Mobile crane LTM 1130-5.1

Max. lifting capacity:	**130 t**
Max. lifting height:	**91 m**
Max. working radius:	**72 m**

LIEBHERR

Mobile Crane LTM 1130-5.1
Flexible and economical to operate

The Liebherr LTM 1130-5.1 mobile crane is characterised by its long telescopic boom, strong lifting capacities, exceptional mobility and comprehensive comfort and safety equipment. This 130-tonner features top-of-the-range technology, making it even more effective in operation.

- **60-m telescopic boom**
- **19-m folding fly-jib, hydraulically adjustable (option)**
- **60-t overall weight, incl. 9-t ballast at 12-t axle load**
- **Vehicle width: 2.75 m with 16.00 R 25 tyres**
- **Great flexibility of use due to optimum lifting capacities with full and partial ballast**
- **Active, speed-dependent rear-axle steering**
- **Pneumatic disc brakes**

Drivetrain

- Six-cylinder Liebherr turbo-diesel engine, 370 kW/503 hp at 1900 rpm, max. torque: 2355 Nm at 1200 – 1500 rpm
- Automated ZF AS-TRONIC gearbox, 12 forward and 2 reverse speeds
- ZF intarder directly at the gearbox
- 2-stage transfer case, 0.78 km/h crawling speed
- Axles two, four and five driven, axle one as option

State-of-the-art chassis and drive technology

High mobility and cost effectiveness

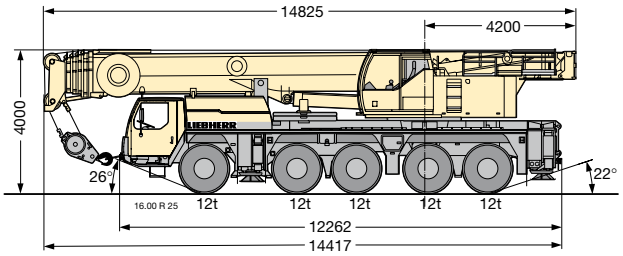
A powerful six-cylinder Liebherr turbo-diesel engine with 370 kW/503 hp ensures swift driving performance. The12-speed ZF gearbox with automated AS-TRONIC control system provides a high level of cost effectiveness and excellent comfort.

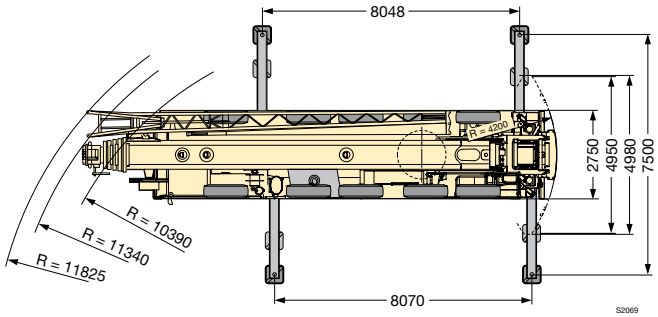
- Reduced fuel consumption through large number of gears and the efficiency of the dry coupling
- Excellent manoeuvrability and minimum crawling speed thanks to two-stage transfer case
- Wear-free braking with ZF intarder

Compact, agile and weight-optimised

Thanks to its extremely compact design, the LTM 1130-5.1 can operate on the smallest of construction sites. At an axle load of 12 t, it can drive with up to 9 t of ballast, making it flexible and economical to use.

- Chassis length only 12.3 m
- Smallest turning-circle radius only 10.4 m
- Vehicle width only 2.75 m, even with 16.00 R 25 tyres
- Ballast radius only 4.2 m





Hydro-pneumatic suspension Niveaumatik

- Maintenance-free suspension cylinders
- Large dimensions to cope with axle loads of up to 40 t
- Suspension travel: +150/-100 mm
- High lateral stability when cornering
- Choice of driving state using fixed programmes

Pneumatic disc brakes

- High braking power, improved control
- Improved directional stability
- No reduction in braking force at high braking temperatures (fading)
- Longer life
- Shorter labour times for changing the screening surfaces
- Brake pads with wear indicators

Five steering programmes

- Programme selection at the touch of a button
- Clear arrangement of control elements and displays
- Programmes can be switched while driving
- Crab steering controlled in comfort via the steering wheel; no lifting of the centre axle

Variable steering concept

Centring cylinder to straighten rear axles

- Automatic straightening of rear axles in case of fault

Active rear-axle steering

The rear axles are actively electro-hydraulically controlled in accordance with the speed and steering angle of the front axles.

Five different steering programmes (P) can be selected at the touch of a button.

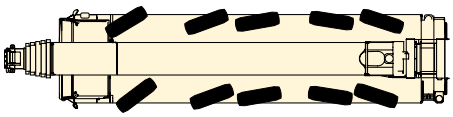
- Much-reduced tyre wear
- Improved manoeuvrability
- Stable driving behaviour even at high speeds
- All five axles can be steered

High safety standards – entire know-how from Liebherr

- Centring cylinder for automatic straightening of rear axles in case of fault
- Two independent hydraulic circuits with wheel- and engine driven hydraulic pump
- Two independent control computers

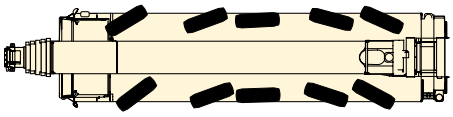
P1 Road steering

Axles 1 and 2 are steered mechanically using the steering wheel. Axles 3, 4 and 5 are actively steered, depending on speed and the front axle lock angle. At speeds of 30 km/h and over, axles 3 and 4 are set to straight-ahead position and locked; at 60 km/h and over, axle 5 is locked in the same forward position.



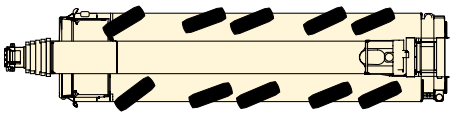
P2 All-wheel steering

Using the steering wheel, axles 3, 4 and 5 are turned in accordance with the steering angle of axle 1 in such a way as to achieve the smallest possible turning radii.



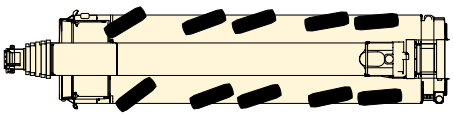
P3 Crab steering

Axles 3, 4 and 5 are turned in the same direction as the wheel lock on axles 1 and 2 using the steering wheel.



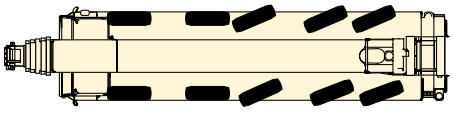
P4 No swing-out steering

Axles 3, 4 and 5 are turned as a function of the wheel lock on axle 1 in such a way as to prevent the rear end swinging out.



P5 Independent rear-axle steering

Axles 1 and 2 are turned using the steering wheel; axles 3, 4 and 5 are turned independent of the wheel lock on axles 1 and 2 using buttons, with the wheel lock on axle 3 being adjusted to the situation.



The driver's cab

- Corrosion-resistant, cataphoretic dip-primed steel
- Safety glass on all sides
- Tinted glass
- Electric windows
- Heated and electronically adjustable outside mirrors
- Air-sprung driver's seat with lumbar support

Comfort and functionality

Modern driver's cab and crane cab

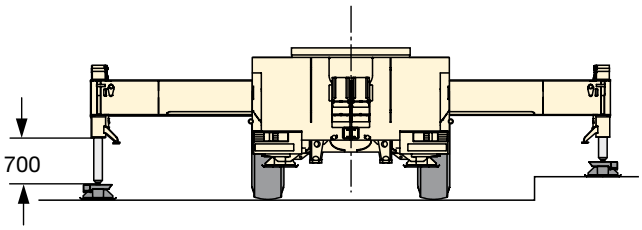
Both the modern driver's cab and the crane cab that tilts backwards offer a comfortable and functional working environment. The control elements and displays are ergonomically arranged, thereby ensuring safe and fatigue-proof operation.

Speedy and safe set-up

The outrigging, ballast assembly and attachment of additional equipment have all been designed with speed, safety and comfort in mind. Specific ascents, handholds and rails are provided to ensure the safety of operating staff.

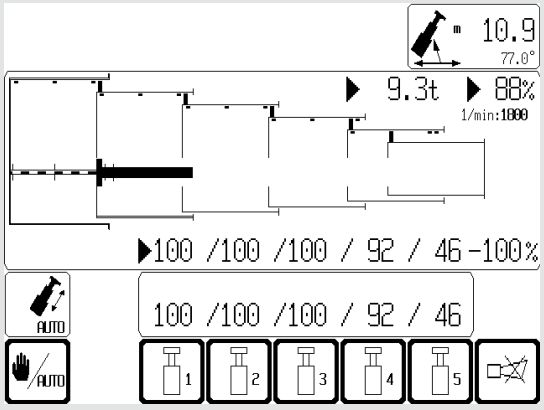
Supporting crane on outriggers – quick, comfortable and safe

- Control panel with membrane keyboard and electronic incline display
- Fully automatic levelling at the touch of a button
- Engine start/stop and speed control
- Support area lighting with four integrated lights
- Support cylinder stroke: 650 mm front, 700 mm rear
- Two-stage outrigger beams, fully hydraulic, low-maintenance extension system



The crane cab

- Corrosion-resistant, galvanised, powder-coated steel
- Safety glass on all sides
- Tinted glass, front wind screen can be opened
- Roof window made from armoured glass
- Operator's seat with lumbar support
- Step to pull out on side
- Can be tilted 20° backwards

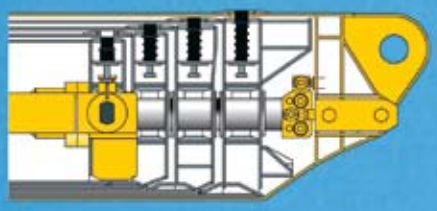


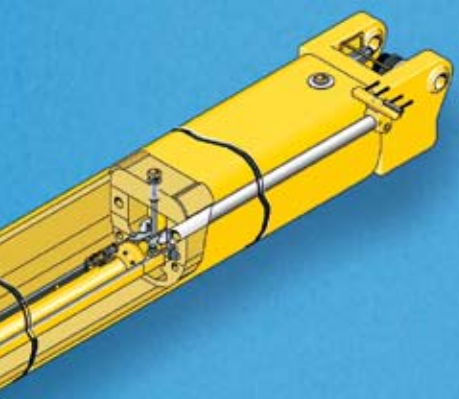
The fully automatic telescoping system „TELEMATIK“

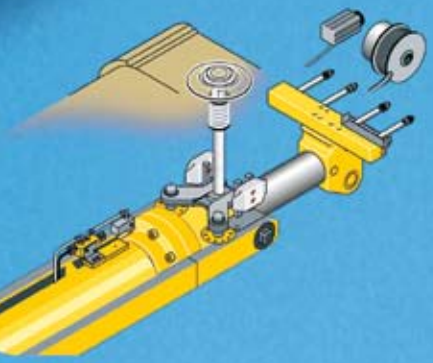
- Greater lifting capacities with longer booms and larger radii thanks to ‚light‘ telescoping system
- One-stage hydraulic cylinder with hydraulically operated drive pin
- Maintenance-free telescoping system
- Fully automatic telescoping
- Easiest control and monitoring of telescoping action on LICCON screen

Assembly jib

High lifting capacities and flexible boom system







High-capacity, long telescopic boom and functional lattice extensions

The telescopic boom comprises the base section and five telescopic sections which, with the thoroughly tried-and-tested TELEMATIK one-cylinder telescoping system, are conveniently and automatically extended and secured at the required length.

- 60-m telescopic boom
- 10.8-m to 19-m folding fly-jib, attachable at 0°, 20° and 40°
- Hydraulic adjustment of the folding jib between 0° and 40° (optional) at full load, interpolation of the loads
- Hydraulic assembly assistance for attaching the folding jib
- Two 7-m intermediate sections to extend the telescopic boom when using folding jib
- 2.9-m assembly jib
- Rooster sheave, swings away to the side

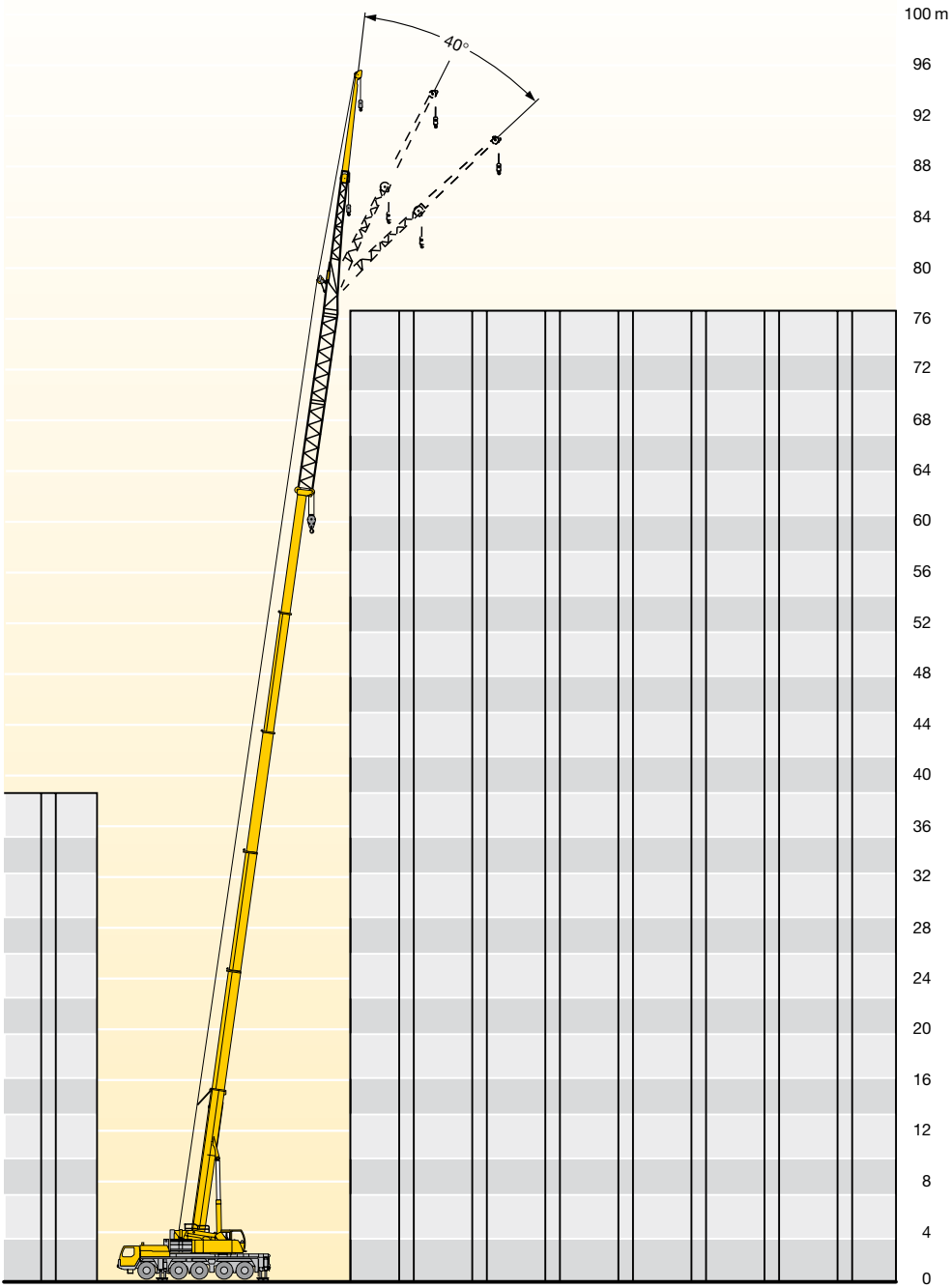
High lifting capacities both with full and partial ballast offer a wide operational spectrum

- High lateral stability thanks to oval boom profile
- Optimised load capacities due to variety of extension variants
- Telescoping when loaded
- Lifting capacity: 10.5 t at 60 m lifting height
- Maximum hook height: 91 m
- Maximum radius: 72 m

Rooster sheave

Hydraulic assembly assistance for attaching the folding jib

Hydraulic folding jib



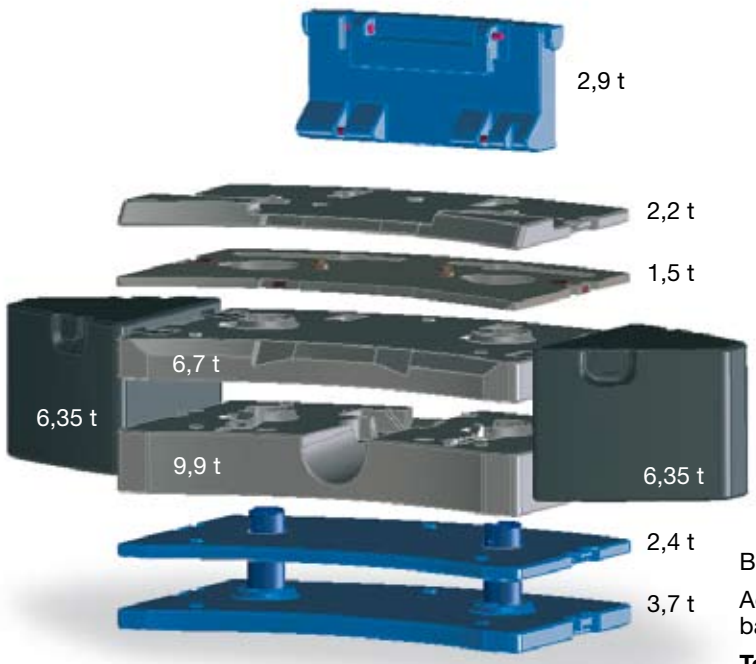
Hydraulically adjustable folding jib (0° to 40°)

Hose reel for the hydraulic cylinder

Variable counterweight

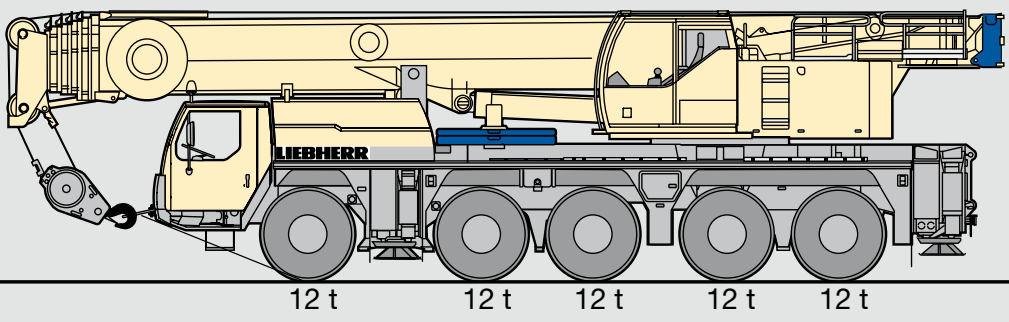
Ballast assembly – in a matter of minutes

- Multiple ballast variations from 2.9 t to 42 t
- Rapid ballasting with keyhole technology from within the crane cab
- Compact ballast dimensions: with a 29.3-t ballast, the ballast width is only 2.73 m
- Ballast radius: only 4.2 m
- 60-t total weight incl. 9-t ballast at 12-t axle load



Standard ballast

Basic ballast	29,3 t
Additional ballast	12,7 t
Total	**42,0 t**



The hoist gear

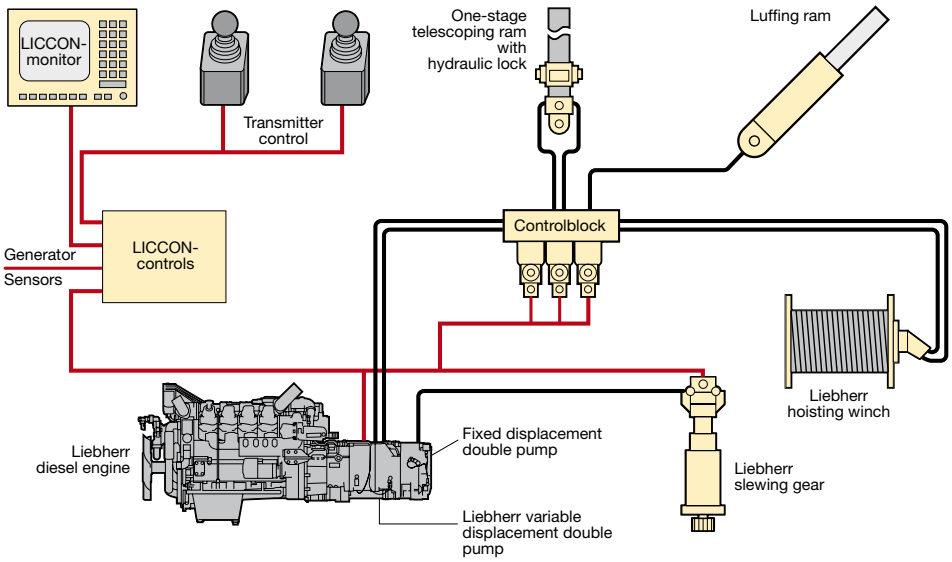
- Liebherr hoisting winch with built-in planetary gearing and spring-loaded multi-disc brake
- Line pull: 88 kN at the outer layer
- Max. rope speed: 110 m/min

High-power crane drive

With tried-and-tested components

The drive components for crane operation are constructed for high performance and ensure sensitive and precise load handling. They are specially designed to suit the crane's usage and have been subjected to hard endurance tests.

- Crane engine: four-cylinder Liebherr turbo-diesel engine, 145 kW/197 hp at 1800 rpm, 920 Nm max. torque at 1100 to 1500 rpm, optimised fuel consumption thanks to electronic engine management
- Diesel-hydraulic crane drive, open oil circuits with electric LOAD SENSING control, four simultaneous working motions possible
- Electric/electronic SPS crane control via LICCON computer system
- Slewing gear can be switched as standard: released or hydraulically locked. The movement can thus be optimally adapted to the different operating requirements, e.g. sensitive assembly work or rapid work cycles
- Self-manufactured Liebherr winches, 88 kN line pull at the outer layer, greater line pull means less rope reeving is needed

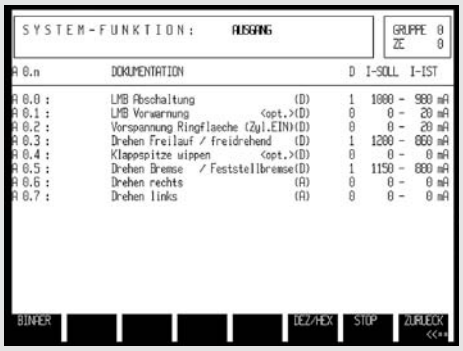


The slewing gear

- Liebherr planetary gearing, spring-loaded multi-disc brake
- Can be switched as standard: released or hydraulically locked
- Slewing speed can be steplessly adjusted from 0 to 1.5 rpm
- Six stages can be pre-selected, from 15% to 100%

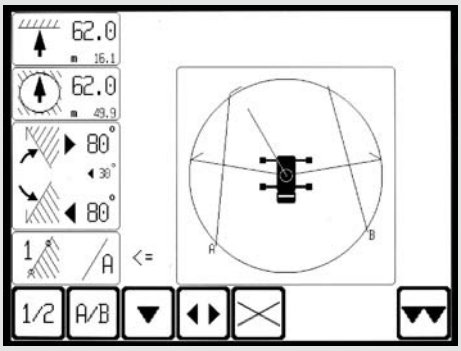
Centralised lubrication

- Centralised lubrication system as standard for slewing ring, boom bearings, luffing ram and winch bearings
- Uniform application of lubricant
- Lubricant level visible in transparent container at all times



The LICCON test system

- Rapid localisation of problems without any other measuring instruments
- Error code and description displayed
- Convenient interactive functions for monitoring all inputs and outputs
- Displays functions and allocation of sensors and actuators



Intelligent crane controls

For functional and safe crane operation: the LICCON computer system

Both the software and hardware for operating the mobile crane have been developed by Liebherr itself. At the centre stands the LICCON computer system (Liebherr Computed Controlling). This system performs various information, control and monitoring functions. The control components have proved themselves all over the world in the most diverse climatic conditions.

LICCON configuration and operating programme

- Application programmes:
  - Safe load indicator (LMB)
  - Configuration programme with configuration diagram
  - Operating programme with operating diagram
  - Telescoping programme with telescoping diagram
- Setting of the configuration using convenient interactive functions
- Representation of all important data using graphic symbols
- Reliable cut-off when permissible load moments are exceeded
- Winch indications for highly precise lifting/lowering of load

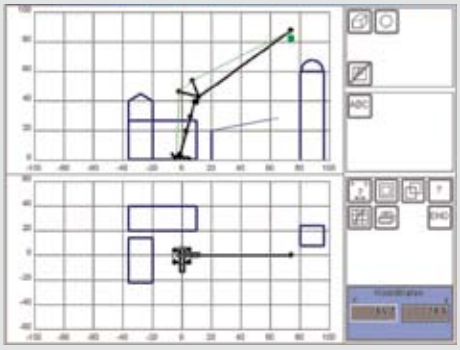
Data bus technology

Liebherr mobile cranes are fully networked using data bus systems. All major electric and electronic parts are fitted with their own microprocessors and communicate with each other via only a small number of data cables. Liebherr has developed a bus system to meet the special demands of mobile cranes. The data bus technology increases reliability, comfort and safety when driving and operating the cranes:

- Improved reliability thanks to greatly reduced number of electric cables and contacts
- Constant self-testing of the ‘intelligent sensors’
- Extensive diagnostic options, rapid fault detection

The LICCON work area limitation system (optional)

- Makes the crane operator’s job easier by automatically monitoring workspace restrictions such as bridges, roofs, power lines, etc.
- Simple programming
- Four different limitation functions:
  – Pulley-head height limitation
  – Radius limitation
  – Slewing angle limitation
  – Edge limitation



The LICCON works planner (optional)

- Computer programme for planning, simulating and documenting crane operations on a PC
- Representation of all the crane’s load charts
- Automatic search for suitable crane based on load, radius and lifting height parameters
- Simulation of crane operations with outline functions and supporting force display

Liebherr-Service worldwide

Liebherr offers a highly efficient worldwide mobile crane service direct from the manufacturer. Highly qualified staff, well-trained in the manufactures factory, look after the cranes locally with the highest-grade service technology. Intelligent warehouse and transport logistics ensure maximum availability of spare parts and speed of delivery. You can always rely on Liebherr Service – **it puts the customer first.**

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