EN

LRH 200 unplugged

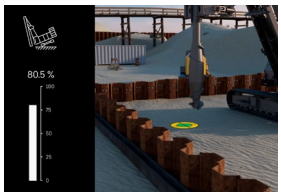
LRH 3102.07
www.liebherr.com

LIEBHERR

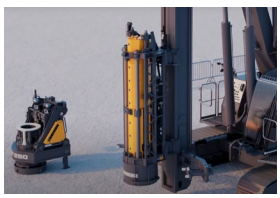
Piling and drilling rigs

Assistance systems

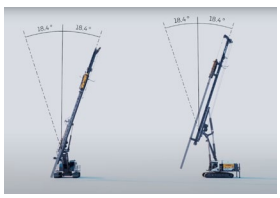
Remote-controlled assembly and disassembly
The remote control facilitates the safe assembly and disassembly of the machine. The operator can change position and thus has a better view of collision points.



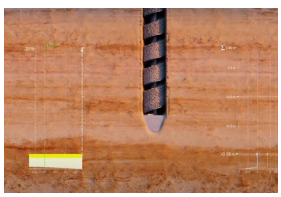
Ground pressure visualisation
Changes in the leader position or swinging the uppercarriage lead to a shift in the centre of gravity. Centres of gravity, load moments and ground pressure distribution under the crawler are calculated in real time.



Attachment recognition
The basic machine's control system detects attachments, records their operating hours and optimises oil quantities and pressures. Operating parameters and faults are recorded and can be recalled via LiDAT.



Automatic leader adjustment
The operator can save the leader inclination. At the touch of a button, the leader can be set to the desired inclination at the piling or drilling point for each new working step. This saves time and ensures precise results.



Drilling assistant for single pass method
The rope crowd system, rotary drive and the amount of flowing concrete are optimally matched during drilling and subsequent extraction.

Technical description

Drive system

Max. drive power	255 kW
Battery type	High Performance Battery System
Technology	Li-Ion NMC (nickel manganese cobalt)
Max. charging power	40 kW (CEE socket 63 A / 400 VAC) 20 kW (CEE socket 32 A / 400 VAC)
Option	80 kW (CEE socket 125 A / 400 VAC)
Battery capacity	300 kWh
Option	400 kWh 600 kWh
Mains voltage	400 VAC (3 phase + N + PE)
Capacity	4 h*
Option	8 h 12 h

* in normal operation in the pile driving mode

Hydraulic system

Pump for working tools	2x 275 l/min
Separate pump for kinematics	130 l/min
Hydraulic oil tank capacity	600 l
Max. working pressure	350 bar
Hydraulic oil	electronic monitoring of all filters use of synthetic environmentally friendly oil possible

Crawlers

Drive system	with fixed axial piston hydraulic motors
Crawler side frames	maintenance-free, with hydraulic chain tensioning device
Brake	hydraulically released, spring-loaded multi-disc holding brake
Drive speed	0-1.3 km/h
Track force	665 kN
Grousers	Width 900 mm (option 700 and 800 mm)

Swing gear

Drive system	with fixed axial piston hydraulic motors, planetary gearbox, pinion
Swing ring	triple-row roller bearing with external teeth
Brake	hydraulically released, spring-loaded multi-disc holding brake
Swing speed	0-3.75 rpm continuously variable

Hammer winch with free fall

Line pull (effective)	200 kN
Line pull in pile driving operation	180 kN
Rope diameter	24 mm
Rope speed	0-56 m/min

The winch is outstanding in its compact design and easy assembly.
Clutch and braking functions on the free-fall system are provided by a compact designed, low wear and maintenance-free multi-disc service brake.

Pile winch with free fall

Line pull (effective)	200 kN
Line pull in pile driving operation	160 kN
Rope diameter	24 mm
Rope speed	0-56 m/min

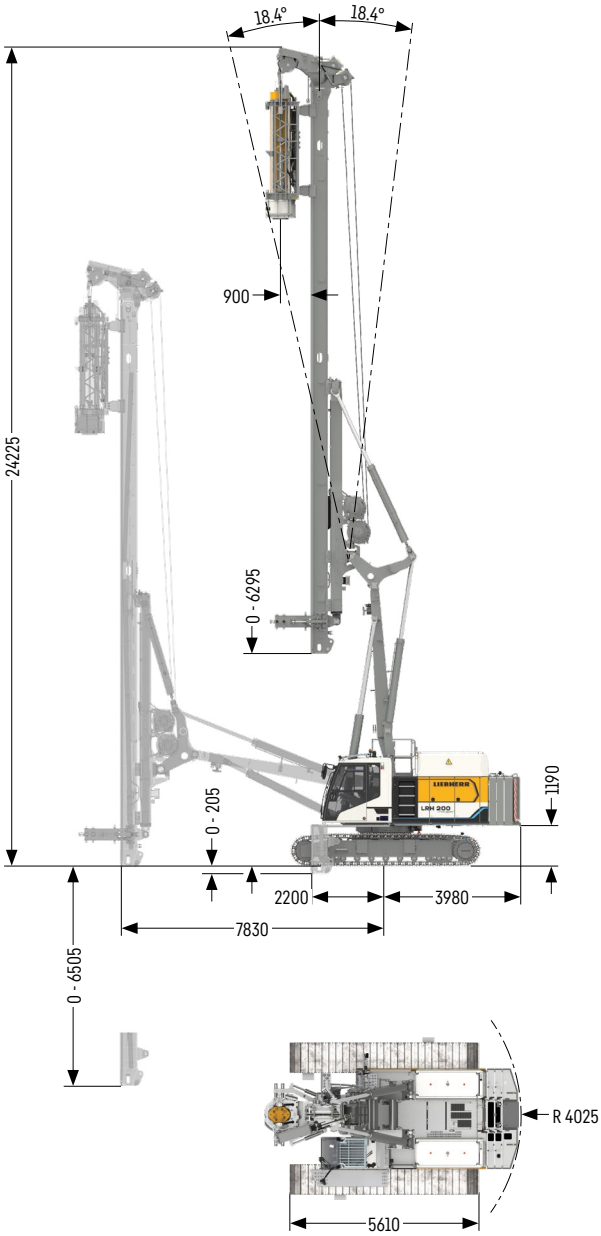
The winch is outstanding in its compact design and easy assembly.
Clutch and braking functions on the free-fall system are provided by a compact designed, low wear and maintenance-free multi-disc service brake.

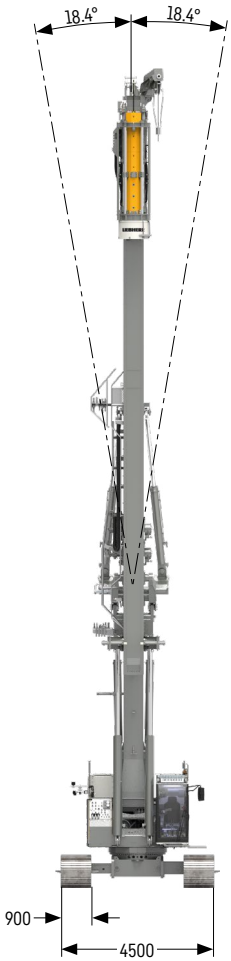
Remarks:

- Illustrations showing the types of application (e.g. full displacement drilling, continuous flight auger drilling etc.) are examples only.
- Weights and transport dimensions can vary with the final configuration of the machine. The figures in this brochure may include options which are not within the standard scope of supply of the machine.

Dimensions

Standard



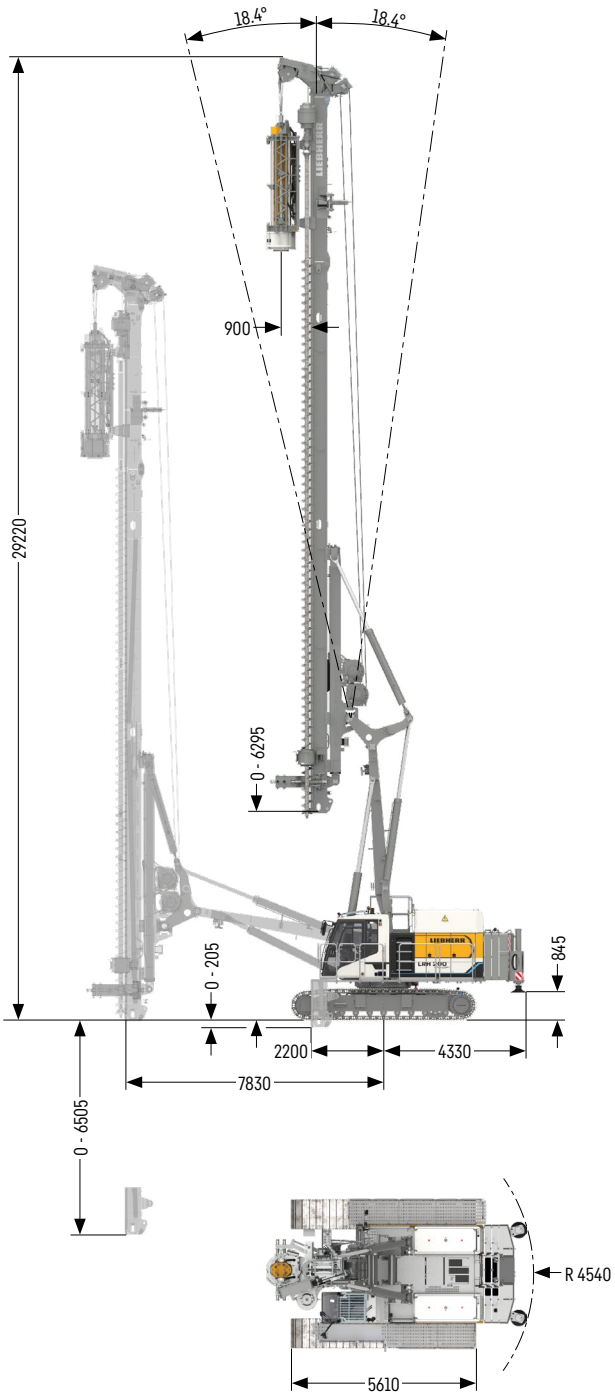


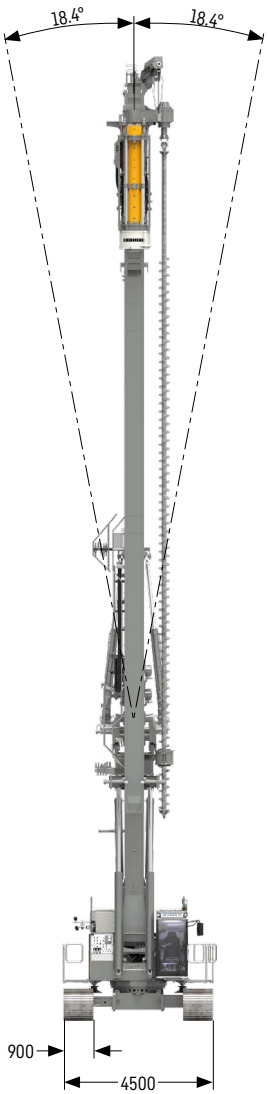
Operating weights

Total weight with hammer H 6-6	t	81.5
Total weight with hammer H 10-100	t	88.0

The operating weight includes the basic machine LRH 200 unplugged and 18 t counterweight.
* Hammer H 10-100

Folding leader



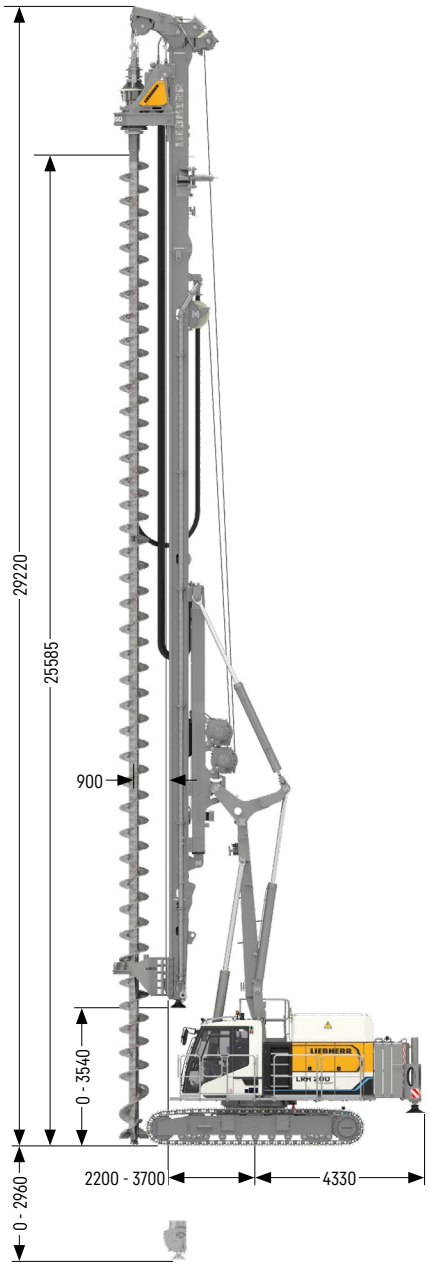


Operating weights

Total weight with hammer H 6-6	t	84.9
Total weight with hammer H 10-100	t	91.4

The operating weight includes the basic machine LRH 200 unplugged, rotary BA 35 and 18 t counterweight.
* Hammer H 10-100

Drilling version

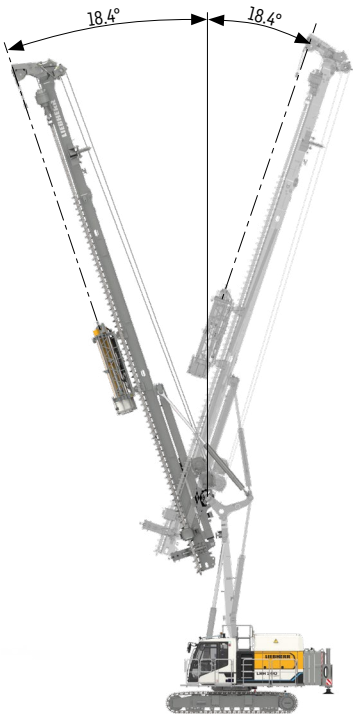


Operating weight

Total weight with 900 mm 3-web grousers	t	90.9

The operating weight includes the basic machine LRH 200 unplugged incl. rotary BAT 250, auger, auger cleaner and 18 t counterweight.

Inclinations for pile driving operation and down-the-hole drilling



Local zero emission

Emission-free
The new machines with alternative electro-hydraulic drive have a very low noise level and are also emission-free. That is a huge advantage in areas sensitive to noise and also for the people working on the jobsite.

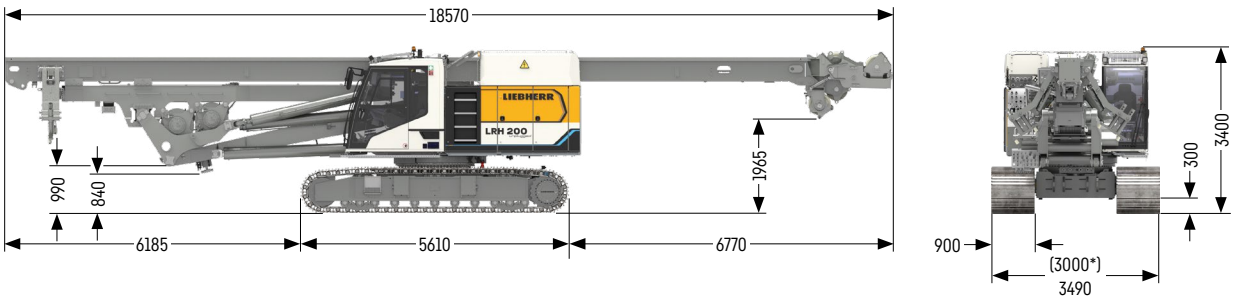
Operation
The LRH 200 unplugged can be operated both connected to the power supply (plugged in) or powered by battery (unplugged).

Sustainability
Liebherr is aware of its responsibility towards society and the environment and, with the unplugged series, strives for the best possible combination of environmental sustainability, customer benefit and efficiency.

Plugged in
When connected to the power supply, there are no restrictions in performance and application of the machine when compared to the conventional version with diesel engine. The battery is constantly charged when connected to the power supply and therefore always provides sufficient energy.

Unplugged
In normal operation in the pile driving mode, the battery is designed for an operating time of 4 hours (standard) and 8 or 12 hours (option). It can be simply recharged using a conventional jobsite electric supply
(32 A, 63 A, 125 A).

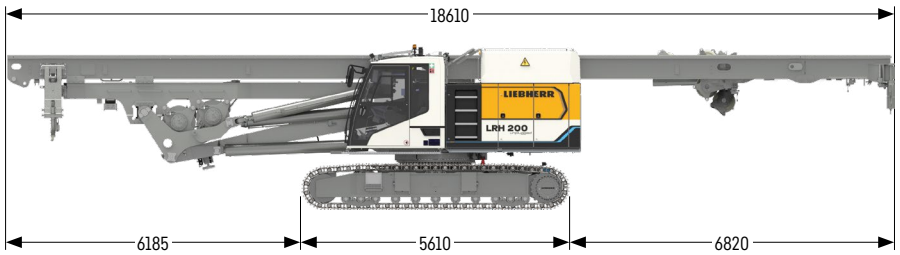
Transport dimensions and weights



Transport standard

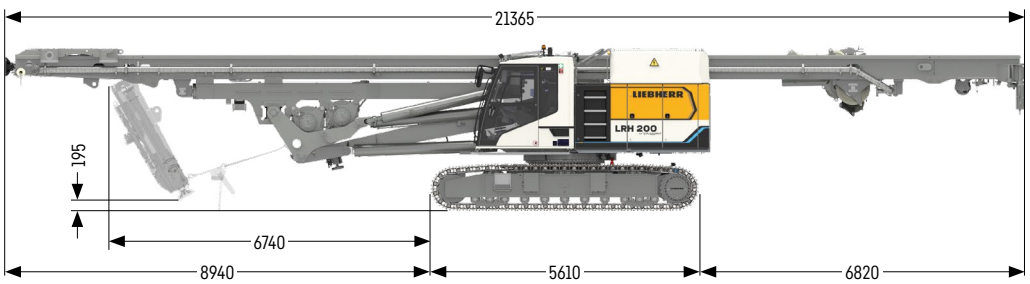
includes the basic machine (ready for operation) with leader, without counterweight	t	53.8

* with 700 mm grousers, without all round platform and without railings



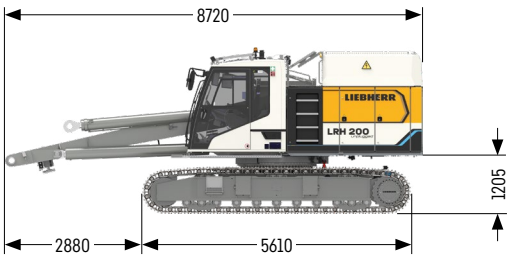
Transport folding leader

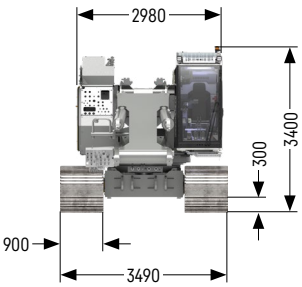
includes the basic machine (ready for operation) with leader, without counterweight	t	55.5



Transport drilling version

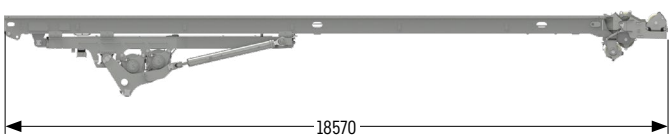
includes the basic machine (ready for operation) with leader, concrete supply line and multi-sledge, without counterweight	t	57.5

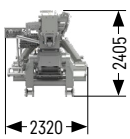


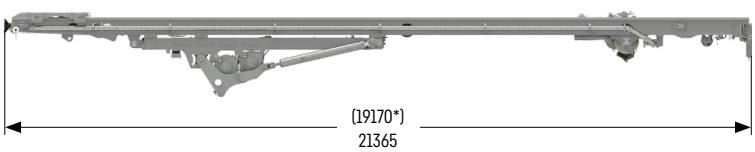


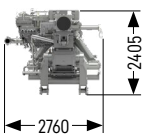
Basic machine

with crawler side frames, without counterweight	t	36.2









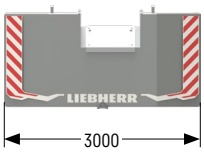
Leader

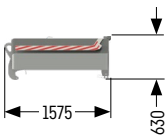
Weight standard leader	t	16.9
Weight folding leader	t	18.6
Weight drilling version	t	21.3

* leader lower part folded

Options

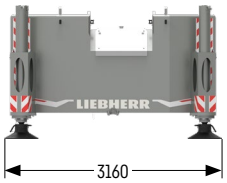
Concrete supply line	t	0.6
All round platform with railings	t	0.4

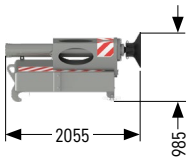




Counterweight

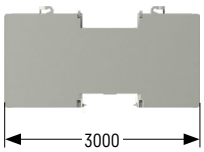
Weight	t	8.0

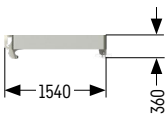




Counterweight with rear support unit

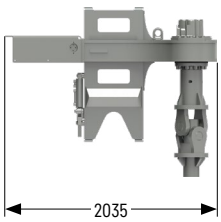
Weight	t	8.0

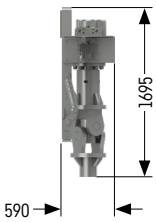




Intermediate slab

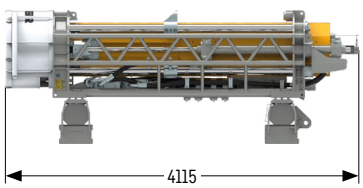
Weight	t	5.0

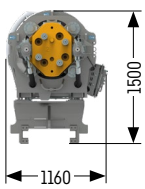




BA 35

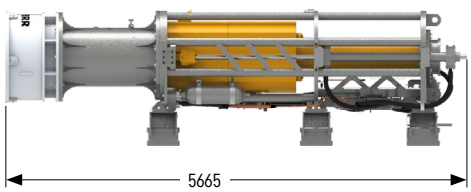
Weight	t	1.4

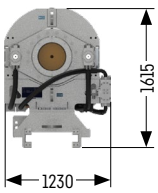




Hammer H 6-6

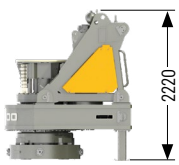
Weight incl. 6 t drop weight	t	9.7

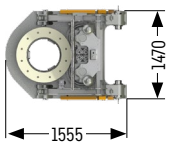




Hammer H 10-100

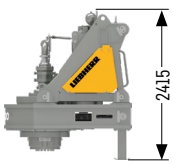
Weight incl. 10 t drop weight	t	16.2

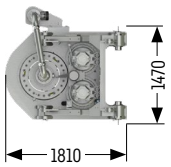




BAT 250

Weight	t	6.5

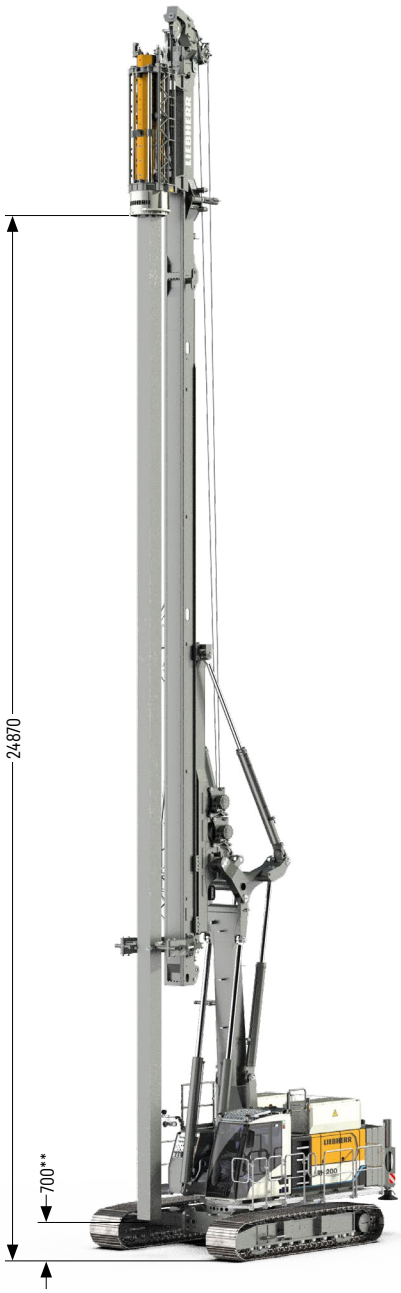


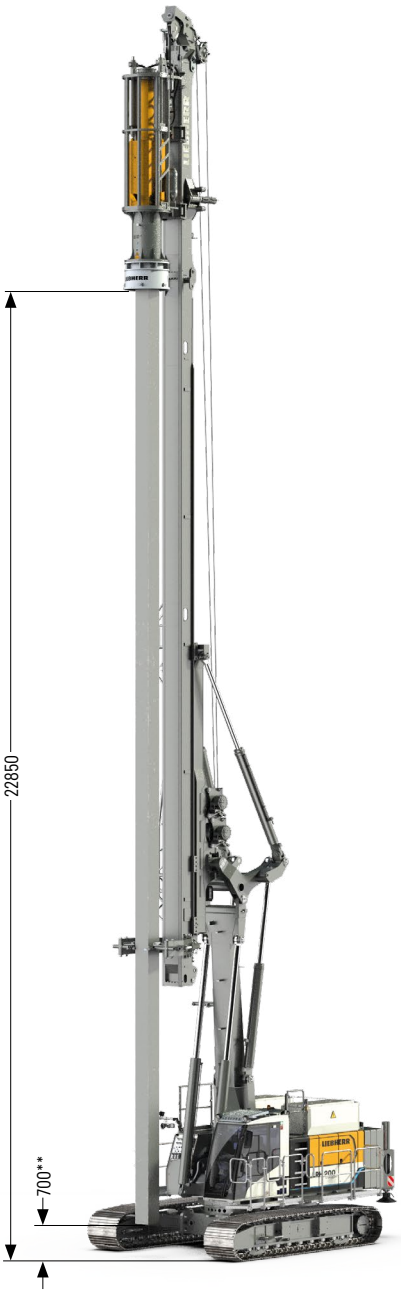


MA 180

Weight	t	5.7

Hydraulic hammer H 6 and H 10



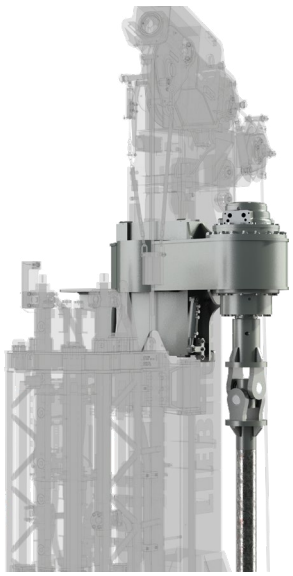


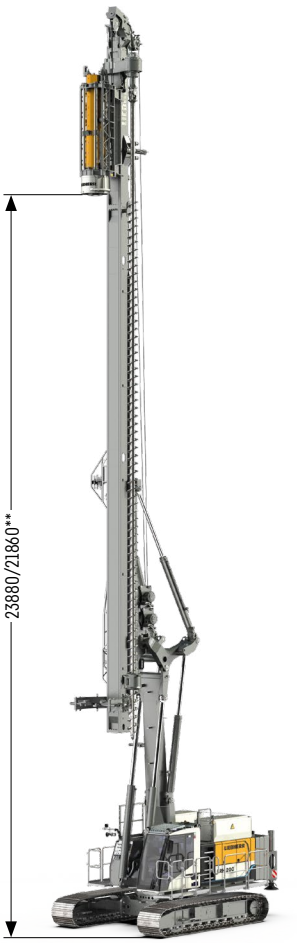
Performance data

Hammer type		H 6-3	H 6-4	H 6-5	H 6-6	H 10-75	H10-100
Drop weight	kg	3000	4000	5000	6000	7500	10000
Max. rated energy	kNm	36	48	60	72	90	120
Blow rate	Blows/min	50-150	50-150	50-150	40-150	50-150	50-150
Max. pile length*	m	24.4	24.4	24.4	24.4	22.4	22.4
Hammer weight incl. pile helmet and dolly	kg	6700	7700	8700	9700	13700	16200

Various pile helmet sizes up to diameters of 630 mm for the hammer H 6, up to 785 mm for the hammer H 10 or in square design available as standard.
Other pile helmet sizes available on request
* For the version without leader upper part the max. pile length is reduced by 5 m.
** X dimension with pile mounted in the pile helmet.

Pre-drill BA 35





Performance data

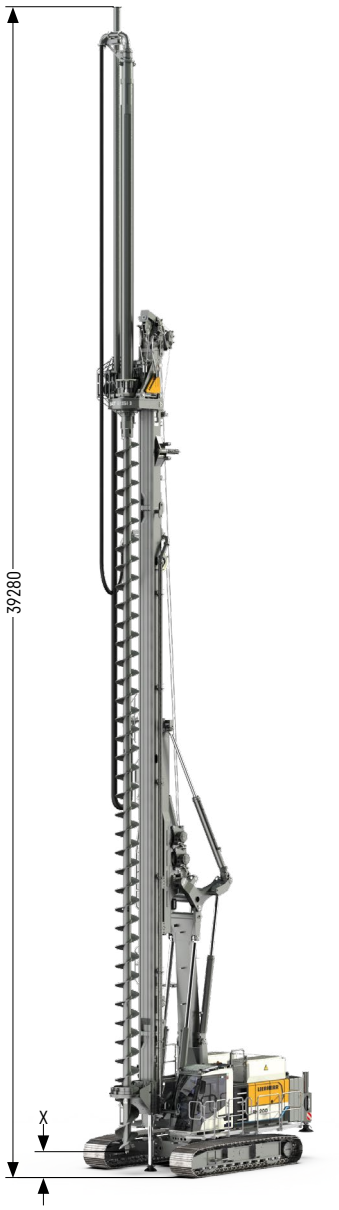
Rotary drive - torque	kNm	0-35
Rotary drive - speed	rpm	0-20
Max. drilling diameter	mm	350
Max. recommended pile length* H 6/H 10	m	23.4/21.4
Max. drilling depth* H 6/H 10	m	15.0/13.3
Additional crowd force		Hammer weight

Other drilling diameters available on request

* For the version without leader upper part the max. drilling depth and the max. pile length are reduced by 5 m.

** Dimension H 10

Continuous flight auger drilling



Performance data

Rotary drive - torque	kNm	0-230
Rotary drive - speed	rpm	0-58
Max. drilling diameter*	mm	1000
Drilling depth without Kelly extension**	m	24.5
Drilling depth with 10 m Kelly extension**	m	34.5
Max. pull force/max. crowd force (standard)	kN	400/200
Max. pull force/max. crowd force (option)	kN	600/0

Above drilling depths take into account that an auger cleaner is used and the cardan joint has been removed.
Above drilling depths are valid for the use of standard tools and for an X dimension of 395 mm (see above illustration).
* Other drilling diameters available on request
** For the version without leader upper part the drilling depth is reduced by 5 m.

Full displacement drilling

Performance data

Rotary drive - torque	kNm	0-230
Rotary drive - speed	rpm	0-58
Max. drilling diameter*	mm	500
Drilling depth without Kelly extension**	m	25.2
Drilling depth with 10 m Kelly extension**	m	35.2
Max. pull force/max. crowd force (standard)	kN	400/200
Max. pull force/max. crowd force (option)	kN	600/0

Above drilling depths are valid for the use of standard tools and for an X dimension of 185 mm (see above illustration).
* Other drilling diameters available on request
** For the version without leader upper part the drilling depth is reduced by 5 m.

Soil mixing

Performance data BAT 250

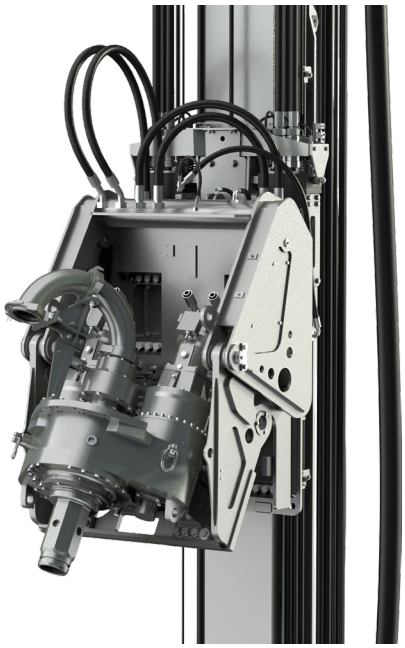
Rotary drive - torque	kNm	0-230
Rotary drive - speed	rpm	0-58
Max. mixing diameter*	mm	1500
Mixing depth**	m	24.3
Mixing depth with 10 m Kelly extension**	m	34.3
Max. pull force/max. crowd force (standard)	kN	400/200
Max. pull force/max. crowd force (option)	kN	600/0

Performance data MA 180

Rotary drive - torque	kNm	0-165
Rotary drive - speed	rpm	0-80
Max. mixing diameter*	mm	1000
Mixing depth**	m	24.3
Max. pull force/max. crowd force (standard)	kN	400/200
Max. pull force/max. crowd force (option)	kN	600/0

Above mixing depths are valid for the use of standard tools and for an X dimension of 1120 mm for MA 180, and 570 mm for BAT 250 (see above illustration).
* Other mixing diameters available on request.
** For the version without leader upper part the mixing depth is reduced by 5 m.

Down-the-hole drilling



Performance data DHR 110

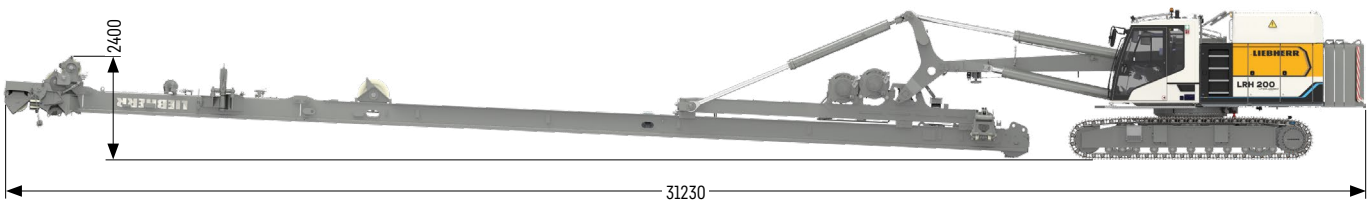
Rotary drive - torque	kNm	0-106
Rotary drive - speed	rpm	0-41
Max. drilling depth*	m	25.2
Max. pull force/max. crowd force (standard)	kN	400/200
Max. pull force/max. crowd force (option)	kN	600**/0

** For the version without leader upper part the drilling depth is reduced by 5 m.
** In recovery mode, drilling operation max. 400 kN

Elevation mode

By supporting the leader on the ground and extending the rear support cylinders, the carrier machine is elevated.
The undercarriage can thus be swivelled on the spot, which makes it easier to move the piling rig in restricted spaces.

Service mode (without attachments)



For maintenance and service work on the leader and carrier machine, the leader can be folded forward.
In this position the piling rig cannot move or travel.

Digital solutions

Liebherr-Werk Nenzing GmbH has set itself the goal of using digital solutions to network and optimise processes on the jobsite.
In the progression from an experienced machine manufacturer to a full-service provider Liebherr already has a number of digital solutions, which provide substantial support for all those involved in the construction site.

MyLiebherr

One portal, all services

PDE

Process data recording

MyJobsite

Your jobsite at a glance

LIPOS

Positioning system

XpertAssist

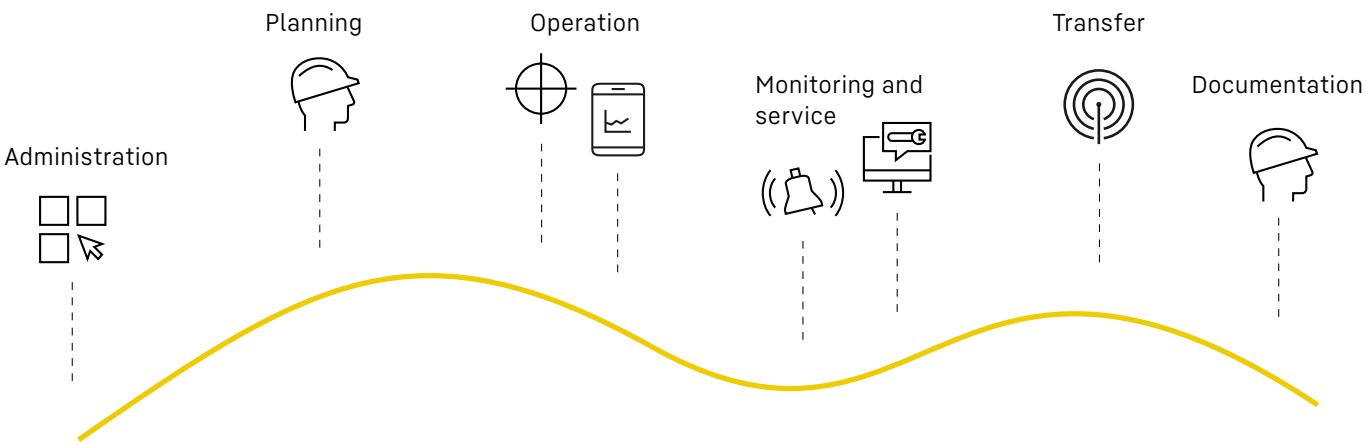
Remote support in real time

LiDAT

Data transfer and positioning system

MyNotifier

Monitoring tool for wind conditions and battery status



Download datasheet

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