EN

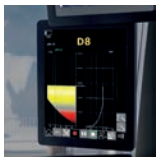
LRH 100.1 unplugged

LRH 3101.07
www.liebherr.com

LIEBHERR

Piling rigs

Concept and characteristics



PDE®
Process Data Recording

MyJobsite

LIPOS®
Positioning System

LiDAT®
Data Transmission

The robust universal machine
- Hydraulic hammer
- Pre-drill

Assistance systems
- Joystick control for all machine functions
- Leader inclination memory
- Positioning system
- Free-fall winches with slack rope monitoring and prevention

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 V AC) 20 kW (CEE socket 32 A / 400 V AC)
Option	80 kW (CEE socket 125 A / 400 V AC)
Mains voltage	400 V AC (3 phase + N + PE)
Capacity	standard 4 h* option 8 h

* in normal operation

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	0-2.0 km/h
Track force	440 kN
Grousers	width 900 mm

Swing gear

Drive system	with fixed axial piston hydraulic motors, planetary gearbox, pinion
Swing ring	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)	108 kN
Rope diameter	24 mm
Rope speed	0-66 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

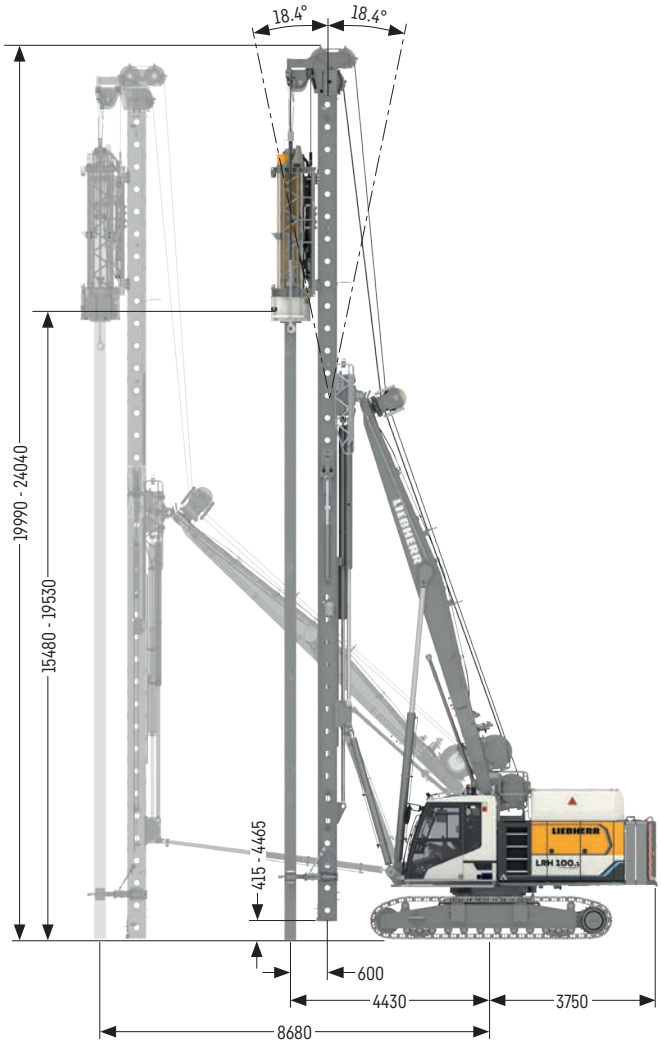
Line pull (effective)	80 kN
Rope diameter	20 mm
Rope speed	0-66 m/min

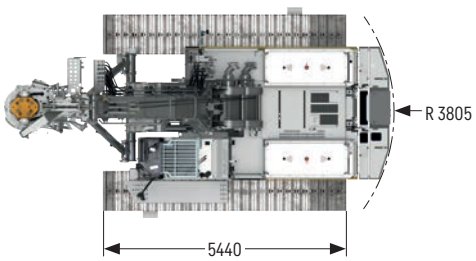
The winch is outstanding in its compact design and easy assembly.
Clutch and braking functions on the free-fall system are provided by a compact designed, low wear and maintenance-free multi-disc service brake.

Remarks:

- Illustrations showing the types of application (e.g. hydraulic hammer, pre-drill 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

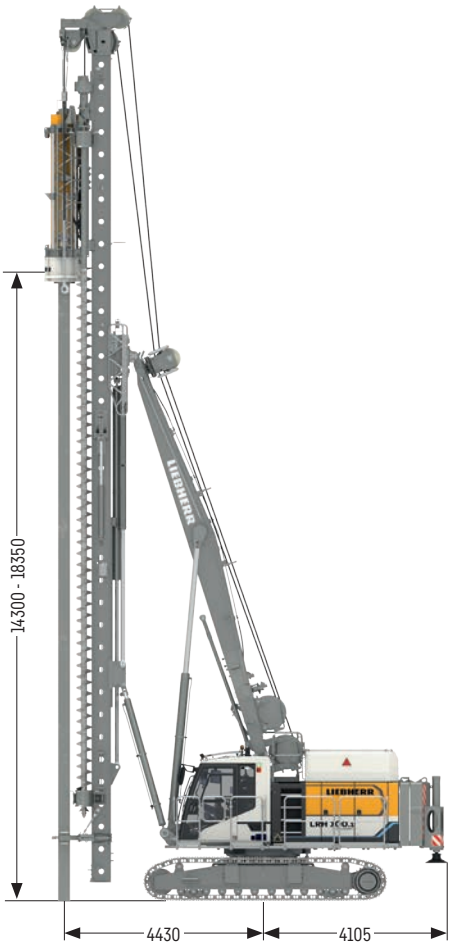


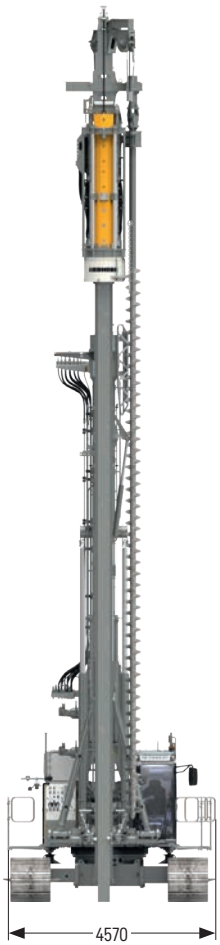


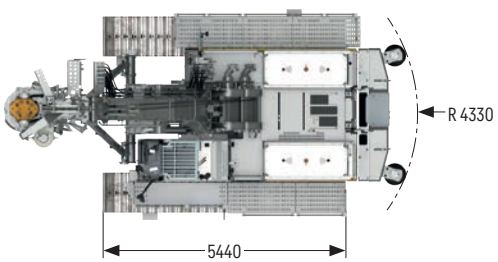
Operating weight

Total weight with 900 mm 3-web grousers	t	71.9

The operating weight includes the basic machine LRH 100.1 unplugged incl. hammer H 6-6 and 13 t counterweight.







Operating weight

Total weight with 900 mm 3-web grousers	t	72.9

The operating weight includes the basic machine LRH 100.1 unplugged incl. hammer H 6-6, rotary BA 12 and 13 t counterweight.

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.

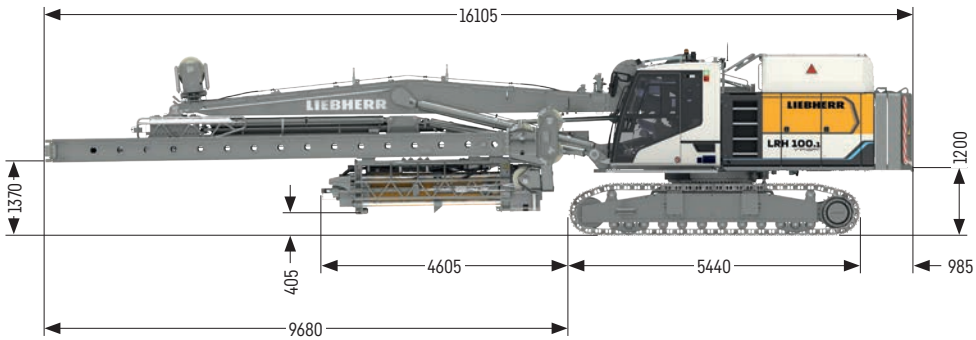
Operation
The LRH 100.1 unplugged can be operated both connected to the power supply (plugged in) or powered by battery (unplugged).

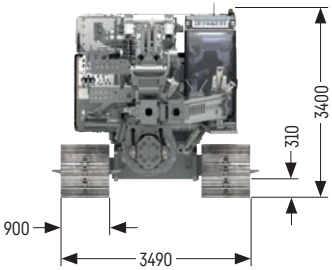
Sustainability
Liebherr is aware of its responsibility towards society and the environment and, with the unplugged series, strives for the best possible combination of environmental sustainability, customer benefit and efficiency.

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
The battery is designed for an operating time of 4 hours as a standard and 8 hours as an option. It can be simply recharged using a conventional jobsite electric supply (32 A, 63 A). Using a 125 A supply, the battery can be fast-charged in barely 7 hours.

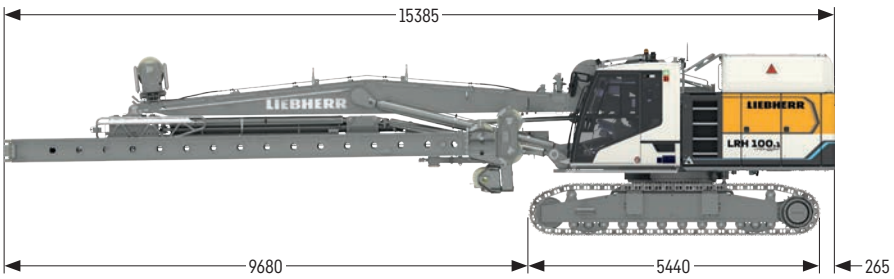
Transport dimensions and weights





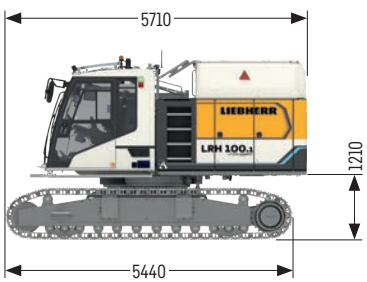
Transport with hydraulic hammer

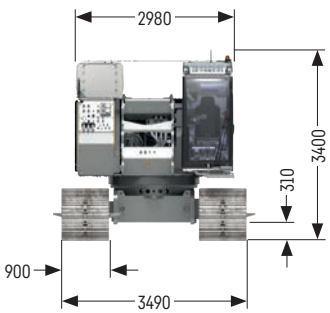
includes the basic machine (ready for operation) with leader, hydraulic hammer H 6-6 and 13 t counterweight	t	71.9
Weight hydraulic hammer H 6-6	t	9.6



Transport without hydraulic hammer

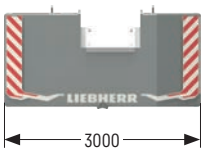
includes the basic machine (ready for operation) with leader, without hydraulic hammer and without counterweight	t	49.3

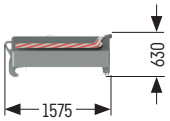




Basic machine

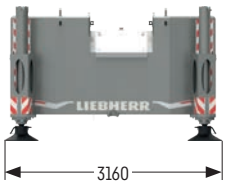
with crawler side frames, without counterweight	t	31.7

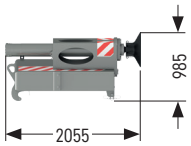




Counterweight

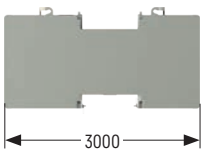
Weight	t	8.0

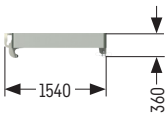




Counterweight with rear support unit

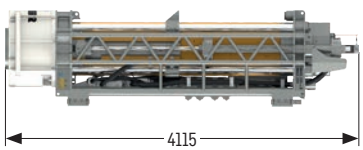
Weight	t	8.0

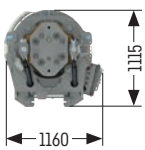




Intermediate slab

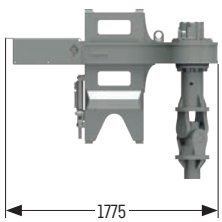
Weight	t	5.0

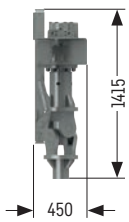




Hammer H 6-6

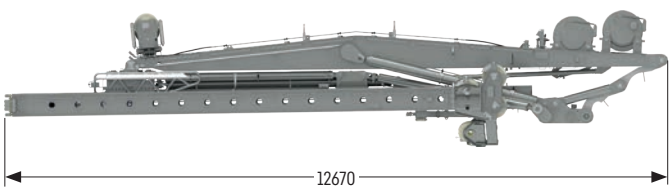
Weight incl. 6 t drop weight	t	9.6

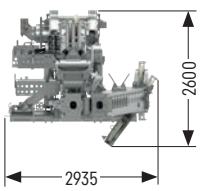




BA 12

Weight	t	0.62

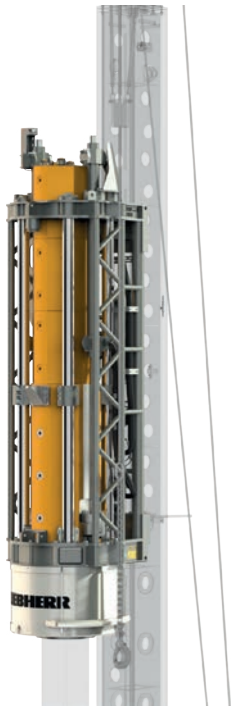




Leader

Weight	t	17.6

Hydraulic hammer H 6

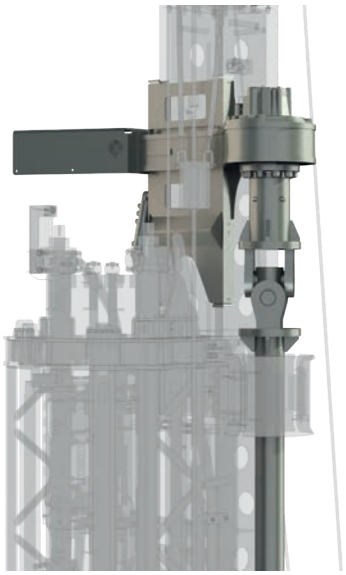


Performance data

Hammer type		H 6-3	H 6-4	H 6-5	H 6-6
Drop weight	kg	3000	4000	5000	6000
Max. rated energy	kNm	36	48	60	72
Blow rate	blows/min	50-150	50-150	50-150	40-150
Max. pile length	m	19.5	19.5	19.5	19.5
Hammer weight incl. pile helmet and dolly	kg	6600	7600	8600	9600

Various pile helmet sizes up to diameters of 630 mm or in square design available on request

Pre-drill BA 12



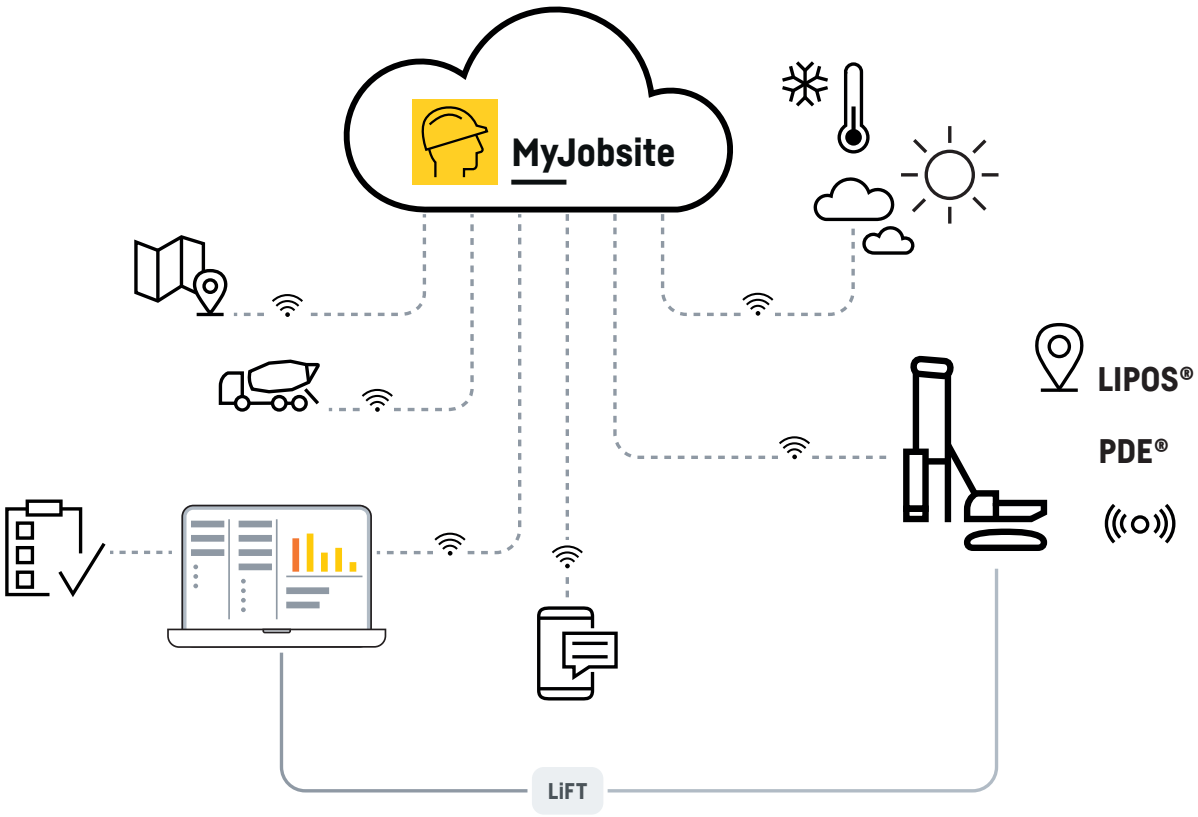
Performance data

Rotary drive - torque	kNm	0 - 12
Rotary drive - speed	rpm	0 - 65
Max. drilling diameter	mm	350
Max. pile length	m	18.3
Max. drilling depth	m	12

Other drilling diameters available on request

Digitalization in deep foundation work

As deep foundation expert, Liebherr has created a combination of the most diverse assistance systems and software solutions in order to record and evaluate complex processes and to be able to provide the corresponding evidence.



LIPOS - Liebherr Positioning System
Using pre-installed components, LIPOS enables the direct integration of machine control systems from Trimble and Leica. These systems are based on modern DGNSS technology (Differential Global Navigation Satellite System) and so achieve the best possible conditions for a precise and efficient positioning of Liebherr machines and their attachment tools.

PDE
All working processes can be electronically recorded and visualized using the process data recording system PDE. The system is operated and displayed on the PDE touchscreen in the operator's cab. PDE records operating data from the Litronic control system, as well as data from external sensors.

MyJobsite
Using the MyJobsite software solution all relevant process, machine, construction site and positioning data (LIPOS) can be recorded, displayed, analysed, managed and evaluated in one central location. The collected data can be accessed via a web browser when an internet connection is active.

With the recorded PDE data, such as the driving progress of the pile per blow, the total number of blows, or the impact frequency per minute, a driving protocol is automatically generated as proof of quality directly after completion of a work process. The parameters of the driving protocol can be defined and assigned in advance. Using the templates saves a lot of time when creating the protocols.

MyJobsite is THE tool for quality control and documentation. The deluge of data, which s accrued each day from a wide variety of sources on the jobsite, can be recorded precisely and processed in an informative manner. Unpopular bureaucratic work is kept to a minimum and the amount of time required for it is significantly reduced. At the same time, the quality of administration work is maximised.

Download datasheet

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