MacGregor Lattice Boom Crane

The perfect solution for a demanding cargo handling environment





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The designs are based on over 50 years of experience with shipboard, transloading and offshore cranes

General design

The Lattice Boom Crane (LBC) range is designed for installation on floating or fixed platforms. It has hoisting capacities from 50 to 300 tonnes SWL and outreaches up to 50m. The whip hoist has a capacity of up to 30 tonnes SWL. The crane is designed for worldwide cargo handling service in the tough and corrosive offshore environment, in climatic conditions ranging from the tropics to the Arctic.

The crane range is designed for heavy offshore operation, in compliance with the 7th edition of API-2C. Access to the driver's cabin is arranged internally through the deck mounting. Emergency exit is via an outside ladder. All moving parts run in oil or grease, which ensures minimum wear and tear, with the added value of silent running. All machinery is located inside the enclosed crane housing well protected against the corrosive offshore environment.

Crane operation

The three main crane movements – hoisting, luffing and slewing – are hydraulically driven. All crane movements are smooth and fast, with stepless speed control within the speed limit.

The three main movements can be operated simultaneously at maximum SWL without any speed reduction, as well as independently of each other.

Control system CC3000

The crane is equipped with CC3000, MacGregor's own design of control system, intended for use in tough marine environments. It provides excellent control and optimisation of cargo handling. Together with the control system, there is a cabin display of real time information for the operator.

The system has logging services. The required data – such as pressure, speed, angle and temperature – is gathered from sensors connected to the CC3000.



Standard functions and features:

- Anti-collision 3D, Static / Dynamic
- Constant tension on whip hoist winch
- EO (Error Override) If malfunction in one sensor another sensor can be chosen
- Level-luffing
- MOPS (Manual Overload Protection System)
- Personnel handling on whip hoist winch
- Wind speed indicator

Optional functions and features:

- APC (Active Pendulation Control)
- Auto-team, one driver operates two cranes
- Automatic lubrication of slewing bearing
- Camera system in boom top and crane house
- EX-proof equipment on boom
- Jack-ups for replacing slewing bearing on site
- Portable service crane
- Tugger winches

Human Machine Interface (HMI) MacGregor Crane Information System



- Real-time information on active systems Load/speed/outreach information Logs information for analysis Errors/warnings/events
- Touchscreen display

Display in cabin and ships office

The crane display in the cabin has the MacGregor software system, MacHeavyvisor. The display shows the operator real time information including weight and outreach data. It also logs information about the of the crane operation which can be used for analysis. The display can also be used for troubleshooting. The crane display can also be shown at ship's office or bridge to monitor the crane operation, and to access all available crane system information. This will facilitate troubleshooting and monitoring of the cranes, and the information can be shared with MacGregor office.





Display functions and features:

- Load and outreach
- Hoisting speed
- Motion indicator for speed reduce and stop
- Speed limited areas
- Stop limits
- Audible alarms
- View and analyse error messages
- General messages for the operator
- Lift height (optional)
- List and trim (optional)



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MacGregor shapes the offshore and marine industries by offering world-leading engineering solutions and services with a strong portfolio of MacGregor, Hatlapa, Porsgrunn, Pusnes and Triplex brands. Shipbuilders, owners and operators are able to optimise the lifetime profitability, safety, reliability and environmental sustainability of their operations by working in close cooperation with MacGregor.

MacGregor solutions and services for handling marine cargoes, vessel operations, offshore loads, crude/LNG transfer and offshore mooring are all *designed to perform with the sea*.

MacGregor is part of Cargotec (Nasdaq Helsinki: CGCBV).

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