

Technical Description Hydraulic Excavator

R 308

Operating weight 9,7 – 11,1 t
Engine output 53 kW (72 HP)
Bucket capacity 0,10 – 0,35 m³



Hydraulic “Compact” Excavators are put to work in the most confined places, and at the same time are to provide highest productivity. This requires small dimensions and modern technology. The Liebherr R 308 excavator has both, and more!

Powerful – turbo-charged, liquid cooled 4 cylinder Diesel engine, with direct injection and low operating RPM.

Productive – variable flow double pump with summated horsepower control, flow summation and pressure compensation.

Strong traveller – independent travel drive in each side-frame; mounted within the frame for complete protection.

Compact – short tail overhang with a tail swing of only 1,45 m.

Comfortable – large well equipped and sound insulated cab. Seat and joystick consoles independently adjustable to individual operator’s size and weight.

Environmentally sound – low noise and exhaust emission. Optional: Bio degradable oil.

Easy service – all major components are easily accessible. All pivots in the attachment are maintenance-free.

Versatile – hydraulically adjustable and off-set booms, gooseneck booms, assortment of sticks, quick change tool adapters and an extensive variety of buckets and clamshells provide application versatility. Auxiliary hydraulics further allow special tools like hammers, augers etc.

Economical – the combination of all the above, results in top performance at low operating costs.

LIEBHERR

The Better Machine.



Engine

Deutz-Diesel engine	
Rating per ISO 9249	53 kW (72 HP) at 2300 RPM
Model	BF 4 M 1011 F
Typ	4 cylinder-in-line, oil cooled, direct injection, turbo-charged
Air cleaner	dry-type air cleaner with pre-cleaner, primary and safety element
Fuel tank	160 l
Electrical system	
Voltage	24 V
Batteries	2 x 92 Ah/12 V
Alternator	24 V/40 A
Option	sensor controlled engine idling



Swing Drive

Drive	swash plate motor with integrated brake valves
Transmission	planetary reduction gear
Swing ring	Liebherr sealed single race ball bearing swing ring, internal teeth
Swing speed	0 - 9 RPM
Swing torque	28,0 kNm
Positioning and holding brake	spring operated, pressure released multi-disc brake, maintenance-free



Hydraulic System

Hydraulic pump	Liebherr variable displacement, swash plate, in line double pump
Max. flow	2 x 103 l/min
Max. hydr. pressure	320 bar
Pump regulation	Summated horsepower regulation, pressure compensation
Hydraulic tank	120 l
Hydraulic system	160 l
Hydraulic oil filter	1 full flow filter in return line
ECO control	adjustment of machine performance to match application
	- "High" mode setting for highest performance in severe applications
	- "Econo" mode setting for general digging and loading
	- "fine control" mode setting for precision work and lifting



Operator Cab

Cab	resiliently mounted, sound insulated, with large windows for excellent 360 degree view, front window stores overhead
Operator's seat	fully adjustable, shockabsorbing suspension, adjustable to operator's weight
Joysticks	integrated into adjustable seat consols
Monitoring	Instrument and control panel within easy range of operator
Heating system	hot oil heat exchanger, to provide heated fresh air, circulated air or fresh cool air
Noise emission	L_{pA} (inside cab) = 73 dB(A) (86/662/EWG) L_{wA} (surround noise) = 98 dB(A)



Undercarriage

Drive	variable flow swashplate motor with automatic brake valves
Transmission	planetary reduction gear
Travel speed	0 - 3,4 km/h
Drawbar pull	max. 101 kN
Tractor component size	D 2, maintenance-free
Bottom/top rollers	6/1
Track pads	triple grouser
Chain tensioning	hydraulically
Digging and parking brakes	wet discs, spring applied - servo pressure released
Undercarriage version	stabilizer blade on idler side



Hydraulic Controls

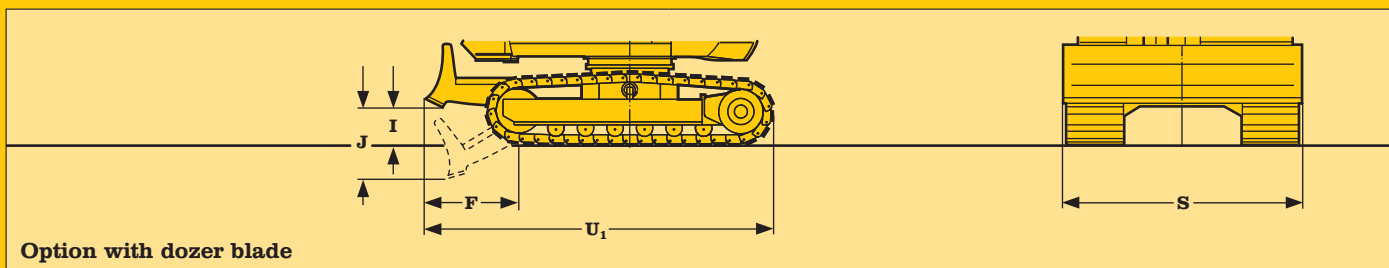
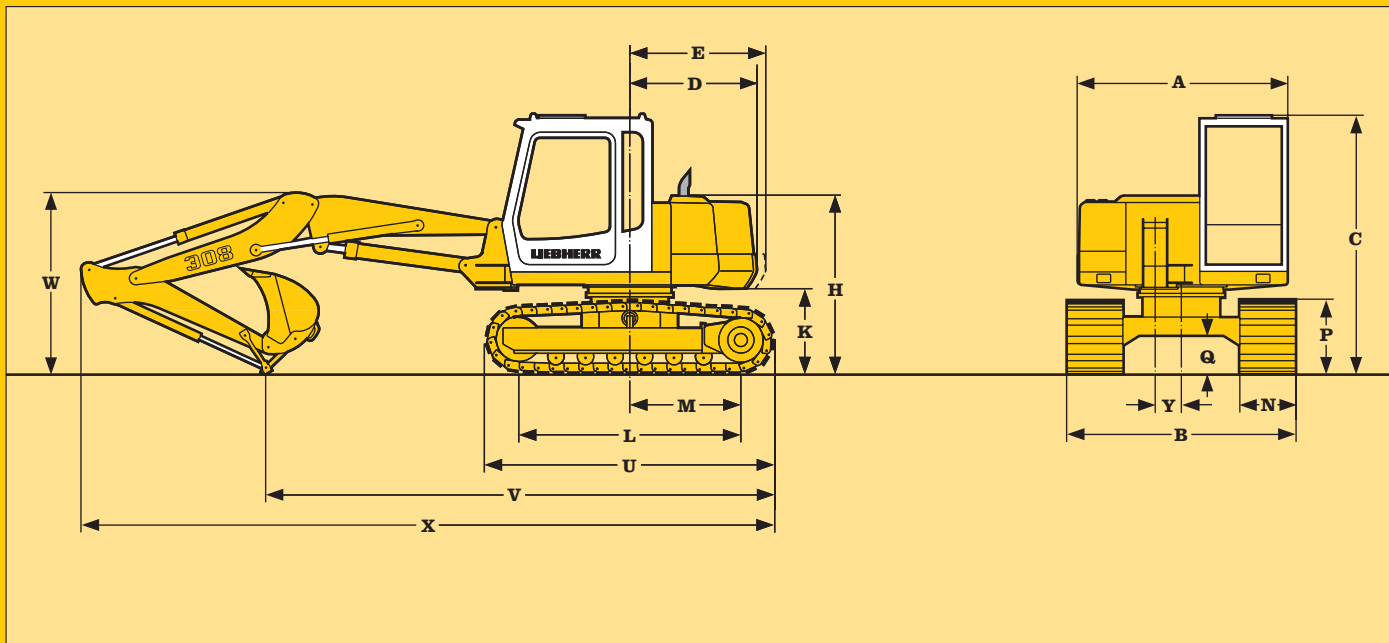
Power distribution	via single housing valve block with directly attached secondary valves
Flow summation	to boom and stick
Priority supply	to swing drive
Control type	
Attachment and swing	proportional via joystick levers
Travel	proportional via foot pedal
Additional functions	via switch and/or proportional foot pedals



Attachment

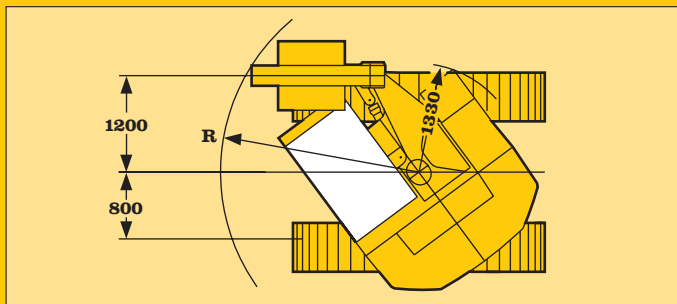
Hydraulic cylinders	Liebherr cylinders with special seal system. Shock absorption
Offset attachment	left or right of center line
Pivots	maintenance-free, high performance bushings in all attachment pivots
Buckets	standard equipped with 5 t safety hook for lifting

Technical Data



	mm		stick	with hydr. adjustable boom	with gooseneck boom
A	2250				
C	2785				
D	1360				
E	1450	V	1,60	5440	5180
F	1000		1,80	5320	5040
H	1910				
I	445	W	1,60	2050	2100
J	765		1,80	2150	2150
K	920				
L	2370	X	1,60	7500	7400
M	1185		1,80	7500	7450
N	1000				
P	805				
Q	415				
S	2350 2500 2700				
U	3100				
U ₁	3735				
Y	280				
N	500 600 750				
B	2350 2450 2600				

E = tail radius



Top view showing max. offset of attachment

with	stick	R	min. 180° clearance-circle
	m	mm	mm
hydr. adjustable boom	1,60	2450	3900
gooseneck boom	1,60	2300	3750
hydr. adjustable boom	1,80	2530	3980
gooseneck boom	1,80	2380	3830

Dimensiones

To order a complete machine you need the following:

- Basic machine with extra hydr. control for hydr. swivel see page 12
- Auxiliary circuit in basic machine AHS 1
- Hoist cylinders
- Basic boom for hydr. adjustable boom
- Main boom for hydr. adjustable boom with piping for hydraulic swivel
- Stick 1,60 m with piping for hydraulic swivel
Stick 1,80 m with piping for hydraulic swivel
- Bucket see chart below

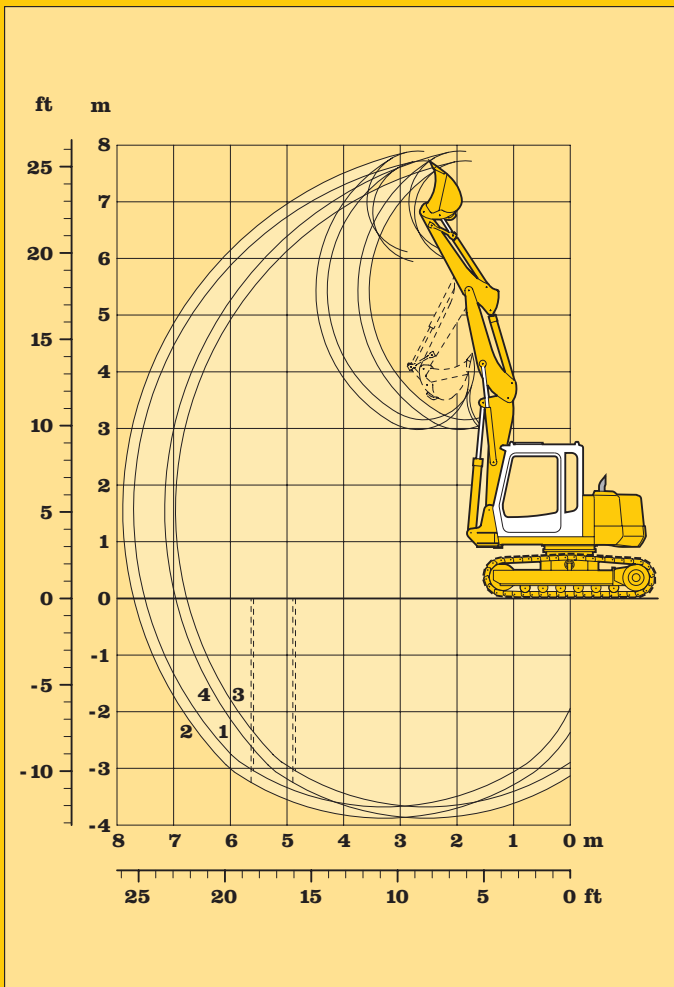
Digging envelope

- 1 with stick 1,60 m
- 2 with stick 1,80 m
- 3* with stick 1,60 m
- 4* with stick 1,80 m

Stick length	m	1,60	1,80
Max. digging depth	m	3,70	3,90
Max. reach at ground level	m	7,50	7,70
Max. dumping height	m	5,95	6,10
Max. teeth height	m	7,70	7,90
Min. attachment radius*	m	2,45	2,55

* at max. attachment offset

Max. digging force:	43,7 kN (4,5 t)
Max. breakout force:	58,0 kN (5,9 t)



Buckets

	mm	200 ¹⁾	300 ¹⁾	400 ²⁾	500	600	750	850	950
Cutting width SAE	mm	200 ¹⁾	300 ¹⁾	400 ²⁾	500	600	750	850	950
Capacity SAE (heaped)	m ³	0,10	0,14	0,19	0,20	0,19	0,25	0,29	0,35
Max. material weight	t/m ³	1,8	1,8	1,8	1,8	1,8	1,8	1,8	1,8
Weight of bucket	kg	280	220	280	180	170	190	210	230
For machine stability per ISO 10567 the max. stick length is:									
Standard undercarriage	m	1,80	1,80	1,80	1,80	1,80	1,80	1,80	1,60
Undercarriage with blade	m	1,80	1,80	1,80	1,80	1,80	1,80	1,80	1,80

¹⁾ Bucket with ejector (max. digging depth 1,0 m, since bucket suspension is wider than bucket)

²⁾ Bucket with ejector

Backhoe Attachment with Hydr. Adjustable Boom

with stick 1,60 m							
Height m	Undercarriage	Radius of load from centerline of machine in m					
		2,0	3,0	4,0	5,0	6,0	7,0
7,0	Standard without blade with blade down		2,7° (2,7°) 2,7° (2,7°)				
6,0	Standard without blade with blade down			2,0 (2,4°) 2,4 (2,4°)	1,4 (1,5°) 1,5° (1,5°)		
5,0	Standard without blade with blade down			2,2 (2,7°) 2,5 (2,7°)	1,4 (2,0) 1,7 (2,4+)	1,0 (1,3°) 1,2 (1,3°)	
4,0	Standard without blade with blade down		2,6° (2,6°) 2,6° (2,6°)	2,0 (2,7) 2,4 (2,8°)	1,5 (1,9+) 1,7 (2,4+)	1,0 (1,4) 1,2 (2,1+)	
3,0	Standard without blade with blade down		3,0 (4,3) 3,6 (4,9+)	2,0 (2,6) 2,3 (3,3+)	1,4 (1,9) 1,7 (2,6+)	1,0 (1,4) 1,2 (2,1+)	
2,0	Standard without blade with blade down	5,6° (5,6°) 5,6° (5,6°)	2,9 (4,0) 3,5 (4,2°)	2,0 (2,6) 2,3 (3,8+)	1,4 (1,9) 1,6 (2,8+)	1,0 (1,3°) 1,2 (2,2+)	0,7 (1,0) 0,9 (1,3°)
1,0	Standard without blade with blade down	2,6° (2,6°) 2,6° (2,6°)	2,8 (4,0) 3,4 (5,5+)	1,8 (2,5) 2,2 (4,0+)	1,3 (1,8) 1,6 (2,8+)	0,9 (1,3) 1,1 (2,2+)	0,7 (1,0) 0,9 (1,4°)
0	Standard without blade with blade down	4,2° (4,2°) 4,2° (4,2°)	2,6 (3,8) 3,2 (6,2+)	1,7 (2,4) 2,1 (4,0+)	1,2 (1,8) 1,5 (2,9+)	0,9 (1,3) 1,1 (2,2+)	
- 1,0	Standard without blade with blade down	5,0 (5,8°) 5,8° (5,8°)	2,5 (3,7) 3,1 (6,6+)	1,7 (2,4) 2,0 (4,1+)	1,2 (1,7) 1,4 (2,9+)	0,9 (1,3) 1,1 (2,1+)	
- 2,0	Standard without blade with blade down	5,1 (6,8°) 6,4 (6,8°)	2,6 (3,7) 3,1 (5,9+)	1,7 (2,5) 2,1 (4,1+)	1,2 (1,7) 1,4 (2,4+)	0,9 (1,0+) 1,0+ (1,0+)	
- 3,0	Standard without blade with blade down	5,2 (6,7°) 6,6 (6,7°)	2,6 (3,4+) 3,2 (3,4+)	1,7 (2,4+) 2,1 (2,4+)	0,7+ (0,7+) 0,7+ (0,7+)		

with stick 1,80 m							
Height m	Undercarriage	Radius of load from centerline of machine in m					
		2,0	3,0	4,0	5,0	6,0	7,0
7,0	Standard without blade with blade down		2,4° (2,4°) 2,4° (2,4°)	1,9° (1,9°) 1,9° (1,9°)			
6,0	Standard without blade with blade down			2,1 (2,4°) 2,4° (2,4°)	1,4 (1,5°) 1,5° (1,5°)		
5,0	Standard without blade with blade down			2,0 (2,4°) 2,4° (2,4°)	1,4 (2,0) 1,7 (2,3+)	1,0 (1,2°) 1,2 (1,2°)	
4,0	Standard without blade with blade down			2,0 (2,5°) 2,4 (2,5°)	1,5 (1,9+) 1,7 (2,3+)	1,0 (1,4) 1,2 (2,0+)	
3,0	Standard without blade with blade down		3,0 (3,9+) 3,6 (3,9+)	2,0 (2,6) 2,3 (3,2+)	1,4 (1,9) 1,7 (2,5+)	1,0 (1,4) 1,2 (2,1+)	0,7 (1,1) 0,9 (1,1°)
2,0	Standard without blade with blade down	4,2° (4,2°) 4,2° (4,2°)	3,0 (4,0) 3,6 (4,3+)	2,0 (2,5+) 2,3 (3,7+)	1,4 (1,8) 1,6 (2,7+)	1,0 (1,3) 1,2 (2,2+)	0,7 (1,0) 0,9 (1,6°)
1,0	Standard without blade with blade down	2,9° (2,9°) 2,9° (2,9°)	2,8 (4,0+) 3,4 (5,0+)	1,8 (2,6) 2,2 (4,0+)	1,3 (1,8) 1,6 (2,8+)	1,0 (1,4°) 1,2 (2,2+)	0,7 (1,0) 0,9 (1,7+)
0	Standard without blade with blade down	4,0° (4,0°) 4,0° (4,0°)	2,6 (3,8) 3,2 (6,1°)	1,7 (2,4) 2,1 (4,0+)	1,2 (1,7) 1,5 (2,8+)	0,9 (1,3) 1,1 (2,2+)	0,7 (1,0) 0,9 (1,3°)
- 1,0	Standard without blade with blade down	5,0 (5,3°) 5,3° (5,3°)	2,5 (3,7) 3,1 (6,5+)	1,6 (2,4) 2,0 (4,1+)	1,2 (1,7) 1,5 (2,9+)	0,9 (1,3) 1,1 (2,0°)	
- 2,0	Standard without blade with blade down	5,0 (6,5°) 6,3 (6,5°)	2,5 (3,7) 3,1 (6,1+)	1,7 (2,5) 2,1 (4,2+)	1,2 (1,7) 1,5 (2,7+)	0,8 (1,2) 1,0 (1,3+)	
- 3,0	Standard without blade with blade down	5,3 (6,4°) 6,4° (6,4°)	2,5 (3,8) 3,1 (4,6+)	1,6 (2,3) 2,0 (2,4+)	1,2 (1,4+) 1,4+ (1,4+)		

Lift capacities are stated in metric tonnes for a machine with 600 mm grouser pads and can be lifted 360° on firm, level supporting surface. Loads in (...) can be lifted over end only.
Indicated loads are based on ISO 10567 and do not exceed 75% of tipping or 87% of hydraulic capacity.
Indicated loads are limited by the weld-on safety hook to 5 metric tonnes. Without bucket (0,19 m³) lift capacities increase by 170 kg, and without bucket cylinder, link and lever they increase by an additional 110 kg.

+ Rating limited by hoist cylinders

° Rating limited by stick cylinder

Note: When used within the countries of the "European Union" and when lifting a load, this excavator has to be equipped with an overload warning device and its hoist cylinders with automatic check valves, according to the European Standard EN 474-5.

Lift Capacities with Hydr. Adjustable Boom

To order a complete machine you need the following:

- Basic machine with extra hydr. control for hydr. swivel see page 12
- Hoist cylinders
- Gooseneck boom 3,80 m with piping for hydraulic swivel
- Stick 1,60 m with piping for hydraulic swivel
Stick 1,80 m with piping for hydraulic swivel
- Bucket see chart below

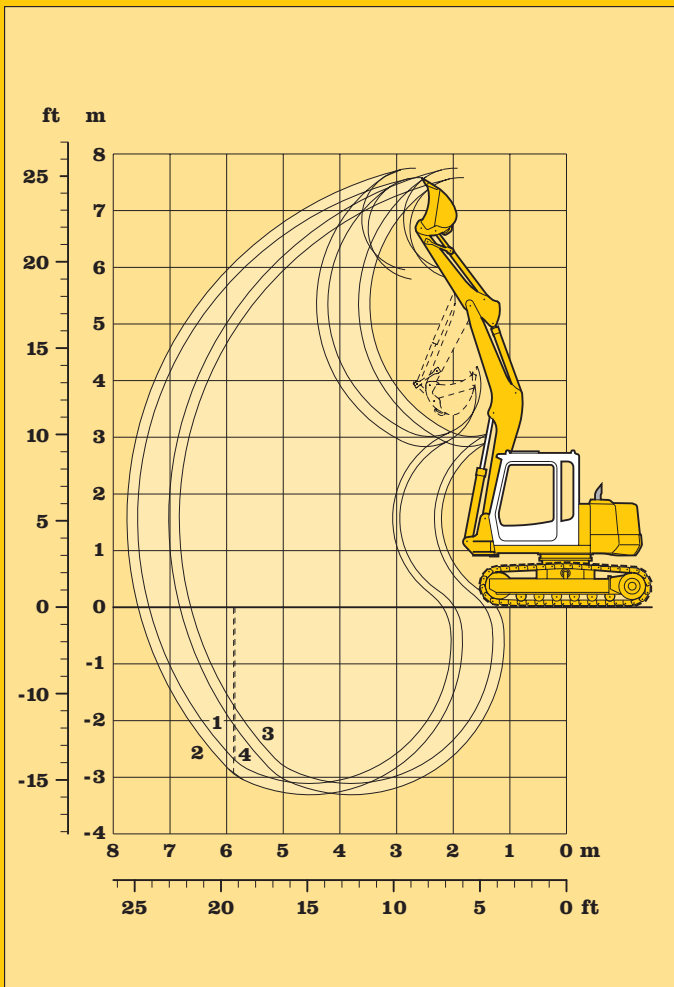
Digging envelope

- 1 with stick 1,60 m
- 2 with stick 1,80 m
- 3* with stick 1,60 m
- 4* with stick 1,80 m

Stick length	m	1,60	1,80
Max. digging depth	m	3,10	3,30
Max. reach at ground level	m	7,35	7,55
Max. dumping height	m	5,80	5,95
Max. teeth height	m	7,60	7,75
Min. attachment radius*	m	2,30	2,40

* at max. attachment offset

Max. digging force:	43,7 kN (4,5 t)
Max. breakout force:	58,0 kN (5,9 t)



Buckets

	mm	200 ¹⁾	300 ¹⁾	400 ²⁾	500	600	750	850	950
Cutting width SAE	mm	200 ¹⁾	300 ¹⁾	400 ²⁾	500	600	750	850	950
Capacity SAE (heaped)	m ³	0,10	0,14	0,19	0,20	0,19	0,25	0,29	0,35
Max. material weight	t/m ³	1,8	1,8	1,8	1,8	1,8	1,8	1,8	1,8
Weight of bucket	kg	280	220	280	180	170	190	210	230
For machine stability per ISO 10567 the max. stick length is:									
Standard undercarriage	m	1,80	1,80	1,80	1,80	1,80	1,80	1,80	1,80
Undercarriage with blade	m	1,80	1,80	1,80	1,80	1,80	1,80	1,80	1,80

¹⁾ Bucket with ejector (max. digging depth 1,0 m, since bucket suspension is wider than bucket)

²⁾ Bucket with ejector

Backhoe Attachment with Gooseneck Boom 3,80 m

with stick 1,60 m							
Height m	Undercarriage	Radius of load from centerline of machine in m					
		2,0	3,0	4,0	5,0	6,0	7,0
7,0	Standard without blade with blade down						
6,0	Standard without blade with blade down			2,0 (2,1°) 2,1° (2,1)			
5,0	Standard without blade with blade down			2,1 (2,4+) 2,4+ (2,4+)	1,4 (2,0) 1,7 (2,2+)		
4,0	Standard without blade with blade down		2,9° (2,9°) 2,9° (2,9°)	2,0 (2,6+) 2,4 (2,6+)	1,4 (1,9) 1,7 (2,2+)	1,0 (1,4) 1,2 (1,8°)	
3,0	Standard without blade with blade down		3,0 (4,3) 3,6 (4,3+)	1,9 (2,6) 2,3 (3,0+)	1,3 (1,8) 1,6 (2,5+)	1,0 (1,4) 1,2 (2,1+)	
2,0	Standard without blade with blade down			1,8 (2,5) 2,1 (3,7+)	1,3 (1,8) 1,5 (2,7+)	1,0 (1,3) 1,2 (2,2+)	
1,0	Standard without blade with blade down			1,7 (2,4) 2,0 (4,1+)	1,2 (1,7) 1,5 (2,9+)	0,9 (1,3) 1,1 (2,3+)	
0	Standard without blade with blade down		2,5 (2,8°) 2,8° (2,8°)	1,6 (2,3) 2,0 (3,9+)	1,2 (1,7) 1,5 (2,9+)	0,9 (1,3) 1,1 (2,2+)	
- 1,0	Standard without blade with blade down		2,5 (3,7) 3,1 (3,8°)	1,6 (2,3) 2,0 (3,3+)	1,2 (1,7) 1,5 (2,5+)	0,9 (1,3) 1,1 (1,8+)	
- 2,0	Standard without blade with blade down		2,6 (3,1+) 3,1+ (3,1+)	1,7 (2,4) 2,0 (2,5+)	1,2 (1,7) 1,5 (1,8+)		
- 3,0	Standard without blade with blade down						

with stick 1,80 m							
Height m	Undercarriage	Radius of load from centerline of machine in m					
		2,0	3,0	4,0	5,0	6,0	7,0
7,0	Standard without blade with blade down		2,3° (2,3°) 2,3° (2,3°)				
6,0	Standard without blade with blade down			2,1 (2,3+) 2,3+ (2,3+)	1,4 (1,6°) 1,6° (1,6°)		
5,0	Standard without blade with blade down			2,1 (2,3+) 2,3+ (2,3+)	1,4 (1,9) 1,7 (2,1+)	1,1 (1,5) 1,3 (1,6°)	
4,0	Standard without blade with blade down			2,0 (2,4+) 2,4 (2,4+)	1,4 (1,9) 1,7 (2,2+)	1,0 (1,4) 1,2 (2,0+)	
3,0	Standard without blade with blade down		3,0 (3,5°) 3,5° (3,5°)	1,9 (2,6) 2,3 (2,9+)	1,3 (1,8) 1,6 (2,3+)	1,0 (1,4) 1,2 (2,0+)	
2,0	Standard without blade with blade down			1,8 (2,5) 2,1 (3,5+)	1,3 (1,8) 1,6 (2,6+)	0,9 (1,3) 1,2 (2,2+)	0,7 (1,1) 0,9 (1,5°)
1,0	Standard without blade with blade down			1,7 (2,4) 2,0 (4,0+)	1,2 (1,7) 1,5 (2,9+)	0,9 (1,3) 1,1 (2,2+)	0,7 (1,1) 0,9 (1,6°)
0	Standard without blade with blade down		2,5 (2,6°) 2,6° (2,6°)	1,6 (2,3) 2,0 (4,0+)	1,2 (1,7) 1,5 (2,9+)	0,9 (1,3) 1,1 (2,2+)	
- 1,0	Standard without blade with blade down		2,5 (3,6°) 3,1 (3,6°)	1,6 (2,3) 2,0 (3,5+)	1,2 (1,7) 1,4 (2,6+)	0,9 (1,3) 1,1 (1,9+)	
- 2,0	Standard without blade with blade down		2,5 (3,4+) 3,1 (3,4+)	1,6 (2,3) 2,0 (2,7+)	1,2 (1,7) 1,4 (2,0+)	0,9 (1,3) 1,1 (1,6+)	
- 3,0	Standard without blade with blade down			1,7 (1,9+) 1,9+ (1,9+)	1,2 (1,3+) 1,3+ (1,3+)		

Lift capacities are stated in metric tonnes for a machine with 600 mm grouser pads and can be lifted 360° on firm, level supporting surface. Loads in (...) can be lifted over end only.
Indicated loads are based on ISO 10567 and do not exceed 75% of tipping or 87% of hydraulic capacity.
Indicated loads are limited by the weld-on safety hook to 5 metric tonnes. Without bucket (0,19 m³) lift capacities increase by 170 kg, and without bucket cylinder, link and lever they increase by an additional 110 kg.

+ Rating limited by hoist cylinders

° Rating limited by stick cylinder

Note: When used within the countries of the "European Union" and when lifting a load, this excavator has to be equipped with an overload warning device and its hoist cylinders with automatic check valves, according to the European Standard EN 474-5.

Lift Capacities with Gooseneck Boom 3,80 m

To order a complete machine you need the following:

- Basic machine with extra hydr. control for hydr. swivel see page 12
- Auxiliary circuit in basic machine AHS 1
- Hoist cylinders
- Basic boom for hydr. adjustable boom
- Main boom for hydr. adjustable boom with piping for hydraulic swivel
- Stick 1,60 m with piping for hydraulic swivel
Stick 1,80 m with piping for hydraulic swivel
- Clamshell model 5 B see clamshell spec sheet

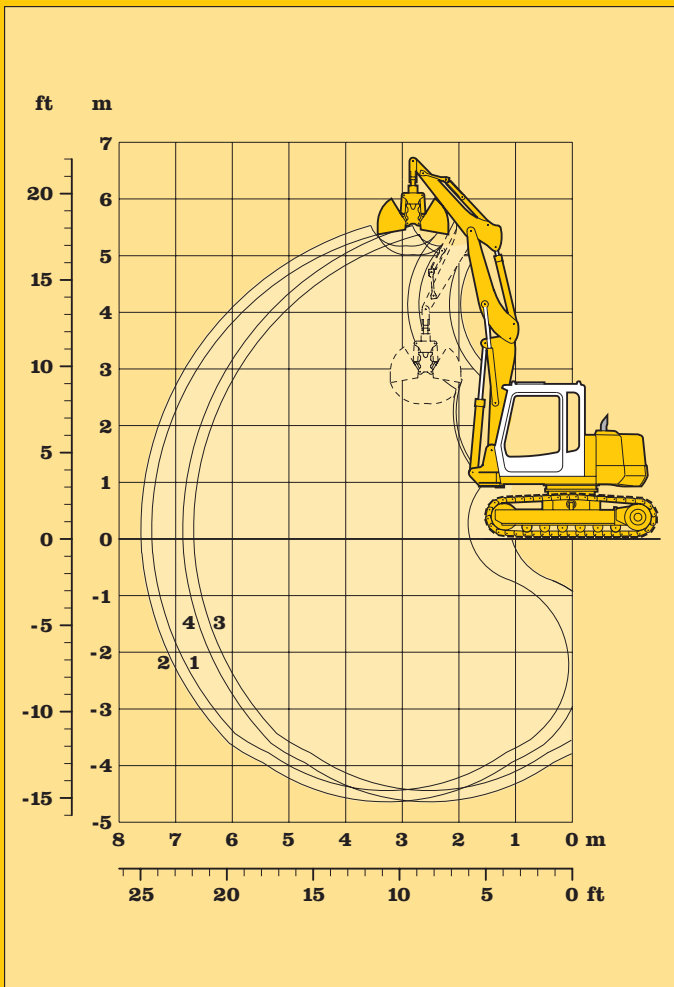
Digging envelope

- 1 with stick 1,60 m
- 2 with stick 1,80 m
- 3* with stick 1,60 m
- 4* with stick 1,80 m

Stick length	m	1,60	1,80
Max. digging depth	m	4,45	4,65
Max. reach at ground level	m	7,40	7,60
Max. dumping height	m	5,00	5,15
Min. attachment radius*	m	2,60	2,65

* at max. attachment offset

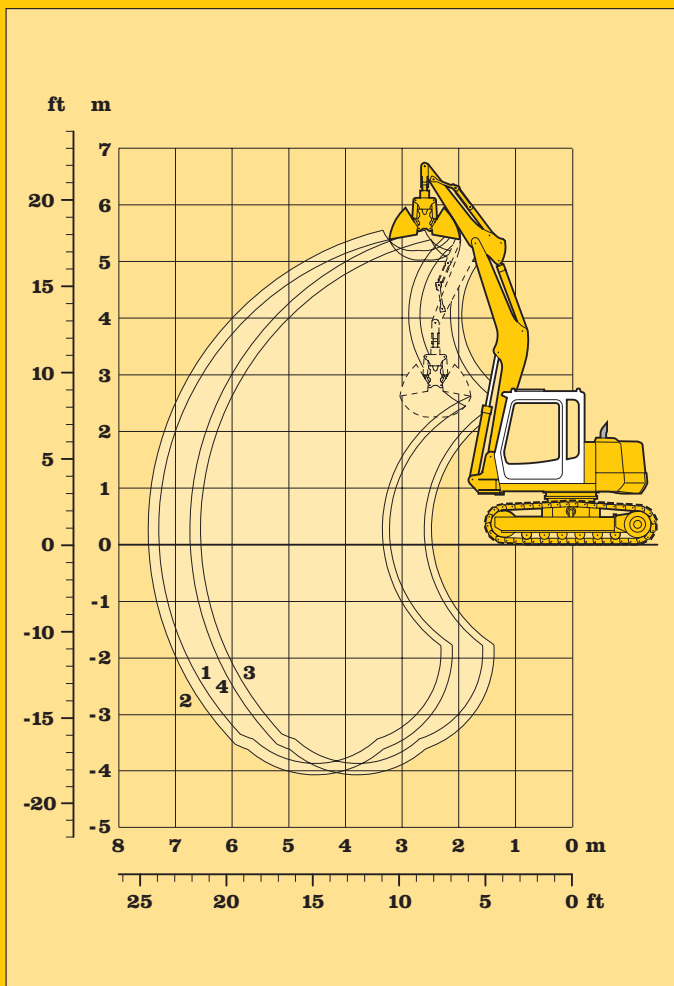
Max. tooth force: 39 kN (4,0 t)
Max. torque of hydr. swivel: 0,69 kNm



Clamshell model 5 B

		without ejector				with ejector	
		300	400	600	800	300	400
Width of shells	mm	300	400	600	800	300	400
Capacity	m ³	0,10	0,13	0,20	0,27	0,10	0,13
Max. material weight	t/m ³	1,8	1,8	1,8	1,2	1,8	1,8
Weight incl. suspension and hydr. swivel	kg	410	435	470	510	450	485
For machine stability per ISO 10567 the max. stick length is:							
Standard undercarriage	m	1,80	1,80	1,80	1,60	1,80	1,80
Undercarriage with blade	m	1,80	1,80	1,80	1,60	1,80	1,80

Clamshell Attachment with Hydr. Adjustable Boom



To order a complete machine you need the following:

- Basic machine with extra hydr. control for hydr. swivel see page 12
- Hoist cylinders
- Gooseneck boom 3,80 m with piping for hydraulic swivel
- Stick 1,60 m with piping for hydraulic swivel
Stick 1,80 m with piping for hydraulic swivel
- Clamshell model 5 B see clamshell spec sheet

Digging envelope

- 1 with stick 1,60 m
- 2 with stick 1,80 m
- 3* with stick 1,60 m
- 4* with stick 1,80 m

Stick length	m	1,60	1,80
Max. digging depth	m	3,85	4,05
Max. reach at ground level	m	7,30	7,50
Max. dumping height	m	5,00	5,20
Min. attachment radius*	m	2,60	2,65

* at max. attachment offset

Max. tooth force: 39 kN (4,0 t)
Max. torque of hydr. swivel: 0,69 kNm

Clamshell model 5 B

		without ejector				with ejector	
Width of shells	mm	300	400	600	800	300	400
Capacity	m ³	0,10	0,13	0,20	0,27	0,10	0,13
Max. material weight	t/m ³	1,8	1,8	1,8	1,8	1,8	1,8
Weight incl. suspension and hydr. swivel	kg	410	435	470	510	450	485
For machine stability per ISO 10567 the max. stick length is:							
Standard undercarriage	m	1,80	1,80	1,80	1,80	1,80	1,80
Undercarriage with blade	m	1,80	1,80	1,80	1,80	1,80	1,80

Clamshell Attachment with Gooseneck Boom 3,80 m

To order a complete machine you need the following:

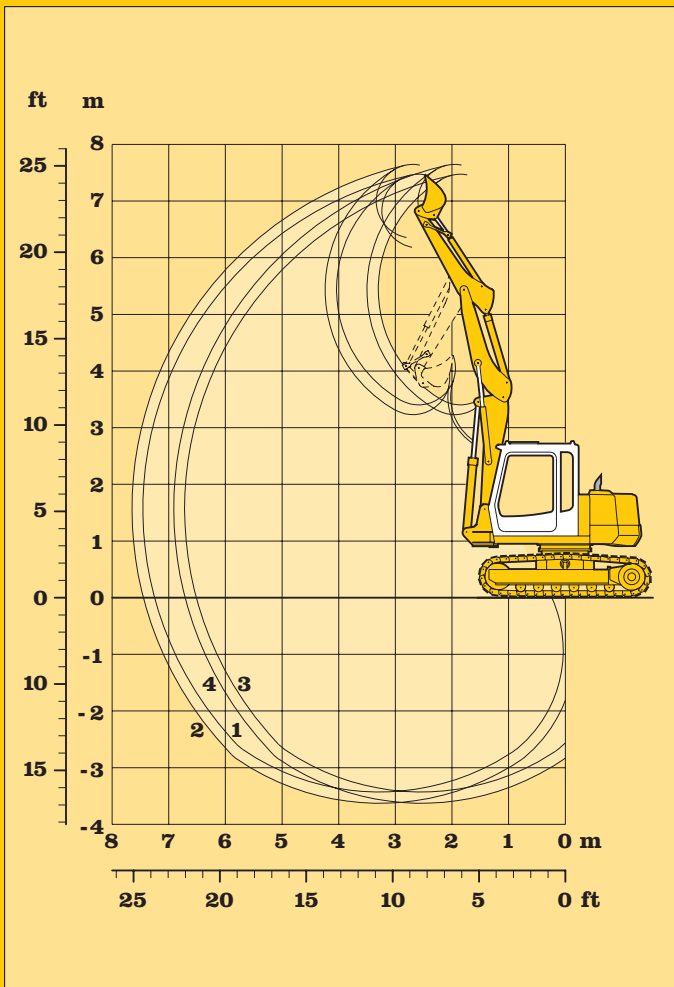
- Basic machine with extra hydr. control for hydr. swivel see page 12
- Auxiliary circuit in basic machine AHS 1
- Hoist cylinders
- Basic boom for hydr. adjustable boom
- Main boom for hydr. adjustable boom with piping for hydraulic swivel
- Stick 1,60 m with piping for hydraulic swivel
Stick 1,80 m with piping for hydraulic swivel
- Ditchcleaning bucket see chart below

Digging envelope

- 1 with stick 1,60 m
- 2 with stick 1,80 m
- 3* with stick 1,60 m
- 4* with stick 1,80 m

Stick length	m	1,60	1,80
Max. digging depth	m	3,45	3,65
Max. reach at ground level	m	7,25	7,45
Max. dumping height	m	6,20	6,35
Max. teeth height	m	7,45	7,65
Min. attachment radius*	m	2,55	2,65

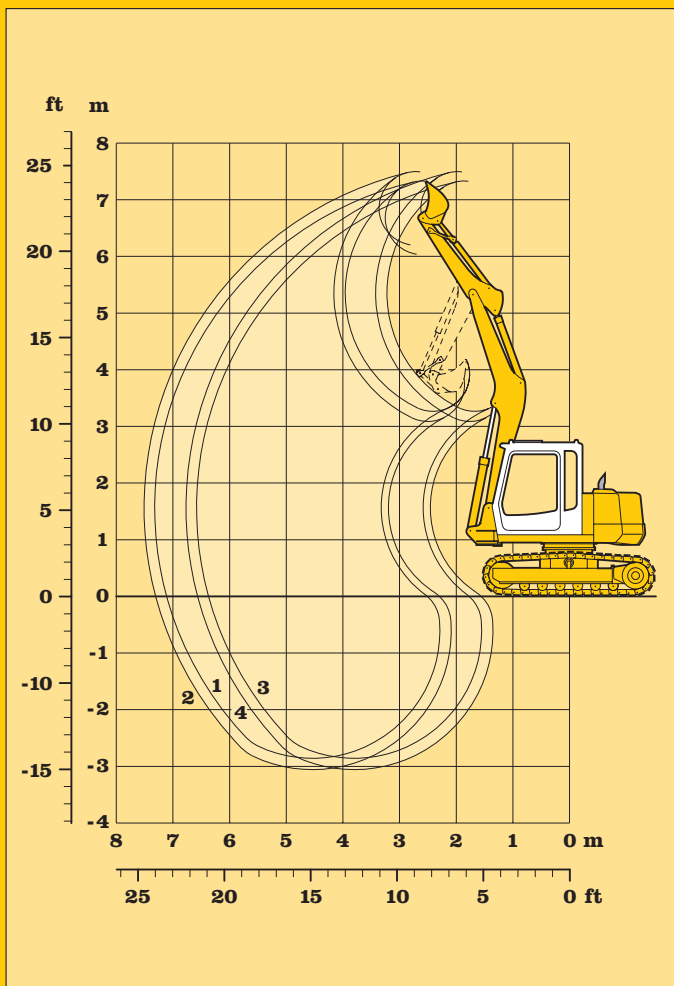
* at max. attachment offset



Ditchcleaning Buckets

				with 2 x 45° rotator	
Cutting width SAE	mm	1320	1510	1320	1510
Capacity SAE (heaped)	m ³	0,27	0,30	0,27	0,30
Max. material weight	t/m ³	1,8	1,8	1,8	1,8
Weight of bucket	kg	170	180	270	290
For machine stability per ISO 10567 the max. stick length is:					
Standard undercarriage	m	1,80	1,80	1,80	-
Undercarriage with blade	m	1,80	1,80	1,80	1,80

Ditchcleaning Attachment with Hydr. Adjustable Boom



To order a complete machine you need the following:

- Basic machine with extra hydr. control for hydr. swivel see page 12
- Hoist cylinders
- Gooseneck boom 3,80 m with piping for hydraulic swivel
- Stick 1,60 m with piping for hydraulic swivel
Stick 1,80 m with piping for hydraulic swivel
- Ditchcleaning bucket see chart below

Digging envelope

- 1 with stick 1,60 m
- 2 with stick 1,80 m
- 3* with stick 1,60 m
- 4* with stick 1,80 m

Stick length	m	1,60	1,80
Max. digging depth	m	2,85	3,05
Max. reach at ground level	m	7,10	7,30
Max. dumping height	m	6,05	6,20
Max. teeth height	m	7,35	7,50
Min. attachment radius*	m	2,40	2,45

* at max. attachment offset

Ditchcleaning Buckets

				with 2 x 45° rotator	
Cutting width SAE	mm	1320	1510	1320	1510
Capacity SAE (heaped)	m ³	0,27	0,30	0,27	0,30
Max. material weight	t/m ³	1,8	1,8	1,8	1,8
Weight of bucket	kg	170	180	270	290
For machine stability per ISO 10567 the max. stick length is:					
Standard undercarriage	m	1,80	1,80	1,80	1,80
Undercarriage with blade	m	1,80	1,80	1,80	1,80

Ditchcleaning Attachment with Gooseneck Boom 3,80 m

Basic Machine

- R 308 Standard
- with triple grouser pads 400 mm
- with triple grouser pads 500 mm
- with triple grouser pads 600 mm
- with triple grouser pads 750 mm

Option with blade

- Suspension bracket for blade
- Blade
 - 2350 mm
 - 2500 mm
 - 2700 mm

Operating Weight and Ground Pressure

Operating weight includes basic machine and backhoe attachment with 1,60 m stick and 0,19 m³ bucket.

with hydraulically adjustable boom

with triple grouser pads 400 mm:	9800 kg - 0,46 kg/cm ²
with triple grouser pads 500 mm:	10000 kg - 0,38 kg/cm ²
with triple grouser pads 600 mm:	10200 kg - 0,32 kg/cm ²
with triple grouser pads 750 mm:	10500 kg - 0,27 kg/cm ²

with hydraulically adjustable boom and blade

with triple grouser pads 400 mm:	10400 kg - 0,49 kg/cm ²
with triple grouser pads 500 mm:	10700 kg - 0,40 kg/cm ²
with triple grouser pads 600 mm:	10800 kg - 0,34 kg/cm ²
with triple grouser pads 750 mm:	11100 kg - 0,28 kg/cm ²

with gooseneck boom

with triple grouser pads 400 mm:	9700 kg - 0,46 kg/cm ²
with triple grouser pads 500 mm:	9900 kg - 0,37 kg/cm ²
with triple grouser pads 600 mm:	10100 kg - 0,32 kg/cm ²
with triple grouser pads 750 mm:	10400 kg - 0,26 kg/cm ²

with gooseneck boom and blade

with triple grouser pads 400 mm:	10300 kg - 0,49 kg/cm ²
with triple grouser pads 500 mm:	10500 kg - 0,40 kg/cm ²
with triple grouser pads 600 mm:	10700 kg - 0,34 kg/cm ²
with triple grouser pads 750 mm:	11000 kg - 0,28 kg/cm ²

Contents Basic Machine and Operating Weight

Standard Equipment

Undercarriage

- Chain guides on idler end
- Life lubricated bottom/top rollers
- Complete travel drives integrated into side frames

Uppercarriage

- Engine hood with lift help
- Lockable tool box
- Handrails, slip resistant surfaces
- Tool kit
- Maintenance-free swing brake lock
- Maintenance-free HD-batteries
- Sound insulation
- Pin lock upper/lower
- Pedal controlled positioning swing brake

Hydraulics

- Stepless mode system (ECO)
- Pressure compensation
- Summated horsepower regulation
- Hook ups for pressure checks
- Extra hydr. control for hydr. swivel

Engine

- Direct injection
- Turbo charger
- Air filter with precleaner, main- and safety element
- Main switch for electric circuit

Operator cab

- All tinted windows
- Door with sliding window
- Cab heater with defroster
- All-round adjustable roof vent
- Rain hood over front window opening
- 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 tray
- Hour meter

Attachment

- Offset feature for complete attachment
- Cylinders with shock absorber
- Maintenance-free, high performance bushings
- Locking of connecting link during clam work
- Safety lift hook on hoe buckets
- Hose quick connections
- Two way valves for bucket/clam use
- Flood lights on boom and cab

Optional Equipment

- Chain guides in center and on sprocket end
- Blade
- Customized colors

- Electric fuel tank filler pump
- Extended tool kit
- Customized colors

- Additional hydraulic circuits
- Bio degradable hydraulic oils

- Automatic idling

- Preparation for radio installation
- Stereo radio
- Airpressure adjustable seat with heating and headrest
- Beacon

- 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.

Standard and Optional Equipment

**LIEBHERR-HYDRAULIKBAGGER GMBH, D-88457 Kirchdorf/Iller, ☎ (0 73 54) 80-0, Fax (0 73 54) 80-72 94
www.liebherr.com, E-Mail: info@lhb.liebherr.com**

With compliments: