

Technical Description Hydraulic Excavator

R 904
Litronic®

Operating weight 19,2 – 21,7 t
Engine output 92 kW (125 HP)
Bucket capacity 0,15 – 1,05 m³



LIEBHERR

The Better Machine.



Engine

Rating per ISO 9249	92 kW (125 HP) at 2000 1/min.
Model	Liebherr D 924 T-E
Type	4 cylinder in-line
Bore/Stroke	122/142 mm
Displacement	6,6 l
Engine operation	4-stroke diesel direct injection turbo-charged reduced emissions
Cooling	water-cooled and integrated motor oil cooler
Air cleaner	dry-type air cleaner with pre-cleaner, primary and safety elements
Fuel tank	240 l
Electrical system	
Voltage	24 V
Batteries	2 x 92 Ah/12 V
Starter	24 V/5,4 kW
Alternator	three phase current 24 V/55 A
Engine idling	sensor controlled



Hydraulic System

Hydraulic pump	LSC control system (Liebherr-Synchron-Comfort). Regulation with variable displacement, swash plate pump
Max. flow	300 l/min.
Max. pressure	350 bar
Pump regulation	electro-hydraulic with electronic engine speed sensing regulation, pressure compensation, flow compensation, automatic oil flow optimizer, swing circuit with priority and torque control
Hydraulic tank	200 l
Hydraulic system	390 l
Hydraulic oil filter	1 full flow filter in return line with integrated fine filter area (5 µm)
Hydraulic oil cooler	stacked radiator, thermostatically controlled recirculation
MODE selection	adjustment of machine performance and the hydraulics via a mode selector to match application
LIFT	for lifting
FINE	for precision work and lifting through very sensitive movements
ECO	for especially economical and environmentally friendly operation
POWER	for maximum digging power and heavy duty jobs
Super-Finish	adjustable working speed for precision work
R.P.M adjustment	stepless adjustment of engine output via the r.p.m. at each selected mode
Additional menu	4 adjustable oil flows, for optional accessories



Hydraulic Controls

Power distribution	via control valve with integrated safety valves, simultaneous and independent operation of travel drive, swing drive and work attachment
Servo circuit	
Attachment and swing	- proportional via joystick levers
Travel	- proportional via foot pedals or removable hand levers
Additional functions	via foot pedals or joystick toggle switch



Swing Drive

Drive by	Liebherr swash plate motor with integrated brake valve and torque control
Transmission	Liebherr compact planetary reduction gear
Swing ring	Liebherr, sealed single race ball bearing swing ring, internal teeth
Swing torque	46,0 kNm
Swing ring	0 - 9 RPM stepless
Holding brake	wet multi-disc (spring applied, pressure released)
Option	pedal controlled positioning brake



Operator's Cab

Cab	built from deep drawn components, resiliently mounted, sound insulated, tinted windows, front window stores overhead, door with sliding window
Operator's seat	shock absorbing suspension, adjustable to operator's weight, 6-way adjustable seat with mountable head rest
Joysticks	integrated into adjustable seat consoles
Monitoring	menu driven query of current operating conditions via the LCD display. Automatic monitoring, display, warning (acoustical and optical signal) and saving machine malfunction data, for example, engine overheating, low engine oil pressure or low hydraulic oil level
Heating system	standard air conditioning, combined cooler/heater, additional dust filter in fresh air/recirculated
Noise emission	L_{pA} (inside cab) = 76 dB(A) L_{wA} (surround noise) = 103 dB(A)



Undercarriage

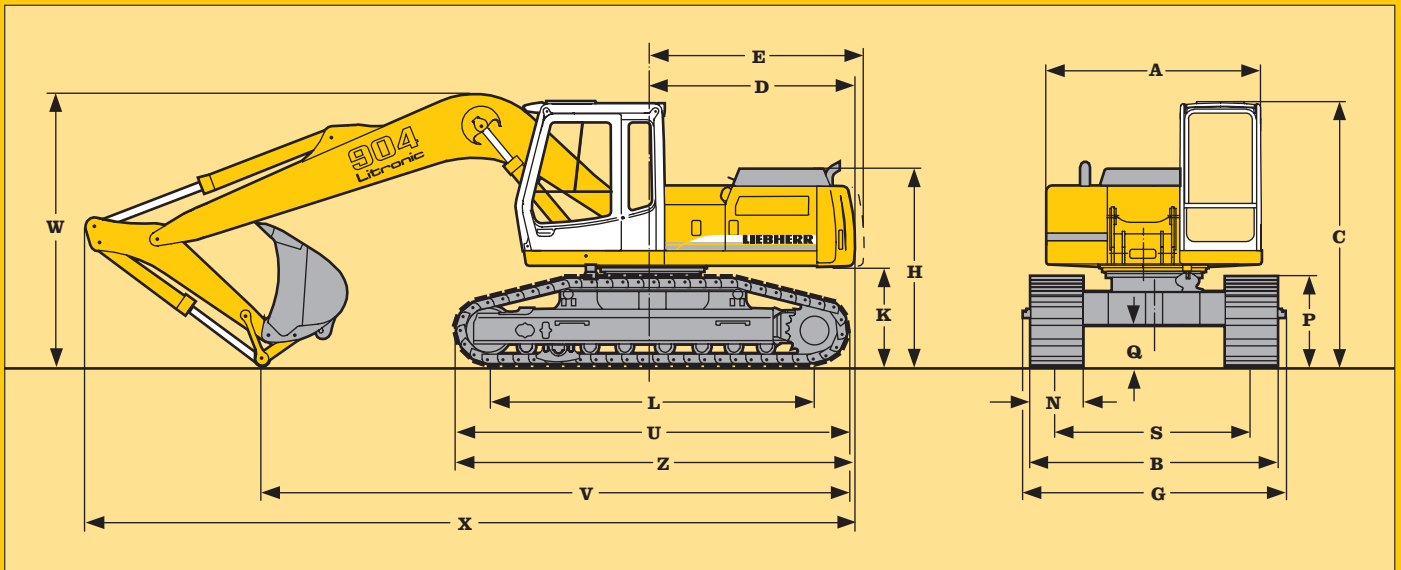
Versions:	
Std	standard
HD-SL	heavy duty, wide gauge
Drive	Liebherr swash plate motors with integrated brake valves on both sides
Transmission	Liebherr planetary reduction gears
Travel speed	Std/HD-SL: low range - 2,6 km/h high range - 5,2 km/h
Drawbar pull max.	Std/HD-SL: 234 kN
Track components	Std/HD-SL: B 60, maintenance-free
Track rollers/ carrier rollers	Std: 7/2 HD-SL: 8/2
Tracks	sealed and greased
Track pads	triple grouser
Digging locks	wet multi-discs (spring applied, pressure released)
Brake valves	integrated into travel motor



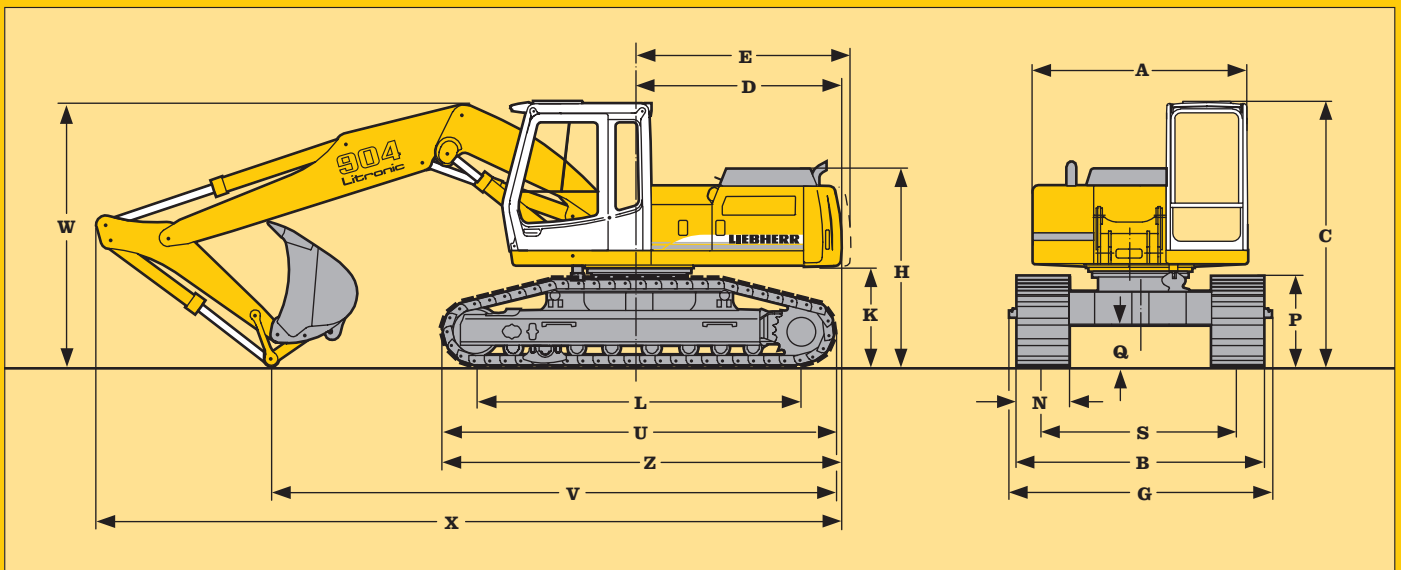
Attachment

Type	combination of resistant steel plates and cast steel components
Hydraulic cylinders	Liebherr cylinders with special seal-system, shock absorbed
Pivots	sealed, low maintenance
Lubrication	easily accessible centralized lubrication
Hydraulic connections	pipes and hoses equipped with SAE split-flange connections
Bucket	standard equipped with 12 t safety hook for lifting

Technical Data



		mm			Stick length	with goose-neck boom 5,40 m	with hydr. adjustable boom 3,70 m	with mech. adjustable boom 3,60 m	with 5,70 m straight goose-neck boom
A		2500							
C		3060							
D		2342							
E		2450							
H		2280							
K		1154							
L	for Std	3368			V with Std	1,70	6600	6350	6550
	for HD-SL	3748				2,20	5850	5500	5750
P		1042				2,70	5450	5150	5450
Q		472				3,20	5150	4900	5150
S	for Std	2000				4,20	4900	4550	4850
	for HD-SL	2250			V with HD-SL	1,70	6800	6550	6750
U	for Std	4165				2,20	6050	5700	5950
	for HD-SL	4545				2,70	5650	5350	5650
N		500	600	750		3,20	5350	5100	5350
G	for Std	2765	2765	2765		4,20	5100	4750	5100
	for HD-SL	3015	3015	3015					
B	for Std	2500	2600	2750	W	1,70	3260	3150	3000
	for HD-SL	2816	2850	3000		2,20	3200	3100	2900
Z	for Std	4425				2,70	3350	3150	3100
	for HD-SL	4615				3,20	3450	3350	3300
						4,20	4050	3950	4050
					X	1,70	8900	8650	8850
						2,20	8900	8600	8800
						2,70	8950	8600	8800
						3,20	8900	8600	8750
						4,20	8600	8250	8400



Dimensions

Digging envelope

- 1 with stick 1,70
- 2 with stick 2,20
- 3 with stick 2,70
- 4 with stick 3,20
- 5 with stick 4,20

Stick lengths	m	1,70	2,20	2,70	3,20	4,20
Max. digging depth	m	5,30	5,80	6,30	6,80	7,80
Max. reach at ground level	m	8,40	8,90	9,40	9,90	10,85
Max. dump height	m	6,35	6,65	6,95	7,25	7,90
Max. teeth height	m	8,90	9,20	9,50	9,80	10,45

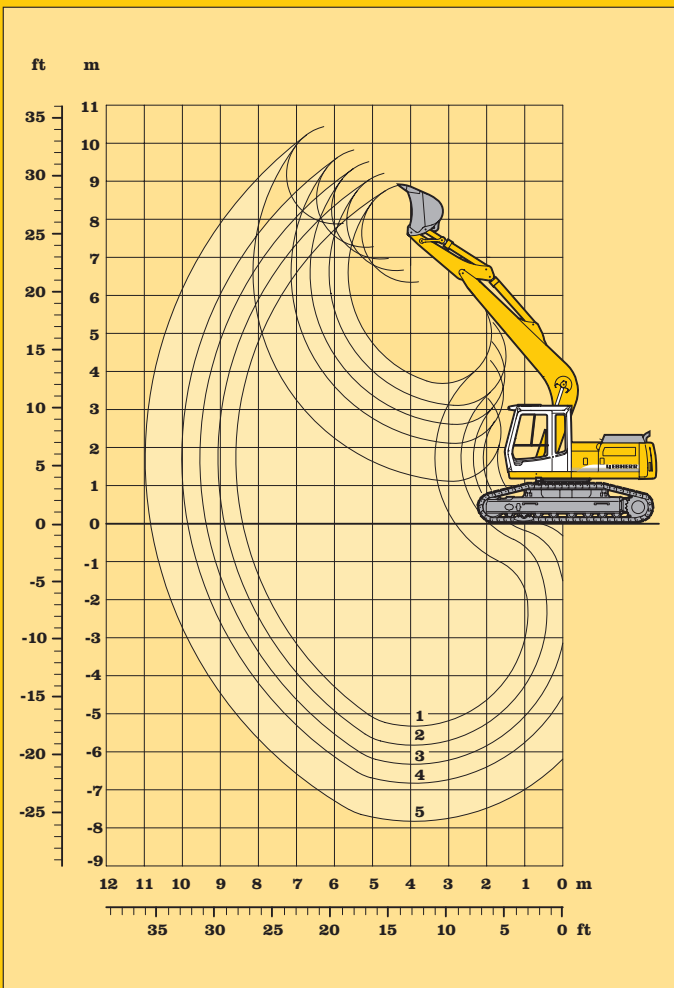
Digging force	kN	120,3	93,6	81,3	72,0	58,5
	t	12,3	9,5	8,3	7,3	6,0
Breakout force	kN	126,4	126,4	126,4	126,4	126,4
	t	12,9	12,9	12,9	12,9	12,9

Max. breakout force 146 kN/14,9 t⁴⁾

Operating Weight and Ground Pressure

Operating weight includes basic machine with 5,40 m gooseneck boom, 2,20 m stick and 0,70 m³ bucket.

	Undercarriage	Std			HD-SL		
		500	600	750	500	600	750
Pad width	mm	500	600	750	500	600	750
Weight	kg	19350	19650	20150	19800	20150	20700
Ground pressure	kg/cm ²	0,54	0,45	0,37	0,49	0,42	0,35



Buckets

	mm	230 ¹⁾	330 ²⁾	390 ²⁾	500 ³⁾	550	600 ⁴⁾	650	850	1050	1250	1400
Cutting width	mm	230 ¹⁾	330 ²⁾	390 ²⁾	500 ³⁾	550	600 ⁴⁾	650	850	1050	1250	1400
Capacity ISO 7451	m ³	0,15	0,22	0,27	0,40	0,30	0,35	0,40	0,55	0,70	0,90	1,05
Max. possible material weight	t/m ³	1,8	1,8	1,8	1,8	1,8	1,8	1,8	1,8	1,8	1,8	1,8
Weight with Liebherr teeth Z 13 C	kg	-	-	-	-	440	-	470	540	620	710	760
Weight with Bofors teeth	kg	340	370	380	410	-	-	-	-	-	-	-
Max. stick length for machine stability per ISO 10567:												
Std undercarriage		4,20	4,20	4,20	4,20	4,20	4,20	4,20	3,20	2,20	1,70	-
HD-SL undercarriage		4,20	4,20	4,20	4,20	4,20	4,20	4,20	4,20	3,20	2,20	1,70

¹⁾ Bucket with ejector and Bofors teeth (max. digging depth 1,1 m since bucket suspension is wider than bucket)

²⁾ Bucket with ejector and Bofors teeth (max. digging depth 1,2 m since bucket suspension is wider than bucket)

³⁾ Bucket with ejector and Bofors teeth

⁴⁾ Ripper bucket with teeth size Z 16 P

Backhoe Attachment with Gooseneck Boom 5,40 m

with stick 2,20 m					
Height m	Under- carriage	Radius of load from centerline of machine in m			
		4,5	6,0	7,5	9,0
9,0	Std HD-SL				
7,5	Std HD-SL				
6,0	Std HD-SL		3,2 (3,5#) 3,5# (3,5#)		
4,5	Std HD-SL	4,2# (4,2#) 4,2# (4,2#)	3,1 (3,9#) 3,7 (3,9#)	2,0 (2,5#) 2,4 (2,5#)	
3,0	Std HD-SL	4,6 (5,9#) 5,5 (5,9#)	2,9 (4,6#) 3,5 (4,6#)	2,0 (3,6) 2,4 (4,1#)	
1,5	Std HD-SL	4,1 (7,6#) 5,0 (7,6#)	2,7 (5,0) 3,3 (5,5#)	1,9 (3,5) 2,3 (4,3)	
0	Std HD-SL	3,9 (7,7) 4,7 (8,7#)	2,5 (4,9) 3,1 (5,9)	1,8 (3,4) 2,2 (4,2)	
- 1,5	Std HD-SL	3,8 (7,6) 4,6 (9,0#)	2,5 (4,8) 3,0 (5,9)		
- 3,0	Std HD-SL	3,9 (7,7) 4,7 (8,6#)	2,5 (4,8) 3,1 (5,9)		
- 4,5	Std HD-SL	4,1 (7,0#) 4,9 (7,0#)			
- 6,0	Std HD-SL				

with stick 2,70 m					
Height m	Under- carriage	Radius of load from centerline of machine in m			
		4,5	6,0	7,5	9,0
9,0	Std HD-SL				
7,5	Std HD-SL		2,5# (2,5#) 2,5# (2,5#)		
6,0	Std HD-SL		2,9# (2,9#) 2,9# (2,9#)		
4,5	Std HD-SL		3,2 (3,4#) 3,4# (3,4#)	2,1 (3,4#) 2,5 (3,4#)	
3,0	Std HD-SL	4,7 (5,1#) 5,1# (5,1#)	2,9 (4,2#) 3,5 (4,2#)	2,0 (3,6) 2,4 (3,7#)	
1,5	Std HD-SL	4,2 (7,0#) 5,0 (7,0#)	2,7 (5,0) 3,2 (5,1#)	1,8 (3,5) 2,2 (4,2#)	
0	Std HD-SL	3,8 (7,7) 4,7 (8,3#)	2,5 (4,8) 3,0 (5,8#)	1,7 (3,4) 2,1 (4,1)	
- 1,5	Std HD-SL	3,7 (7,5) 4,5 (8,8#)	2,4 (4,7) 2,9 (5,8)	1,7 (3,3) 2,1 (4,1)	
- 3,0	Std HD-SL	3,7 (7,6) 4,6 (8,7#)	2,4 (4,7) 2,9 (5,8)		
- 4,5	Std HD-SL	3,9 (7,6#) 4,7 (7,6#)			
- 6,0	Std HD-SL				

with stick 3,20 m					
Height m	Under- carriage	Radius of load from centerline of machine in m			
		4,5	6,0	7,5	9,0
9,0	Std HD-SL				
7,5	Std HD-SL				
6,0	Std HD-SL			2,1 (2,4#) 2,4# (2,4#)	
4,5	Std HD-SL		2,9# (2,9#) 2,9# (2,9#)	2,1 (3,0#) 2,5 (3,0#)	
3,0	Std HD-SL	4,4# (4,4#) 4,4# (4,4#)	3,0 (3,7#) 3,5 (3,7#)	2,0 (3,4#) 2,4 (3,4#)	
1,5	Std HD-SL	4,3 (6,3#) 5,1 (6,3#)	2,7 (4,7#) 3,3 (4,7#)	1,8 (3,5) 2,2 (3,9#)	1,3 (1,6#) 1,6 (1,6#)
0	Std HD-SL	3,9 (7,7) 4,7 (7,9#)	2,5 (4,8) 3,0 (5,5#)	1,7 (3,4) 2,1 (4,1)	
- 1,5	Std HD-SL	3,7 (7,5) 4,5 (8,6#)	2,4 (4,7) 2,9 (5,7)	1,6 (3,3) 2,0 (4,0)	
- 3,0	Std HD-SL	3,6 (7,5) 4,5 (8,7#)	2,3 (4,6) 2,9 (5,7)	1,6 (3,3) 2,0 (3,8#)	
- 4,5	Std HD-SL	3,7 (7,6) 4,6 (8,0#)	2,4 (4,7) 3,0 (5,6#)		
- 6,0	Std HD-SL				

with stick 4,20 m					
Height m	Under- carriage	Radius of load from centerline of machine in m			
		4,5	6,0	7,5	9,0
9,0	Std HD-SL				
7,5	Std HD-SL			1,8# (1,8#) 1,8# (1,8#)	
6,0	Std HD-SL			2,0# (2,0#) 2,0# (2,0#)	
4,5	Std HD-SL			2,1 (2,2#) 2,2# (2,2#)	1,4 (1,9#) 1,7 (1,9#)
3,0	Std HD-SL		2,7# (2,7#) 2,7# (2,7#)	2,0 (2,7#) 2,4 (2,7#)	1,3 (2,4#) 1,6 (2,4#)
1,5	Std HD-SL	4,5 (4,9#) 4,9# (4,9#)	2,8 (3,8#) 3,3 (3,8#)	1,8 (3,3#) 2,2 (3,3#)	1,2 (2,5) 1,6 (2,8#)
0	Std HD-SL	4,0 (6,8#) 4,8 (6,8#)	2,5 (4,8#) 3,1 (4,8#)	1,7 (3,3) 2,1 (3,9#)	1,2 (2,4) 1,5 (3,0)
- 1,5	Std HD-SL	3,6 (7,5) 4,5 (8,0#)	2,3 (4,6) 2,8 (5,6#)	1,6 (3,2) 2,0 (4,0)	1,1 (2,4) 1,4 (2,7#)
- 3,0	Std HD-SL	3,5 (7,3) 4,3 (8,6#)	2,2 (4,5) 2,7 (5,6)	1,5 (3,2) 1,9 (3,9)	
- 4,5	Std HD-SL	3,5 (7,3) 4,3 (8,4#)	2,2 (4,5) 2,7 (5,6)	1,5 (3,2) 1,9 (3,6#)	
- 6,0	Std HD-SL	3,7 (7,4#) 4,5 (7,4#)	2,4 (4,7) 2,9 (5,0#)		

The lift capacities are stated in metric tonnes (t) on the backhoe bucket's load hook, and can be lifted 360° on firm, level supporting surface.

Values quoted in brackets are valid for the undercarriage when in longitudinal position.

Capacities are valid for 600 mm wide triple grouser pads.

Indicated loads are based on ISO 10567 standard and do not exceed 75 % of tipping or 87 % of hydraulic capacity (indicated via #).

Maximum load for the backhoe bucket's load hook is 12 t.

Without bucket (0,70 m³), the lift capacities will increase by 610 kg, without bucket cylinder, link and lever they increase by an additional 290 kg.

Lifting capacity of the excavator is limited by machine stability, hydraulic capacity and maximum permissible load of the load hook.

When lifting loads, the hydraulic excavator must be equipped with automatic check valve on its hoist cylinders and overload warning device according to European Standard, EN 474-5.

Lift Capacities with Gooseneck Boom 5,40 m

Digging envelope

- 1 with stick 1,70
- 2 with stick 2,20
- 3 with stick 2,70
- 4 with stick 3,20
- 5 with stick 4,20

Stick lengths	m	1,70	2,20	2,70	3,20	4,20
Max. digging depth	m	5,20	5,65	6,15	6,65	7,65
Max. reach at ground level	m	8,15	8,60	9,10	9,60	10,60
Max. dump height	m	6,40	6,70	7,05	7,40	8,05
Max. teeth height	m	9,00	9,30	9,65	10,00	10,65

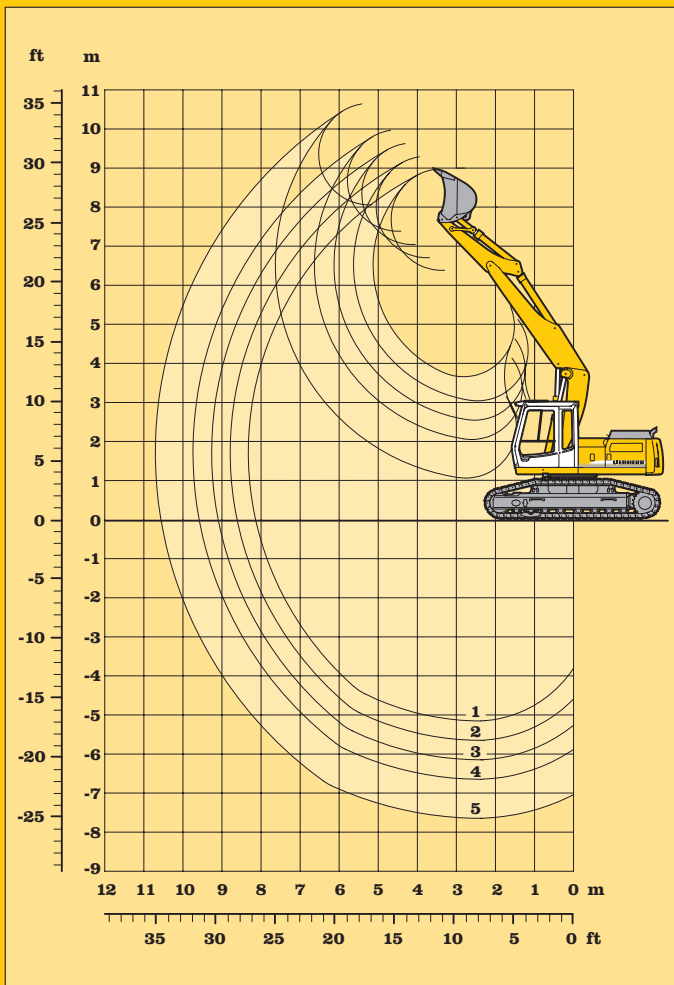
Digging force	kN	120,3	93,6	81,3	72,0	58,5
	t	12,3	9,5	8,3	7,3	6,0
Breakout force	kN	126,4	126,4	126,4	126,4	126,4
	t	12,9	12,9	12,9	12,9	12,9

Max. breakout force 146 kN/14,9 t⁴

Operating Weight and Ground Pressure

Operating weight includes basic machine with 3,60 m hydraulically adjustable boom, 2,20 m stick and 0,70 m³ bucket.

Undercarriage		Std			HD-SL		
		500	600	750	500	600	750
Pad width	mm	500	600	750	500	600	750
Weight	kg	20150	20450	20950	20600	20950	21500
Ground pressure	kg/cm ²	0,55	0,47	0,39	0,51	0,43	0,36



Buckets

Cutting width	mm	230 ¹⁾	330 ²⁾	390 ²⁾	500 ³⁾	550	600 ⁴⁾	650	850	1050	1250	1400
Capacity ISO 7451	m ³	0,15	0,22	0,27	0,40	0,30	0,35	0,40	0,55	0,70	0,90	1,05
Max. possible material weight	t/m ³	1,8	1,8	1,8	1,8	1,8	1,8	1,8	1,8	1,8	1,8	1,8
Weight with Liebherr teeth Z 13 C	kg	-	-	-	-	440	-	470	540	620	710	760
Weight with Bofors teeth	kg	340	370	380	410	-	-	-	-	-	-	-
Max. stick length for machine stability per ISO 10567:												
Std undercarriage		4,20	4,20	4,20	4,20	4,20	4,20	4,20	3,20	2,20	1,70	-
HD-SL undercarriage		4,20	4,20	4,20	4,20	4,20	4,20	4,20	4,20	3,20	2,20	1,70

¹⁾ Bucket with ejector and Bofors teeth (max. digging depth 1,1 m since bucket suspension is wider than bucket)

²⁾ Bucket with ejector and Bofors teeth (max. digging depth 1,2 m since bucket suspension is wider than bucket)

³⁾ Bucket with ejector and Bofors teeth

⁴⁾ Ripper bucket with teeth size Z 16 P

Backhoe Attachment with Hydr. Adjustable Boom 3,70 m

with stick 2,20 m					
Height m	Under- carriage	Radius of load from centerline of machine in m			
		4,5	6,0	7,5	9,0
9,0	Std HD-SL				
7,5	Std HD-SL				
6,0	Std HD-SL		3,3 (4,1#) 3,8 (4,1#)		
4,5	Std HD-SL	5,2 (5,4#) 5,4# (5,4#)	3,3 (4,2#) 3,9 (4,2#)		
3,0	Std HD-SL	5,1 (6,0) 5,8 (6,0)	3,3 (4,5) 3,8 (4,5)	2,0 (3,6) 2,4 (3,6)	
1,5	Std HD-SL	5,0 (7,3) 5,7 (7,3)	3,2 (5,0) 3,7 (5,0)	1,9 (3,6) 2,3 (3,9#)	
0	Std HD-SL	4,8 (8,2) 5,6 (8,9)	3,0 (5,2) 3,5 (5,6)	1,8 (3,5) 2,2 (4,1)	
- 1,5	Std HD-SL	4,6 (8,3) 5,5 (9,1)	2,7 (5,1) 3,2 (6,2)		
- 3,0	Std HD-SL	4,2 (8,2) 5,0 (9,1#)	2,5 (4,9) 3,1 (5,0#)		
- 4,5	Std HD-SL				
- 6,0	Std HD-SL				

with stick 2,70 m					
Height m	Under- carriage	Radius of load from centerline of machine in m			
		4,5	6,0	7,5	9,0
9,0	Std HD-SL				
7,5	Std HD-SL				
6,0	Std HD-SL		3,4 (3,9#) 3,9 (3,9#)		
4,5	Std HD-SL		3,3 (4,0#) 3,8 (4,0#)	2,1 (3,1#) 2,5 (3,1#)	
3,0	Std HD-SL	5,0 (5,6) 5,6 (5,6)	3,3 (4,2#) 3,8 (4,2#)	2,0 (3,5#) 2,4 (3,5#)	
1,5	Std HD-SL	4,9 (6,7) 5,6 (6,7)	3,2 (4,7) 3,7 (4,7)	1,9 (3,6) 2,4 (3,7#)	
0	Std HD-SL	4,7 (7,9) 5,5 (8,2)	3,1 (5,1) 3,6 (5,3)	1,8 (3,5) 2,2 (4,1#)	
- 1,5	Std HD-SL	4,6 (8,1) 5,4 (8,9)	2,8 (5,1) 3,3 (6,0#)	1,7 (3,4) 2,1 (4,1)	
- 3,0	Std HD-SL	4,3 (8,3) 5,2 (9,2)	2,5 (4,9) 3,1 (6,0)		
- 4,5	Std HD-SL	4,0 (6,5#) 4,9 (6,5#)			
- 6,0	Std HD-SL				

with stick 3,20 m					
Height m	Under- carriage	Radius of load from centerline of machine in m			
		4,5	6,0	7,5	9,0
9,0	Std HD-SL				
7,5	Std HD-SL		2,8# (2,8#) 2,8# (2,8#)		
6,0	Std HD-SL		3,4 (3,6#) 3,6# (3,6#)	2,0# (2,0#) 2,0# (2,0#)	
4,5	Std HD-SL		3,3 (3,8#) 3,8# (3,8#)	2,1 (3,1#) 2,5 (3,1#)	
3,0	Std HD-SL	5,1 (5,3#) 5,3# (5,3#)	3,2 (4,0#) 3,7 (4,0#)	2,1 (3,3#) 2,5 (3,3#)	
1,5	Std HD-SL	4,9 (6,2) 5,6# (6,2)	3,2 (4,4) 3,7 (4,4)	2,0 (3,5#) 2,4 (3,5#)	
0	Std HD-SL	4,7 (7,6) 5,5 (7,6)	3,1 (5,0) 3,6 (5,0)	1,9 (3,5) 2,3 (3,8#)	
- 1,5	Std HD-SL	4,6 (8,0) 5,3 (8,7)	2,9 (5,1) 3,4 (5,7)	1,7 (3,4) 2,1 (4,1)	
- 3,0	Std HD-SL	4,4 (8,2) 5,3 (9,0)	2,6 (4,9) 3,1 (6,0)		
- 4,5	Std HD-SL	4,0 (8,0) 4,9 (8,2#)			
- 6,0	Std HD-SL				

with stick 4,20 m					
Height m	Under- carriage	Radius of load from centerline of machine in m			
		4,5	6,0	7,5	9,0
9,0	Std HD-SL				
7,5	Std HD-SL			1,7# (1,7#) 1,7# (1,7#)	
6,0	Std HD-SL			2,3 (2,4#) 2,4# (2,4#)	
4,5	Std HD-SL			2,3 (2,8#) 2,6 (2,8#)	1,4 (1,7#) 1,7 (1,7#)
3,0	Std HD-SL		3,2 (3,5#) 3,5# (3,5#)	2,2 (3,0#) 2,6 (3,0#)	1,4 (2,3#) 1,7 (2,3#)
1,5	Std HD-SL	4,9 (5,3) 5,3 (5,3)	3,1 (3,9#) 3,6 (3,9#)	2,2 (3,1) 2,5 (3,1)	1,3 (2,5#) 1,6 (2,5#)
0	Std HD-SL	4,7 (6,4) 5,4 (6,4)	3,1 (4,4) 3,5# (4,4)	2,1 (3,4) 2,4 (3,4)	1,2 (2,5#) 1,5 (2,7#)
- 1,5	Std HD-SL	4,5 (7,7) 5,3 (7,9)	2,9 (4,9) 3,4 (5,0)	1,9 (3,5) 2,3 (3,8#)	1,1 (2,2#) 1,4 (2,2#)
- 3,0	Std HD-SL	4,4 (7,9) 5,2 (8,6)	2,8 (5,0) 3,3 (5,8#)	1,6 (3,3) 2,1 (4,0)	
- 4,5	Std HD-SL	4,2 (8,2) 5,1 (9,0#)	2,4 (4,8) 3,0 (5,9)		
- 6,0	Std HD-SL	3,9 (6,7#) 4,7 (6,7#)			

The lift capacities are stated in metric tonnes (t) on the backhoe bucket's load hook, and can be lifted 360° on firm, level supporting surface.

Values quoted in brackets are valid for the undercarriage when in longitudinal position.

Capacities are valid for 600 mm wide triple grouser pads.

Indicated loads are based on ISO 10567 standard and do not exceed 75 % of tipping or 87 % of hydraulic capacity (indicated via #).

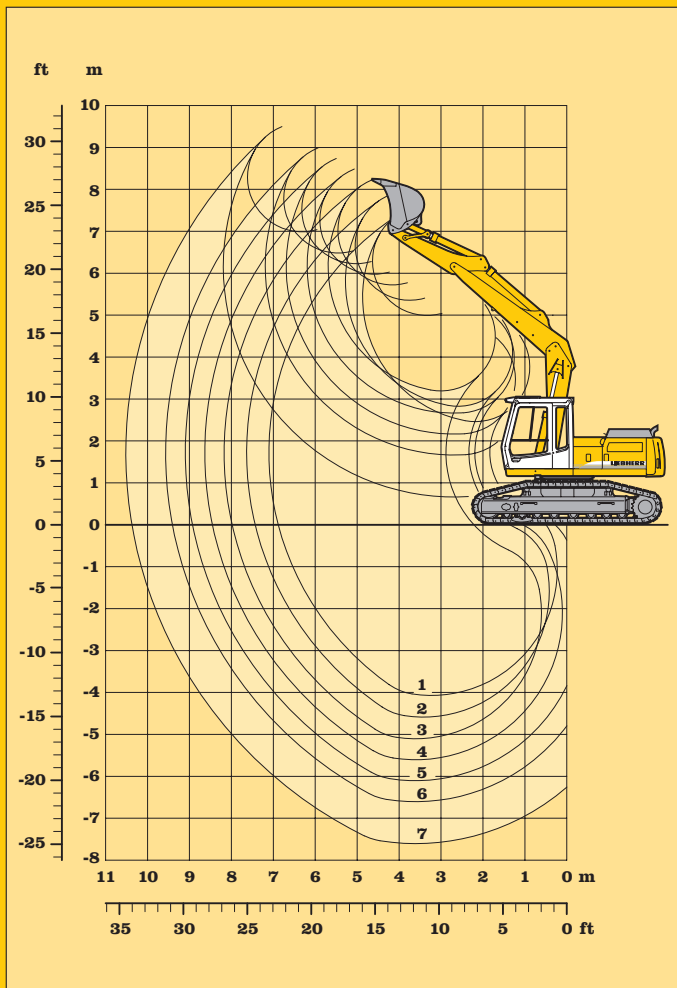
Maximum load for the backhoe bucket's load hook is 12 t.

Without bucket (0,70 m³), the lift capacities will increase by 610 kg, without bucket cylinder, link and lever they increase by an additional 290 kg.

Lifting capacity of the excavator is limited by machine stability, hydraulic capacity and maximum permissible load of the load hook.

When lifting loads, the hydraulic excavator must be equipped with automatic check valve on its hoist cylinders and overload warning device according to European Standard, EN 474-5.

Lift Capacities with Hydr. Adjustable Boom 3,70 m



Digging envelope

- 1 with stick 1,70 m, main boom retracted 2 holes
- 2 with stick 1,70 m, main boom retracted 1 hole
- 3 with stick 1,70 m
- 4 with stick 2,20 m
- 5 with stick 2,70 m
- 6 with stick 3,20 m
- 7 with stick 4,20 m

Stick lengths	m	1,70	2,20	2,70	3,20	4,20
Max. digging depth	m	5,10	5,60	6,10	6,60	7,60
Max. reach at ground level	m	8,00	8,45	8,95	9,40	10,40
Max. dump height	m	5,70	6,00	6,25	6,50	7,00
Max. teeth height	m	8,25	8,50	8,75	9,00	9,50

Digging force	kN	120,3	93,6	81,3	72,0	58,5
	t	12,3	9,5	8,3	7,3	6,0
Breakout force	kN	126,4	126,4	126,4	126,4	126,4
	t	12,9	12,9	12,9	12,9	12,9

Max. breakout force 146 kN/14,9 t⁴

Operating Weight and Ground Pressure

Operating weight includes basic machine with 3,60 m mech. adjustable boom, 2,20 m stick and 0,70 m³ bucket.

Undercarriage		Std			HD-SL		
Pad width	mm	500	600	750	500	600	750
Weight	kg	19450	19750	20250	19900	20250	20800
Ground pressure	kg/cm ²	0,53	0,45	0,37	0,49	0,42	0,35

Buckets

Cutting width	mm	230 ¹⁾	330 ²⁾	390 ²⁾	500 ³⁾	550	600 ⁴⁾	650	850	1050	1250	1400
Capacity ISO 7451	m ³	0,15	0,22	0,27	0,40	0,30	0,35	0,40	0,55	0,70	0,90	1,05
Max. possible material weight	t/m ³	1,8	1,8	1,8	1,8	1,8	1,8	1,8	1,8	1,8	1,8	1,8
Weight with Liebherr teeth Z 13 C	kg	-	-	-	-	440	-	470	540	620	710	760
Weight with Bofors teeth	kg	340	370	380	410	-	-	-	-	-	-	-
Max. stick length for machine stability per ISO 10567:												
Std undercarriage		4,20	4,20	4,20	4,20	4,20	4,20	4,20	3,20	2,20	1,70	-
HD-SL undercarriage		4,20	4,20	4,20	4,20	4,20	4,20	4,20	4,20	3,20	2,20	1,70

¹⁾ Bucket with ejector and Bofors teeth (max. digging depth 1,1 m since bucket suspension is wider than bucket)

²⁾ Bucket with ejector and Bofors teeth (max. digging depth 1,2 m since bucket suspension is wider than bucket)

³⁾ Bucket with ejector and Bofors teeth

⁴⁾ Ripper bucket with teeth size Z 16 P

Backhoe Attachment with Mechanically Adjustable Boom 3,60 m

with stick 2,20 m					
Height m	Under- carriage	Radius of load from centerline of machine in m			
		4,5	6,0	7,5	9,0
9,0	Std HD-SL				
7,5	Std HD-SL				
6,0	Std HD-SL		3,2 (4,2#) 3,8 (4,2#)		
4,5	Std HD-SL	5,0 (5,3#) 5,3# (5,3#)	3,1 (4,6#) 3,6 (4,6#)		
3,0	Std HD-SL	4,5 (6,8#) 5,4 (6,8#)	2,9 (5,2#) 3,4 (5,2#)	1,9 (3,6) 2,3 (4,3)	
1,5	Std HD-SL	4,1 (8,0) 4,9 (8,2#)	2,6 (5,0) 3,2 (5,9#)	1,8 (3,5) 2,2 (4,2)	
0	Std HD-SL	3,8 (7,6) 4,6 (8,9#)	2,5 (4,8) 3,0 (5,9)	1,8 (3,4) 2,2 (4,1)	
- 1,5	Std HD-SL	3,7 (7,6) 4,6 (8,7#)	2,4 (4,7) 3,0 (5,8)		
- 3,0	Std HD-SL	3,8 (7,7) 4,7 (7,8#)	2,5 (4,8) 3,0 (5,5#)		
- 4,5	Std HD-SL	4,1 (5,4#) 4,9 (5,4#)			
- 6,0	Std HD-SL				

with stick 2,70 m					
Height m	Under- carriage	Radius of load from centerline of machine in m			
		4,5	6,0	7,5	9,0
9,0	Std HD-SL				
7,5	Std HD-SL		2,5# (2,5#) 2,5# (2,5#)		
6,0	Std HD-SL		3,2 (3,7#) 3,7# (3,7#)		
4,5	Std HD-SL		3,1 (4,1#) 3,7 (4,1#)	2,0 (3,6#) 2,4 (3,6#)	
3,0	Std HD-SL	4,6 (6,1#) 5,5 (6,1#)	2,9 (4,8#) 3,4 (4,8#)	1,9 (3,6) 2,3 (4,2#)	
1,5	Std HD-SL	4,1 (7,7#) 5,0 (7,7#)	2,6 (5,0) 3,2 (5,6#)	1,8 (3,5) 2,2 (4,2)	
0	Std HD-SL	3,8 (7,6) 4,6 (8,6#)	2,4 (4,8) 3,0 (5,9)	1,7 (3,3) 2,1 (4,1)	
- 1,5	Std HD-SL	3,6 (7,5) 4,5 (8,7#)	2,3 (4,7) 2,9 (5,7)	1,7 (3,3) 2,1 (4,0)	
- 3,0	Std HD-SL	3,7 (7,5) 4,5 (8,1#)	2,4 (4,7) 2,9 (5,8)		
- 4,5	Std HD-SL	3,9 (6,3#) 4,7 (6,3#)			
- 6,0	Std HD-SL				

with stick 3,20 m					
Height m	Under- carriage	Radius of load from centerline of machine in m			
		4,5	6,0	7,5	9,0
9,0	Std HD-SL				
7,5	Std HD-SL		3,0# (3,0#) 2,9# (2,9#)		
6,0	Std HD-SL		3,3# (3,3#) 3,3# (3,3#)	2,1 (2,5#) 2,3# (2,3#)	
4,5	Std HD-SL		3,2 (3,7#) 3,7# (3,7#)	2,0 (3,5#) 2,4 (3,4#)	
3,0	Std HD-SL	4,8 (5,4#) 5,4# (5,4#)	2,9 (4,4#) 3,5 (4,4#)	1,9 (3,6) 2,3 (3,9#)	
1,5	Std HD-SL	4,2 (7,1#) 5,1 (7,1#)	2,7 (5,0) 3,2 (5,2#)	1,8 (3,5) 2,2 (4,2)	
0	Std HD-SL	3,8 (7,7) 4,6 (8,3#)	2,4 (4,8) 3,0 (5,9)	1,7 (3,3) 2,1 (4,1)	
- 1,5	Std HD-SL	3,6 (7,4) 4,4 (8,7#)	2,3 (4,6) 2,8 (5,7)	1,6 (3,3) 2,0 (4,0)	
- 3,0	Std HD-SL	3,6 (7,4) 4,4 (8,3#)	2,3 (4,6) 2,8 (5,7)	1,6 (3,3) 2,0 (3,4#)	
- 4,5	Std HD-SL	3,7 (7,0#) 4,6 (7,0#)	2,4 (4,7) 2,9 (4,8#)		
- 6,0	Std HD-SL				

with stick 4,20 m					
Height m	Under- carriage	Radius of load from centerline of machine in m			
		4,5	6,0	7,5	9,0
9,0	Std HD-SL				
7,5	Std HD-SL			1,9# (1,9#) 1,8# (1,8#)	
6,0	Std HD-SL			2,2 (2,5#) 2,4# (2,4#)	
4,5	Std HD-SL			2,1 (2,8#) 2,5 (2,7#)	1,4 (2,0#) 1,7 (1,8#)
3,0	Std HD-SL		3,1 (3,5#) 3,5# (3,5#)	2,0 (3,2#) 2,4 (3,2#)	1,3 (2,5#) 1,6 (2,4#)
1,5	Std HD-SL	4,5 (5,8#) 5,3 (5,8#)	2,7 (4,5#) 3,3 (4,5#)	1,8 (3,5) 2,2 (3,7#)	1,2 (2,5) 1,5 (2,8#)
0	Std HD-SL	3,9 (7,5#) 4,7 (7,4#)	2,4 (4,8) 3,0 (5,3#)	1,6 (3,3) 2,0 (4,1)	1,1 (2,4) 1,4 (3,0)
- 1,5	Std HD-SL	3,6 (7,4) 4,4 (8,4#)	2,2 (4,6) 2,8 (5,7)	1,5 (3,2) 1,9 (3,9)	1,1 (2,3) 1,4 (2,6#)
- 3,0	Std HD-SL	3,4 (7,2) 4,3 (8,5#)	2,1 (4,5) 2,7 (5,5)	1,5 (3,1) 1,9 (3,9)	
- 4,5	Std HD-SL	3,5 (7,3) 4,3 (7,9#)	2,2 (4,5) 2,7 (5,6)	1,5 (3,2) 1,9 (3,2#)	
- 6,0	Std HD-SL	3,7 (6,1#) 4,5 (6,1#)	2,4 (3,9#) 2,9 (3,9#)		

The lift capacities are stated in metric tonnes (t) on the backhoe bucket's load hook, and can be lifted 360° on firm, level supporting surface.

Values quoted in brackets are valid for the undercarriage when in longitudinal position.

Capacities are valid for 600 mm wide triple grouser pads.

Indicated loads are based on ISO 10567 standard and do not exceed 75 % of tipping or 87 % of hydraulic capacity (indicated via #).

Maximum load for the backhoe bucket's load hook is 12 t.

Without bucket (0,70 m³), the lift capacities will increase by 610 kg, without bucket cylinder, link and lever they increase by an additional 290 kg.

Lifting capacity of the excavator is limited by machine stability, hydraulic capacity and maximum permissible load of the load hook.

When lifting loads, the hydraulic excavator must be equipped with automatic check valve on its hoist cylinders and overload warning device according to European Standard, EN 474-5.

Lift Capacities with Mechanically Adjustable Boom 3,60 m

Digging envelope

- 1 with stick 1,70
- 2 with stick 2,20
- 3 with stick 2,70
- 4 with stick 3,20
- 5 with stick 4,20

Stick lengths	m	1,70	2,20	2,70	3,20	4,20
Max. digging depth	m	4,55	5,05	5,55	6,05	7,05
Max. reach at ground level	m	8,80	9,25	9,75	10,25	11,25
Max. dump height	m	7,45	7,90	8,30	8,75	9,60
Max. teeth height	m	10,05	10,45	10,90	11,30	12,15

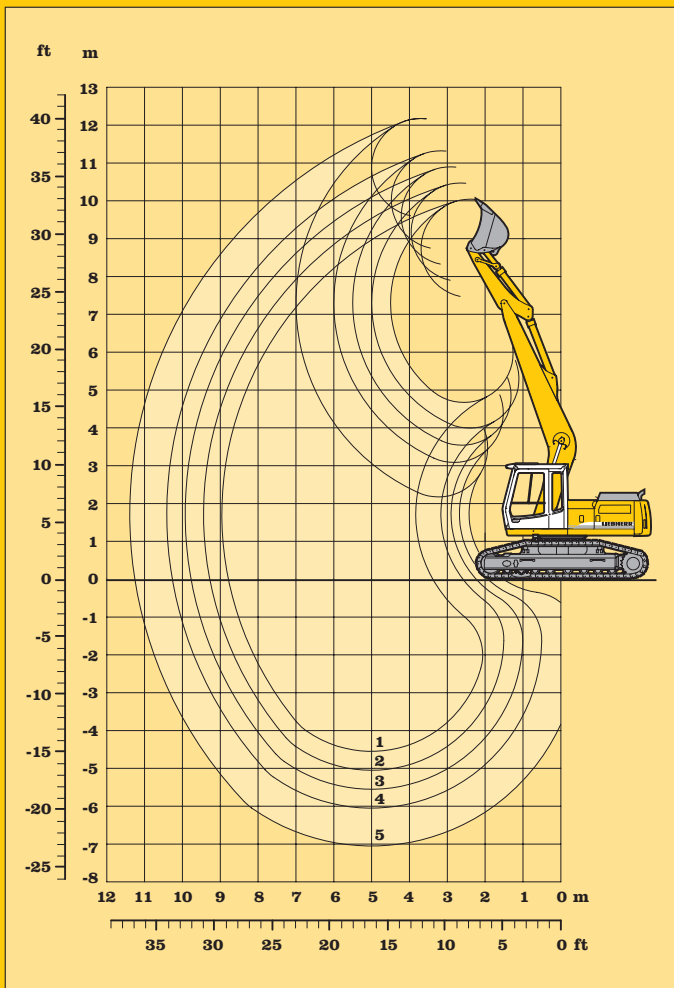
Digging force	kN	120,3	93,6	81,3	72,0	58,5
	t	12,3	9,5	8,3	7,3	6,0
Breakout force	kN	126,4	126,4	126,4	126,4	126,4
	t	12,9	12,9	12,9	12,9	12,9

Max. breakout force 146 kN/14,9⁴

Operating Weight and Ground Pressure

Operating weight includes basic machine with 5,70 m straight gooseneck boom, 2,20 m stick and 0,70 m³ bucket.

Undercarriage		Std			HD-SL		
		500	600	750	500	600	750
Pad width	mm	500	600	750	500	600	750
Weight	kg	19350	19650	20150	19800	20150	20700
Ground pressure	kg/cm ²	0,54	0,45	0,37	0,49	0,42	0,35



Buckets

	mm	230 ¹⁾	330 ²⁾	390 ²⁾	500 ³⁾	550	600 ⁴⁾	650	850	1050	1250	1400
Cutting width	mm	230 ¹⁾	330 ²⁾	390 ²⁾	500 ³⁾	550	600 ⁴⁾	650	850	1050	1250	1400
Capacity ISO 7451	m ³	0,15	0,22	0,27	0,40	0,30	0,35	0,40	0,55	0,70	0,90	1,05
Max. possible material weight	t/m ³	1,8	1,8	1,8	1,8	1,8	1,8	1,8	1,8	1,8	1,8	1,8
Weight with Liebherr teeth Z 13 C	kg	-	-	-	-	440	-	470	540	620	710	760
Weight with Bofors teeth	kg	340	370	380	410	-	-	-	-	-	-	-
Max. stick length for machine stability per ISO 10567:												
Std undercarriage		4,20	4,20	4,20	4,20	4,20	4,20	4,20	2,70	2,20	1,70	-
HD-SL undercarriage		4,20	4,20	4,20	4,20	4,20	4,20	4,20	3,20	2,70	2,20	1,70

¹⁾ Bucket with ejector and Bofors teeth (max. digging depth 1,1 m since bucket suspension is wider than bucket)

²⁾ Bucket with ejector and Bofors teeth (max. digging depth 1,2 m since bucket suspension is wider than bucket)

³⁾ Bucket with ejector and Bofors teeth

⁴⁾ Ripper bucket with teeth size Z 16 P

Backhoe Attachment with Straight Gooseneck Boom 5,70 m

with stick 2,20 m					
Height m	Under- carriage	Radius of load from centerline of machine in m			
		4,5	6,0	7,5	9,0
9,0	Std HD-SL				
7,5	Std HD-SL	4,7# (4,7#)	3,0# (3,0#)		
6,0	Std HD-SL	5,0# (5,0#)	3,2 (4,5#)		
4,5	Std HD-SL	4,9 (6,0#)	3,0 (4,9#)	2,0 (3,6)	
3,0	Std HD-SL	4,4 (7,4#)	2,8 (5,1)	1,9 (3,5)	
1,5	Std HD-SL	3,9 (7,7)	2,6 (4,9)	1,8 (3,4)	
0	Std HD-SL	3,7 (7,5)	2,4 (4,7)	1,7 (3,4)	
- 1,5	Std HD-SL	3,7 (7,4)	2,4 (4,7)	1,7 (3,3)	
- 3,0	Std HD-SL	3,7 (7,2#)	2,4 (4,7)		
- 4,5	Std HD-SL				
- 6,0	Std HD-SL				

with stick 2,70 m					
Height m	Under- carriage	Radius of load from centerline of machine in m			
		4,5	6,0	7,5	9,0
9,0	Std HD-SL	3,6# (3,6#)			
7,5	Std HD-SL		3,2 (3,7#)		
6,0	Std HD-SL	4,3# (4,3#)	3,2 (4,1#)	2,0 (3,0#)	
4,5	Std HD-SL	5,0 (5,3#)	3,0 (4,5#)	2,0 (3,7)	
3,0	Std HD-SL	4,5 (6,8#)	2,8 (5,2#)	1,9 (3,5)	
1,5	Std HD-SL	3,9 (7,8)	2,5 (4,9)	1,7 (3,4)	
0	Std HD-SL	3,6 (7,4)	2,4 (4,7)	1,6 (3,3)	
- 1,5	Std HD-SL	3,5 (7,3)	2,3 (4,6)	1,6 (3,2)	
- 3,0	Std HD-SL	3,6 (7,4)	2,3 (4,6)	1,7 (3,3)	
- 4,5	Std HD-SL	3,8 (5,8#)	2,5 (4,0#)		
- 6,0	Std HD-SL				

with stick 3,20 m					
Height m	Under- carriage	Radius of load from centerline of machine in m			
		4,5	6,0	7,5	9,0
9,0	Std HD-SL				
7,5	Std HD-SL		3,3 (3,4#)		
6,0	Std HD-SL		3,3 (3,6#)	2,1 (3,2#)	
4,5	Std HD-SL	4,1# (4,1#)	3,1 (4,1#)	2,0 (3,7)	1,3 (1,5#)
3,0	Std HD-SL	4,6 (6,2#)	2,8 (4,8#)	1,9 (3,5)	1,3 (2,5)
1,5	Std HD-SL	4,0 (7,7#)	2,6 (4,9)	1,7 (3,4)	1,2 (2,5)
0	Std HD-SL	3,6 (7,5)	2,4 (4,7)	1,6 (3,3)	1,1 (2,4)
- 1,5	Std HD-SL	3,5 (7,3)	2,2 (4,5)	1,6 (3,2)	
- 3,0	Std HD-SL	3,5 (7,3)	2,2 (4,5)	1,6 (3,2)	
- 4,5	Std HD-SL	3,6 (6,5#)	2,3 (4,6#)		
- 6,0	Std HD-SL				

with stick 4,20 m					
Height m	Under- carriage	Radius of load from centerline of machine in m			
		4,5	6,0	7,5	9,0
9,0	Std HD-SL		2,5# (2,5#)		
7,5	Std HD-SL			2,2 (2,3#)	
6,0	Std HD-SL		2,5# (2,5#)	2,2 (2,5#)	1,4 (1,8#)
4,5	Std HD-SL		2,7# (2,7#)	2,1 (2,8#)	1,3 (2,4#)
3,0	Std HD-SL	3,6# (3,6#)	3,0 (3,7#)	1,9 (3,5#)	1,3 (2,5)
1,5	Std HD-SL	4,3 (6,6#)	2,6 (4,9#)	1,7 (3,4)	1,2 (2,4)
0	Std HD-SL	3,7 (7,6)	2,4 (4,7)	1,6 (3,2)	1,1 (2,4)
- 1,5	Std HD-SL	3,4 (7,2)	2,2 (4,5)	1,5 (3,1)	1,0 (2,3)
- 3,0	Std HD-SL	3,3 (7,1)	2,1 (4,4)	1,4 (3,1)	1,0 (2,3)
- 4,5	Std HD-SL	3,4 (7,2)	2,1 (4,4)	1,5 (3,1)	
- 6,0	Std HD-SL	3,6 (5,6#)	2,3 (3,8#)		

The lift capacities are stated in metric tonnes (t) on the backhoe bucket's load hook, and can be lifted 360° on firm, level supporting surface.

Values quoted in brackets are valid for the undercarriage when in longitudinal position.

Capacities are valid for 600 mm wide triple grouser pads.

Indicated loads are based on ISO 10567 standard and do not exceed 75 % of tipping or 87 % of hydraulic capacity (indicated via #).

Maximum load for the backhoe bucket's load hook is 12 t.

Without bucket (0,70 m³), the lift capacities will increase by 610 kg, without bucket cylinder, link and lever they increase by an additional 290 kg.

Lifting capacity of the excavator is limited by machine stability, hydraulic capacity and maximum permissible load of the load hook.

When lifting loads, the hydraulic excavator must be equipped with automatic check valve on its hoist cylinders and overload warning device according to European Standard, EN 474-5.

Lift Capacities with Straight Gooseneck Boom 5,70 m

Digging envelope

- 1 with stick 1,70
- 2 with stick 2,20
- 3 with stick 2,70
- 4 with stick 3,20
- 5 with stick 4,20

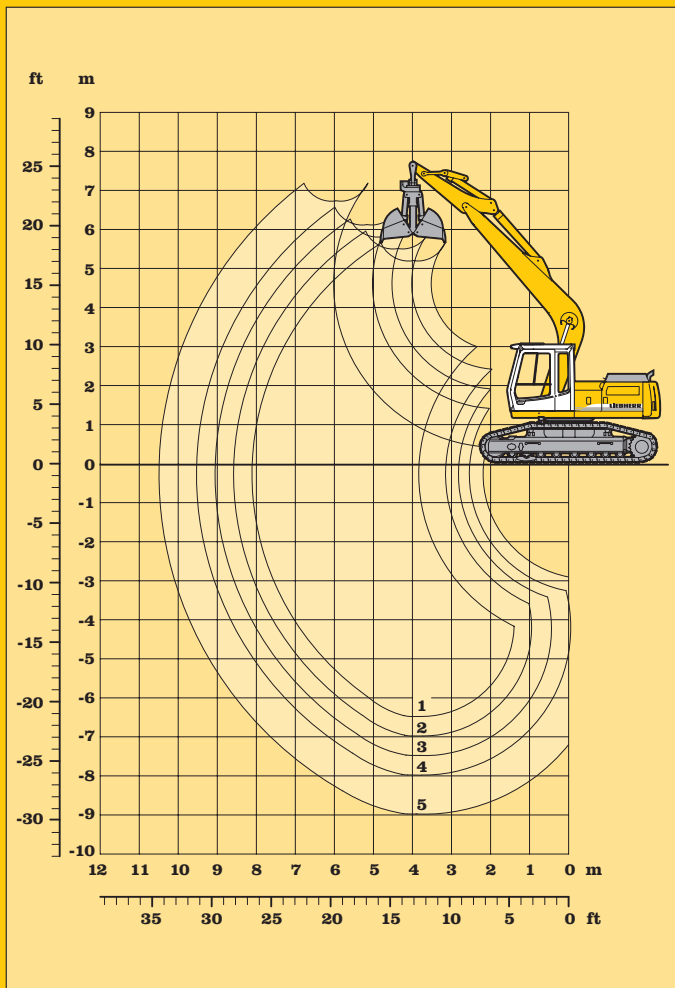
Stick lengths	m	1,70	2,20	2,70	3,20	4,20
Max. digging depth	m	6,50	7,00	7,50	8,00	9,00
Max. reach at ground level	m	8,10	8,60	9,05	9,55	10,50
Max. dump height	m	5,20	5,50	5,80	6,10	6,70

Clamshell model:	10 B
Max. tooth force:	73 kN (7,4 t)
Max. torque of hydr. swivel:	1,76 kNm

Operating Weight and Ground Pressure

Operating weight includes basic machine with 5,40 m gooseneck boom, 2,20 m stick and clamshell model 10 B/0,60 m³.

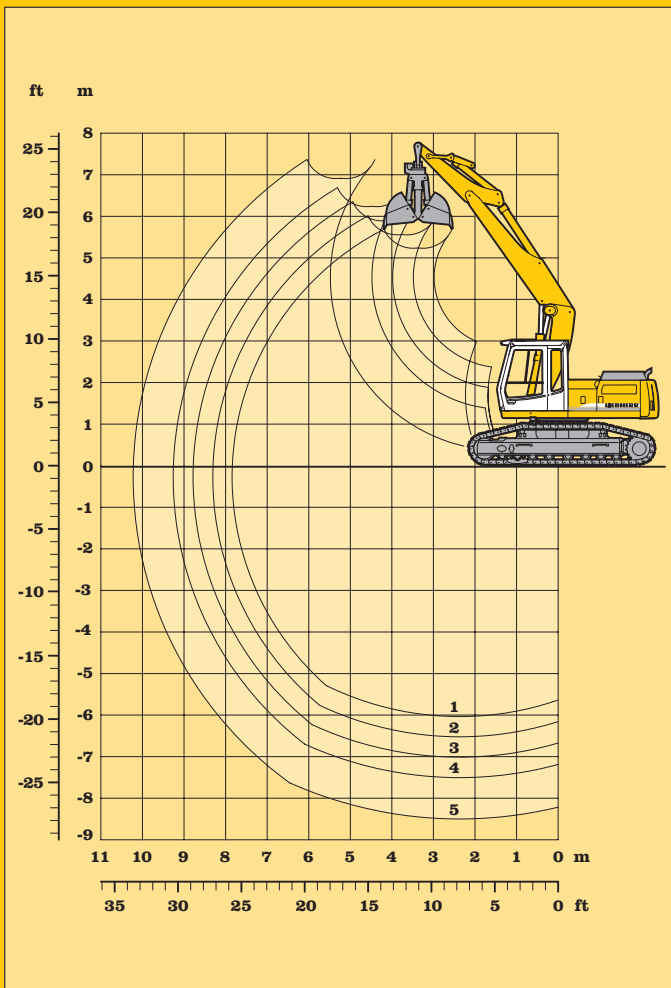
Undercarriage	Std			HD-SL			
	Pad width	mm	500	600	750	500	600
Weight	kg	19600	19900	20400	20050	20400	21400
Ground pressure	kg/cm ²	0,55	0,45	0,37	0,49	0,42	0,35



Clamshell Model 10 B

		without ejector						with ejector			
		320	400	600	800	1000	1000	320	400	600	800
Width of shells	mm	320	400	600	800	1000	1000	320	400	600	800
Capacity	m ³	0,17	0,22	0,35	0,45	0,60	1,00	0,17	0,22	0,35	0,45
Max. possible material weight	t/m ³	1,8	1,8	1,8	1,8	1,8	1,2	1,8	1,8	1,8	1,8
Weight incl. suspension and hydr. rotary drive	kg	740	790	830	890	940	1010	790	840	920	990
Max. stick length for machine stability per ISO 10567:											
Std undercarriage	m	4,20	4,20	4,20	3,20	2,20	-	4,20	4,20	4,20	3,20
HD-SL undercarriage	m	4,20	4,20	4,20	4,20	3,20	1,70	4,20	4,20	4,20	4,20

Clamshell Attachment with Gooseneck Boom 5,40 m



Digging envelope

- 1 with stick 1,70
- 2 with stick 2,20
- 3 with stick 2,70
- 4 with stick 3,20
- 5 with stick 4,20

Stick lengths	m	1,70	2,20	2,70	3,20	4,20
Max. digging depth	m	6,05	6,50	7,00	7,50	8,50
Max. reach at ground level	m	7,85	8,30	8,80	9,25	10,20
Max. dump height	m	5,20	5,60	5,90	6,25	6,90

Clamshell model: 10 B
 Max. tooth force: 73 kN (7,4 t)
 Max. torque of hydr. swivel: 1,76 kNm

Operating Weight and Ground Pressure

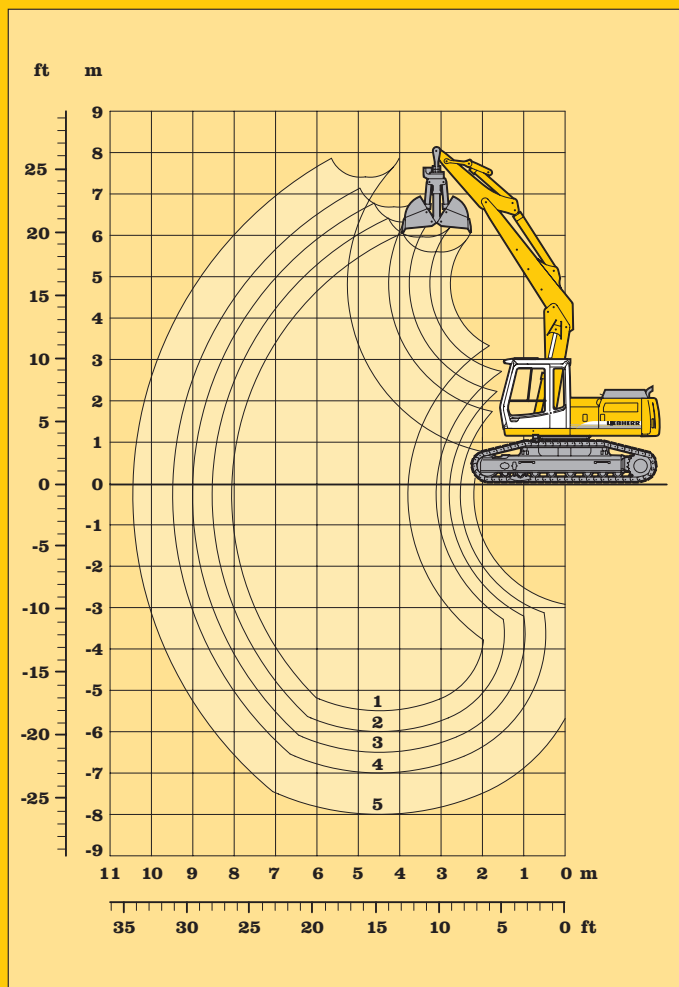
Operating weight includes basic machine with 3,60 m hydraulically adjustable boom, 2,20 m stick and clamshell model 10 B/0,60 m³.

Undercarriage		Std			HD-SL		
		500	600	750	500	600	750
Pad width	mm	500	600	750	500	600	750
Weight	kg	20500	20700	21200	20850	21200	21750
Ground pressure	kg/cm ²	0,56	0,47	0,39	0,51	0,43	0,36

Clamshell Model 10 B

		without ejector						with ejector			
		320	400	600	800	1000	1000	320	400	600	800
Width of shells	mm	320	400	600	800	1000	1000	320	400	600	800
Capacity	m ³	0,17	0,22	0,35	0,45	0,60	1,00	0,17	0,22	0,35	0,45
Max. possible material weight	t/m ³	1,8	1,8	1,8	1,8	1,8	1,2	1,8	1,8	1,8	1,8
Weight incl. suspension and hydr. rotary drive	kg	740	790	830	890	940	1010	790	840	920	990
Max. stick length for machine stability per ISO 10567:											
Std undercarriage	m	4,20	4,20	4,20	3,20	2,20	-	4,20	4,20	4,20	3,20
HD-SL undercarriage	m	4,20	4,20	4,20	4,20	3,20	1,70	4,20	4,20	4,20	4,20

Clamshell Attachment with Hydr. Adjustable Boom 3,70 m



Digging envelope

- 1 with stick 1,70 m, main boom retracted 2 holes
- 2 with stick 1,70 m, main boom retracted 1 hole
- 3 with stick 1,70 m
- 4 with stick 2,20 m
- 5 with stick 2,70 m
- 6 with stick 3,20 m
- 7 with stick 4,20 m

Stick lengths	m	1,70	2,20	2,70	3,20	4,20
Max. digging depth	m	5,50	6,00	6,50	7,00	8,00
Max. reach at ground level	m	8,05	8,55	9,00	9,50	10,45
Max. dump height	m	5,60	6,00	6,30	6,70	7,40

Clamshell model:	10 B
Max. tooth force:	73 kN (7,4 t)
Max. torque of hydr. swivel:	1,76 kNm

Operating Weight and Ground Pressure

Operating weight includes basic machine with 3,60 m mechanically adjustable boom, 2,20 m stick and clamshell model 10 B/0,60 m³.

Undercarriage		Std			HD-SL		
		500	600	750	500	600	750
Pad width	mm	500	600	750	500	600	750
Weight	kg	19750	19950	20500	20150	21500	21050
Ground pressure	kg/cm ²	0,53	0,45	0,37	0,49	0,42	0,35

Clamshell Model 10 B

		without ejector						with ejector			
		320	400	600	800	1000	1000	320	400	600	800
Width of shells	mm	320	400	600	800	1000	1000	320	400	600	800
Capacity	m ³	0,17	0,22	0,35	0,45	0,60	1,00	0,17	0,22	0,35	0,45
Max. possible material weight	t/m ³	1,8	1,8	1,8	1,8	1,8	1,2	1,8	1,8	1,8	1,8
Weight incl. suspension and hydr. rotary drive	kg	740	790	830	890	940	1010	790	840	920	990
Max. stick length for machine stability per ISO 10567:											
Std undercarriage	m	4,20	4,20	4,20	3,20	2,20	-	4,20	4,20	4,20	3,20
HD-SL undercarriage	m	4,20	4,20	4,20	4,20	3,20	1,70	4,20	4,20	4,20	4,20

Clamshell Attachment with Mechanically Adjustable Boom 3,60 m

Standard Equipment

Undercarriage

- Two-stage travel motors
- Lifetime lubricated track rollers
- Protective cover of travel gears
- Idler protection
- Track guide at each track frame
- Tracks sealed and greased

Uppercarriage

- Engine hood with lift help
- Lockable tool box
- Main switch for electric circuit
- Handrails, non slip surfaces
- Tool Kit
- Maintenance-free swing brake lock
- Maintenance-free HD-batteries
- Sound insulation
- Mechanical swing lock upper/lower

Hydraulics

- Electronic pump regulation
- Stepless work mode selector
- Pressure storage for controlled lowering of attachments with engine turned off
- Hydraulic tank shut-off valve
- LSC control system (Liebherr-Synchron-Confort)
- Filter with integrated fine filter area (5 µm)
- Pressure test ports

Engine

- Direct injection
- Turbo charger
- Dry-type air cleaner with pre-cleaner, main and safety element
- Sensor controlled engine idling

Operator's Cab

- Deep drawn cab shell components
- All tinted windows
- Door with sliding, window
- All-round adjustable roof flap
- Rain protective shade for front window
- Cab heater with defroster
- Washer and wiper
- 6-way adjustable cloth suspension seat
- Seat and consoles independently adjustable
- Air conditioner
- Coat hook
- Dome light
- Sun visor
- Inside rear mirrors
- Radio installation prep-kit
- Cigar lighter and ashtray
- Removable custom floor mat
- Storage and Literature tray
- Digital instrumentation
- Digital instruments for oil temp, engine RPM and oil pressure
- Digital hour meter visible from outside

Attachment

- Cylinders with shock absorbers
- Sealed pivots
- Centralized lube points
- SAE split flanges on all high pressure lines
- Bucket link holder for clam application
- Safety hook on bucket
- Hydr. lines, on stick, for clam operation
- Two-way selector valve for bucket/clam
- Ditch cleaning buckets with rear cutting edge
- Work light on boom
- Y sealant between bucket and stick

Optional Equipment

- Track guides at sprocket and in center
- B 60 sprocket with material ejector
- Reinforced bottom plate of center-piece

- Electric fuel tank filler pump
- Foot pedal swing positioning brake
- Extended tool kit
- Customized colors

- Additional hydraulic circuits
- Bio-degradable hydr. oil
- Filter for secondary circuit

- Engine cold starting aid

- Removable lower section of front window with storage
- AM/FM stereo radio with cassette
- Air power seat adjustment with head rest and heating
- Warning beacon
- Electronic anti theft device
- Additional flood lights
- Ventilator
- Armored front windshield (not removable)

- Safety check valves for hoist cylinder
- Overload warning device
- Hydr. or mechanical quick change coupler
- Liebherr line of clams and grapples
- Quick disconnect hose couplers
- Special application buckets
- Customized colors

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

Standard and Optional Equipment

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With compliments: