

Mobile Crane

LTM 1150-6.1

Max. lifting capacity: 150 t

Max. lifting height: 93 m

Max. working radius: 76 m



LIEBHERR

Mobile crane LTM 1150-6.1

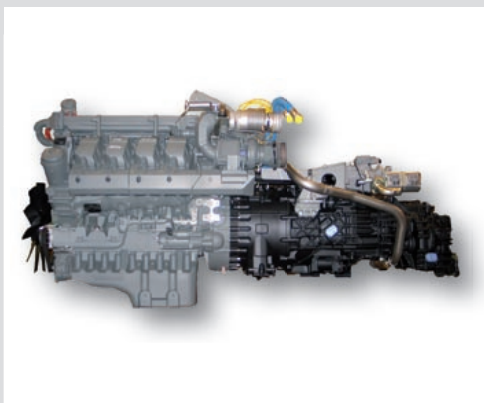
6-axle taxi crane from Liebherr



A long telescopic boom, high capacities, an extraordinary mobility as well as a comprehensive comfort and safety configuration distinguish the mobile crane LTM 1150-6.1 from Liebherr. The 150-ton crane offers state of the art technology for more convenience for the practical operation.

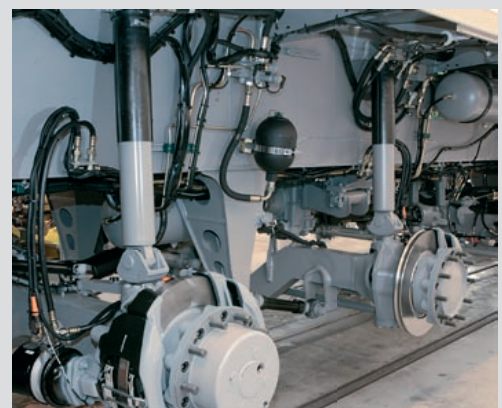
- 66 m long telescopic boom and 14 m telescopic boom extension (2 x 7 m)
- Capacity 7.8 t at the 66 m long telescopic boom
- 19 m long double swing-away jib, optional hydraulically adjustable
- 12-speed ZF-TC-TRONIC gearbox with torque converter
- 72 t total weight incl. 15 t ballast at 12 t axle load
- Chassis width 2.75 m with tyres 445/95 R 25 (16.00 R 25)
- Active, speed depending rear axle steering, all axles steered
- Air operated disk brakes





Drive train

- 8-cylinder Liebherr turbo-diesel engine, 400 kW/544 HP at 1900 rpm, max. torque 2546 Nm at 1500 rpm
- Automated ZF TC-TRONIC gearbox, 12 forward and 2 reverse speeds
- ZF-intarder directly at gearbox
- Torque converter
- Axles 2, 4 and 5 driven, optional axle 1



Most modern chassis and drive technology



High mobility and efficiency

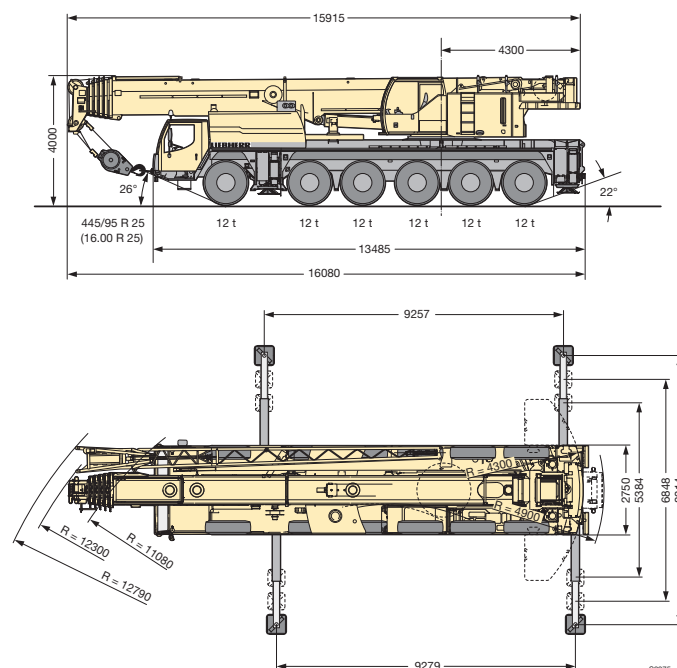
A powerful 8-cylinder Liebherr turbo-diesel engine with 400 kW/544 HP ensures swift driving performance. The automatic 12-speed power shift system ZF-TC-TRONIC with torque converter and intarder provides a high level of cost effectiveness and excellent comfort.

- Reduced fuel consumption due to the large number of gears and the high efficiency of the dry clutch.
- Excellent manoeuvrability due to integrated torque converter
- Wear free braking with ZF-intarder

Compact, agile and weight-optimised

Thanks to its extremely compact design, the LTM 1150-6.1 can also operate on the smallest of construction sites.

- Chassis length only 13.48 m
- Smallest turning radius only 11.08 m
- Vehicle width only 2.75 m, even with tyres 445/95 R 25 (16.00 R 25)
- Tail swing radius only 4.3 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 states using fixed programmes



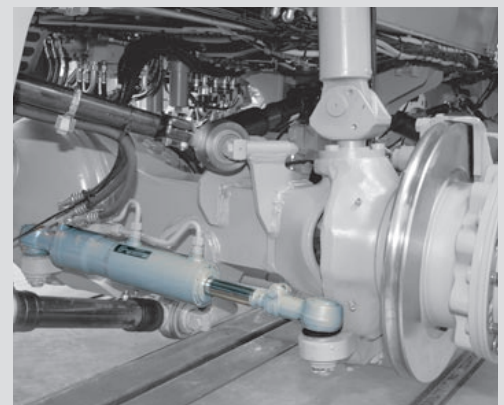
Pneumatic disc brakes

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



5 steering programmes

- Selection of programme by simple push button
- Clear layout of control elements and displays
- Programmes changeable during driving
- Crab steering comfortably controlled by steering wheel



Variable steering concept



Centring cylinder at the rear axles

- Automatic straightening of rear axles in case of failure

Active rear-axle steering

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

Five different steering programmes (P) can be selected by touch button.

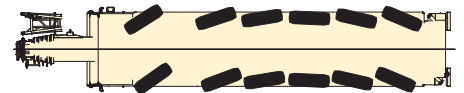
- Remarkably reduced tyre wear
- Improved manoeuvrability
- Stable driving condition even at high speeds
- All 6 axles steerable, no lifting of centre axle on crab steering

High safety standards – entire know-how from Liebherr

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

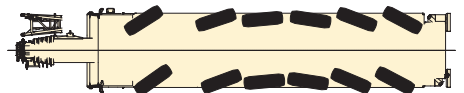
P1 Road steering

The axles 1 and 2 are steered mechanically by the steering wheel. The axles 3, 4, 5 and 6 are steered actively speed depending and subject to the axle lock of the front axles. From 30 km/h the axles 3 and 4 are set to straight driving and locked. At speeds higher than 60 km also the axles 5 and 6 are set to straight drive and locked.



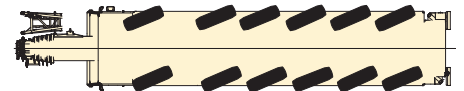
P2 All-wheel steering

The axles 3, 4, 5 and 6 are turned depending of the axle lock of the front axles by the steering wheel so far that smallest turning radii are achieved.



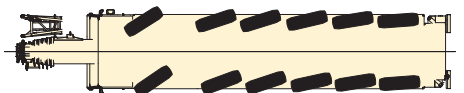
P3 Crab steering

The axles 3, 4, 5 and 6 are turned in the same direction as the wheel lock on axles 1 and 2 by the steering wheel.



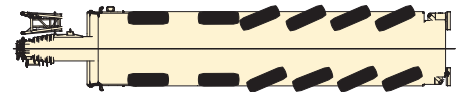
P4 Reduced swing out

The axles 3, 4, 5 and 6 are turned depending on the axle lock of the front axles, so that the swing out of the chassis rear gets minimised.



P5 Independent rear-axle steering

The axles 1 and 2 are turned by using the steering wheel; the axles 3, 4, 5 and 6 are steered by push button independently from the axle lock of the axles 1 and 2.





The driver's cab

- Corrosion-resistant steel plate execution, cathophoretic dip-primed steel
- Doors in fibre composite execution with electric window winders
- Safety glass on all sides
- Tinted glass
- Heated and electrically adjustable outside mirrors
- Air-sprung driver's seat with lumbar support

Comfort und functionality

Modern driver's cab and crane cab

Both the modern driver's cab and the rearwards tiltable crane cab offer a comfortable and functional working environment. The control elements and displays are ergonomically arranged. Thus a safe and fatigue free working is assured.

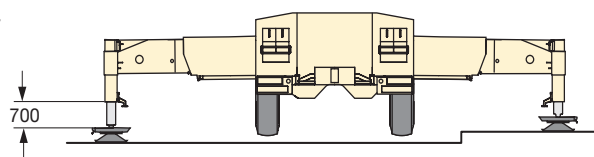
Speedy and safe set-up

Setting of the outriggers, counterweight 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 the operating staff.



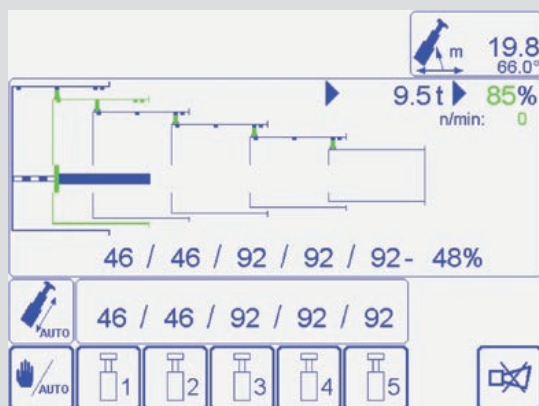
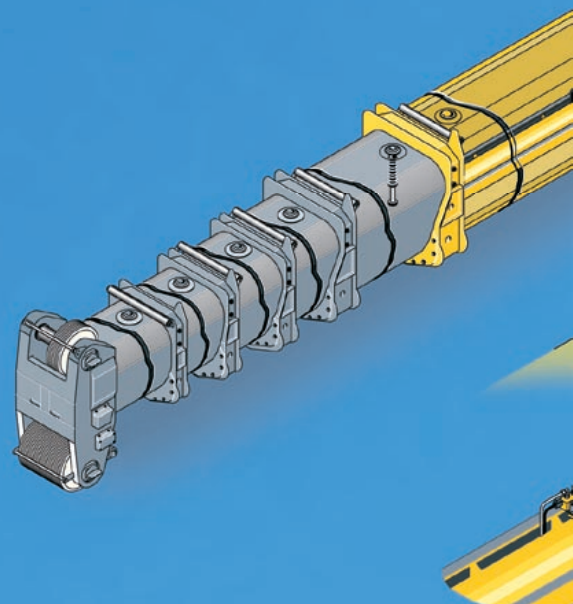
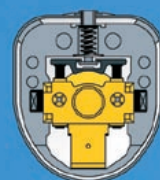
Supporting crane on outriggers – quick, comfortable and safe

- BTT blue tooth terminal, mobile control and display unit
- Electronic inclination display
- Fully automatic levelling by push button
- Engine start/stop and speed control
- Support area lighting with four integrated lights
- Support cylinder stroke: 650 mm front, 700 mm rear
- Outrigger beams 2-stage, fully hydraulic, low-maintenance extension system
- 4 support basis standard 0/50/75/100 %



The crane cab

- Corrosion resistant, galvanized steel plate execution, powder coated
- Safety glass on all sides
- Tinted glass, hinged front window for opening
- Roof window with bullet proof glass
- Operator's seat with lumbar support
- Extendable side landing
- 20° tiltable to the rear



The fully automatic telescoping system „TELEMATIK“

- Increase of capacities at long booms and wider radii due to „light“ telescoping system
- Single stage hydraulic cylinder with hydraulically activated drive pin
- Maintenance free telescoping system
- Telescoping fully automatic
- Simple operation, monitoring of the telescoping procedure at LICCON-monitor

2.9 m long assembly jib



High lifting capacities and flexible boom system

High-capacity, long telescopic boom and functional lattice extensions

The telescopic boom comprises of the base section and 5 telescopic sections, which can be comfortably and automatically extended and pinned to the requested lengths by the thousand fold proven single cylinder telescoping system TELEMATIK.

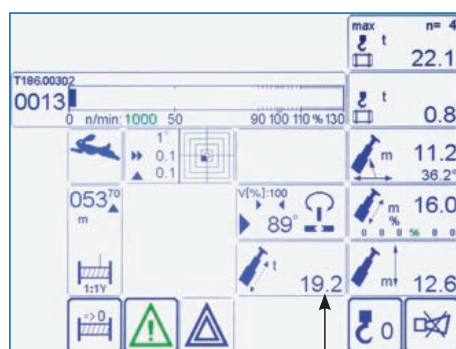
- 66 m long telescopic boom
- 10.8 m – 19 m long double swing-away jib, attachable at 0°, 20° and 40°
- Hydraulic adjustment of the swing-away jib under full load from 0° - 40° (option), interpolation of the load charts
- Hydraulic assembly assistance for attaching of the swing-away jib with the BTT
- 2 sections 7 m each for extending the telescopic boom for operation with swing-away jib

High lifting capacities both with full and partial counterweight offer a wide operational range

- High lateral stability due to the oval boom profile
- Optimised load charts due to multitude of extension versions
- Load 7.8 t at 66 m long telescopic boom

High capacities at unpinned telescopic lengths

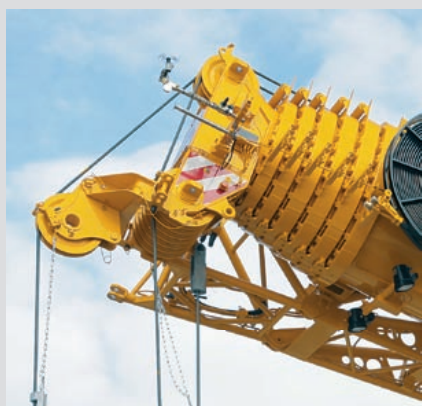
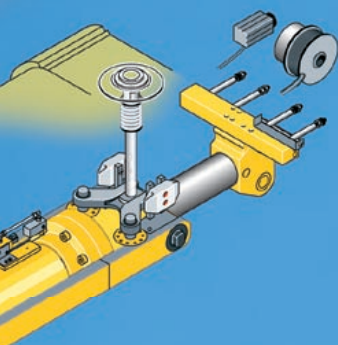
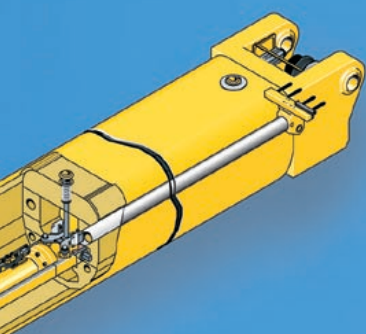
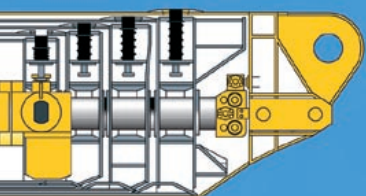
- High telescopable loads due to interpolation
- Separate load charts for holding the loads at unpinned telescopic lengths
- Display at LICCON-monitor



Holding capacity

Unpinned telescope length

Telescopable load

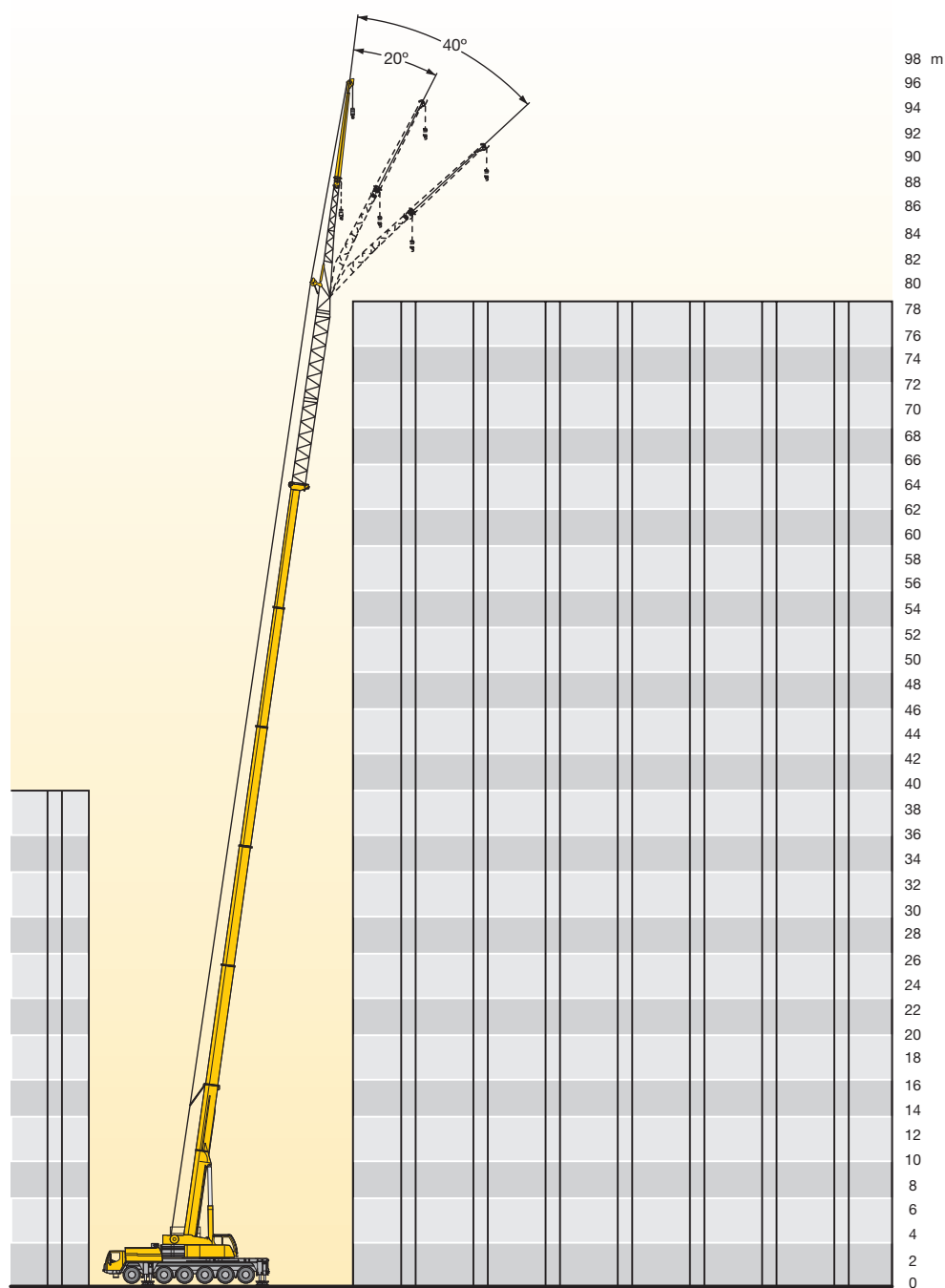


Rooster sheave, sidewise folding

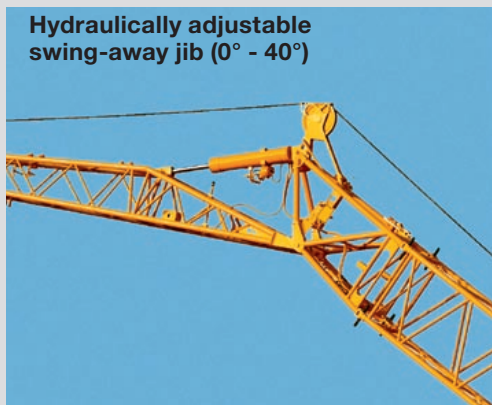
Hydraulic assembly support for attaching the swing-away jib by BTT



Hydraulic swing away jib



Hydraulically adjustable swing-away jib (0° - 40°)



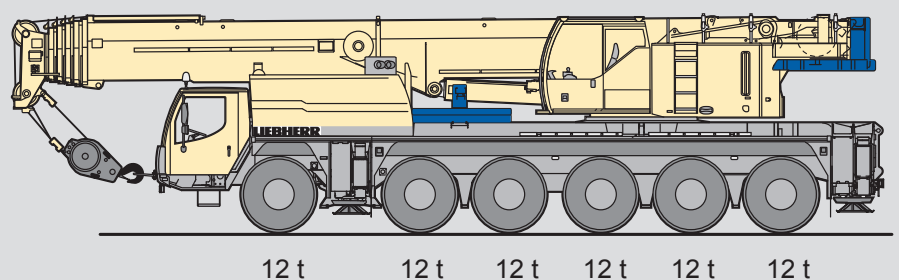
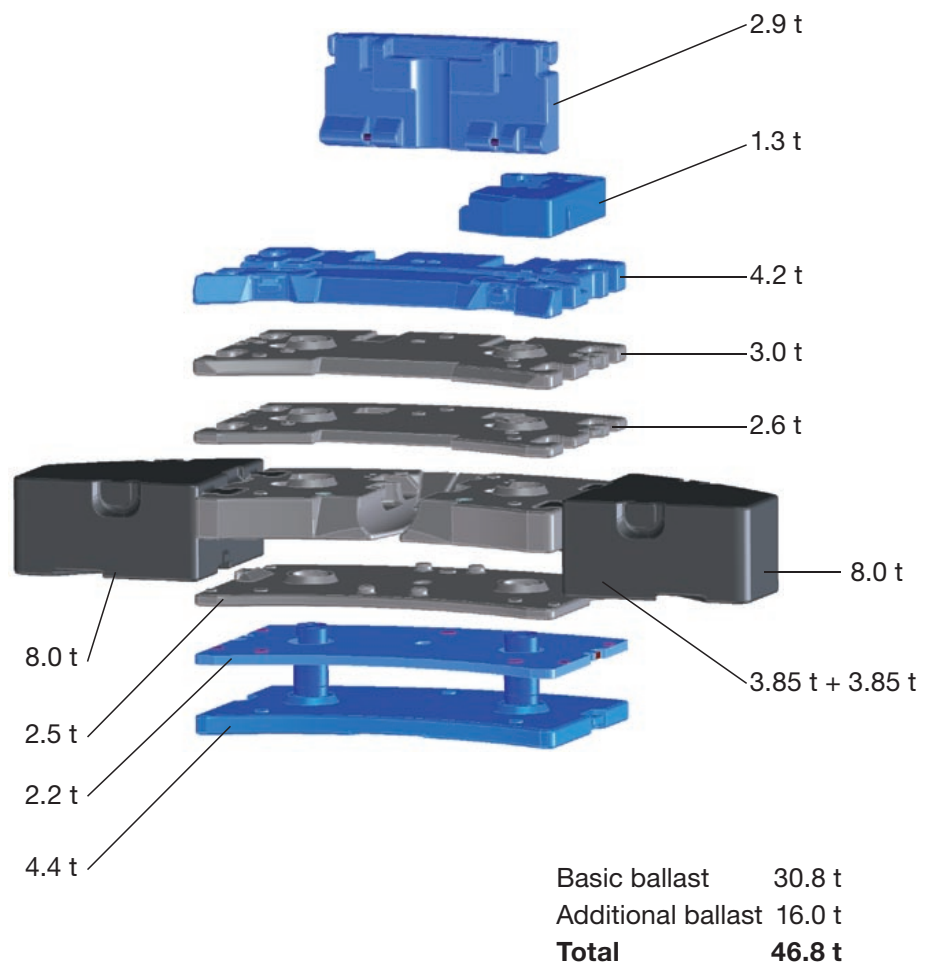
Hose drum for hydraulic cylinder



Variable counterweight

Counterweight assembly - a matter of minutes

- Multiple counterweight variations from 4.4 t to 46.8 t
- Rapid ballasting with keyhole technology from within the crane cab
- Compact counterweight dimensions, at 30.8 t ballast only 2.73 m ballast width
- Tail swing only 4.3 m
- 72 t total weight incl. 15 t ballast at 12 t axle load



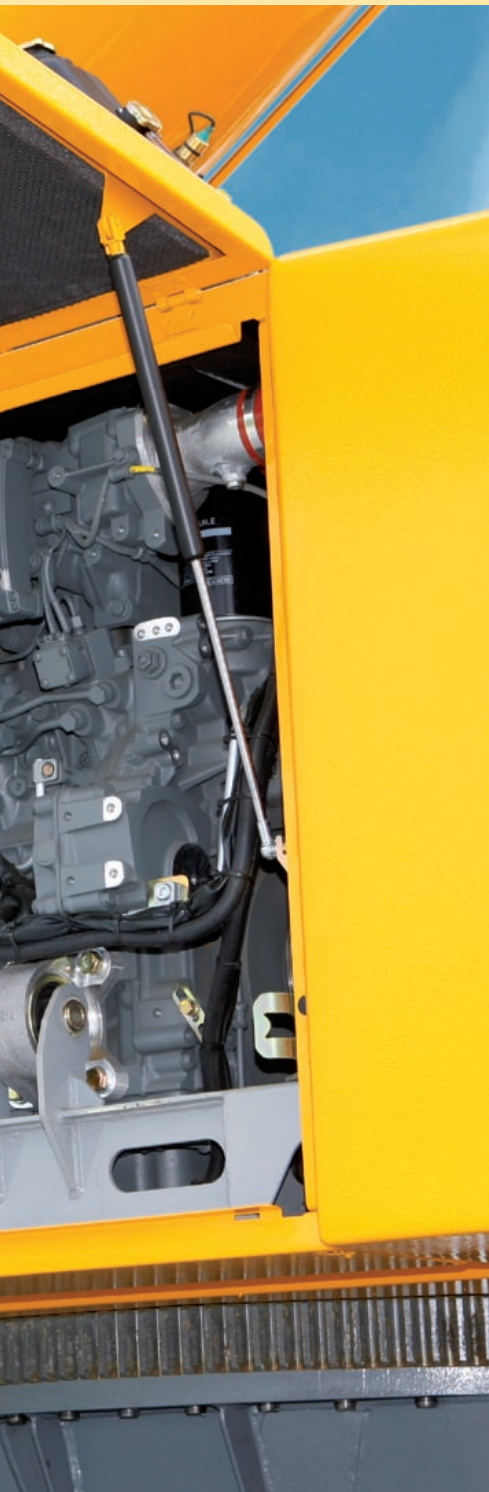


The hoist gear

- Liebherr hoist winch with internal planetary gear and spring loaded multiple disk brake
- Rope pull 88 kN at the outer layer
- Max. rope speed 110 m/min
- 2. hoist gear optional



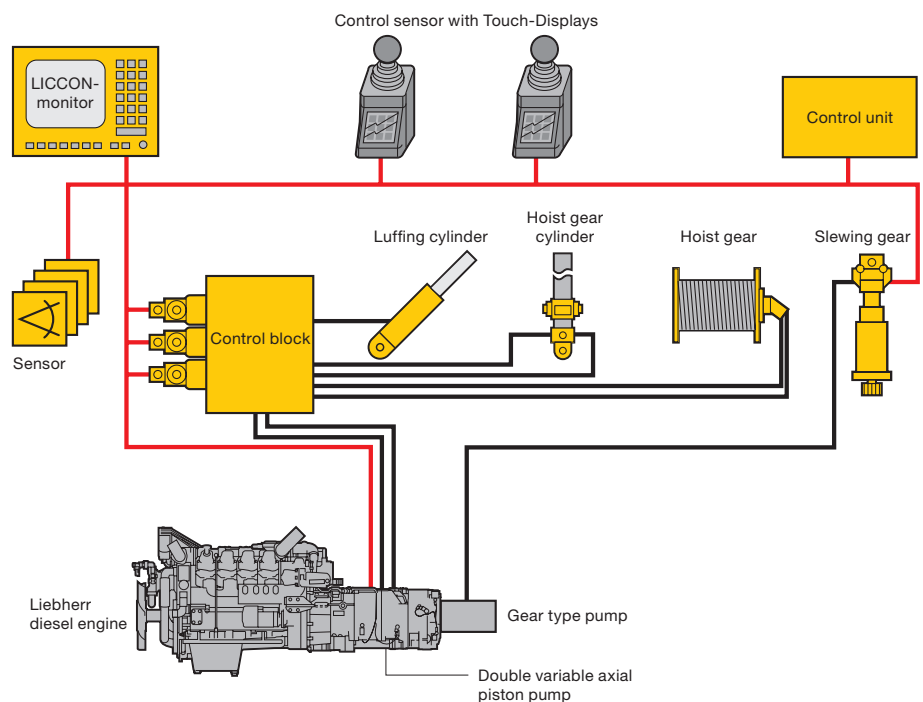
High-power crane drive



With tried-and-tested components

The drive components for crane operation are designed 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: 4-cylinder Liebherr turbo diesel engine, 129 kW/175 HP at 1800 rpm, max. torque 815 Nm at 1500 rpm, optimised fuel consumption due to electronic engine management
- Diesel-hydraulic crane drive, open hydraulic circuits with electronic "LOAD SENSING" control, 4 working movements simultaneously possible
- Electric/electronic SPS crane control through the LICCON computer system
- Slewing system changeable from open to hydraulically locked as standard, thus the movement can be adjusted to the different operational conditions, e. g. sensitive control for assembly work or fast cycle work
- In-house manufactured Liebherr winches, 88 kN rope pull at the outer layer, due to high rope pull less rope reeving necessary



The slewing gear

- Liebherr planetary gear, spring loaded multiple disk brake
- Changeable as standard: open or hydraulically locked
- Slewing speed from 0 – 1.7 rpm stepless adjustable



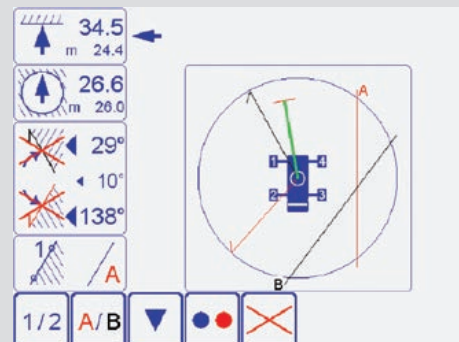
The central greasing

- Central greasing device for slewing bearing, boom bearing, luffing cylinder and winch bearing as standard
- Even supply with grease
- Filling amount in transparent container visible at any time



The LICCON test system

- Rapid localisation of problems on screen without any measuring instruments
- Display of error codes and descriptions
- Convenient interactive functions for monitoring all inputs and outputs
- Displays of functions and allocation of sensors and actuators



Intelligent crane control

For functional and safe crane operation, the LICCON computer system

The soft- and hardware of the mobile crane control is in house developed by Liebherr. In the centre is the LICCON computer system (Liebherr Computed Controlling). The system undertakes comprehensive information, control and monitoring tasks. The control components have proven themselves worldwide in the various climate conditions.

LICCON configuration and operating programme

- Application programmes:
 - Safe load indicator (LMB)
 - Configuration programme with configuration display
 - Operating programme with operating display
 - Telescoping programme with telescoping display
- Setting of the configuration by convenient interactive functions
- Display 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

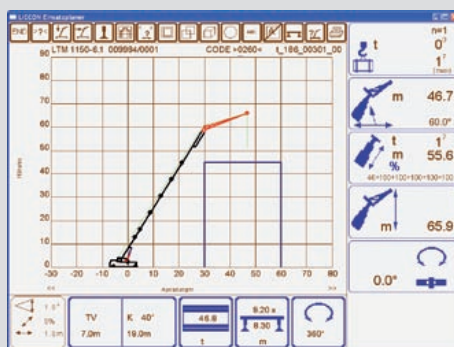
Data bus technology

Liebherr mobile cranes are fully interlaced using data bus systems. All major electric and electronic components 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 (LSB - Liebherr-System-Bus). The data bus technology increases reliability, comfort and safety when driving and operating the cranes:

- Improved reliability due to greatly reduced number of electric cables and contacts
- Constant self-testing of the 'intelligent sensors'
- Extensive diagnosis possibilities, fast fault finding

The LICCON work area limitation system (optional)

- Relief for the crane operator's job 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 entry of load, radius and lifting height parameters
- Simulation of crane operations with outline functions and supporting force display

The new control generation – LICCON2



The new generation of the Liebherr crane control offers an extended customer value and higher control comfort by additional user possibilities. The base for this is the modern and future oriented control architecture with components, which have been optimized for computing power and capacity.



Remote control (optional)

Attaching and detaching the hook block

The BTT - Bluetooth terminal allows the crane driver to attach the hook block to or detach it from the front bumper within view by remote control of the hoist gear and the luffing cylinder of the telescopic boom.

Crane support

By use of the BTT the mobile crane will be setup comfortably and safely. Engine start/stop and speed regulation, electronic inclination display and automatic levelling are standard. Optionally the BTT can also display the outrigger forces.



Colour monitor

The readability of the data on the monitor of the LICCON2 control unit in the crane cabin is improved by the colour display. Warning indications and crane utilisation are more clearly visible.



Touch displays

Below the joysticks integrated in the arm rest touch displays are provided with which various working functions can be selected. Beside others these are the drive and steering programmes of the carrier, the axle suspension, the supporting of the crane, the adjustment of the working flood-lights as well as the heating and ventilation control.