

Machine for Industrial Applications

LH 22 M

Litronic®

Operating Weight:
22,100 – 22,900 kg

Engine:
100 kW / 136 HP

Stage IIIB / IIIA



LIEBHERR

Technical Data



Engine

Rating per ISO 9249	100 kW (136 HP) at 1,800 RPM
Model	Liebherr D834
Type	4 cylinder in-line
Bore/Stroke	108/125 mm
Displacement	4.6 l
Engine operation	4-stroke diesel Common-Rail turbo-charged and after-cooled reduced emissions
Cooling system	water-cooled with integrated motor oil cooler
Air cleaner	dry-type air cleaner with pre-cleaner, primary and safety elements
Engine idling	sensor controlled
Electrical system	
Voltage	24 V
Batteries	2 x 135 Ah/12 V
Alternator	three phase current 28 V/110 A
Stage IIIB	
Harmful emissions values	in accordance with 97/68/EG stage IIIB
Emission control	oxidation catalyst
Option	Liebherr particle filter
Fuel tank	360 l
Stage IIIA	
Harmful emissions values	in accordance with 97/68/EG stage IIIA
Fuel tank	360 l



Hydraulic Controls

Power distribution	via control valve with integrated safety valves, simultaneous and independent operation of travel drive, swing drive and work
Servo circuit	
Attachment and swing	with hydraulic pilot control and proportional joystick levers
Travel	electroproportional via foot pedal
Additional functions	via switch or electroproportional foot pedals
Option	
Proportional control	proportionally acting transmitters on the joysticks for additional hydraulic functions



Hydraulic System

Hydraulic pump	for attachment and travel drive	Liebherr, variable displacement, swashplate pump
Max. flow		300 l/min.
Max. pressure		350 bar
Hydraulic pump regulation and control		Liebherr-Synchron-Comfort-system (LSC) with electronic engine speed sensing regulation, pressure and flow compensation, load sensing and torque controlled swing drive priority
Hydraulic tank		150 l
Hydraulic system		320 l
Hydraulic oil filter		1 main return filter with integrated partial micro filtration (5 µm)
Cooling system		compact cooling system consisting cooling unit for water, hydraulic oil and charge air with stepless thermostatically controlled fan
MODE selection		adjustment of engine and hydraulic performance via a mode pre-selector to match application, e.g. for especially economical and environmentally friendly operation or for maximum material handling and heavy-duty jobs
S (Sensitive)		mode for precision work and lifting through very sensitive movements
E (ECO)		mode for especially economical and environmentally friendly operation
P (Power)		mode for high performance with low fuel consumption
P+ (Power-Plus)		mode for highest performance and for very heavy duty applications, suitable for continuous operation
Engine speed and performance setting		stepless alignment of engine output and hydraulic power via engine speed
Option		Tool Control: ten preadjustable pump flows and pressures for add on tools



Swing Drive

Drive	Liebherr swashplate motor with torque control and integrated brake valve
Transmission	Liebherr planetary reduction gear
Swing ring	Liebherr, sealed single race ball bearing swing ring, internal teeth
Swing speed	0 – 8 RPM stepless
Swing torque	50 kNm
Brake	holding brake (spring applied – pressure released)
Option	pedal controlled positioning swing brake

Uppercarriage

Type	slewing platform made from high-strength steel plate, designed for the toughest requirements
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Operator's Cab

Cab	safety cab structure with individual windscreens or featuring a slide-in subpart under the ceiling, work headlights integrated in the ceiling, a door with a side window (can be opened on both sides), large stowing and depositing possibilities, shock-absorbing suspension, sounddamping insulating, tinted laminated safety glass, separate shades for the sunroof window and windscreen
Operator's seat Standard	air cushioned operator's seat with headrest, lap belt, seat heater, manual weight adjustment, adjustable seat cushion inclination and length and mechanical lumbar vertebrae support
Operator's seat Comfort (Option)	in addition to operator's seat standard: lockable horizontal suspension, automatic weight adjustment, adjustable suspension stiffness, pneumatic lumbar vertebrae support and passive seat climatization with active coal
Operator's seat Premium (Option)	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
Control system	joysticks with arm consoles and swivel seat
Operation and displays	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 tool 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
Noise emission	
ISO 6396	L_{pA} (inside cab) = 71 dB(A)
2000/14/EC	L_{WA} (surround noise) = 100 dB(A)

Undercarriage

Type	torsion-resistant box design made from high-strength steel plate, designed for the toughest requirements
Drive	Liebherr variable flow swashplate motor with automatic brake valve
Transmission	oversized two speed power shift transmission with additional creeper speed
Travel speed	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 + transmission stage 2) 0 – 20.0 km/h stepless (transmission stage 2)
Driving operation	automotive driving using accelerator pedal, cruise control function: storage of variable accelerator pedal positions
Axles	38 t drive axles; manual or automatic hydraulically controlled front axle oscillation lock
Service brake	two circuit travel brake system with accumulator; maintenance-free, wet and backlash-free disc brake
Holding brake	wet, maintenance-free multi disc brakes
Stabilization	4 point outriggers stabilizing blade front + 2 point outriggers rear blade, at the front, for 4 point outriggers
Option	

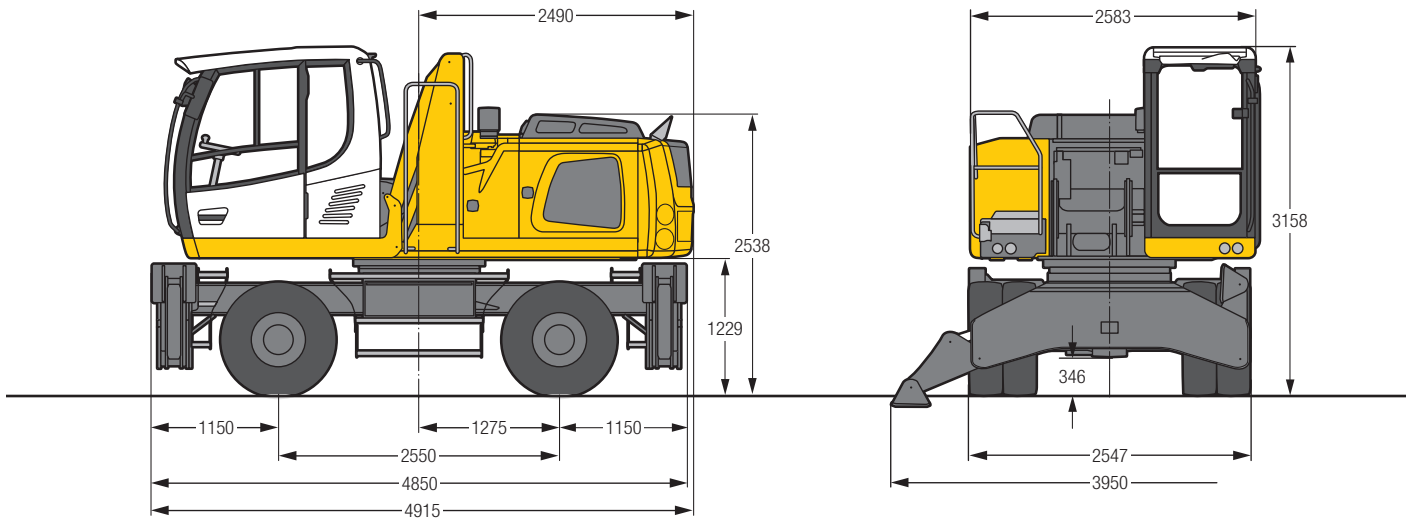
Attachment

Type	high-strength steel plates at highly stressed points for the toughest requirements. Complex and stable mountings of attachment and cylinders
Hydraulic cylinders	Liebherr cylinders with special seal system as well as shock absorption
Bearings	sealed, low maintenance

Complete Machine

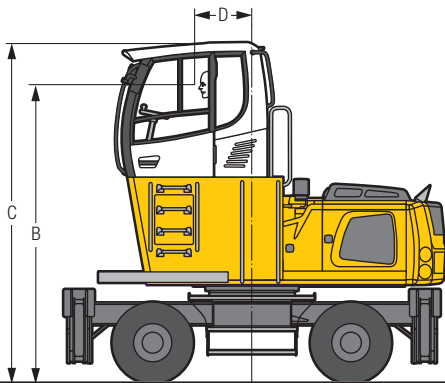
Lubrication	Liebherr central lubrication system for uppercarriage and attachment, automatically
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Dimensions



Choice of Cab Elevation

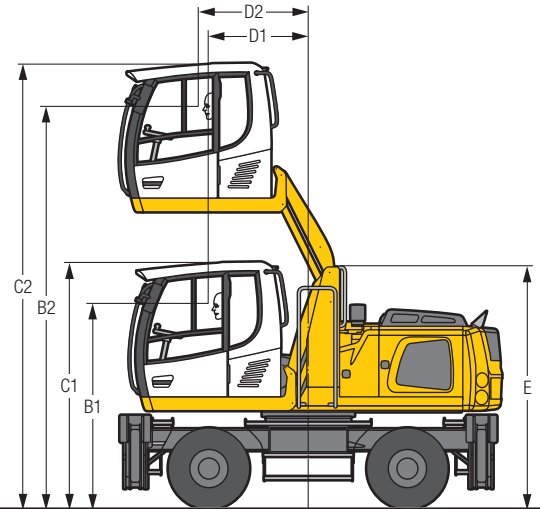
Cab Elevation LFC (Rigid Elevation)



Increase type		LFC 80	LFC 120
Height	mm	800	1,200
B	mm	3,416	3,816
C	mm	3,958	4,358
D	mm	731	731

A rigid cab elevation has a fixed eye level height. For a lower transport height, the shell of the cab can be removed and replaced by a transport device. The dimension C is in this machine design for all rigid cab elevations 3,462 mm.

Cab Elevation LHC (Hydraulic Elevation)



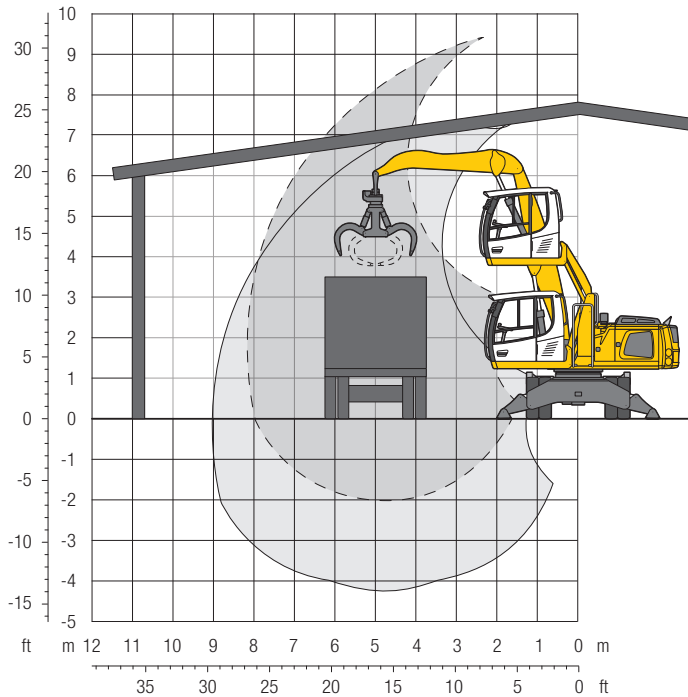
Increase type		LHC 255
B1	mm	2,615
B2	mm	5,162
C1	mm	3,158
C2	mm	5,705
D1	mm	1,286
D2	mm	1,412
E	mm	3,099

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

Attachment GF8

Specially designed attachment for indoor application

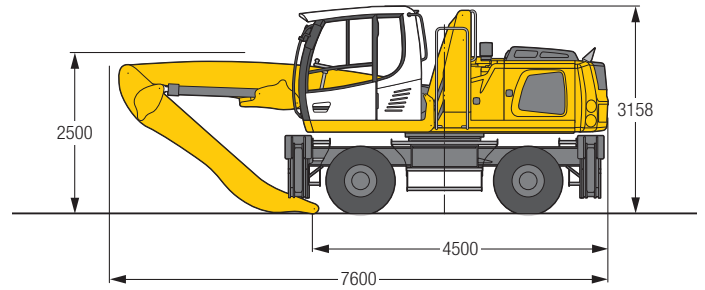


Operating Weight

The operating weight includes the basic machine with 4 point outriggers, hydr. cab elevation, 8 solid tyres plus intermediate rings, industrial-type straight mono boom 4.50 m and industrial-type flat angled stick 3.50 m.

with grapple model GM 55/0.40 m³ semi-closed tines 22,100 kg

Dimensions



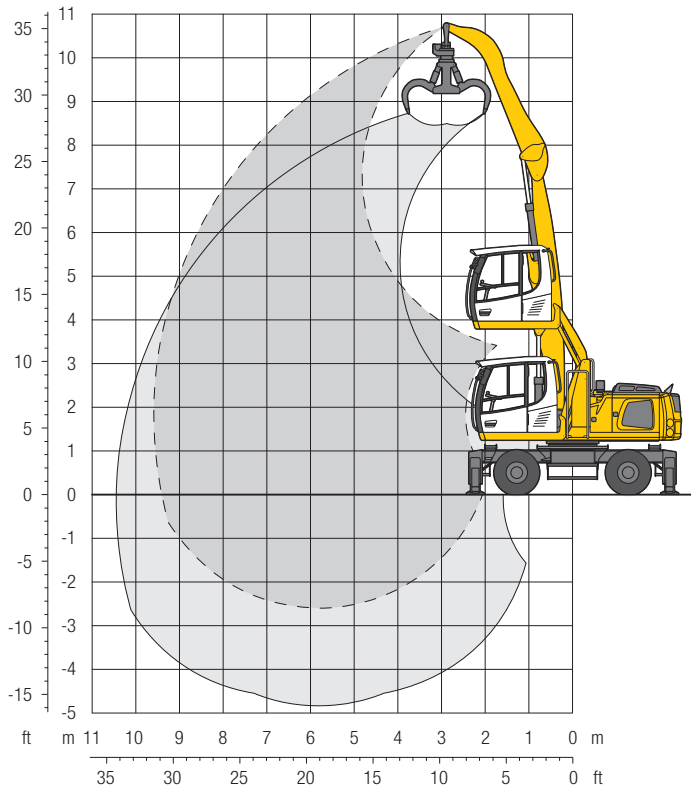
m	Undercarriage	3.0 m		4.5 m		6.0 m		7.5 m		9.0 m		10.5 m		m	
10.5	Stabilizers raised 4 pt. outriggers down														
9.0	Stabilizers raised 4 pt. outriggers down	8.0*	8.0*										6.6*	6.6*	3.6
7.5	Stabilizers raised 4 pt. outriggers down			5.7	7.4*								3.8	4.7*	5.8
6.0	Stabilizers raised 4 pt. outriggers down			5.8	7.5*	3.7	4.9						2.9	3.9	7.0
4.5	Stabilizers raised 4 pt. outriggers down			5.7	7.6	3.7	4.9	2.6	3.5				2.5	3.3	7.7
3.0	Stabilizers raised 4 pt. outriggers down	9.9	10.8*	5.4	7.3	3.6	4.8	2.6	3.4				2.3	3.1	8.1
1.5	Stabilizers raised 4 pt. outriggers down	9.0	13.2*	5.1	7.0	3.4	4.6	2.5	3.4				2.3	3.0	8.2
0	Stabilizers raised 4 pt. outriggers down	6.2*	6.2*	4.9	6.7	3.3	4.5	2.5	3.4				2.3	3.1	8.0
-1.5	Stabilizers raised 4 pt. outriggers down			4.8	6.6	3.3	4.5	2.5	3.4				2.9	4.0	6.6
-3.0	Stabilizers raised 4 pt. outriggers down			7.2*	7.2*	5.0*	5.0*						4.1*	4.1*	

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 comply with 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.

Attachment GA10

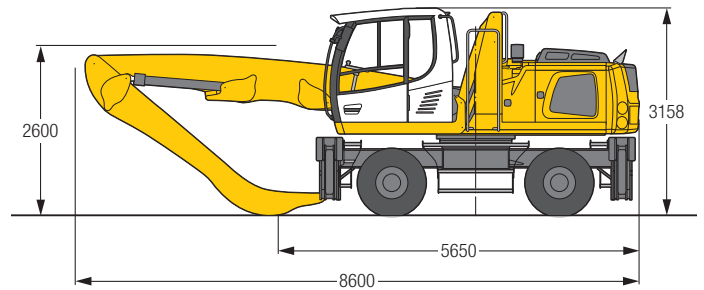


Operating Weight

The operating weight includes the basic machine with 4 point outriggers, hydr. cab elevation, 8 solid tyres plus intermediate rings, industrial-type straight mono boom 5.50 m and industrial-type angled stick 4.00 m.

with grapple model GM 55/0.40 m³ semi-closed tines 22,500 kg

Dimensions



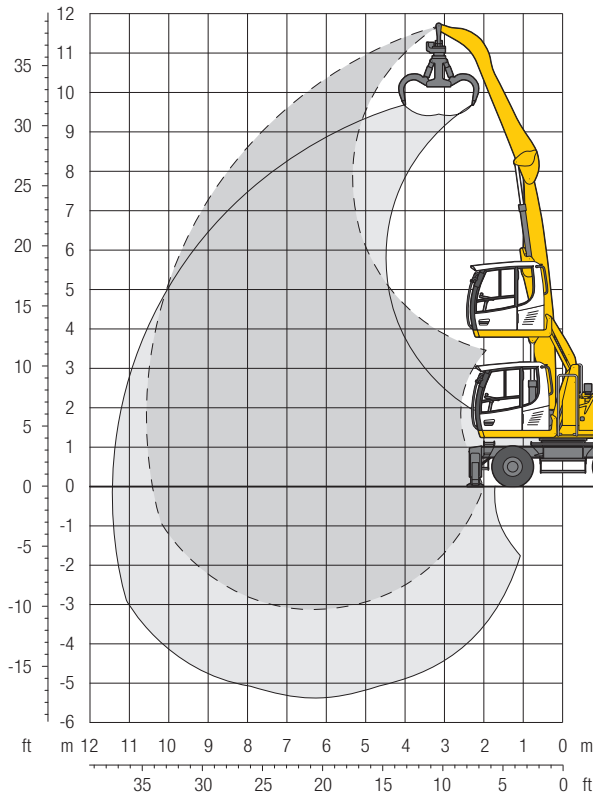
m	3.0 m		4.5 m		6.0 m		7.5 m		9.0 m		10.5 m		m		
	Stabilizers raised	4 pt. outriggers down	Stabilizers raised	4 pt. outriggers down	Stabilizers raised	4 pt. outriggers down	Stabilizers raised	4 pt. outriggers down	Stabilizers raised	4 pt. outriggers down	Stabilizers raised	4 pt. outriggers down			
10.5													5.9*	5.9*	3.6
9.0			5.8	6.5*	3.7	4.7*							3.4	4.2*	6.2
7.5			6.5*	6.5*	4.7*	4.7*							4.2*	4.2*	
6.0					3.8	5.0	2.6	3.5					2.5	3.3	7.7
4.5					5.9*	5.9*	4.1*	4.1*					3.6*	3.6*	
3.0					3.7	5.0	2.6	3.5					2.0	2.8	8.6
1.5					5.9*	5.9*	5.1*	5.1*					3.4*	3.4*	
0			5.6	7.5	3.6	4.8	2.6	3.4	1.9	2.6			1.8	2.5	9.2
-1.5			7.7*	7.7*	6.2*	6.2*	5.1*	5.1*	3.9	4.1*			3.3*	3.3*	
-3.0															
	9.4	13.0*	5.1	7.1	3.4	4.6	2.5	3.3	1.9	2.5			1.7	2.3	9.5
	13.0*	13.0*	8.6*	8.6*	6.5*	6.5*	5.1	5.2*	3.9	4.1*			3.4*	3.4*	
	3.3*	3.3*	4.7	6.6	3.2	4.4	2.3	3.2	1.8	2.5			1.7	2.3	9.6
	3.3*	3.3*	9.1*	9.1*	6.6*	6.6*	5.0	5.1*	3.9	3.9*			3.3*	3.3*	
	3.1*	3.1*	4.4	6.2	3.0	4.2	2.3	3.1	1.8	2.5			1.7	2.3	9.4
	3.1*	3.1*	8.6*	8.6*	6.3*	6.3*	4.8*	4.8*	3.4*	3.4*			2.8*	2.8*	
			4.3	6.1	3.0	4.1	2.2	3.1					1.9	2.6	8.5
			7.1*	7.1*	5.3*	5.3*	3.9*	3.9*					2.8*	2.8*	

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 comply with 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.

Attachment GA11

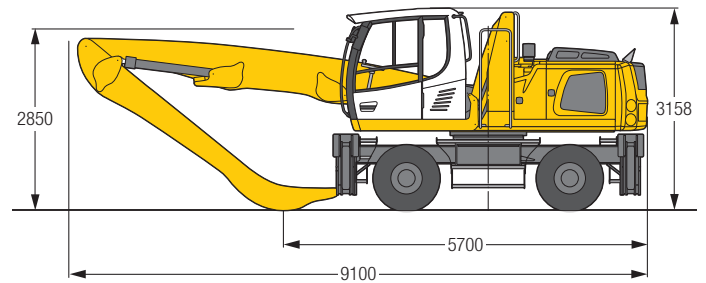


Operating Weight

The operating weight includes the basic machine with 4 point outriggers, hydr. cab elevation, 8 solid tyres plus intermediate rings, industrial-type straight mono boom 6.00 m and industrial-type angled stick 4.50 m.

with grapple model GM 55/0.40 m³ semi-closed tines 22,700 kg

Dimensions



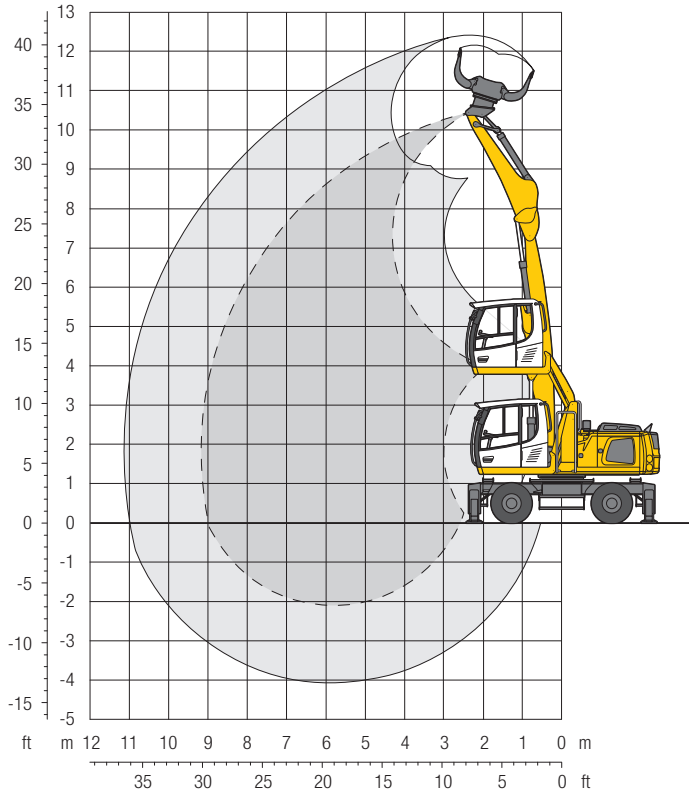
m	Undercarriage	3.0 m		4.5 m		6.0 m		7.5 m		9.0 m		10.5 m		m		
		Stabilizers raised	4 pt. outriggers down	Stabilizers raised	4 pt. outriggers down	Stabilizers raised	4 pt. outriggers down	Stabilizers raised	4 pt. outriggers down	Stabilizers raised	4 pt. outriggers down	Stabilizers raised	4 pt. outriggers down	Stabilizers raised	4 pt. outriggers down	
10.5	Stabilizers raised			5.7*	5.7*									3.8	4.1*	5.8
	4 pt. outriggers down			5.7*	5.7*									4.1*	4.1*	
9.0	Stabilizers raised					3.8	5.1	2.6	3.5					2.5	3.3	7.7
	4 pt. outriggers down					5.5*	5.5*	3.8*	3.8*					3.4*	3.4*	
7.5	Stabilizers raised					3.9	5.1	2.7	3.5					1.9	2.6	8.9
	4 pt. outriggers down					5.5*	5.5*	4.8*	4.8*					3.1*	3.1*	
6.0	Stabilizers raised					3.8	5.0	2.6	3.5	1.9	2.6			1.6	2.3	9.7
	4 pt. outriggers down					5.6*	5.6*	4.8*	4.8*	4.0	4.1*			3.0*	3.0*	
4.5	Stabilizers raised			5.6	7.3*	3.6	4.8	2.5	3.4	1.9	2.5			1.5	2.0	10.2
	4 pt. outriggers down			7.3*	7.3*	5.9*	5.9*	4.9*	4.9*	3.9	4.1*			2.9*	2.9*	
3.0	Stabilizers raised	9.3	12.7*	5.1	7.0	3.3	4.5	2.4	3.3	1.8	2.5	1.4	1.9	1.4	1.9	10.5
	4 pt. outriggers down	12.7*	12.7*	8.3*	8.3*	6.3*	6.3*	5.0*	5.0*	3.9	4.1*	3.0*	3.0*	2.9*	2.9*	
1.5	Stabilizers raised	2.2*	2.2*	4.5	6.4	3.1	4.3	2.3	3.1	1.7	2.4	1.4	1.9	1.3	1.9	10.6
	4 pt. outriggers down	2.2*	2.2*	8.8*	8.8*	6.4*	6.4*	4.9	5.0*	3.8	4.0*	2.9*	2.9*	2.8*	2.8*	
0	Stabilizers raised	2.1*	2.1*	4.2	6.0	2.9	4.0	2.1	3.0	1.7	2.3			1.4	1.9	10.4
	4 pt. outriggers down	2.1*	2.1*	8.4*	8.4*	6.2*	6.2*	4.8*	4.8*	3.7*	3.7*			2.4*	2.4*	
-1.5	Stabilizers raised	3.2*	3.2*	4.0	5.8	2.8	3.9	2.1	2.9	1.6	2.3			1.5	2.1	9.8
	4 pt. outriggers down	3.2*	3.2*	7.1*	7.1*	5.4*	5.4*	4.1*	4.1*	3.0*	3.0*			2.3*	2.3*	
-3.0	Stabilizers raised					2.7	3.9							2.1	3.0	7.3
	4 pt. outriggers down					4.1*	4.1*							3.2*	3.2*	

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 comply with 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.

Attachment GK9

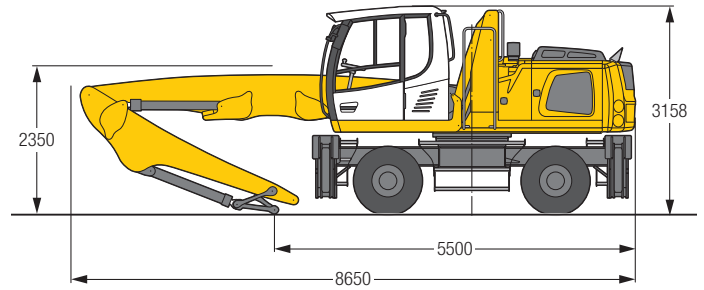


Operating Weight

The operating weight includes the basic machine with 4 point outriggers, hydr. cab elevation, 8 solid tyres plus intermediate rings, industrial-type straight mono boom 5.50 m and industrial-type stick with tipping kinematics 3.50 m.

with sorting grab SG 25B/0.55 m³ tines 22,600 kg

Dimensions



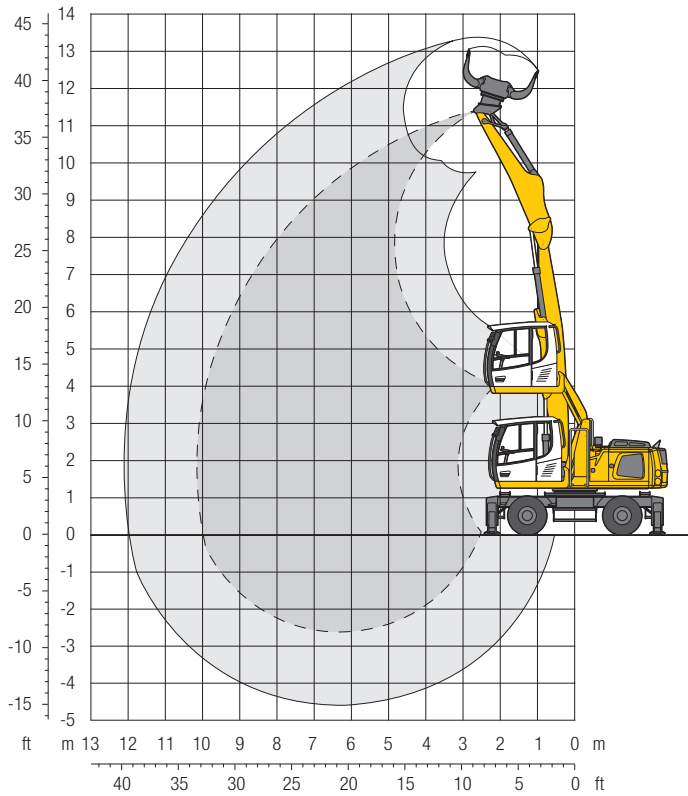
m	3.0 m		4.5 m		6.0 m		7.5 m		9.0 m		10.5 m		m
	Stabilizers raised	4 pt. outriggers down	Stabilizers raised	4 pt. outriggers down	Stabilizers raised	4 pt. outriggers down	Stabilizers raised	4 pt. outriggers down	Stabilizers raised	4 pt. outriggers down	Stabilizers raised	4 pt. outriggers down	
10.5													
9.0			5.5	7.1*							3.8	5.0*	5.6
7.5			7.1*	7.1*							5.0*	5.0*	
6.0			5.6	7.1*	3.5	4.7					2.5	3.4	7.1
4.5			7.1*	7.1*	5.9*	5.9*					4.2*	4.2*	
3.0			5.5	7.3*	3.5	4.7	2.3	3.2			2.0	2.8	8.1
1.5			7.3*	7.3*	5.9*	5.9*	4.9*	4.9*			3.8*	3.8*	
0	7.6*	7.6*	5.2	7.2	3.3	4.5	2.3	3.2			1.7	2.4	8.8
-1.5	7.6*	7.6*	7.9*	7.9*	6.1*	6.1*	5.0*	5.0*			3.7*	3.7*	
-3.0	8.7	12.9	4.8	6.7	3.1	4.3	2.2	3.1	1.6	2.3	1.6	2.2	9.1
	13.5*	13.5*	8.6*	8.6*	6.3*	6.3*	4.9	4.9*	3.7	3.7*	3.6*	3.6*	
	0.9*	0.9*	4.3	6.2	2.9	4.1	2.1	3.0	1.6	2.3	1.5	2.2	9.2
	0.9*	0.9*	8.8*	8.8*	6.3*	6.3*	4.8	4.8*	3.3*	3.3*	3.1*	3.1*	
	2.0*	2.0*	4.1	5.9	2.8	3.9	2.0	2.9			1.6	2.3	9.0
	2.0*	2.0*	7.9*	7.9*	5.8*	5.8*	4.3*	4.3*			2.5*	2.5*	
			4.0	5.9	2.7	3.9	2.0	2.9			1.9	2.8	7.7
			6.0*	6.0*	4.6*	4.6*	3.1*	3.1*			2.9*	2.9*	

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 comply with 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.

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Attachment GK10

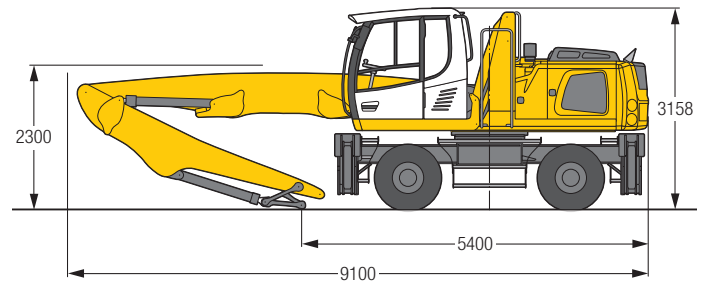


Operating Weight

The operating weight includes the basic machine with 4 point outriggers, hydr. cab elevation, 8 solid tyres plus intermediate rings, industrial-type straight mono boom 6.00 m and industrial-type stick with tipping kinematics 4.00 m.

with sorting grab SG 25B/0.55 m³ tines 22,900 kg

Dimensions



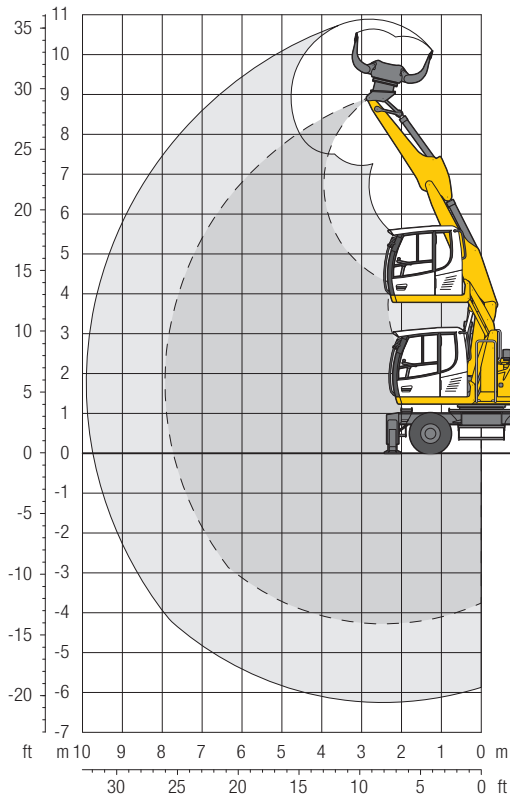
m	Undercarriage	3.0 m		4.5 m		6.0 m		7.5 m		9.0 m		10.5 m		m		
10.5	Stabilizers raised 4 pt. outriggers down			5.4 6.0*	6.0*									4.4 5.0*	5.0*	5.0
9.0	Stabilizers raised 4 pt. outriggers down					3.5 5.6*	4.7 5.6*							2.5 3.9*	3.5 3.9*	7.1
7.5	Stabilizers raised 4 pt. outriggers down					3.6 5.5*	4.8 5.5*	2.4 4.6*	3.2 4.6*					1.8 3.4*	2.6 3.4*	8.4
6.0	Stabilizers raised 4 pt. outriggers down			5.6 6.9*	6.9*	3.5 5.6*	4.7 5.6*	2.3 4.6*	3.2 4.6*	1.6 3.7	2.3 3.9*			1.5 3.2*	2.2 3.2*	9.2
4.5	Stabilizers raised 4 pt. outriggers down			5.2 7.5*	7.2 7.5*	3.3 5.8*	4.5 5.8*	2.2 4.7*	3.1 4.7*	1.6 3.7	2.3 3.9*			1.3 3.1*	1.9 3.1*	9.8
3.0	Stabilizers raised 4 pt. outriggers down	7.4*	7.4*	4.6 8.3*	6.5 8.3*	3.0 6.1*	4.2 6.1*	2.1 4.8*	3.0 4.8*	1.5 3.6	2.2 3.8*			1.2 3.0*	1.8 3.0*	10.1
1.5	Stabilizers raised 4 pt. outriggers down			4.1 8.5*	6.0 8.5*	2.7 6.1*	3.9 6.1*	2.0 4.6	2.8 4.7*	1.5 3.5	2.1 3.6*			1.2 2.6*	1.8 2.6*	10.2
0	Stabilizers raised 4 pt. outriggers down	1.2*	1.2*	3.8 6.9*	5.6 6.9*	2.6 5.7*	3.7 5.7*	1.9 4.3*	2.7 4.3*	1.4 3.1*	2.1 3.1*			1.2 2.1*	1.8 2.1*	10.0
-1.5	Stabilizers raised 4 pt. outriggers down			3.7 6.1*	5.5 6.1*	2.5 4.7*	3.6 4.7*	1.8 3.5*	2.7 3.5*	1.4 2.3*	2.1 2.3*			1.4 2.2*	2.1 2.2*	9.1
-3.0	Stabilizers raised 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 comply with 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.

Attachment VK8

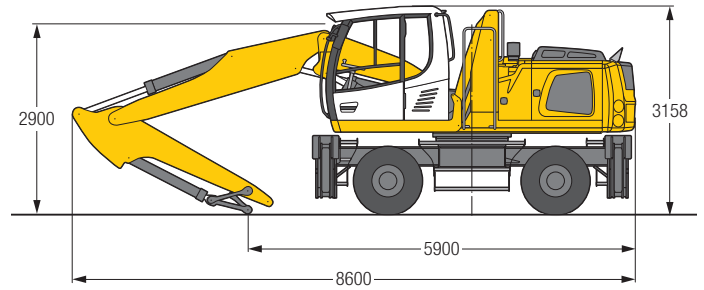


Operating Weight

The operating weight includes the basic machine with 4 point outriggers, hydr. cab elevation, 8 solid tyres plus intermediate rings, two-piece boom 3.40 m and stick with tipping kinematics 2.65 m.

with sorting grab SG 25B/0.55 m³ tines 22,500 kg

Dimensions



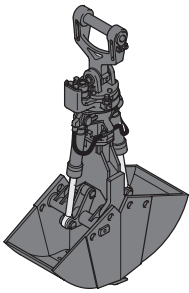
m	Undercarriage	3.0 m		4.5 m		6.0 m		7.5 m		9.0 m		10.5 m		m	
		Can be slewed through 360°	In longitudinal position of undercarriage	Can be slewed through 360°	In longitudinal position of undercarriage	Can be slewed through 360°	In longitudinal position of undercarriage	Can be slewed through 360°	In longitudinal position of undercarriage	Can be slewed through 360°	In longitudinal position of undercarriage	Can be slewed through 360°	In longitudinal position of undercarriage	Max. reach	Limited by hydr. capacity
10.5	Stabilizers raised 4 pt. outriggers down														
9.0	Stabilizers raised 4 pt. outriggers down														
7.5	Stabilizers raised 4 pt. outriggers down			3.5*	3.5*							2.1*	2.1*	5.3	
6.0	Stabilizers raised 4 pt. outriggers down			3.8*	3.8*	3.3*	3.3*					1.8*	1.8*	6.7	
4.5	Stabilizers raised 4 pt. outriggers down	4.3*	4.3*	4.6*	4.6*	3.6	4.2*					1.7*	1.7*	7.4	
3.0	Stabilizers raised 4 pt. outriggers down	9.4	10.0*	5.4	6.8*	3.6	4.7*	2.5	3.1*			1.7*	1.7*	7.8	
1.5	Stabilizers raised 4 pt. outriggers down	9.3	10.5*	5.3	6.9	3.5	4.7	2.4	3.3			1.7*	1.7*	7.9	
0	Stabilizers raised 4 pt. outriggers down	9.4	11.8*	5.3	7.0*	3.4	4.6	2.3	3.2			1.9*	1.9*	7.7	
-1.5	Stabilizers raised 4 pt. outriggers down	9.1	12.8*	5.1	7.0	3.2	4.4					2.3*	2.3*	7.2	
-3.0	Stabilizers raised 4 pt. outriggers down	8.9	13.0*	4.8	6.7	3.2	3.6*					3.1	3.1*	6.1	

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 comply with 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.

Variety of Tools

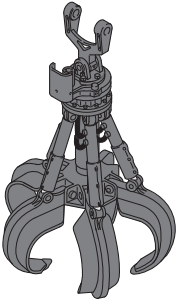


Shells for Loose Material

Shells for loose material with cutting edge (without teeth)

Clamshell model GM 10B

Cutting width of shells	mm	1,000	1,300	1,500
Capacity	m ³	1.00	1.30	1.50
For loose material, specific weight up to	t/m ³	1.5	1.5	1.5
Weight	kg	1,040	1,120	1,180

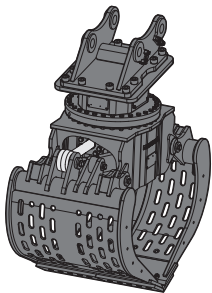


Multiple Tine Grapples

open tines semi-closed tines closed tines

Grapple model GM 55 (5 tines)

Capacity	m ³	0.40	0.40	0.40
Weight	kg	1,055	1,130	1,180

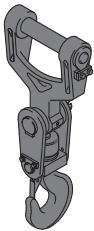


Sorting Grapple

with ribbed shells with perforated shells with ribbed shells with perforated shells

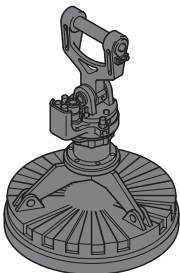
Grapple model SG 25B

Cutting width of shells	mm	800	800	1,000	1,000
Capacity	m ³	0.50	0.55	0.65	0.75
Max. closing force	t	6	6	6	6
Weight incl. adapter plate	kg	1,120	1,110	1,200	1,190



Crane Hook with Suspension

Max. load	t	12.5
Height with suspension	mm	930
Weight	kg	96



Magnet Devices/Lifting Magnets

Generator	kW	10	10
Electromagnets with suspension			
Power	kW	4.8	5.5
Diameter of magnet	mm	1,000	1,150
Weight	kg	730	1,060

Equipment

Undercarriage

Support rocker, variants	+
Individual control outriggers	+
Shuttle axle lock, automatic	•
Dozer blade	+
Outrigger monitoring system	+
Tyres, variants	+
Protection for travel drive	+
Protection for piston rods, outriggers	+
Tool equipment, extended	+
Two lockable storage boxes	•

Uppercarriage

Refuelling system with filling pump	+
Railing on uppercarriage	+
Generator	+
Main battery switch for electrical system	•
Protection for headlights	+
Protection for rear lights	+

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	+
Radiator, large-mesh, for dust-intensive operation	+
Liebherr particle filter	+
Reversible fan drive, fully automatic	+
Air pre-filter with dust discharge	+
Protective grid in front of cooler intake	•
Preheating fuel	+
Preheating coolant	+
Preheating engine oil	+

Operator's Cab

Cab lights rear, halogen	+
Cab lights rear, LED	+
Cab lights front, halogen	•
Cab lights front, LED	+
Operator's seat Standard	•
Operator's seat Comfort	+
Operator's seat Premium	+
Driving alarm (acoustic signal is emitted during travel, can be switched ON/OFF)	+

• = Standard, + = Option

* = optionally extendable after one year

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

Operator's Cab

Fire extinguisher	+
Joystick steering	+
Cab elevation, hydraulic (LHC)	+
Cab elevation, rigid (LFC)	+
Automatic air conditioning	•
Electric cooler	+
LiDAT Plus (extended Liebherr data transfer system)*	•
Bullet proof glass	+
Positioning swing brake	+
Proportional control	+
Radio Comfort (control via display)	+
Preparation for radio installation	•
Back-up alarm (acoustic signal is emitted traveling backward, can not be switched off)	+
Warning beacon on cab	+
Windscreen wiper, roof	+
Top guard	+
Front guard	+
Auxiliary heating, adjustable (week time switch)	+
Flashing light (xenon)	+
Electronic immobilizer	+

Attachment

Boom lights, 2 pieces, halogen	•
Boom lights, 2 pieces, LED	+
Stick lights, 2 pieces, halogen	•
Stick lights, 2 pieces, LED, with protection	+
Boom shutoff, ascending	+
AutoLift	+
Height limitation and stick shutoff, electronically	+
Boom cylinder cushioning	+
Industrial stick with quick coupling	+
Stick camera (with separate monitor), bottom side, with protection	+
Liebherr multi coupling system	+
Liebherr quick coupler, hydraulic or mechanical	+
Pipe fracture safety valves hoist cylinders	•
Pipe fracture safety valve stick cylinder	•
Quick coupling system LIKUFIX	+
Quick coupling system MH40	+
Protection for piston rod, hoist cylinder	+
Overload warning device	+
Protection for stick	+

Complete Machine

Lubrication	
Lubrication undercarriage, manually – decentralized (grease points)	•
Central lubrication system for uppercarriage and attachment, automatically	•
Central lubrication system for undercarriage, automatically	+
Special coating, variants	+
Monitoring	
Rear view monitoring with camera	•
Side view monitoring with camera	+

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