

Tracked Road Rail Excavator

R 914 Rail

Litronic®

Generation

6

Operating Weight

41,700 – 43,900 lb

Engine

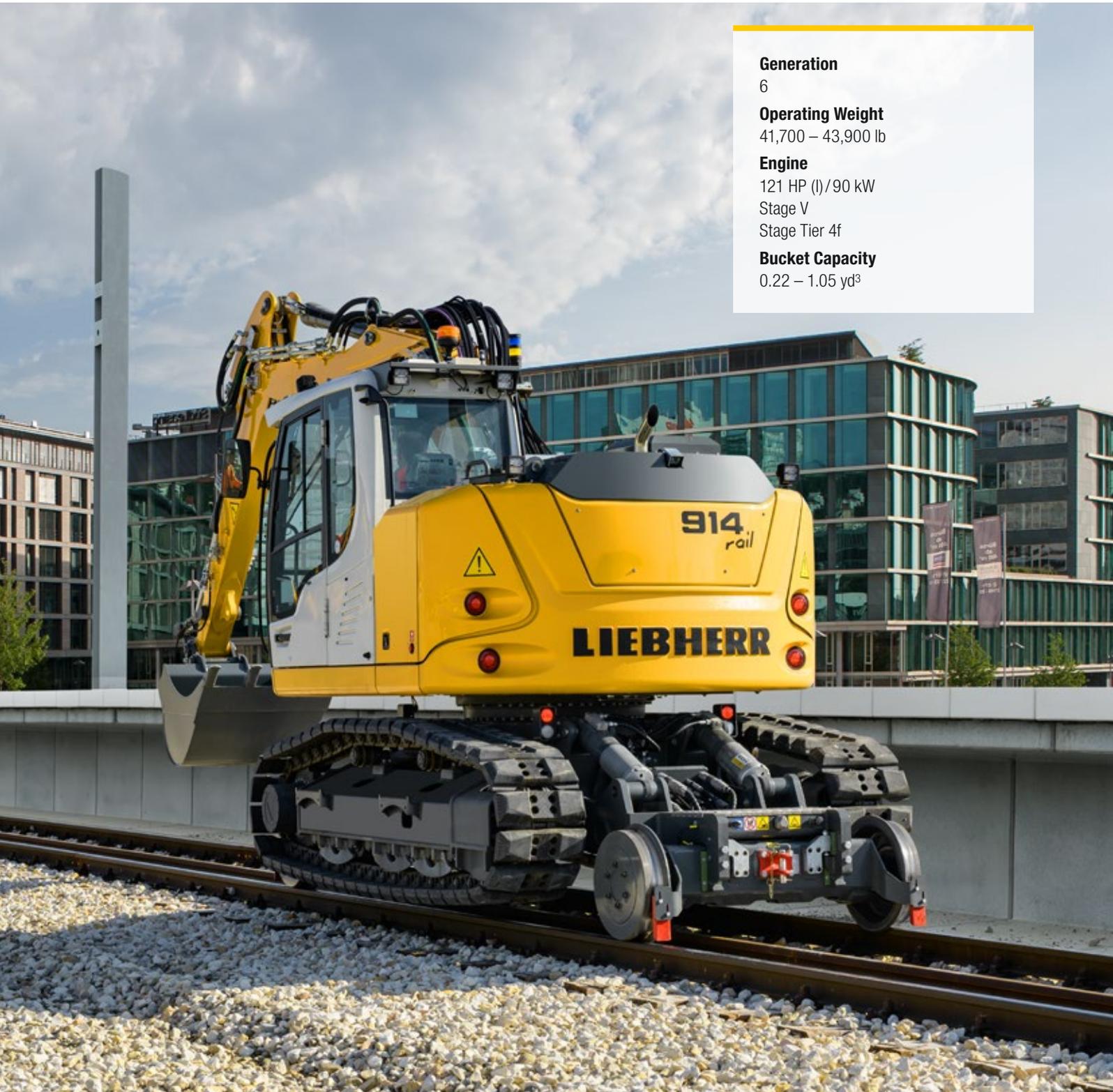
121 HP (l)/90 kW

Stage V

Stage Tier 4f

Bucket Capacity

0.22 – 1.05 yd³



LIEBHERR

Technical Data



Diesel Engine

Rating per SAE J1349/ISO 9249	121 HP (l) (90 kW) at 1,800 rpm
Model	Deutz TCD3.6L4
Type	4 cylinder in-line
Bore/Stroke	3.9/4.7 in
Displacement	219.7 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 135 Ah/ 12 V
Alternator	three-phase current 28 V/80 A
Stage V	
Harmful emissions values	according to regulation (EU) 2016/1628
Emission control	Deutz DOC/DPF + SCR
Fuel tank	46 gal
Urea tank	5 gal
Stage Tier 4f	
Harmful emissions values	in accordance with EPA/CARB-40CFR stage Tier 4f
Emission control	SCR technology
Fuel tank	46 gal
Urea tank	5 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, fans for radiator cleaning can be completely folded away
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Hydraulic Controls

Power distribution	via control valves with integrated safety valves, simultaneous and independent actuation of chassis, swing drive and equipment
Servo circuit	
Equipment and swing	with hydraulic pilot control and proportional joystick levers
Chassis	electro-proportional via foot pedal
Additional functions	proportional regulation via foot pedals or mini-joystick



Hydraulic System

Hydraulic pump	for equipment and travel drive	Liebherr axial piston variable displacement pump
Max. flow		79 gpm
Max. pressure		5,076 psi
Hydraulic pump regulation and control		Liebherr-Synchron-Comfort-system (LSC) with electronic engine speed sensing regulation, pressure and flow compensation, torque controlled swing drive priority
Hydraulic tank		26 gal
Hydraulic system		max. 61 gal
Hydraulic oil filter		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 digging performance 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
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 with integrated brake valve and torque control
Swing ring	Liebherr, sealed race ball bearing swing ring, internal teeth
Swing speed	0 – 10.0 rpm stepless
Swing torque	37,616 lbf ft
Holding brake	wet multi-disc (spring applied, pressure released)
Option	pedal controlled positioning swing brake



Operator's Cab

Cab	ROPS safety cab structure (roll-over protection system) 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 window shades for the sunroof window and windscreen
Operator's seat Standard	air cushioned operator's seat with 3D-adjustable armrests, headrest, lap belt, seat heater, manual weight adjustment, adjustable seat cushion inclination and length and mechanical lumbar vertebrae support
Operator's seat Comfort (Option)	in addition to operator's seat standard: lockable horizontal suspension, automatic weight adjustment, adjustable suspension stiffness, pneumatic lumbar vertebrae support and passive seat climatization with active coal
Operator's seat Premium (Option)	in addition to operator's seat comfort: active electronic weight adjustment (automatic re-adjustment), 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 settings, 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 (country-dependent)



Undercarriage

Crawler undercarriage	
Drive	Liebherr compact planetary reduction gear with Liebherr axial piston motor per side of undercarriage
Speed on chain	low range 1.9 mph high range 4.2 mph
Net drawbar pull on crawler	34,600 lbf
Track components	B4, maintenance-free
Track rollers/Carrier rollers	8/2
Tracks	sealed and greased
Track pads	triple grouser, rubber, width 20" special widths available on request
Holding brake	wet multi-disc (spring applied, pressure released)
Rail undercarriage	
Speed on rail	0 – 12.4 mph stepless 0 – max. 15.5 mph Speeder (Option)
Drive	hydrostatic drive of the track wheels (four-wheel drive)
Gauge	narrow gauge 3'6" standard gauge 4'8" broad gauge 5'3" special widths available on request
Profiles	track wheel profile ANZR-1, isolated track wheel profile UIC special profiles available on request
Diameter track wheel	1'10"
Option	wagon braking system 1-circuit hydraulic brake for trailers including trailer tipping



Equipment

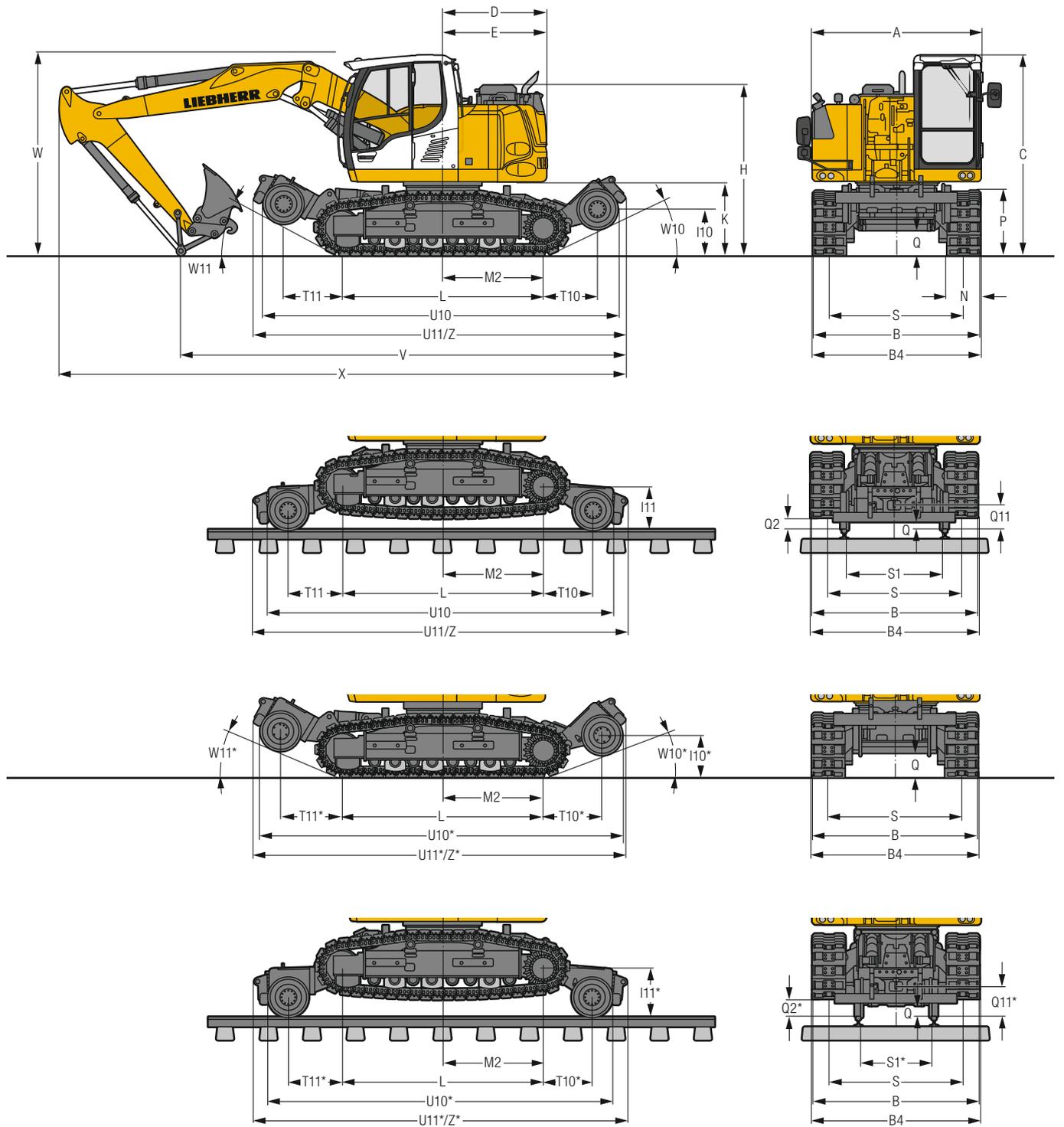
Type	high-strength steel plates at highly-stressed points for the toughest requirements. Complex and stable mountings of equipment and cylinders
Hydraulic cylinders	Liebherr cylinders with special sealing and guide system and, depending on cylinder type, shock absorption
Bearings	sealed, low maintenance



Complete Machine

Lubrication	Liebherr central lubrication system for upper-carriage and equipment, automatically	
Noise emission		
ISO 6396	L _{PA} (inside cab)	= 70 dB(A) (Stage V)
2000/14/EC	L _{WA} (surround noise)	= 101 dB(A) (Stage V)
ISO 6396	L _{PA} (inside cab)	= 71 dB(A) (Stage Tier 4f)
2000/14/EC	L _{WA} (surround noise)	= 99 dB(A) (Stage Tier 4f)

Dimensions

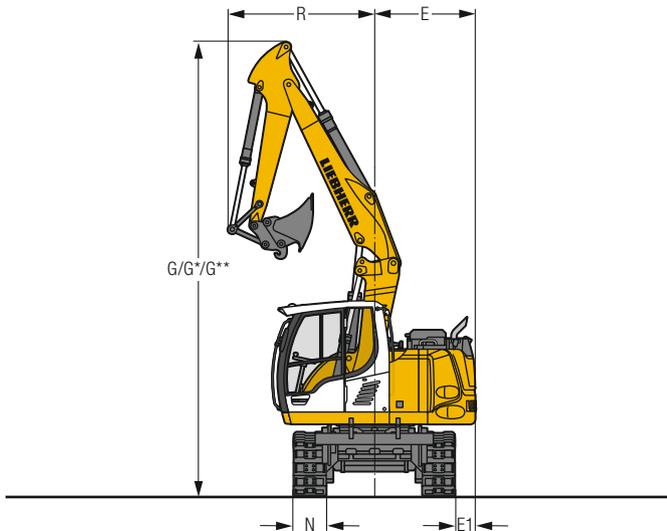


	4'8"/5'3" on chain ft in	4'8"/5'3" on rail ft in	3'6" on chain ft in	3'6" on rail ft in
A	8' 3"	8' 3"	8' 3"	8' 3"
B	8' 2"	8' 2"	8' 2"	8' 2"
B4	8' 3"	8' 3"	8' 3"	8' 3"
C	9'11"	10' 8"	9'11"	11'
D	5' 1"	5' 1"	5' 1"	5' 1"
E	5' 1"	5' 1"	5' 1"	5' 1"
H	8' 5"	9' 2"	8' 5"	9' 6"
I10	2' 5"	–	–	–
I10*	–	–	2' 1"	–
I11	–	2' 1"	–	–
I11*	–	–	–	2' 4"
K	3' 7"	4' 4"	3' 7"	4' 8"
L	9'10"	9'10"	9'10"	9'10"
M2	4'11"	4'11"	4'11"	4'11"
N	20"	20"	20"	20"
P	3' 3"	3' 6"	3' 3"	3' 6"
Q	1' 3"	3"	1' 3"	6"
Q2	–	6" ¹⁾	–	–
Q2*	–	–	–	9" ¹⁾
Q11	–	1' 2"	–	–
Q11*	–	–	–	1' 5"
S	6' 7"	6' 7"	6' 7"	6' 7"
S1	–	4'8"/5'3"	–	–
S1*	–	–	–	3' 6"
T10	2' 8"	2' 5"	–	–
T10*	–	–	2'10"	2' 5"
T11	2'11"	2' 8"	–	–
T11*	–	–	3' 1"	2' 8"
U10	17' 5"	17'	–	–
U10*	–	–	17' 9"	16'11"
U11	18' 3"	18' 4"	–	–
U11*	–	–	18' 3"	18' 4"
W10	26°	–	–	–
W10*	–	–	21°	–
W11	26°	–	–	–
W11*	–	–	21°	–
Z	18' 3"	18' 4"	–	–
Z*	–	–	18' 3"	18' 4"

* Narrow gauge

¹⁾ depending on chain tension

E = Tail radius



	Stick ft in	Two-piece boom 15'11" 4'8"/5'3" ft in	3'6" ft in
V	6'9"	21'	21'
	7'5"	22'	–
	8'	22'	–
W	6'9"	9' 6"	9'6"
	7'5"	10' 2"	–
	8'	10' 4"	–
X	6'9"	28' 3"	28'3"
	7'5"	27'11"	–
	8'	27' 9"	–

W = max. ground clearance including approx. 6" piping

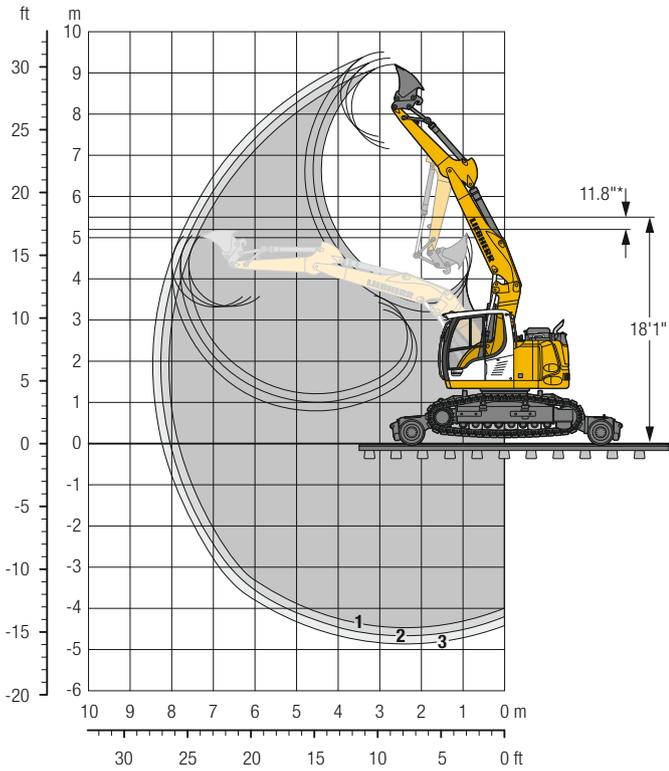
Boom	Stick ft in	G ft in	R ft in	E ft in	E1 ft in
Two-piece boom 15'11"	7'5"	23'2"	7'5"	5'1"	1'

N = Track pads (20")

G* = on rail 3'6" = 24'

G** = on rail 4'8"/5'3" = 23'9"

Ditch Cleaning Bucket with Two-Piece Boom 15'11"



* Safety distance to overhead wires

Digging Envelope Gauge 4'8"

with quick coupler		1	2	3
Stick length	ft in	6' 9"	7' 5"	8'
Max. digging depth	ft in	14' 7"	15' 3"	15'11"
Max. reach at ground level	ft in	25' 9"	26' 5"	27' 1"
Max. dumping height	ft in	23' 5"	23'11"	24' 5"
Max. dumping height under overhead wires	ft in	10'11"	10'11"	10'11"
Max. teeth height	ft in	30' 2"	30' 8"	31' 2"
Min. equipment radius	ft in	7' 3"	7' 5"	7' 7"

Digging Forces

without quick coupler		1	2	3
Max. digging force (ISO 6015)	lbf	16,568	15,467	14,500
	lb	16,540	15,430	14,550
Max. breakout force (ISO 6015)	lbf	19,130	19,130	19,130
	lb	19,180	19,180	19,180

Max. breakout force with ripper bucket 27,854 lbf (27,780 lb)

Operating Weight and Ground Pressure

The operating weight includes the basic machine with triple grouser pads, two-piece boom 15'11", stick 7'5", quick coupler SWA 33 and ditch cleaning bucket 78.7"/0.85 yd³.

Undercarriage		4'8"
Pad width	in	20"
Weight	lb	42,990
Ground pressure	psi	8.5

Ditch Cleaning Buckets Machine stability per ISO 10567* (75% of tipping capacity)

Cutting width in	Capacity ISO 7451 ¹⁾ yd ³	Weight lb	on rail 4'8"			on chain		
			Stick length (ft in)			Stick length (ft in)		
			6'9"	7'5"	8'	6'9"	7'5"	8'
63.0 ²⁾	0.72	1,411	■	△	△	■	■	■
78.7 ²⁾	0.65	1,455	■	■	△	■	■	■
59.1 ³⁾	0.65	794	■	■	■	■	■	■
78.7 ³⁾	0.63	772	■	■	■	■	■	■
78.7 ³⁾	0.85	860	■	△	△	■	■	■

* Indicated loads are based on ISO 10567 and do not exceed 75% of tipping or 87% of hydraulic capacity, max. stick length without quick coupler, lifted 360° on firm with blocked oscillating axle

¹⁾ comparable with SAE (heaped)

²⁾ with 2 x 50° rotator

³⁾ rigid ditch cleaning bucket

Max. material weight ■ = ≤ 3,034 lb/yd³, ■ = ≤ 2,528 lb/yd³, △ = ≤ 2,023 lb/yd³, - = not authorized

Lift Capacities

with Two-Piece Boom 15'11", Narrow Gauge 3'6"

Stick 6'9"

ft	Undercarriage	10 ft		15 ft		20 ft		Max. reach		ft in
										
25	on rail							5,7	7,2*	12' 11"
	on chain	10,0*	10,0*					7,8*	7,8*	
20	on rail			4,8	10,9*			3,2	5,9*	18' 5"
	on chain			10,1	10,5*			6,1*	6,1*	
15	on rail	8,2	16,1*	4,8	11,8*	2,8	9,8*	2,4	5,6*	21' 4"
	on chain	14,4*	14,4*	10,1	11,5*	6,4	8,7*	5,6*	5,6*	
10	on rail	7,9	20,3*	4,7	13,4*	2,8	10,2*	2,0	5,7*	22' 10"
	on chain	17,6	20,3*	10,0	13,0*	6,4	9,8	5,1	5,6*	
5	on rail	7,8	21,4*	4,5	14,3*	2,6	10,4*	1,9	6,1*	23' 1"
	on chain	17,5	21,0*	9,9	14,2*	6,3	9,7	4,9	6,0*	
0	on rail	7,0	22,8*	4,1	14,4*	2,4	10,4*	1,9	7,0*	22' 2"
	on chain	17,6	22,8*	9,6	14,4	6,0	9,5	5,0	6,8*	
- 5	on rail	6,6	23,4*	3,6	14,3*			2,3	7,5*	19' 11"
	on chain	16,9	23,2*	9,0	14,6	5,8	8,5*	5,6	7,7*	
-10	on rail	6,2	16,7*					4,0	9,5*	13' 7"
	on chain	16,4	19,5*	8,8	9,4*			7,8*	7,8*	

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

The load values are quoted in lb x 1,000 at stick end (without bucket), and may be swung 360° on firm and even ground. Adjacent values are valid for the undercarriage when in the longitudinal position (+/- 15°). Capacities are valid for 20" wide track pads with adjusting cylinder 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 *), or are limited by the permissible load of the load lift hook. Lifting capacity of the excavator is limited by machine stability and hydraulic capacity. Please note that the stability will be reduced by approx. 25% in case of a 2" cant and 40% in case of a 4.1" cant.

Lift Capacities

with Two-Piece Boom 15'11", Standard Gauge 4'8"

Stick 6'9"

ft	Undercarriage	10 ft		15 ft		20 ft		ft in		
25	on rail							7,3*	7,3*	12'5"
	on chain	10,0*	10,0*					7,8*	7,8*	
20	on rail			6,5	10,9*			4,6	5,9*	18'2"
	on chain			10,2	10,5*			6,1*	6,1*	
15	on rail	11,4	15,9*	6,5	11,7*	4,0	9,5*	3,5	5,6*	21'2"
	on chain	14,4*	14,4*	10,1	11,5*	6,4	8,7*	5,6*	5,6*	
10	on rail	11,0	20,3*	6,5	13,3*	3,9	10,2*	3,0	5,6*	22'8"
	on chain	17,7	20,3*	10,0	13,0*	6,4	9,8	5,2	5,6*	
5	on rail	10,9	21,3*	6,3	14,3*	3,8	10,4*	2,9	6,0*	23'1"
	on chain	17,5	21,0*	10,0	14,2*	6,3	9,7	4,9	6,0*	
0	on rail	10,1	22,8*	5,8	14,4*	3,6	10,4*	3,0	6,9*	22'2"
	on chain	17,6	22,8*	9,6	14,4	6,0	9,5	5,0	6,8*	
-5	on rail	9,6	23,3*	5,3	14,5*	3,4	7,7*	3,4	7,5*	20'1"
	on chain	17,0	23,2*	9,1	14,6	5,9	8,5*	5,6	7,7*	
-10	on rail	9,2	17,5*					5,5	8,9*	14'4"
	on chain	16,4	19,5*	8,8	9,4*			7,8*	7,8*	

Stick 7'5"

ft	Undercarriage	10 ft		15 ft		20 ft		ft in		
25	on rail							6,4*	6,4*	13' 7"
	on chain							6,8*	6,8*	
20	on rail			6,6	10,1*			4,3	5,3*	19'
	on chain			9,8*	9,8*			5,4*	5,4*	
15	on rail	11,4	13,6*	6,5	11,3*	4,0	9,5*	3,3	5,0*	21'11"
	on chain	12,1*	12,1*	10,1	11,1*	6,5	8,9*	5,0*	5,0*	
10	on rail	11,0	20,5*	6,4	13,0*	4,0	10,0*	2,9	5,1*	23' 5"
	on chain	17,7	19,8*	10,0	12,7*	6,5	9,7	4,9	5,0*	
5	on rail	10,8	21,1*	6,3	14,2*	3,8	10,4*	2,7	5,4*	23' 8"
	on chain	17,4	20,8*	9,9	14,1*	6,3	9,7	4,7	5,3*	
0	on rail	10,2	22,7*	5,9	14,3*	3,6	10,5*	2,8	6,2*	22'11"
	on chain	17,6	22,6*	9,7	14,3	6,1	9,5	4,8	6,0*	
-5	on rail	9,6	23,1*	5,3	14,6*	3,4	8,6*	3,2	7,4*	20'10"
	on chain	17,0	23,0*	9,1	14,6	5,8	9,2*	5,4	7,4*	
-10	on rail	9,1	19,2*	5,1	9,3*			4,7	7,8*	15'11"
	on chain	16,4	20,9*	8,8	10,8*			7,5*	7,5*	

Stick 8'

ft	Undercarriage	10 ft		15 ft		20 ft		ft in		
25	on rail							5,7*	5,7*	14'8"
	on chain							6,0*	6,0*	
20	on rail			6,6	9,3*			4,0	4,8*	19'8"
	on chain			9,2*	9,2*			4,9*	4,9*	
15	on rail	11,3*	11,3*	6,5	11,0*	4,1	9,2*	3,2	4,5*	22'7"
	on chain	10,4*	10,4*	10,1	10,8*	6,5	8,8*	4,6*	4,6*	
10	on rail	11,0	19,8*	6,4	12,7*	4,0	9,8*	2,7	4,6*	24'
	on chain	17,7	18,9*	9,9	12,4*	6,5	9,7	4,6*	4,6*	
5	on rail	10,8	20,9*	6,4	14,0*	3,9	10,3*	2,6	4,9*	24'4"
	on chain	17,4	20,7*	9,8	13,9*	6,3	9,7	4,5	4,8*	
0	on rail	10,2	22,5*	5,9	14,2*	3,6	10,4*	2,7	5,5*	23'6"
	on chain	17,5	22,3*	9,7	14,2	6,1	9,5	4,6	5,4*	
-5	on rail	9,6	22,9*	5,4	14,6*	3,4	9,2*	3,0	6,8*	21'6"
	on chain	16,9	22,8*	9,1	14,5*	5,8	9,2	5,1	6,5*	
-10	on rail	9,1	20,6*	5,1	10,7*			4,6	7,7*	15'8"
	on chain	16,4	21,9*	8,7	11,9*			6,5*	6,5*	

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

The load values are quoted in lb x 1,000 at stick end (without bucket), and may be swung 360° on firm and even ground. Adjacent values are valid for the undercarriage when in the longitudinal position (+/- 15°). Capacities are valid for 20" wide track pads with adjusting cylinder 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 *), or are limited by the permissible load of the load lift hook. Lifting capacity of the excavator is limited by machine stability and hydraulic capacity. Please note that the stability will be reduced by approx. 20% in case of a 3.9" cant and 40% in case of a 7.1" cant.

Lift Capacities

with Two-Piece Boom 15'11", Broad Gauge 5'3"

Stick 6'9"

ft	Undercarriage	10 ft		15 ft		20 ft		ft in		
										
25	on rail							7,3*	7,3*	12'5"
	on chain	10,0*	10,0*					7,8*	7,8*	
20	on rail			7,4	10,9*			5,2	5,9*	18'2"
	on chain			10,2	10,5*			6,1*	6,1*	
15	on rail	13,0	15,9*	7,4	11,7*	4,5	9,5*	4,0	5,6*	21'2"
	on chain	14,4*	14,4*	10,2	11,5*	6,4	8,7*	5,6*	5,6*	
10	on rail	12,6	20,3*	7,3	13,3*	4,5	10,2*	3,5	5,6*	22'8"
	on chain	17,7	20,3*	10,0	13,0*	6,4	9,8	5,2	5,6*	
5	on rail	12,5	21,3*	7,1	14,3*	4,3	10,4*	3,3	6,0*	23'1"
	on chain	17,5	21,0*	10,0	14,2*	6,3	9,7	4,9	6,0*	
0	on rail	11,7	22,8*	6,6	14,4*	4,1	10,4*	3,4	6,9*	22'2"
	on chain	17,7	22,8*	9,7	14,4*	6,1	9,5	5,0	6,8*	
-5	on rail	11,2	23,3*	6,1	14,5*	4,0	7,7*	3,9	7,5*	20'1"
	on chain	17,0	23,2*	9,1	14,7*	5,9	8,5*	5,7	7,7*	
-10	on rail	10,7	17,5*					6,4	8,9*	14'4"
	on chain	16,5	19,5*	8,8	9,4*			7,8*	7,8*	

Stick 7'5"

ft	Undercarriage	10 ft		15 ft		20 ft		ft in		
										
25	on rail							6,4*	6,4*	13' 7"
	on chain							6,8*	6,8*	
20	on rail			7,4	10,1*			4,9	5,3*	19'
	on chain			9,8*	9,8*			5,4*	5,4*	
15	on rail	13,0	13,6*	7,4	11,3*	4,6	9,5*	3,8	5,0*	21'11"
	on chain	12,1*	12,1*	10,1	11,1*	6,5	8,9*	5,0*	5,0*	
10	on rail	12,6	20,5*	7,3	13,0*	4,6	10,0*	3,3	5,1*	23' 5"
	on chain	17,7	19,8*	10,0	12,7*	6,5	9,8	5,0	5,0*	
5	on rail	12,4	21,1*	7,2	14,2*	4,4	10,4*	3,2	5,4*	23' 8"
	on chain	17,5	20,8*	9,9	14,1*	6,3	9,8	4,7	5,3*	
0	on rail	11,7	22,7*	6,7	14,3*	4,1	10,5*	3,3	6,2*	22'11"
	on chain	17,7	22,6*	9,7	14,3*	6,1	9,5	4,8	6,0*	
-5	on rail	11,1	23,1*	6,1	14,6*	3,9	8,6*	3,7	7,4*	20'10"
	on chain	17,0	23,0*	9,1	14,6*	5,9	9,2*	5,4	7,4*	
-10	on rail	10,7	19,2*	5,9	9,3*			5,5	7,8*	15'11"
	on chain	16,4	20,9*	8,8	10,8*			7,5*	7,5*	

Stick 8'

ft	Undercarriage	10 ft		15 ft		20 ft		ft in		
										
25	on rail							5,7*	5,7*	14'8"
	on chain							6,0*	6,0*	
20	on rail			7,5	9,3*			4,6	4,8*	19'8"
	on chain			9,2*	9,2*			4,9*	4,9*	
15	on rail	11,3*	11,3*	7,4	11,0*	4,6	9,2*	3,6	4,5*	22'7"
	on chain	10,4*	10,4*	10,1	10,8*	6,5	8,8*	4,6*	4,6*	
10	on rail	12,6	19,8*	7,2	12,7*	4,6	9,8*	3,2	4,6*	24'
	on chain	17,7	18,9*	9,9	12,4*	6,5	9,7	4,6*	4,6*	
5	on rail	12,3	20,9*	7,2	14,0*	4,4	10,3*	3,0	4,9*	24'4"
	on chain	17,4	20,7*	9,9	13,9*	6,4	9,7	4,5	4,8*	
0	on rail	11,8	22,5*	6,7	14,2*	4,1	10,4*	3,1	5,5*	23'6"
	on chain	17,5	22,3*	9,7	14,2*	6,1	9,5	4,6	5,4*	
-5	on rail	11,1	22,9*	6,2	14,6*	3,9	9,2*	3,5	6,8*	21'6"
	on chain	17,0	22,8*	9,2	14,5*	5,8	9,3	5,1	6,5*	
-10	on rail	10,6	20,6*	5,9	10,7*			5,4	7,7*	15'8"
	on chain	16,4	21,9*	8,8	11,9*			6,5*	6,5*	

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

The load values are quoted in lb x 1,000 at stick end (without bucket), and may be swung 360° on firm and even ground. Adjacent values are valid for the undercarriage when in the longitudinal position (+/- 15°). Capacities are valid for 20" wide track pads with adjusting cylinder 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 *), or are limited by the permissible load of the load lift hook. Lifting capacity of the excavator is limited by machine stability and hydraulic capacity. Please note that the stability will be reduced by approx. 20% in case of a 3.9" cant and 40% in case of a 7.1" cant.

Equipments

Buckets/Tilt Buckets

Buckets Machine stability per ISO 10567* (75% of tipping capacity)

Cutting width in	Capacity ISO 7451 ¹⁾ yd ³	Weight lb	on rail 4'8"			on chain		
			Stick length (ft in)			Stick length (ft in)		
			6'9"	7'5"	8'	6'9"	7'5"	8'
11.8" ²⁾	0.22	485	■	■	■	■	■	■
15.7" ²⁾	0.31	551	■	■	■	■	■	■
19.7" ²⁾	0.37	551	■	■	■	■	■	■
21.7" ²⁾	0.38	573	■	■	■	■	■	■
25.6" ²⁾	0.47	639	■	■	■	■	■	■
33.5" ²⁾	0.65	750	■	■	■	■	■	■
41.3" ²⁾	0.85	838	■	△	△	■	■	■
49.2" ²⁾	1.05	948	△	-	-	■	■	■

* Indicated loads are based on ISO 10567 and do not exceed 75% of tipping or 87% of hydraulic capacity, max. stick length without quick coupler, lifted 360° on firm with blocked oscillating axle

¹⁾ comparable with SAE (heaped)

²⁾ Bucket with teeth

³⁾ Bucket with teeth in HD-version

⁴⁾ Bucket with cutting edge (also available in HD-version)

Max. material weight ■ = ≤ 3,034 lb/yd³, ■ = ≤ 2,528 lb/yd³, △ = ≤ 2,023 lb/yd³, - = not authorized

Tilt Buckets Machine stability per ISO 10567* (75% of tipping capacity)

Cutting width in	Capacity ISO 7451 ¹⁾ yd ³	Weight lb	on rail 4'8"			on chain		
			Stick length (ft in)			Stick length (ft in)		
			6'9"	7'5"	8'	6'9"	7'5"	8'
59.1" ²⁾	0.78	1,455	△	△	-	■	■	■

* Indicated loads are based on ISO 10567 and do not exceed 75% of tipping or 87% of hydraulic capacity, max. stick length without quick coupler, lifted 360° on firm with blocked oscillating axle

¹⁾ comparable with SAE (heaped)

²⁾ with 2 x 50° rotator

Max. material weight ■ = ≤ 3,034 lb/yd³, ■ = ≤ 2,528 lb/yd³, △ = ≤ 2,023 lb/yd³, - = not authorized

Equipment

Undercarriage

Crawler track operation	
20" rubber track pads	•
Three-piece chain guide	•
Tool equipment, extended	+
Rail operation	
Lighting system white/red	•
Derailment bar, selectable for each gauge	+
Hydrostatic drive of the track wheels (four-wheel drive)	•
Load holding valve on each stabilization cylinder	•
Trailer operation kit:	
– Trailer coupling device	
– Park brake release, hydraulic	
– Power socket	
– Tipping circuit, hydraulic	+
Track wheel profile ANZR-1, isolated	+
Track wheel profile UIC	+
Rail sweeper	+
Protection for front piston rods, stabilizer cylinder	•
Speeder (rail) 15.5 mph *	+
Gauge 3'6", narrow gauge	+
Gauge 4'8", standard gauge	+
Gauge 5'3", broad gauge	+
Undercarriage STD Rail, track gauge 6'7"	•
Attachment holder, front	+
Pull rod	•

Uppercarriage

Uppercarriage rear light, 2 pieces, LED	+ ¹⁾
Uppercarriage right side light, 1 piece, LED	+ ¹⁾
Uppercarriage front light, 2 pieces, LED	+ ¹⁾
Refuelling system with filling pump	+
Main battery switch for electrical system	•
Engine hood with gas spring	•
Emergency stop, left and right	+
Amber beacon, at uppercarriage, LED double flash	+
Service doors, lockable	•

Hydraulic System

Shut-off valve between hydraulic tank and pump(s)	•
Pressure test fittings	•
Hydraulic oil filter with integrated microfilter	•
Liebherr hydraulic oil from -4 °F to +104 °F	•
Liebherr hydraulic oil, biologically degradable	+
Liebherr hydraulic oil, specially for warm or cold regions	+
Bypass filter	+
Emergency actuation, electric	•
Switchover high pressure circuit and tipping cylinder	+
Switchover high pressure circuit and two-piece boom	+

Diesel Engine

Deutz particle filter (Stage V)	•
Fuel anti-theft device	+
Reversible fan drive, fully automatic	+
Air pre-filter with dust discharge	+
Automatic engine shut-down (time adjustable)	+
Radiator fine mesh protection grid	•
Preheating fuel	+

Work Space Limitation

Electronic lift limitation	•
Load torque limitation (RCL)	+
Load torque warning (RCI)	•
Swivel limitation	•
Virtual wall	•

Equipment



Operator's Cab

Storage compartment	•
Cab lights rear, LED	+ ¹⁾
Cab lights front, LED (above rain cover)	+ ¹⁾
Cab lights front, LED (under rain cover)	+ ¹⁾
Mechanical hour meters, readable from outside the cab	•
Roof window made from impact-resistant laminated safety glass	•
Data logger	•
Operator's seat Standard	•
Operator's seat Comfort	+
Operator's seat Premium	+
Driving alarm (acoustic signal is emitted during travel, can be switched ON/OFF)	+
Fire extinguisher	+
Front screen made from impact-resistant laminated safety glass – not adjustable	+
Windscreen retractable (including upper part)	•
Bottom windscreen wiper	+
Intermittent windscreen wiper with wiper washer	•
Footrest	+
Speed indication for rail operation	•
Rubber floor mat, removable	•
Dome light	•
Automatic air conditioning	•
Fuel consumption indicator	•
Electric cool box (12 V)	+
LiDAT, vehicle fleet management*	•
Lightbar on cabin	+
Emergency exit rear window	•
Emergency stop	•
Positioning swing brake	+
Proportional control	•
Radio Comfort, control via display with handsfree set	+
Preparation for radio installation	•
Rain cover over front window opening	•
ROPS cab protection	•
Amber beacon, on cabin, LED double flash	+
Tinted windows	•
Windscreen wiper, roof	+
Door with sliding window	•
FOPS top guard	+
FGPS front guard	+
FGPS front guard, tiltable	+
Right side window and windshield made from laminated safety glass	•
Signal horn	•
Sun visor	+
Sun blind	•
Vigilance system	+
Electronic immobilizer	+
Cigarette lighter	•
Second display	•

• = Standard, + = Option

* = country-dependent

¹⁾ Equipment not individually available, but only as predefined packages

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



Equipment

Boom lights, 2 pieces, halogen	• ¹⁾
Boom lights, 2 pieces, LED	+ ¹⁾
Stick lights, 2 pieces, LED	+ ¹⁾
High pressure circuit incl. unpressurized return line and Tool Control	+
Load holding valve tipping cylinder (not available in combination with protection for piston rods, tipping cylinder)	+
Leak oil line, additional for attachments	+
Liebherr ditch cleaning bucket	+
Liebherr quick coupler, hydraulic or mechanical	+
Liebherr tilt bucket	+
Liebherr backhoe bucket	+
Liebherr tooth system	+
Liebherr clamshell grab	+
Medium pressure circuit incl. lines	+
Pipe fracture safety valves hoist cylinders	•
Pipe fracture safety valve stick cylinder	•
Hose quick coupling at end of stick	•
Hose protection for LIKUFIX	+
Quick coupling system LIKUFIX SWA 33	+
Quick coupling system LIKUFIX SWA 48	+
Protection for piston rod, tipping cylinder	+
Protection for bottom side of stick	+
Tool Control, 20 attachment adjustments selectable over the display	+
Two-piece boom 15'11"	•



Complete Machine

Lubrication	
Lubrication undercarriage, manually – decentralized (grease points)	•
Central lubrication system for uppercarriage and equipment, automatically (without quick coupler and connecting link)*	•
Centralized lubrication extended for quick coupler	+
Centralized lubrication extended for connecting link	+
Special coating	
Custom painting for attachments	+
Special coating, variants	+
Monitoring	
Rear view monitoring with camera	•
Side view monitoring with camera	•
Machine guidance system	
Preparation	+
National permit	
Preparation for AS 7502	+
Preparation for EN 15746	+

WARNING

This product can expose you to chemicals including lead and lead compounds, which are known to the State of California to cause cancer and birth defects or other reproductive harm.
For more information go to www.P65warnings.ca.gov.

WARNING

Breathing diesel engine exhaust exposes you to chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

- ▶ Always start and operate the engine in a well-ventilated area.
- ▶ If in an enclosed area, vent the exhaust to the outside.
- ▶ Do not modify or tamper with exhaust system.
- ▶ Do not idle the engine except as necessary.

For more information go to www.P65warnings.ca.gov/diesel.

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