

Technical data



Diesel engine

Rating	
per SAE J1349	188 HP (140 kW) at 1,700 rpm
per ISO 9249	190 HP (140 kW) at 1,700 rpm
Model	Liebherr D934
Type	4 cylinder in-line
Bore / Stroke	4.8 / 5.9 in
Displacement	427.17 in ³
Engine operation	4-stroke diesel Common-Rail Turbo-charged and after-cooled Reduced emissions
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 135Ah / 12V
Alternator	Three-phase current 28V / 140A
Stage V	
Harmful emissions values	According to regulation (EU) 2016/1628
Emission control	Liebherr-SCR Filter technology
Fuel tank	85 gal
Urea tank	12 gal
Stage IIIA (compliant)	
Harmful emissions values	In accordance with ECE-R.96 Power Band H
Fuel tank	85 gal
Tier 4 Final	
Harmful emissions values	In accordance with 40CFR1039 (EPA) / 13CCR (CARB)
Emission control	Liebherr-SCR technology
Fuel tank	85 gal
Urea tank	12 gal



Cooling system

Diesel engine	Water-cooled Compact cooling system consisting cooling unit for water, hydraulic oil and charge air with stepless thermostatically controlled fan
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Hydraulic controls

Power distribution	Via control valves with integrated safety valves, simultaneous actuation of chassis and equipment. Swing drive in separate closed circuit
Servo circuit	
Equipment and swing	With hydraulic pilot control and proportional joystick levers
Chassis	
Mobile	Electro-proportional via foot pedal
Crawler	With hydraulic proportionally functioning foot pedals or adjusted with plugable levers
Additional functions	Via switch or electro-proportional foot pedals
Proportional control	Proportionally acting transmitters on the joysticks for additional hydraulic functions



Hydraulic system

Hydraulic pump	
For equipment and travel drive	2 Liebherr axial piston variable displacement pumps (double construction)
Max. flow	2 x 61 gpm
Max. pressure	5,076 psi
For swing drive	Reversible axial piston variable displacement pump, closed-loop circuit
Max. flow	37 gpm
Max. pressure	6,092 psi
Hydraulic pump regulation and control	Liebherr-Synchron-Comfort-system (LSC) with electronic engine speed sensing regulation, pressure and flow compensation
Hydraulic tank	46 gal
Hydraulic system	114 gal
Filtration	1 main return filter with integrated partial micro filtration (5 µm)
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: 20 pre-adjustable pump flows and pressures for add-on attachments



Swing drive

Drive	Liebherr axial piston motor in a closed system, Liebherr planetary reduction gear
Swing ring	Liebherr, sealed race ball bearing swing ring, internal teeth
Swing speed	0-9.7 rpm stepless
Swing torque	52,367 lbf ft
Holding brake	Wet multi-disc (spring applied, pressure released)
Operation holding brake (Option)	Slewing gear brake Comfort



Cab

Cab	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
Operator's seat Comfort	Air cushioned operator's seat with 3D-adjustable arm-rests, 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
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
Arm consoles	Joysticks with control consoles and swivel seat, folding left control console
Operation and displays	Large high-resolution operating unit, self-explanatory, color 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



Equipment

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



Undercarriage

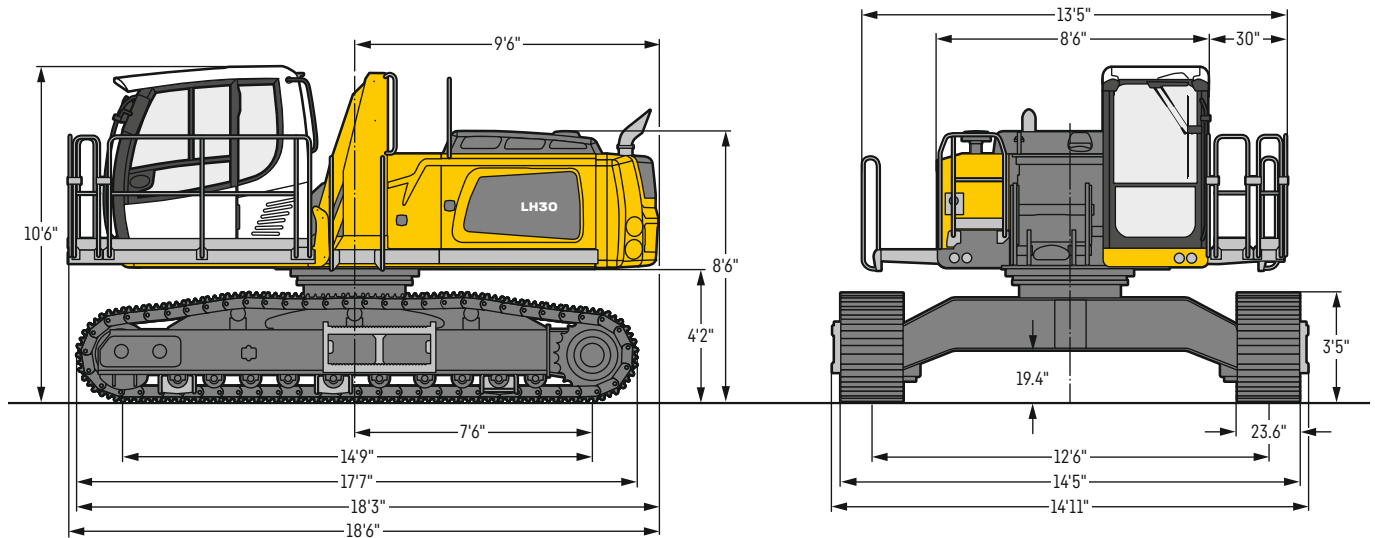
Mobile	
Drive	Oversized two speed power shift transmission with additional creeper speed, Liebherr axial piston motor with functional brake valve on both sides
Travel speed	0-2.2 mph stepless (creeper speed + transmission stage 1) 0-4.3 mph stepless (transmission stage 1) 0-7.5 mph stepless (creeper speed + transmission stage 2) 0-7.5 mph stepless (transmission stage 2)
Joystick steering	0- 2.2 mph stepless (creeper speed + transmission stage 1) 0- 4.3 mph stepless (transmission stage 1) 0- 8.1 mph stepless (creeper speed + transmission stage 2) 0-12.4 mph stepless (transmission stage 2)
Wheel steering (Option)	0- 2.2 mph stepless (creeper speed + transmission stage 1) 0- 4.3 mph stepless (transmission stage 1) 0- 8.1 mph stepless (creeper speed + transmission stage 2) 0-12.4 mph stepless (transmission stage 2)
Driving operation	Automotive driving using accelerator pedal, cruise control function: storage of variable accelerator pedal positions
Axles	88,185 lb / 132,277 lb drive axles (LH 30 M / LH 35 M); manual or automatic hydraulically controlled front axle oscillation lock
Option	Four wheel steering (LH 35 M)
Service brake	Two circuit travel brake system with accumulator; wet and backlash-free disc brake
Holding brake	Wet multi-disc (spring applied, pressure released)
Stabilization	4 point outriggers
Option	Dozer blade, at the front, for 4 point outriggers
Crawler	
Versions	LC, EW
Drive	Liebherr compact planetary reduction gear with Liebherr axial piston motor per side of undercarriage
Travel speed	0-1.9 mph stepless (creeper speed) LC undercarriage 0-1.9 mph stepless (creeper speed) EW undercarriage 0-2.9 mph stepless LC undercarriage 0-2.5 mph stepless EW undercarriage
Brake	Functional brake valves on both sides
Holding brake	Wet multi-disc (spring applied, pressure released)
Track pads	Triple grouser
LC (Option)	Rubber



Complete machine

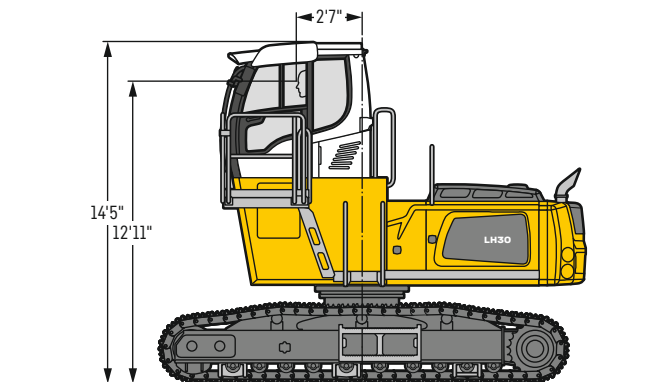
Lubrication	Liebherr central lubrication system for uppercarriage and equipment, automatically
Mobile (Option)	Liebherr central lubrication system for undercarriage, automatically
Steps system	Safe and durable access system with anti-slip steps; main components hot-galvanized
Noise emission	
ISO 6396 (Stage V)	70 dB(A) = L _{PA} (inside cab)
2000/14/EC (Stage V)	103 dB(A) = L _{WA} (surround noise)
ISO 6396 (Stage IIIA compliant)	71 dB(A) = L _{PA} (inside cab)
2000/14/EC (Stage IIIA compliant)	103 dB(A) = L _{WA} (surround noise)
ISO 6396 (Tier 4 Final)	71 dB(A) = L _{PA} (inside cab)
2000/14/EC (Tier 4 Final)	103 dB(A) = L _{WA} (surround noise)

LH 30 C EW – Dimensions



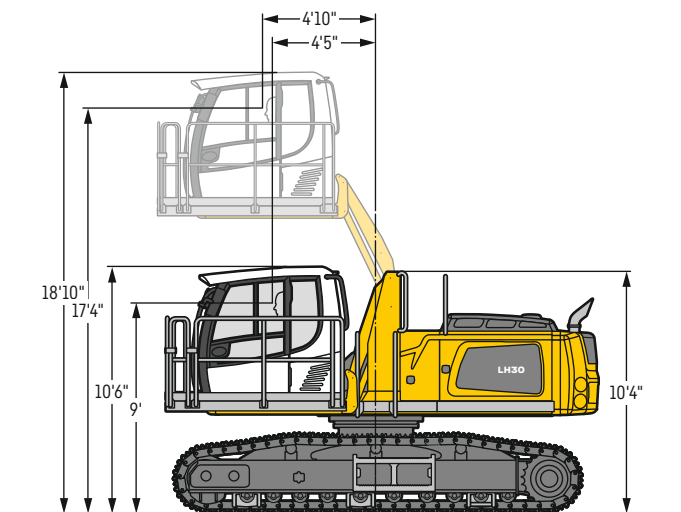
LH 30 C EW – Choice of cab elevation

**Cab elevation LFC 120
(rigid elevation)**



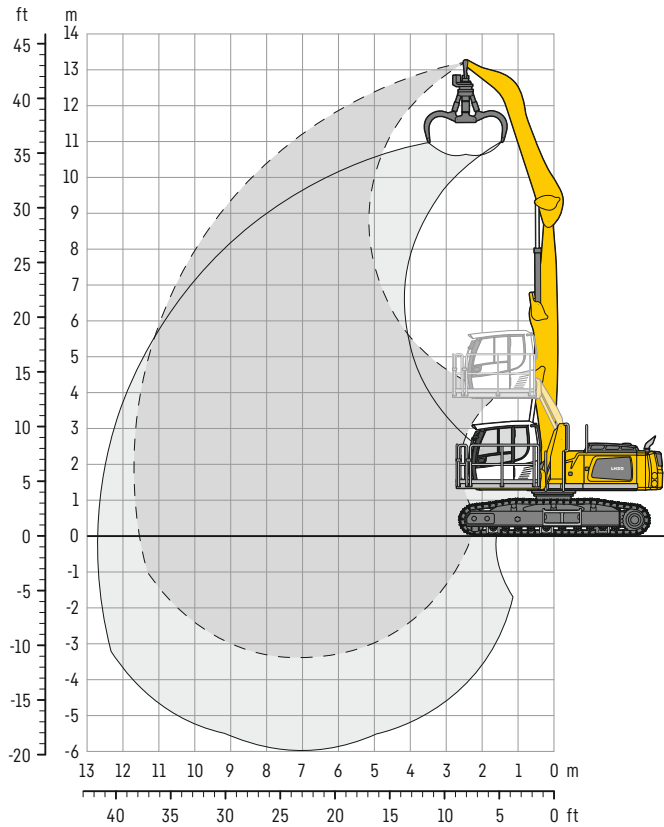
A rigid cab elevation has a fixed eye level height. For a lower transport height, the shell of the cab can be removed and replaced by a transport device. The dimension 14'5" is in this machine design for all rigid cab elevations 11'6".

**Cab elevation LHC 255
(hydraulic elevation)**

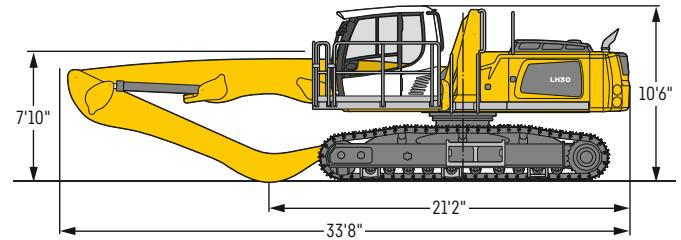


The hydraulically adjustable cab allows the driver, that he can choose his field of view freely and at any time within the stroke.

LH 30 C EW – Equipment GA12



Dimensions



Operating weight and ground pressure

The operating weight includes the basic machine with hydr. cab elevation, straight boom 22'4", angled stick 16'5" and multi-tine grab GM 65 / 0.78 yd³ semi-closed tines.

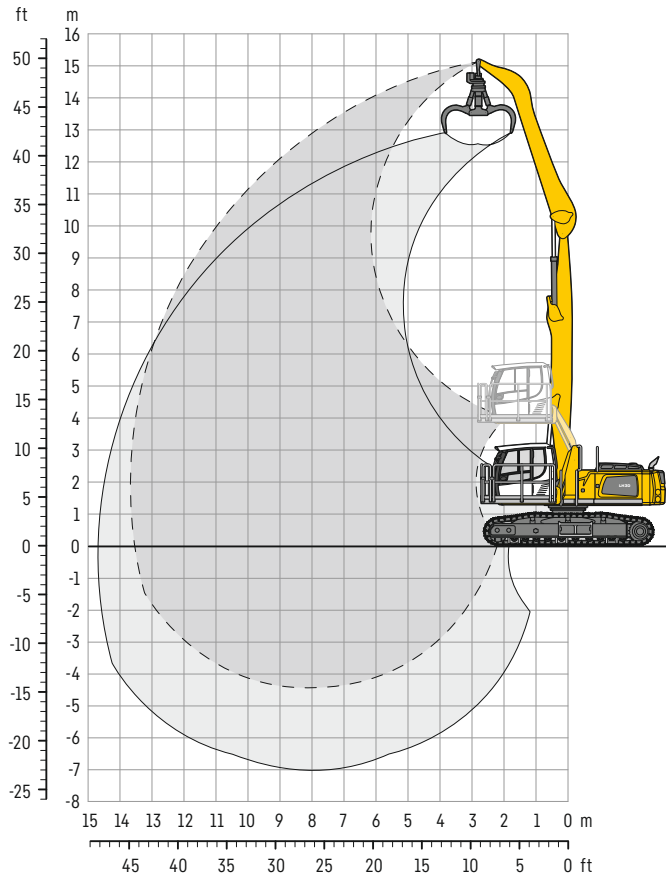
Weight	67,500 lb
Pad width	24"
Ground pressure	on request

ft	Undercarriage	10 ft	15 ft	20 ft	25 ft	30 ft	35 ft	40 ft	45 ft	ft in
45	EW									
40	EW		17,3*	17,3*						14,3* 14,3* 17' 5"
35	EW			17,2* 17,2*	11,5* 11,5*					11,4* 11,4* 25' 1"
30	EW			17,4* 17,4*	15,2* 15,2*					10,2* 10,2* 30'
25	EW			17,5* 17,5*	15,1* 15,1*	13,3* 13,3*				9,6* 9,6* 33' 5"
20	EW		21,7* 21,7*	18,1* 18,1*	15,4* 15,4*	13,4* 13,4*	11,0 11,4*			9,3* 9,3* 35'10"
15	EW	20,9* 20,9*	24,5* 24,5*	19,3* 19,3*	15,9* 15,9*	13,5* 13,5*	10,9 11,4*			9,3* 9,3* 37' 5"
10	EW	42,1* 42,1*	27,3* 27,3*	20,5* 20,5*	16,4* 16,4*	13,5 13,6*	10,7 11,2*			9,4 9,4* 38' 2"
5	EW	5,7* 5,7*	28,7* 28,7*	21,0* 21,0*	16,5* 16,5*	13,2 13,3*	10,5 10,7*			8,6* 8,6* 38' 5"
0	EW	6,2* 6,2*	21,7* 21,7*	20,3* 20,3*	15,8* 15,8*	12,6* 12,6*	9,7* 9,7*			7,5* 7,5* 37'11"
- 5	EW		19,8* 19,8*	18,1* 18,1*	14,2* 14,2*	11,0* 11,0*	7,8* 7,8*			7,0* 7,0* 36'
-10	EW			14,3* 14,3*	11,3* 11,3*					8,7* 8,7* 29' 5"

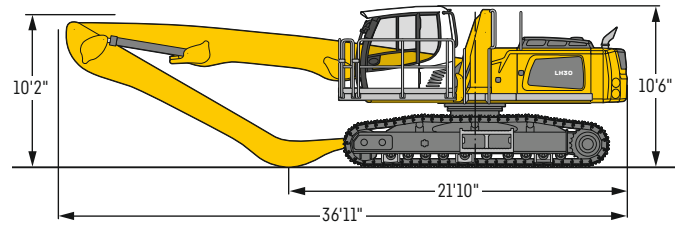
Height Can be slewed through 360° In longitudinal position of undercarriage Max. reach * Limited by hydr. capacity

The lift capacities on the stick end without attachment are stated in lb x 1,000 and can be slewed through 360° on a firm, level supporting surface. Capacities are valid for 24" wide triple grouser pads. 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.

LH 30 C EW – Equipment GA14



Dimensions



Operating weight and ground pressure

The operating weight includes the basic machine with hydr. cab elevation, straight boom 25'7", angled stick 19'8" and multi-tine grab GM 65 / 0.78 yd³ semi-closed tines.

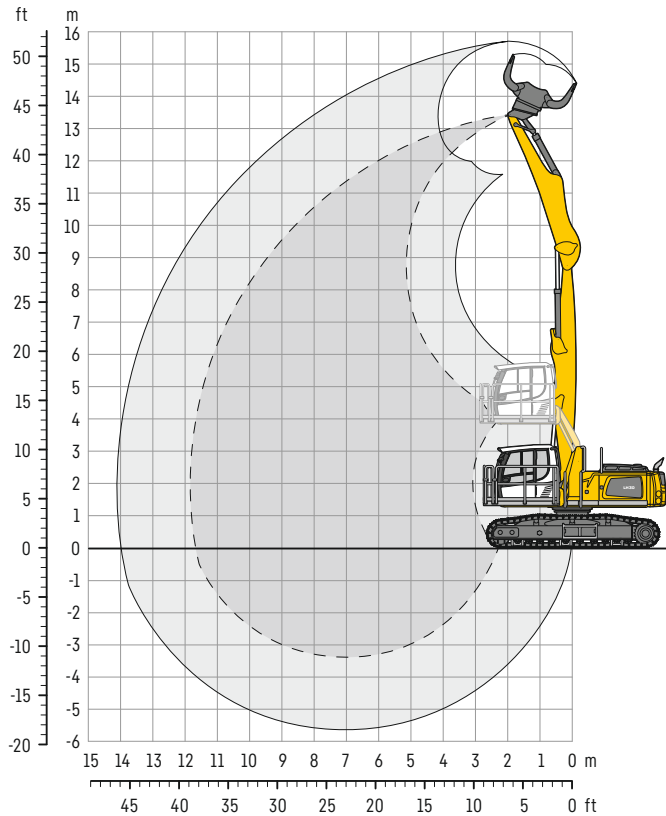
Weight	68,300 lb
Pad width	24"
Ground pressure	on request

ft	Undercarriage	10 ft	15 ft	20 ft	25 ft	30 ft	35 ft	40 ft	45 ft	ft in
45	EW			13,3* 13,3*						11,4* 11,4* 21'10"
40	EW			15,7* 15,7*	13,3* 13,3*					9,4* 9,4* 29' 2"
35	EW			15,9* 15,9*	13,8* 13,8*	12,2* 12,2*				8,5* 8,5* 34' 2"
30	EW				13,7* 13,7*	12,1* 12,1*	10,7* 10,7*			7,9* 7,9* 37'11"
25	EW			16,2* 16,2*	13,9* 13,9*	12,1* 12,1*	10,7* 10,7*	8,8 8,9*		7,6* 7,6* 40' 8"
20	EW			17,0* 17,0*	14,3* 14,3*	12,3* 12,3*	10,8* 10,8*	8,8 9,3*		7,5* 7,5* 42' 8"
15	EW		21,0* 21,0*	18,2* 18,2*	14,9* 14,9*	12,6* 12,6*	10,8 10,8*	8,7 9,2*		7,4 7,5* 44'
10	EW	40,4* 40,4*	26,0* 26,0*	19,3* 19,3*	15,4* 15,4*	12,8* 12,8*	10,5 10,8*	8,5 9,1*		7,1 7,2* 44' 8"
5	EW	2,8* 2,8*	25,4* 25,4*	19,9* 19,9*	15,6* 15,6*	12,7 12,7*	10,1 10,6*	8,3 8,7*		6,5* 6,5* 44'10"
0	EW	3,4* 3,4*	12,6* 12,6*	19,4* 19,4*	15,2* 15,2*	12,3 12,3*	9,9 10,0*	8,0* 8,0*		5,8* 5,8* 44' 5"
- 5	EW	5,6* 5,6*	12,0* 12,0*	17,6* 17,6*	14,0* 14,0*	11,3* 11,3*	9,1* 9,1*	6,9* 6,9*		4,9* 4,9* 43' 4"
-10	EW		13,5* 13,5*	14,7* 14,7*	12,0* 12,0*	9,7* 9,7*	7,5* 7,5*			5,5* 5,5* 39' 2"

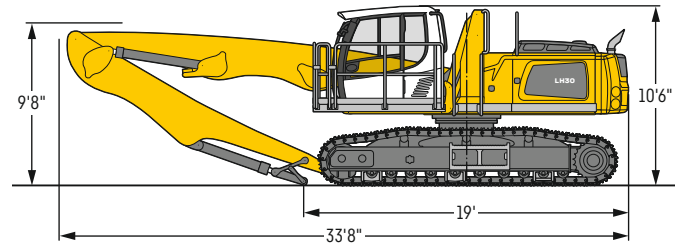
Height Can be slewed through 360° In longitudinal position of undercarriage Max. reach * Limited by hydr. capacity

The lift capacities on the stick end without attachment are stated in lb x 1,000 and can be slewed through 360° on a firm, level supporting surface. Capacities are valid for 24" wide triple grouser pads. 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.

LH 30 C EW – Equipment GK12



Dimensions



Operating weight and ground pressure

The operating weight includes the basic machine with hydr. cab elevation, straight boom 22'4", stick with tipping kinematics 16'5" and sorting grab SG 30B / 1.11 yd³ perforated shells.

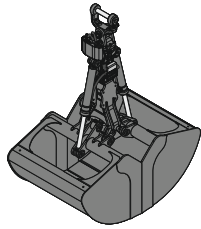
Weight	69,700 lb
Pad width	24"
Ground pressure	on request

ft	Undercarriage	10 ft	15 ft	20 ft	25 ft	30 ft	35 ft	40 ft	45 ft	ft in
40	EW		18,9* 18,9*							14,4* 14,4* 18' 6"
35	EW			17,3* 17,3*	13,0* 13,0*					11,2* 11,2* 25' 10"
30	EW			16,7* 16,7*	14,5* 14,5*	11,4* 11,4*				9,9* 9,9* 30' 7"
25	EW			16,8* 16,8*	14,5* 14,5*	12,6* 12,6*				9,2* 9,2* 34'
20	EW		19,5* 19,5*	17,5* 17,5*	14,7* 14,7*	12,7* 12,7*	10,4 10,8*			8,8* 8,8* 36' 4"
15	EW	15,2* 15,2*	23,2* 23,2*	18,6* 18,6*	15,2* 15,2*	12,8* 12,8*	10,3 10,7*			8,6* 8,6* 37' 11"
10	EW	41,3* 41,3*	26,6* 26,6*	19,7* 19,7*	15,7* 15,7*	12,8* 12,8*	10,2 10,5*			8,3* 8,3* 38' 8"
5	EW		27,9* 27,9*	20,2* 20,2*	15,7* 15,7*	12,6* 12,6*	10,0* 10,0*			7,3* 7,3* 38' 10"
0	EW	3,4* 3,4*	17,8* 17,8*	19,5* 19,5*	15,1* 15,1*	11,8* 11,8*	9,0* 9,0*			6,2* 6,2* 38' 5"
- 5	EW		17,1* 17,1*	17,3* 17,3*	13,4* 13,4*	10,3* 10,3*	7,1* 7,1*			6,2* 6,2* 36'
-10	EW			13,5* 13,5*	10,5* 10,5*					7,9* 7,9* 29' 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 lb x 1,000 and can be slewed through 360° on a firm, level supporting surface. Capacities are valid for 24" wide triple grouser pads. 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.

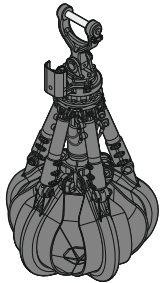
Attachments



Grab for loose material

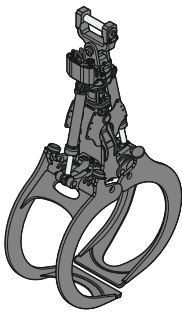
Shells for loose material with cutting edge (without teeth)

Grab model GMZ 40													
Shell specification		Standard						Wide					
Width of shells	ft in	3'11"	4'11"	5'9"	6'3"	7'1"	8'2"	3'11"	4'11"	5'9"	6'7"	7'5"	8'2"
Capacity	yd³	2.75	3.27	3.92	4.58	5.23	5.88	1.57	1.96	2.29	2.62	2.94	3.27
Weight	lb	3,781	4,101	4,365	4,530	5,104	5,445	3,340	3,616	3,847	4,079	4,464	4,696



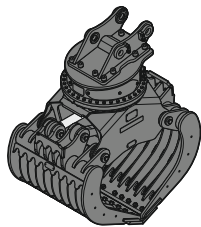
Multi-tine grab

Multi-tine grab		open		semi-closed		closed	
Grab model GM 64 (4 tines)							
Capacity	yd³	0.52	0.78	0.52	0.78	0.52	0.78
Weight	lb	1,765	2,005	2,070	2,335	2,425	2,790
Grab model GM 65 (5 tines)							
Capacity	yd³	0.52	0.78	0.52	0.78	0.52	0.78
Weight	lb	2,590	2,890	2,975	3,285	3,010	3,540



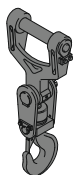
Wood grab

Grab model GM 20B round-shaped (complete overlapping, vertical cylinders)						
Size	yd²	1.20	1.55	1.79	2.03	2.27
Cutting width	ft in	2'8"	2'8"	2'8"	2'8"	2'8"
Height of grab, closed	ft in	8'5"	8'9"	8'11"	9'3"	9'6"
Weight	lb	3,405	3,470	3,515	3,585	3,880



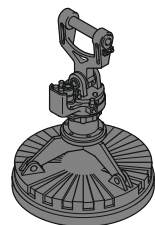
Sorting grab

		ribbed	perforated	ribbed	perforated	ribbed	perforated
Grab model SG 30B							
Width of shells	ft in	3'3"	3'3"	3'11"	3'11"	4'7"	4'7"
Capacity	yd³	0.98	1.11	1.18	1.31	1.37	1.50
Max. closing force	lbf	17,985	17,985	17,985	17,985	17,985	17,985
Weight incl. adapter plate SWA	lb	3,890	3,715	4,135	3,880	4,365	4,045



Load hook

Max. load	lb	27,560
Height with suspension	ft in	3'1"
Weight	lb	300



Magnet devices / lifting magnets

Generator	kW	13 / 17
Electromagnet with suspension		
Power	kW	10
Diameter of magnet	ft in	4'5"
Weight	lb	3,750

* only magnet plate

Equipment



Undercarriage

	30 M	35 M	30 C
4-wheel steering		+	
Trailer coupling	+	+	
Track pads, variants			+
Individual control outriggers	+	+	
Shuttle axle lock, automatic	•	•	
Outrigger monitoring system	+	+	
Dozer blade	+	+	
Tires, variants	+	+	
Protection for travel drive	+	+	
Protection for piston rods, outriggers	+	+	
Two storage compartments	•	•	
Undercarriage, variants			+



Uppercarriage

	30 M	35 M	30 C
Uppercarriage right side light, 1 piece, LED	•	•	•
Uppercarriage rear light, 2 pieces, LED	+	+	+
Heavy counterweight	+		
Refuelling system with filling pump	+	+	+
Railing on uppercarriage	+	+	+
Generator	+	+	+
Main battery switch for electrical system	•	•	•
Amber beacon, at uppercarriage, LED double flash	+	+	+
Protection for headlights	+	+	+
Protection for rear lights	+	+	+
Tool equipment, extended	+	+	+



Hydraulic system

	30 M	35 M	30 C
Electronic pump regulation	•	•	•
Liebherr hydraulic oil from -4°F to +104°F	•	•	•
Liebherr hydraulic oil, biologically degradable	+	+	+
Magnetic rod in hydraulic tank	•	•	•
Bypass filter	+	+	+
Preheating hydraulic oil	+	+	+



Engine

	30 M	35 M	30 C
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

	30 M	35 M	30 C
Radiator, large-mesh, for dust-intensive operation	•	•	•
Reversible fan drive	+	+	+
Protective grid in front of cooler intake	•	•	•



Cab

	30 M	35 M	30 C
Stabilizer, control lever, left console	+	+	
Stabilizer, proportional control on left joystick	●	●	
Cab lights rear, halogen	+	+	+
Cab lights rear, LED	+	+	+
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. 7.5 mph)	●	●	
Joystick and wheel steering (slim version)	+	+	
Cab elevation, hydraulic (LHC)	●	●	●
Cab elevation, hydraulic with tilt function (LHC)	+	+	+
Cab elevation, rigid (LFC)	+	+	+
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 windshield	●	●	●
FOPS top guard	+	+	+
FGPS front guard, tiltable	+	+	+
Sun visor	+	+	+
Left control console, folding	●	●	●



Equipment

	30 M	35 M	30 C
Boom lights, 2 pieces, halogen	●	●	●
Boom lights, 2 pieces, LED	+	+	+
Stick lights, 2 pieces, halogen	●	●	●
Stick lights, 2 pieces, LED	+	+	+
Filter system for attachment	+	+	+
Height limitation and stick shutoff, electronically	+	+	+
Boom cylinder cushioning	+	+	+
Stick camera (with separate monitor), bottom side, with protection	+	+	+
Liebherr multi coupling system	+	+	+
Liebherr quick coupler, hydraulic	+	+	+
Pipe fracture safety valves hoist cylinders	●	●	●
Pipe fracture safety valves stick cylinders	●	●	●
Quick coupling system Solidlink	+	+	+
Quick coupling system MH 40B	+	+	+
Protection for piston rods, hoist cylinder	+	+	+
Protection for piston rods, stick cylinder	+	+	+
Overload warning device	+	+	+



Complete machine

	30 M	35 M	30 C
Lubrication			
Lubrication undercarriage, manually - decentralized (grease points)	●	●	
Lubrication undercarriage, manually - centralized (one grease point)	+	+	
Central lubrication system for uppercarriage and equipment, automatically	●	●	●
Central lubrication system for undercarriage, automatically	+	+	
Centralized lubrication extended for attachment	+	+	+
Special coating			
Special coating, variants	+	+	+
Monitoring			
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.