EN-US

LRH 200

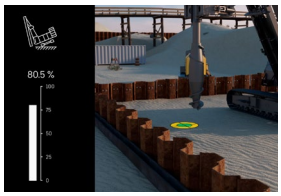
LRH 3002.07
www.liebherr.com

LIEBHERR

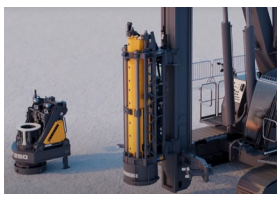
Piling and drilling rigs

Assistance systems

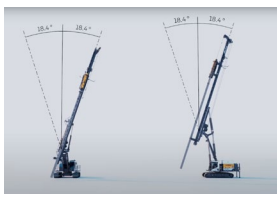
Remote-controlled assembly and disassembly
The remote control facilitates the safe assembly and disassembly of the machine. The operator can change position and thus has a better view of collision points.



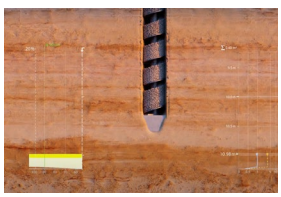
Ground pressure visualisation
Changes in the leader position or swinging the uppercarriage lead to a shift in the centre of gravity. Centres of gravity, load moments and ground pressure distribution under the crawler are calculated in real time.



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

Diesel engine

Power rating according to ISO 9249	250 kW (335 hp) at 1700 rpm
Option	320 kW (429 hp) at 1700 rpm
Engine type	Liebherr D 936 A7-04
Fuel tank capacity	185 gal with continuous level indicator and reserve warning
Exhaust certification	EU 2016/1628 Stage V; EPA/CARB Tier 4f ECE-R.96 Power Band H non-certified emission standard

Hydraulic system

Pump for working tools	2x 72 gal/min
Separate pump for kinematics	34 gal/min
Hydraulic oil tank capacity	159 gal
Max. working pressure	5,076 PSI
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	0-0.83 mph
Track force	149,498 kN
Grousers	Width 35.4 inch (option 27.6 and 31.5 inch)

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)	44,962 lbf
Line pull in pile driving operation	40,466 lbf
Rope diameter	24 mm
Rope speed	0-185 ft/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)	44,962 lbf
Line pull in pile driving operation	35,969 lbf
Rope diameter	24 mm
Rope speed	0-185 ft/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.

Noise measurement data and vibration

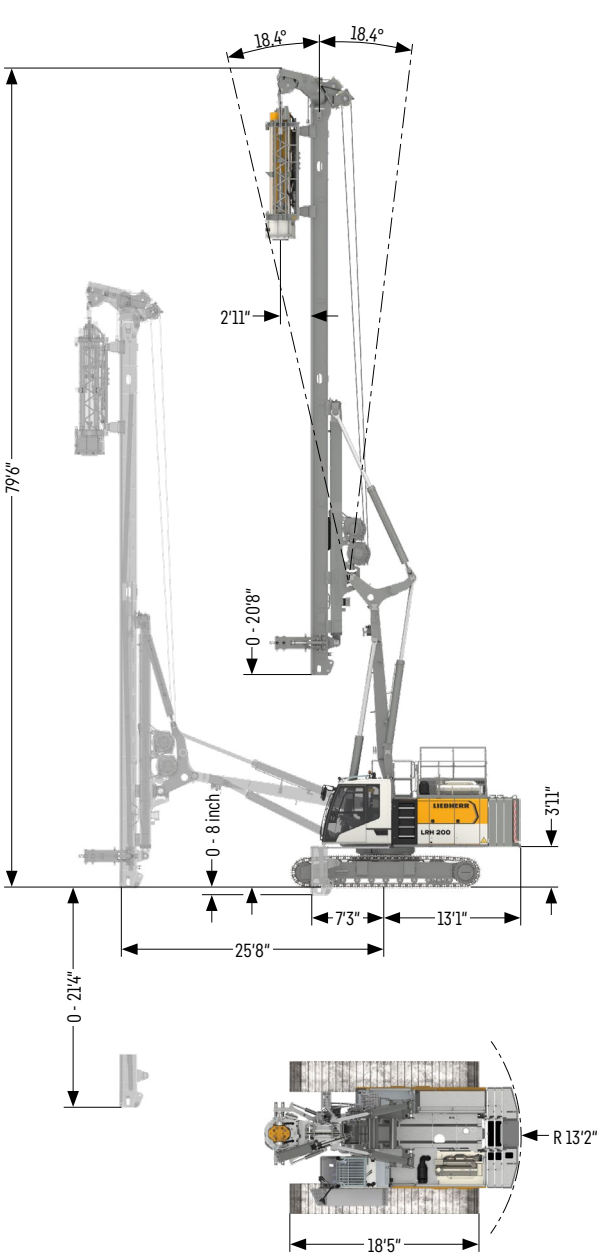
Noise emission	according to 2000/14/EC directive	
Emission sound pressure level L_{PA}	73.5 dB(A)	(in the cabin)
Guaranteed sound power level L_{WA}	106 dB(A)	(of the machine)
Vibration transmitted to the	< 8.2 ft/s²	(to the hand-arm system)
machine operator	< 1.6 ft/s²	(to the whole body)

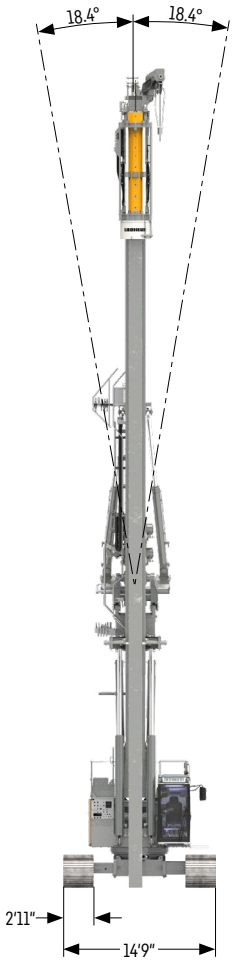
Remarks:

- 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



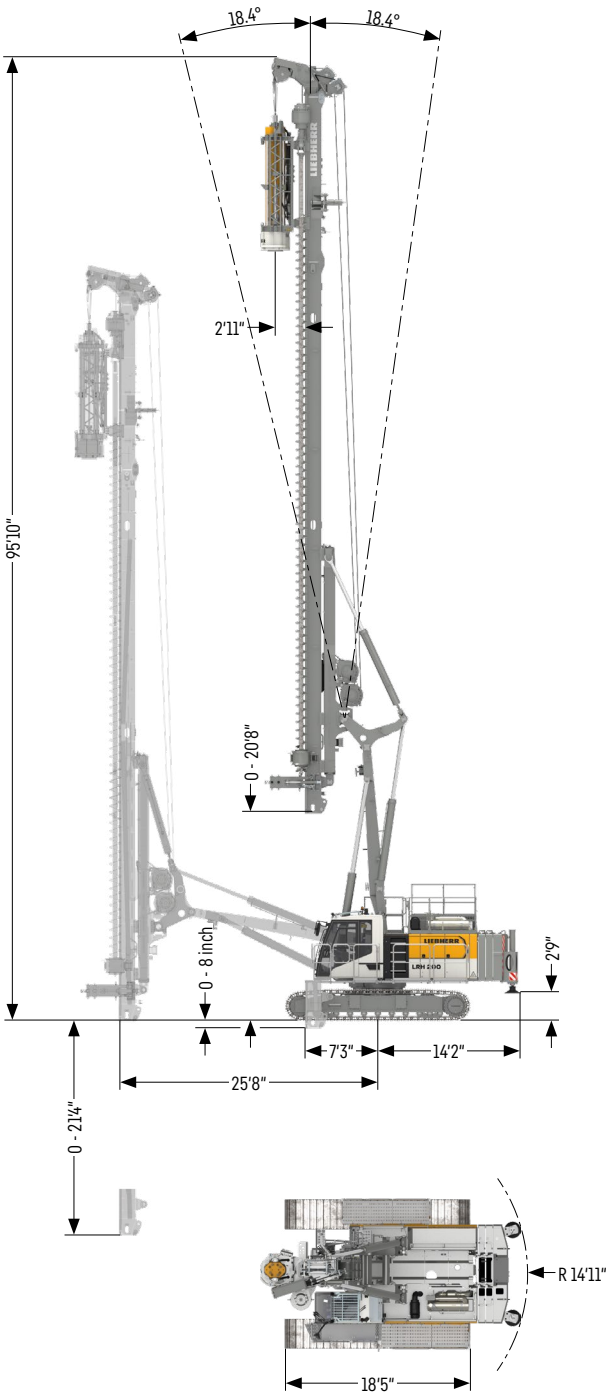


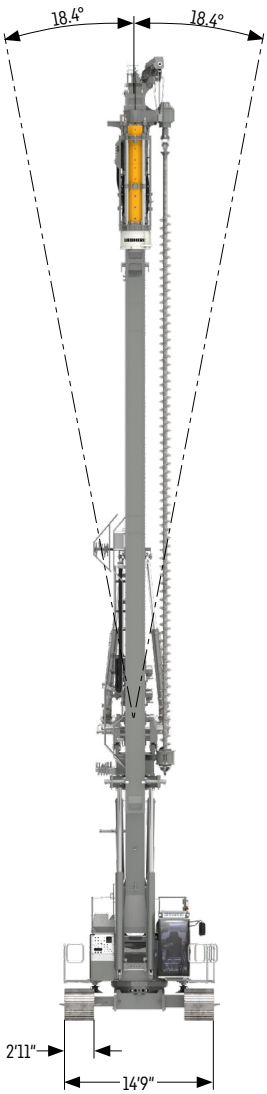
Operating weights

Total weight with hammer H 6-6	lbs	178,574
Total weight with hammer H 10-100	lbs	192,204

The operating weight includes the basic machine LRH 200 and 39,683 lbs counterweight.
* Hammer H 10-100

Folding leader



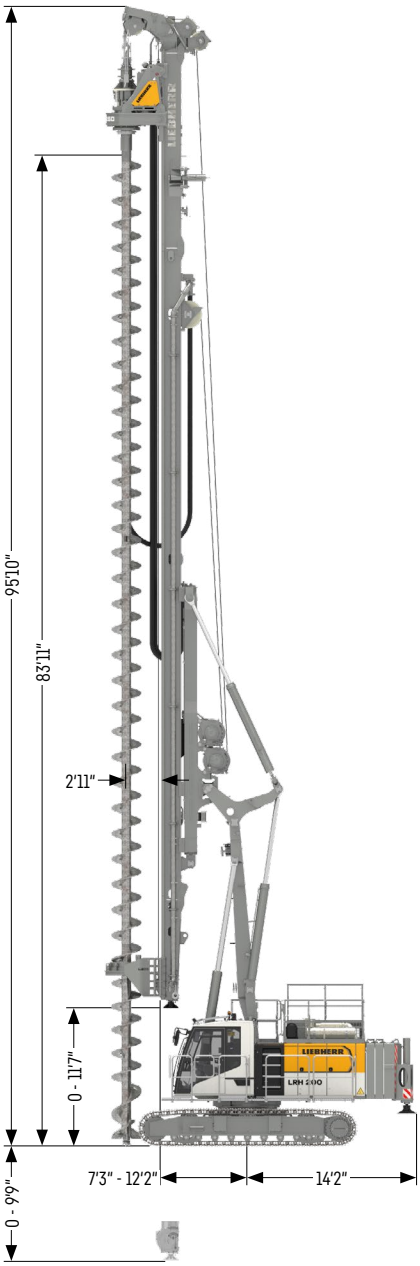


Operating weights

Total weight with hammer H 6-6	lbs	186,070
Total weight with hammer H 10-100	lbs	200,400

The operating weight includes the basic machine LRH 200, rotary BA 35 and 39,683 lbs counterweight.
* Hammer H 10-100

Drilling version

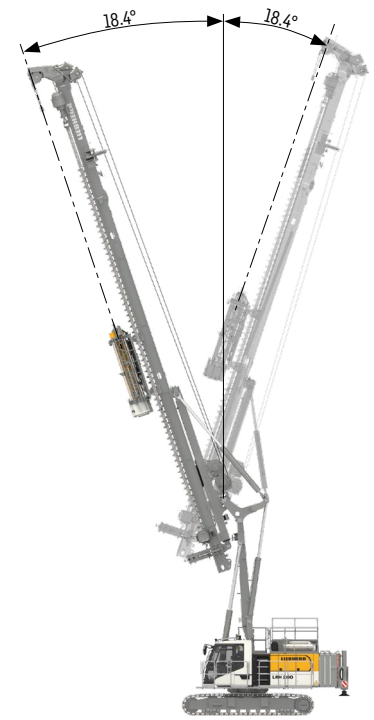


Operating weight

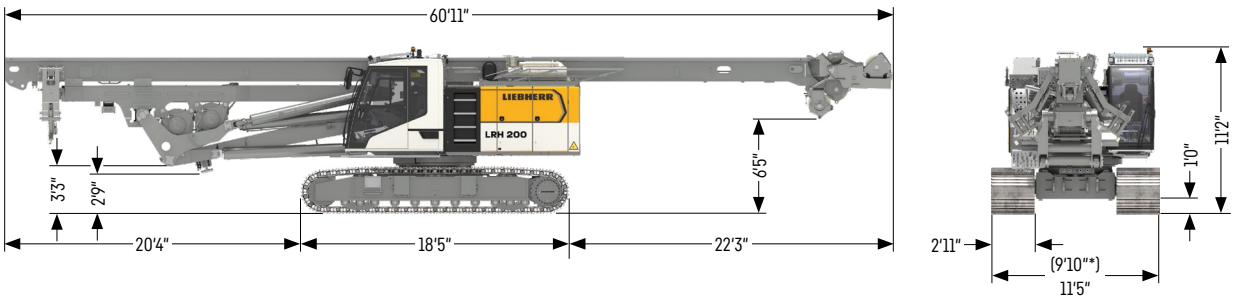
Total weight with 35.4 inch 3-web grousers	lbs	199,298

The operating weight includes the basic machine LRH 200 incl. rotary BAT 250, auger, auger cleaner and 39,683 lbs counterweight.

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



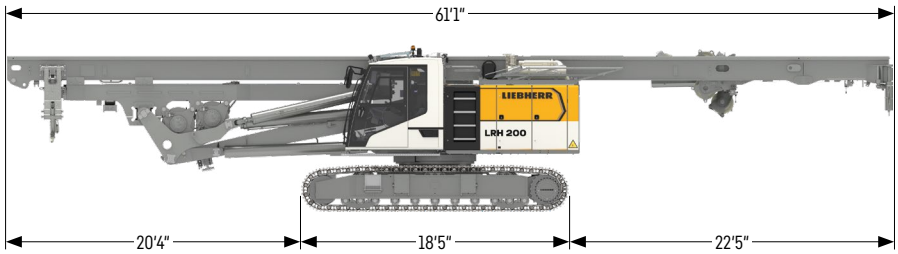
Transport dimensions and weights



Transport standard

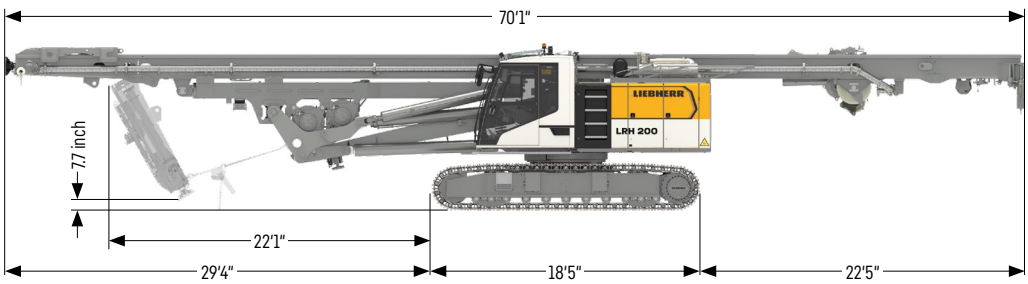
includes the basic machine (fully tanked and ready for operation) with leader, without counterweight	lbs	117,506

* with 27.6 inch grousers, without all round platform and without railings



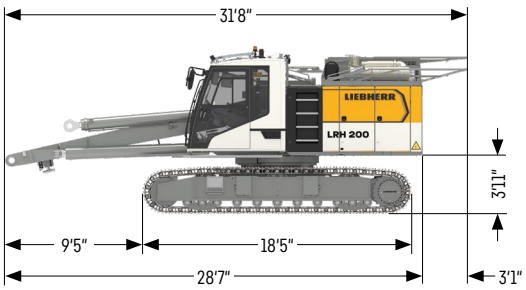
Transport folding leader

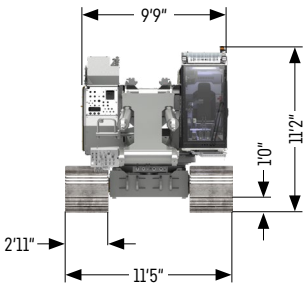
includes the basic machine (fully tanked and ready for operation) with leader, without counterweight	lbs	119,711



Transport drilling version

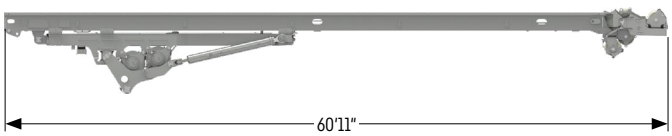
includes the basic machine (fully tanked and ready for operation) with leader, concrete supply line and multi-sledge, without counterweight	lbs	125,663

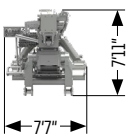


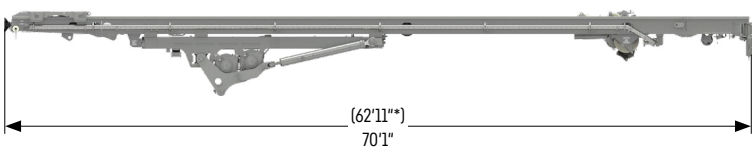


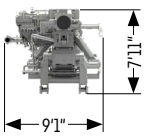
Basic machine

with crawler side frames, without counterweight	lbs	78,705









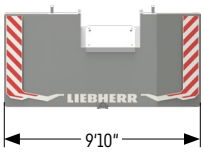
Leader

Weight standard leader	lbs	37,258
Weight folding leader	lbs	41,006
Weight drilling version	lbs	46,958

* leader lower part folded

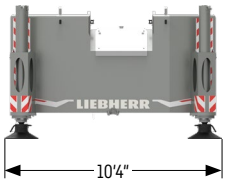
Options

Concrete supply line	lbs	1,323
All round platform with railings	lbs	882



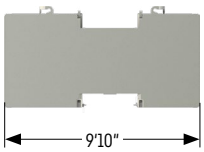
Counterweight

Weight	lbs	17,637



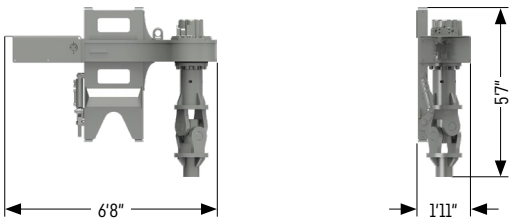
Counterweight with rear support unit

Weight	lbs	17,637



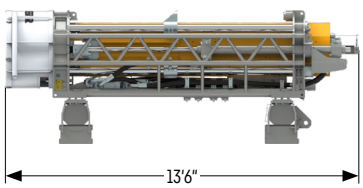
Intermediate slab

Weight	lbs	11,023



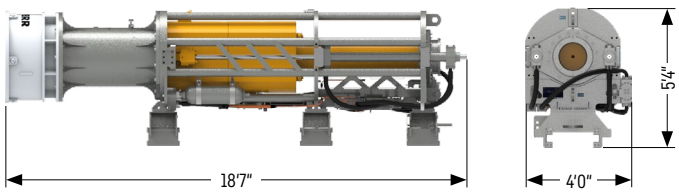
BA 35

Weight	lbs	3,086



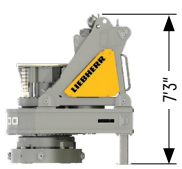
Hammer H 6-6

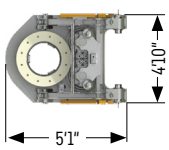
Weight incl. 13,228 lbs drop weight	lbs	21,385



Hammer H 10-100

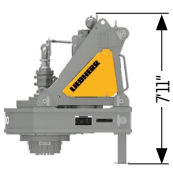
Weight incl. 22,046 lbs drop weight	lbs	35,715

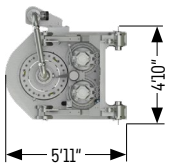




BAT 250

Weight	lbs	14,330

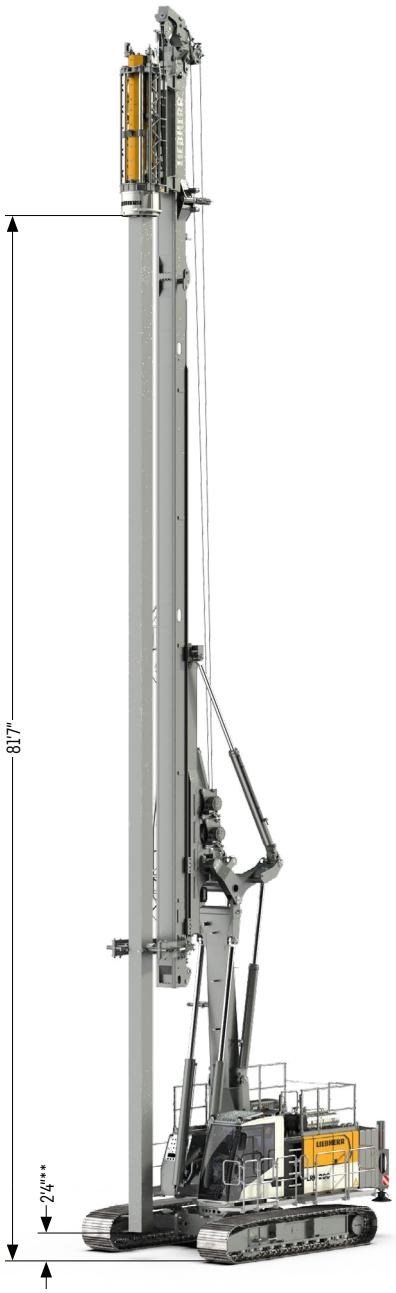


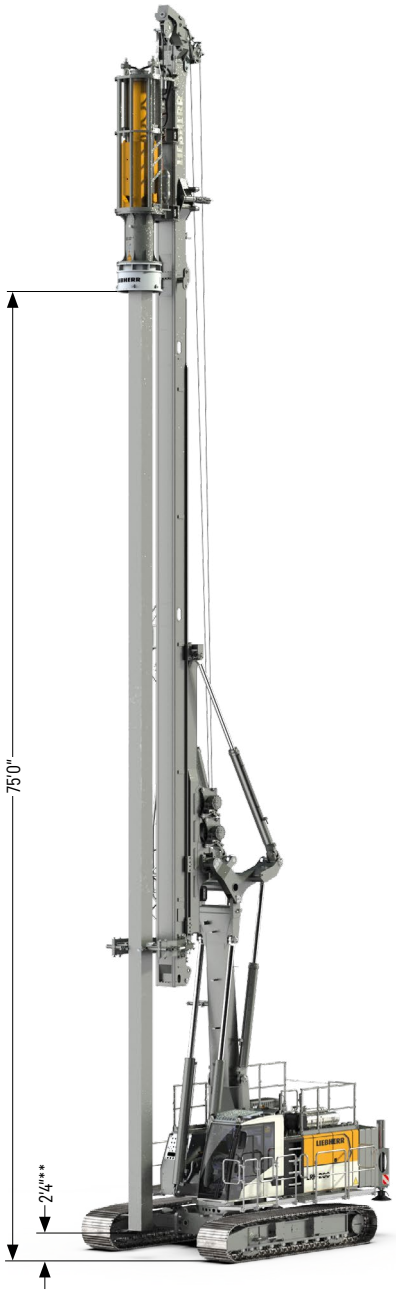


MA 180

Weight	lbs	12,566

Hydraulic hammer H 6 and H 10



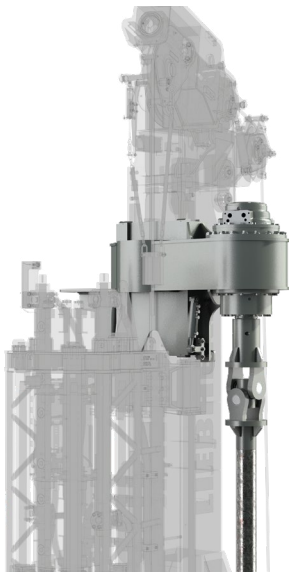


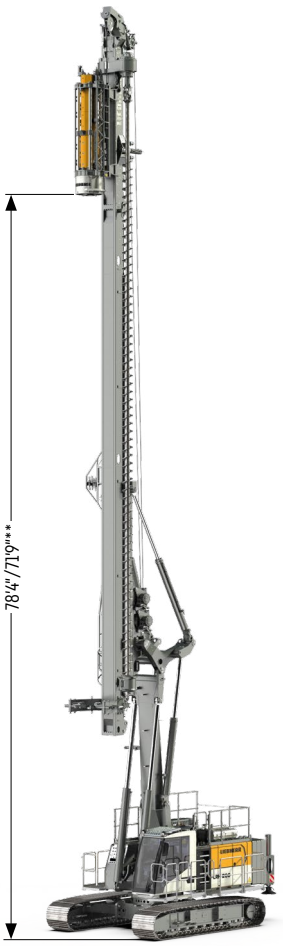
Performance data

Hammer type		H 6-3	H 6-4	H 6-5	H 6-6	H 10-75	H10-100
Drop weight	lbs	6,614	8,818	11,023	13,228	16,535	22,046
Max. rated energy	lbf-ft	26,552	35,403	44,254	53,104	66,381	88,507
Blow rate	Blows/min	50-150	50-150	50-150	40-150	50-150	50-150
Max. recommended pile length*	ft	80.0	80.0	80.0	80.0	73.5	73.5
Hammer weight incl. pile helmet and dolly	lbs	14,771	16,976	19,180	21,385	30,203	35,715

Various pile helmet sizes up to diameters of 2.1 ft for the hammer H 6, up to 2.6 ft 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 16.4 ft.
** X dimension with pile mounted in the pile helmet.

Pre-drill BA 35





Performance data

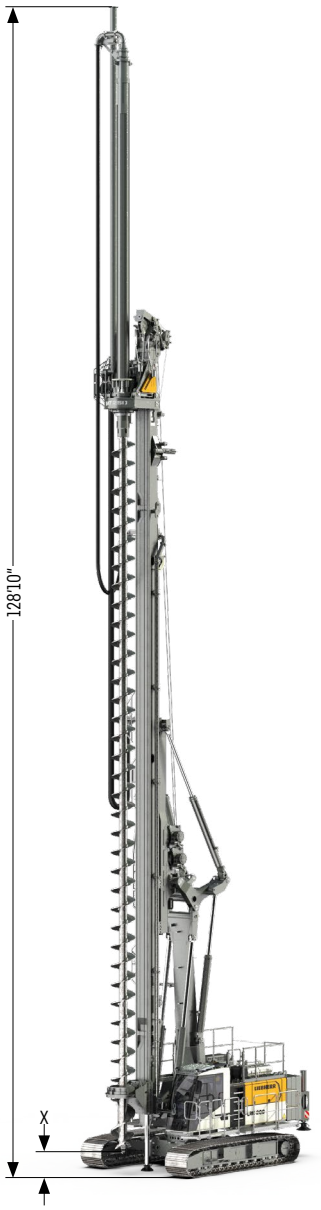
Rotary drive - torque	lbf-ft	0-25,815
Rotary drive - speed	rpm	0-20
Max. drilling diameter	ft	1.2
Max. recommended pile length* H 6/H 10	ft	76.9/70.2
Max. drilling depth* H 6/H 10	ft	49.2/43.6
Additional crowd force		Hammer weight

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 16.4 ft.

** Dimension H 10

Continuous flight auger drilling



Performance data

Rotary drive - torque	lbf-ft	0-169,639
Rotary drive - speed	rpm	0-58
Max. drilling diameter*	ft	3.3
Drilling depth without Kelly extension**	ft	80.4
Drilling depth with 32.8 ft Kelly extension**	ft	113.2
Max. pull force/max. crowd force (standard)	lbf	89,923/44,962
Max. pull force/max. crowd force (option)	lbf	134,885/0

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 1.3 ft (see above illustration).
* Other drilling diameters available on request
** For the version without leader upper part the drilling depth is reduced by 16.4 ft.

Full displacement drilling

Performance data

Rotary drive - torque	lbf-ft	0-169,639
Rotary drive - speed	rpm	0-58
Max. drilling diameter*	ft	1.6
Drilling depth without Kelly extension**	ft	82.7
Drilling depth with 32.8 ft Kelly extension**	ft	115.5
Max. pull force/max. crowd force (standard)	lbf	89,923/44,962
Max. pull force/max. crowd force (option)	lbf	134,885/0

Above drilling depths are valid for the use of standard tools and for an X dimension of 0.6 ft (see above illustration).
* Other drilling diameters available on request
** For the version without leader upper part the drilling depth is reduced by 16.4 ft.

Soil mixing

Performance data BAT 250

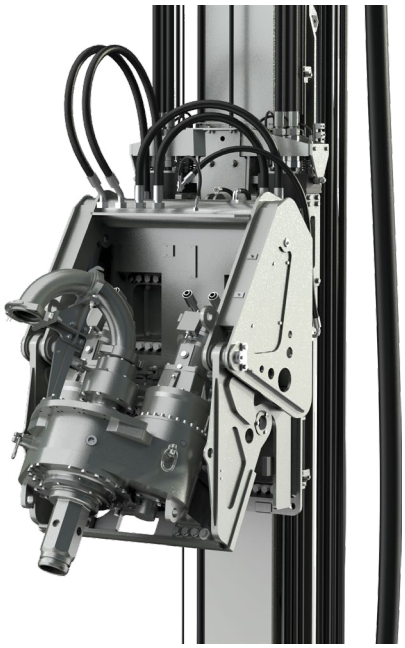
Rotary drive - torque	lbf-ft	0-169,639
Rotary drive - speed	rpm	0-58
Max. mixing diameter*	ft	4.9
Mixing depth**	ft	79.7
Mixing depth with 32.8 ft Kelly extension**	ft	112.3
Max. pull force/max. crowd force (standard)	lbf	89,923/44,962
Max. pull force/max. crowd force (option)	lbf	134,885/0

Above mixing depths are valid for the use of standard tools and for an X dimension of 3.7 ft for MA 180, and 1.9 ft 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 16.4 ft.

Performance data MA 180

Rotary drive - torque	lbf-ft	0-121,698
Rotary drive - speed	rpm	0-80
Max. mixing diameter*	ft	3.3
Mixing depth**	ft	79.7
Max. pull force/max. crowd force (standard)	lbf	89,923/44,962
Max. pull force/max. crowd force (option)	lbf	134,885/0

Down-the-hole drilling



Performance data DHR 110

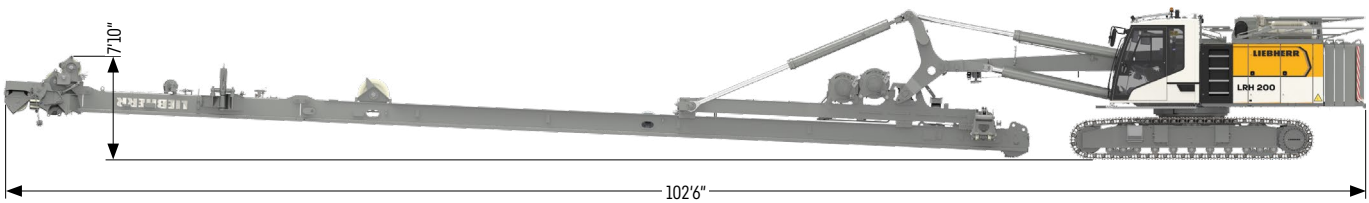
Rotary drive - torque	lbf-ft	0-78,182
Rotary drive - speed	rpm	0-41
Max. drilling depth*	ft	82.7
Max. pull force/max. crowd force (standard)	lbf	89,923/44,962
Max. pull force/max. crowd force (option)	lbf	134,885**/0

* For the version without leader upper part the drilling depth is reduced by 16.4 ft.
** In recovery mode, drilling operation max. 89,923 lbf

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

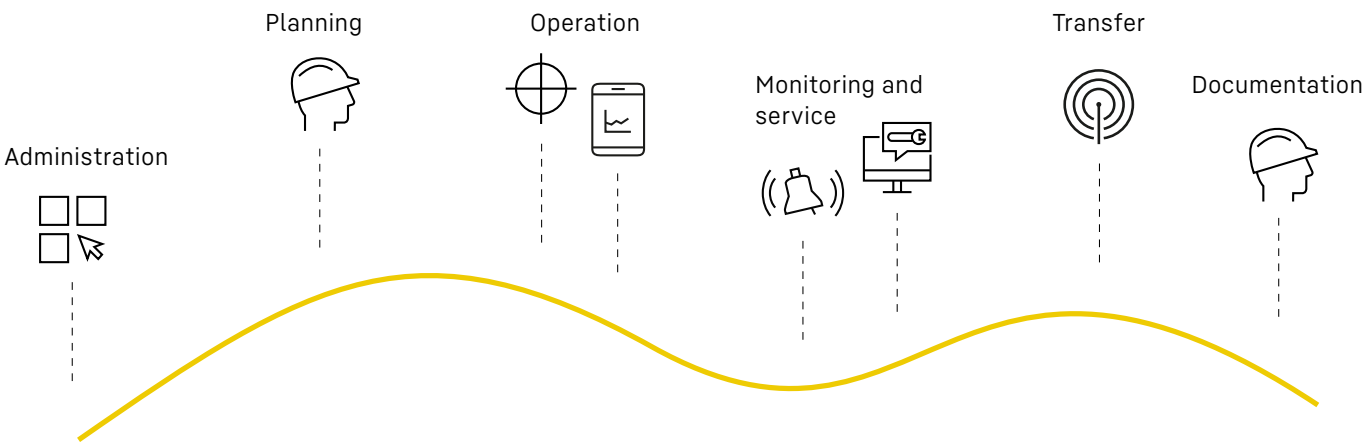
Remote support in real time

LiDAT

Data transfer and positioning system

MyNotifier

Monitoring tool for wind conditions and battery status



Download datasheet

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