

Crawler Excavator

R 976

Litronic®

Generation

6

Engine

400 kW/544 HP

Stage V

Operating Weight

Backhoe: 85,800 – 96,500 kg

Shovel: 91,500 – 93,300 kg

Bucket Capacity

Backhoe: 2.00 – 6.80 m³

Shovel: 5.10 – 6.00 m³



LIEBHERR

Performance

Power, Versatility
and Productivity

Economy

Profitability – Efficiency and
Reduced Operating Costs

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Reliability

World-renowned
Robustness

Comfort

Spacious Cab, Ergonomic
and High-visibility

Easy Maintenance

Simple and Safe Service
Check Points



Performance



**Power, Versatility
and Productivity**

High Performance for Maximum Productivity

The R 976 crawler excavator is characterised by its maximum productivity. Whether it be in earthmoving or quarry applications, this 90 tonne class excavator has an optimised hydraulic system matched together with intelligent operating modes. This ensures the capability for operating on large construction sites and quarries.

Reliable Working Capacity

The Liebherr V8 engine on the R 976 is very productive thanks to its high torque even at low speeds. The digging and breakout forces of 390 kN and 485 kN respectively ensure fast and efficient working cycles. Equipped with a Liebherr bucket and tooth system it guarantees easy penetration into material for easy extraction. The R 976 stability and smooth movements of the machine ensure comfortable and fast loading of dump trucks.

Optimisation of Hydraulic System for Constant Power

With an independent 3rd pump dedicated for swing the R 976 has optimal power. This provides maximum torque while swinging and the remaining two pumps still have full power for excavating and loading.

The Versatility of the Wide Range of Attachments

Thanks to the wide variety of attachments with optimised kinematics, the R 976 impresses with its versatility in all applications.

Liebherr Engine

- Compliant with Stage V emission standard 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

Choice of Work Mode

- E Mode – Economy: for economical and ecologically-friendly operation. Minor restriction of power without affecting the load lifting and excavating capacities
- P Mode – Power: for high excavation capacities and difficult applications. Pump flow and power are not limited
- S Mode – Sensitivity: for precision jobs and loading of materials
- P+ Mode – Full Power: especially designed for increased power; only recommended for extreme applications

Floating Boom Function

- Increased hydraulic flow for the other cylinders (stick and/or bucket for example)
- More power available, making it easier to extract materials and reduce working cycle times
- Increased service life when a hydraulic hammer is used



Economy



**Profitability – Efficiency and
Reduced Operating Costs**

Low Operating Costs

Thanks to its high technology and innovation, the Liebherr France Company increases the performance of its machines while reducing their fuel consumption. Examples of this are the new diesel engine, automatic idling, electronic engine speed sensing control, Regeneration Plus function and the hydrostatic cooling system (fans operate only when necessary). Consequently, the reduced fuel consumption means less pollution.

LiDAT Fleet and Machine Fleet Management Tool

To improve your machine management, Liebherr has developed its own data transmission system using the GPRS network. This system allows you to instantly know the position of your excavator via a web interface. Thanks to data transmission, the LiDAT system developed and manufactured by Liebherr keeps you informed about fuel consumption, number of service hours or machine faults, just to name a few. LiDAT allows you to be proactive and more responsive: organizing and maintaining your fleet for increased productivity.

An Excellent After-Sales Service

The after-sales services can be customized to suit and respond to your specific needs. Several programs, such as ReMan, ReBuilt and Repair provide the perfect, economical solution, always including the manufacturer's quality and guarantee. A team of technicians, specialized to intervene on your machines, has all the latest-generation diagnostic tools, for a reduced down time of the machine. By following your chosen maintenance program, you will also obtain a higher resale price.

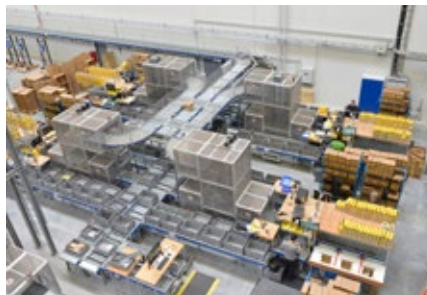
Liebherr Tools

- 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



Spare Parts Service

- The spare parts required are available from our logistics centre, for delivery around the world, thus guaranteeing optimal machine availability for assignment
- Over 100,000 different spare parts are available in stock



Liebherr Lubricants

- Complete range of lubricants and coolants for your Liebherr engines
- Special service with product specialists available to listen to and advise you



Reliability



**World-Renowned
Robustness**

A Durable and Proven Design

In demanding applications Liebherr represents the benchmark for the robustness of its machines and the quality of the Liebherr components. Several casted parts are used for the design of the machine and are a testimony to the expertise and know-how of the manufacturer. With the large-sized attachments the R 976 crawler excavator is ideal for tough applications.

A Proven Production Process and Advanced Technology

Liebherr development process integrates advanced digital tools in the fields of finite element computation, fatigue calculation and other simulation software. The results are then validated on special test benches prior to carrying out endurance tests on the entire machine in extreme conditions.

High-Performance and Durable Undercarriage

Liebherr offers a large and unique range of welded or bolted undercarriages. The chamfered track pads have optimal manoeuvrability and are more resistant to wear on rocky terrain. The Liebherr travel drive is more powerful and better protected. The supporting rollers with double bearings guarantee improved load distribution and thus better durability over time.

Specific Solutions Tailored to Customer Requirements

In the case a customer has a special request to address a specific application the customized solutions are designed and manufactured by Liebherr. This ensures successful integration and optimal performance of the excavator for the customer. As a sign of reliability Liebherr provides a manufacturer's warranty for the entire excavator including specific components as well as the electronics.

SCR System with Diesel Exhaust Fluid (AdBlue®)

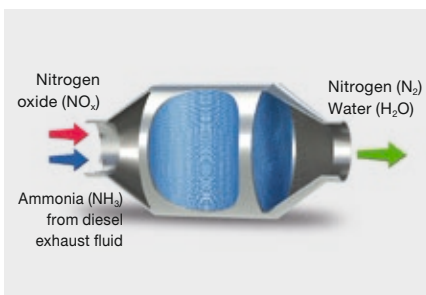
- Diesel exhaust fluid level indicator on the display
- Liebherr design
- Complies with Stage V standard
- Simple system for enhanced reliability and less maintenance

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 undercarriage, welded or bolted

Key Components Developed by Liebherr

- Perfect harmonization of the machine elements, designed specifically for earthmoving and quarry applications
- Combustion engine, hydraulic pumps, swing mechanism, cylinders and electronic components are designed and manufactured by Liebherr
- Purpose built options such as special attachment lengths
- Specific tools and custom protection can be added at the factory



Comfort



**Spacious Cab, Ergonomic
and High-Visibility**

A Spacious and Ergonomic Work Station

The cab offers a generous space for maximum comfort. Equipped, among other things, with a pneumatic seat with heater as standard (optional with airconditioning), controls connected to the seat and high-performance automatic air-conditioning, the cab creates a pleasant working environment. All the controls are precisely laid out in an intuitive manner for greater responsiveness and concentration while working. The cab is mounted on viscoelastic studs for significantly lower vibration.

Fully Automatic Air-Conditioning

The automatic air-conditioning with touchscreen controls has several ventilation outlets for optimum ambient air in the cab.

High Resolution Color Touchscreen

The color touchscreen is a true human-machine interface for controlling several comfort functions, such as the radio, and more operational functions, such as work modes, tool types and even the backup camera.

A Spacious and Comfortable Cab

The cab of the R 976 is the most spacious cab in 90 tonne machine class. It offers unrivalled comfort for higher operator productivity during long working hours. With the highest level of protection on the market the impact-resistant windows offer maximum safety.



Control Screen

- 7" color touchscreen
- Several setting, control and surveillance options
- Robust and reliable design (Ingress Protection Rating IP65)
- Compatible high resolution video for displaying the rear camera image

Increased 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 upper-carriage providing the operator with an improved field of vision
- Secure emergency exit through the rear window

New Options

- 360° camera
- Windshield wiper on bottom part
- Light packs
 - LED lighting replaces halogen bulbs, as standard
 - Different packs available (service, access, etc.)

Easy Maintenance



**Simple and Safe
Service Check Points**

Ergonomic Access and Time-Saving

For maximum safety during servicing different types of platforms are available with a large central platform in particular for access to engine and hydraulic system components. The two-piece engine hood facilitates easier opening and closing. Fluid level monitoring, such as the engine oil level or urea tank level can be carried out quickly and easily from the touchscreen in the cab. The automatic lubrication system reduces precious servicing time while guaranteeing optimal lubrication of the excavator.

Less Maintenance for more Productivity

The frequency of the service intervals is optimised to guarantee that each part is functioning optimally and that the maintenance tasks are only performed as necessary. Whether it is the interval for changing the hydraulic oil, which can be up to 3,000 hours, or the interval for changing the engine oil, every 500 hours, everything has been taken into account to reduce the frequency of interventions and thus limit the machine's downtime and lower costs.

An Exhaust Gas Treatment without Maintenance

Thanks to its unique Liebherr design, the exhaust gas treatment is carried out in compliance with the Stage V standards. This results in an output with no loss of productivity linked to the regeneration of these filters.

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



Liebherr AdBlue Solution

- The crawler excavator has a stainless steel urea tank with capacity for 180 litres
- For maximum safety, the tank can be refilled using a filling pump and gun (optional)
- An 24 V electric field supply is also available for connecting the filling kit



Liebherr Warranties and Remanufacturing

- Significant warranties for the complete excavator and key components
- Optimal planning of all servicing activities
- Liebherr remanufacturing programme for processing worn components, conforming to the highest industrial standards



Experience the Progress R 976

Equipment

- Cast steel components
- Greater resistance to stresses
- Longer service life
- Safety check valves for stick and boom cylinders with integrated regeneration for less fuel consumption

Tools

- Different levels of protection to suit the different areas of application
- New Liebherr Z-type tooth system





Operator's Cab

- Comfortable and ergonomic design
- 7" high definition colour touch screen
- Wider for more comfort
- Impact resistant windows at the front and in the roof as standard
- Optional FOPS and FGPS protective guards

Accessibility

- Maintenance platform in the engine compartment
- Broad, anti-slip side catwalks (right and left) as standard

Undercarriage

- Robust structure thanks to the more rigid profile
- Molded two-tooth sprocket for a longer service life
- Two types of undercarriage available: an HD fixed-track gauge and LC-V variable-track gauge

Experience the Progress R 976 Shovel

Equipment

- Cast steel parts
- Parallel kinematics for powerful break-out
- Bucket cylinders positioned under the equipment for better protection against the elements
- Safety valves on boom cylinder for pipe burst protection

Buckets

Different types of buckets:

- Type I: non-abrasive materials, such as limestone without flint
- Type II: Shot material, or easily breakable rock (classification 3 to 4 according to DIN 18300)
- Type III: Highly abrasive materials, such as rocks with a high silica content, sandstone, granite, etc.
- Front shovel flap closure semi-automatic





Operator's Cab

- Comfortable and ergonomic design
- 7" high-resolution colour touch screen
- Wider for more comfort
- Impact resistant windows at the front and in the roof as standard
- Optional FOPS and FGPS protection guards
- Operator's cab with a fixed riser for a full view over the work area

Technical Data



Engine

Rating per ISO 9249	400 kW (544 HP) at 1,800 RPM
Torque	2,939 Nm at 1,300 RPM
Model	Liebherr D9508 A7 SCR
Type	8 cylinder V engine
Bore	128 mm
Stroke	157 mm
Displacement	16.16 l
Engine operation	4-stroke diesel Common-Rail
Exhaust gas treatment	Stage V DOC + DPF + SCR Passive regeneration by thermo management
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	1,498 l
Urea tank	180 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/140 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

Power distribution	Via control valves in single block with integrated safety valves
Flow summation	To boom and stick
Closed-loop circuit	For uppercarriage swing drive
Servo circuit	Electro-hydraulic control
Equipment and swing	Proportional via joystick levers
Travel	- Proportional control via foot pedals or removable levers - Speed pre-selection
Additional functions	Proportional regulation via foot pedals or mini-joystick



Hydraulic System

Hydraulic pumps	
For equipment and travel drive	Two Liebherr variable displacement, swashplate pumps
Max. flow	2 x 498 l/min.
Max. pressure	350 bar
For swing drive	Reversible, variable displacement, swashplate pump, closed-loop circuit
Max. flow	315 l/min.
Max. pressure	350 bar
Pump regulation	Electro-hydraulic with electronic engine speed sensing regulation, minimum flow adjustment, flow compensation, high flow
Hydraulic tank	536 l
Hydraulic system	1,134 l
Hydraulic oil filter	2 full flow filters in return line with integrated fine filter area (5 µm)
Cooling system	Cooler for transmission pump oil and cooler for oil and condenser of air-conditioning with hydrostatically controlled fan drives
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	20 pre-adjustable pump flows and pressures for add-on attachments



Swing Drive

Drive	Liebherr swashplate motor with integrated brake valve
Transmission	Liebherr compact planetary reduction gears
Swing ring	Liebherr, sealed race ball bearing swing ring, internal teeth
Swing speed	0 – 5.9 RPM stepless
Swing torque	295 kNm
Holding brake	Wet multi-disc (spring applied, pressure released)



Operator's Cab

Cab	LED work headlights integrated in the ceiling, a door with a sliding window (can be opened on both sides), large storing box and several stowing possibilities, shock-absorbing suspension, sounddamping insulating, tinted laminated safety glass, separate window shades for the sunroof window and windscreen, cigarette lighter and 12 V plug, storage bins, lunchbox, cup holder
Operator's seat	Liebherr-Comfort seat, airsprung with automatic weight adjustment, vertical and longitudinal seat damping including consoles and joysticks. Seat and armrests adjustable separately and in combination (adjustable in width, height and inclination), seat heating as standard
Arm consoles	Oscillating consoles with seat, tiltable console left
Operation and displays	Large high-resolution operating unit, intuitive, colour display with touchscreen, video-compatible, numerous setting, control and monitoring options, e.g. air conditioning control, fuel consumption, machine and attachment parameters
Air-conditioning	Automatic air-conditioning, recirculated air function, fast de-icing and demisting at the press of a button, air vents can be operated via a menu. Recirculated 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 The air conditioning system contains fluorinated greenhouse gases
Refrigerant	R134a
Global warming potential	1,430
Quantity at 25 °C*	1,260 g
CO ₂ equivalent	1.80 t
Vibration emission**	
Hand/arm vibrations	< 2.5 m/s ² , according with ISO 5349-1:2001
Whole-body vibrations	< 0.5 m/s ²
Measuring inaccuracy	According with standard EN 12096:1997
Noise emission	
ISO 6396	L _{pA} (inside cab) = 72 dB(A)
2000/14/EC	L _{WA} (surround noise) = 109 dB(A)



Undercarriage

Versions	
HD	Gauge 3,600 mm
LC-V	Gauge 3,590 mm
Drive	Liebherr swashplate motor with brake valves on both sides
Transmission	Liebherr compact planetary reduction gear
Maximum travel speed	Low range 2.7 km/h High range 4.3 km/h
Drawbar pull on crawler	568 kN
Track components	D9G, maintenance-free
Track rollers/Carrier rollers	HD: 8/2 LC-V: 9/3
Tracks	Sealed and greased
Track pads	Double grouser
Holding brake	Wet multi-disc (spring applied, pressure released)
Brake valves	Outside the travel motor
Lashing eyes	Integrated



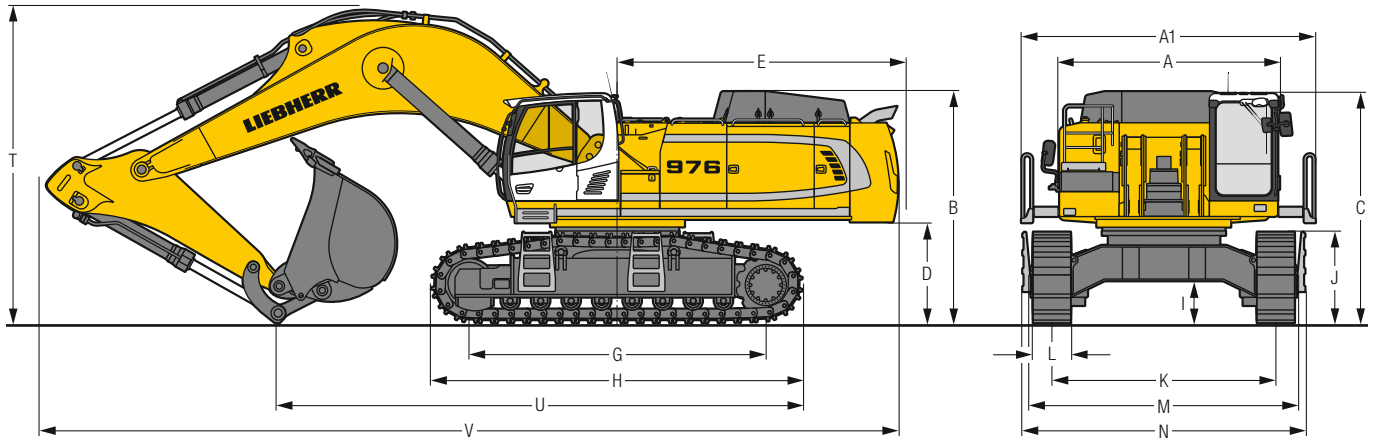
Equipment

Type	Combination of resistant steel plates and cast steel components
Hydraulic cylinders	Liebherr cylinders with seal and guidance systems
Bearings	Sealed, low maintenance
Lubrication	Automatic central lubrication system (except link and tilt geometry)
Hydraulic connections	Pipes and hoses equipped with SAE split-flange connections
Buckets	Standard equipped with Liebherr tooth system

* Valid for standard machine without operator's cab elevation and without height adjustable cab

** For the risk assessment according to 2002/44/EC see ISO/TR 25398:2006

Dimensions



	HD			mm			LC-V			mm				
A	Uppercarriage width					3,565						3,565		
A1	Uppercarriage width with catwalks					4,730						4,730		
B	Uppercarriage height					3,725						3,865		
C	Cab height					3,695/3,890*						3,835/4,030*		
D	Counterweight ground clearance					1,620						1,755		
E	Rear-end length					4,640						4,640		
G	Wheelbase					4,770						5,160		
H	Undercarriage length					5,960						6,335		
I	Undercarriage ground clearance					682						955		
J	Track height					1,460						1,495		
K	Track gauge					3,600						2,750/3,590**		
L	Track pad width					500	600	750				500	600	750
M	Width over tracks					4,290	4,290	4,350				3,490**	3,490**	3,500**
N	Width over steps					4,540	4,540	4,540				3,870**	3,870**	3,870**

* with FOPS top guard

** work position

	Stick length m	Mono boom 7.20 m direct mounting			Mono boom 8.60 m direct mounting			Mono boom 10.50 m direct mounting				
		HD	mm		LC-V	HD	mm		LC-V	HD	mm	
T Boom height	2.90	5,100		5,150	–		–	–	–			–
	3.30	5,250		5,350	5,450		5,500	–	–			–
	3.80	5,550		5,600	5,600		5,700	5,900				6,000
	4.70	6,050		6,150	6,000		6,000	6,100				6,200
	5.80	–		–	6,800		6,750	6,800				6,800
U Length on ground	2.90	8,450		8,600	–		–	–				–
	3.30	8,200		8,350	9,950		10,100	–				–
	3.80	8,100		8,200	9,850		10,000	11,900				12,050
	4.70	7,950		8,050	9,650		9,800	11,700				11,850
	5.80	–		–	9,650		9,750	11,550				11,700
V Overall length	2.90	13,800		13,800	–		–	–				–
	3.30	13,500		13,500	14,900		14,900	–				–
	3.80	13,400		13,450	14,750		14,750	16,650				16,650
	4.70	13,150		13,250	14,550		14,550	16,450				16,500
	5.80	–		–	14,150		14,250	16,150				16,250
Bucket				5.20 m ³			3.60 m ³					2.60 m ³

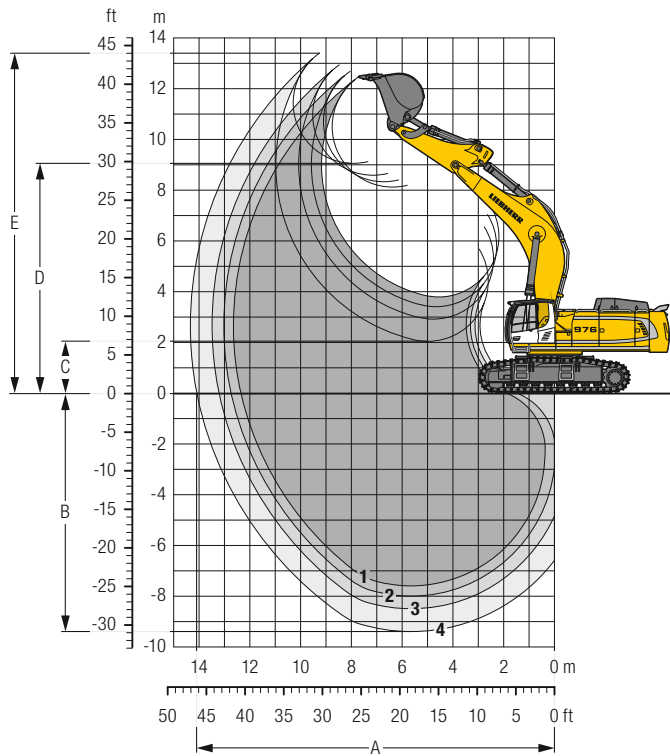
Transport Dimensions

removable elements disassembled

	Stick m	Mono boom 7.20 m			Mono boom 8.60 m			Mono boom 10.50 m		
		mm			mm			mm		
Pad width		500	600	750	500	600	750	500	600	750
Transport width		4,730	4,730	4,730	4,730	4,730	4,730	4,730	4,730	4,730
Transport length		HD		LC-V	HD		LC-V	HD		LC-V
	2.90	13,800		13,800	–		–	–		–
	3.30	13,500		13,500	14,900		14,900	–		–
	3.80	13,400		13,450	14,750		14,750	16,650		16,650
	4.70	13,150		13,250	14,550		14,550	16,450		16,500
5.80	–		–	14,150		14,250	16,150		16,250	
Transport height	2.90	5,100		5,150	–		–	–		–
	3.30	5,250		5,350	5,450		5,500	–		–
	3.80	5,550		5,600	5,600		5,700	5,900		6,000
	4.70	6,050		6,150	6,000		6,000	6,100		6,200
	5.80	–		–	6,800		6,750	6,800		6,800
Bucket				5.20 m ³			3.60 m ³			2.60 m ³

Backhoe Bucket

with Mono Boom 7.20 m and Counterweight 14.1 t



Digging Envelope

without quick coupler		1	2	3	4
Stick length	m	2.90	3.30	3.80	4.70
A Max. reach at ground level	m	12.30	12.70	13.20	14.05
B Max. digging depth	m	7.45	7.85	8.35	9.25
C Min. dumping height	m	3.80	3.40	2.90	2.05
D Max. dumping height	m	8.25	8.50	8.75	9.20
E Max. cutting height	m	12.60	12.85	13.10	13.55

Forces

without quick coupler		1	2	3	4
Stick digging force (ISO 6015)	kN	390	361	329	284
Bucket digging force (ISO 6015)	kN	485	485	485	485
Stick digging force (SAE J1179)	kN	374	347	317	276
Bucket digging force (SAE J1179)	kN	437	437	437	437

Operating Weight and Ground Pressure

The operating weight includes the basic machine with counterweight 14.1 t, mono boom 7.20 m, stick 2.90 m and bucket 5.20 m³ (4,650 kg).

Undercarriage		HD			LC-V		
Pad width	mm	500	600	750	500	600	750
Weight	kg	85,800	86,600	87,700	91,200	92,000	93,100
Ground pressure	kg/cm ²	1.65	1.39	1.13	1.64	1.38	1.12

Optional: counterweight 16.0 t
(counterweight 16.0 t increases the operating weight by 1,900 kg and ground pressure by 0.04 kg/m²) see load tables on page 31

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

	Cutting width mm	Capacity ISO 7451 m ³	Weight kg	HD-Undercarriage (with track pads 600 mm)				LC-V-Undercarriage (with track pads 600 mm)			
				Stick length (m)				Stick length (m)			
				2.90	3.30	3.80	4.70	2.90	3.30	3.80	4.70
with counterweight 14.1 t											
STD ¹⁾	2,200	5.20	4,650	▲	▲	▲	▲	▲	▲	▲	■
	2,300	5.60	4,850	▲	▲	■	■	▲	▲	■	▲
	2,300	6.20	5,050	■	■	■	△	▲	■	▲	△
	2,500	6.80	5,400	▲	■	△	△	■	▲	■	△
HD ²⁾	2,200	4.60	5,100	▲	▲	▲	■	▲	▲	▲	■
	2,200	5.20	5,300	▲	▲	■	■	▲	▲	▲	▲
	2,300	5.60	5,550	▲	■	▲	△	▲	▲	■	■
	2,300	6.20	5,800	■	▲	■	△	▲	■	▲	△
HDV ³⁾	2,000	4.20	5,600	▲	▲	▲	■	▲	▲	▲	▲
	2,200	4.70	5,850	▲	▲	▲	▲	▲	▲	▲	▲
	2,200	5.20	6,250	▲	■	▲	△	▲	▲	■	■
	2,300	5.70	6,500	■	▲	■	△	▲	■	▲	△
with counterweight 16.0 t											
STD ¹⁾	2,200	5.20	4,650	▲	▲	▲	■	▲	▲	▲	■
	2,300	5.60	4,850	▲	▲	▲	▲	▲	▲	▲	■
	2,300	6.20	5,050	▲	■	■	■	▲	▲	■	■
	2,500	6.80	5,400	■	▲	■	△	▲	■	▲	△
HD ²⁾	2,200	4.60	5,100	▲	▲	▲	▲	▲	▲	▲	▲
	2,200	5.20	5,300	▲	▲	▲	▲	▲	▲	▲	■
	2,300	5.60	5,550	▲	▲	■	■	▲	▲	▲	▲
	2,300	6.20	5,800	▲	■	▲	△	▲	▲	■	■
HDV ³⁾	2,000	4.20	5,600	▲	▲	▲	▲	▲	▲	▲	▲
	2,200	4.70	5,850	▲	▲	▲	■	▲	▲	▲	■
	2,200	5.20	6,250	▲	▲	■	■	▲	▲	▲	▲
	2,300	5.70	6,500	▲	■	▲	△	▲	▲	■	■

* Indicated loads are based on ISO 10567, at maximum reach, and may be swung 360° on firm and even ground

¹⁾ Standard bucket with Liebherr teeth Z 90

²⁾ HD bucket with Liebherr teeth Z 90

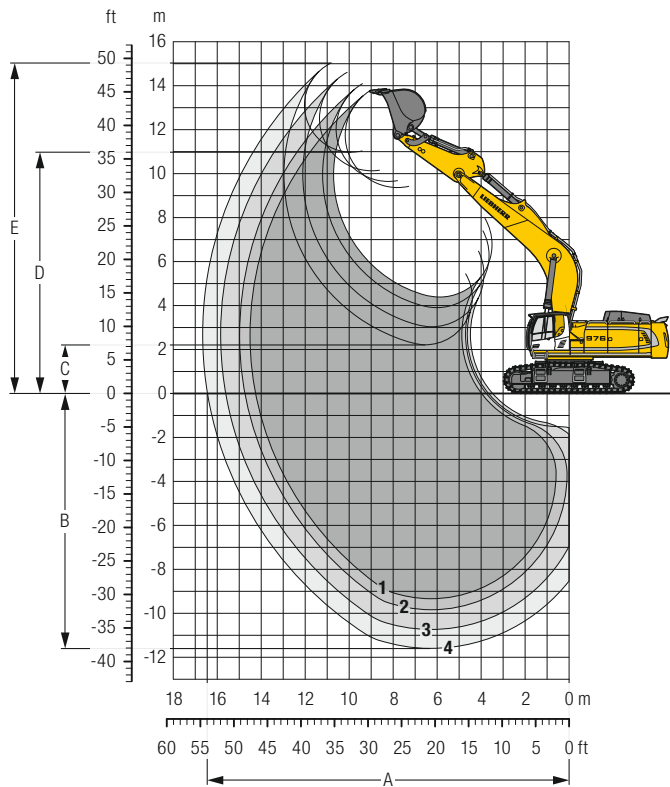
³⁾ HDV bucket with Liebherr teeth Z 90

Other buckets available upon request

Max. material weight ▲ = ≤ 2.0 t/m³, ■ = ≤ 1.8 t/m³, ▲ = ≤ 1.65 t/m³, ■ = ≤ 1.5 t/m³, △ = ≤ 1.2 t/m³

Backhoe Bucket

with Mono Boom 8.60 m and Counterweight 14.1 t



Digging Envelope

without quick coupler		1	2	3	4
Stick length	m	3.30	3.80	4.70	5.80
A Max. reach at ground level	m	14.20	14.70	15.60	16.40
B Max. digging depth	m	9.20	9.70	10.60	11.45
C Min. dumping height	m	4.40	3.90	3.05	2.20
D Max. dumping height	m	9.50	9.80	10.30	11.10
E Max. cutting height	m	13.90	14.20	14.75	15.15

Forces

without quick coupler		1	2	3	4
Stick digging force (ISO 6015)	kN	361	329	284	249
Bucket digging force (ISO 6015)	kN	485	485	485	356
Stick digging force (SAE J1179)	kN	347	317	276	237
Bucket digging force (SAE J1179)	kN	437	437	437	315

Operating Weight and Ground Pressure

The operating weight includes the basic machine with counterweight 14.1 t, mono boom 8.60 m, stick 3.80 m and bucket 3.60 m³ (3,900 kg).

Undercarriage		HD			LC-V		
Pad width	mm	500	600	750	500	600	750
Weight	kg	86,400	87,100	88,200	91,700	92,500	93,600
Ground pressure	kg/cm ²	1.67	1.40	1.14	1.65	1.39	1.12

Optional: counterweight 16.0 t
(counterweight 16.0 t increases the operating weight by 1,900 kg and ground pressure by 0.04 kg/m²) see load tables on pages 34 and 35

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

	Cutting width mm	Capacity ISO 7451 m ³	Weight kg	HD-Undercarriage (with track pads 600 mm)				LC-V-Undercarriage (with track pads 600 mm)			
				Stick length (m)				Stick length (m)			
				3.30	3.80	4.70	5.80	3.30	3.80	4.70	5.80
with counterweight 14.1 t											
STD ¹⁾	1,800	3.60	3,900	▲	▲	▲	–	▲	▲	■	–
	2,000	4.10	4,100	▲	■	■	–	▲	■	▲	–
	2,200	4.60	4,450	▲	■	△	–	■	▲	△	–
	2,200	5.20	4,650	■	△	–	–	▲	△	△	–
	2,300	5.60	4,850	△	△	–	–	■	△	–	–
	2,300	6.20	5,050	△	–	–	–	△	△	–	–
HD ²⁾	1,800	3.60	4,350	▲	▲	▲	–	▲	▲	■	–
	2,000	4.10	4,700	■	▲	△	–	▲	■	■	–
	2,200	4.60	5,100	■	△	–	–	▲	■	△	–
	2,200	5.20	5,300	△	△	–	–	■	△	–	–
	2,300	5.60	5,550	△	–	–	–	△	△	△	–
HDV ³⁾	1,800	3.70	5,200	▲	■	△	–	▲	■	■	–
	2,000	4.20	5,600	▲	■	△	–	■	▲	△	–
	2,200	4.70	5,850	△	△	–	–	■	△	–	–
	2,200	5.20	6,250	△	–	–	–	△	△	–	–
	2,300	5.70	6,500	–	–	–	–	△	–	–	–
STD ⁴⁾	1,950	3.00	3,100	–	–	–	▲	–	–	–	▲
	2,150	3.50	3,350	–	–	–	▲	–	–	–	■
	1,950	4.00	3,600	–	–	–	△	–	–	–	■
	2,150	4.50	3,800	–	–	–	△	–	–	–	△
	2,250	5.00	3,950	–	–	–	–	–	–	–	△
HD ⁵⁾	1,750	2.50	3,600	–	–	–	▲	–	–	–	▲
	2,000	3.00	3,900	–	–	–	■	–	–	–	▲
	2,200	3.50	4,300	–	–	–	■	–	–	–	▲
	2,000	4.00	4,500	–	–	–	△	–	–	–	△
with counterweight 16.0 t											
STD ¹⁾	1,800	3.60	3,900	▲	▲	■	–	▲	▲	▲	–
	2,000	4.10	4,100	▲	▲	▲	–	▲	▲	■	–
	2,200	4.60	4,450	■	▲	△	–	▲	■	■	–
	2,200	5.20	4,650	▲	■	△	–	■	▲	△	–
	2,300	5.60	4,850	■	△	–	–	▲	■	△	–
	2,300	6.20	5,050	△	△	–	–	△	△	△	–
	2,500	6.80	5,400	△	–	–	–	△	–	–	–
HD ²⁾	1,800	3.60	4,350	▲	▲	■	–	▲	▲	▲	–
	2,000	4.10	4,700	▲	■	■	–	▲	▲	▲	–
	2,200	4.60	5,100	■	▲	△	–	■	▲	△	–
	2,200	5.20	5,300	■	△	–	–	▲	■	△	–
	2,300	5.60	5,550	△	△	–	–	■	△	–	–
	2,300	6.20	5,800	△	–	–	–	△	△	–	–
HDV ³⁾	1,800	3.70	5,200	▲	▲	▲	–	▲	▲	■	–
	2,000	4.20	5,600	■	▲	△	–	▲	■	■	–
	2,200	4.70	5,850	▲	■	△	–	■	■	△	–
	2,200	5.20	6,250	△	△	–	–	■	△	–	–
	2,300	5.70	6,500	△	–	–	–	△	△	–	–
STD ⁴⁾	2,150	3.50	3,350	–	–	–	■	–	–	–	▲
	1,950	4.00	3,600	–	–	–	■	–	–	–	▲
	2,150	4.50	3,800	–	–	–	△	–	–	–	■
	2,250	5.00	3,950	–	–	–	△	–	–	–	△
	2,450	5.50	4,200	–	–	–	–	–	–	–	△
HD ⁵⁾	2,000	3.00	3,900	–	–	–	▲	–	–	–	▲
	2,200	3.50	4,300	–	–	–	▲	–	–	–	■
	2,000	4.00	4,500	–	–	–	△	–	–	–	■
	2,200	4.50	4,850	–	–	–	△	–	–	–	△

* Indicated loads are based on ISO 10567, at maximum reach, and may be swung 360° on firm and even ground

1) Standard bucket with Liebherr teeth Z 90

2) HD bucket with Liebherr teeth Z 90

3) HDV bucket with Liebherr teeth Z 90

4) Standard bucket from R 966 **Litronic** with Liebherr teeth Z 70

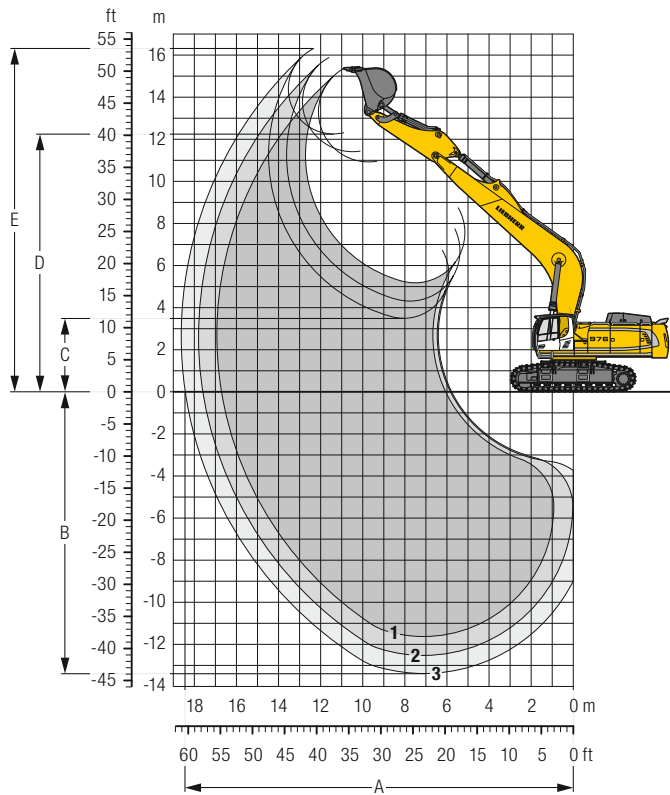
5) HD bucket from R 966 **Litronic** with Liebherr teeth Z 90

Other buckets available upon request

Max. material weight ▲ = ≤ 2.0 t/m³, ■ = ≤ 1.8 t/m³, ▲ = ≤ 1.65 t/m³, ■ = ≤ 1.5 t/m³, △ = ≤ 1.2 t/m³, – = not authorised

Backhoe Bucket

with Mono Boom 10.50 m and Counterweight 16.0 t



Digging Envelope

without quick coupler		1	2	3
Stick length	m	3.80	4.70	5.80
A Max. reach at ground level	m	16.70	17.55	18.40
B Max. digging depth	m	11.50	12.40	13.25
C Min. dumping height	m	5.20	4.30	3.50
D Max. dumping height	m	11.05	11.55	12.40
E Max. cutting height	m	15.50	16.00	16.45

Forces

without quick coupler		1	2	3
Stick digging force (ISO 6015)	kN	329	284	249
Bucket digging force (ISO 6015)	kN	485	485	356
Stick digging force (SAE J1179)	kN	317	276	237
Bucket digging force (SAE J1179)	kN	437	437	315

Operating Weight and Ground Pressure

The operating weight includes the basic machine with counterweight 16.0 t, mono boom 10.50 m, stick 4.70 m and bucket 2.60 m³ (3,400 kg).

Undercarriage		HD			LC-V		
Pad width	mm	500	600	750	500	600	750
Weight	kg	89,200	90,000	91,100	94,600	95,400	96,500
Ground pressure	kg/cm ²	1.72	1.44	1.17	1.70	1.42	1.15

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

	Cutting width mm	Capacity ISO 7451 m ³	Weight kg	HD-Undercarriage (with track pads 600 mm)			LC-V-Undercarriage (with track pads 600 mm)		
				Stick length (m)			Stick length (m)		
				3.80	4.70	5.80	3.80	4.70	5.80
with counterweight 16.0 t									
STD ¹⁾	1,450	2.60	3,400	▲	▲	–	▲	■	–
	1,800	3.60	3,900	△	–	–	■	△	–
	2,000	4.10	4,100	△	–	–	△	–	–
HD ²⁾	1,450	2.60	3,750	▲	■	–	▲	■	–
	1,800	3.60	4,350	△	–	–	△	△	–
	2,000	4.10	4,700	–	–	–	△	–	–
HDV ³⁾	1,800	3.70	5,200	–	–	–	△	–	–
STD ⁴⁾	1,400	2.00	2,500	–	–	▲	–	–	▲
	1,700	2.50	2,850	–	–	▲	–	–	■
	1,950	3.00	3,100	–	–	△	–	–	■
	2,150	3.50	3,350	–	–	–	–	–	△
HD ⁵⁾	1,450	2.00	3,100	–	–	▲	–	–	▲
	1,750	2.50	3,600	–	–	■	–	–	▲
	2,000	3.00	3,900	–	–	△	–	–	△

* Indicated loads are based on ISO 10567, at maximum reach, and may be swung 360° on firm and even ground

¹⁾ Standard bucket with Liebherr teeth Z 90

²⁾ HD bucket with Liebherr teeth Z 90

³⁾ HDV bucket with Liebherr teeth Z 90

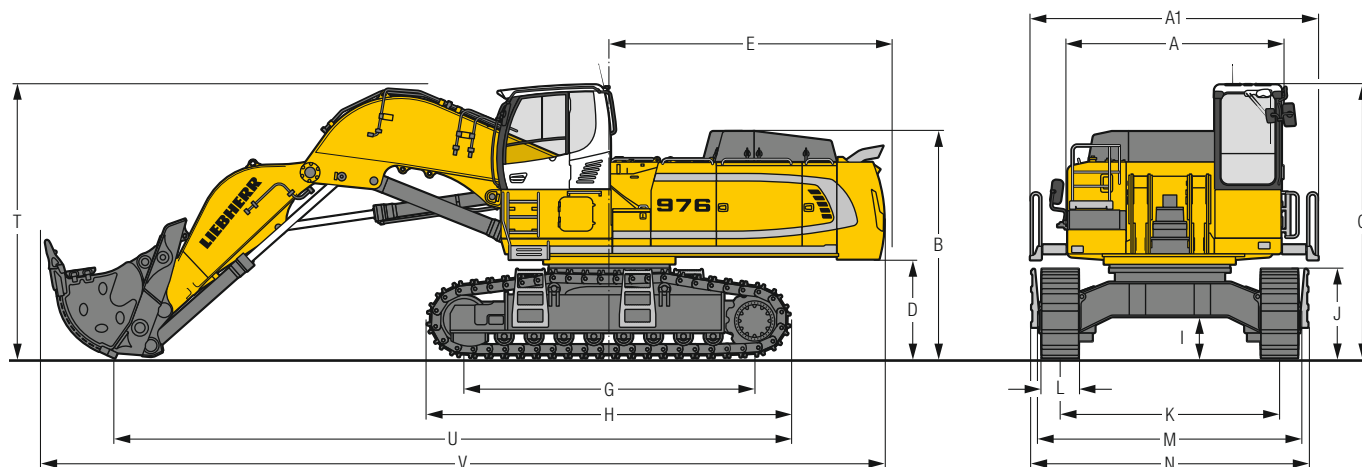
⁴⁾ Standard bucket from R 966 **Litronic** with Liebherr teeth Z 70

⁵⁾ HD bucket from R 966 **Litronic** with Liebherr teeth Z 90

Other buckets available upon request

Max. material weight ▲ = ≤ 2.0 t/m³, ■ = ≤ 1.8 t/m³, ▲ = ≤ 1.65 t/m³, ■ = ≤ 1.5 t/m³, △ = ≤ 1.2 t/m³, – = not authorised

Dimensions Front Shovel



	HD	mm
A	Uppercarriage width	3,565
A1	Uppercarriage width with catwalks	4,730
B	Uppercarriage height	3,725
C	Cab height	4,495 / 4,690*
D	Counterweight ground clearance	1,620
E	Rear-end length	4,640
G	Wheelbase	4,770
H	Undercarriage length	5,955
I	Undercarriage ground clearance	682

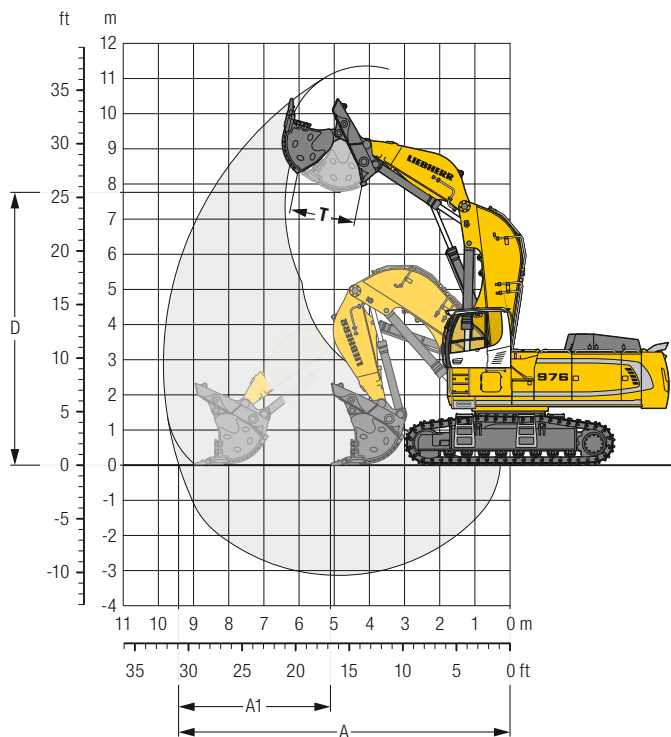
* with FOPS top guard

	HD	mm
J	Track height	1,460
K	Track gauge	3,600
L	Track pad width	500 600 750
M	Width over tracks	4,290 4,290 4,350
N	Width over steps	4,540 4,540 4,540
T	Boom height	4,500
U	Length on ground	11,100
V	Overall length	13,850

Transport Dimensions removable elements disassembled

	Shovel equipment mm
Transport width	4,540
Transport length	13,850
Transport height	4,690
Shovel	5.10 m ³

Front Shovel



Digging Envelope

A	Max. reach at ground level	m	9.40
A1	Max. crowd length	m	3.90
D	Max. dumping height	m	7.80
T	Bucket opening width	mm	1,825

Forces

	Max. crowd force	kN	690
	Max. crowd force at ground level	kN	490
	Max. breakout force	kN	500

Operating Weight and Ground Pressure

The operating weight includes the basic machine with cab elevation 800 mm, shovel equipment and front shovel 5.10 m³ (9,200 kg), level II.

Undercarriage		HD		
		500	600	750
Pad width	mm	500	600	750
Weight	kg	91,500	92,200	93,300
Ground pressure	kg/cm ²	1.76	1.48	1.20

Front Shovels

Cutting width mm	Capacity ISO 7461 m ³	Weight kg	Wear kit level	HD-Undercarriage		
				Shovel equipment		
2,700	5.10	8,450	I	▲	■	■
2,700	5.10	9,200	II	▲	■	■
2,700	5.10	10,150	III	■	■	■
2,700	5.40	10,600	III	■	■	■
2,700	5.60	8,750	I	■	■	■
2,700	5.60	9,500	II	■	■	■
2,700	6.00	9,950	I	▲	■	■
2,700	6.00	10,700	II	■	■	■

Level I: For non-abrasive materials, such as limestone without flint inclusion, shot material or easily breakable rock, i.e., deteriorated rock, soft limestone, shale, etc.

Level II: For pre-blasted heavy rock, or deteriorated, cracked material (classification 3 to 4, according to DIN 18300)

Level III: For highly-abrasive materials such as rock with a high silica content, sandstone etc.

Max. material weight ▲ = ≤ 2.0 t/m³, ■ = ≤ 1.8 t/m³, ▲ = ≤ 1.65 t/m³, ■ = ≤ 1.5 t/m³

Lift Capacities

with Mono Boom 7.20 m, Counterweight 14.1 t and Track Pads 600 mm

Stick 2.90 m

Under-carriage	m	3.0 m		4.5 m		6.0 m		7.5 m		9.0 m		10.5 m		m	
		HD	LC-V	HD	LC-V	HD	LC-V	HD	LC-V	HD	LC-V	HD	LC-V		
10.5													23.9*	23.9*	6.4
9.0								21.9*	21.9*				21.3*	21.3*	8.0
7.5								22.1*	22.1*	19.5	20.4*		19.5	20.2*	9.0
6.0								23.6*	23.6*	19.2	21.3*		16.9	19.9*	9.7
4.5								27.7*	27.7*	23.6*	23.6*		15.5	19.9	10.1
3.0								31.9*	31.9*	24.6	25.6*		14.7	19.0	10.3
1.5								30.1	37.0*	21.8	29.1		14.6	18.9	10.2
0								30.8	37.2*	22.4	28.9*		15.0	19.5	9.9
-1.5								30.1	37.0*	21.8	29.1		16.1	21.1*	9.3
-3.0								40.6*	40.6*	38.5*	38.5*		18.6	20.7*	8.5
-4.5								30.5*	30.5*	24.6*	24.6*		19.2*	19.2*	7.1
-6.0															
10.5								21.9*	21.9*				23.5*	23.5*	6.4
9.0								22.2*	22.2*	20.4	21.1*		21.2*	21.2*	8.0
7.5								22.2*	22.2*	20.1	21.4*		20.1	20.2*	9.0
6.0								28.0*	28.0*	23.7*	23.7*		17.6	19.9*	9.7
4.5								32.2*	32.2*	25.7	25.8*		16.2	20.2*	10.1
3.0								33.6	35.7*	24.5	27.7*		15.5	20.8*	10.3
1.5								32.2	37.3*	23.5	28.9*		15.4	20.9*	10.2
0								31.6	36.9*	22.9	29.1*		17.2	21.1*	9.9
-1.5								31.5	34.9*	22.7	27.8*		15.9	21.1*	9.3
-3.0								42.5*	42.5*	38.4*	38.4*		19.9	20.6*	8.5
-4.5								29.5*	29.5*	23.8*	23.8*		18.9*	18.9*	7.1
-6.0															

Stick 3.30 m

Under-carriage	m	3.0 m		4.5 m		6.0 m		7.5 m		9.0 m		10.5 m		m	
		HD	LC-V	HD	LC-V	HD	LC-V	HD	LC-V	HD	LC-V	HD	LC-V		
10.5													20.1*	20.1*	7.0
9.0													18.2*	18.2*	8.4
7.5													17.3*	17.3*	9.4
6.0													15.9	17.3*	10.1
4.5													14.6	17.3*	10.5
3.0													13.9	18.0*	10.6
1.5													13.8	17.8	10.6
0													14.1	19.3*	10.3
-1.5													15.1	19.7*	9.7
-3.0													17.1	20.1*	8.9
-4.5													19.1*	19.1*	7.7
-6.0															
10.5													19.9*	19.9*	7.0
9.0													18.1*	18.1*	8.4
7.5													17.3*	17.3*	9.4
6.0													16.5	17.1*	10.1
4.5													15.3	17.4*	10.5
3.0													14.6	18.0*	10.6
1.5													14.5	19.3*	10.6
0													14.9	20.1*	10.3
-1.5													16.0	20.2*	9.7
-3.0													18.3	20.0*	8.9
-4.5													18.9*	18.9*	7.7
-6.0															

Stick 3.80 m

Under-carriage	m	3.0 m		4.5 m		6.0 m		7.5 m		9.0 m		10.5 m		m	
		HD	LC-V	HD	LC-V	HD	LC-V	HD	LC-V	HD	LC-V	HD	LC-V		
10.5													16.7*	16.7*	7.7
9.0													15.3*	15.3*	9.0
7.5													14.7*	14.7*	10.0
6.0													14.5*	14.5*	10.6
4.5													13.6	14.7*	11.0
3.0													13.0	15.2*	11.1
1.5													12.9	16.1*	11.0
0													13.1	17.1	10.8
-1.5													13.9	18.2	10.3
-3.0													15.6	19.3*	9.5
-4.5													18.8*	18.8*	8.3
-6.0													17.2*	17.2*	6.5
10.5													16.6*	16.6*	7.7
9.0													15.2*	15.2*	9.0
7.5													14.6*	14.6*	10.0
6.0													14.5*	14.5*	10.6
4.5													14.3	14.7*	11.0
3.0													13.7	15.2*	11.1
1.5													13.6	16.2*	11.0
0													13.9	17.7*	10.8
-1.5													14.8	19.3*	10.3
-3.0													16.7	19.3*	9.5
-4.5													18.7*	18.7*	8.3
-6.0															

Stick 4.70 m

Under-carriage	m	3.0 m		4.5 m		6.0 m		7.5 m		9.0 m		10.5 m		m	
		HD	LC-V	HD	LC-V	HD	LC-V	HD	LC-V	HD	LC-V	HD	LC-V		
10.5													12.6*	12.6*	8.9
9.0													11.7*	11.7*	10.1
7.5													11.2*	11.2*	10.9
6.0													10.4	16.4*	11.5
4.5													10.4	16.4*	11.8
3.0													10.4	16.4*	12.0
1.5													10.4	16.4*	11.9
0													10.4	16.4*	11.6
-1.5													10.4	16.4*	11.2
-3.0													10.4	16.4*	10.5
-4.5													10.4	16.4*	9.4
-6.0													10.4	16.4*	8.0
10.5													12.6*	12.6*	8.9
9.0													11.6*	11.6*	10.1
7.5													11.2*	11.2*	10.9
6.0													10.4	16.4*	11.5
4.5													10.4	16.4*	11.8
3.0													10.4	16.4*	12.0
1.5													10.4	16.4*	11.9
0													10.4	16.4*	11.6
-1.5													10.4	16.4*	11.2
-3.0													10.4	16.4*	10.5
-4.5													10.4	16.4*	9.4
-6.0													10.4	16.4*	8.0

 Height
  Can be slewed through 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 by *). Without bucket cylinder, link and lever the lift capacities will increase by 1,320 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 7.20 m, Counterweight 16.0 t and Track Pads 600 mm

Stick 2.90 m

Under-carriage	m	3.0 m		4.5 m		6.0 m		7.5 m		9.0 m		10.5 m		m	
		HD	LC-V	HD	LC-V	HD	LC-V	HD	LC-V	HD	LC-V	HD	LC-V		
10.5													23.9*	23.9*	6.4
9.0													21.3*	21.3*	8.0
7.5													20.2*	20.2*	9.0
6.0													18.0*	19.9*	9.7
4.5													16.5*	20.2*	10.1
3.0													15.8*	20.2*	10.3
1.5													15.6*	20.1*	10.2
0													16.0*	20.7*	9.9
-1.5													17.3*	21.1*	9.3
-3.0	40.6*	40.6*											19.9*	20.7*	8.5
-4.5			38.5*	38.5*									19.2*	19.2*	7.1
-6.0			30.5*	30.5*	24.6*	24.6*									
10.5													23.5*	23.5*	6.4
9.0													21.2*	21.2*	8.0
7.5													20.2*	20.2*	9.0
6.0													18.7*	19.9*	9.7
4.5													17.2*	20.2*	10.1
3.0													16.5*	20.8*	10.3
1.5													16.4*	20.9*	10.2
0													16.9*	21.1*	9.9
-1.5													18.3*	21.1*	9.3
-3.0	42.5*	42.5*											20.6*	20.6*	8.5
-4.5			38.9*	38.9*	31.4*	31.4*							18.9*	18.9*	7.1
-6.0			29.5*	29.5*	23.8*	23.8*									

Stick 3.30 m

Under-carriage	m	3.0 m		4.5 m		6.0 m		7.5 m		9.0 m		10.5 m		m	
		HD	LC-V	HD	LC-V	HD	LC-V	HD	LC-V	HD	LC-V	HD	LC-V		
10.5													20.1*	20.1*	7.0
9.0													18.2*	18.2*	8.4
7.5													17.3*	17.3*	9.4
6.0													17.0*	17.1*	10.1
4.5													15.6*	17.3*	10.5
3.0													15.2*	19.5*	10.6
1.5													14.7*	19.0*	10.6
0													15.1*	19.3*	10.3
-1.5													16.2*	20.2*	9.7
-3.0	36.6*	36.6*											18.4*	20.1*	8.9
-4.5			36.8*	36.8*									19.1*	19.1*	7.7
-6.0			33.5*	33.5*	26.8*	26.8*									
10.5													19.9*	19.9*	7.0
9.0													18.1*	18.1*	8.4
7.5													17.3*	17.3*	9.4
6.0													17.1*	17.1*	10.1
4.5													16.3*	17.4*	10.5
3.0													15.6*	18.0*	10.6
1.5													15.5*	19.3*	10.6
0													16.0*	20.1*	10.3
-1.5													17.2*	20.2*	9.7
-3.0	38.2*	38.2*											19.6*	20.0*	8.9
-4.5			40.8*	40.8*	32.2*	32.2*							18.9*	18.9*	7.7
-6.0			32.7*	32.7*	26.1*	26.1*									

Stick 3.80 m

Under-carriage	m	3.0 m		4.5 m		6.0 m		7.5 m		9.0 m		10.5 m		m	
		HD	LC-V	HD	LC-V	HD	LC-V	HD	LC-V	HD	LC-V	HD	LC-V		
10.5													16.7*	16.7*	7.7
9.0													15.3*	15.3*	9.0
7.5													14.7*	14.7*	10.0
6.0													14.5*	14.5*	10.6
4.5													14.6*	14.7*	11.0
3.0													14.0*	15.2*	11.1
1.5													13.8*	16.1*	11.0
0													15.0*	19.3*	10.3
-1.5													16.7*	19.3*	9.5
-3.0	32.7*	32.7*											18.8*	18.8*	8.3
-4.5			34.9*	34.9*									17.2*	17.2*	6.5
-6.0			36.9*	36.9*	29.0*	29.0*									
10.5													16.6*	16.6*	7.7
9.0													15.2*	15.2*	9.0
7.5													14.6*	14.6*	10.0
6.0													14.5*	14.5*	10.6
4.5													14.7*	14.7*	11.0
3.0													14.6*	15.2*	11.1
1.5													15.6*	19.9*	11.0
0													14.9*	17.7*	10.8
-1.5													15.9*	19.3*	10.3
-3.0	33.9*	33.9*											17.8*	19.3*	9.5
-4.5			36.1*	36.1*									18.7*	18.7*	8.3
-6.0			36.2*	36.2*	28.5*	28.5*									

Stick 4.70 m

Under-carriage	m	3.0 m		4.5 m		6.0 m		7.5 m		9.0 m		10.5 m		m	
		HD	LC-V	HD	LC-V	HD	LC-V	HD	LC-V	HD	LC-V	HD	LC-V		
10.5													12.6*	12.6*	8.9
9.0													11.7*	11.7*	10.1
7.5													11.2*	11.2*	10.9
6.0													11.1*	11.1*	11.5
4.5													11.2*	11.2*	11.8
3.0													11.6*	11.6*	12.0
1.5													12.2*	12.2*	11.9
0													12.5*	13.1*	11.6
-1.5													13.1*	14.6*	11.2
-3.0	18.1*	18.1*											14.3*	17.0*	10.5
-4.5			32.5*	32.5*									16.6*	17.7*	9.4
-6.0			32.7*	32.7*	25.9*	25.9*							16.9*	16.9*	8.0
10.5													12.6*	12.6*	8.9
9.0													11.6*	11.6*	10.1
7.5													11.2*	11.2*	10.9
6.0													11.1*	11.1*	11.5
4.5													11.2*	11.2*	11.8
3.0													11.6*	11.6*	12.0
1.5													12.2*	12.2*	11.9
0													12.5*	13.1*	11.6
-1.5													13.1*	14.6*	11.2
-3.0	27.4*	27.4*											14.3*	17.0*	10.5
-4.5			32.5*	32.5*									16.6*	17.7*	9.4
-6.0			32.7*	32.7*	25.9*	25.9*							16.9*	16.9*	8.0
10.5													12.6*	12.6*	8.9
9.0													11.6*	11.6*	10.1
7.5													11.2*	11.2*	10.9
6.0													11.1*	11.1*	11.5
4.5													11.2*	11.2*	11.8
3.0													11.6*	11.6*	12.0
1.5													12.2*	12.2*	11.9
0													12.5*	13.1*	11.6
-1.5													13.1*	14.6*	11.2
-3.0	18.9*	18.9*											14.3*	17.0*	10.5
-4.5			26.1*	26.1*									16.6*	17.7*	9.4
-6.0			32.5*	32.5*	25.1*	25.1*							16.8*	16.8*	8.0

Height
 Can be slewed through 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 by *). Without bucket cylinder, link and lever the lift capacities will increase by 1,320 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 8.60 m, Counterweight 14.1 t and Track Pads 600 mm

Stick 3.30 m

Under-carriage	m	3.0 m		4.5 m		6.0 m		7.5 m		9.0 m		10.5 m		12.0 m		13.5 m		m					
HD	12.0																						
HD	10.5									16.4*	16.4*									16.5*	16.5*	9.1	
HD	9.0									16.0*	16.0*									15.4	15.9*	10.3	
HD	7.5							18.4*	18.4*	16.6*	16.6*	14.7	15.7*							13.2	15.7*	11.1	
HD	6.0							20.5*	20.5*	17.8*	17.8*	14.3	16.1*							11.9	15.4	11.6	
HD	4.5							22.8	22.9*	17.5	19.1*	13.8	16.9*							11.1	14.4	12.0	
HD	3.0							21.3	25.1*	16.6	20.5*	13.3	17.4	10.8	14.2					10.6	13.9	12.1	
HD	1.5							20.3	26.5*	15.9	21.1	12.8	16.9	10.6	13.9					10.5	13.8	12.1	
HD	0							19.8	26.9	15.4	20.6	12.5	16.6							10.6	14.1	11.8	
HD	-1.5					27.4	31.7*	19.6	26.6*	15.2	20.4	12.4	16.4							11.2	14.8	11.4	
HD	-3.0			27.5*	27.5*	27.7	31.1*	19.7	25.4*	15.2	20.4	12.5	16.6							12.3	16.3	10.7	
HD	-4.5			33.7*	33.7*	27.9*	27.9*	20.1	23.0*	15.6	18.6*									14.4	16.3*	9.7	
HD	-6.0			27.3*	27.3*	22.9*	22.9*	18.3*	18.3*												15.4*	15.4*	8.3
HD	-7.5																						
HD	-9.0																						
LC-V	12.0									16.3*	16.3*									16.4*	16.4*	9.1	
LC-V	10.5									16.0*	16.0*									15.9*	15.9*	10.3	
LC-V	9.0									16.7*	16.7*	15.4	15.7*							13.8	15.6*	11.1	
LC-V	7.5							18.5*	18.5*	17.9*	17.9*	15.0	16.2*							12.5	15.6*	11.6	
LC-V	6.0							20.7*	20.7*	18.3	19.3*	14.5	17.0*							11.7	15.6*	12.0	
LC-V	4.5							23.1*	23.1*	18.3	19.3*	14.5	17.0*	11.7	15.7*					11.7	15.6*	12.0	
LC-V	3.0							22.4	25.2*	17.4	20.6*	14.0	17.7*	11.4	15.9*					11.2	15.8*	12.1	
LC-V	1.5							21.4	26.6*	16.7	21.5*	13.5	18.3*	11.2	16.1*					11.1	16.0*	12.1	
LC-V	0							20.9	27.0*	16.3	22.0*	13.2	18.6*							11.3	16.2*	11.8	
LC-V	-1.5					29.0	32.9*	20.7	26.5*	16.1	21.8*	13.1	18.2*							12.0	16.4*	11.4	
LC-V	-3.0			28.9*	28.9*	29.3	30.8*	20.8	25.2*	16.2	20.7*	13.3	16.7*							13.2	16.5*	10.7	
LC-V	-4.5			33.3*	33.3*	27.6*	27.6*	21.3	22.7*	16.6	18.2*									15.5	16.3*	9.7	
LC-V	-6.0			26.6*	26.6*	22.3*	22.3*	17.7*	17.7*											15.3*	15.3*	8.3	
LC-V	-7.5																						
LC-V	-9.0																						

Stick 3.80 m

Under-carriage	m	3.0 m		4.5 m		6.0 m		7.5 m		9.0 m		10.5 m		12.0 m		13.5 m		m					
HD	12.0									15.1*	15.1*									16.3*	16.3*	8.3	
HD	10.5									15.0*	15.0*	14.8*	14.8*							15.3*	15.3*	9.8	
HD	9.0									15.8*	15.8*	14.9*	14.9*							14.1	14.9*	10.8	
HD	7.5									17.0*	17.0*	14.5	15.5*							12.3	14.6*	11.6	
HD	6.0							19.5*	19.5*	17.0*	17.0*	14.5	15.5*	11.4	14.7*					11.1	14.4	12.1	
HD	4.5							22.0*	22.0*	17.7	18.4*	13.9	16.3*	11.1	14.5					10.4	13.6	12.5	
HD	3.0							21.6	24.3*	16.7	19.9*	13.3	17.2*	10.8	14.2					9.9	13.1	12.6	
HD	1.5							20.5	25.9*	16.0	21.0*	12.8	16.9	10.5	13.9					9.8	13.0	12.5	
HD	0							19.8	26.7*	15.4	20.6	12.4	16.5	10.3	13.7					10.0	13.2	12.3	
HD	-1.5					27.2	31.3*	19.5	26.6	15.1	20.3	12.2	16.3							10.4	13.8	11.9	
HD	-3.0			29.5*	29.5*	25.7*	25.7*	27.4	32.0*	19.5	25.8*	15.1	20.3	12.3	16.3					11.4	15.1	11.2	
HD	-4.5			30.4*	30.4*	36.2*	36.2*	27.8	29.2*	19.8	23.8*	15.3	19.4*							13.0	15.7*	10.3	
HD	-6.0			30.4*	30.4*	30.4*	30.4*	24.9*	24.9*	20.1*	20.1*									15.2*	15.2*	9.0	
HD	-7.5																						
HD	-9.0																						
LC-V	12.0									15.0*	15.0*									16.2*	16.2*	8.3	
LC-V	10.5									15.1*	15.1*	14.7*	14.7*							15.3*	15.3*	9.8	
LC-V	9.0									15.8*	15.8*	14.9*	14.9*							14.6	14.9*	10.8	
LC-V	7.5									17.1*	17.1*	15.2	15.5*							12.8	14.6*	11.6	
LC-V	6.0							19.7*	19.7*	17.1*	17.1*	15.2	15.5*	12.0	14.7*					11.7	14.5*	12.1	
LC-V	4.5							22.2*	22.2*	18.5	18.6*	14.6	16.4*	11.8	15.0*					10.9	14.6*	12.5	
LC-V	3.0							22.7	24.4*	17.6	20.0*	14.0	17.2*	11.4	15.4*					10.5	14.9*	12.6	
LC-V	1.5							21.6	26.0*	16.8	21.1*	13.5	17.9*	11.1	15.8*					10.4	15.1*	12.5	
LC-V	0							20.9	26.8*	16.3	21.7*	13.2	18.3*	10.9	15.8*					10.6	15.4*	12.3	
LC-V	-1.5					28.7	32.3*	20.6	26.6*	16.0	21.8*	13.0	18.3*							11.2	15.6*	11.9	
LC-V	-3.0			26.9*	26.9*	28.9	31.8*	20.6	25.6*	16.0	21.0*	13.0	17.4*							12.2	15.7*	11.2	
LC-V	-4.5			30.7*	30.7*	35.8*	35.8*	28.9*	28.9*	21.0	23.6*	16.3	19.2*							14.0	15.7*	10.3	
LC-V	-6.0			29.8*	29.8*	29.8*	29.8*	24.4*	24.4*	19.7*	19.7*									15.1*	15.1*	9.0	
LC-V	-7.5																						
LC-V	-9.0																						

Height Can be slewed through 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 1,320 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 8.60 m, Counterweight 16.0 t and Track Pads 600 mm

Stick 3.30 m

Under-carriage	m	3.0 m		4.5 m		6.0 m		7.5 m		9.0 m		10.5 m		12.0 m		13.5 m		m		
HD	12.0									16.4*	16.4*							16.5*	16.5*	9.1
	10.5									16.0*	16.0*							15.9*	15.9*	10.3
	9.0									16.6*	16.6*							14.2	15.7*	11.1
	7.5							18.4*	18.4*	16.6*	16.6*	15.7*	15.7*					12.8	15.6*	11.6
	6.0							20.5*	20.5*	17.8*	17.8*	15.3	16.1*					11.9	15.4	12.0
	4.5							22.9*	22.9*	18.7	19.1*	14.8	16.9*					11.4	14.9	12.1
	3.0							22.9	25.1*	17.8	20.5*	14.3	17.7*	11.6	15.1			11.3	14.7	12.1
	1.5							21.9	26.5*	17.1	21.5*	13.8	18.1	11.4	14.9			11.5	15.1	11.8
	0							21.3	27.0*	16.6	22.0*	13.5	17.7					12.1	15.9	11.4
	-1.5					29.5	31.7*	21.1	26.6*	16.4	21.8	13.4	17.6					13.3	16.5*	10.7
	-3.0			27.5*	27.5*	29.8	31.1*	21.2	25.4*	16.5	20.9*	13.5	17.0*					15.5	16.3*	9.7
	-4.5			33.7*	33.7*	27.9*	27.9*	21.6	23.0*	16.8	18.6*							15.4*	15.4*	8.3
-6.0			27.3*	27.3*	22.9*	22.9*	18.3*	18.3*												
-7.5																				
-9.0																				
LC-V	12.0									16.3*	16.3*							16.4*	16.4*	9.1
	10.5									16.0*	16.0*							15.9*	15.9*	10.3
	9.0									16.7*	16.7*							14.7	15.6*	11.1
	7.5							18.5*	18.5*	16.7*	16.7*	15.7*	15.7*					13.3	15.6*	11.6
	6.0							20.7*	20.7*	17.9*	17.9*	16.0	16.2*					12.5	15.6*	12.0
	4.5							23.1*	23.1*	19.3*	19.3*	15.5	17.0*	12.5	15.7*			12.1	15.8*	12.1
	3.0							23.9	25.2*	18.6	20.6*	15.0	17.7*	12.3	15.9*			12.0	16.0*	12.1
	1.5							22.9	26.6*	18.0	21.5*	14.5	18.3*	12.0	16.1*			12.2	16.2*	11.8
	0							22.4	27.0*	17.5	22.0*	14.2	18.6*					12.9	16.4*	11.4
	-1.5					31.1	32.9*	22.3	26.5*	17.3	21.8*	14.1	18.2*					14.2	16.5*	10.7
	-3.0			28.9*	28.9*	30.8*	30.8*	22.4	25.2*	17.4	20.7*	14.3	16.7*					16.3*	16.3*	9.7
	-4.5			33.3*	33.3*	27.6*	27.6*	22.7*	22.7*	17.8	18.2*							15.3*	15.3*	8.3
-6.0			26.6*	26.6*	22.3*	22.3*	17.7*	17.7*												
-7.5																				
-9.0																				

Stick 3.80 m

Under-carriage	m	3.0 m		4.5 m		6.0 m		7.5 m		9.0 m		10.5 m		12.0 m		13.5 m		m			
HD	12.0									15.1*	15.1*							16.3*	16.3*	8.3	
	10.5									15.0*	15.0*	14.8*	14.8*					14.9*	14.9*	9.8	
	9.0									15.8*	15.8*	14.9*	14.9*					13.2	14.6*	11.6	
	7.5									19.5*	19.5*	17.0*	17.0*	15.5*	15.5*	12.2	14.7*	11.9	14.5*	12.1	
	6.0								22.0*	22.0*	18.4*	18.4*	14.9	16.3*	12.0	15.0*			11.2	14.5	12.5
	4.5								23.2	24.3*	18.0	19.9*	14.3	17.2*	11.7	15.1			10.7	14.0	12.6
	3.0								22.0	25.9*	17.2	21.0*	13.8	17.9*	11.4	14.8			10.6	13.9	12.5
	1.5								21.3	26.7*	16.6	21.7*	13.4	17.7	11.2	14.6			10.8	14.1	12.3
	0					29.3	31.3*	21.0	26.7*	16.3	21.7	13.2	17.5					11.3	14.8	11.9	
	-1.5			29.5*	29.5*	25.7*	25.7*	29.5	32.0*	21.0	25.8*	16.3	21.1*	13.3	17.5			12.3	15.7*	11.2	
	-3.0			30.4*	30.4*	30.4*	30.4*	29.2*	29.2*	21.3	23.8*	16.5	19.4*					14.1	15.7*	11.2	
	-4.5			29.5*	29.5*	36.2*	36.2*	29.2*	29.2*	21.3	23.8*	16.5	19.4*					15.2*	15.2*	9.0	
-6.0			30.4*	30.4*	30.4*	30.4*	24.9*	24.9*	20.1*	20.1*											
-7.5																					
-9.0																					
LC-V	12.0									15.0*	15.0*							16.2*	16.2*	8.3	
	10.5									15.1*	15.1*							15.3*	15.3*	9.8	
	9.0									15.8*	15.8*	14.7*	14.7*					14.9*	14.9*	10.8	
	7.5									15.8*	15.8*	14.9*	14.9*					13.7	14.6*	11.6	
	6.0									19.7*	19.7*	17.1*	17.1*	15.5*	15.5*	12.9	14.7*	12.5	14.5*	12.1	
	4.5									22.2*	22.2*	18.6*	18.6*	15.6	16.4*	12.6	15.0*	11.7	14.6*	12.5	
	3.0									24.2	24.4*	18.8	20.0*	15.0	17.2*	12.3	15.4*	11.3	14.9*	12.6	
	1.5									23.1	26.0*	18.0	21.1*	14.5	17.9*	12.0	15.8*	11.2	15.1*	12.5	
	0									22.4	26.8*	17.5	21.7*	14.2	18.3*	11.8	15.8*	11.4	15.4*	12.3	
	-1.5					30.8	32.3*	22.2	26.6*	17.2	21.8*	14.0	18.3*					12.0	15.6*	11.9	
	-3.0			30.7*	30.7*	26.9*	26.9*	31.0	31.8*	22.2	25.6*	17.2	21.0*	14.0	17.4*			13.1	15.7*	11.2	
	-4.5			30.7*	30.7*	35.8*	35.8*	28.9*	28.9*	22.5	23.6*	17.5	19.2*					15.0	15.7*	10.3	
-6.0			29.8*	29.8*	29.8*	29.8*	24.4*	24.4*	19.7*	19.7*							15.1*	15.1*	9.0		
-7.5																					
-9.0																					

Height Can be slewed through 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 1,320 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.

Stick 4.70 m

Under-carriage	3.0 m		4.5 m		6.0 m		7.5 m		9.0 m		10.5 m		12.0 m		13.5 m		m		
	m	kg	m	kg	m	kg	m	kg	m	kg	m	kg	m	kg	m	kg	m	kg	
12.0																	13.3*	13.3*	9.5
10.5																	12.2*	12.2*	10.9
9.0																	11.5*	11.5*	11.8
7.5																	11.2*	11.2*	12.5
6.0																	10.6	11.1*	13.0
4.5									20.1*	20.1*	17.0*	17.0*	15.1	15.2*	12.1	13.9*	10.0	11.2*	13.3
3.0									22.6*	22.6*	18.3	18.6*	14.5	16.2*	11.7	14.5*	9.6	11.5*	13.5
1.5									22.4	24.7*	17.4	20.0*	13.9	17.1*	11.3	14.8	9.5	11.9*	13.4
0									21.5	26.0*	16.7	21.0*	13.4	17.6	11.0	14.5	9.6	12.6	13.2
-1.5									20.9	26.5*	16.2	21.5*	13.1	17.3	10.8	14.3	10.0	13.1	12.8
-3.0									29.0	33.1*	20.7	26.1*	16.0	21.3*	12.9	17.2	10.9	14.3	12.2
-4.5	24.3*	24.3*	22.9*	22.9*	29.0	33.1*	20.7	26.1*	16.0	21.3*	12.9	17.2	10.9	14.3			10.7	14.1	12.2
-6.0	35.3*	35.3*	33.5*	33.5*	29.3	31.1*	20.8	24.9*	16.1	20.3*	13.1	16.6*					12.0	14.5*	11.3
-7.5			27.7*	27.7*	27.7*	27.7*	21.3	22.3*	16.4	18.0*							14.2	14.4*	10.1
-9.0					22.2*	22.2*	17.5*	17.5*									13.6*	13.6*	8.6
12.0																	13.1*	13.1*	9.5
10.5																	12.1*	12.1*	10.9
9.0																	11.5*	11.5*	11.8
7.5																	11.2*	11.2*	12.5
6.0									17.7*	17.7*	15.6*	15.6*	14.3*	14.3*	13.1	13.1*	11.1*	11.1*	13.0
4.5									20.3*	20.3*	17.2*	17.2*	15.2*	15.2*	12.7	14.0*	10.5	11.2*	13.3
3.0									22.8*	22.8*	18.8*	18.8*	15.2	16.3*	12.3	14.6*	10.2	11.5*	13.5
1.5									23.5	24.9*	18.2	20.2*	14.6	17.2*	12.0	15.1*	10.1	12.0*	13.4
0									22.6	26.1*	17.5	21.1*	14.1	17.8*	11.7	15.5*	10.2	12.7*	13.2
-1.5									22.0	26.5*	17.1	21.5*	13.8	18.1*	11.5	15.4*	10.6	13.8*	12.8
-3.0									30.6	32.9*	21.9	26.1*	16.9	21.3*	13.7	17.8*	11.4	14.4*	12.2
-4.5	25.1*	25.1*	23.7*	23.7*	30.6	32.9*	22.0	24.7*	17.0	20.2*	13.8	16.5*					12.8	14.5*	11.3
-6.0	36.4*	36.4*	34.6*	34.6*	30.8*	30.8*	22.0	24.7*	17.0	20.2*	13.8	16.5*					14.4*	14.4*	10.1
-7.5			26.9*	26.9*	27.3*	27.3*	22.0*	22.0*	17.4	17.6*							13.5*	13.5*	8.6
-9.0					21.6*	21.6*	16.8*	16.8*											

Stick 5.80 m

Under-carriage	3.0 m		4.5 m		6.0 m		7.5 m		9.0 m		10.5 m		12.0 m		13.5 m		m		
	m	kg	m	kg	m	kg	m	kg	m	kg	m	kg	m	kg	m	kg	m	kg	
12.0																	9.9*	9.9*	11.0
10.5																	9.2*	9.2*	12.2
9.0																	8.8*	8.8*	13.0
7.5																	8.6*	8.6*	13.7
6.0																	8.5*	8.5*	14.1
4.5									17.9*	17.9*	15.6*	15.6*	14.0*	14.0*	10.5	11.8*	8.5*	8.5*	14.4
3.0									20.8*	20.8*	17.4*	17.4*	15.1	15.2*	12.2	13.8*	8.7	8.8*	14.5
1.5									23.3*	23.3*	18.1	19.1*	14.4	16.4*	11.7	14.5*	8.6	9.1*	14.5
0									22.3	25.2*	17.2	20.4*	13.8	17.3*	11.3	14.8	8.6	9.6*	14.3
-1.5									21.4	26.3*	16.6	21.3*	13.3	17.6	11.0	14.5	9.3	10.3*	13.9
-3.0									29.2	34.2*	21.0	26.6*	16.2	21.6	13.1	17.3	10.8	14.3	13.3
-4.5	19.9*	19.9*	20.4*	20.4*	29.2	34.2*	20.9	26.0*	16.1	21.2*	13.0	17.2	10.9	14.3			10.3	12.7*	12.6
-6.0	27.7*	27.7*	27.8*	27.8*	29.2	33.0*	21.0	24.5*	16.2	19.9*	13.1	16.3*					11.7	13.5*	11.5
-7.5	38.2*	38.2*	34.6*	34.6*	26.8*	26.8*	21.4*	21.4*	16.7	17.1*							13.4*	13.4*	10.2
-9.0			25.9*	25.9*	20.3*	20.3*	15.5*	15.5*									12.5*	12.5*	8.3
12.0																	9.8*	9.8*	11.0
10.5																	9.2*	9.2*	12.2
9.0																	8.8*	8.8*	13.0
7.5																	8.6*	8.6*	13.7
6.0																	8.5*	8.5*	14.1
4.5									18.2*	18.2*	15.7*	15.7*	14.1*	14.1*	10.8	12.3*	8.6*	8.6*	14.4
3.0									21.0*	21.0*	17.5*	17.5*	15.3*	15.3*	12.8	13.8*	8.8*	8.8*	14.5
1.5									23.5*	23.5*	18.9	19.2*	15.1	16.4*	12.3	14.6*	9.1	9.1*	14.5
0									23.3	25.4*	18.1	20.5*	14.5	17.4*	11.9	15.2*	9.2	9.6*	14.3
-1.5									22.5	26.4*	17.5	21.4*	14.1	18.0*	11.6	15.5*	9.5	10.3*	13.9
-3.0	14.1*	14.1*	21.0*	21.0*	30.8	34.1*	22.1	26.6*	17.1	21.6*	13.8	18.1*	11.5	15.4*			10.0	11.4*	13.3
-4.5	20.5*	20.5*	28.6*	28.6*	30.8	32.9*	22.0	26.0*	17.0	21.2*	13.7	17.6*	11.5	14.6*			11.0	12.9*	12.6
-6.0	28.5*	28.5*	39.0*	39.0*	30.5*	30.5*	22.2	24.3*	17.1	19.8*	13.9	16.1*					12.6	13.5*	11.5
-7.5	39.4*	39.4*	34.0*	34.0*	26.4*	26.4*	21.1*	21.1*	16.7*	16.7*							13.4*	13.4*	10.2
-9.0			24.9*	24.9*	19.5*	19.5*	14.6*	14.6*									12.3*	12.3*	8.3

Height
 Can be slewed through 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 1,320 kg. Lifting capacity of the excavator is limited by machine stability and hydraulic capacity.

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Stick 5.80 m

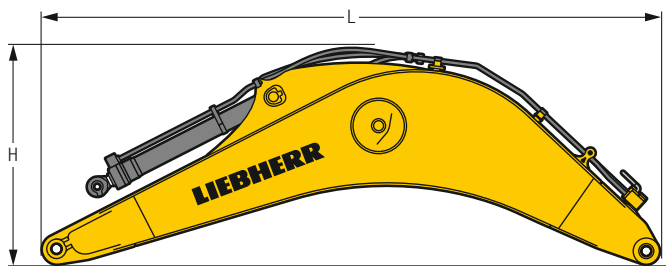
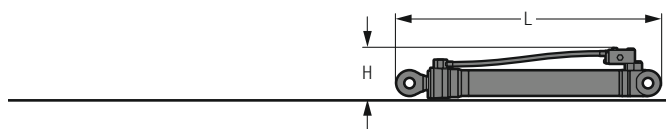
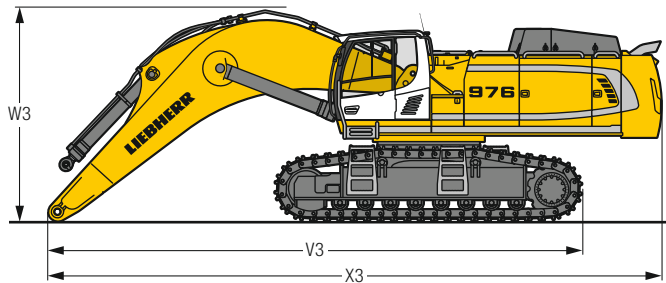
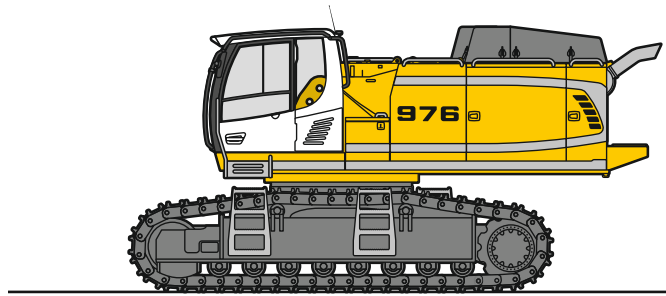
Under-carriage	3.0 m		4.5 m		6.0 m		7.5 m		9.0 m		10.5 m		12.0 m		13.5 m		15.0 m		16.5 m		m			
	m																							
HD	13.5													9.2*	9.2*					9.4*	9.4*	12.3		
	12.0															9.1*	9.1*			9.2*	9.2*	13.5		
	10.5															8.7*	8.7*			9.0*	9.0*	14.5		
	9.0														9.0*	9.0*	8.8*	8.8*	8.4	8.9*	8.0	8.7*	15.2	
	7.5													9.5*	9.5*	9.1*	9.1*	8.3	8.9*			7.3	8.6*	15.8
	6.0													10.2*	10.2*	9.6*	9.6*	8.1	9.1*			6.8	8.5*	16.2
	4.5									14.3*	14.3*	12.3*	12.3*	11.0*	11.0*	9.6	10.1*	7.9	9.5*			6.5	8.6*	16.4
	3.0									15.9*	15.9*	13.4*	13.4*	11.1	11.8*	9.2	10.6*	7.6	9.8*	6.3	8.5	6.3	8.5	16.5
	1.5									15.9	17.4*	12.8	14.5*	10.5	12.5*	8.8	11.2*	7.3	9.9			6.2	8.4	16.5
	0									15.0	18.5*	12.2	15.3*	10.1	13.2*	8.4	11.3	7.1	9.6			6.2	8.4	16.3
	-1.5									14.5	19.2*	11.7	15.9	9.7	13.1	8.2	11.1	7.0	9.5			6.3	8.7	16.0
	-3.0							18.4	24.0*	14.2	19.5*	11.4	15.6	9.5	12.9	8.0	10.9	6.9	9.4			6.6	9.0	15.5
	-4.5							18.4	23.7*	14.1	19.4*	11.3	15.5	9.4	12.8	8.0	10.9					7.1	9.7	14.8
-6.0	16.1*	16.1*	20.3*	20.3*	26.5	28.4*	18.6	22.8*	14.2	18.8*	11.4	15.6	9.5	12.9	8.2	11.1					7.9	10.5*	14.0	
-7.5	22.7*	22.7*	28.4*	28.4*	26.2*	26.2*	19.0	21.3*	14.5	17.7*	11.7	14.8*	9.8	12.3*							9.1	10.6*	12.9	
-9.0	31.3*	31.3*	29.1*	29.1*	23.1*	23.1*	19.0*	19.0*	15.1	15.7*	12.2	12.7*									10.5*	10.5*	11.6	
-10.5			22.8*	22.8*	18.4*	18.4*	15.0*	15.0*	11.7*	11.7*											9.9*	9.9*	9.6	
LC-V	13.5													9.1*	9.1*					9.4*	9.4*	12.3		
	12.0															9.1*	9.1*			9.1*	9.1*	13.5		
	10.5															8.7*	8.7*			9.0*	9.0*	14.5		
	9.0															9.1*	9.1*	8.8*	8.8*	8.9	8.9*	8.5	8.7*	15.2
	7.5															9.6*	9.6*	9.1*	9.1*	8.8	8.9*	7.8	8.6*	15.8
	6.0									12.8*	12.8*	11.3*	11.3*	10.3*	10.3*	9.6*	9.6*	8.6	9.2*			7.3	8.5*	16.2
	4.5									14.5*	14.5*	12.4*	12.4*	11.1*	11.1*	10.1	10.1*	8.4	9.5*			6.9	8.6*	16.4
	3.0									16.1*	16.1*	13.5*	13.5*	11.7	11.8*	9.7	10.7*	8.1	9.9*	6.7	8.9*	6.7	8.7*	16.5
	1.5									16.7	17.5*	13.5	14.6*	11.1	12.6*	9.3	11.2*	7.8	10.2*			6.6	9.0*	16.5
	0									15.9	18.5*	12.9	15.4*	10.7	13.2*	9.0	11.7*	7.6	10.5*			6.6	9.3*	16.3
	-1.5									15.4	19.2*	12.4	16.0*	10.3	13.7*	8.7	12.0*	7.4	10.7*			6.8	9.9*	16.0
	-3.0							19.5	24.0*	15.1	19.5*	12.2	16.3*	10.1	13.9*	8.6	12.1*	7.4	10.6*			7.1	10.1*	15.5
	-4.5			14.5*	14.5*	21.4*	21.4*	19.5	23.6*	15.0	19.3*	12.1	16.2*	10.0	13.8*	8.6	11.9*					7.7	10.3*	14.8
-6.0	16.6*	16.6*	20.9*	20.9*	28.1	28.2*	19.8	22.7*	15.1	18.7*	12.2	15.7*	10.1	13.4*	8.7	11.2*					8.5	10.5*	14.0	
-7.5	23.4*	23.4*	29.2*	29.2*	26.0*	26.0*	20.2	21.2*	15.4	17.5*	12.5	14.7*	10.5	12.1*							9.8	10.6*	12.9	
-9.0	32.2*	32.2*	28.6*	28.6*	22.8*	22.8*	18.7*	18.7*	15.4*	15.4*	12.5*	12.5*									10.4*	10.4*	11.6	
-10.5					17.9*	17.9*	14.5*	14.5*	11.1*	11.1*											9.8*	9.8*	9.6	

 Height
  Can be slewed through 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 1,320 kg. Lifting capacity of the excavator is limited by machine stability and hydraulic capacity.

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Dimensions and Weights



Basic Machine

Track pads	mm	500	600	750
Weight with backhoe equipment and HD-undercarriage without counterweight	kg	51,050	51,800	52,900
Weight with shovel equipment and HD-undercarriage without counterweight	kg	51,150	51,900	53,000
Weight with backhoe equipment and LC-V-undercarriage without counterweight	kg	56,400	57,200	58,350

Machine without Stick

		HD	LC-V
V3 Mono boom 7.20 m	mm	10,350	10,400
Mono boom 8.60 m	mm	13,450	13,400
Mono boom 10.50 m	mm	13,650	13,800
W3 Mono boom 7.20 m	mm	4,150	4,250
Mono boom 8.60 m	mm	4,500	4,550
Mono boom 10.50 m	mm	4,900	5,000
X3 Mono boom 7.20 m	mm	11,950	11,900
Mono boom 8.60 m	mm	11,700	11,850
Mono boom 10.50 m	mm	15,450	15,400

Cab Elevation

		800 mm
L Length	mm	1,890
H Height	mm	925
Width	mm	1,370
Weight	kg	600

Counterweight

		Std	heavy
L Length	mm	775	775
H Height	mm	1,595	1,595
Width	mm	3,360	3,360
Weight	kg	14,100	16,000

Upper Protection Screen

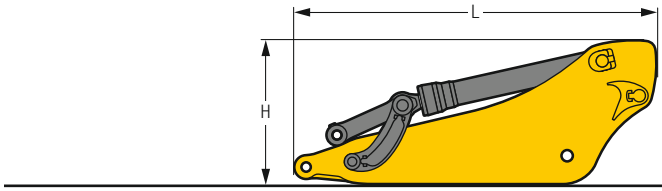
L Length	mm	1,960
H Height	mm	190
Width	mm	1,110
Weight	kg	75

Hoist Cylinders (two)

L Length	mm	2,920
H Height	mm	550
Width	mm	400
Weight	kg	2 x 1,050

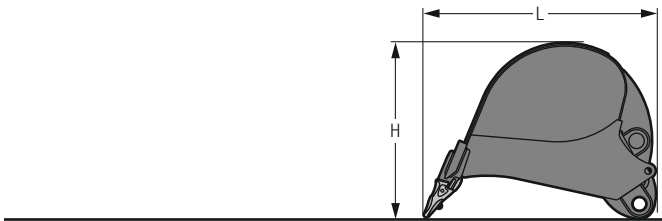
Mono Boom with Stick Cylinder

Boom length	m	7.20	8.60	10.50
L Length	mm	7,550	8,950	10,850
H Height	mm	2,700	2,800	3,050
Width	mm	1,460	1,460	1,460
Weight	kg	9,500	10,400	11,500



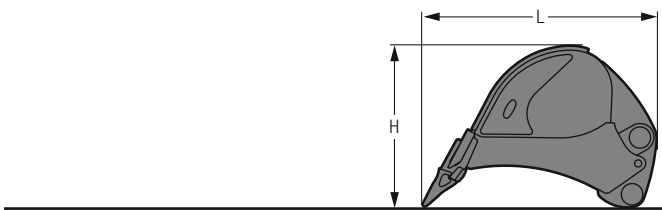
Stick with Bucket Cylinder

Stick length	m	2.90	3.30	3.80	4.70	5.80
L Length	mm	4,050	4,450	4,900	5,800	6,900
H Height	mm	1,700	1,650	1,500	1,450	1,400
Width	mm	900	900	900	900	900
Weight	kg	4,450	4,600	4,800	5,150	5,100



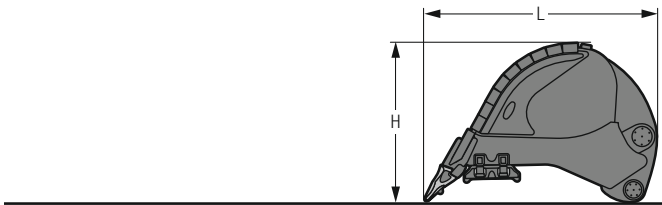
Backhoe Buckets

		Std							
Cutting width	mm	1,450	1,800	2,000	2,200	2,200	2,300	2,300	2,500
Capacity	m ³	2.60	3.60	4.10	4.60	5.20	5.60	6.20	6.80
L Length	mm	2,650	2,650	2,650	2,650	2,750	2,750	2,850	2,850
H Height	mm	2,100	2,100	2,100	2,100	2,150	2,150	2,150	2,150
Width	mm	1,500	1,850	2,050	2,250	2,250	2,350	2,350	2,550
Weight	kg	3,400	3,900	4,100	4,450	4,650	4,850	5,050	5,400



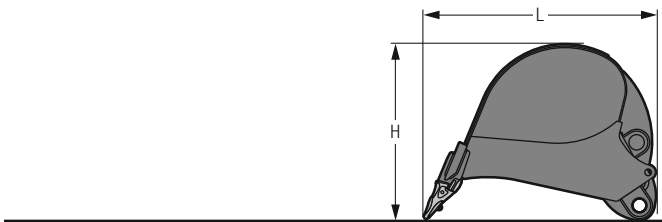
Backhoe Buckets

		HD							
Cutting width	mm	1,450	1,800	2,000	2,200	2,200	2,300	2,300	
Capacity	m ³	2.60	3.60	4.10	4.60	5.20	5.60	6.20	
L Length	mm	2,650	2,650	2,650	2,650	2,750	2,750	2,850	
H Height	mm	2,100	2,100	2,100	2,100	2,150	2,150	2,150	
Width	mm	1,500	1,850	2,050	2,250	2,250	2,350	2,350	
Weight	kg	3,750	4,350	4,700	5,100	5,300	5,550	5,800	



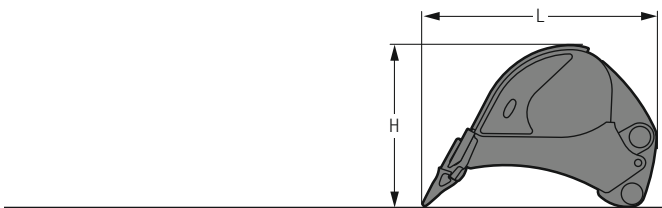
Backhoe Buckets

		HDV					
Cutting width	mm	1,800	2,000	2,200	2,200	2,300	
Capacity	m ³	3.70	4.20	4.70	5.20	5.70	
L Length	mm	2,650	2,650	2,650	2,750	2,750	
H Height	mm	2,150	2,150	2,150	2,200	2,200	
Width	mm	1,850	2,050	2,250	2,250	2,350	
Weight	kg	5,200	5,600	5,850	6,250	6,500	



Backhoe Buckets R 966

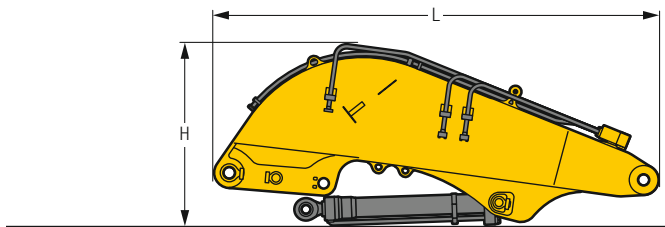
		Std					
Cutting width	mm	1,400	1,700	1,950	2,150	1,950	
Capacity	m ³	2.00	2.50	3.00	3.50	4.00	
L Length	mm	2,300	2,300	2,300	2,300	2,500	
H Height	mm	1,550	1,550	1,550	1,550	1,800	
Width	mm	1,450	1,750	2,000	2,200	2,000	
Weight	kg	2,500	2,850	3,100	3,350	3,600	



Backhoe Buckets R 966

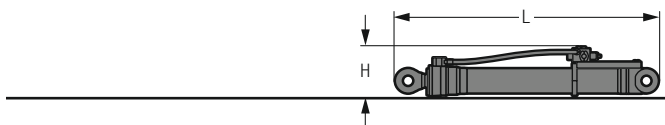
		HD					
Cutting width	mm	1,450	1,750	2,000	2,200		
Capacity	m ³	2.00	2.50	3.00	3.50		
L Length	mm	2,400	2,400	2,400	2,400		
H Height	mm	1,600	1,600	1,600	1,600		
Width	mm	1,500	1,800	2,050	2,250		
Weight	kg	3,100	3,600	3,900	4,300		

Dimensions and Weights



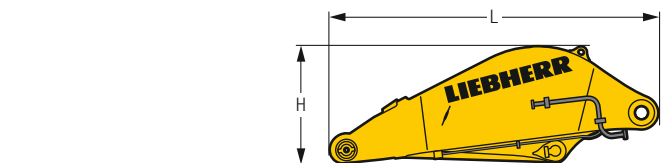
Shovel Boom

L Length	mm	4,950
H Height	mm	2,050
Width	mm	1,650
Weight without crowd cylinder	kg	7,300
Weight crowd cylinder	kg	2 x 450



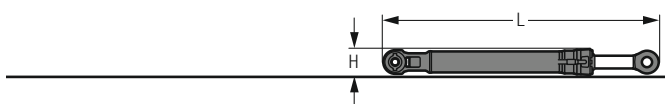
Shovel Hoist Cylinders (two)

L Length	mm	2,920
H Height	mm	550
Width	mm	450
Weight	kg	2 x 1,100



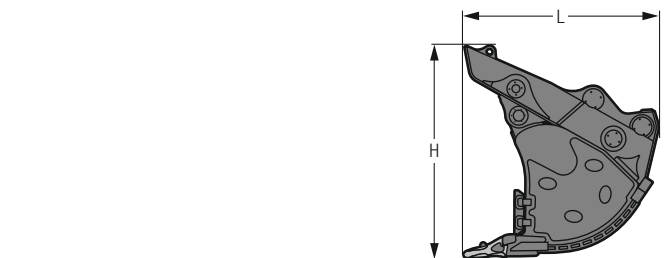
Shovel Stick

L Length	mm	3,660
H Height	mm	1,300
Width	mm	1,800
Weight	kg	4,650



Shovel Bucket Cylinders (two)

L Length	mm	3,050
H Height	mm	450
Width	mm	450
Weight	kg	2 x 625



Front Shovels

Cutting width	mm	2,300	2,700	2,700
Capacity	m ³	4.40	5.10	5.60
L Length	mm	2,600	2,600	2,800
H Height	mm	2,700	2,700	2,700
Width	mm	2,350	2,700	2,700
Weight				
Level I	kg	–	8,450	8,750
Level II	kg	8,300	9,200	9,500
Level III	kg	9,150	10,150	–

Serial Equipment

Undercarriage

- Lashing eyes
- Sprocket with dirt ejector
- Track and carrier rollers, sealed and lifetime-lubricated
- Travel motor housing protection

Uppercarriage

- Access platforms without protruding parts
- Anti-skid surfaces
- Automatic swing brake lock
- Centralised lubrication system (automatic)
- DEF tank lockable access hatch
- Engine hood with gas spring opening
- Extended tool set including tool box
- Handrails
- Headlights on uppercarriage, front, LED, 2 pieces, protections included
- Lockable fuel tank cap with padlock
- Lockable service doors
- Lockable storage box
- Main switch, accessible from ground level
- Pre-heating system for fuel
- Protection grid on radiator fan
- Sound insulation
- Swing-out radiators
- Windshield washer fluid tank

Hydraulic System

- Dedicated swing circuit
- Filter with integrated fine filters
- Hydraulic pressure measuring ports
- Hydraulic tank shut-off valve
- Magnetic rod
- Pressure accumulator for controlled lowering of equipment with engine turned off

Engine

- Air filter with automatic dust ejector
- Automatic engine idling / speed increase, controlled via joystick sensors
- Common-Rail injection system
- Exhaust gas after-treatment system – DOC + DPF + SCR
- Fixed geometry turbocharger
- Fuel fine filter
- Fuel pre-filter and water separator
- Fuel priming pump
- Intercooler
- Power Pack EU Stage V
- Stepless adjustable engine speed

Operator's Cab

- 7" multifunction colour touchscreen
- Air conditioning, automatic, tri-zone, controlled via display
- Armrests adjustable in width, height and inclination
- Bottle holder
- Cab door sliding windows
- Cigarette lighter
- Coat hook
- DEF consumption on touchscreen
- DEF level on touchscreen
- Electric socket in cabin (12 V)
- Electric socket in cabin (24 V)
- Emergency hammer
- Engine oil level on touchscreen
- Footrest
- Fuel consumption on touchscreen
- Fuel level on touchscreen
- Impact resistant roof window
- Impact resistant two-piece windscreen
- Interior lighting
- Laminated right hand side window
- LiDAT Plus (Liebherr data transfer system)*
- Movement priority between swing and boom, adjustable via touchscreen
- Rain hood over front window opening
- Rearview mirror
- Rear view monitoring camera
- Rear window emergency exit
- Right hand side view monitoring camera
- Roll-down sun blinds for windscreen and roof window
- Rubber floor mat, fixed on floor and removable
- Storage box
- Storage nets
- Storage spaces
- Tiltable console left
- Tinted windows
- Visco-elastic damping
- Windscreen wiper and washer
- Work mode selector

Equipment

- Anti-drift system boom cylinders
- Anti-drift system stick cylinder
- Boom cylinders regeneration
- Headlights on boom, LED, 2 pieces, protections included
- Pipe fracture safety valve for stick cylinder
- Pipe fracture safety valves for boom cylinders
- Pivot points made of cast steel
- SAE split flanges on high pressure lines
- Stick bottom protection
- Stick cylinder regeneration

* optionally extendable after one year

Equipment Standard/Option

Undercarriage

Chain guide 3 pieces	•
Chain guide 4 pieces	+
Reinforced cover and base plate for undercarriage centre section	+
Reinforced cover plate for centre section (LC-V undercarriage)	+
Screws protection for sideframe (LC-V undercarriage)	+
Special painting	+
Steps	•
Track pads double grouser 500 mm, chamfered	+
Track pads double grouser 600 mm, chamfered	•
Track pads double grouser 750 mm, chamfered	+
Track pads double grouser 900 mm, chamfered	+
Travel drive gearbox protection	+
Undercarriage HD	+
Undercarriage LC-V	+
Undercarriage protection plate for drop-ball application	+

Upper-carriage

Air pre-filter with cyclonical dust trap	+
Boxing ring	+
Catwalks left and right	•
Catwalk wide with railing	+
Counterweight heavy 16.0 t	+
Counterweight standard 14.1 t	•
Electric socket on uppercarriage (24 V)	+
Filter for hydraulic hammer return flow	+
Fixed cab riser 800 mm	+
Headlight on uppercarriage, lateral right, LED+, 1 piece	+1)
Headlights on uppercarriage, front, LED+, 2 pieces, protections included	+1)
Headlights on uppercarriage, rear, LED+, 2 pieces	+1)
Lighting for tank area	+1)
Lighting for uppercarriage access	+1)
Motorised tiltable access ladder	+
Radiator fine mesh protection grid	+
Reversible fan drive	+
Skyview 360°	+
Special painting	+
Swing ring and lubrication hoses protection	+
Tank refilling pump fuel	+
Wiggins coupling for fuel	+

Hydraulic System

Bypass filter for hydraulic oil	+
Liebherr hydraulic oil	•
Liebherr hydraulic oil, adapted for extreme climate conditions	+
Liebherr hydraulic oil, biodegradable	+

Engine

Automatic engine shutdown after idling	+
Engine shut-down with overrun	+
Lighting for engine compartment	+1)



Operator's Cab

2" seat belt with retractor	•
3" seat belt with retractor, orange colour	+
4-points seat belt	+
Acoustic travel alarm deactivatable	+
Auxiliary heater programmable	+
Bottom windscreen wiper	+
Coming/Leaving Home	+ ¹⁾
Cool box (12 V)	+
Dark tinted windows	+
Electrically adjustable and heated outside rear-view mirrors	+
Electronic immobiliser	+
Emergency stop in cab	+
FGPS front guard tiltable	+
Fire extinguisher	+
First-aid box	+
FOPS top guard	+
Handrests elevated for joysticks	+
Headlights on cab, front, LED, 2 pieces	• ¹⁾
Headlights on cab, front, LED+, 2 pieces	+ ¹⁾
Headlights on cab roof, front, LED+, 2 pieces	+ ¹⁾
High pressure circuit switchable on pedals or mini-joystick	+
High pressure circuit with Tool Control (20 attachment adjustments on display)	+
Lighting for cabin access	+ ¹⁾
Luminosity control (LED+ headlights)	+ ¹⁾
Medium pressure circuit	+
Mini-joysticks proportional	+
Operator seat Comfort	•
Operator seat Premium	+
Overload warning system	+
Radio Comfort	+
Radio pre-installation	•
Roof sun shield	+
Roof window wiper	+
Rotating beacon on cabin, LED, 1 piece	+
Shortkey button on joystick configurable	•
Special painting	+
Sun visor	+



Equipment

Boom bottom protection	+
Boom cylinder rods protection	+
Bucket cylinder rod protection	+
Centralised lubrication extended for connecting link	+
Floating boom	+
Headlights on boom, LED+, 2 pieces, protections included	+ ¹⁾
Mono boom 7.20 m	+
Mono boom 8.60 m	+
Mono boom 10.50 m	+
Preparation for ripper tooth	+
Quick coupler SWA 92 hydraulic	+
Shovel boom 4.60 m	+
Shovel stick 3.30 m	+
Special painting	+
Stick 2.90 m	+
Stick 3.30 m	+
Stick 3.80 m	+
Stick 4.70 m	+
Stick 5.80 m	+

• = Standard, + = Option

¹⁾ Equipment not individually available, but only as predefined lighting packages
Non-exhaustive list, please contact us for further information.

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

