Crawler excavator

R 946

Litronic®

Motor:
220 kW / 299 HP

Stage IV

Operating Weight:
38,750 – 43,450 kg

Bucket Capacity:
1.00 – 2.50 m³

LIEBHERR

R 946 Litronic

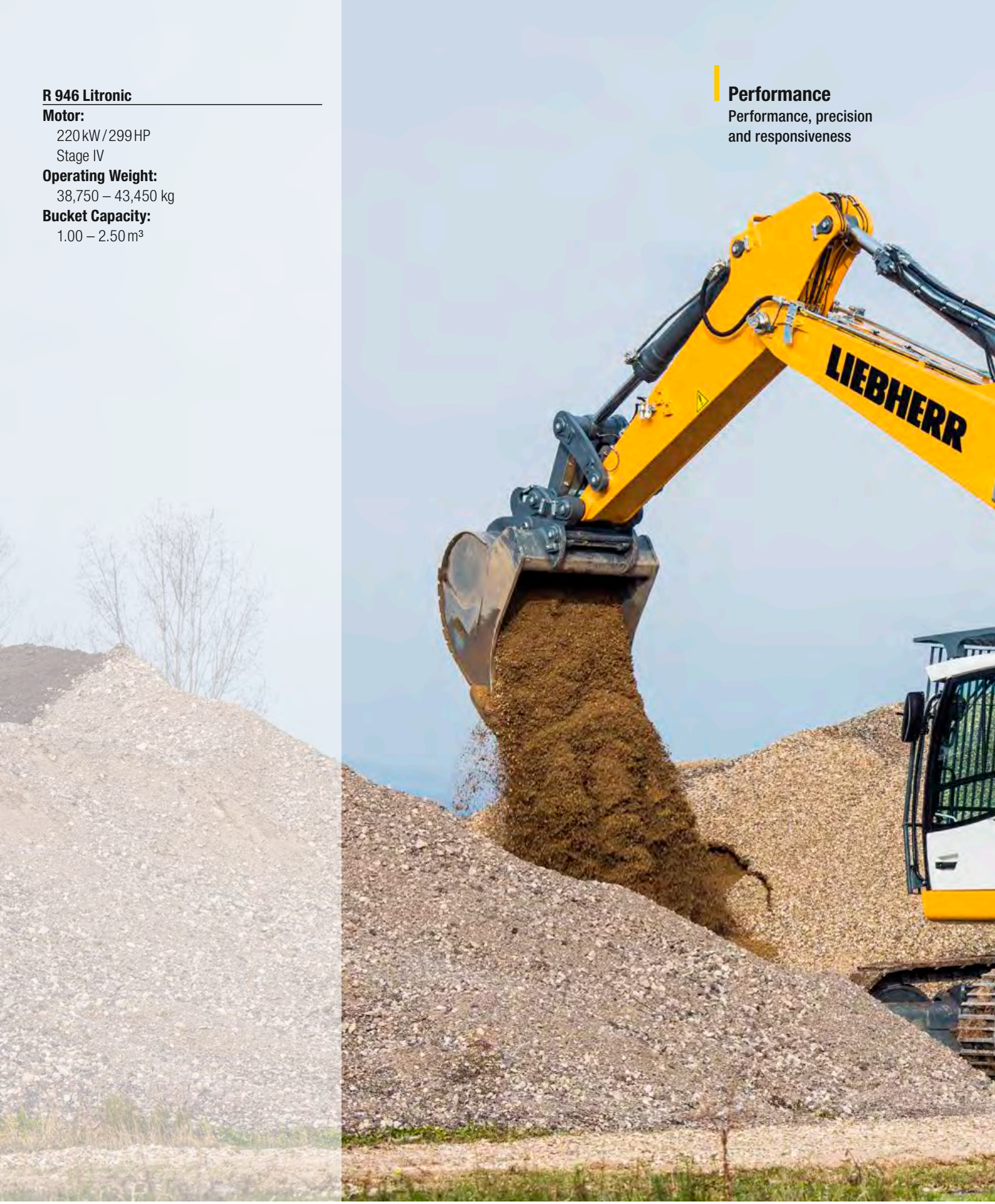
Motor:
220 kW / 299 HP
Stage IV

Operating Weight:
38,750 – 43,450 kg

Bucket Capacity:
1.00 – 2.50 m³

Performance

Performance, precision and responsiveness



Efficiency
High level of productivity for a lower overall operating cost

Reliability
Result of ongoing improvements

Comfort
Spacious, ergonomic and with high-visibility

Maintainability
Simplified daily checks, longer maintenance intervals

Performance

Performance, precision and responsiveness

Advanced techniques heighten performance
In its design offices, Liebherr combines the technological know-how of each area to create consistent and optimised integrated systems. Liebherr's electronics, positive control hydraulics, and even the engines are designed from the start to be interconnected and generate optimum operating power with fast and fluid movements.

Positive Control hydraulic system
Two working pumps for maximum excavation power and travel power, and a pump serving the rotation circuit provides power to the components involved. Thanks to the positive control system, the combined movements are optimised for each different work operation, whether this be levelling, extraction/loading or lifting, with or without travel.

Particularly fast work cycles
The work cycles of the R 946 are very fast thanks to the large sized transmission components. For example, the uppercarriage's swing drive can quickly reach its maximum speed with a high swing torque.

Operating pressure
Maximum digging and break-out forces can be reached thanks to the level of hydraulic pressure, without applying temporary overpressure. Maximum forces are therefore guaranteed continuously during the whole working phase to achieve a high level of production.

Liebherr Engine
- New Final Tier 4/Stage IV engine with SCR exhaust gas after-treatment system
- Designed specifically for construction applications
- Liebherr common rail injection system for optimised output
- Automatic fuel-saving idling system
- Two-stage turbocharging with intercooler, for increased power at low revs and reduced fuel consumption

Undercarriage
- Robust design for greater resistance and a better distribution of forces
- Easy and safe transport thanks to integrated securing hooks
- Three different types of undercarriages, one with variable gauge, adapted to different operating configurations and transport conditions

Wide range of operational possibilities
- Large number of equipment variants
- Versatile selection of undercarriage variants
- Attachments for all applications: short attachments for mass extractions, and long-reach, standard, luffing jib attachments

Efficiency

High level of productivity for a lower overall operating cost

Less fuel
The new 6-cylinder Liebherr engine, pursuant to the Final 4 Tier/Stage IV emission standards, comprises a diesel exhaust fluid injection device (SCR) for the after-treatment of exhaust gases, with no need for a particle filter. Associated with the latest technological advances in hydraulics, this engine consumes less fuel, both in terms of hours of operation and in terms of tons of material moved.

Increased productivity
Clearly enhanced performance and lower consumption, all in a comfortable and ergonomic work environment, lead to remarkable gains in productivity in all operating configurations.

Simplified and lower-cost maintenance
Non-slip platforms and ergonomic handles allow fast and easy access to all maintenance points not accessible from the ground. The absence of a particle filter reduces maintenance time, the cost of spare parts and filter regeneration operations.

Electronic power control
This control system allows the engine power to be effectively and optimally converted, from an energetic point of view, into hydraulic power. This is as a result of greater forces, a faster working speed and a lower fuel consumption.

Liebherr Lubricants
- Liebherr lubricants are specially developed for application in Liebherr earth moving and material handling machines and guarantee a long working life whilst simultaneously delivering the highest possible performance
- Being designed especially for your Liebherr machines, Liebherr lubricants contribute significantly to lowering your operating and maintenance costs.

Liebherr tools
- Wide range of tools suitable for every type of application
- Tools designed for maximum productivity and durability
- Shape of buckets designed to assist the filling and stability of bulky materials during the transport stages
- Hydraulic quick coupler system

Modular quick-change system made by Liebherr
- Likufix – connects all hydraulically mounted tools without having to leave the operator's cab, maximum productivity due to tool change being performed in a matter of seconds
- The suitable digging tool for every application. Your machine is a multifunctional tool carrier and will pay for itself very quickly indeed
- Mechanic and hydraulic Liebherr quick-change adapter

Reliability

Result of ongoing improvements

Quality in the minutest details
Robust and large-sized components, optimal fitting of electrical and hydraulic lines, or an exemplary level of finishing are just some of the many criteria that ensure a maximum quality of manufacture and operability.

A top-of-the-range anti-corrosion protection
A pre-assembly painting process guarantees that all painted parts are fully coated. The same quality can thus be guaranteed for all special colours specifically requested by the most exacting customers. This process is also compatible with additional protection treatments for machines operating in an aggressive saline environment.

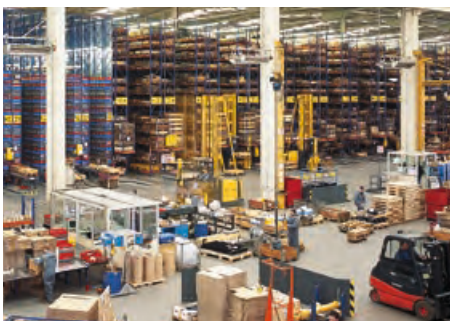
Perfect match
The individual components of the power train, such as the diesel engine, gears, swing drive, working pumps and hydraulic cylinders are designed and manufactured by Liebherr. This means that they are all compatible with each other in a global system, guaranteeing greater reliability and a longer service life.

Automatic control of functionality
The operator can entirely focus on his job, because the integrated on-board electronic continuously performs a comparison with pre-determined target data. Eventual deviations from the target parameters are shown on the display.

SCR system with diesel exhaust fluid (AdBlue®)
- Diesel exhaust fluid level indicator on the display
- Liebherr design > complies with Final Tier 4/Stage IV standard
- No need for particle filters (DPF)
- Simple system for enhanced reliability and less maintenance

Key technologies – Made by Liebherr
- Perfect matching of the components to construction machine operations
- Engine, hydraulic pumps, transfer gears, travel drives, slewing drives, slewing rings, and electronic components – all from the same source
- Main steel components, such as undercarriage, equipment modules, and slewing superstructure, all designed by Liebherr

Spare parts service
- Any spare parts required are available within 24 hours – worldwide. And that means high operational readiness of the machines, wherever, whenever
- Over 80,000 spare parts in stock at all times



Comfort

Spacious, ergonomic and with high-visibility

A first class work space

In this cab, the operator has a pneumatic seat, lots of space and a very comfortable work environment. Depending on the operator's needs, the Liebherr Premium seat can also be chosen as an option. This seat offers maximum seating comfort thanks to its pneumatic lumbar support, its electronic weight-actuated height adjustor and its air-conditioning with activated charcoal and built-in fan. It is especially designed to meet the most exacting requirements of operators in terms of comfort, in all working situations.

Low noise level and vibrations

To diminish fatigue at work and increase productivity, the acoustic power inside the operator's cab is lower than 72 dB. The cab is mounted on viscoelastic rivets to fully absorb the excavator's vibrations. The rubber flanges also support the pipes and actively participate in reducing external noise.

Uncompromised visibility

The very large glazed surface area and minimal area of uprights guarantee optimal visibility from the operator's platform, as well as a wide safety exit from the rear window for the operator's safety and peace of mind.

Ergonomic proportional manipulators

The proportional manipulators are very finely tuned controls for the sensitive, accurate and fluid operation of hydraulic tools. This type of control is ideal for an R 946 used in a variety of applications.

Touch-screen display

- 7-inch touch-screen with colour display
- Wide range of adjustment, check, and monitoring possibilities
- Tough, reliable design (sealing tightness class IP 65)
- Video capacity with high resolution, reproduces the image from the rear area monitor camera in best possible quality

Heightened visibility

- Rear camera integrated in the counterweight as standard and camera for side area monitoring, for rear visibility and heightened operating safety
- Optimized design of the whole uppercarriage providing the operator with an improved field of vision
- Retractable laminated glass roof panel
- Secure emergency exit through the rear window

New options

- Engine compartment lighting
- LED headlights with adjustable intensity
- 360° camera
- Follow me home (headlight cutoff delay)
- Windscreen wiper on bottom part

Maintainability

Simplified daily checks, longer maintenance intervals

Simplified daily checks

The daily checks were taken into account from the start of the design, to make them simpler, more accessible and shorter. The engine oil or diesel exhaust fluid levels, for example, can be checked via the display in the operator's cab. The automatic centralised lubrication system can save precious intervention time, while guaranteeing that the excavator is in optimum operating condition.

Longer service intervals

The frequency of the service intervals is optimised to guarantee that each part is operating optimally and that the maintenance operations are only performed as necessary. Whether it is the interval for changing the hydraulic oil, which can be up to 8,000 hours, or the interval for changing the engine oil, every 1,000 hours, everything has been taken into account to reduce the frequency of interventions and thus limit the machine's downtime and reduce costs.

A maintenance-free exhaust gas treatment

Thanks to its unique Liebherr design, the exhaust gas treatment is carried out in compliance with the Final Tier 4 / Stage IV standards, without fitting a particle filter. This results in an output with no loss of productivity linked to the regeneration of these filters and, of course, there is no maintenance time or cost for spare parts associated with this technology.

Expert advice and service provisions

Liebherr offers an expert advice service. Qualified personnel will help you make the appropriate decisions to meet your needs: sales arguments based on the terrain, service agreements, advantageous repair alternatives, original parts management, and remote data transfer for fleet management.

LiDAT data transfer system

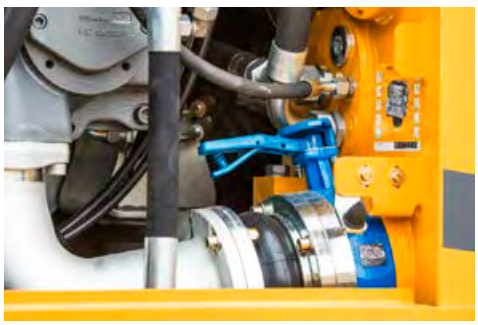
- Complete fleet management, all from one source
- Optimized economical performance of the machine park thanks to detailed view of the distribution of operating states and times
- Reports on capacity commitment and the use of the machine park can be called up daily via the Web portal
- Precise location of the machine
- Regional delimitation and fixed downtimes increase safety and reliability

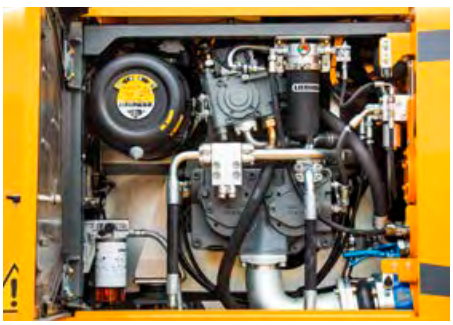
Hydraulic reservoir stop valve

- Easy and quick interruption of the oil circuit between hydraulic reservoir and hydraulic system
- No drainage of fluid necessary for service or repair work on the hydraulic system

Central lubrication system

- The fully-automatic central lubrication system, fitted as standard, allows for rapid maintenance: It saves time-consuming individual lubricating and downtime
- All the lubrication points on the superstructure of the vehicle and the attachment hydraulics are supplied, with the exception of the connecting plate
- Engine oil level visible on display





Long live progress with the R 946

Equipment
- Cast steel elements
- Greater resistance to stresses
- Longer service life

Tools
- Z-type Liebherr teeth for fast replacement
- Wide range of work tools

Undercarriage
- Special heat treatment for low wear and tear of drive sprockets
- A wide range of undercarriages suited to each application
- Robust construction

Operator's cab

- Comfortable and ergonomic
- 7" high resolution color touchscreen for heightened readability
- Rear window with improved visibility

Automatic centralized lubrication - standard

- Reduced maintenance time
- Longer service life thanks to better lubrication

Visibility

- Rear camera integrated in the counterweight
- Optimized design of the whole uppercarriage providing the operator with a better field of vision
- Large glazed surface area with secure emergency exit through the rear window

Technical Data

Engine

Rating per ISO 9249	220 kW (299 HP) at 1,800 RPM
Model	Liebherr D936 A7
Type	6 cylinder in-line
Bore/Stroke	122/150 mm
Displacement	10.52 l
Engine operation	4-stroke diesel Common-Rail, monoturbo
Exhaust gas treatment	SCR with urea injection emission standard stage IV / Tier 4f
Cooling system	water-cooled and integrated motor oil cooler, after-cooled and fuel cooled
Air cleaner	dry-type air cleaner with pre-cleaner, primary and safety elements
Fuel tank	710 l
Urea tank	96 l
Electrical system	
Voltage	24 V
Batteries	2 x 180 Ah/12 V
Starter	24 V/7.8 kW
Alternator	three phase current 28 V/100 A
Engine idling	sensor controlled
Motor management	connection to the integrated excavator system controlling via CAN-BUS to the economical utilisation of the service that is available

Hydraulic Controls

The controlling is conducted via the integrated excavator system technology, input and output modules, communicated via the CAN-BUS with the electronic central unit.

Power distribution	via control valve with integrated safety valves
Servo circuit	
Attachment and swing	proportional via joystick levers
Travel	– with proportionally functioning foot pedals and adjusted with a plugable lever – speed pre-selection
Additional functions	proportional regulation via foot pedals or rocker

Hydraulic System

Hydraulic system	Positive Control. Dual circuit hydraulic system for independent and need-based quantity allotment via the hydraulic pumps; sensor-guided. Features high system dynamics and sensibility provided by integrated system controlling. Independent circuit for rotation
Hydraulic pump	
for attachment and travel drive	Liebherr, variable displacement, swashplate double pump
Max. flow	2 x 305 l/min.
Max. pressure	380 bar
for swing drive	reversible, variable flow, swashplate pump, closed-loop circuit
Max. flow	205 l/min.
Max. pressure	400 bar
Pump management	electronic pump management via the integrated system controlling (CAN-BUS) synchronous to the control block
Hydraulic tank	340 l
Hydraulic system	max. 590 l
Hydraulic oil filter	1 full flow filter (10 µm) in return line with integrated fine filter area (5 µm)
Cooling system	compact cooler, consisting of a water cooler, sandwiched with hydraulic oil cooler, gearbox oil cooler, fuel cooler and after-cooler cores and hydrostatically driven fan
MODE selection	adjustment of engine and hydraulic performance via a mode pre-selector to match application, e.g. for especially economical and environmentally friendly operation or for maximum digging performance and heavy-duty jobs
RPM adjustment	stepless adjustment of engine output via RPM at each selected mode
Tool Control	10 preadjustable pump flows and pressures for add-on tools

Swing Drive

Drive	Liebherr swashplate motor
Transmission	Liebherr compact planetary reduction gear
Swing ring	Liebherr, sealed single race ball bearing swing ring, internal teeth
Swing speed	0 – 8.7 RPM stepless
Swing torque	115 kNm
Holding brake	wet multi-disc (spring applied, pressure released)

Operator's Cab

Cab	ROPS safety cab structure with individual windscreens or featuring a slide-in subpart under the ceiling, work headlights integrated in the ceiling, a door with a side window (can be opened on both sides), large stowing and depositing possibilities, shock-absorbing suspension, sounddamping insulating, tinted laminated safety glass, separate window shades for the sunroof window and windscreen, 12 V plug, storage bins, lunchbox, cup holder
Operator's seat	Comfort seat, airsprung with automatic weight adjustment, vertical and horizontal seat damping including consoles and joysticks. Seat and armrests adjustable separately and in combination, seat heating as standard
Control system	arm consoles, swinging with the seat
Operation and displays	large high-resolution colour display with selfexplanatory operation via touchscreen, video, versatile adjusting, control and monitoring facilities, e.g. climate control, implement and tool parameters
Air-conditioning	standard automatic air-conditioning, ambient air function, fast de-icing and demisting at the press of a button, air vents can be operated via a menu; ambient air and fresh air filters can be easily replaced and are accessible from the outside; heating-cooling unit, designed for extreme outside temperatures, sensors for solar radiation, inside and outside temperatures
Noise emission	
ISO 6396	L_{pA} (inside cab) = 72 dB(A)
2000/14/EC	L_{WA} (surround noise) = 105 dB(A)

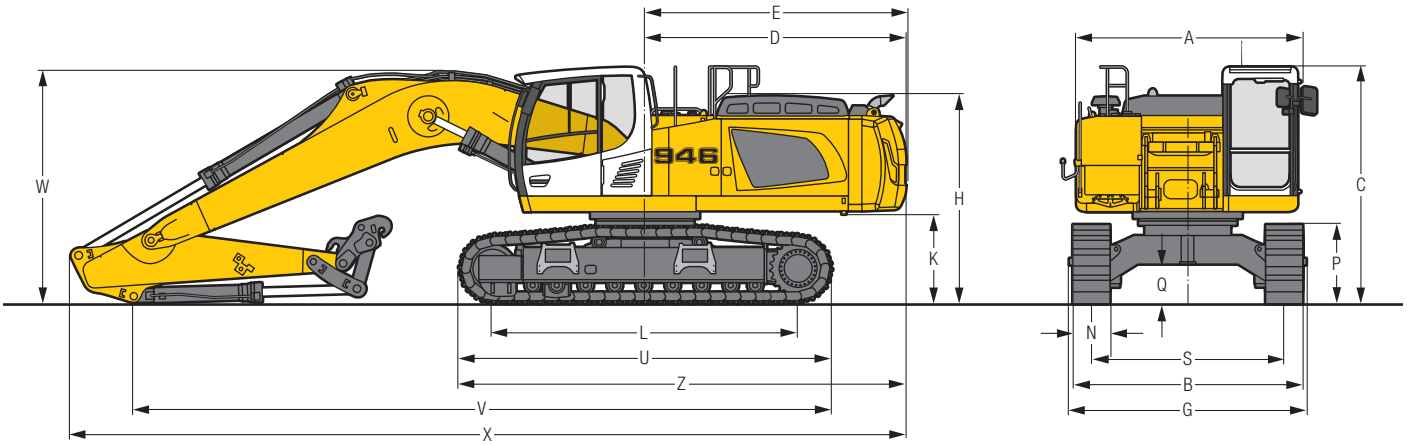
Undercarriage

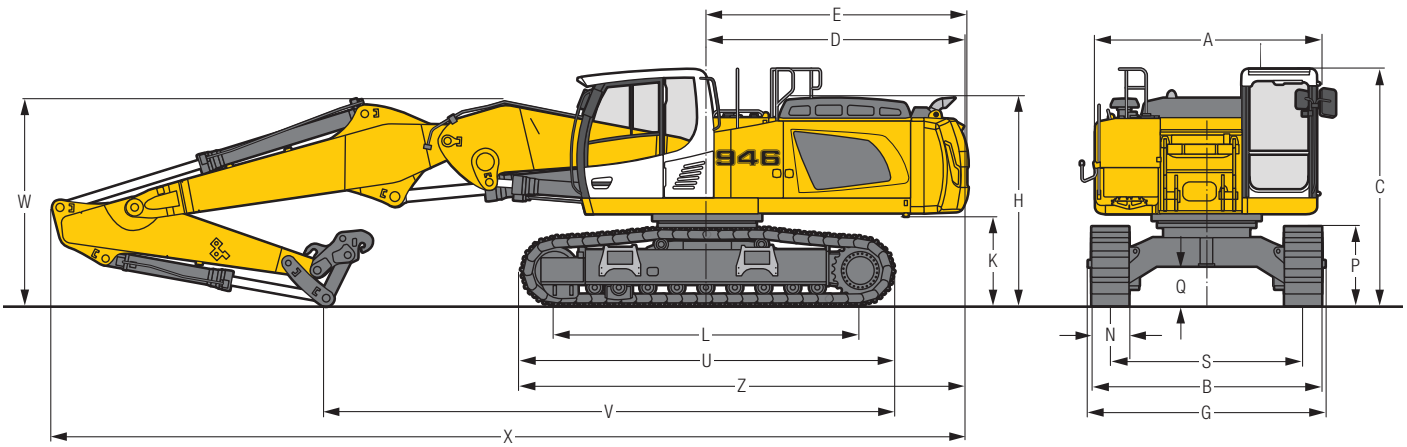
Versions	
NLC	gauge 2,390 mm
LC	gauge 2,590 mm
Drive	Liebherr swashplate motors with integrated brake valves on both sides
Transmission	Liebherr planetary reduction gears
Travel speed	low range – 3.2 km/h high range – 5.9 km/h
Net drawbar pull on crawler	301 kN
Track components	D 7, maintenance-free
Track rollers/Carrier rollers	9/2
Tracks	sealed and greased
Track pads	triple grouser
Holding brake	wet multi-discs (spring applied, pressure released)
Brake valves	integrated into travel motor
Lashing eyes	integrated

Attachment

Type	combination of resistant steel plates and cast steels components
Hydraulic cylinders	Liebherr cylinders with special seal-system, shock protection
Bearings	sealed, low maintenance
Lubrication	automatic central lubrication system (except link and tilt geometry)
Hydraulic connections	pipes and hoses equipped with SAE splitflange connections
Bucket	standard equipped with Liebherr tooth system

Dimensions





	NLC				mm
A*					2,995
C					3,185
D					3,520
E					3,550
H					2,830
K					1,220
L					4,108
P					1,070
Q					535
S					2,390
U					5,030
N		500	600	750	900
B		2,952	2,990	3,140	3,290
G		2,990	2,990	3,255	3,255
Z					6,040

* without door stop device and spacer

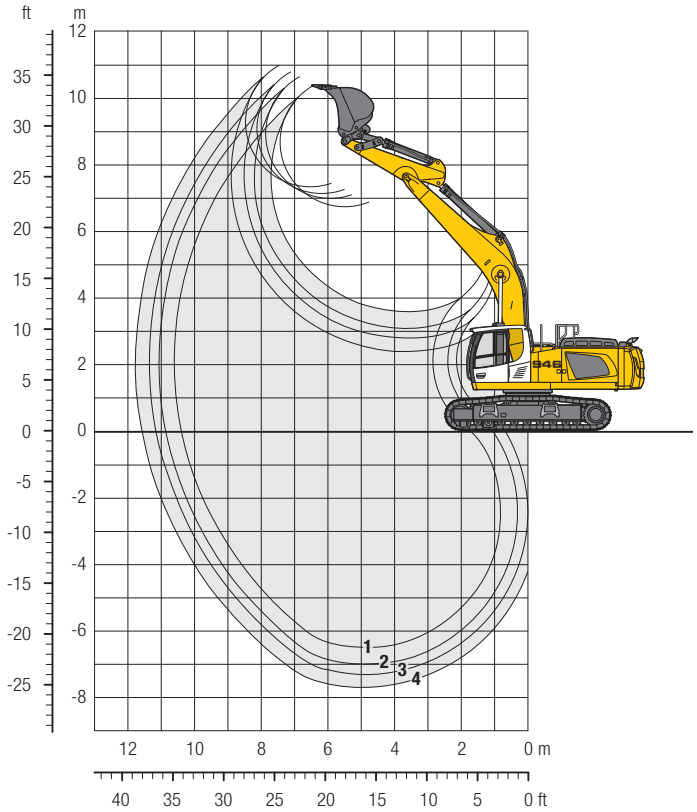
	LC				mm
A*					2,995
C					3,185
D					3,520
E					3,550
H					2,830
K					1,220
L					4,108
P					1,070
Q					535
S					2,590
U					5,030
N		500	600	750	900
B		3,155	3,190	3,340	3,490
G		3,190	3,190	3,445	3,455
Z					6,040

* without door stop device and spacer

	Stick length mm	Mono boom 6.45 m mm	Two-piece boom 4.30 m mm	Straight mono boom 6.80 m mm
V	2.10	9,950	–	–
	2.60	9,400	7,650	7,050
	2.90	9,150	7,400	6,800
	3.30	8,750	7,100	6,500
	4.10	–	6,200	5,650
W	2.10	3,250	–	–
	2.60	3,250	2,950	3,000
	2.90	3,250	3,000	3,050
	3.30	3,250	3,150	3,200
	4.10	–	3,200	3,250
X	2.10	11,400	–	–
	2.60	11,350	12,400	11,800
	2.90	11,350	12,400	11,800
	3.30	11,350	12,450	11,850
	4.10	–	12,450	11,850

Backhoe Bucket

with Mono Boom 6.45 m and Counterweight 7.7 t



Optional: heavy counterweight
(heavy counterweight increases the operating weight by 1,300 kg and ground pressure by 0.03 kg/cm²)

Digging Envelope

with quick coupler		1	2	3	4
Stick length	m	2.10	2.60	2.90	3.30
Max. digging depth	m	6.50	7.00	7.30	7.70
Max. reach at ground level	m	10.40	10.85	11.15	11.55
Max. dumping height	m	6.70	6.95	7.10	7.30
Max. teeth height	m	10.30	10.60	10.75	10.95

Digging Forces

with quick coupler		1	2	3	4
Digging force ISO	kN	216	191	179	164
	t	22.1	19.5	18.2	16.7
Breakout force ISO	kN	208	208	208	208
	t	21.2	21.2	21.2	21.2
without quick coupler					
Digging force ISO	kN	229	201	187	172
	t	23.3	20.5	19.1	17.5
Breakout force ISO	kN	238	238	238	238
	t	24.2	24.2	24.2	24.2

Max. breakout force ISO with ripper bucket and without quick coupler: 300 kN (30.6 t)

Operating Weight and Ground Pressure

The operating weight includes the basic machine with counterweight 7.7 t, mono boom 6.45 m, stick 2.60 m, quick coupler SW66 and bucket 1.75 m³ (1,420 kg).

Undercarriage		NLC			LC		
Pad width	mm	500	600	750	500	600	750
Weight	kg	38,750	39,200	39,850	38,850	39,300	39,950
Ground pressure	kg/cm²	0.88	0.74	0.60	0.88	0.74	0.60

Buckets Machine stability per ISO 10567* (75 % of tipping capacity)

	Cutting width	Capacity ISO 7451[1]	Weight[3]	Weight[4]	NLC-Undercarriage								LC-Undercarriage							
					Stick length (m)								Stick length (m)							
					2.10	2.60	2.90	3.30	2.10	2.60	2.90	3.30	2.10	2.60	2.90	3.30	2.10	2.60	2.90	3.30
	mm	m³	kg	kg	without quick coupler				with quick coupler				without quick coupler				with quick coupler			
STD[1]	1,050	1.00	1,220	1,150	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	1,200	1.25	1,280	1,240	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	1,350	1.50	1,370	1,330	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	1,500	1.75	1,460	1,420	●	●	●	■	●	●	●	■	●	●	●	●	●	●	●	●
	1,650	2.00	1,580	1,540	●	●	■	▲	●	■	■	▲	●	●	●	■	●	●	■	■
	1,650	2.25	1,690	1,650	■	■	▲	□	■	▲	▲	□	●	■	■	▲	●	■	▲	▲
	1,850	2.50	1,810	1,770	▲	▲	□	□	▲	□	□	□	■	▲	▲	□	■	▲	▲	□
HD[2]	1,050	1.00	–	1,230	–	–	–	–	●	●	●	●	–	–	–	–	●	●	●	●
	1,200	1.25	1,380	1,340	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	1,350	1.50	1,470	1,430	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	1,500	1.75	1,560	1,520	●	●	●	■	●	●	■	■	●	●	●	●	●	●	●	●
	1,650	2.00	1,700	1,660	●	■	■	▲	●	■	▲	▲	●	●	●	■	●	●	■	■
	1,650	2.25	1,820	1,780	■	▲	▲	□	■	▲	□	□	●	■	■	▲	●	■	▲	▲
	1,850	2.50	1,990	1,950	▲	□	□	□	▲	□	□	–	■	▲	▲	□	■	▲	□	□

* Indicated loads are based on ISO 10567 max. stick length, lifted 360° on firm

[1] Standard bucket with teeth Z 50

[2] HD bucket with teeth Z 50

Other backhoes available on request

[3] Bucket for direct fitting

[4] Bucket for fitting to quick coupler

Max. material weight ● = ≤ 2.0 t/m³, ■ = ≤ 1.8 t/m³, ▲ = ≤ 1.5 t/m³, □ = ≤ 1.2 t/m³, – = not authorized

Lift Capacities

with Mono Boom 6.45 m and Counterweight 7.7 t

Stick 2.10 m

m	Under-carriage	3.0 m		4.5 m		6.0 m		7.5 m		9.0 m		10.5 m				m
12.0	NLC															
	LC															
10.5	NLC															
	LC															
9.0	NLC															
	LC															
7.5	NLC					10.4	11.1*							8.6	9.5*	6.7
	LC					11.1*	11.1*							9.3	9.5*	
6.0	NLC					10.1	11.6*	7.1	10.6*					6.8	9.0*	7.7
	LC					10.9	11.6*	7.7	10.6*					7.3	9.0*	
4.5	NLC			14.2	17.4*	9.5	13.0*	6.9	11.0*					5.8	8.9*	8.3
	LC			15.5	17.4*	10.3	13.0*	7.4	11.0*					6.3	8.9*	
3.0	NLC					8.9	14.4*	6.6	11.2					5.4	9.1	8.6
	LC					9.7	14.4*	7.1	11.3					5.8	9.1	
1.5	NLC					8.4	15.2	6.3	10.9					5.2	8.9	8.6
	LC					9.2	15.2	6.9	11.0					5.7	9.0	
0	NLC			12.3	14.9*	8.2	15.0	6.2	10.8					5.4	9.2	8.4
	LC			13.7	14.9*	9.0	15.0	6.7	10.8					5.9	9.3	
−1.5	NLC			12.4	18.6*	8.2	14.7*	6.2	10.8					5.9	10.2	7.9
	LC			13.8	18.6*	9.0	14.7*	6.8	10.8					6.4	10.2	
−3.0	NLC	18.4*	18.4*	12.7	16.0*	8.4	12.7*							7.1	10.3*	6.9
	LC	18.4*	18.4*	14.1	16.0*	9.3	12.7*							7.7	10.3*	
−4.5	NLC			11.1*	11.1*									8.8*	8.8*	5.4
	LC			11.1*	11.1*									8.8*	8.8*	
−6.0	NLC															
	LC															

Stick 2.60 m

m	Under-carriage	3.0 m		4.5 m		6.0 m		7.5 m		9.0 m		10.5 m				m
12.0	NLC															
	LC															
10.5	NLC															
	LC															
9.0	NLC															
	LC															
7.5	NLC													7.5*	7.5*	7.3
	LC													7.5*	7.5*	
6.0	NLC					10.3	10.9*	7.2	10.0*					6.1	7.1*	8.2
	LC					10.9*	10.9*	7.8	10.0*					6.6	7.1*	
4.5	NLC			14.7	16.0*	9.7	12.3*	6.9	10.5*					5.4	7.1*	8.8
	LC			16.0*	16.0*	10.5	12.3*	7.5	10.5*					5.8	7.1*	
3.0	NLC			13.1	19.7*	9.0	13.9*	6.6	11.3*	5.1	8.6			5.0	7.2*	9.1
	LC			14.4	19.7*	9.8	13.9*	7.2	11.3*	5.5	8.6			5.4	7.2*	
1.5	NLC			12.3	12.8*	8.5	15.1*	6.3	11.0	4.9	8.4			4.8	7.7*	9.1
	LC			12.8*	12.8*	9.3	15.1*	6.9	11.0	5.4	8.4			5.3	7.7*	
0	NLC			12.2	17.9*	8.2	15.0	6.1	10.7					4.9	8.5*	8.9
	LC			13.5	17.9*	9.0	15.0	6.7	10.8					5.4	8.5*	
−1.5	NLC	13.5*	13.5*	12.2	19.5*	8.1	14.9	6.1	10.7					5.3	9.2	8.4
	LC	13.5*	13.5*	13.6	19.5*	8.9	14.9	6.7	10.7					5.8	9.3	
−3.0	NLC	21.6*	21.6*	12.5	17.2*	8.3	13.4*	6.3	10.0*					6.3	9.9*	7.5
	LC	21.6*	21.6*	13.8	17.2*	9.1	13.4*	6.8	10.0*					6.8	9.9*	
−4.5	NLC			13.0	13.2*	8.7	9.7*							8.4	9.1*	6.2
	LC			13.2*	13.2*	9.5	9.7*							9.1*	9.1*	
−6.0	NLC															
	LC															

Stick 2.90 m

m	Under-carriage	3.0 m		4.5 m		6.0 m		7.5 m		9.0 m		10.5 m				m
12.0	NLC															
	LC															
10.5	NLC															
	LC															
9.0	NLC													7.2*	7.2*	6.2
	LC													7.2*	7.2*	
7.5	NLC							7.3	7.7*					6.5*	6.5*	7.6
	LC							7.7*	7.7*					6.5*	6.5*	
6.0	NLC							7.2	9.5*					5.7	6.2*	8.5
	LC							7.8	9.5*					6.2*	6.2*	
4.5	NLC			14.9	15.2*	9.7	11.8*	6.9	10.2*	5.2	7.3*			5.1	6.1*	9.1
	LC			15.2*	15.2*	10.5	11.8*	7.5	10.2*	5.6	7.3*			5.5	6.1*	
3.0	NLC			13.3	18.9*	9.0	13.5*	6.6	11.0*	5.0	8.5			4.7	6.3*	9.4
	LC			14.7	18.9*	9.9	13.5*	7.2	11.0*	5.5	8.5			5.1	6.3*	
1.5	NLC			12.4	15.9*	8.5	14.8*	6.3	10.9	4.9	8.4			4.6	6.6*	9.4
	LC			13.7	15.9*	9.3	14.8*	6.9	11.0	5.3	8.4			5.0	6.6*	
0	NLC			12.1	18.7*	8.2	14.9	6.1	10.7	4.8	8.2			4.7	7.3*	9.2
	LC			13.4	18.7*	9.0	15.0	6.6	10.7	5.2	8.3			5.1	7.3*	
−1.5	NLC	13.3*	13.3*	12.1	20.0*	8.1	14.8	6.0	10.6					5.0	8.4*	8.7
	LC	13.3*	13.3*	13.5	20.0*	8.9	14.9	6.6	10.6					5.5	8.4*	
−3.0	NLC	22.5*	22.5*	12.3	17.9*	8.2	13.8*	6.1	10.5*					5.8	9.6*	7.9
	LC	22.5*	22.5*	13.7	17.9*	9.0	13.8*	6.7	10.5*					6.3	9.6*	
−4.5	NLC	18.0*	18.0*	12.8	14.2*	8.5	10.7*							7.6	9.1*	6.6
	LC	18.0*	18.0*	14.1	14.2*	9.3	10.7*							8.3	9.1*	
−6.0	NLC															
	LC															

Stick 3.30 m

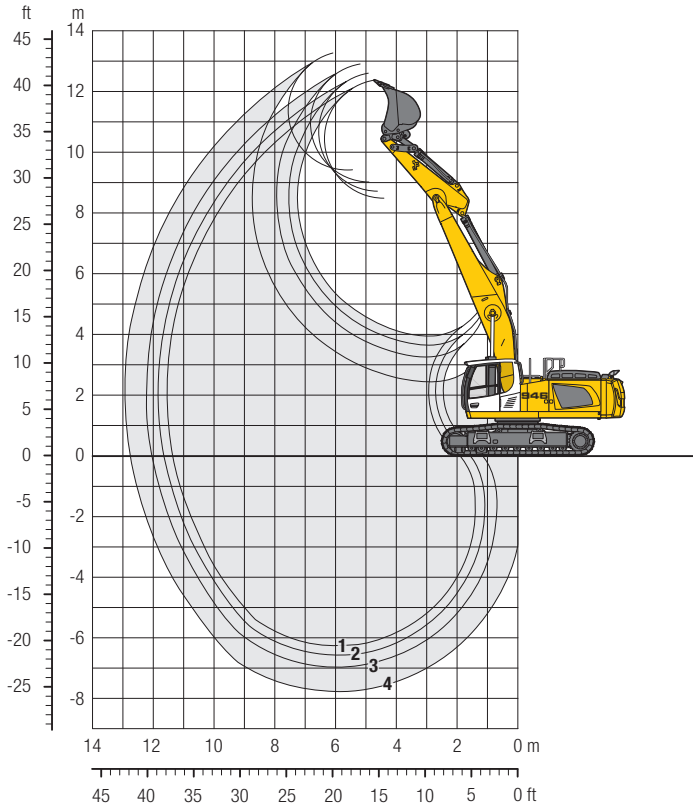
m	Under-carriage	3.0 m		4.5 m		6.0 m		7.5 m		9.0 m		10.5 m				m
12.0	NLC															
	LC															
10.5	NLC															
	LC															
9.0	NLC													6.1*	6.1*	6.8
	LC													6.1*	6.1*	
7.5	NLC							7.4	8.7*					5.5*	5.5*	8.1
	LC							8.0	8.7*					5.5*	5.5*	
6.0	NLC							7.3	9.0*					5.3*	5.3*	8.9
	LC							7.9	9.0*					5.3*	5.3*	
4.5	NLC					9.8	11.2*	7.0	9.7*	5.2	8.7			4.7	5.2*	9.5
	LC					10.7	11.2*	7.6	9.7*	5.6	8.7			5.1	5.2*	
3.0	NLC			13.7	17.8*	9.1	12.9*	6.6	10.6*	5.0	8.5			4.4	5.4*	9.7
	LC			15.0	17.8*	10.0	12.9*	7.2	10.6*	5.5	8.6			4.8	5.4*	
1.5	NLC			12.5	19.8*	8.5	14.4*	6.3	10.9	4.8	8.3			4.3	5.6*	9.8
	LC			13.9	19.8*	9.3	14.4*	6.9	11.0	5.3	8.4			4.7	5.6*	
0	NLC			12.1	19.7*	8.1	14.9	6.0	10.7	4.7	8.2			4.3	6.2*	9.6
	LC			13.4	19.7*	8.9	15.0	6.6	10.7	5.1	8.2			4.7	6.2*	
−1.5	NLC	12.8*	12.8*	12.0	20.4*	8.0	14.7	5.9	10.5	4.7	8.2			4.6	7.0*	9.1
	LC	12.8*	12.8*	13.3	20.4*	8.8	14.8	6.5	10.6	5.1	8.2			5.1	7.0*	
−3.0	NLC	20.4*	20.4*	12.2	18.6*	8.0	14.2*	6.0	10.6					5.3	8.6*	8.3
	LC	20.4*	20.4*	13.5	18.6*	8.8	14.2*	6.5	10.6					5.8	8.6*	
−4.5	NLC	20.3*	20.3*	12.5	15.4*	8.3	11.7*							6.7	9.0*	7.1
	LC	20.3*	20.3*	13.9	15.4*	9.1	11.7*							7.3	9.0*	
−6.0	NLC															
	LC															

Height **Can be slewed though 360°** **In longitudinal position of undercarriage** **Max. reach** *** Limited by hydr. capacity**

The load values are quoted in tons (t) at stick end (without bucket), and may be swung 360° on firm and even ground. Adjacent values are valid for the undercarriage when in the longitudinal position. Capacities are valid for 600 mm wide track pads. Indicated loads are based on ISO 10567 standard and do not exceed 75 % of tipping or 87 % of hydraulic capacity (indicated via *). Without bucket cylinder, link and lever the lift capacities will increase by 625 kg. Lifting capacity of the excavator is limited by machine stability and hydraulic capacity. According to European Standard, EN 474-5: In the European Union excavators have to be equipped with an overload warning device, a load diagram and automatic safety check valves on hoist cylinders and stick cylinder(s), when they are used for lifting operations which require the use of lifting accessories.

Backhoe Bucket

with Straight Mono Boom 6.80 m and Counterweight 7.7 t



Optional: heavy counterweight
(heavy counterweight increases the operating weight by 1,300 kg and ground pressure by 0.03 kg/cm²)

Digging Envelope

with quick coupler		1	2	3	4
Stick length	m	2.60	2.90	3.30	4.10
Max. digging depth	m	6.25	6.55	6.95	7.75
Max. reach at ground level	m	11.35	11.65	12.00	12.75
Max. dumping height	m	8.50	8.70	9.00	9.40
Max. teeth height	m	12.35	12.55	12.85	13.25

Digging Forces

with quick coupler		1	2	3	4
Digging force ISO	kN	191	179	164	142
	t	19.4	18.2	16.8	14.4
Breakout force ISO	kN	208	208	208	208
	t	21.2	21.2	21.2	21.2
without quick coupler					
Digging force ISO	kN	201	187	172	147
	t	20.5	19.1	17.5	15.0
Breakout force ISO	kN	238	238	238	238
	t	24.2	24.2	24.2	24.2

Max. breakout force ISO with ripper bucket and without quick coupler: 300 kN (30.6 t)

Operating Weight and Ground Pressure

The operating weight includes the basic machine with counterweight 7.7 t, straight mono boom 6.80 m, stick 2.60 m, quick coupler SW66 and bucket 1.50 m³ (1,330 kg).

Undercarriage		NLC			LC		
Pad width	mm	500	600	750	500	600	750
Weight	kg	38,750	39,200	39,850	38,850	39,300	39,950
Ground pressure	kg/cm²	0.88	0.74	0.60	0.88	0.74	0.60

Buckets Machine stability per ISO 10567* (75 % of tipping capacity)

	Cutting width	Capacity ISO 7451[1]	Weight[3]	Weight[4]	NLC-Undercarriage								LC-Undercarriage							
					Stick length (m)								Stick length (m)							
					2.60	2.90	3.30	4.10	2.60	2.90	3.30	4.10	2.60	2.90	3.30	4.10	2.60	2.90	3.30	4.10
	mm	m³	kg	kg	without quick coupler				with quick coupler				without quick coupler				with quick coupler			
STD[1]	1,050	1.00	1,220	1,150	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	1,200	1.25	1,280	1,240	●	●	●	●	●	●	●	■	●	●	●	●	●	●	●	●
	1,350	1.50	1,370	1,330	●	●	●	■	●	●	■	▲	●	●	●	■	●	●	●	■
	1,500	1.75	1,460	1,420	●	■	▲	▲	■	■	▲	□	●	●	■	▲	●	■	■	▲
	1,650	2.00	1,580	1,540	■	▲	□	□	▲	▲	□	–	■	■	▲	□	■	▲	▲	□
	1,650	2.25	1,690	1,650	▲	□	□	–	□	□	–	–	▲	▲	□	□	▲	□	□	–
	1,850	2.50	1,810	1,770	□	□	–	–	□	–	–	–	▲	□	□	–	□	□	–	–
HD[2]	1,050	1.00	–	1,230	–	–	–	–	●	●	●	●	–	–	–	–	●	●	●	●
	1,200	1.25	1,380	1,340	●	●	●	●	●	●	●	■	●	●	●	●	●	●	●	●
	1,350	1.50	1,470	1,430	●	●	■	▲	●	●	■	▲	●	●	●	■	●	●	●	▲
	1,500	1.75	1,560	1,520	■	■	▲	□	■	▲	▲	□	●	●	■	▲	●	■	▲	□
	1,650	2.00	1,700	1,660	▲	▲	□	–	▲	□	□	–	■	■	▲	□	■	▲	□	□
	1,650	2.25	1,820	1,780	□	□	□	–	□	□	–	–	▲	▲	□	–	▲	□	□	–
	1,850	2.50	1,990	1,950	□	–	–	–	–	–	–	–	□	□	–	–	□	–	–	–

* Indicated loads are based on ISO 10567 max. stick length, lifted 360° on firm

[1] Standard bucket with teeth Z 50

[2] HD bucket with teeth Z 50

[3] Bucket for direct fitting

[4] Bucket for fitting to quick coupler

Other backhoes available on request

Max. material weight ● = ≤ 2.0 t/m³, ■ = ≤ 1.8 t/m³, ▲ = ≤ 1.5 t/m³, □ = ≤ 1.2 t/m³, – = not authorized

Lift Capacities

with Straight Mono Boom 6.80 m and Counterweight 7.7 t

Stick 2.60 m

m	Undercarriage	3.0 m		4.5 m		6.0 m		7.5 m		9.0 m		10.5 m				m
12.0	NLC															
	LC															
10.5	NLC															
	LC															
9.0	NLC					10.4	12.3*							8.7*	8.7*	6.5
	LC					11.2	12.3*							8.7*	8.7*	
7.5	NLC					10.4	12.1*	7.1	10.9*					6.5	7.7*	7.9
	LC					11.2	12.1*	7.7	10.9*					7.1	7.7*	
6.0	NLC			15.5	15.9*	9.9	12.8*	7.0	11.0*					5.4	7.2*	8.7
	LC			15.9*	15.9*	10.8	12.8*	7.6	11.0*					5.9	7.2*	
4.5	NLC			13.9	18.9*	9.3	13.9*	6.7	11.4	5.1	8.6			4.8	7.1*	9.3
	LC			15.3	18.9*	10.1	13.9*	7.3	11.4*	5.5	8.6			5.2	7.1*	
3.0	NLC					8.6	15.0*	6.4	11.0	4.9	8.4			4.5	7.1*	9.5
	LC					9.4	15.0*	7.0	11.1	5.4	8.4			4.9	7.1*	
1.5	NLC					8.2	14.9	6.1	10.7	4.8	8.3			4.4	7.4*	9.6
	LC					9.0	15.0	6.7	10.8	5.2	8.3			4.8	7.4*	
0	NLC			9.8*	9.8*	8.0	14.7	6.0	10.6	4.7	8.2			4.5	7.8	9.4
	LC			9.8*	9.8*	8.7	14.7	6.5	10.6	5.2	8.2			4.9	7.8	
−1.5	NLC			12.1	16.0*	8.0	13.4*	5.9	10.5					4.9	8.0*	8.9
	LC			13.4	16.0*	8.8	13.4*	6.5	10.6					5.3	8.0*	
−3.0	NLC			12.4	12.8*	8.1	11.0*	6.1	8.4*					5.7	6.9*	8.1
	LC			12.8*	12.8*	8.9	11.0*	6.7	8.4*					6.2	6.9*	
−4.5	NLC															
	LC															
−6.0	NLC															
	LC															

Stick 2.90 m

m	Undercarriage	3.0 m		4.5 m		6.0 m		7.5 m		9.0 m		10.5 m				m
12.0	NLC															
	LC															
10.5	NLC													9.5*	9.5*	4.9
	LC													9.5*	9.5*	
9.0	NLC					10.5	11.6*							7.4*	7.4*	6.9
	LC					11.3	11.6*							7.4*	7.4*	
7.5	NLC					10.4	11.6*	7.2	10.5*					6.1	6.6*	8.2
	LC					11.3	11.6*	7.8	10.5*					6.6	6.6*	
6.0	NLC			14.5*	14.5*	10.0	12.3*	7.0	10.7*	5.1	7.0*			5.1	6.3*	9.0
	LC			14.5*	14.5*	10.8	12.3*	7.6	10.7*	5.6	7.0*			5.5	6.3*	
4.5	NLC			14.2	18.1*	9.4	13.6*	6.7	11.2*	5.0	8.6			4.5	6.1*	9.6
	LC			15.6	18.1*	10.2	13.6*	7.3	11.2*	5.5	8.6			4.9	6.1*	
3.0	NLC					8.7	14.8*	6.4	11.0	4.9	8.4			4.2	6.2*	9.8
	LC					9.5	14.8*	6.9	11.1	5.3	8.4			4.6	6.2*	
1.5	NLC					8.2	14.9	6.1	10.7	4.7	8.2			4.2	6.4*	9.9
	LC					9.0	15.0	6.6	10.7	5.2	8.2			4.6	6.4*	
0	NLC			11.3*	11.3*	7.9	14.6	5.9	10.5	4.6	8.1			4.3	6.9*	9.7
	LC			11.3*	11.3*	8.7	14.7	6.5	10.5	5.1	8.1			4.7	6.9*	
−1.5	NLC			12.0	16.9*	7.9	13.8*	5.9	10.4	4.7	8.1			4.6	7.6*	9.2
	LC			13.3	16.9*	8.7	13.8*	6.4	10.5	5.1	8.2			5.0	7.6*	
−3.0	NLC			12.2	13.8*	8.0	11.5*	6.0	9.0*					5.3	6.8*	8.4
	LC			13.6	13.8*	8.8	11.5*	6.5	9.0*					5.7	6.8*	
−4.5	NLC					7.8*	7.8*							6.3*	6.3*	6.8
	LC					7.8*	7.8*							6.3*	6.3*	
−6.0	NLC															
	LC															

Stick 3.30 m

m	Undercarriage	3.0 m		4.5 m		6.0 m		7.5 m		9.0 m		10.5 m				m
12.0	NLC															
	LC															
10.5	NLC													7.7*	7.7*	5.6
	LC													7.7*	7.7*	
9.0	NLC					10.5*	10.5*							6.3*	6.3*	7.5
	LC					10.5*	10.5*							6.3*	6.3*	
7.5	NLC					10.6	10.6*	7.3	10.0*					5.5	5.6*	8.7
	LC					10.6*	10.6*	7.9	10.0*					5.6*	5.6*	
6.0	NLC					10.1	11.8*	7.1	10.3*	5.2	8.7			4.7	5.3*	9.5
	LC					11.0	11.8*	7.7	10.3*	5.6	8.8			5.1	5.3*	
4.5	NLC			14.6	17.2*	9.5	13.1*	6.8	10.8*	5.1	8.6			4.2	5.2*	10.0
	LC			15.9	17.2*	10.3	13.1*	7.4	10.8*	5.5	8.6			4.6	5.2*	
3.0	NLC			12.9	19.2*	8.8	14.4*	6.4	11.1	4.9	8.4			4.0	5.3*	10.2
	LC			14.3	19.2*	9.6	14.4*	7.0	11.1	5.3	8.4			4.3	5.3*	
1.5	NLC			10.2*	10.2*	8.2	15.0	6.1	10.7	4.7	8.2			3.9	5.5*	10.3
	LC			10.2*	10.2*	9.0	15.0	6.6	10.7	5.1	8.2			4.3	5.5*	
0	NLC			11.8	12.5*	7.9	14.6	5.8	10.5	4.6	8.0			4.0	5.8*	10.0
	LC			12.5*	12.5*	8.7	14.7	6.4	10.5	5.0	8.1			4.3	5.8*	
−1.5	NLC	8.7*	8.7*	11.8	17.9*	7.8	14.1*	5.8	10.4	4.6	8.0			4.2	6.4*	9.6
	LC	8.7*	8.7*	13.1	17.9*	8.6	14.1*	6.3	10.4	5.0	8.1			4.6	6.4*	
−3.0	NLC	16.0*	16.0*	12.0	15.0*	7.9	12.2*	5.8	9.6*					4.8	6.7*	8.9
	LC	16.0*	16.0*	13.3	15.0*	8.7	12.2*	6.4	9.6*					5.3	6.7*	
−4.5	NLC			10.7*	10.7*	8.2	8.9*	6.1	6.1*					5.4*	5.4*	7.7
	LC			10.7*	10.7*	8.9*	8.9*	6.1*	6.1*					5.4*	5.4*	
−6.0	NLC															
	LC															

Stick 4.10 m

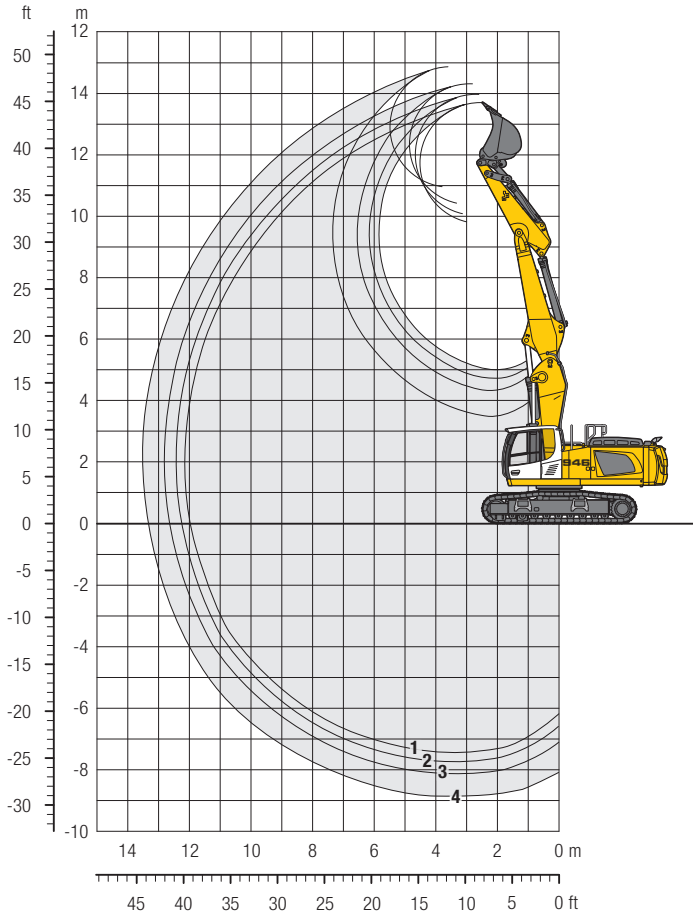
m	Undercarriage	3.0 m		4.5 m		6.0 m		7.5 m		9.0 m		10.5 m				m
12.0	NLC															
	LC															
10.5	NLC													5.2*	5.2*	6.9
	LC													5.2*	5.2*	
9.0	NLC							7.4*	7.4*					4.5*	4.5*	8.4
	LC							7.4*	7.4*					4.5*	4.5*	
7.5	NLC							7.4	8.2*	5.3	6.4*			4.1*	4.1*	9.5
	LC							8.0	8.2*	5.8	6.4*			4.1*	4.1*	
6.0	NLC					8.9*	8.9*	7.2	9.0*	5.3	8.1*			3.9*	3.9*	10.2
	LC					8.9*	8.9*	7.8	9.0*	5.7	8.1*			3.9*	3.9*	
4.5	NLC			13.6*	13.6*	9.8	12.0*	6.9	10.1*	5.1	8.6	3.9	5.4*	3.7	3.9*	10.7
	LC			13.6*	13.6*	10.6	12.0*	7.5	10.1*	5.5	8.7	4.2	5.4*	3.9*	3.9*	
3.0	NLC			13.6	18.5*	9.0	13.5*	6.5	10.9*	4.9	8.4	3.8	6.6	3.5	4.0*	10.9
	LC			15.0	18.5*	9.8	13.5*	7.0	10.9*	5.3	8.4	4.1	6.6	3.8	4.0*	
1.5	NLC			12.3	18.2*	8.3	14.7*	6.1	10.7	4.7	8.1	3.7	6.4	3.4	4.1*	11.0
	LC			13.6	18.2*	9.1	14.7*	6.7	10.8	5.1	8.2	4.0	6.5	3.8	4.1*	
0	NLC	5.1*	5.1*	11.7	15.6*	7.9	14.6	5.8	10.4	4.5	8.0	3.6	6.4	3.5	4.4*	10.8
	LC	5.1*	5.1*	13.0	15.6*	8.7	14.7	6.4	10.4	4.9	8.0	3.9	6.4	3.8	4.4*	
−1.5	NLC	9.4*	9.4*	11.6	18.6*	7.7	14.4	5.6	10.2	4.4	7.9			3.7	4.8*	10.4
	LC	9.4*	9.4*	12.9	18.6*	8.5	14.4	6.2	10.3	4.8	7.9			4.0	4.8*	
−3.0	NLC	14.4*	14.4*	11.7	16.9*	7.7	13.2*	5.6	10.2	4.4	7.9			4.1	5.6*	9.7
	LC	14.4*	14.4*	13.0	16.9*	8.4	13.2*	6.2	10.2	4.9	7.9			4.5	5.6*	
−4.5	NLC	16.3*	16.3*	12.0	13.4*	7.8	10.7*	5.8	8.2*					4.8	5.7*	8.7
	LC	16.3*	16.3*	13.3	13.4*	8.6	10.7*	6.3	8.2*					5.3	5.7*	
−6.0	NLC															
	LC															

Height **Can be slewed though 360°** **In longitudinal position of undercarriage** **Max. reach** *** Limited by hydr. capacity**

The load values are quoted in tons (t) at stick end (without bucket), and may be swung 360° on firm and even ground. Adjacent values are valid for the undercarriage when in the longitudinal position. Capacities are valid for 600 mm wide track pads. Indicated loads are based on ISO 10567 standard and do not exceed 75 % of tipping or 87 % of hydraulic capacity (indicated via *). Without bucket cylinder, link and lever the lift capacities will increase by 625 kg. Lifting capacity of the excavator is limited by machine stability and hydraulic capacity. According to European Standard, EN 474-5: In the European Union excavators have to be equipped with an overload warning device, a load diagram and automatic safety check valves on hoist cylinders and stick cylinder(s), when they are used for lifting operations which require the use of lifting accessories.

Backhoe Bucket

with Two-piece Boom 4.30 m and Counterweight 9.0 t



Digging Envelope

with quick coupler		1	2	3	4
Stick length	m	2.60	2.90	3.30	4.10
Max. digging depth	m	7.40	7.70	8.10	8.85
Max. reach at ground level	m	11.95	12.25	12.60	13.35
Max. dumping height	m	9.80	10.05	10.45	10.95
Max. teeth height	m	13.65	13.92	14.25	14.85

Digging Forces

with quick coupler		1	2	3	4
Digging force ISO	kN	191	179	164	142
	t	19.4	18.2	16.8	14.4
Breakout force ISO	kN	208	208	208	208
	t	21.2	21.2	21.2	21.2
without quick coupler					
Digging force ISO	kN	201	187	172	147
	t	20.5	19.1	17.5	15.0
Breakout force ISO	kN	238	238	238	238
	t	24.2	24.2	24.2	24.2

Max. breakout force ISO with ripper bucket and without quick coupler 300 kN (30.6 t)

Operating Weight and Ground Pressure

The operating weight includes the basic machine with counterweight 9.0 t, two-piece boom 4.30 m, stick 2.60 m, quick coupler SW66 and bucket 1.25 m³ (1,240 kg).

Undercarriage		NLC			LC		
Pad width	mm	500	600	750	500	600	750
Weight	kg	42,250	42,700	43,350	42,350	42,800	43,450
Ground pressure	kg/cm²	0.95	0.81	0.66	0.95	0.81	0.66

Buckets Machine stability per ISO 10567* (75 % of tipping capacity)

	Cutting width	Capacity ISO 7451[1]	Weight[3]	Weight[4]	NLC-Undercarriage								LC-Undercarriage							
					Stick length (m)								Stick length (m)							
					2.60	2.90	3.30	4.10	2.60	2.90	3.30	4.10	2.60	2.90	3.30	4.10	2.60	2.90	3.30	4.10
	mm	m³	kg	kg	without quick coupler				with quick coupler				without quick coupler				with quick coupler			
STD[1]	1,050	1.00	1,220	1,150	●	●	●	●	●	●	●	■	●	●	●	●	●	●	●	●
	1,200	1.25	1,280	1,240	●	●	■	▲	●	■	▲	□	●	●	●	■	●	●	●	▲
	1,350	1.50	1,370	1,330	■	▲	▲	□	■	▲	□	–	●	●	■	▲	■	■	▲	□
	1,500	1.75	1,460	1,420	▲	□	□	–	▲	□	–	–	■	▲	▲	□	▲	▲	□	–
	1,650	2.00	1,580	1,540	□	□	–	–	□	–	–	–	▲	□	□	–	□	□	–	–
	1,650	2.25	1,690	1,650	–	–	–	–	–	–	–	–	□	□	–	–	□	–	–	–
	1,850	2.50	1,810	1,770	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
HD[2]	1,050	1.00	–	1,230	–	–	–	–	●	●	●	▲	–	–	–	–	●	●	●	●
	1,200	1.25	1,380	1,340	●	●	■	▲	●	■	▲	□	●	●	●	■	●	●	■	▲
	1,350	1.50	1,470	1,430	■	▲	▲	□	▲	▲	□	–	●	■	■	▲	■	■	▲	□
	1,500	1.75	1,560	1,520	▲	□	□	–	□	□	–	–	■	▲	▲	□	▲	▲	□	–
	1,650	2.00	1,700	1,660	□	–	–	–	–	–	–	–	▲	□	□	–	□	□	–	–
	1,650	2.25	1,820	1,780	–	–	–	–	–	–	–	–	□	–	–	–	–	–	–	–
	1,850	2.50	1,990	1,950	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–

* Indicated loads are based on ISO 10567 max. stick length, lifted 360° on firm

[1] Standard bucket with teeth Z 50

[2] HD bucket with teeth Z 50

Other backhoes available on request

[3] Bucket for direct fitting

[4] Bucket for fitting to quick coupler

Max. material weight ● = ≤ 2.0 t/m³, ■ = ≤ 1.8 t/m³, ▲ = ≤ 1.5 t/m³, □ = ≤ 1.2 t/m³, – = not authorized

Lift Capacities

with Two-piece Boom 4.30 m and Counterweight 9.0 t

Stick 2.60 m

m	Under-carriage	3.0 m		4.5 m		6.0 m		7.5 m		9.0 m		10.5 m				m
12.0	NLC															
	LC															
10.5	NLC			14.3*	14.3*									10.4*	10.4*	5.5
	LC			14.3*	14.3*									10.4*	10.4*	
9.0	NLC			13.7*	13.7*	11.7	13.5*							7.8	8.6*	7.4
	LC			13.7*	13.7*	12.5	13.5*							8.5	8.6*	
7.5	NLC			14.5*	14.5*	11.6	13.7*	8.1	11.4*					6.0	7.8*	8.6
	LC			14.5*	14.5*	12.4	13.7*	8.7	11.4*					6.5	7.8*	
6.0	NLC	25.7*	25.7*	16.8	18.9*	11.4	14.2*	8.2	11.5*	5.6	9.4			5.0	7.5*	9.4
	LC	25.7*	25.7*	18.0	18.9*	12.1	14.2*	8.9	11.5*	6.1	9.4			5.5	7.5*	
4.5	NLC	21.8*	21.8*	16.2	19.3*	11.1	14.8*	8.2	11.7*	5.6	9.4			4.5	7.4*	9.9
	LC	21.8*	21.8*	17.2	19.3*	11.8	14.8*	8.8	11.7*	6.1	9.4			4.9	7.4*	
3.0	NLC			15.9	19.2*	10.8	14.7*	7.8	11.6*	5.5	9.3			4.2	7.4	10.1
	LC			16.9	19.2*	11.6	14.7*	8.4	11.6*	6.0	9.3			4.6	7.4	
1.5	NLC			14.6	20.1*	10.0	14.7*	7.3	11.5*	5.3	9.1			4.1	6.9*	10.2
	LC			16.1	20.1*	10.9	14.7*	8.0	11.5*	5.8	9.1			4.5	6.9*	
0	NLC	14.3*	14.3*	13.8	20.5*	9.4	14.8*	7.0	11.6*	5.1	8.9			4.2	6.0*	10.0
	LC	14.3*	14.3*	15.2	20.5*	10.3	14.8*	7.6	11.6*	5.6	8.9			4.7	6.0*	
−1.5	NLC	24.3*	24.3*	13.5	20.6*	9.1	15.1*	6.7	11.7*	4.9	7.7*			4.6	4.7*	9.5
	LC	24.3*	24.3*	14.9	20.6*	10.0	15.1*	7.3	11.7*	5.4	7.7*			4.7*	4.7*	
−3.0	NLC	26.1	28.9*	13.5	19.7*	9.0	14.5*	6.5	9.7*					4.0*	4.0*	8.7
	LC	28.9*	28.9*	14.9	19.7*	9.9	14.5*	7.1	9.7*					4.0*	4.0*	
−4.5	NLC	24.1*	24.1*	13.9	16.5*	9.0	9.7*							5.5*	5.5*	6.9
	LC	24.1*	24.1*	15.4	16.5*	9.7*	9.7*							5.5*	5.5*	
−6.0	NLC															
	LC															

Stick 2.90 m

m	Under-carriage	3.0 m		4.5 m		6.0 m		7.5 m		9.0 m		10.5 m				m
12.0	NLC															
	LC															
10.5	NLC			12.9*	12.9*	8.8*	8.8*							8.8*	8.8*	6.0
	LC			12.9*	12.9*	8.8*	8.8*							8.8*	8.8*	
9.0	NLC			11.9*	11.9*	11.7	12.2*	7.8	9.6*					7.2	7.4*	7.8
	LC			11.9*	11.9*	12.2*	12.2*	8.4	9.6*					7.4*	7.4*	
7.5	NLC			12.3*	12.3*	11.6	12.8*	8.2	11.2*					5.6	6.8*	8.9
	LC			12.3*	12.3*	12.4	12.8*	8.8	11.2*					6.1	6.8*	
6.0	NLC	26.7*	26.7*	16.9	18.4*	11.3	13.9*	8.3	11.3*	5.7	9.4			4.7	6.5*	9.7
	LC	26.7*	26.7*	18.0	18.4*	12.0	13.9*	8.9	11.3*	6.2	9.4			5.2	6.5*	
4.5	NLC	22.9*	22.9*	16.2	19.8*	11.1	14.6*	8.2	11.5*	5.7	9.3			4.2	6.4*	10.2
	LC	22.9*	22.9*	17.2	19.8*	11.7	14.6*	8.8	11.5*	6.2	9.3			4.7	6.4*	
3.0	NLC			15.9	19.2*	10.9	14.7*	7.8	11.5*	5.6	9.2			4.0	6.5*	10.4
	LC			16.9	19.2*	11.6	14.7*	8.4	11.5*	6.1	9.2			4.4	6.5*	
1.5	NLC			14.8	19.9*	10.1	14.6*	7.3	11.4*	5.3	9.1			3.9	6.7*	10.5
	LC			16.3	19.9*	11.0	14.6*	8.0	11.4*	5.8	9.2			4.3	6.7*	
0	NLC	15.0*	15.0*	13.9	20.3*	9.4	14.7*	7.0	11.5*	5.1	8.9			4.0	5.8*	10.3
	LC	15.0*	15.0*	15.3	20.3*	10.3	14.7*	7.6	11.5*	5.6	8.9			4.4	5.8*	
−1.5	NLC	22.9*	22.9*	13.4	20.6*	9.0	15.0*	6.7	11.8*	4.9	8.4*			4.3	4.7*	9.8
	LC	22.9*	22.9*	14.9	20.6*	9.9	15.0*	7.3	11.8*	5.4	8.4*			4.7*	4.7*	
−3.0	NLC	25.9	29.7*	13.4	20.0*	8.9	14.7*	6.4	10.4*	4.0*	4.0*			3.7*	3.7*	9.0
	LC	29.5	29.7*	14.8	20.0*	9.8	14.7*	7.0	10.4*	4.0*	4.0*			3.7*	3.7*	
−4.5	NLC	25.6*	25.6*	13.7	17.5*	8.9	11.2*							4.9*	4.9*	7.5
	LC	25.6*	25.6*	15.1	17.5*	9.8	11.2*							4.9*	4.9*	
−6.0	NLC															
	LC															

Stick 3.30 m

m	Under-carriage	3.0 m		4.5 m		6.0 m		7.5 m		9.0 m		10.5 m				m
12.0	NLC													10.4*	10.4*	3.9
	LC													10.4*	10.4*	
10.5	NLC			11.2*	11.2*	10.1*	10.1*							7.3*	7.3*	6.7
	LC			11.2*	11.2*	10.1*	10.1*							7.3*	7.3*	
9.0	NLC					10.5*	10.5*	8.1	9.7*					6.3*	6.3*	8.3
	LC					10.5*	10.5*	8.7	9.7*					6.3*	6.3*	
7.5	NLC			10.0*	10.0*	11.1*	11.1*	8.4	10.8*	5.7	8.4*			5.1	5.8*	9.4
	LC			10.0*	10.0*	11.1*	11.1*	9.0	10.8*	6.2	8.4*			5.6	5.8*	
6.0	NLC	15.8*	15.8*	14.1*	14.1*	11.4	13.3*	8.4	11.1*	5.9	9.4			4.4	5.5*	10.1
	LC	15.8*	15.8*	14.1*	14.1*	12.1	13.3*	8.9	11.1*	6.4	9.4*			4.8	5.5*	
4.5	NLC	24.0*	24.0*	16.3	19.6*	11.1	14.3*	8.2	11.4*	5.9	9.3	4.1	6.5*	4.0	5.5*	10.6
	LC	24.0*	24.0*	17.3	19.6*	11.7	14.3*	8.7	11.4*	6.3	9.3	4.4	6.5*	4.4	5.5*	
3.0	NLC	21.0*	21.0*	15.8	19.2*	10.9	14.7*	7.9	11.5*	5.7	9.2	4.0	7.0	3.7	5.5*	10.8
	LC	21.0*	21.0*	16.9	19.2*	11.5	14.7*	8.5	11.5*	6.2	9.2	4.4	7.0	4.1	5.5*	
1.5	NLC	11.2*	11.2*	15.1	19.7*	10.2	14.5*	7.4	11.3*	5.5	9.2	3.9	6.9	3.7	5.7*	10.8
	LC	11.2*	11.2*	16.6	19.7*	11.1	14.5*	8.0	11.3*	6.0	9.2	4.3	7.0	4.0	5.7*	
0	NLC	15.4*	15.4*	14.0	20.1*	9.5	14.5*	7.0	11.4*	5.2	9.0	3.8	6.4*	3.7	5.6*	10.6
	LC	15.4*	15.4*	15.5	20.1*	10.4	14.5*	7.6	11.4*	5.7	9.0	4.2	6.4*	4.1	5.6*	
−1.5	NLC	21.5*	21.5*	13.4	20.4*	9.0	14.8*	6.7	11.6*	4.9	8.7			4.0	4.6*	10.2
	LC	21.5*	21.5*	14.9	20.4*	9.9	14.8*	7.3	11.6*	5.4	8.7			4.4	4.6*	
−3.0	NLC	25.6	29.1*	13.3	20.2*	8.9	14.8*	6.4	11.1*	4.8	6.5*			3.4*	3.4*	9.5
	LC	29.1*	29.1*	14.7	20.2*	9.7	14.8*	7.1	11.1*	5.3	6.5*			3.4*	3.4*	
−4.5	NLC	26.2	27.1*	13.5	18.3*	8.9	12.8*	6.3	7.2*					4.3*	4.3*	8.1
	LC	27.1*	27.1*	14.9	18.3*	9.7	12.8*	7.0	7.2*					4.3*	4.3*	
−6.0	NLC	18.3*	18.3*	10.4*	10.4*									8.4*	8.4*	5.0
	LC	18.3*	18.3*	10.4*	10.4*									8.4*	8.4*	

Stick 4.10 m

m	Under-carriage	3.0 m		4.5 m		6.0 m		7.5 m		9.0 m		10.5 m				m
12.0	NLC			8.9*	8.9*									6.4*	6.4*	5.6
	LC			8.9*	8.9*									6.4*	6.4*	
10.5	NLC					8.3*	8.3*	6.3*	6.3*					5.1*	5.1*	7.8
	LC					8.3*	8.3*	6.3*	6.3*					5.1*	5.1*	
9.0	NLC					8.2*	8.2*	8.0*	8.0*	5.5*	5.5*			4.5*	4.5*	9.2
	LC					8.2*	8.2*	8.0*	8.0*	5.5*	5.5*			4.5*	4.5*	
7.5	NLC					8.4*	8.4*	8.3	8.5*	6.0	7.7*			4.3*	4.3*	10.2
	LC					8.4*	8.4*	8.5*	8.5*	6.5	7.7*			4.3*	4.3*	
6.0	NLC			9.1*	9.1*	9.9*	9.9*	8.3	9.6*	6.1	8.9*	4.3	6.1*	3.9	4.1*	10.9
	LC			9.1*	9.1*	9.9*	9.9*	8.8	9.6*	6.6	8.9*	4.6	6.1*	4.1*	4.1*	
4.5	NLC	27.7*	27.7*	16.5	18.5*	11.1	13.7*	8.2	11.0*	6.1	9.2*	4.3	7.2	3.5	4.1*	11.3
	LC	27.7*	27.7*	17.6	18.5*	11.8	13.7*	8.7	11.0*	6.5	9.2*	4.7	7.2	3.9	4.1*	
3.0	NLC	23.7*	23.7*	15.8	19.8*	10.8	14.4*	8.0	11.3*	5.9	9.0	4.2	7.1	3.3	4.2*	11.5
	LC	23.7*	23.7*	16.9	19.8*	11.4	14.4*	8.5	11.3*	6.4	9.1	4.6	7.2	3.7	4.2*	
1.5	NLC	19.0*	19.0*	15.6	19.5*	10.5	14.4*	7.6	11.2*	5.6	9.0	4.0	7.0	3.2	4.3*	11.5
	LC	19.0*	19.0*	16.6	19.5*	11.3	14.4*	8.2	11.2*	6.1	9.0	4.4	7.0	3.6	4.3*	
0	NLC	17.1*	17.1*	14.4	19.8*	9.7	14.3*	7.1	11.1*	5.3	9.0	3.8	6.8	3.3	4.6*	11.4
	LC	17.1*	17.1*	15.9	19.8*	10.6	14.3*	7.7	11.1*	5.8	9.0	4.2	6.9	3.6	4.6*	
−1.5	NLC	20.2*	20.2*	13.6	20.0*	9.1	14.4*	6.7	11.2*	5.0	8.8	3.7	6.4*	3.4	4.6*	11.0
	LC	20.2*	20.2*	15.0	20.0*	10.0	14.4*	7.3	11.2*	5.5	8.8	4.1	6.4*	3.8	4.6*	
−3.0	NLC	25.1*	25.1*	13.2	20.3*	8.8	14.7*	6.5	11.5*	4.7	8.4*			3.5*	3.5*	10.3
	LC	25.1*	25.1*	14.6	20.3*	9.6	14.7*	7.1	11.5*	5.2	8.4*			3.5*	3.5*	
−4.5	NLC	25.6	29.5*	13.1	19.5*	8.7	14.2*	6.2	9.9*	4.7*	4.7*			3.4*	3.4*	9.2
	LC	29.1	29.5*	14.6	19.5*	9.6	14.2*	6.8	9.9*	4.7*	4.7*			3.4*	3.4*	
−6.0	NLC	24.4*	24.4*	13.5	15.8*	8.7	9.5*							4.9*	4.9*	7.2
	LC	24.4*	24.4*	14.9	15.8*	9.5*	9.5*							4.9*	4.9*	

Height **Can be slewed though 360°** **In longitudinal position of undercarriage** **Max. reach** *** Limited by hydr. capacity**

The load values are quoted in tons (t) at stick end (without bucket), and may be swung 360° on firm and even ground. Adjacent values are valid for the undercarriage when in the longitudinal position. Capacities are valid for 600 mm wide track pads with adjusting cylinder in optimal position. Indicated loads are based on ISO 10567 standard and do not exceed 75 % of tipping or 87 % of hydraulic capacity (indicated via *). Without bucket cylinder, link and lever the lift capacities will increase by 625 kg. Lifting capacity of the excavator is limited by machine stability and hydraulic capacity.

According to European Standard, EN 474-5: In the European Union excavators have to be equipped with an overload warning device, a load diagram and automatic safety check valves on hoist cylinders and stick cylinder(s), when they are used for lifting operations which require the use of lifting accessories.

Lift Capacities

with Mono Boom 6.45 m and Counterweight 9.0 t

Stick 2.10 m

m	Under-carriage	3.0 m		4.5 m		6.0 m		7.5 m		9.0 m		10.5 m				m
12.0	NLC															
	LC															
10.5	NLC															
	LC															
9.0	NLC															
	LC															
7.5	NLC					11.1*	11.1*							9.4	9.5*	6.7
	LC					11.1*	11.1*							9.5*	9.5*	
6.0	NLC					11.0	11.6*	7.8	10.6*					7.4	9.0*	7.7
	LC					11.6*	11.6*	8.4	10.6*					8.0	9.0*	
4.5	NLC			15.5	17.4*	10.4	13.0*	7.6	11.0*					6.4	8.9*	8.3
	LC			16.9	17.4*	11.3	13.0*	8.2	11.0*					7.0	8.9*	
3.0	NLC					9.8	14.4*	7.3	11.7*					6.0	9.2*	8.6
	LC					10.6	14.4*	7.9	11.7*					6.5	9.2*	
1.5	NLC					9.3	15.4*	7.0	11.9					5.8	9.7	8.6
	LC					10.2	15.4*	7.6	11.9					6.3	9.7	
0	NLC			13.7	14.9*	9.1	15.5*	6.9	11.7					6.0	10.0	8.4
	LC			14.9*	14.9*	10.0	15.5*	7.5	11.7					6.5	10.1	
−1.5	NLC			13.8	18.6*	9.1	14.7*	6.9	11.4*					6.5	10.6*	7.9
	LC			15.2	18.6*	10.0	14.7*	7.5	11.4*					7.1	10.6*	
−3.0	NLC	18.4*	18.4*	14.1	16.0*	9.4	12.7*							7.8	10.3*	6.9
	LC	18.4*	18.4*	15.5	16.0*	10.2	12.7*							8.5	10.3*	
−4.5	NLC			11.1*	11.1*									8.8*	8.8*	5.4
	LC			11.1*	11.1*									8.8*	8.8*	
−6.0	NLC															
	LC															

Stick 2.60 m

m	Under-carriage	3.0 m		4.5 m		6.0 m		7.5 m		9.0 m		10.5 m				m
12.0	NLC															
	LC															
10.5	NLC															
	LC															
9.0	NLC															
	LC															
7.5	NLC													7.5*	7.5*	7.3
	LC													7.5*	7.5*	
6.0	NLC					10.9*	10.9*	7.9	10.0*					6.8	7.1*	8.2
	LC					10.9*	10.9*	8.5	10.0*					7.1*	7.1*	
4.5	NLC			16.0	16.0*	10.6	12.3*	7.6	10.5*					5.9	7.1*	8.8
	LC			16.0*	16.0*	11.4	12.3*	8.2	10.5*					6.4	7.1*	
3.0	NLC			14.4	19.7*	9.9	13.9*	7.3	11.3*	5.6	8.8*			5.5	7.2*	9.1
	LC			15.8	19.7*	10.8	13.9*	7.9	11.3*	6.1	8.8*			6.0	7.2*	
1.5	NLC			12.8*	12.8*	9.4	15.1*	7.0	11.9	5.5	9.1			5.4	7.7*	9.1
	LC			12.8*	12.8*	10.2	15.1*	7.6	11.9	5.9	9.2			5.8	7.7*	
0	NLC			13.5	17.9*	9.1	15.5*	6.8	11.7					5.5	8.5*	8.9
	LC			14.9	17.9*	9.9	15.5*	7.4	11.7					6.0	8.5*	
−1.5	NLC	13.5*	13.5*	13.6	19.5*	9.0	15.0*	6.8	11.6					6.0	9.9*	8.4
	LC	13.5*	13.5*	15.0	19.5*	9.9	15.0*	7.4	11.6					6.5	9.9*	
−3.0	NLC	21.6*	21.6*	13.8	17.2*	9.2	13.4*	7.0	10.0*					6.9	9.9*	7.5
	LC	21.6*	21.6*	15.2	17.2*	10.0	13.4*	7.6	10.0*					7.5	9.9*	
−4.5	NLC			13.2*	13.2*	9.6	9.7*							9.1*	9.1*	6.2
	LC			13.2*	13.2*	9.7*	9.7*							9.1*	9.1*	
−6.0	NLC															
	LC															

Stick 2.90 m

m	Under-carriage	3.0 m		4.5 m		6.0 m		7.5 m		9.0 m		10.5 m				m
12.0	NLC															
	LC															
10.5	NLC															
	LC															
9.0	NLC													7.2*	7.2*	6.2
	LC													7.2*	7.2*	
7.5	NLC							7.7*	7.7*					6.5*	6.5*	7.6
	LC							7.7*	7.7*					6.5*	6.5*	
6.0	NLC							7.9	9.5*					6.2*	6.2*	8.5
	LC							8.5	9.5*					6.2*	6.2*	
4.5	NLC			15.2*	15.2*	10.6	11.8*	7.6	10.2*	5.7	7.3*			5.6	6.1*	9.1
	LC			15.2*	15.2*	11.5	11.8*	8.2	10.2*	6.2	7.3*			6.1	6.1*	
3.0	NLC			14.7	18.9*	9.9	13.5*	7.3	11.0*	5.6	9.2			5.2	6.3*	9.4
	LC			16.1	18.9*	10.8	13.5*	7.9	11.0*	6.0	9.3			5.7	6.3*	
1.5	NLC			13.7	15.9*	9.4	14.8*	7.0	11.7*	5.4	9.1			5.1	6.6*	9.4
	LC			15.1	15.9*	10.2	14.8*	7.6	11.7*	5.9	9.1			5.5	6.6*	
0	NLC			13.5	18.7*	9.1	15.4*	6.8	11.6	5.3	9.0			5.2	7.3*	9.2
	LC			14.9	18.7*	9.9	15.4*	7.4	11.6	5.8	9.0			5.6	7.3*	
−1.5	NLC	13.3*	13.3*	13.5	20.0*	9.0	15.1*	6.7	11.5					5.6	8.4*	8.7
	LC	13.3*	13.3*	14.9	20.0*	9.8	15.1*	7.3	11.6					6.1	8.4*	
−3.0	NLC	22.5*	22.5*	13.7	17.9*	9.1	13.8*	6.8	10.5*					6.4	9.6*	7.9
	LC	22.5*	22.5*	15.1	17.9*	9.9	13.8*	7.4	10.5*					7.0	9.6*	
−4.5	NLC	18.0*	18.0*	14.1	14.2*	9.4	10.7*							8.4	9.1*	6.6
	LC	18.0*	18.0*	14.2*	14.2*	10.3	10.7*							9.1*	9.1*	
−6.0	NLC															
	LC															

Stick 3.30 m

m	Under-carriage	3.0 m		4.5 m		6.0 m		7.5 m		9.0 m		10.5 m				m
12.0	NLC															
	LC															
10.5	NLC															
	LC															
9.0	NLC													6.1*	6.1*	6.8
	LC													6.1*	6.1*	
7.5	NLC							8.1	8.7*					5.5*	5.5*	8.1
	LC							8.7	8.7*					5.5*	5.5*	
6.0	NLC							8.0	9.0*					5.3*	5.3*	8.9
	LC							8.6	9.0*					5.3*	5.3*	
4.5	NLC					10.8	11.2*	7.7	9.7*	5.7	8.9*			5.2*	5.2*	9.5
	LC					11.2*	11.2*	8.3	9.7*	6.2	8.9*			5.2*	5.2*	
3.0	NLC			15.0	17.8*	10.0	12.9*	7.3	10.6*	5.6	9.3			4.9	5.4*	9.7
	LC			16.4	17.8*	10.9	12.9*	7.9	10.6*	6.0	9.3			5.3	5.4*	
1.5	NLC			13.9	19.8*	9.4	14.4*	7.0	11.4*	5.4	9.1			4.8	5.6*	9.8
	LC			15.3	19.8*	10.3	14.4*	7.6	11.4*	5.9	9.1			5.2	5.6*	
0	NLC			13.4	19.7*	9.0	15.2*	6.7	11.6	5.3	8.9			4.9	6.2*	9.6
	LC			14.8	19.7*	9.9	15.2*	7.3	11.6	5.7	8.9			5.3	6.2*	
−1.5	NLC	12.8*	12.8*	13.3	20.4*	8.9	15.2*	6.6	11.4	5.2	8.5*			5.2	7.0*	9.1
	LC	12.8*	12.8*	14.7	20.4*	9.7	15.2*	7.2	11.5	5.7	8.5*			5.6	7.0*	
−3.0	NLC	20.4*	20.4*	13.5	18.6*	8.9	14.2*	6.7	11.0*					5.9	8.6*	8.3
	LC	20.4*	20.4*	14.9	18.6*	9.8	14.2*	7.3	11.0*					6.4	8.6*	
−4.5	NLC	20.3*	20.3*	13.9	15.4*	9.2	11.7*							7.4	9.0*	7.1
	LC	20.3*	20.3*	15.3	15.4*	10.0	11.7*							8.1	9.0*	
−6.0	NLC															
	LC															

Height **Can be slewed though 360°** **In longitudinal position of undercarriage** **Max. reach** *** Limited by hydr. capacity**

The load values are quoted in tons (t) at stick end (without bucket), and may be swung 360° on firm and even ground. Adjacent values are valid for the undercarriage when in the longitudinal position. Capacities are valid for 600 mm wide track pads. Indicated loads are based on ISO 10567 standard and do not exceed 75 % of tipping or 87 % of hydraulic capacity (indicated via *). Without bucket cylinder, link and lever the lift capacities will increase by 625 kg. Lifting capacity of the excavator is limited by machine stability and hydraulic capacity. According to European Standard, EN 474-5: In the European Union excavators have to be equipped with an overload warning device, a load diagram and automatic safety check valves on hoist cylinders and stick cylinder(s), when they are used for lifting operations which require the use of lifting accessories.

Lift Capacities

with Straight Mono Boom 6.80 m and Counterweight 9.0 t

Stick 2.60 m

m	Undercarriage	3.0 m		4.5 m		6.0 m		7.5 m		9.0 m		10.5 m				m
12.0	NLC															
	LC															
10.5	NLC															
	LC															
9.0	NLC					11.3	12.3*							8.7*	8.7*	6.5
	LC					12.2	12.3*							8.7*	8.7*	
7.5	NLC					11.3	12.1*	7.8	10.9*					7.2	7.7*	7.9
	LC					12.1*	12.1*	8.4	10.9*					7.7*	7.7*	
6.0	NLC			15.9*	15.9*	10.9	12.8*	7.7	11.0*					6.0	7.2*	8.7
	LC			15.9*	15.9*	11.7	12.8*	8.3	11.0*					6.5	7.2*	
4.5	NLC			15.2	18.9*	10.2	13.9*	7.4	11.4*	5.6	9.3			5.3	7.1*	9.3
	LC			16.7	18.9*	11.1	13.9*	8.0	11.4*	6.1	9.3			5.8	7.1*	
3.0	NLC					9.5	15.0*	7.1	11.9*	5.5	9.1			5.0	7.1*	9.5
	LC					10.4	15.0*	7.7	11.9*	5.9	9.2			5.5	7.1*	
1.5	NLC					9.1	15.4*	6.8	11.7	5.4	9.0			4.9	7.4*	9.6
	LC					9.9	15.4*	7.4	11.7	5.8	9.0			5.4	7.4*	
0	NLC			9.8*	9.8*	8.9	14.9*	6.6	11.5	5.3	8.9			5.1	7.9*	9.4
	LC			9.8*	9.8*	9.7	14.9*	7.2	11.5	5.7	8.9			5.5	7.9*	
−1.5	NLC			13.4	16.0*	8.9	13.4*	6.6	10.7*					5.5	8.0*	8.9
	LC			14.8	16.0*	9.7	13.4*	7.2	10.7*					5.9	8.0*	
−3.0	NLC			12.8*	12.8*	9.1	11.0*	6.8	8.4*					6.3	6.9*	8.1
	LC			12.8*	12.8*	9.9	11.0*	7.4	8.4*					6.8	6.9*	
−4.5	NLC															
	LC															
−6.0	NLC															
	LC															

Stick 2.90 m

m	Undercarriage	3.0 m		4.5 m		6.0 m		7.5 m		9.0 m		10.5 m				m
12.0	NLC															
	LC															
10.5	NLC													9.5*	9.5*	4.9
	LC													9.5*	9.5*	
9.0	NLC					11.4	11.6*							7.4*	7.4*	6.9
	LC					11.6*	11.6*							7.4*	7.4*	
7.5	NLC					11.3	11.6*	7.9	10.5*					6.6*	6.6*	8.2
	LC					11.6*	11.6*	8.5	10.5*					6.6*	6.6*	
6.0	NLC			14.5*	14.5*	10.9	12.3*	7.7	10.7*	5.7	7.0*			5.6	6.3*	9.0
	LC			14.5*	14.5*	11.8	12.3*	8.3	10.7*	6.1	7.0*			6.1	6.3*	
4.5	NLC			15.5	18.1*	10.3	13.6*	7.4	11.2*	5.6	9.3			5.0	6.1*	9.6
	LC			17.0	18.1*	11.1	13.6*	8.0	11.2*	6.1	9.3			5.5	6.1*	
3.0	NLC					9.6	14.8*	7.1	11.7*	5.4	9.1			4.7	6.2*	9.8
	LC					10.4	14.8*	7.7	11.7*	5.9	9.1			5.2	6.2*	
1.5	NLC					9.1	15.3*	6.8	11.6	5.3	8.9			4.7	6.4*	9.9
	LC					9.9	15.3*	7.4	11.6	5.7	9.0			5.1	6.4*	
0	NLC			11.3*	11.3*	8.8	15.0*	6.6	11.4	5.2	8.8			4.8	6.9*	9.7
	LC			11.3*	11.3*	9.7	15.0*	7.2	11.4	5.7	8.9			5.2	6.9*	
−1.5	NLC			13.3	16.9*	8.8	13.8*	6.5	10.9*	5.2	8.2*			5.1	7.6*	9.2
	LC			14.7	16.9*	9.6	13.8*	7.1	10.9*	5.7	8.2*			5.6	7.6*	
−3.0	NLC			13.6	13.8*	8.9	11.5*	6.7	9.0*					5.9	6.8*	8.4
	LC			13.8*	13.8*	9.8	11.5*	7.3	9.0*					6.4	6.8*	
−4.5	NLC					7.8*	7.8*							6.3*	6.3*	6.8
	LC					7.8*	7.8*							6.3*	6.3*	
−6.0	NLC															
	LC															

Stick 3.30 m

m	Undercarriage	3.0 m		4.5 m		6.0 m		7.5 m		9.0 m		10.5 m				m
12.0	NLC															
	LC															
10.5	NLC													7.7*	7.7*	5.6
	LC													7.7*	7.7*	
9.0	NLC					10.5*	10.5*							6.3*	6.3*	7.5
	LC					10.5*	10.5*							6.3*	6.3*	
7.5	NLC					10.6*	10.6*	8.0	10.0*					5.6*	5.6*	8.7
	LC					10.6*	10.6*	8.6	10.0*					5.6*	5.6*	
6.0	NLC					11.0	11.8*	7.8	10.3*	5.8	8.9*			5.2	5.3*	9.5
	LC					11.8*	11.8*	8.4	10.3*	6.2	8.9*			5.3*	5.3*	
4.5	NLC			15.9	17.2*	10.4	13.1*	7.5	10.8*	5.6	9.3			4.7	5.2*	10.0
	LC			17.2*	17.2*	11.3	13.1*	8.1	10.8*	6.1	9.3			5.1	5.2*	
3.0	NLC			14.3	19.2*	9.7	14.4*	7.1	11.5*	5.4	9.1			4.5	5.3*	10.2
	LC			15.7	19.2*	10.5	14.4*	7.7	11.5*	5.9	9.1			4.8	5.3*	
1.5	NLC			10.2*	10.2*	9.1	15.2*	6.8	11.6	5.3	8.9			4.4	5.5*	10.3
	LC			10.2*	10.2*	9.9	15.2*	7.4	11.6	5.7	8.9			4.8	5.5*	
0	NLC			12.5*	12.5*	8.8	15.1*	6.5	11.4	5.1	8.8			4.5	5.8*	10.0
	LC			12.5*	12.5*	9.6	15.1*	7.1	11.4	5.6	8.8			4.9	5.8*	
−1.5	NLC	8.7*	8.7*	13.1	17.9*	8.7	14.1*	6.5	11.1*	5.1	8.7*			4.8	6.4*	9.6
	LC	8.7*	8.7*	14.5	17.9*	9.5	14.1*	7.1	11.1*	5.6	8.7*			5.2	6.4*	
−3.0	NLC	16.0*	16.0*	13.4	15.0*	8.8	12.2*	6.5	9.6*					5.4	6.7*	8.9
	LC	16.0*	16.0*	14.7	15.0*	9.6	12.2*	7.1	9.6*					5.8	6.7*	
−4.5	NLC			10.7*	10.7*	8.9*	8.9*	6.1*	6.1*					5.4*	5.4*	7.7
	LC			10.7*	10.7*	8.9*	8.9*	6.1*	6.1*					5.4*	5.4*	
−6.0	NLC															
	LC															

Stick 4.10 m

m	Undercarriage	3.0 m		4.5 m		6.0 m		7.5 m		9.0 m		10.5 m				m
12.0	NLC															
	LC															
10.5	NLC													5.2*	5.2*	6.9
	LC													5.2*	5.2*	
9.0	NLC							7.4*	7.4*					4.5*	4.5*	8.4
	LC							7.4*	7.4*					4.5*	4.5*	
7.5	NLC							8.1	8.2*	5.9	6.4*			4.1*	4.1*	9.5
	LC							8.2*	8.2*	6.4	6.4*			4.1*	4.1*	
6.0	NLC					8.9*	8.9*	7.9	9.0*	5.8	8.1*			3.9*	3.9*	10.2
	LC					8.9*	8.9*	8.5	9.0*	6.3	8.1*			3.9*	3.9*	
4.5	NLC			13.6*	13.6*	10.7	12.0*	7.6	10.1*	5.7	8.9*	4.3	5.4*	3.9*	3.9*	10.7
	LC			13.6*	13.6*	11.6	12.0*	8.2	10.1*	6.1	8.9*	4.7	5.4*	3.9*	3.9*	
3.0	NLC			15.0	18.5*	9.9	13.5*	7.2	10.9*	5.4	9.1	4.2	6.9*	3.9	4.0*	10.9
	LC			16.4	18.5*	10.8	13.5*	7.8	10.9*	5.9	9.1	4.6	6.9*	4.0*	4.0*	
1.5	NLC			13.7	18.2*	9.2	14.7*	6.8	11.5*	5.2	8.9	4.1	7.0	3.9	4.1*	11.0
	LC			15.1	18.2*	10.1	14.7*	7.4	11.5*	5.7	8.9	4.5	7.1	4.1*	4.1*	
0	NLC	5.1*	5.1*	13.1	15.6*	8.8	15.1*	6.5	11.3	5.0	8.7	4.1	6.9*	3.9	4.4*	10.8
	LC	5.1*	5.1*	14.4	15.6*	9.6	15.1*	7.1	11.4	5.5	8.7	4.4	6.9*	4.3	4.4*	
−1.5	NLC	9.4*	9.4*	12.9	18.6*	8.6	14.6*	6.3	11.2	5.0	8.6			4.1	4.8*	10.4
	LC	9.4*	9.4*	14.3	18.6*	9.4	14.6*	6.9	11.2	5.4	8.6			4.5	4.8*	
−3.0	NLC	14.4*	14.4*	13.0	16.9*	8.6	13.2*	6.3	10.4*	5.0	8.0*			4.6	5.6*	9.7
	LC	14.4*	14.4*	14.4	16.9*	9.4	13.2*	6.9	10.4*	5.4	8.0*			5.0	5.6*	
−4.5	NLC	16.3*	16.3*	13.3	13.4*	8.7	10.7*	6.5	8.2*					5.4	5.7*	8.7
	LC	16.3*	16.3*	13.4*	13.4*	9.6	10.7*	7.1	8.2*					5.7*	5.7*	
−6.0	NLC															
	LC															

Height **Can be slewed though 360°** **In longitudinal position of undercarriage** **Max. reach** *** Limited by hydr. capacity**

The load values are quoted in tons (t) at stick end (without bucket), and may be swung 360° on firm and even ground. Adjacent values are valid for the undercarriage when in the longitudinal position. Capacities are valid for 600 mm wide track pads. Indicated loads are based on ISO 10567 standard and do not exceed 75 % of tipping or 87 % of hydraulic capacity (indicated via *). Without bucket cylinder, link and lever the lift capacities will increase by 625 kg. Lifting capacity of the excavator is limited by machine stability and hydraulic capacity. According to European Standard, EN 474-5: In the European Union excavators have to be equipped with an overload warning device, a load diagram and automatic safety check valves on hoist cylinders and stick cylinder(s), when they are used for lifting operations which require the use of lifting accessories.

Available Standard Buckets

Sticks 2.10 m/2.60 m/2.90 m/3.30 m/4.10 m

Mounting	Execution	Width (mm)	Capacity (m^3)	Teeth	Number of teeth	Weight (kg)
Direct	STD	1,050	1.00	Z 50	4	1,220
Direct	STD	1,200	1.25	Z 50	4	1,280
Direct	STD	1,350	1.50	Z 50	4	1,370
Direct	STD	1,500	1.75	Z 50	4	1,460
Direct	STD	1,650	2.00	Z 50	5	1,580
Direct	STD	1,650	2.25	Z 50	5	1,690
Direct	STD	1,850	2.50	Z 50	5	1,810
SW66	STD	1,050	1.00	Z 50	4	1,150
SW66	STD	1,200	1.25	Z 50	4	1,240
SW66	STD	1,350	1.50	Z 50	4	1,330
SW66	STD	1,500	1.75	Z 50	4	1,420
SW66	STD	1,650	2.00	Z 50	5	1,540
SW66	STD	1,650	2.25	Z 50	5	1,650
SW66	STD	1,850	2.50	Z 50	5	1,770

Available HD Buckets

Sticks 2.10 m/2.60 m/2.90 m/3.30 m/4.10 m

Mounting	Execution	Width (mm)	Capacity (m^3)	Teeth	Number of teeth	Weight (kg)
Direct	HD	1,050	1.00	Z 50	4	–
Direct	HD	1,200	1.25	Z 50	4	1,380
Direct	HD	1,350	1.50	Z 50	4	1,470
Direct	HD	1,500	1.75	Z 50	4	1,560
Direct	HD	1,650	2.00	Z 50	5	1,700
Direct	HD	1,650	2.25	Z 50	5	1,820
Direct	HD	1,850	2.50	Z 50	5	1,990
SW66	HD	1,050	1.00	Z 50	4	1,230
SW66	HD	1,200	1.25	Z 50	4	1,340
SW66	HD	1,350	1.50	Z 50	4	1,430
SW66	HD	1,500	1.75	Z 50	4	1,520
SW66	HD	1,650	2.00	Z 50	5	1,660
SW66	HD	1,650	2.25	Z 50	5	1,780
SW66	HD	1,850	2.50	Z 50	5	1,950

Standard Equipment

Undercarriage

- Lashing eyelets
- Lifetime-lubricated track rollers
- Sprocket with dirt ejector
- Track guide at each track frame (one piece)
- Tracks sealed and greased

Uppercarriage

- Engine hood with lift help
- Handrails, non slip surfaces
- Liebherr full-automatic central lubrication system (except connecting link for bucket kinematics)
- Maintenance-free swing brake lock
- Sound insulation

Hydraulic System

- Filter with integrated fine filter area
- Hydraulic tank shut-off valve and pumps
- Liebherr hydraulic oil
- Pressure storage for controlled lowering of equipment with engine turned off
- Pressure test ports for hydraulic
- Stepless work mode selector

Engine

- After-cooled
- Common-Rail system injection
- Conform with stage IV/Tier 4f emission standard
- Fuel filter and water separator
- Sensor controlled automatic engine idling
- Turbo charger

Operator's Cab

- 7" colour multifunction display with touchscreen
- All tinted windows
- Automatic air conditioning
- Cigarette lighter and ashtray
- Coat hook
- Completely retractable windscreen
- Cup holder
- Dome light
- Door with sliding windows
- Emergency exit rear window
- Front windscreen (bottom) retractable
- Fuel consumption indicator
- Headlights (two pieces, Halogen)
- Hydro mounts
- LiDAT Plus (Liebherr data transfer system) *
- Mechanical hour meters, readable from outside the cab
- Operator seat Comfort
- Preparation for radio installation
- Rain hood over front window opening
- Rear space monitoring with camera
- Roll-down sun blind
- ROPS safety cab structure
- Rubber floor mat
- Seat belt
- Storage bin
- Storage space
- Sunroof, right window and windshield with safety glass
- Wiper/washer

Attachment

- Headlight on boom (right, Halogen)
- Safety check valves hoist cylinder

* optionally extendable after one year

Options

Undercarriage

- Lockable tool box
- Reinforced base panel for centre section
- Reinforced cover plate and base plate for centre section
- Straight track guide
- Track guide at each track frame (four pieces)
- Track guide at each track frame (three pieces)

Uppercarriage

- 360° SkyView camera
- Camera for side area monitoring
- Customized colors
- Fuel anti-theft device
- Heavy counterweight
- Lockable tool box
- Refuelling pump (electrical)
- Reversible fan drive
- Socket (24 V) for urea filling station
- Uppercarriage guard at bottom and sides
- Wiggins diesel fuel

Hydraulic System

- Bypass filter
- Liebherr hydraulic oil, biodegradable
- Liebherr hydraulic oil, specially for warm and cold regions

Engine

- Air pre-filter with dust trap
- Automatic engine shut-down (adjustable time-period)
- Fuel pre-heating system
- Liebherr particle filter
- Lighting engine compartment

Operator's Cab

- Additional headlights or/and rear headlights (Halogen or LED)
- Amber beacon
- Auxiliary heater (programmable timer)
- Electric cool box (12 V)
- Electronic drive away lock
- Engine shut-down (emergency stop) in cab
- Falling objects protection structure (FOPS)
- Fire extinguisher
- Follow me home (headlight cutoff delay)
- Footrest
- Front guard protection structure (FGPS)
- Headlights (two pieces, LED)
- Headlights with adjustable intensity (LED)
- Impact resistant front window (one piece, fixed installation – can not be opened)
- Impact resistant front window (two pieces, fixed installation – can not be opened)
- Impact resistant glass panel in roof
- Operator seat Premium
- Proportional controls Liebherr
- Radio Comfort controllable from the display
- Roof wiper
- Seat belt 4 points
- Sun visor
- Travel alarm system
- Windscreen wiper on bottom part

Attachment

- Additional headlights on boom (left, Halogen or Xenon)
- Bottom boom protection for gooseneck boom or stick
- Headlights on boom (right, Xenon)
- High pressure circuit
- Hydraulic or mechanical quick coupler
- Liebherr automatic lubrication system for link geometry
- Liebherr line of buckets
- Liebherr tooth system
- LIKUFIX
- Middle pressure circuit
- Overload warning device
- Piston rod guard for adjustable cylinders
- Piston rod guard for bucket cylinders
- Safety check valves stick cylinder
- Security for hoist cylinder in grab or hammer operation
- Stick cylinder shut-down, adjustable
- Tool Control

Options and/or special attachments, supplied by vendors other than Liebherr, are only to be installed with the knowledge and approval of Liebherr in order to retain warranty.

The Liebherr Group of Companies

Wide Product Range
The Liebherr Group is one of the largest construction equipment manufacturers in the world. Liebherr's high-value products and services enjoy a high reputation in many other fields. The wide range includes domestic appliances, aerospace and transportation systems, machine tools and maritime cranes.

Exceptional Customer Benefit
Every product line provides a complete range of models in many different versions. With both their technical excellence and acknowledged quality, Liebherr products offer a maximum of customer benefits in practical application.

State-of-the-art Technology
To provide consistent, top quality products, Liebherr attaches great importance to each product area, its components and core technologies. Important modules and components are developed and manufactured in-house, for instance the entire drive and control technology for construction equipment.

Worldwide and Independent
Hans Liebherr founded the Liebherr family company in 1949. Since that time, the enterprise has steadily grown to a group of more than 130 companies with over 41,000 employees located on all continents. The corporate headquarters of the Group is Liebherr-International AG in Bulle, Switzerland. The Liebherr family is the sole owner of the company.

www.liebherr.com

Printed in Germany by Schirmer RG-BK LFR/SP 11827361-2-04.15_enGB

Liebherr-France SAS
2 avenue Joseph Rey, B.P. 90287, FR-68005 Colmar Cedex
☎ +33 389 21 30 30, Fax +33 389 21 37 93
www.liebherr.com, E-Mail: info.lfr@liebherr.com
www.facebook.com/LiebherrConstruction