

EC-B Flat-Top cranes.

New technology. New ideas.



LIEBHERR

The new EC-B Flat-Top series.

Liebherr's new EC-B Flat-Top cranes are of entirely new design. The new series comprises 14 models from 50 to 280 mt. They can be erected easily and quickly and incorporate many new ideas.

The central unit is a newly developed compact head, from which all the drives are easily and safely accessible. A small number of plug connectors allows the electrical connections to be quickly made.

The new EC-B Flat-Top cranes are part of the Liebherr modular system. The tower elements are compatible within the series. The jibs are so designed that many of their segments can be interchanged among the individual cranes. This reduces crane fleet costs considerably. Even very short jib lengths are no problem for the new EC-B cranes.

The illustration and text for this brochure refer to EC-B Flat-Top cranes rated at up to 130 mt.

1

The new compact head.

The new compact head incorporates the hoist gear, slewing gear, switchgear cabinet, the complete slewing ring support and the new crane cabin. A small number of plug-in connections completes the crane's entire electrical installation.

All drives are easily and safely accessible directly from the compact head for maintenance purposes. The guying systems for the jib and counter-jib have slots for ease of assembly.

The compact head is supplied fully pre-installed. After being positioned on the tower, it can be slewed into the optimal assembly position. The height of the compact head permits it to be transported upright on a truck.

2

Fast and easy erecting.

The entire crane construction has been designed for fast, easy erecting. The entire jib is pre-assembled on the ground, the trolley cable is reeved and pulled up by a mobile crane in a single lift. On narrow sites, partial erecting of the jib is no problem either.

The counter-jib is new. A few preparatory operations are also carried out on the ground. Folding handrails, pinpoint-precision positioning of counter-jib guying, stop plates for the mobile crane hoist and a considerably reduced overall weight make for much easier erection.

3

New technical details.

Hoist rope reeving is now a very simple operation. All pins for the LC towers are now located ready to hand in pin magazines.

The mounting to the bottom chord of the jib is completely new, and of registered design. A further innovation is the transport position of the hook block for cranes up to 130 mt. It is now stowed in the jib pivot section for transport purposes.

1 The compact head.

The new compact head integrates hoist gear, slewing gear, switchgear cabinet, the complete slewing ring support and the new crane cabin. This entire unit can be installed with a mobile crane in a single lift. All working platforms and rails are galvanized and rated for long service life. All drives are easily and safely accessible directly from the compact head for maintenance purposes.

The connecting links to the jib and counter-jib have slots to ensure easy assembly. Both connecting plates can be readily handled by one person. For all models within this series, the compact head is so designed that it can be transported upright in a truck.



The deluxe cabin.

The newly designed deluxe cabin is truly imposing. It can be attached and removed with quick-release pin fastenings and is of identical design for all EC-B cranes up to 130 mt. This reduces crane fleet costs. This full-visibility cabin provides a comfortable workplace with an unimpeded view of the load, which can therefore be optimally positioned every time.

The control stand in the cabin offers maximum convenience. The control panels for all functions are built into the seat and can be adjusted to numerous positions. The EMS electronic monitoring system is available as an option.

Liebherr high-performance hoist gears.

Either Liebherr pole-changing or frequency-converter hoist gears are used, depending on customer requirements. Liebherr makes its own motors to ensure maximum reliability.

Well-proven performance features on the 30 kW FC drive such as automatic load adjustment, and the positioning mode for suspending and holding the load at zero speed, ensure extremely sensitive control of lifting and lowering movements.

Liebherr slewing gears.

On 50 EC-B 5 and 63 EC-B 5 cranes, the well-proven EDC slewing gears are used. For all larger EC-B cranes, FC slewing gears are supplied exclusively.

Features which are already standard on Liebherr cranes include slewing of the crane with absolutely no jolts or jerky movement even at microspeeds integrated wind load control and integrated load-swing damping, which reduces crane oscillation and load swing to a minimum.



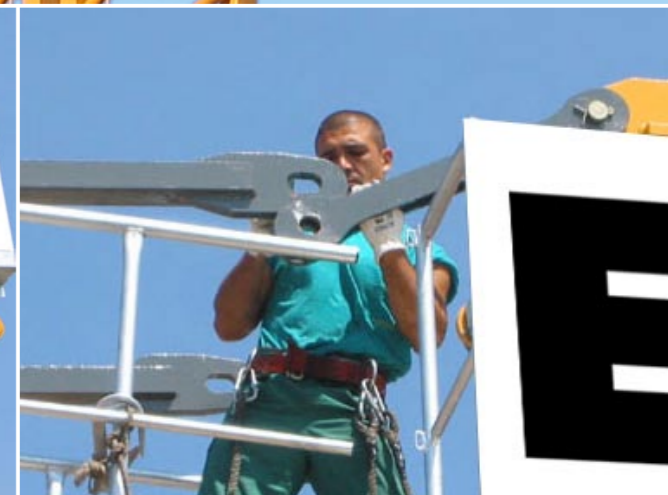
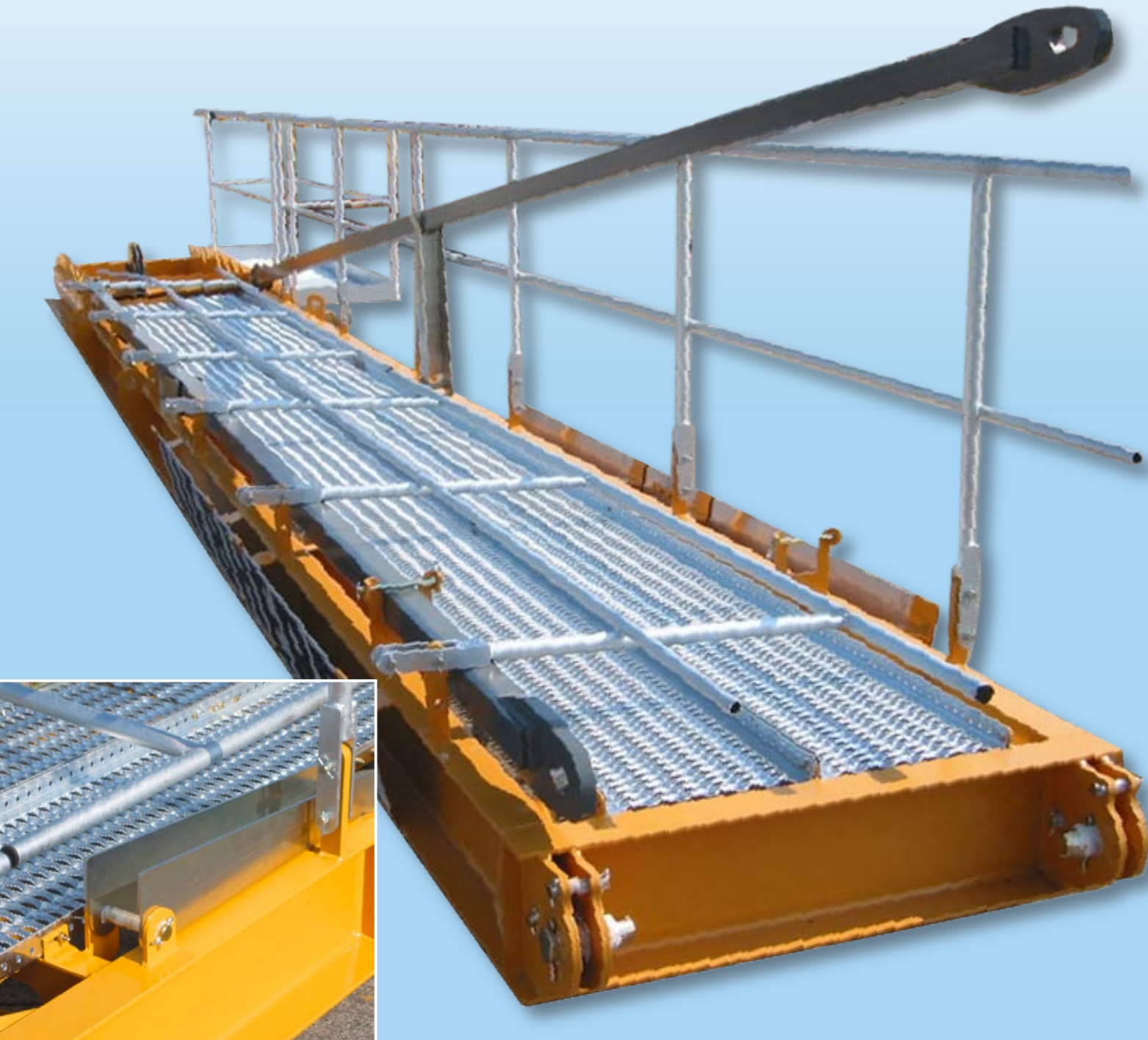
New ideas. The counter-jib.

The counter-jib is new. The few preparatory operations that are needed are easily carried out on the ground. All the folding handrails can be raised quickly when needed.

The folding erecting supports are a major help in positioning the counter-jib guying system, which is then already in the precise erecting position. Stop pins make it easy to attach the jib and counter-jib. The entire counter-jib of the 71 EC-B 5 weighs only 2.1 t without counterweight.

2 Fast, easy erecting.

The complete compact head is placed in position with a single mobile-crane lift movement. It is supplied fully pre-installed. Only four plug-in connections are needed for the entire electrical installation. After positioning on the tower, the compact head can be slewed immediately to the most convenient position for further erecting work.



Folding supports for precision positioning of the guying system.

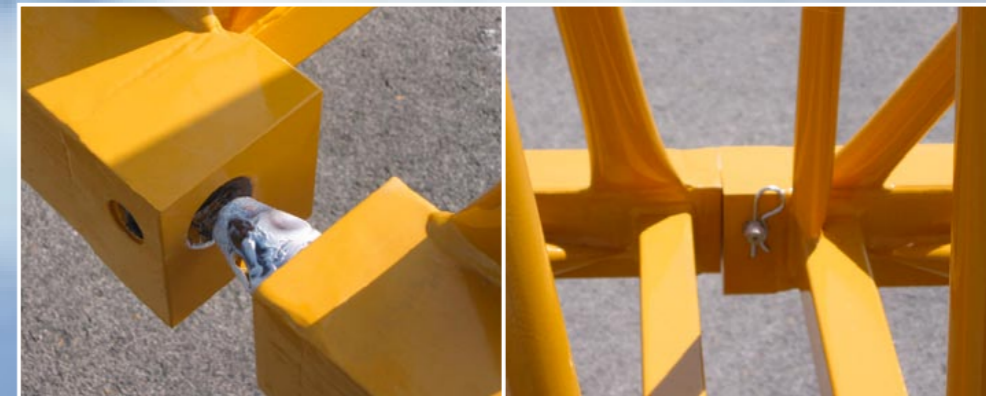
The new counter-jib with folding handrails.

Easily erected counter-jib.

Fast attachment of the guying system.

3 Innovative details.

The new EC-B Flat-Top cranes are designed for fast, easy erecting. Thanks to the new hoist rope guide, two mechanics can reeve the hoist rope and insert the counterweight slabs in parallel. This saves a lot of time. The counterweight slabs are identical for all EC-B cranes up to 130 mt, a major advantage for the whole crane fleet.



New positive locking jib attachment.

New quick jib connection system.

An entirely new system, of registered design, has been developed. The jibs are tight-welded, with new quick-action, positive locking pin fastenings.

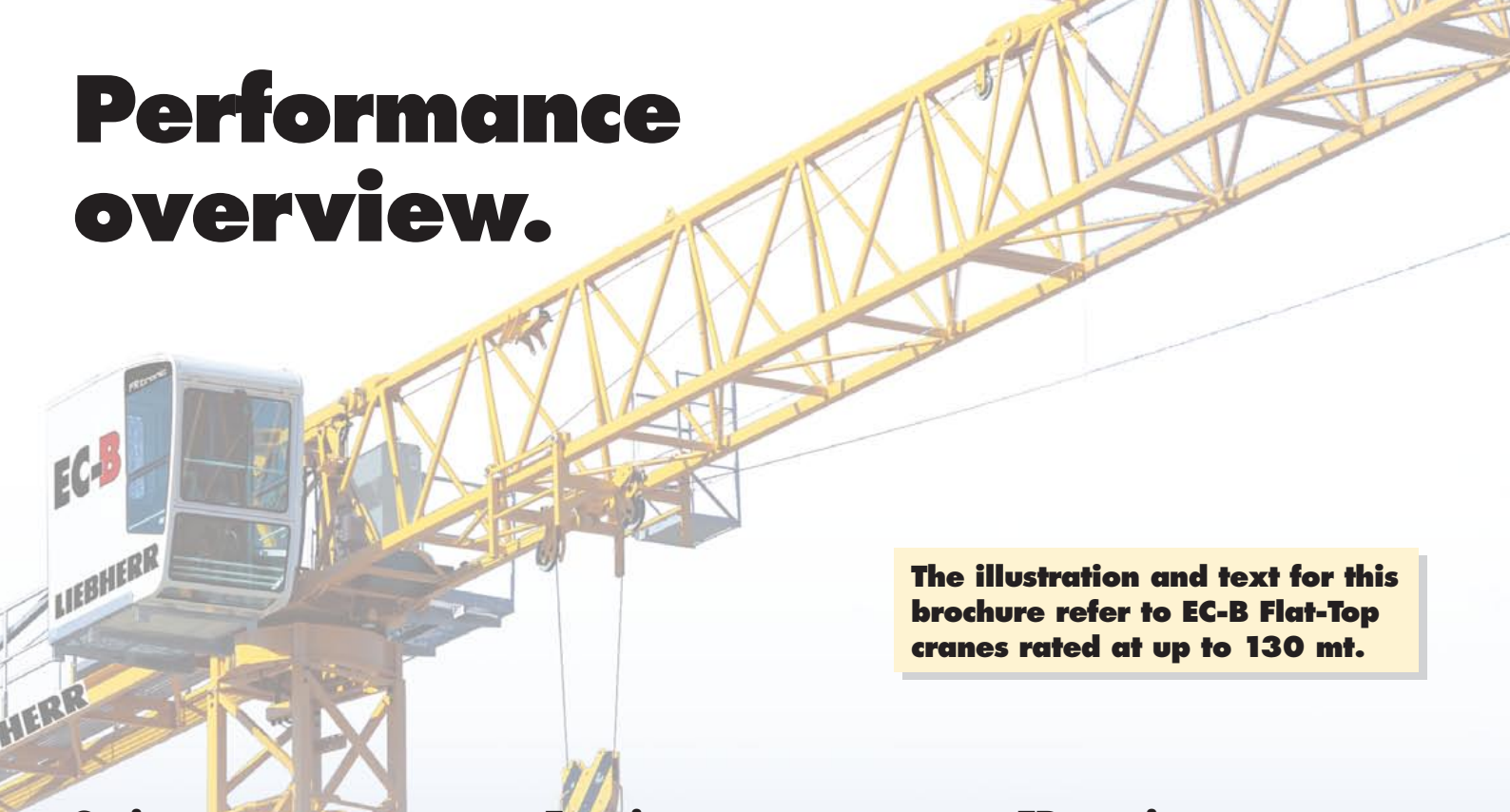
The hook block transport position is also new. For crane sizes up to 130 mt, the hook block is now positioned in the jib pivot section for transport purposes. For erecting work, the hook block is simply released by turning a crank, so that rope reeving is extremely simple.



Fast jib attachment.

Hook block transport position.

Performance overview.



The illustration and text for this brochure refer to EC-B Flat-Top cranes rated at up to 130 mt.

Series

- Entirely new design
- New compact head
- 14 crane types from 50 to 280 mt:

50 EC-B 5
63 EC-B 5
71 EC-B 5
90 EC-B 6
90 EC-B 6 FR.tronic
110 EC-B 6
110 EC-B 6 FR.tronic
130 EC-B 6
130 EC-B 6 FR.tronic

Not illustrated in the brochure:

140 EC-B 6 Litronic
160 EC-B 8 Litronic
200 EC-B 10 Litronic
250 EC-B 12 Litronic
280 EC-B 12 Litronic

Modular concept

- Numerous ways of combining component modules within the crane systems
- LC tower: graduated heights possible in 2-metre steps
- Crane configuration to suit requirements

Compact head

Consists of hoist gear, slewing gear, slewing ring support, switchgear cabinet, cabin

- All drives accessible from the slewing platform
- Switchgear cabinet accessible from the platform
- Plug-in connections at the switchgear cabinet
- Standardised deluxe cabin of modern design

Erecting

- Low erecting weights – smaller mobile crane needed
- LC tower: pin magazines ready to hand in tower
- New quick jib connection system of registered design
- Stop pins for jib and counter-jib
- Folding counter-jib handrails
- Folding supports for counter-jib guying
- Rope reeving and counterweight installation in parallel
- Hook block stowed in jib pivot section
- Entire jib can be erected with one lift movement or as individual sections

Operation

LC tower:

- New cruciform bases
- New tower section lengths
- Counterweights identical for all EC-B cranes up to 130 EC-B
- Jib is tight-welded
- Very short jib lengths possible
- New attachment system for fast jib mounting

Deluxe cabin

- EMS with basic function and working radius display (option)
- Heater with thermostat and time switch
- Identical cabins up to 130 EC-B
- Windscreen wash/wipe system

FR.tronic

- All drives frequency-controlled
- Stepless lifting, lowering and travel
- State-of-the-art control technology
- Operates on 50 Hz or 60 Hz, 400 V or 480 V power supply

FC hoist gear

From 71 EC-B 5:

- Automatic load adaptation (30 kW FC)
- Motor manufactured by Liebherr
- Low-maintenance single-disc spring-loaded brake
- Micro-positioning of load
- Speed continuously variable through zero point
- Positioning mode – hoist speed reduced to 1/4 (30 kW/FC)

FC trolley travel gear

All EC-B cranes:

- Compact design
- Trolley travel gear with rope storage facility for long jib lengths
- Sensitively controlled, stepless travel
- Generous performance ranges and high trolley travel speeds

FC slewing gear

From 71 EC-B 5:

- Slewing with absolutely no jolts or jerky movement
- Integral wind load control
- Automatic load swing damping
- Electrically controlled jib release to slew freely in the wind