

Technical Description Hydraulic Excavator

R 900 B
Litronic®

Operating weight 17,9 – 19,7 t
Engine output 86 kW (117 HP)
Bucket capacity 0,25 – 0,85 m³



LIEBHERR

The Better Machine.



Engine

Rating per ISO 9249	86 kW (117 HP) at 2000 R.P.M.
Model	Deutz BF4M1013E
Type	4 cylinder in-line
Bore/stroke	108/130 mm
Displacement	4,8 l
Engine operation	4-stroke diesel direct injection turbo-charged reduced emissions
Cooling system	water radiator with integrated engine oil cooler
Air cleaner	dry-type air cleaner with pre-cleaner, primary and safety elements
Fuel tank	240 l
Engine idling	sensor controlled
Electrical system	
Voltage	24 V
Batteries	2 x 92 Ah/12 V
Alternator	24 V/55 A



Hydraulic System

Hydraulic pump	Liebherr, variable displacement, swashplate pump
Max. flow	260 l/min
Max. hydr. 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 capacity	180 l
Hydraulic system capacity	max. 345 l
Filtration	one main return filter with integrated partial micro filtration (5 µm)
Cooling	combined with engine radiator; thermostatically controlled
Modes	four fixed modes, can also be adjusted by the operator to adjust engine and hydraulic performance to match job conditions (Note: All modes provide full max. power)
LIFT	for precise lifting tasks
FINE	for precision work at high speed i.e. grading
ECO	for most economic performance at best environmental conditions
POWER	for max. output
Super-Finish	additional operator adjustable work speed function for further increased feathering. Applies to all modes and all control functions
R.P.M. adjustment	stepless adjustment of engine output via the r.p.m. at each selected mode
Add on circuits	four preadjustable pump flows for add on tools



Hydraulic Controls

Power distribution	via control valve with integrated safety valves, simultaneous and independent operation of travel drive, swing drive and work attachment
Control type	
Attachment and swing	proportional via joystick levers
Travel	proportional via foot pedal
Additional functions	via switch and/or proportional foot pedals



Swing Drive

Drive	Liebherr swashplate 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 speed	0 - 9,0 R.P.M.
Swing torque	39 kNm
Holding brake	wet discs (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	fully adjustable, shockabsorbing suspension, adjustable to operator's weight and size, 6-way adjustable seat
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 data, for example, engine overheating, low engine oil pressure or low hydraulic oil level
Heater/airconditioner	combined hotwater/airconditioner with dust filter for fresh or circulated airflow
Noise emission	L_{pA} (inside cab) = 75 dB(A) (86/662/EEC) L_{wA} (surround noise) = 99 dB(A)



Undercarriage

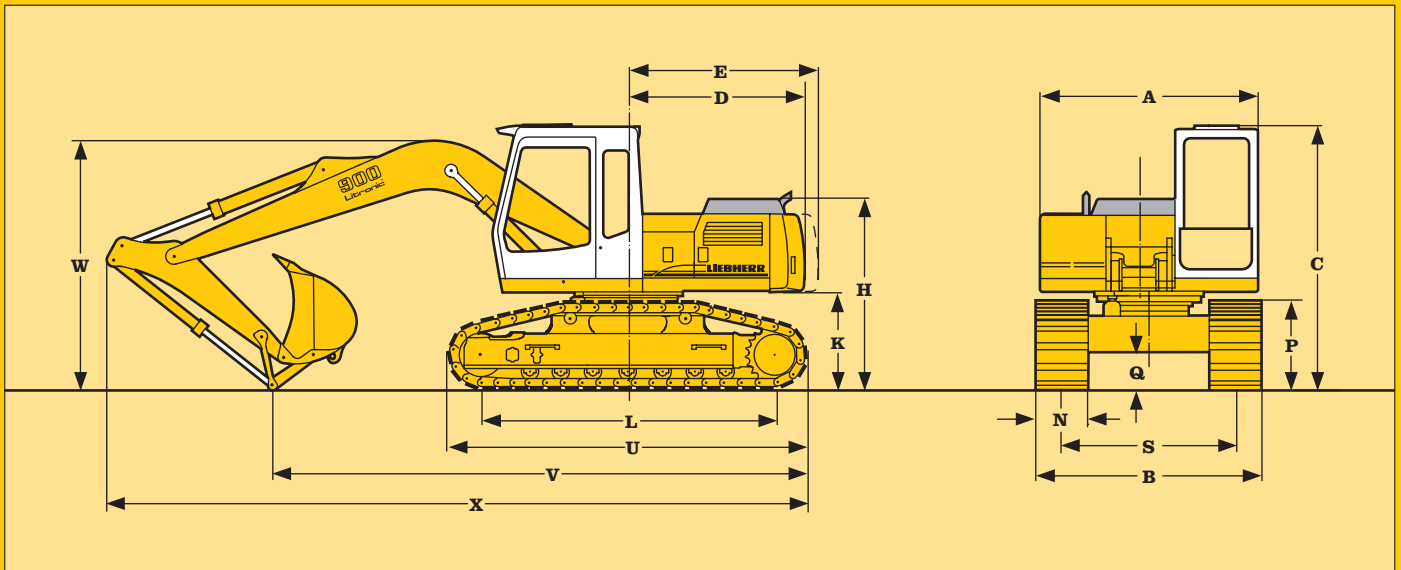
Drive	axial piston motor with automatic brake valves
Transmission	Liebherr planetary reduction gears
Travel speed	low range - 2,4 km/h high range - 5,0 km/h
Drawbar pull, max.	177 kN
Track components	B 60 L, maintenance-free
Track rollers/ carrier rollers	7/2
Track pads	triple grouser
Chain tensioning	hydraulically
Brakes	wet multi discs (spring applied, pressure released)



Attachment

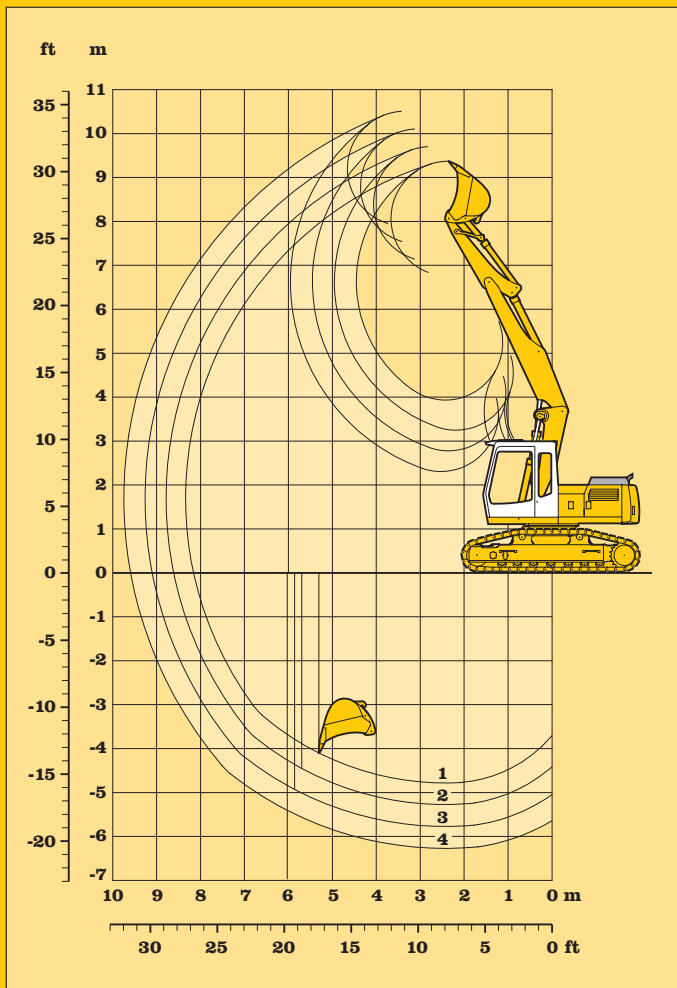
Type	combination of resistant steel plates and cast steel components
Hydraulic cylinders	Liebherr cylinders with special seal system. Shock absorption
Pivots	sealed, low maintenance
Lubrication	centralized in easily accessible locations
Hydraulic connections	pipes and hoses equipped with SAE split-flange connections
Bucket	standard equipped with 8 t safety hook for lifting

Technical Data



	mm		Stick length	with hydr. adjustable boom	with gooseneck boom
A	2500				
C	3060				
D	2035				
E	2190				
H	2225	V	1,70	6500	6100
K	1155		2,20	5650	5250
L	3370		2,70	5350	4900
P	1040		3,20	5150	4650
Q	470				
S	2000	W	1,70	2950	3000
U	4170		2,20	2900	2900
N	500 600 750		2,70	3050	3050
B	2500 2600 2750		3,20	3250	3250
E = tail radius		X	1,70	8400	8150
			2,20	8250	8000
			2,70	8250	8050
			3,20	8200	8000

Dimensions



Digging envelope

- 1 stick 1,70 m
- 2 stick 2,20 m
- 3 stick 2,70 m
- 4 stick 3,20 m

Stick length	m	1,70	2,20	2,70	3,20
Max. digging depth	m	4,60	5,10	5,60	6,10
Max. reach at ground level	m	8,10	8,50	9,00	9,50
Max. dumping height	m	7,00	7,30	7,70	8,10
Max. teeth height	m	9,40	9,70	10,10	10,50
Max. digging force	kN	100,6	79,6	68,8	60,6
	t	10,3	8,1	7,0	6,2
Max. breakout force	kN	89,5	89,5	89,5	89,5
	t	9,1	9,1	9,1	9,1

Max. breakout force with ripper bucket: 105 kN (10,7 t)

Operating weight and Ground Pressure

Operating weight includes basic machine with triple grouser pads, hydr. adjustable boom, 2,20 m stick and the 850 mm/0,50 m³ bucket.

Undercarriage versions	kg	kg/cm ²
with 500 mm triple grouser pads	18400	0,50
with 600 mm triple grouser pads	18700	0,42
with 750 mm triple grouser pads	19200	0,35

Buckets

Cutting width SAE	mm	390 ¹⁾	550	550 ²⁾	650	850	1050	1250
Capacity SAE (heaped)	m ³	0,25	0,28	0,30	0,35	0,50	0,65	0,85
Max. material weight	t/m ³	1,8	1,8	1,8	1,8	1,8	1,8	1,8
Weights								
Standard bucket with Liebherr teeth Z 10 C	kg	-	310	-	330	400	470	520
Ripper bucket with Liebherr-teeth Z 13 P	kg	-	-	560	-	-	-	-
Bucket with ejector and Bofors-teeth	kg	360	-	-	-	-	-	-
For machine stability per ISO 10567 the max. stick length is:								
with 600 mm triple grouser pads	m	3,20	3,20	3,20	3,20	3,20	2,70	2,20

¹⁾ Bucket with ejector

²⁾ Ripper bucket

Backhoe Attachment with Hydr. Adjustable Boom

with stick 1,70 m					
Height m	Under- carriage	Radius of load from centerline of machine in m			
		3,0	4,5	6,0	7,5
7,5	Standard				
6,0	Standard		5,3# (5,3#)		
4,5	Standard	8,2# (8,2#)	5,3 (5,8#)	3,4 (4,8#)	
3,0	Standard	8,6# (8,6#)	5,1 (6,7#)	3,3 (5,0#)	
1,5	Standard	9,0 (9,6#)	5,1 (7,3#)	3,2 (5,2#)	
0	Standard	9,3 (11,6#)	5,0 (7,3#)	3,1 (5,3#)	
- 1,5	Standard	9,0 (12,2#)	4,7 (7,6#)	2,9 (4,9#)	
- 3,0	Standard				
- 4,5	Standard				

with stick 2,20 m					
Height m	Under- carriage	Radius of load from centerline of machine in m			
		3,0	4,5	6,0	7,5
7,5	Standard				
6,0	Standard		4,5# (4,5#)	3,2# (3,2#)	
4,5	Standard	5,6# (5,6#)	5,3 (5,4#)	3,4 (4,5#)	
3,0	Standard	9,2 (10,1#)	5,1 (6,3#)	3,4 (4,8#)	2,2 (2,8#)
1,5	Standard	9,0 (9,6#)	5,0 (7,1#)	3,3 (5,1#)	2,2 (3,7#)
0	Standard	9,2 (11,1#)	5,1 (7,2#)	3,1 (5,2#)	2,1 (3,1#)
- 1,5	Standard	9,0 (12,0#)	4,8 (7,4#)	2,9 (5,2#)	
- 3,0	Standard	8,8 (12,3#)	4,5 (6,8#)	2,9 (3,2#)	
- 4,5	Standard				

with stick 2,70 m					
Height m	Under- carriage	Radius of load from centerline of machine in m			
		3,0	4,5	6,0	7,5
7,5	Standard				
6,0	Standard		3,6# (3,6#)	3,2# (3,2#)	
4,5	Standard		4,2# (4,2#)	3,4 (4,0#)	2,2 (2,2#)
3,0	Standard	8,9# (8,9#)	5,1 (5,8#)	3,4 (4,5#)	2,2 (3,4#)
1,5	Standard	9,0 (10,1#)	5,0 (6,8#)	3,3 (4,9#)	2,1 (3,8)
0	Standard	9,0 (11,0#)	5,0 (7,1#)	3,2 (5,1#)	2,1 (3,7)
- 1,5	Standard	9,0 (11,7#)	4,8 (7,2#)	3,0 (5,2#)	2,0 (2,8#)
- 3,0	Standard	8,8 (12,3#)	4,6 (7,4#)	2,8 (4,4#)	
- 4,5	Standard				

with stick 3,20 m					
Height m	Under- carriage	Radius of load from centerline of machine in m			
		3,0	4,5	6,0	7,5
7,5	Standard				
6,0	Standard			2,8# (2,8#)	1,4# (1,4#)
4,5	Standard		3,2# (3,2#)	3,3# (3,3#)	2,3 (2,6#)
3,0	Standard	6,2# (6,2#)	5,1# (5,1#)	3,3 (4,3#)	2,3 (3,3#)
1,5	Standard	9,0# (10,0#)	5,0 (6,5#)	3,3 (4,7#)	2,2 (3,8)
0	Standard	8,9 (10,2#)	4,9# (7,0#)	3,3 (5,0#)	2,1 (3,7)
- 1,5	Standard	9,1 (11,5#)	4,9 (7,1#)	3,0 (5,0#)	2,0 (3,6)
- 3,0	Standard	8,8 (11,9#)	4,6 (7,4#)	2,8 (4,9#)	
- 4,5	Standard				

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 with adjusting cylinder(s) in optimal position.

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

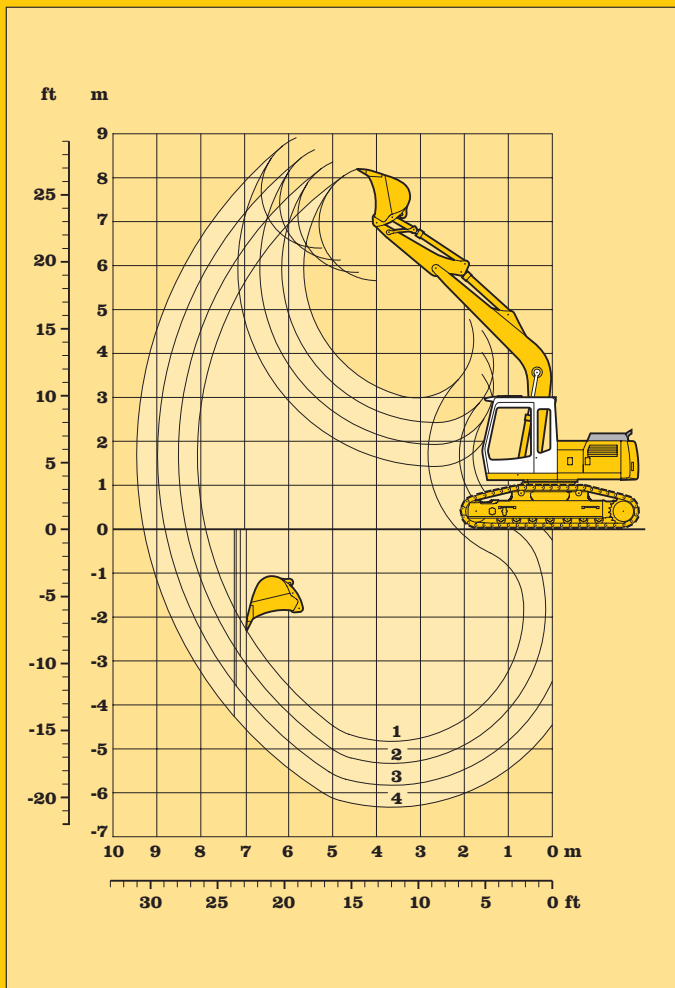
Maximum load for the backhoe bucket's load hook is 8 t.

Without bucket (0,5 m³), the lift capacities will increase by 400 kg, without bucket cylinder, link and lever they increase by an additional 220 kg.

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

According to European Standard, EN 474-5: In the European Union excavators have to be equipped with an overload warning device and automatic check valves on the hoist cylinders, when they are used for lifting operations which require the use of lifting accessories.

Lift Capacities with Hydr. Adjustable Boom



Digging envelope

- 1 stick 1,70 m
- 2 stick 2,20 m
- 3 stick 2,70 m
- 4 stick 3,20 m

Stick length	m	1,70	2,20	2,70	3,20
Max. digging depth	m	4,70	5,20	5,70	6,20
Max. reach at ground level	m	7,80	8,20	8,70	9,20
Max. dumping height	m	5,90	6,10	6,40	6,70
Max. teeth height	m	8,30	8,50	8,80	9,10
Max. digging force	kN	100,6	79,6	68,8	60,6
	t	10,3	8,1	7,0	6,2
Max. breakout force	kN	89,5	89,5	89,5	89,5
	t	9,1	9,1	9,1	9,1

Max. breakout force with ripper bucket: 105 kN (10,7 t)

Operating weight and Ground Pressure

Operating weight includes basic machine with triple grouser pads, gooseneck boom 4,80 m, 2,20 m stick and 850 mm/0,50 m³ bucket.

Undercarriage versions	kg	kg/cm ²
with 500 mm triple grouser pads	18000	0,49
with 600 mm triple grouser pads	18300	0,42
with 750 mm triple grouser pads	19750	0,34

Buckets

Cutting width SAE	mm	390 ¹⁾	550	550 ²⁾	650	850	1050	1250
Capacity SAE (heaped)	m ³	0,25	0,28	0,30	0,35	0,50	0,65	0,85
Max. material weight	t/m ³	1,8	1,8	1,8	1,8	1,8	1,8	1,8
Weights								
Standard bucket with Liebherr teeth Z 10 C	kg	-	310	-	330	400	470	520
Ripper bucket with Liebherr-teeth Z 13 P	kg	-	-	560	-	-	-	-
Bucket with ejector and Bofors-teeth	kg	360	-	-	-	-	-	-
For machine stability per ISO 10567 the max. stick length is:								
with 600 mm triple grouser pads	m	3,20	3,20	3,20	3,20	3,20	2,70	2,20

¹⁾ Bucket with ejector

²⁾ Ripper bucket

Backhoe Attachment with Gooseneck Boom 4,80 m

with stick 1,70 m					
Height m	Under- carriage	Radius of load from centerline of machine in m			
		3,0	4,5	6,0	7,5
7,5	Standard				
6,0	Standard				
4,5	Standard		4,4# (4,4#)	3,2 (4,0#)	
3,0	Standard		4,8 (5,6#)	3,1 (4,4#)	
1,5	Standard		4,5 (6,7#)	3,0 (4,9#)	
0	Standard		4,3 (7,2#)	2,9 (5,2)	
- 1,5	Standard	8,0 (10,4#)	4,3 (7,0#)	2,9 (5,0#)	
- 3,0	Standard	8,3 (8,5#)	4,4 (5,9#)		
- 4,5	Standard				

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

with stick 2,70 m					
Height m	Under- carriage	Radius of load from centerline of machine in m			
		3,0	4,5	6,0	7,5
7,5	Standard				
6,0	Standard				
4,5	Standard			3,2# (3,2#)	
3,0	Standard		4,4# (4,4#)	3,1 (3,7#)	2,2 (2,5#)
1,5	Standard	8,3 (9,2#)	4,5 (5,8#)	3,0 (4,4#)	2,1 (3,3#)
0	Standard	6,8# (6,8#)	4,3 (6,8#)	2,8 (4,9#)	2,0 (3,1#)
- 1,5	Standard	7,8 (8,8#)	4,1 (7,1#)	2,7 (5,0)	
- 3,0	Standard	7,9 (10,1#)	4,2 (6,6#)	2,8 (4,6#)	
- 4,5	Standard	7,5# (7,5#)	4,4 (4,8#)		

with stick 3,20 m					
Height m	Under- carriage	Radius of load from centerline of machine in m			
		3,0	4,5	6,0	7,5
7,5	Standard				
6,0	Standard				
4,5	Standard			2,8# (2,8#)	2,0# (2,0#)
3,0	Standard			3,2 (3,3#)	2,2 (2,8#)
1,5	Standard	8,6 (8,7#)	4,6 (5,3#)	3,0 (4,0#)	2,1 (3,4#)
0	Standard	7,4# (7,4#)	4,3 (6,5#)	2,8 (4,7#)	2,0 (3,6)
- 1,5	Standard	7,7 (8,2#)	4,1 (7,0#)	2,7 (5,0#)	2,0 (3,0#)
- 3,0	Standard	7,8 (10,7#)	4,1 (6,8#)	2,7 (4,8#)	
- 4,5	Standard	8,0 (8,6#)	4,3 (5,6#)		

The load values are quoted in tons (t) on the backhoe bucket's load hook, and may be swung 360° on firm and even ground. Values quoted in brackets apply to 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 8 t.

Without bucket (0,5 m³), the lift capacities will increase by 400 kg, without bucket cylinder, link and lever they increase by an additional 220 kg.

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

According to European Standard, EN 474-5: In the European Union excavators have to be equipped with an overload warning device and automatic check valves on the hoist cylinders, when they are used for lifting operations which require the use of lifting accessories.

Lift Capacities with Gooseneck Boom 4,80 m

Digging envelope

- 1 stick 1,70 m
- 2 stick 2,20 m
- 3 stick 2,70 m
- 4 stick 3,20 m

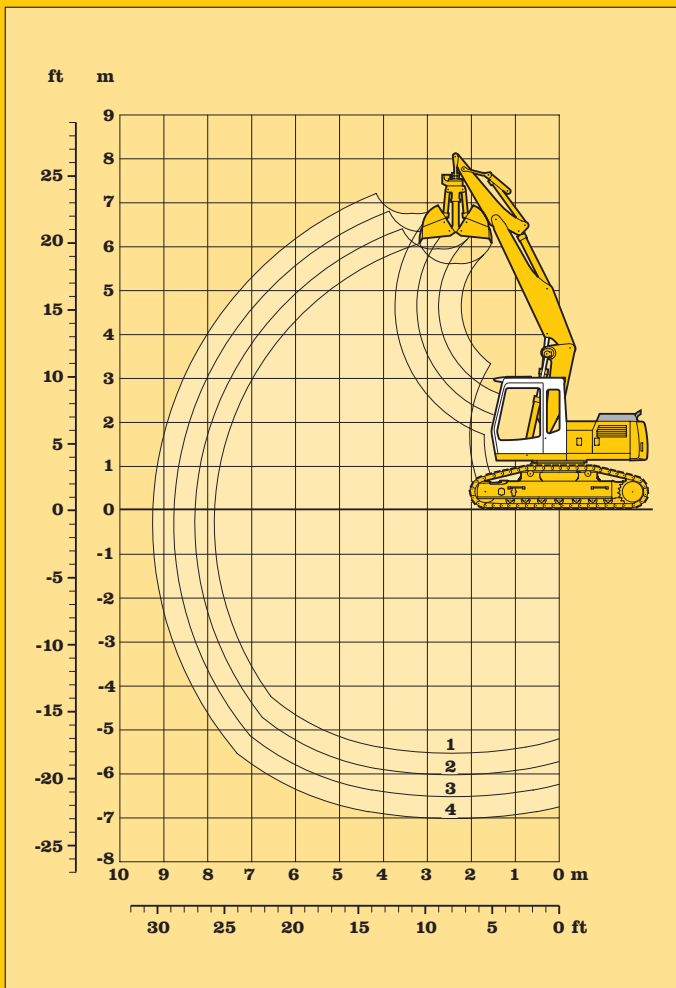
Stick length	m	1,70	2,20	2,70	3,20
Max. digging depth	m	5,50	6,00	6,50	7,00
Max. reach at ground level	m	7,85	8,30	8,75	9,25
Max. dumping height	m	5,60	5,95	6,35	6,75

Clamshell model:	8 B	10 B
Max. tooth force:	52 kN (5,3 t)	73 kN (7,4 t)
Max. torque of hydr. swivel:	1,40 kNm	1,76 kNm

Operating weight and Ground Pressure

Operating weight includes basic machine with triple grouser pads, hydr. adjustable boom, 2,20 m stick and the clamshell model 10 B/0,45 m³.

Undercarriage versions	kg	kg/cm ²
with 500 mm triple grouser pads	18900	0,52
with 600 mm triple grouser pads	18200	0,44
with 750 mm triple grouser pads	19650	0,36



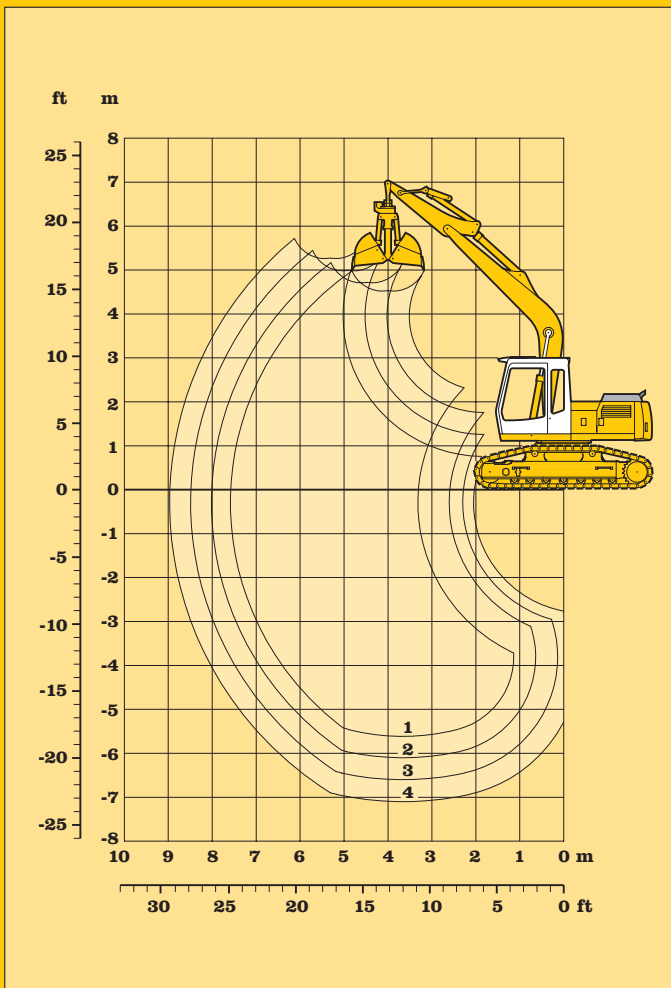
Clamshell model 8 B

		without ejector					with ejector			
		320	400	600	800	1000	320	400	600	800
Width of shells	mm	320	400	600	800	1000	320	400	600	800
Capacity	m ³	0,17	0,22	0,30	0,40	0,80	0,17	0,22	0,30	0,40
Max. material weight	t/m ³	1,8	1,8	1,8	1,8	1,2	1,8	1,8	1,8	1,8
Weight incl. suspension and hydr. swivel	kg	710	750	750	800	900	760	810	830	890
For machine stability per ISO 10567 the max. stick length is:										
with 600 mm triple grouser pads	m	3,20	3,20	3,20	3,20	2,70	3,20	3,20	3,20	3,20

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. 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. swivel	kg	770	820	860	910	970	1040	820	880	950	1010
For machine stability per ISO 10567 the max. stick length is:											
with 600 mm triple grouser pads	m	3,20	3,20	3,20	2,70	2,70	2,20	3,20	3,20	3,20	2,70

Clamshell Attachment with Hydr. Adjustable Boom



Digging envelope

- 1 stick 1,70 m
- 2 stick 2,20 m
- 3 stick 2,70 m
- 4 stick 3,20 m

Stick length	m	1,70	2,20	2,70	3,20
Max. digging depth	m	5,50	6,00	6,50	7,00
Max. reach at ground level	m	7,85	8,30	8,75	9,25
Max. dumping height	m	5,60	5,95	6,35	6,75

Clamshell model:	8 B	10 B
Max. tooth force:	52 kN (5,3 t)	73 kN (7,4 t)
Max. torque of hydr. swivel:	1,40 kNm	1,76 kNm

Operating weight and Ground Pressure

Operating weight includes basic machine with triple grouser pads, gooseneck boom 4,80 m, 2,20 m stick and the clamshell model 10 B/0,45 m³.

Undercarriage versions	kg	kg/cm ²
with 500 mm triple grouser pads	18450	0,50
with 600 mm triple grouser pads	18750	0,43
with 750 mm triple grouser pads	19200	0,35

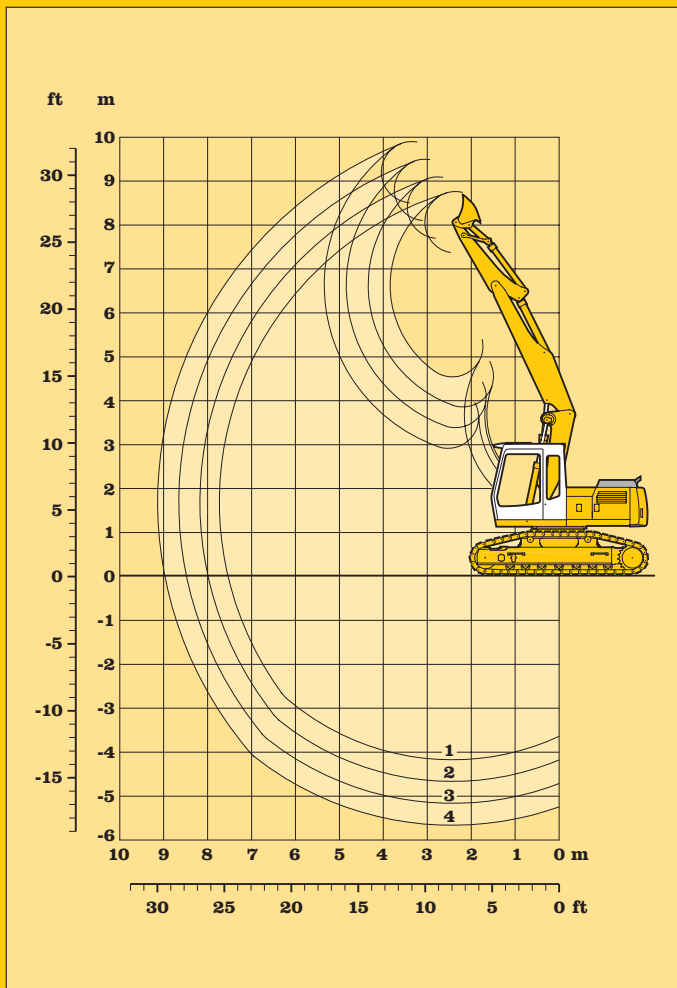
Clamshell model 8 B

		without ejector					with ejector			
		320	400	600	800	1000	320	400	600	800
Cutting width SAE	mm	320	400	600	800	1000	320	400	600	800
Capacity	m ³	0,17	0,22	0,30	0,40	0,80	0,17	0,22	0,30	0,40
Max. material weight	t/m ³	1,8	1,8	1,8	1,8	1,2	1,8	1,8	1,8	1,8
Weight incl. suspension and hydr. swivel	kg	710	750	750	800	900	760	810	830	890
For machine stability per ISO 10567 the max. stick length is:										
with 600 mm triple grouser pads	m	3,20	3,20	3,20	3,20	2,70	3,20	3,20	3,20	2,70

Clamshell model 10 B

		without ejector						with ejector			
		320	400	600	800	1000	1000	320	400	600	800
Cutting width SAE	mm	320	400	600	800	1000	1000	320	400	600	800
Capacity SAE (heaped)	m ³	0,17	0,22	0,35	0,45	0,60	1,00	0,17	0,22	0,35	0,45
Max. 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. swivel	kg	770	820	860	910	970	1040	820	880	950	1010
For machine stability per ISO 10567 the max. stick length is:											
with 600 mm triple grouser pads	m	3,20	3,20	3,20	2,70	2,20	2,20	3,20	3,20	2,70	2,70

Clamshell Attachment with Gooseneck Boom 4,80 m



Digging envelope

- 1 stick 1,70 m
- 2 stick 2,20 m
- 3 stick 2,70 m
- 4 stick 3,20 m

Stick length	m	1,70	2,20	2,70	3,20
Max. digging depth	m	4,15	4,65	5,15	5,65
Max. reach at ground level	m	7,55	8,00	8,50	9,00
Max. dumping height	m	7,35	7,00	8,10	8,50
Max. teeth height	m	8,75	9,10	9,50	9,90

Operating weight and Ground Pressure

Operating weight includes basic machine with triple grouser pads, hydr. adjustable boom, 2,20 m stick and 2000 mm/0,50 m³ ditchcleaning bucket.

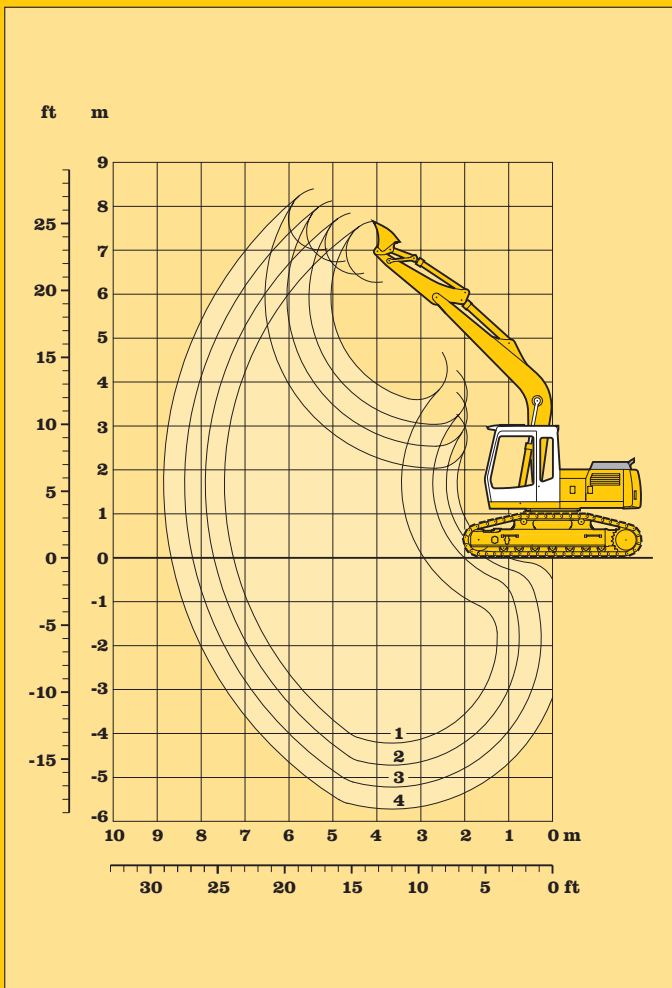
Undercarriage versions	kg	kg/cm ²
with 500 mm triple grouser pads	18350	0,50
with 600 mm triple grouser pads	18650	0,42
with 750 mm triple grouser pads	19100	0,35

Ditchcleaning buckets

Cutting width SAE	mm	1700	2000 ¹⁾	2000	2000 (with 2 x 45° rotator)
Capacity SAE (heaped)	m ³	0,30	0,50	0,65	0,50
Max. material weight	t/m ³	1,8	1,8	1,8	1,8
Weight of bucket	kg	280	330	360	570
For machine stability per ISO 10567 the max. stick length is:					
with 600 mm triple grouser pads	m	3,20	3,20	3,20	3,20

¹⁾ Bucket for narrow bottomed ditches

Ditchcleaning Attachment with Hydr. Adjustable Boom



Digging envelope

- 1 stick 1,70 m
- 2 stick 2,20 m
- 3 stick 2,70 m
- 4 stick 3,20 m

Stick length	m	1,70	2,20	2,70	3,20
Max. digging depth	m	4,20	4,70	5,20	5,70
Max. reach at ground level	m	7,30	7,70	8,20	8,70
Max. dumping height	m	6,25	6,45	6,75	7,00
Max. teeth height	m	7,65	7,85	8,10	8,40

Operating weight and Ground Pressure

Operating weight includes basic machine with triple grouser pads, gooseneck boom 4,80 m, 2,20 m stick and the 2000 mm/0,50 m³ ditchcleaning bucket.

Undercarriage versions	kg	kg/cm ²
with 500 mm triple grouser pads	17900	0,49
with 600 mm triple grouser pads	18200	0,41
with 750 mm triple grouser pads	18650	0,34

Ditchcleaning buckets

Cutting width SAE	mm	1700	2000 ¹⁾	2000	2000 (with 2 x 45° rotator)
Capacity SAE (heaped)	m ³	0,30	0,50	0,65	0,50
Max. material weight	t/m ³	1,8	1,8	1,8	1,8
Weight of bucket	kg	280	330	360	570
For machine stability per ISO 10567 the max. stick length is:					
with 600 mm triple grouser pads	m	3,20	3,20	3,20	3,20

¹⁾ Bucket for narrow bottomed ditches

Ditchcleaning Attachment with Gooseneck Boom 4,80 m

Standard Equipment

Undercarriage

- Two-speed travel
- Track guides on idler end
- Lifetime lubricated track rollers
- Two-speed travel drive completely integrated into the undercarriage frame

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
- Pin lock upper/lower

Hydraulics

- Electronic pump regulation at all R.P.M.
- Four fixed modes, can also be adjusted
- Pressure storage for controlled lowering of attachments with engine turned off
- Hydraulic tank shut-off valve
- Pressure compensation
- Flow compensation
- Filter with partial micro filtration (5 µm)
- Hook ups for pressure checks

Engine

- Direct injection
- Turbo charger
- Air filter 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
- Rain hood over front window opening
- Cab heater with defroster
- Wiper/washer
- 6-way adjustable seat
- Seat and consoles independently adjustable
- Cloth hook
- Dome light
- Sun shade
- Inside rear mirror
- Cigarette lighter and ashtray
- Removable customized foot mat
- Storage compartment
- Warning lights
- Digital instruments for oil temp, engine R.P.M. and oil pressure
- Additional mechanical hour meter, readable from outside the cab

Attachment

- Cylinders with shock absorber
- Sealed pivots
- Centralized lube points
- SAE-dbl flange connection for all hi-pressure lines
- Locking of connecting link during clam work
- Safety lift hook on hoe buckets
- Hydr. lines for clam operation on stick
- Hose quick connections
- Two way valves for bucket/clam use
- Flood lights on boom and cab

Optional Equipment

- Track guides at sprocket and in center
- Customized colors

- Electric fuel tank filler pump
- Pedal controlled positioning swing brake
- Extended tool kit
- Customized colors

- Additional hydraulic circuits
- Bio degradable hydraulic oil
- Full flow micro filtration

- Cold start aid

- Air condition
- Removable lower section of front window with storage
- Stereo radio
- Preparation for radio installation
- Airpressure adjustable seat with heating and headrest
- Beacon
- Electronic drive away lock
- Additional flood lights
- Fan
- Bullet proof front window (fixed installation - can not be opened)

- Safety check valves for all attachment cylinders
- Overload warning device
- Hydraulic or manual quick change tool adaptor
- Liebherr line of clams and grapples
- Spezial buckets and other tools
- 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.