EN

LRH 100.1

LRH 3001.07
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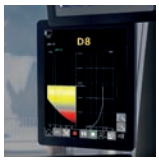
LIEBHERR

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

Diesel engine

Power rating according to ISO 9249	250 kW (335 hp) at 1700 rpm
Engine type	Liebherr D 936 A7-04
Fuel tank capacity	700 l 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 272 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

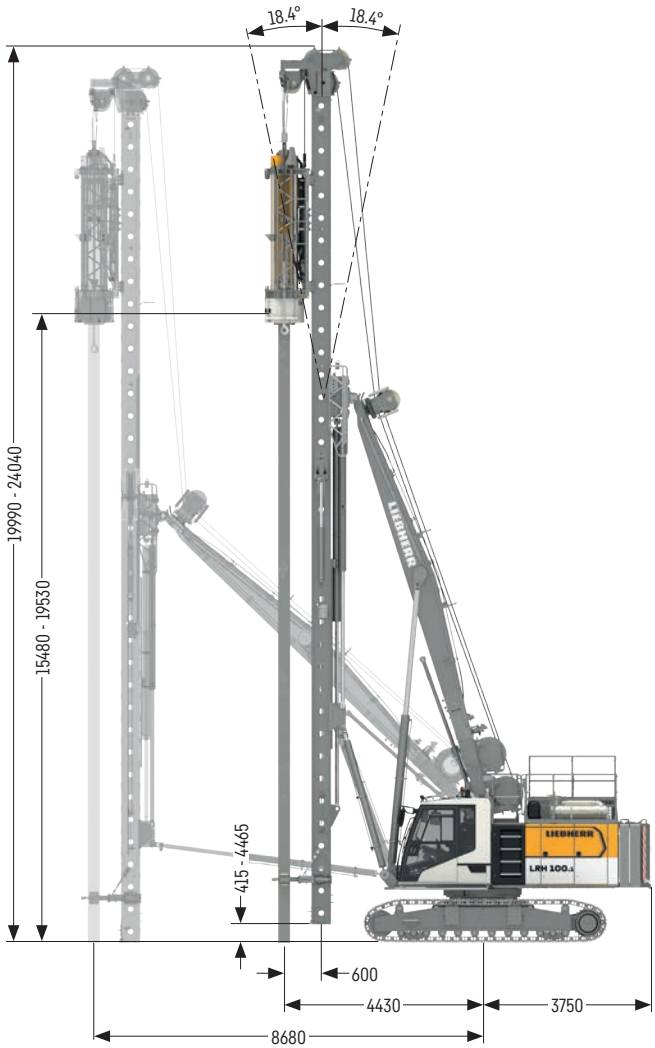
Pile winch with free fall

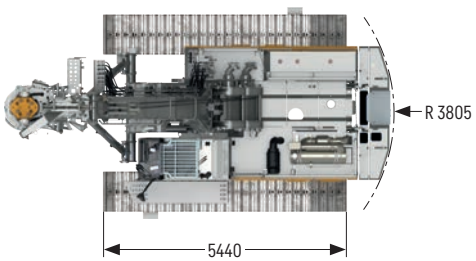
Line pull (effective)	80 kN
Rope diameter	20 mm
Rope speed	0-66 m/min

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

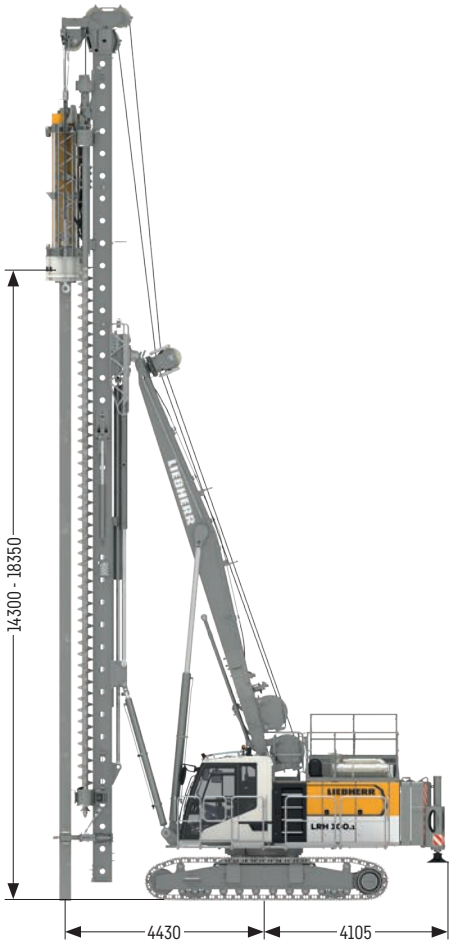


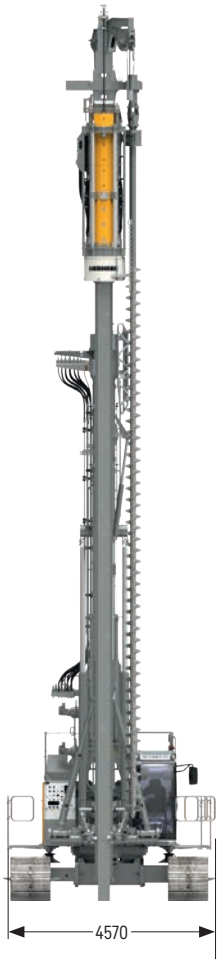


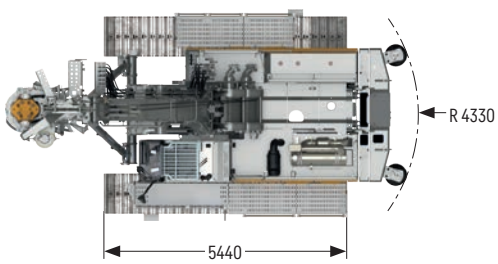
Operating weight

Total weight with 900 mm 3-web grousers	t	71.3

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





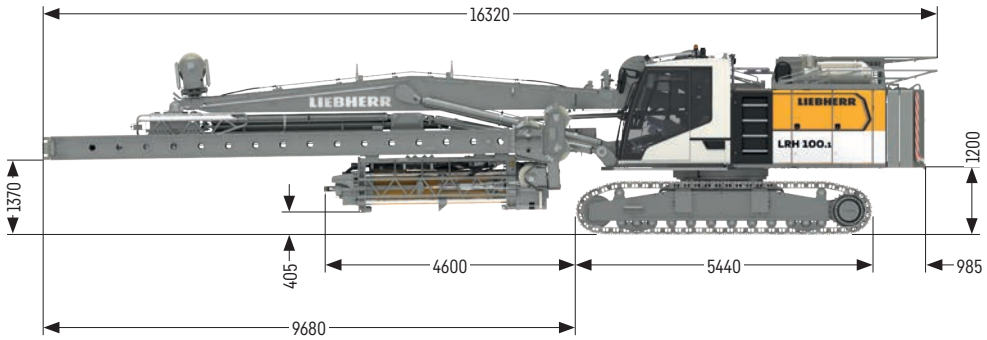


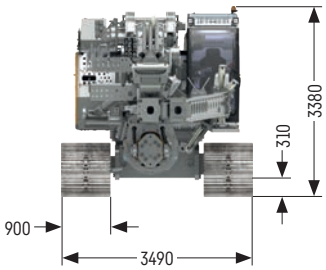
Operating weight

Total weight with 900 mm 3-web grousers	t	72.2

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

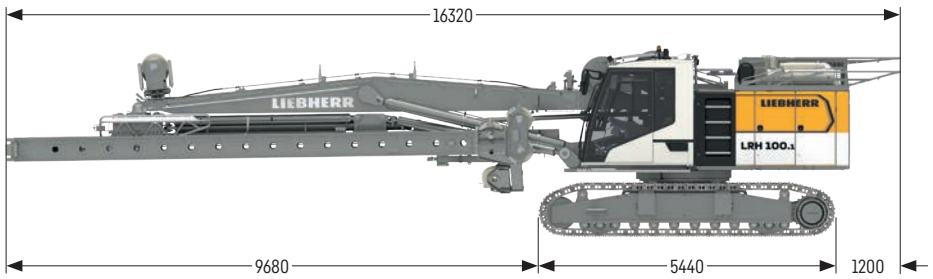
Transport dimensions and weights





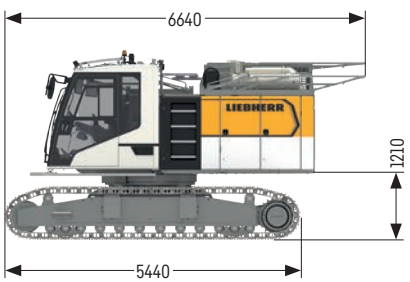
Transport with hydraulic hammer

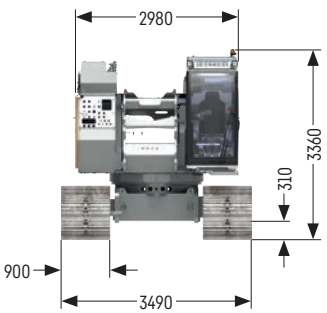
includes the basic machine (fully tanked and ready for operation) with leader, hydraulic hammer H 6-6 and 13 t counterweight	t	71.3
Weight hydraulic hammer H 6-6	t	9.6



Transport without hydraulic hammer

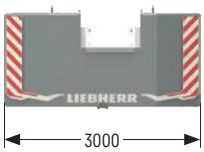
includes the basic machine (fully tanked and ready for operation) with leader, without hydraulic hammer and without counterweight	t	48.7

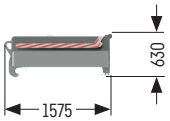




Basic machine

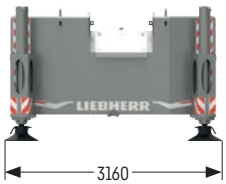
fully tanked and ready for operation, without counterweight	t	31.1

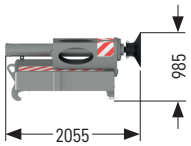




Counterweight

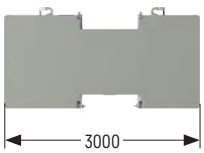
Weight	t	8.0

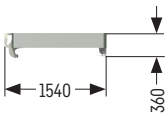




Counterweight with rear support unit

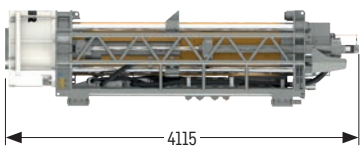
Weight	t	8.0

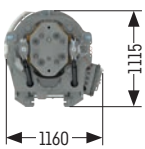




Intermediate slab

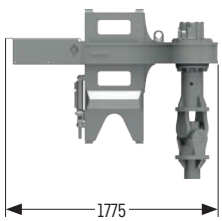
Weight	t	5.0

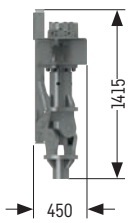




H 6-6

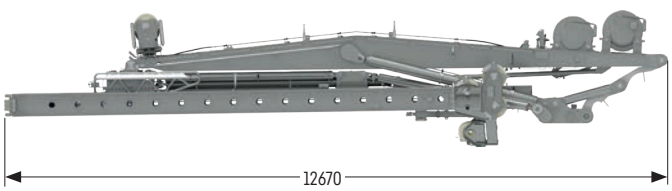
Weight incl. 6 t drop weight	t	9.6

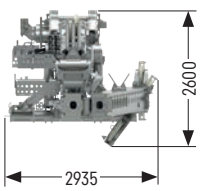




BA 12

Weight	t	0.62

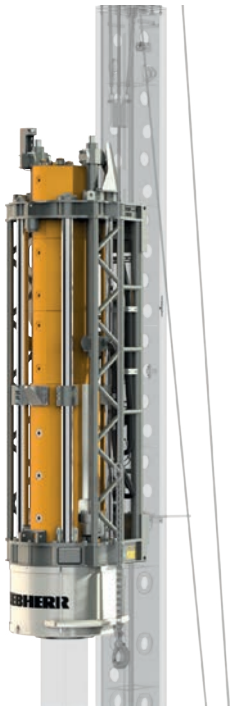




Leader

Weight	t	17.6

Hydraulic hammer H 6

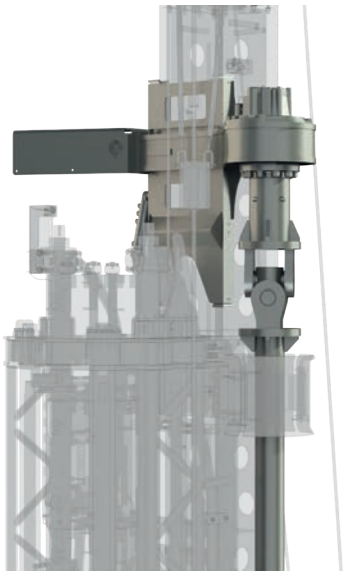


Performance data

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



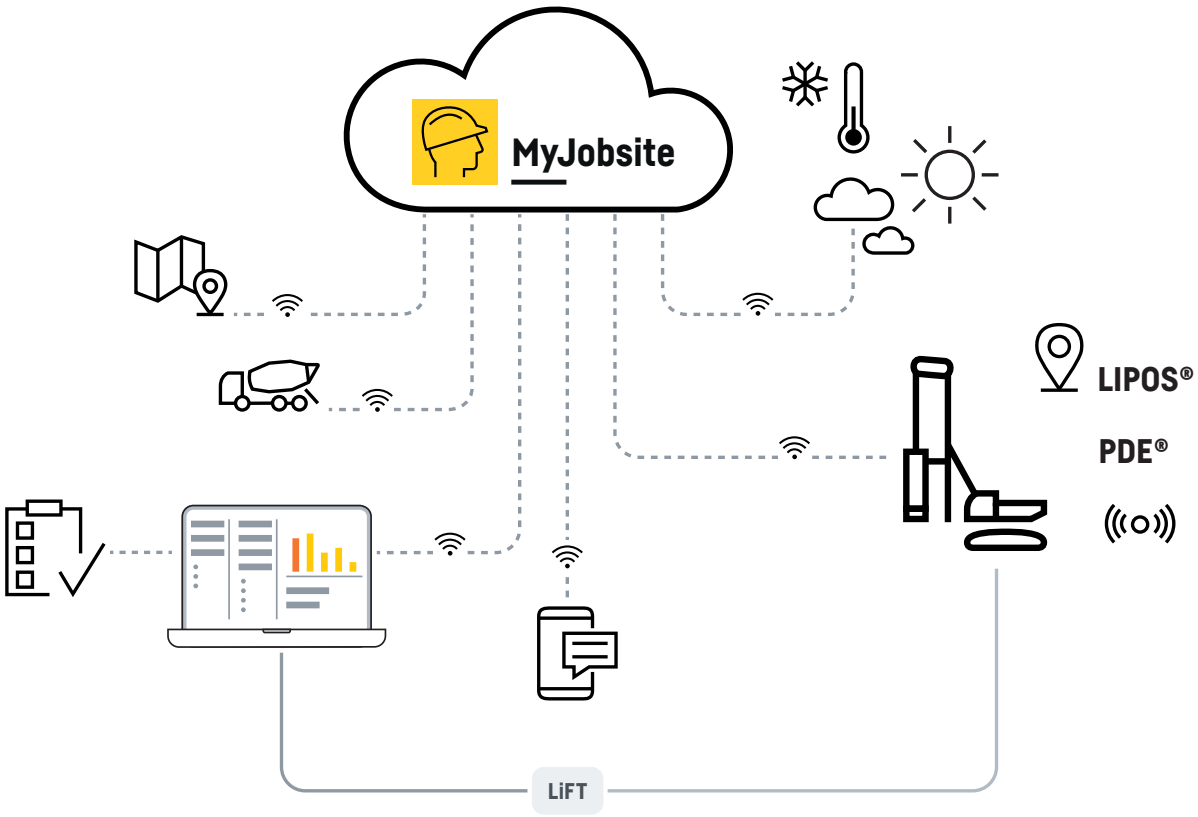
Performance data

Rotary drive - torque	kNm	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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