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# LH 18 M Industry Litronic

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## LIEBHERR

Material handling machine

### Generation

6

### Operating weight

17,000–18,000 kg\*

### Engine

105 kW / 143 HP

Stage V

Tier 4 Final

\* Without attachment





## Performance

Power plus speed –  
redefined performance

## Economy

Good investment –  
savings for the long-term

## Reliability

Durability and sustainability –  
quality down to the last detail

## Comfort

Perfection at a glance –  
when technology is comfortable

## Maintainability

Efficiency bonus –  
even with maintenance and service





## LH 18 M Industry Litronic

**Operating weight**  
17,000–18,000 kg \*

**Engine**  
105 kW / 143 HP  
Stage V  
Tier 4 Final

\* Without attachment



# Well thought out to the last detail







#### **Extremely dusty jobs**

- Reversible fan slows down the accumulation of dirt in the engine and radiator, guaranteeing high levels of machine availability
- Protective grille with fine mesh, extending and folding fan for quick and easy cleaning
- Air pre-filter with dust discharge for extra-fine filtration of the engine intake air



#### **Maintainability**

- All daily service points are accessible from the ground
- Short service times for greater productivity



#### **Integral travel drive protection**

- Travel engine and gear unit are integrated in the robust undercarriage frame
- Solid construction for toughest requirements

# Convincing in operation



## Performance

### Sensitive hydraulics

The optimal harmonisation between the engine and the control valve allows a fast and direct response from the hydraulics to the input command. This is controlled proportionally to enable smooth and gentle movements to be executed when the joystick is moved.

### Firm and stable positioning

An essential prerequisite for precise working and maximum handling capacity is the firm and stable positioning of the machine. The design of the Liebherr undercarriage optimises the way forces are induced on components to minimise stress and guarantee maximum stability and durability.

## Economy

### Sensor controlled low idle automatic

The time-tested standard sensor controlled low idle automatic reduces the engine speed to idling level as soon as the operator takes his hand off the joystick which means that no hydraulic functions are activated. In addition to saving energy, this also reduces noise.

### Rapid work cycles

The elaborate machine controls guarantee that the hydraulics are optimally configured for the task at hand. Here, the load sensing control ensures that the flow delivered by the pump is optimally distributed when movements overlap. Speed and power are available whenever they are needed and thus ensures high handling capacity.

### Road licensing

The LH 18 M Industry with an adjustable boom package and the appropriate machine configuration can be issued with a road licence ex-works by the TÜV. This road licence enables it to work at the side of the road and to be driven to nearby places without the requirement for a special licence.



## Reliability

### Quality and competence

Our experience, understanding of customer needs and the technical implementation of these findings guarantee the success of the product. For decades, Liebherr has been inspirational with its extent of production and system solutions. Key components such as the diesel engine and electric motors, electronic components, slew ring, slew drives and hydraulic cylinders are developed and produced by Liebherr itself. The extend of in-house manufacturing guarantees maximum quality and ensures that components are optimally configured to each other.

### Robust design

All steel components are designed and manufactured by Liebherr. Highstrength steel plates configured for the toughest of requirements result in high torsional stiffness and optimum absorption of forces induced for a longer service life.

### Working area limit

The handling machine can be fitted with an optional working area limit for jobs which require a limited working area. The movement of the boom and stick can be set to a certain height above the display. Collisions and resulting component damage can thus be avoided.

### Requirement-controlled cooling

The vanes of the fan are driven regardless of the diesel engine, generating the exact cooling output that is actually required. Thermal sensors guarantee reliable, need-based and efficient control.

## Comfort

### Ergonomic

The cab design delivers excellent conditions for healthy, highly concentrated and productive work in maximum comfort. Both the display unit with touchscreen colour display, the controls and Comfort driver's seat are all coordinated to form a perfect ergonomic unit. In addition the ergonomic joysticks allow the machine operation to be both pleasant and precise.

### Joystick steering and stabilizing

The standard joystick steering gives the operator an additional comfort boost. The steering movement can be conveniently executed using the joystick, eliminating the need to reposition during the work cycle. Substituting the steering wheel in favour of joystick steering provides additional legroom and a clear view of the working area. A standard feature is Joystick control of the outriggers for more convenience and an increased productivity.

### Proportional control system

Precision and the fine control of the material handler are particularly important for applications such as material sorting or scrap recycling. The machine can master this demanding work with ease thanks to its standard proportional control system.

## Maintainability

### Service-based machine design

The service-based machine design guarantees short maintenance times, thus minimising maintenance costs due to the time it saves. All the maintenance points are easily accessible from the ground and easy to reach due to the large, wide-opening service doors. The enhanced service concept places the maintenance points close to each other and reduces their number to a minimum. This means that service work can be completed every more quickly and efficiently.

### Integral maintenance benefits

The completion of maintenance work helps keep the machine fully functional. Maintenance work does, however, mean machine down times which must be minimised. Automatic central lubrication systems for the uppercarriage and equipment as well as optional systems for the undercarriage, rapid change systems and attachments not only make it easier to adhere to the prescribed lubrication intervals and ensure a long service life for the components, but also increase the productivity of the Liebherr LH 18 M Industry handling machine.

# Technical data



## Diesel engine

<b>Rating per ISO 9249</b>	105 kW (143 HP) at 1,800 RPM
<b>Model</b>	D924 - FPT motor designed for Liebherr
<b>Type</b>	4 cylinder in-line
<b>Bore / Stroke</b>	104 / 132 mm
<b>Displacement</b>	4.5 l
<b>Engine operation</b>	4-stroke diesel Common-Rail Turbo-charged and after-cooled Reduced emissions
<b>Air cleaner</b>	Dry-type air cleaner with pre-cleaner, primary and safety elements
<b>Engine idling</b>	Sensor controlled
<b>Electrical system</b>	
<b>Voltage</b>	24 V
<b>Batteries</b>	2 x 135 Ah / 12 V
<b>Alternator</b>	Three-phase current 28 V / 140 A
<b>Stage V</b>	
<b>Harmful emissions values</b>	According to regulation (EU) 2016/1628
<b>Emission control</b>	Liebherr-SCR technology
<b>Fuel tank</b>	250 l
<b>Urea tank</b>	46 l
<b>Tier 4 Final</b>	
<b>Harmful emissions values</b>	In accordance with 40CFR1039 (EPA) / 13CCR (CARB)
<b>Emission control</b>	Liebherr-SCR technology
<b>Fuel tank</b>	250 l
<b>Urea tank</b>	46 l



## Cooling system

<b>Diesel engine</b>	Water-cooled Compact cooling system consisting cooling unit for water, hydraulic oil and charge air with stepless thermostatically controlled fan, fans for radiator cleaning can be completely folded away
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## Hydraulic controls

<b>Power distribution</b>	Via control valves with integrated safety valves, simultaneous and independent actuation of chassis, swing drive and equipment
<b>Servo circuit</b>	
<b>Equipment and swing</b>	With hydraulic pilot control and proportional joystick levers
<b>Chassis</b>	Electro-proportional via foot pedal
<b>Additional functions</b>	Via switch or electro-proportional foot pedals
<b>Proportional control</b>	Proportionally acting transmitters on the joysticks for additional hydraulic functions



## Hydraulic system

<b>Hydraulic pump</b>	For equipment and travel drive Liebherr axial piston variable displacement pump
<b>Max. flow</b>	250 l/min.
<b>Max. pressure</b>	350 bar
<b>Hydraulic pump regulation and control</b>	Liebherr-Synchron-Comfort-system (LSC) with electronic engine speed sensing regulation, pressure and flow compensation, torque controlled swing drive priority
<b>Hydraulic tank</b>	130 l
<b>Hydraulic system</b>	300 l
<b>Filtration</b>	1 main return filter with integrated partial micro filtration (5 µm)
<b>MODE selection</b>	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 material handling and heavy-duty jobs
<b>S (Sensitive)</b>	Mode for precision work and lifting through very sensitive movements
<b>E (Eco)</b>	Mode for especially economical and environmentally friendly operation
<b>P (Power)</b>	Mode for high performance with low fuel consumption
<b>P+ (Power-Plus)</b>	Mode for highest performance and for very heavy duty applications, suitable for continuous operation
<b>Engine speed and performance setting</b>	Stepless alignment of engine output and hydraulic power via engine speed
<b>Option</b>	Tool Control: 20 pre-adjustable pump flows and pressures for add-on attachments



## Swing drive

<b>Drive</b>	Liebherr axial piston motor with integrated brake valve and torque control
<b>Swing ring</b>	Liebherr, sealed race ball bearing swing ring, internal teeth
<b>Swing speed</b>	0-10.0 RPM stepless
<b>Swing torque</b>	46 kNm
<b>Holding brake</b>	Wet multi-disc (spring applied, pressure released)
<b>Option</b>	Slewing gear brake Comfort




**Cab**

<b>Cab</b>	TOPS safety cab structure (tip-over protection) with individual windscreens or featuring a slide-in subpart under the ceiling, work headlights integrated in the ceiling, a door with a sliding window (can be opened on both sides), large stowing and depositing possibilities, shock-absorbing suspension, sound damping insulating, tinted laminated safety glass, separate shades for the sunroof window and windscreen
<b>Operator's seat Comfort</b>	Air cushioned operator's seat with 3D-adjustable armrests, headrest, lap belt, seat heater, adjustable seat cushion inclination and length, lockable horizontal suspension, automatic weight adjustment, adjustable suspension stiffness, pneumatic lumbar vertebrae support and passive seat climatization with active coal
<b>Operator's seat Premium (Option)</b>	In addition to operator's seat comfort: active electronic weight adjustment (automatic readjustment), pneumatic low frequency suspension and active seat climatization with active coal and ventilator
<b>Arm consoles</b>	Joysticks with control consoles and swivel seat, folding left control console
<b>Operation and displays</b>	Large high-resolution operating unit, self-explanatory, colour display with touchscreen, video-compatible, numerous setting, control and monitoring options, e.g. air conditioning control, fuel consumption, machine and attachment parameters
<b>Air-conditioning</b>	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
Refrigerant	R134a
Global warming potential	1,430
Quantity at 25 °C*	1,300-1,500 g
CO <sub>2</sub> equivalent*	1.859-2.145 t
<b>Vibration emission**</b>	
Hand / arm vibrations	< 2.5 m/s <sup>2</sup>
Whole-body vibrations	< 0.5 m/s <sup>2</sup>
Measuring inaccuracy	According with standard EN 12096:1997


**Undercarriage**

<b>Drive</b>	Oversized two speed power shift transmission with additional creeper speed, Liebherr axial piston motor with functional brake valve on both sides
<b>Travel speed</b>	
Joystick steering	0- 3.5 km/h stepless (creeper speed + transmission stage 1) 0- 7.0 km/h stepless (transmission stage 1) 0-12.0 km/h stepless (creeper speed + transmission stage 2) 0-12.0 km/h stepless (transmission stage 2)
Wheel steering (Option)	0- 3.5 km/h stepless (creeper speed + transmission stage 1) 0- 7.0 km/h stepless (transmission stage 1) 0-13.0 km/h stepless (creeper speed + ventilator) 0-20.0 km/h stepless (transmission stage 2)
<b>Driving operation</b>	Automotive driving using accelerator pedal, cruise control function: storage of variable accelerator pedal positions
<b>Axles</b>	32 t drive axles; manual or automatic hydraulically controlled front axle oscillation lock
<b>Service brake</b>	Two circuit travel brake system with accumulator; wet and backlash-free disc brake
<b>Holding brake</b>	Wet multi-disc (spring applied, pressure released)
<b>Stabilization</b>	Stabilizing blade + 2 point outriggers; 4 point outriggers


**Equipment**

<b>Type</b>	High-strength steel plates at highly-stressed points for the toughest requirements. Complex and stable mountings of equipment and cylinders
<b>Hydraulic cylinders</b>	Liebherr cylinders with special sealing and guide system and, depending on cylinder type, shock absorption
<b>Bearings</b>	Sealed, low maintenance

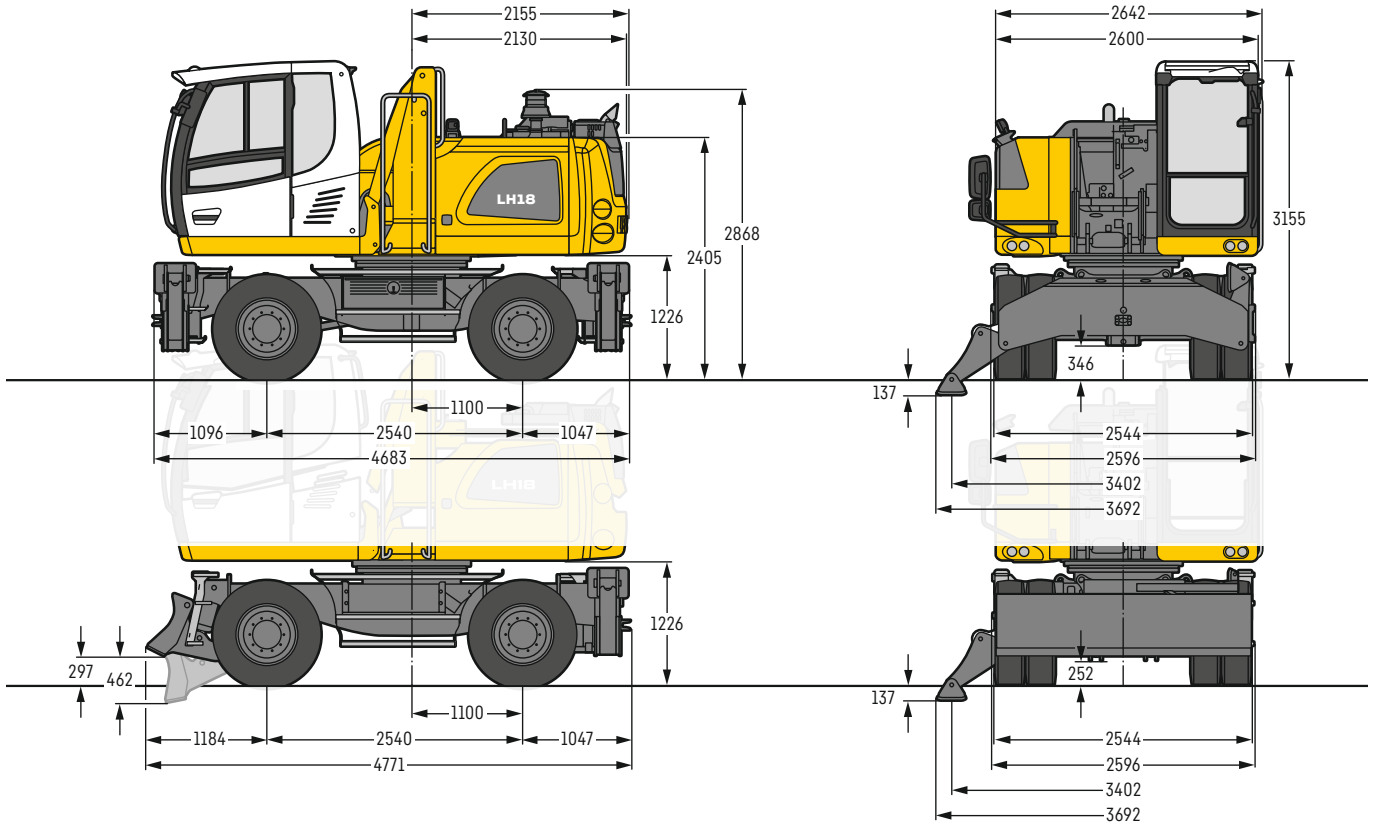

**Complete machine**

<b>Lubrication</b>	Liebherr central lubrication system for uppercarriage and equipment, automatically
<b>Steps system</b>	Safe and durable access system with anti-slip steps; main components hot-galvanised
<b>Noise emission</b>	
ISO 6396 (Stage V)	70 dB(A) = L <sub>pA</sub> (inside cab)
2000/14/EC (Stage V)	100 dB(A) = L <sub>WA</sub> (surround noise)
ISO 6396 (Tier 4 Final)	not specified
2000/14/EC (Tier 4 Final)	not specified

\* depending on configuration

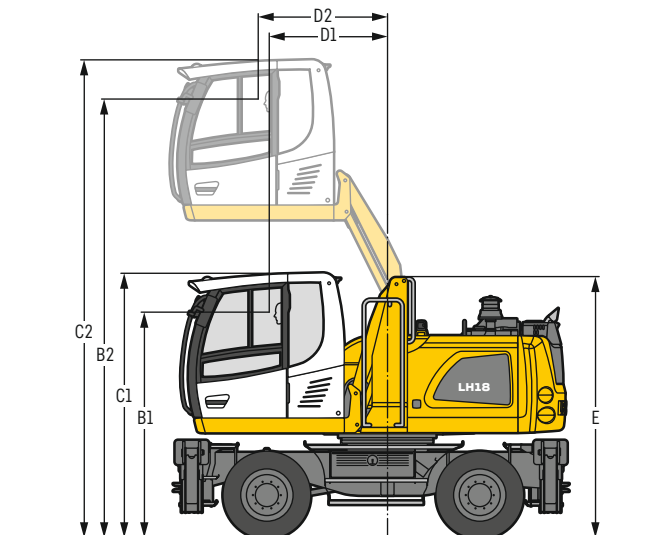
\*\* for risk assessment according to 2002/44/EC see ISO/TR 25398:2006

# Dimensions



# Cab elevation

## Cab elevation LHC (hydraulic elevation)



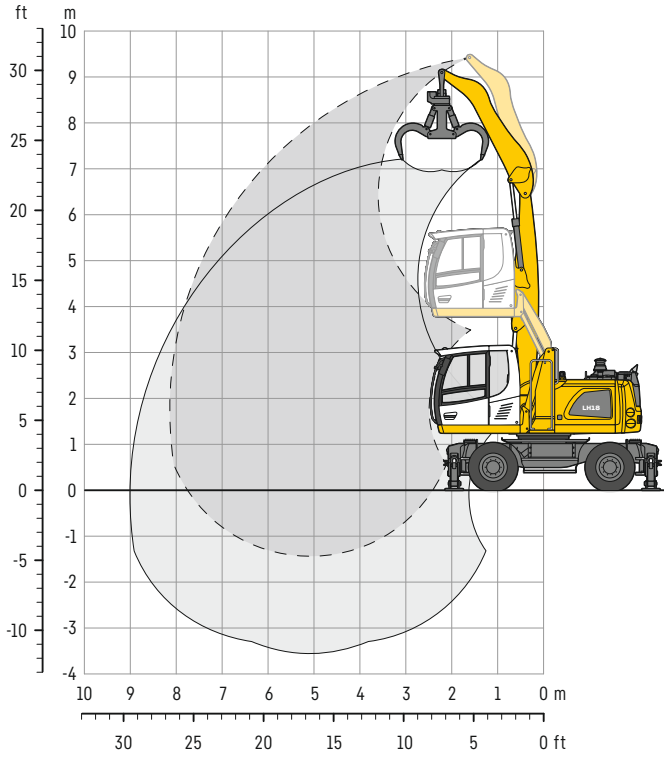
Increase type	LHC 255
B1	2,688 mm
B2	5,231 mm
C1	3,155 mm
C2	5,699 mm
D1	1,415 mm
D2	1,545 mm
E	3,098 mm

The hydraulically adjustable cab allows the driver, that he can choose his field of view freely and at any time within the stroke.

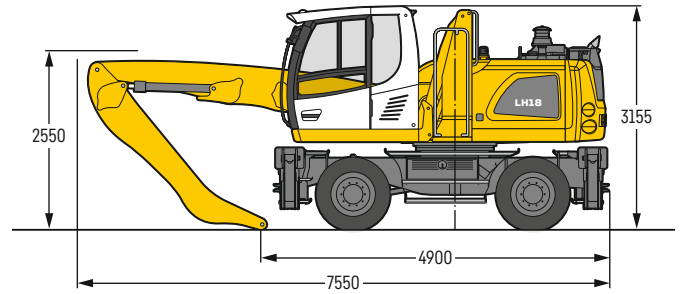
Tyres 10.00-20



# Equipment GF8



## Dimensions



## Operating weight

The operating weight includes the basic machine with 4 point outriggers, hydr. cab elevation, 8 solid tyres plus intermediate rings, straight boom 4.70 m, flat angled stick 3.20 m and multi-tine grab GM 55B / 0.40 m<sup>3</sup> semi-closed tines.

Weight 18,900 kg

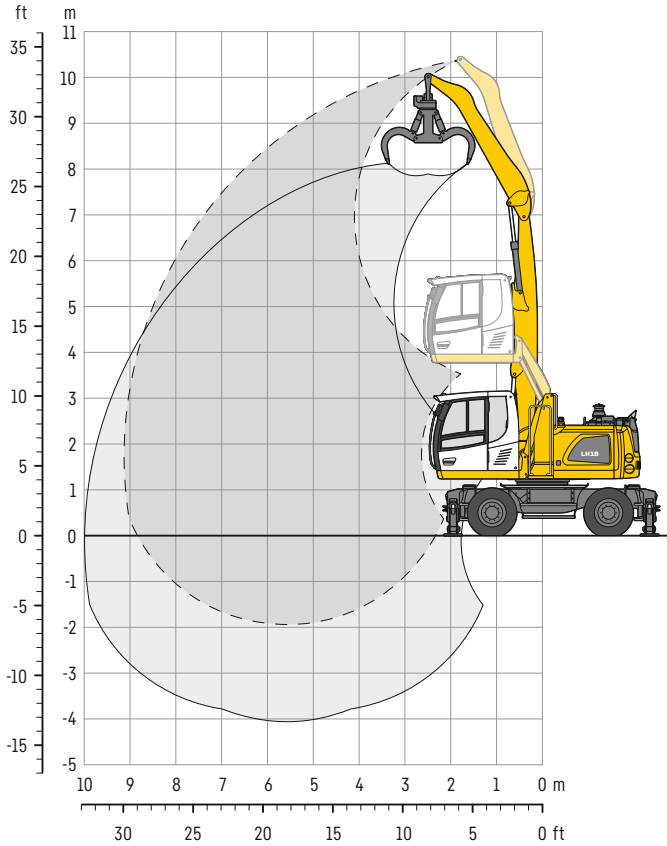
m	Undercarriage	3.0 m		4.5 m		6.0 m		7.5 m		9.0 m		m		
9.0	Stabilizers raised	4.9*	4.9*									4.5*	4.5*	3.2
	Blade + 2 pt. outriggers down	4.9*	4.9*									4.5*	4.5*	
	4 pt. outriggers down	4.9*	4.9*									4.5*	4.5*	
7.5	Stabilizers raised			4.3	4.6*							3.0	3.0*	5.6
	Blade + 2 pt. outriggers down			4.6*	4.6*							3.0*	3.0*	
	4 pt. outriggers down			4.6*	4.6*							3.0*	3.0*	
6.0	Stabilizers raised			4.3	5.1*	2.8	4.2					2.2	2.6*	6.9
	Blade + 2 pt. outriggers down			5.1*	5.1*	4.3*	4.3*					2.6*	2.6*	
	4 pt. outriggers down			5.1*	5.1*	4.3*	4.3*					2.6*	2.6*	
4.5	Stabilizers raised	5.0*	5.0*	4.2	5.4*	2.8	4.2	2.0	3.0			1.9	2.5*	7.6
	Blade + 2 pt. outriggers down	5.0*	5.0*	5.4*	5.4*	4.4*	4.4*	3.0*	3.0*			2.5*	2.5*	
	4 pt. outriggers down	5.0*	5.0*	5.4*	5.4*	4.4*	4.4*	3.0*	3.0*			2.5*	2.5*	
3.0	Stabilizers raised	7.3	9.0*	4.0	5.9*	2.7	4.1	1.9	3.0			1.7	2.4*	8.0
	Blade + 2 pt. outriggers down	9.0*	9.0*	5.9*	5.9*	4.3	4.5*	3.1	3.5*			2.4*	2.4*	
	4 pt. outriggers down	9.0*	9.0*	5.9*	5.9*	4.5*	4.5*	3.5*	3.5*			2.4*	2.4*	
1.5	Stabilizers raised	2.9*	2.9*	3.8	6.1	2.6	4.0	1.9	2.9			1.7	2.5*	8.1
	Blade + 2 pt. outriggers down	2.9*	2.9*	6.2*	6.2*	4.2	4.5*	3.1	3.3*			2.5*	2.5*	
	4 pt. outriggers down	2.9*	2.9*	6.2*	6.2*	4.5*	4.5*	3.3*	3.3*			2.5*	2.5*	
0	Stabilizers raised	2.6*	2.6*	3.6	5.8*	2.5	3.9	1.9	2.8*			1.8	2.5*	7.8
	Blade + 2 pt. outriggers down	2.6*	2.6*	5.8*	5.8*	4.1*	4.1*	2.8*	2.8*			2.5*	2.5*	
	4 pt. outriggers down	2.6*	2.6*	5.8*	5.8*	4.1*	4.1*	2.8*	2.8*			2.5*	2.5*	

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

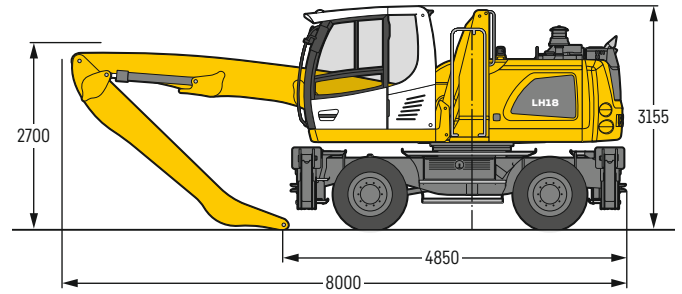
The lift capacities on the stick end without attachment are stated in metric tons (t) and are valid on a firm, level supporting surface with blocked oscillating axle. These capacities can be slewed through 360° with the undercarriage in the transverse position. Capacities in the longitudinal position of the undercarriage (±15°) are specified over the steering axle with the stabilizers raised and over the rigid axle with the stabilizers down. Indicated loads based on the ISO 10567 standard and do not exceed 75% of tipping or 87% of hydraulic capacity. The lift capacity of the unit is limited by its stability, the lifting capability of the hydraulic elements, or the maximum permissible lifting capacity of the load hook.

In accordance with the harmonised European Standard EN 474-5, hydraulic excavators used for lifting operations must be equipped with pipe fracture safety valves, an overload warning device, a load hook and a lift capacity chart.

# Equipment GF9



## Dimensions



## Operating weight

The operating weight includes the basic machine with 4 point outriggers, hydr. cab elevation, 8 solid tyres plus intermediate rings, straight boom 5.20m, flat angled stick 3.70m and multi-tine grab GM 55B / 0.40 m<sup>3</sup> semi-closed tines.

Weight 19,200 kg

m	3.0m		4.5m		6.0m		7.5m		9.0m		m			
9.0	Stabilizers raised		3.9*	3.9*							2.9*	2.9*	5.3	
	Blade + 2 pt. outriggers down		3.9*	3.9*							2.9*	2.9*		
	4 pt. outriggers down		3.9*	3.9*							2.9*	2.9*		
7.5	Stabilizers raised		4.3*	4.3*	2.8	3.7*					2.1	2.4*	7.0	
	Blade + 2 pt. outriggers down		4.3*	4.3*	3.7*	3.7*					2.4*	2.4*		
	4 pt. outriggers down		4.3*	4.3*	3.7*	3.7*					2.4*	2.4*		
6.0	Stabilizers raised		4.4	4.5*	2.8	4.0*	1.9	3.0			1.7	2.2*	8.0	
	Blade + 2 pt. outriggers down		4.5*	4.5*	4.0*	4.0*	3.2	3.2*			2.2*	2.2*		
	4 pt. outriggers down		4.5*	4.5*	4.0*	4.0*	3.2*	3.2*			2.2*	2.2*		
4.5	Stabilizers raised		4.2	5.1*	2.7	4.1*	1.9	3.0			1.5	2.1*	8.7	
	Blade + 2 pt. outriggers down		5.1*	5.1*	4.1*	4.1*	3.1	3.4*			2.1*	2.1*		
	4 pt. outriggers down		5.1*	5.1*	4.1*	4.1*	3.4*	3.4*			2.1*	2.1*		
3.0	Stabilizers raised	7.2	8.7*	3.9	5.7*	2.6	4.1	1.9	2.9	1.4	2.2	1.4	2.1*	9.0
	Blade + 2 pt. outriggers down	8.7*	8.7*	5.7*	5.7*	4.3*	4.3*	3.1	3.4*	2.2*	2.2*	2.1*	2.1*	
	4 pt. outriggers down	8.7*	8.7*	5.7*	5.7*	4.3*	4.3*	3.4*	3.4*	2.2*	2.2*	2.1*	2.1*	
1.5	Stabilizers raised	1.7*	1.7*	3.6	5.9	2.4	3.9	1.8	2.8	1.4	2.2	1.3	2.1*	9.1
	Blade + 2 pt. outriggers down	1.7*	1.7*	6.0*	6.0*	4.1	4.3*	3.0	3.3*	2.3	2.3*	2.1*	2.1*	
	4 pt. outriggers down	1.7*	1.7*	6.0*	6.0*	4.3*	4.3*	3.3*	3.3*	2.3*	2.3*	2.1*	2.1*	
0	Stabilizers raised	1.7*	1.7*	3.4	5.6*	2.3	3.8	1.7	2.8			1.4	2.0*	8.8
	Blade + 2 pt. outriggers down	1.7*	1.7*	5.6*	5.6*	4.0	4.1*	2.9	3.0*			2.0*	2.0*	
	4 pt. outriggers down	1.7*	1.7*	5.6*	5.6*	4.1*	4.1*	3.0*	3.0*			2.0*	2.0*	
-1.5	Stabilizers raised			3.3	4.5*	2.3	3.3*					1.8	2.4*	7.3
	Blade + 2 pt. outriggers down			4.5*	4.5*	3.3*	3.3*					2.4*	2.4*	
	4 pt. outriggers down			4.5*	4.5*	3.3*	3.3*					2.4*	2.4*	

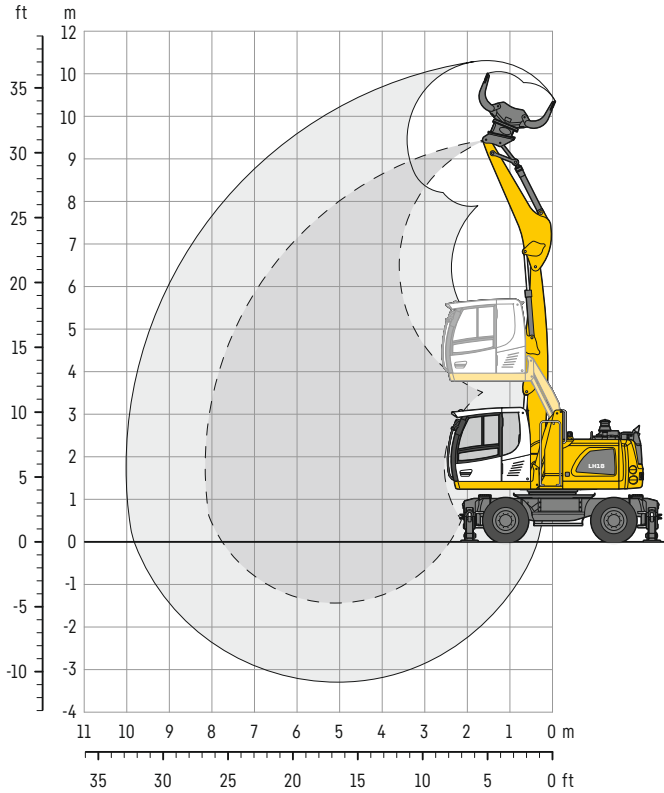
Height Can be slewed through 360° In longitudinal position of undercarriage Max. reach \* Limited by hydr. capacity

The lift capacities on the stick end without attachment are stated in metric tons (t) and are valid on a firm, level supporting surface with blocked oscillating axle. These capacities can be slewed through 360° with the undercarriage in the transverse position. Capacities in the longitudinal position of the undercarriage (±15°) are specified over the steering axle with the stabilizers raised and over the rigid axle with the stabilizers down. Indicated loads based on the ISO 10567 standard and do not exceed 75% of tipping or 87% of hydraulic capacity. The lift capacity of the unit is limited by its stability, the lifting capability of the hydraulic elements, or the maximum permissible lifting capacity of the load hook.

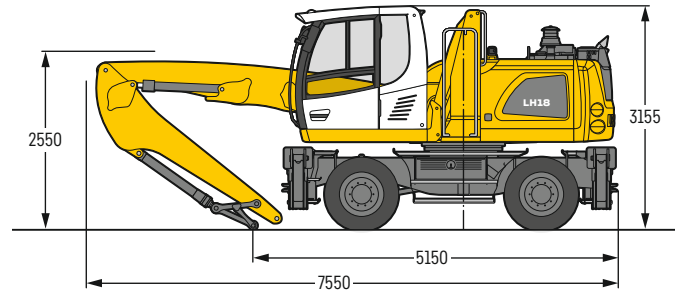
In accordance with the harmonised European Standard EN 474-5, hydraulic excavators used for lifting operations must be equipped with pipe fracture safety valves, an overload warning device, a load hook and a lift capacity chart.



# Equipment GK8



## Dimensions



## Operating weight

The operating weight includes the basic machine with 4 point outriggers, hydr. cab elevation, 8 solid tyres plus intermediate rings, straight boom 4.70 m, stick with tipping kinematics 3.20 m and sorting grab SG 20B / 0.40 m<sup>3</sup> perforated shells.

Weight 18,900 kg

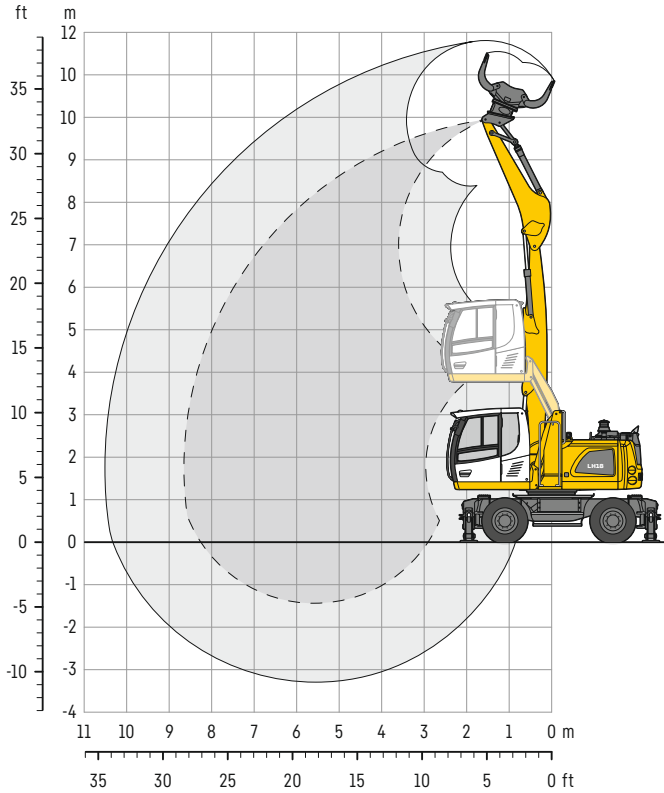
m	Undercarriage	3.0m		4.5m		6.0m		7.5m		9.0m		m		
9.0	Stabilizers raised	4.9*	4.9*									4.4*	4.4*	3.2
	Blade + 2 pt. outriggers down	4.9*	4.9*									4.4*	4.4*	
	4 pt. outriggers down	4.9*	4.9*									4.4*	4.4*	
7.5	Stabilizers raised			4.2	4.6*							2.9	2.9*	5.6
	Blade + 2 pt. outriggers down			4.6*	4.6*							2.9*	2.9*	
	4 pt. outriggers down			4.6*	4.6*							2.9*	2.9*	
6.0	Stabilizers raised			4.2	5.0*	2.7	4.1					2.1	2.5*	6.9
	Blade + 2 pt. outriggers down			5.0*	5.0*	4.2*	4.2*					2.5*	2.5*	
	4 pt. outriggers down			5.0*	5.0*	4.2*	4.2*					2.5*	2.5*	
4.5	Stabilizers raised	4.7*	4.7*	4.1	5.3*	2.6	4.1	1.8	2.9			1.8	2.4*	7.7
	Blade + 2 pt. outriggers down	4.7*	4.7*	5.3*	5.3*	4.2*	4.2*	3.0*	3.0*			2.4*	2.4*	
	4 pt. outriggers down	4.7*	4.7*	5.3*	5.3*	4.2*	4.2*	3.0*	3.0*			2.4*	2.4*	
3.0	Stabilizers raised	7.2	8.8*	3.9	5.8*	2.5	4.0	1.8	2.8			1.6	2.3*	8.1
	Blade + 2 pt. outriggers down	8.8*	8.8*	5.8*	5.8*	4.2	4.3*	3.0	3.3*			2.3*	2.3*	
	4 pt. outriggers down	8.8*	8.8*	5.8*	5.8*	4.3*	4.3*	3.3*	3.3*			2.3*	2.3*	
1.5	Stabilizers raised	2.7*	2.7*	3.6	5.9	2.4	3.9	1.8	2.8			1.6	2.4*	8.2
	Blade + 2 pt. outriggers down	2.7*	2.7*	6.1*	6.1*	4.1	4.3*	3.0	3.1*			2.4*	2.4*	
	4 pt. outriggers down	2.7*	2.7*	6.1*	6.1*	4.3*	4.3*	3.1*	3.1*			2.4*	2.4*	
0	Stabilizers raised	2.4*	2.4*	3.5	5.6*	2.3	3.8	1.7	2.6*			1.7	2.3*	7.8
	Blade + 2 pt. outriggers down	2.4*	2.4*	5.6*	5.6*	3.9*	3.9*	2.6*	2.6*			2.3*	2.3*	
	4 pt. outriggers down	2.4*	2.4*	5.6*	5.6*	3.9*	3.9*	2.6*	2.6*			2.3*	2.3*	
-1.5	Stabilizers raised													
	Blade + 2 pt. outriggers down													
	4 pt. outriggers down													

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

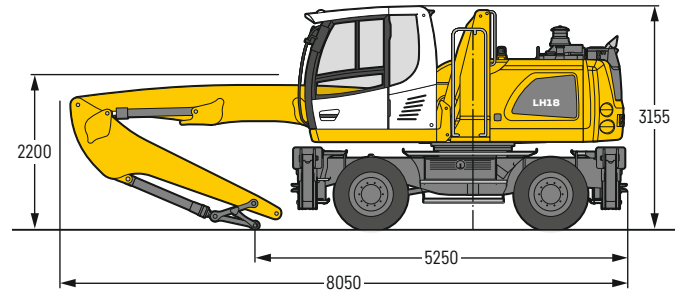
The lift capacities on the stick end without attachment are stated in metric tons (t) and are valid on a firm, level supporting surface with blocked oscillating axle. These capacities can be slewed through 360° with the undercarriage in the transverse position. Capacities in the longitudinal position of the undercarriage (±15°) are specified over the steering axle with the stabilizers raised and over the rigid axle with the stabilizers down. Indicated loads based on the ISO 10567 standard and do not exceed 75% of tipping or 87% of hydraulic capacity. The lift capacity of the unit is limited by its stability, the lifting capability of the hydraulic elements, or the maximum permissible lifting capacity of the load hook.

In accordance with the harmonised European Standard EN 474-5, hydraulic excavators used for lifting operations must be equipped with pipe fracture safety valves, an overload warning device, a load hook and a lift capacity chart.

# Equipment GK8.5



## Dimensions



## Operating weight

The operating weight includes the basic machine with 4 point outriggers, hydr. cab elevation, 8 solid tyres plus intermediate rings, straight boom 5.20 m, stick with tipping kinematics 3.20 m and sorting grab SG 20B / 0.40 m<sup>3</sup> perforated shells.

Weight 19,200 kg

m	Undercarriage	3.0m		4.5m		6.0m		7.5m		9.0m		m		
9.0	Stabilizers raised	5.2*	5.2*									3.7*	3.7*	4.4
	Blade + 2 pt. outriggers down	5.2*	5.2*									3.7*	3.7*	
	4 pt. outriggers down	5.2*	5.2*									3.7*	3.7*	
7.5	Stabilizers raised			4.2	4.8*	2.6	3.6*					2.3	2.8*	6.3
	Blade + 2 pt. outriggers down			4.8*	4.8*	3.6*	3.6*					2.8*	2.8*	
	4 pt. outriggers down			4.8*	4.8*	3.6*	3.6*					2.8*	2.8*	
6.0	Stabilizers raised			4.2	4.9*	2.6	4.0*					1.8	2.5*	7.5
	Blade + 2 pt. outriggers down			4.9*	4.9*	4.0*	4.0*					2.5*	2.5*	
	4 pt. outriggers down			4.9*	4.9*	4.0*	4.0*					2.5*	2.5*	
4.5	Stabilizers raised	5.0*	5.0*	4.0	5.3*	2.6	4.0	1.8	2.8			1.5	2.3*	8.2
	Blade + 2 pt. outriggers down	5.0*	5.0*	5.3*	5.3*	4.1*	4.1*	3.0	3.3*			2.3*	2.3*	
	4 pt. outriggers down	5.0*	5.0*	5.3*	5.3*	4.1*	4.1*	3.3*	3.3*			2.3*	2.3*	
3.0	Stabilizers raised	6.8	9.0*	3.7	5.7*	2.4	3.9	1.7	2.8			1.4	2.2	8.6
	Blade + 2 pt. outriggers down	9.0*	9.0*	5.7*	5.7*	4.1	4.2*	2.9	3.2*			2.3*	2.3*	
	4 pt. outriggers down	9.0*	9.0*	5.7*	5.7*	4.2*	4.2*	3.2*	3.2*			2.3*	2.3*	
1.5	Stabilizers raised	0.6*	0.6*	3.4	5.7	2.3	3.7	1.7	2.7			1.3	2.2*	8.6
	Blade + 2 pt. outriggers down	0.6*	0.6*	5.8*	5.8*	4.0	4.2*	2.9	3.1*			2.2*	2.2*	
	4 pt. outriggers down	0.6*	0.6*	5.8*	5.8*	4.2*	4.2*	3.1*	3.1*			2.2*	2.2*	
0	Stabilizers raised	1.3*	1.3*	3.2	5.2*	2.2	3.6	1.6	2.6			1.4	2.0*	8.3
	Blade + 2 pt. outriggers down	1.3*	1.3*	5.2*	5.2*	3.8*	3.8*	2.7*	2.7*			2.0*	2.0*	
	4 pt. outriggers down	1.3*	1.3*	5.2*	5.2*	3.8*	3.8*	2.7*	2.7*			2.0*	2.0*	
-1.5	Stabilizers raised													
	Blade + 2 pt. outriggers down													
	4 pt. outriggers down													

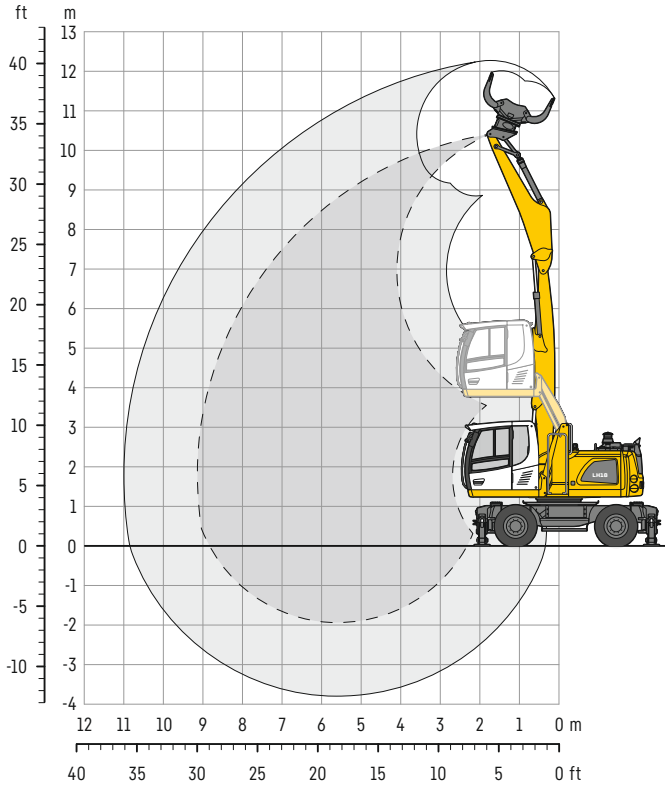
Height Can be slewed through 360° In longitudinal position of undercarriage Max. reach \* Limited by hydr. capacity

The lift capacities on the stick end without attachment are stated in metric tons (t) and are valid on a firm, level supporting surface with blocked oscillating axle. These capacities can be slewed through 360° with the undercarriage in the transverse position. Capacities in the longitudinal position of the undercarriage (±15°) are specified over the steering axle with the stabilizers raised and over the rigid axle with the stabilizers down. Indicated loads based on the ISO 10567 standard and do not exceed 75% of tipping or 87% of hydraulic capacity. The lift capacity of the unit is limited by its stability, the lifting capability of the hydraulic elements, or the maximum permissible lifting capacity of the load hook.

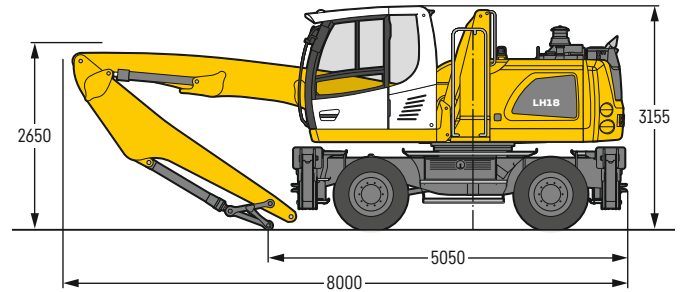
In accordance with the harmonised European Standard EN 474-5, hydraulic excavators used for lifting operations must be equipped with pipe fracture safety valves, an overload warning device, a load hook and a lift capacity chart.



# Equipment GK9



## Dimensions



## Operating weight

The operating weight includes the basic machine with 4 point outriggers, hydr. cab elevation, 8 solid tyres plus intermediate rings, straight boom 5.20m, stick with tipping kinematics 3.70m and sorting grab SG 20B / 0.40 m<sup>3</sup> perforated shells.

Weight 19,300 kg

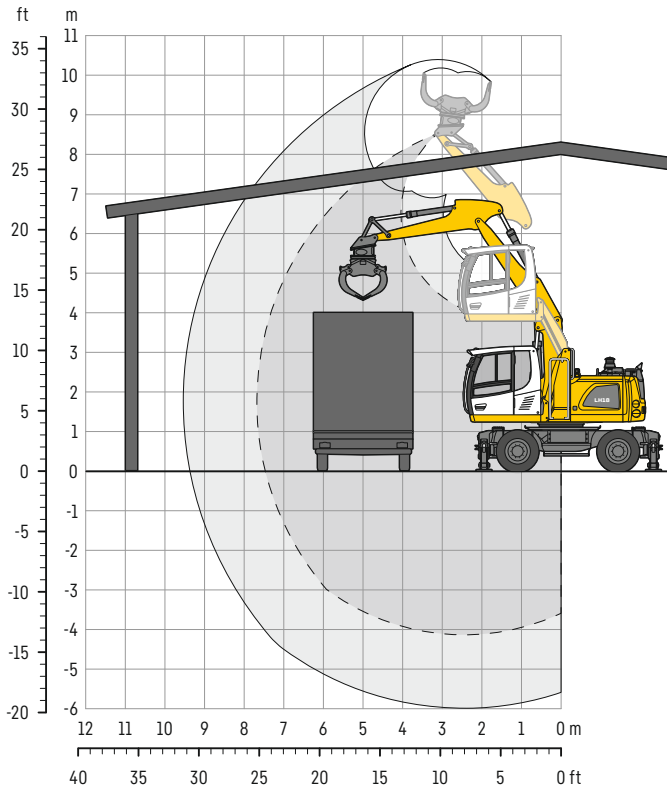
m	3.0m		4.5m		6.0m		7.5m		9.0m		m		
9.0	Stabilizers raised		3.7*	3.7*							2.7*	2.7*	
	Blade + 2 pt. outriggers down		3.7*	3.7*							2.7*	2.7*	
	4 pt. outriggers down		3.7*	3.7*							2.7*	2.7*	
7.5	Stabilizers raised		4.2*	4.2*	2.7	3.5*					2.0	2.2*	
	Blade + 2 pt. outriggers down		4.2*	4.2*	3.5*	3.5*					2.2*	2.2*	
	4 pt. outriggers down		4.2*	4.2*	3.5*	3.5*					2.2*	2.2*	
6.0	Stabilizers raised		4.3	4.3*	2.7	3.8*	1.8	2.9			1.6	2.0*	
	Blade + 2 pt. outriggers down		4.3*	4.3*	3.8*	3.8*	3.0	3.0*			2.0*	2.0*	
	4 pt. outriggers down		4.3*	4.3*	3.8*	3.8*	3.0*	3.0*			2.0*	2.0*	
4.5	Stabilizers raised		4.1	4.9*	2.6	3.9*	1.8	2.8			1.3	1.9*	
	Blade + 2 pt. outriggers down		4.9*	4.9*	3.9*	3.9*	3.0	3.2*			1.9*	1.9*	
	4 pt. outriggers down		4.9*	4.9*	3.9*	3.9*	3.2*	3.2*			1.9*	1.9*	
3.0	Stabilizers raised	7.1	8.4*	3.8	5.5*	2.4	3.9	1.7	2.7	1.2	2.0	1.2	1.9*
	Blade + 2 pt. outriggers down	8.4*	8.4*	5.5*	5.5*	4.1*	4.1*	2.9	3.2*	2.1*	2.1*	1.9*	1.9*
	4 pt. outriggers down	8.4*	8.4*	5.5*	5.5*	4.1*	4.1*	3.2*	3.2*	2.1*	2.1*	1.9*	1.9*
1.5	Stabilizers raised	1.7*	1.7*	3.4	5.8	2.3	3.7	1.6	2.7	1.2	2.0	1.2	1.9*
	Blade + 2 pt. outriggers down	1.7*	1.7*	5.8*	5.8*	3.9	4.1*	2.8	3.1*	2.1*	2.1*	1.9*	1.9*
	4 pt. outriggers down	1.7*	1.7*	5.8*	5.8*	4.1*	4.1*	3.1*	3.1*	2.1*	2.1*	1.9*	1.9*
0	Stabilizers raised	1.6*	1.6*	3.2	5.4*	2.1	3.6	1.6	2.6			1.2	1.8*
	Blade + 2 pt. outriggers down	1.6*	1.6*	5.4*	5.4*	3.8	3.9*	2.8	2.8*			1.8*	1.8*
	4 pt. outriggers down	1.6*	1.6*	5.4*	5.4*	3.9*	3.9*	2.8*	2.8*			1.8*	1.8*
-1.5	Stabilizers raised			3.1	4.3*	2.1	3.1*					1.6	2.2*
	Blade + 2 pt. outriggers down			4.3*	4.3*	3.1*	3.1*					2.2*	2.2*
	4 pt. outriggers down			4.3*	4.3*	3.1*	3.1*					2.2*	2.2*

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

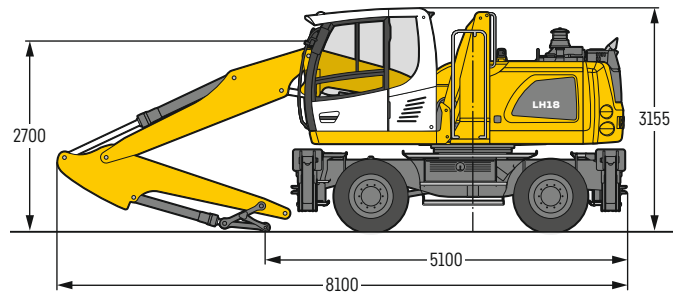
The lift capacities on the stick end without attachment are stated in metric tons (t) and are valid on a firm, level supporting surface with blocked oscillating axle. These capacities can be slewed through 360° with the undercarriage in the transverse position. Capacities in the longitudinal position of the undercarriage (±15°) are specified over the steering axle with the stabilizers raised and over the rigid axle with the stabilizers down. Indicated loads based on the ISO 10567 standard and do not exceed 75% of tipping or 87% of hydraulic capacity. The lift capacity of the unit is limited by its stability, the lifting capability of the hydraulic elements, or the maximum permissible lifting capacity of the load hook.

In accordance with the harmonised European Standard EN 474-5, hydraulic excavators used for lifting operations must be equipped with pipe fracture safety valves, an overload warning device, a load hook and a lift capacity chart.

# Equipment VK8



## Dimensions



## Operating weight

The operating weight includes the basic machine with 4 point outriggers, hydr. cab elevation, 8 solid tyres plus intermediate rings, two-piece boom 4.85 m, stick with tipping kinematics 2.65 m and sorting grab SG 20B / 0.40 m<sup>3</sup> perforated shells.

Weight 19,300 kg

m	3.0m		4.5m		6.0m		7.5m		9.0m		m		
7.5	Stabilizers raised		3.2*	3.2*							2.3*	2.3*	4.9
	Blade + 2 pt. outriggers down		3.2*	3.2*							2.3*	2.3*	
	4 pt. outriggers down		3.2*	3.2*							2.3*	2.3*	
6.0	Stabilizers raised		3.9*	3.9*	2.7	2.9*					2.0*	2.0*	6.3
	Blade + 2 pt. outriggers down		3.9*	3.9*	2.9*	2.9*					2.0*	2.0*	
	4 pt. outriggers down		3.9*	3.9*	2.9*	2.9*					2.0*	2.0*	
4.5	Stabilizers raised		4.3	4.6*	2.8	4.1*					1.9*	1.9*	7.2
	Blade + 2 pt. outriggers down		4.6*	4.6*	4.1*	4.1*					1.9*	1.9*	
	4 pt. outriggers down		4.6*	4.6*	4.1*	4.1*					1.9*	1.9*	
3.0	Stabilizers raised	7.4	8.9*	4.2	5.7*	2.8	4.2	1.8	2.3*		1.8	1.9*	7.6
	Blade + 2 pt. outriggers down	8.9*	8.9*	5.7*	5.7*	4.3	4.5*	2.3*	2.3*		1.9*	1.9*	
	4 pt. outriggers down	8.9*	8.9*	5.7*	5.7*	4.5*	4.5*	2.3*	2.3*		1.9*	1.9*	
1.5	Stabilizers raised	7.2	9.5*	4.1	6.2	2.7	4.2	1.8	2.9		1.7	2.0*	7.7
	Blade + 2 pt. outriggers down	9.5*	9.5*	6.4	6.5*	4.3	4.7*	3.0*	3.0*		2.0*	2.0*	
	4 pt. outriggers down	9.5*	9.5*	6.5*	6.5*	4.7*	4.7*	3.0*	3.0*		2.0*	2.0*	
0	Stabilizers raised	7.2	10.4*	4.0	6.2	2.5	4.0				1.7	2.2*	7.5
	Blade + 2 pt. outriggers down	10.4*	10.4*	6.4	6.6*	4.2	4.8*				2.2*	2.2*	
	4 pt. outriggers down	10.4*	10.4*	6.6*	6.6*	4.8*	4.8*				2.2*	2.2*	
-1.5	Stabilizers raised	6.9	10.8*	3.8	6.2	2.4	3.9				1.9	2.7*	6.9
	Blade + 2 pt. outriggers down	10.8*	10.8*	6.5	6.7*	4.1	4.7*				2.7*	2.7*	
	4 pt. outriggers down	10.8*	10.8*	6.7*	6.7*	4.7*	4.7*				2.7*	2.7*	
-3.0	Stabilizers raised	6.6	10.6*	3.6	6.0*						2.4	2.7*	5.9
	Blade + 2 pt. outriggers down	10.6*	10.6*	6.0*	6.0*						2.7*	2.7*	
	4 pt. outriggers down	10.6*	10.6*	6.0*	6.0*						2.7*	2.7*	

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

The lift capacities on the stick end without attachment are stated in metric tons (t) and are valid on a firm, level supporting surface with blocked oscillating axle. These capacities can be slewed through 360° with the undercarriage in the transverse position. Capacities in the longitudinal position of the undercarriage (±15°) are specified over the steering axle with the stabilizers raised and over the rigid axle with the stabilizers down. The values apply with the optimum positioning of the two-piece boom. Indicated loads based on the ISO 10567 standard and do not exceed 75% of tipping or 87% of hydraulic capacity. The lift capacity of the unit is limited by its stability, the lifting capability of the hydraulic elements, or the maximum permissible lifting capacity of the load hook.

In accordance with the harmonised European Standard EN 474-5, hydraulic excavators used for lifting operations must be equipped with pipe fracture safety valves, an overload warning device, a load hook and a lift capacity chart.



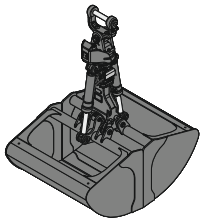
# Machine stabilities sorting grabs

## LH 18 M – Max. material weight in t/m<sup>3</sup>

Grab	Shell type	Width of shells mm	Capacity m <sup>3</sup>	Mounting for direct mounting								Mounting for quick coupler SWA 48							
				4 pt. outriggers down				Blade + 2 pt. outriggers down				4 pt. outriggers down				Blade + 2 pt. outriggers down			
				GK8	GK8.5	GK9	VK8	GK8	GK8.5	GK9	VK8	GK8	GK8.5	GK9	VK8	GK8	GK8.5	GK9	VK8
SG 20B	perforated	800	0.40	2.0	1.5	0.7	2.7	2.0	1.5	0.7	2.7	1.3	0.8	-	2.1	1.3	0.8	-	2.1
SG 20B	perforated	1,000	0.50	1.5	1.1	0.5	2.1	1.5	1.1	0.5	2.1	0.9	0.5	-	1.5	0.9	0.5	-	1.5
SG 20B	perforated	1,200	0.60	1.1	0.8	0.3	1.6	1.1	0.8	0.3	1.6	0.7	0.4	-	1.2	0.7	0.4	-	1.2
SG 20B	perforated	1,400	0.70	0.9	0.6	-	1.3	0.9	0.6	-	1.3	0.5	-	-	1.0	0.5	-	-	1.0
SG 20B	closed	800	0.40	1.9	1.4	0.7	2.7	1.9	1.4	0.7	2.7	1.3	0.8	-	2.0	1.3	0.8	-	2.0
SG 20B	closed	1,000	0.50	1.4	1.0	0.4	2.0	1.4	1.0	0.4	2.0	0.9	0.5	-	1.5	0.9	0.5	-	1.5
SG 20B	closed	1,200	0.60	1.1	0.8	0.3	1.6	1.1	0.8	0.3	1.6	0.7	0.4	-	1.2	0.7	0.4	-	1.2
SG 20B	closed	1,400	0.70	0.9	0.6	-	1.3	0.9	0.6	-	1.3	0.5	-	-	0.9	0.5	-	-	0.9

- = Load values at maximum outreach insufficient

## Attachments



### Grab for loose material

Shells for loose material with cutting edge (without teeth)

#### Grab model GMZ 26

Width of shells	mm	1,250	1,500
Capacity	m <sup>3</sup>	1.50	1.80
Weight	kg	1,170	1,255

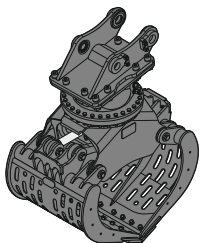


### Multi-tine grab

open    semi-closed    closed, heart-shaped

#### Grab model GM 55B (5 tines)

Capacity	m <sup>3</sup>	0.40	0.40	0.40
Weight	kg	995	1,120	1,375



### Sorting grab

perforated   closed                          perforated   closed                          perforated   closed                          perforated   closed

#### Grab model SG 20B

Width of shells	mm	800	800	1,000	1,000	1,200	1,200	1,400	1,400
Capacity	m <sup>3</sup>	0.40	0.40	0.50	0.50	0.60	0.60	0.70	0.70
Max. closing force	kN	40	40	40	40	40	40	40	40
Weight incl. quick coupler mounting SWA 48	kg	950	965	995	1,010	1,040	1,050	1,085	1,095

# Equipment

## Undercarriage

Rear + front outriggers	•
Front stabilizer blade, rear outriggers	+
Individual control outriggers	•
Shuttle axle lock, automatic	•
Outrigger monitoring system	+
Tyres, variants	+
Protection for travel drive	•
Protection for piston rods, outriggers	+
Two storage compartments	•

## Upper-carriage

Upper-carriage right side light, 1 piece, LED	•
Upper-carriage rear light, 2 pieces, LED	+
Tank refilling pump fuel	+
Main battery switch for electrical system	•
Amber beacon, at upper-carriage, LED double flash	+
Protection for headlights	+
Protection for rear lights	+
Tool equipment, extended	+

## Hydraulic system

Electronic pump regulation	•
Liebherr hydraulic oil from -20 °C to +40 °C	•
Liebherr hydraulic oil, biologically degradable	+
Magnetic rod in hydraulic tank	•
Bypass filter	+
Preheating hydraulic oil	+

## Engine

Fuel anti-theft device	+
Air pre-filter with dust discharge	+
Automatic engine shut-down (time adjustable)	+
Preheating fuel	+
Preheating coolant*	+
Preheating engine oil*	+

## Cooling system

Reversible fan drive	+
Protective grid (close-mesh) in front of cooler intake, extendible	•



## Cab

Stabilizer, control lever, left console	+
Stabilizer, proportional control on left joystick	●
Cab lights front, halogen	+
Cab lights front, halogen (under rain cover)	●
Cab lights front, LED	+
Cab lights front, LED (under rain cover)	+
Armrest adjustable	●
Slewing gear brake Comfort, button on the left or right joystick	+
Operator's seat Comfort	●
Operator's seat Premium	+
Driving alarm (acoustic signal is emitted during travel, can be switched ON / OFF)	+
Fire extinguisher	+
Footrest	+
Horn, button on left joystick	●
Joystick steering (max. 12 km/h)	●
Cab elevation, hydraulic (LHC)	●
Cab elevation, hydraulic with tilt function (LHC)	+
Automatic air conditioning	●
Wheel steering (slim version)	+
LiDAT, vehicle fleet management	●
Proportional control	●
Radio Comfort, control via display with handsfree set	+
Preparation for radio installation	●
Back-up alarm (acoustic signal is emitted traveling backward, can not be switched off)	+
Amber beacon, on cab, LED double flash	+
Windows made from impact-resistant laminated safety glass	+
Windscreen wiper, roof	+
Windshield wiper, entire windscreen	●
FOPS top guard	+
FGPS front guard, tiltable	+
Sun visor	+
Left control console, folding	●



## Equipment

Boom lights, 2 pieces, halogen	●
Boom lights, 2 pieces, LED	+
Stick lights, 2 pieces, halogen	●
Stick lights, 2 pieces, LED	+
Height limitation and stick shutoff, electronically	+
Boom cylinder cushioning	+
Stick camera (with separate monitor), bottom side, with protection	+
Load holding valve tipping cylinder	+
Liebherr quick coupler, hydraulic	+
Pipe fracture safety valves hoist cylinders	●
Pipe fracture safety valves stick cylinders	●
Quick coupling system Solidlink	+
Protection for piston rod, tipping cylinder	+
Overload warning device	+



## Complete machine

<b>Lubrication</b>	
Lubrication undercarriage, manually - decentralised (grease points)	●
Lubrication undercarriage, manually - centralised (one grease point)	+
Central lubrication system for uppercarriage and equipment, automatically	●
<b>Special coating</b>	
Special coating, variants	+
<b>Monitoring</b>	
Rear view monitoring with camera	●
Side view monitoring with camera	●

● = Standard, + = Option

\* = country-dependent

Options and / or special equipment, 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



## Global and independent: more than 70 years of success

Liebherr was founded in 1949 when, with the development of the world's first mobile tower crane, Hans Liebherr laid the foundations for a family business now employing nearly 51,000 people and comprising over 140 companies across every continent.

The parent company is Liebherr-International AG in Bulle, Switzerland, whose associates are exclusively members of the Liebherr family.

## Leaders and pioneers

Liebherr is a pioneer and its forward-looking approach has seen it make important contributions to technology history over a wide variety of industries. Employees throughout the world continue to share the courage of the founder, sharing a passion to produce innovative products and a determination to provide world-leading equipment and machinery.

## Diversified portfolio

The company is one of the world's biggest construction equipment manufacturers and provides high-quality, user-oriented products and services to sectors including: earthmoving, material handling, deep foundations, mining, mobile and crawler cranes, tower cranes, concrete production and distribution, maritime cranes, aerospace and transportation, gear technology and automation, refrigeration and freezing, components and hotels.

## Customised care

Liebherr solutions are characterised by precision, implementation and longevity. The company is committed to technological excellence and to providing customers with solutions that match their needs exactly. That customer focus does not end with delivery of a product but continues through a comprehensive range of back-up and support services.

[www.liebherr.com](http://www.liebherr.com)

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