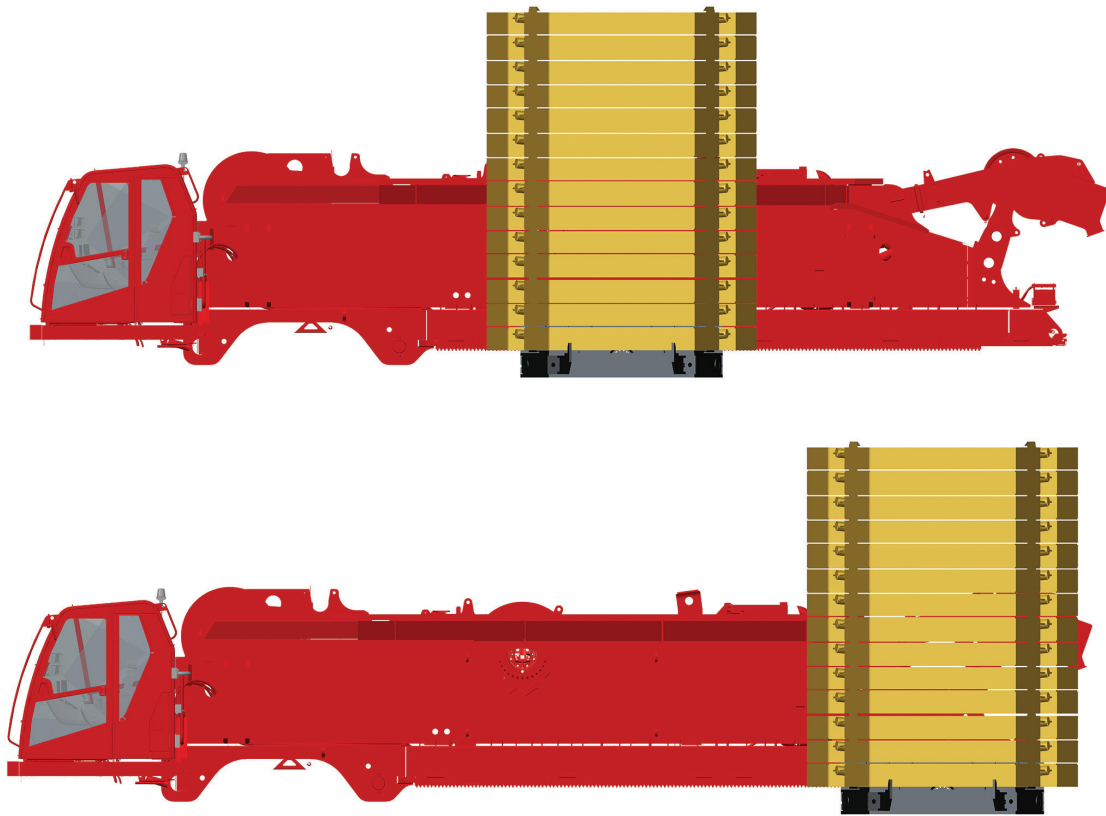


Vision Cab with CCS



# Variable Position Counterweight

- > The Variable Position Counterweight (VPC) is proprietary technology available exclusively on Manitowoc crawler cranes. By allowing the crane's counterweight to be positioned automatically, the VPC provides an unmatched level of versatility and lifting capability.



## Jobsite benefits

### **Reduced ground bearing pressure**

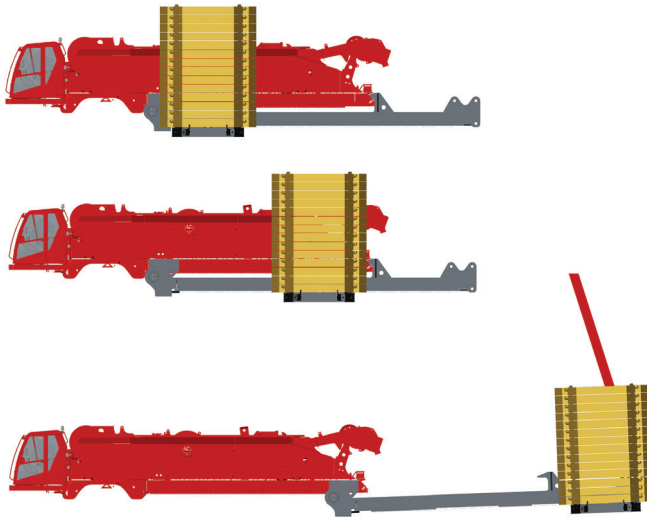
Moving counterweight allows counterweight to be positioned to better distribute ground bearing pressure during setup and lifting operations.

### **Less counterweight without sacrificing capacity**

The VPC technology allows the upperworks counterweight to move based on stability requirements, eliminating the need for carbody counterweights. The weight typically added to the carbody can now be added to the upperworks to increase capacity while retaining performance and on-site mobility.

## VPC-MAX (option)

Unlike VPC counterweight movement which is dictated by changes in boom angle, VPC-MAX counterweight movement is dictated by load and radius (forward moment) changes. As forward moment is increased or decreased VPC-MAX counterweight position is changed to offset changes in moment.



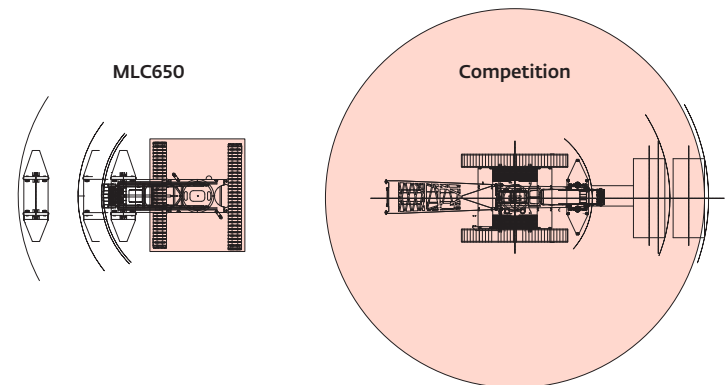
In VPC-MAX configuration, the counterweight tray moves to the end of the VPC-MAX beam prior to beam extension, thus minimizing tailswing and increasing job site mobility.

Counterweight is automatically positioned to optimize rearward moment as forward moment is increased or decreased.

### Minimal ground preparation

In VPC-MAX configuration the counterweight assembly never touches the ground, allowing for minimal ground preparation. The MLC650 ground preparation area is approximately one-tenth of that required by the leading competition, saving time and cost during job site preparation.

### Ground prep area comparison



### Water applications

Counterweight never touches ground allowing use in barge applications where wheeled or hanging attachments that contact the operating surface are typically not allowed. Moving counterweight also better maintains center of gravity for reduced ground bearing pressures.

## Benefits

### Unmatched capacity

- Strongest load charts in its class
- Travel, swing and counter-rotate with full rated capacity

### Optimized productivity

- Upperworks jacking ships on rotating bed (reduced set up time)
- Raise full boom and luffing jib combinations without assist (no outriggers)
- Self-erect mast cylinder (reduced setup time)
- FACT™ connection technology on boom and crawler connections (safe, easy and reliable assembly/disassembly)
- Improved boom handling lugs (reduced setup time)

### VPC and VPC-MAX advantage

- No carbody counterweights required (reduced setup time)
- VPC and VPC-MAX counterweights move automatically (operator friendly)
- VPC-MAX counterweight never touches ground (reduced site preparation and better ground bearing pressures in loaded and unloaded conditions)
- VPC-MAX counterweight moves automatically (reduced tailswing allows better jobsite navigation)
- VPC-MAX incorporates standard crane crane components (drastic reduction in shipping loads)

## Vision cab with Crane Control System (CCS)

- CCS with user-friendly interface, two full graphic displays mounted horizontally for better visibility, a jog dial for easier data input and ergonomic joysticks
- Fully enclosed and insulated galvanized steel module
- Power cab tilt
- Swing and travel alarms ensure maximum operator awareness
- Operator's station swings over front of rotating bed for easy transportation
- Optional nylon protective window covers

## Transport

- Designed to be transported globally by optimizing component weights and dimensions
- Boom inserts are designed to allow luffing jib inserts to ship within the boom inserts for cost effective transport

## Variable Position Counterweight (VPC)

- Allows the crane's counterweight to be positioned automatically to provide an unmatched level of versatility and lifting capability
- The VPC technology allows the upperworks counterweight to move based on stability requirements, eliminating the need for carbody counterweights
- The weight typically added to the carbody can now be added to the upperworks to increase capacity while retaining performance and on-site mobility
- Left and right side upper counterweights are interchangeable and designed to be common across multiple crane platforms including the MLC300
- Equipped with 661,000 lb (300 t) upperworks counterweight made up of a single piece counterweight tray, VPC actuator and twenty-eight 22,000 lb (10 t) counterweight boxes

## VPC-MAX (optional)

- The VPC-MAX attachment features more compact tailswing than competitive solutions, allowing for greater lifting capacities in a more compact work environment
- The counterweight assembly never touches the ground allowing for minimal ground preparation (approximately 1/10 that of the leading competition) saving time and cost during jobsite preparation

### VPC-MAX specifications:

- **Maximum capacity:** 770 USt (700 t)
- **Maximum boom length:** 460 ft (140 m)
- **Maximum luffing jib capacity:** 385 USt (350 t)
- **Maximum luffing jib length:** 331 ft (101 m)
- **Maximum boom and luffing jib:** 341 ft + 331 ft (104 m + 101 m) = 672 ft (205 m) total combination

