

Tracked Road Rail Excavator

R 914 Rail

Litronic®

Generation

6

Operating Weight

18,900 – 19,900 kg

Engine

90 kW / 122 HP

Stage IV

Bucket Capacity

0.17 – 0.80 m³



LIEBHERR

Technical Data



Diesel Engine

Rating per ISO 9249	90 kW (122 HP) at 1,800 RPM
Model	Deutz TCD3.6L4
Type	4 cylinder in-line
Bore/Stroke	98/120 mm
Displacement	3.6 l
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 IV	
Harmful emissions values	in accordance with 97/68/EG stage IV
Emission control	Liebherr-SCR technology
Option	Deutz particle filter
Fuel tank	175 l
Urea tank	20 l



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
----------------------	--



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	with hydraulic proportionally functioning foot pedals or adjusted with plugable levers
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	300 l/min.
Max. pressure	350 bar
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	100 l
Hydraulic system	max. 230 l
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 preadjustable pump flows and pressures for add-on attachments



Swing Drive

Drive	Liebherr compact planetary reduction gear with Liebherr axial piston motor per side of under-carriage
Swing ring	Liebherr, sealed race ball bearing swing ring, internal teeth
Swing speed	0 – 10.0 RPM stepless
Swing torque	51 kNm
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 head-lights integrated in the ceiling, a door with a sliding window (can be opened on both sides), large stowing and depositing possibilities, shock-absorbing suspension, sounddamping 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 climatisation 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 climatisation with active coal and ventilator
Control system	joysticks with control consoles and swivel seat, folding left control console
Operation and displays	large high-resolution operating unit, selfexplanatory, colour display with touchscreen, video-compatible, numerous setting, control and monitoring options, e.g. air conditioning control, fuel consumption, machine and attachment parameters
Air-conditioning	automatic air-conditioning, recirculated air function, fast de-icing and demisting at the press of a button; air vents can be operated via a menu; recirculated air and fresh air filters can be easily replaced and are accessible from the outside; heating-cooling unit, designed for extreme outside temperatures, sensors for solar radiation, inside and outside temperatures (country-dependent)
Refrigerant	R134a
Global warming potential	1,430
Quantity at 25 °C	1,260 g
CO ₂ equivalent	1.8018 t
Vibration emission*	
Hand/arm vibrations	< 2.5 m/s ²
Whole-body vibrations	< 0.5 m/s ²
Measuring inaccuracy	according with standard EN 12096:1997



Undercarriage

Crawler undercarriage	
Drive	Liebherr compact planetary reduction gear with Liebherr axial piston motor per side of undercarriage
Speed on chain	low range 3.1 km/h high range 6.8 km/h
Net drawbar pull on crawler	154 kN
Track components	B4, maintenance-free
Track rollers/Carrier rollers	8/2
Tracks	sealed and greased
Track pads	triple grouser, rubber, width 500 mm special widths available on request
Holding brake	wet multi-disc (spring applied, pressure released)
Brake valves	integrated into travel motor
Lashing eyes	integrated
Rail undercarriage	
Speed on rail	0 – 20.0 km/h stepless 0 – max. 25.0 km/h Speeder (Option)
Drive	hydrostatic drive of the track wheels (four-wheel drive)
Gauge	narrow gauge 1,067 mm standard gauge 1,435 mm broad gauge 1,600 mm special widths available on request
Profiles	track wheel profile ANZR-1, isolated track wheel profile UIC special profiles available on request
Diameter track wheel	560 mm
Option	trailer operation kit
Option	decoupling of the hydraulic drive system for towing



Equipment

Type	high-strength steel plates at highlystressed points for the toughest requirements. Complex and stable mountings of equipment and cylinders
Hydraulic cylinders	Liebherr cylinders with special seal system as well as shock absorption
Bearings	sealed, low maintenance

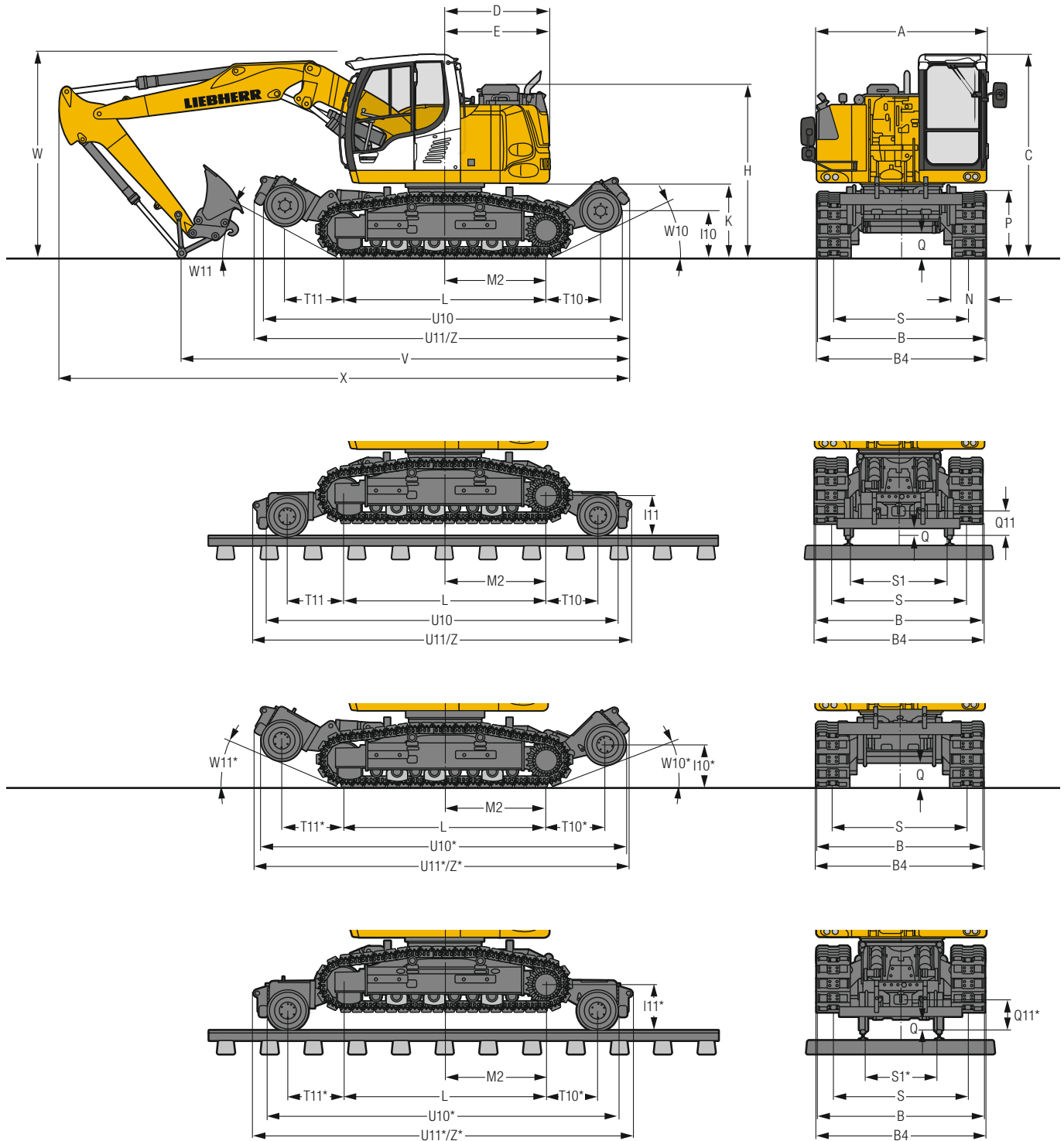


Complete Machine

Lubrication	Liebherr central lubrication system for uppercarriage and equipment, automatically
Noise emission	
ISO 6396	L _{PA} (inside cab) = 71 dB(A)
2000/14/EC	L _{WA} (surround noise) = 99 dB(A)

* for risk assessment according to 2002/44/EC see ISO/TR 25398:2006

Dimensions

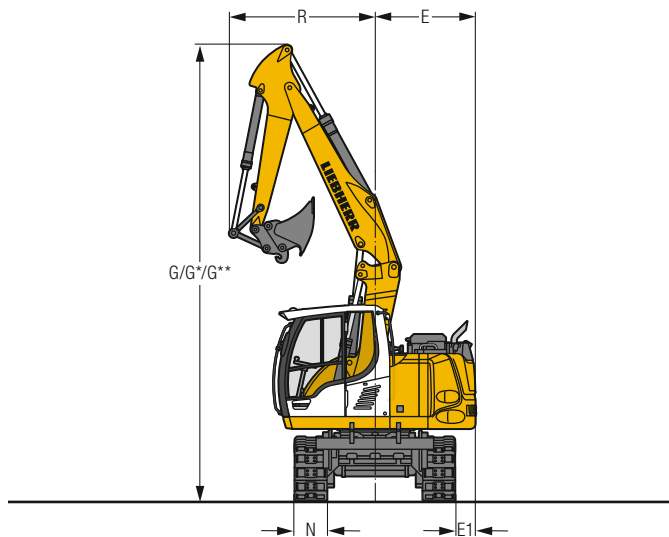


	1,435/1,600 mm on chain mm	1,435/1,600 mm on rail mm	1,067 mm on chain mm	1,067 mm on rail mm
A	2,525	2,525	2,525	2,525
B	2,500	2,500	2,500	2,500
B4	2,525	2,525	2,525	2,525
C	3,030	3,210	3,030	3,295
D	1,550	1,550	1,550	1,550
E	1,550	1,550	1,550	1,550
H	2,575	2,755	2,575	2,840
I10	700	—	—	—
I10*	—	—	635	—
I11	—	585	—	—
I11*	—	—	—	670
K	1,095	1,275	1,095	1,360
L	3,000	3,000	3,000	3,000
M2	1,500	1,500	1,500	1,500
N	500	500	500	500
P	985	985	985	985
Q	375	110	375	150
Q11	—	365	—	—
Q11*	—	—	—	450
S	2,000	2,000	2,000	2,000
S1	—	1,435/1,600	—	—
S1*	—	—	—	1,067
T10	815	765	—	—
T10*	—	—	875	765
T11	885	835	—	—
T11*	—	—	925	835
U10	5,315	5,220	—	—
U10*	—	—	5,415	5,220
U11	5,560	5,610	—	—
U11*	—	—	5,560	5,610
W10	25.7°	—	—	—
W10*	—	—	20.6°	—
W11	28.3°	—	—	—
W11*	—	—	23.3°	—
Z	5,560	5,610	—	—
Z*	—	—	5,560	5,610

E = Tail radius

	Stick	Two-piece boom 4.85 m	
	m	1,435/1,600 mm	1,067 mm
		mm	mm
V	2.05	6,400	6,400
	2.25	6,700	—
	2.45	6,700	—
W	2.05	2,900	2,900
	2.25	3,100	—
	2.45	3,150	—
X	2.05	8,600	8,600
	2.25	8,500	—
	2.45	8,450	—

W = max. ground clearance including approx. 150 mm piping



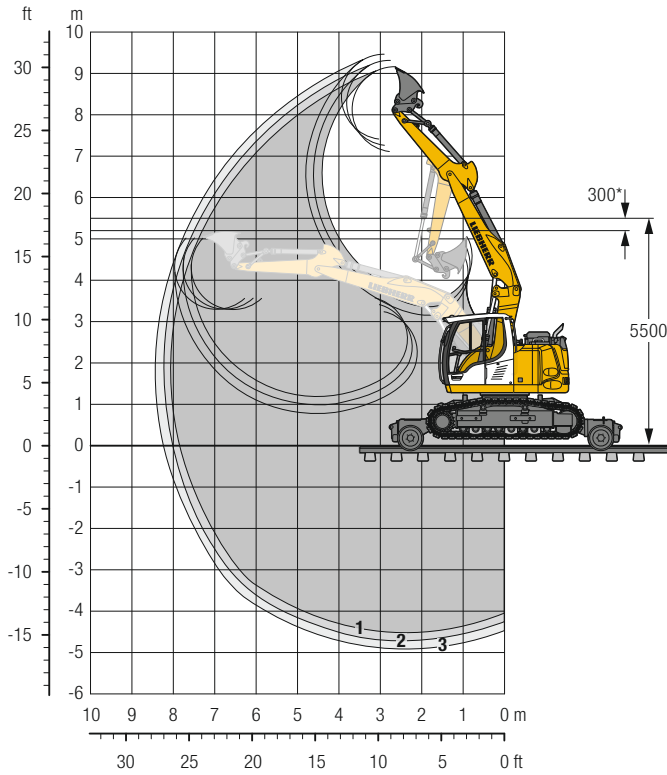
Boom	Stick	G	R	E	E1
	m	mm	mm	mm	mm
Two-piece boom 4.85 m	2.25	7,050	2,265	1,550	300

N = Track pads (500 mm)

G* = on rail 1,067 mm = 7,315 mm

G** = on rail 1,435/1,600 mm = 7,230 mm

Ditch Cleaning Bucket with Two-Piece Boom 4.85 m



* Safety distance to overhead wires

Digging Envelope Gauge 1,435 mm

with quick coupler				
Stick length	m	2.05	2.25	2.45
Max. digging depth	m	4.50	4.70	4.90
Max. reach at ground level	m	7.85	8.05	8.25
Max. dumping height	m	7.10	7.25	7.40
Max. dumping height under overhead wires	m	3.33	3.33	3.33
Max. teeth height	m	9.15	9.30	9.45
Min. equipment radius	m	2.22	2.27	2.32

Digging Forces

without quick coupler				
Max. digging force (ISO 6015)	kN	73.7	68.8	64.5
	t	7.5	7.0	6.6
Max. breakout force (ISO 6015)	kN	85.1	85.1	85.1
	t	8.7	8.7	8.7

Max. breakout force with ripper bucket 123.9 kN (12.6 t)

Operating Weight and Ground Pressure

The operating weight includes the basic machine with triple grouser pads, two-piece boom 4.85 m, stick 2.25 m, quick coupler SWA 33 and ditch cleaning bucket 2,000 mm/0.65 m³.

Undercarriage	1,435 mm	
Pad width	mm	500
Weight	kg	19,500
Ground pressure	kg/cm ²	0.60

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

Cutting width mm	Capacity ISO 7451 ¹⁾ m ³	Weight kg	on rail 1,435 mm			on chain		
			Stick length (m)			Stick length (m)		
			2.05	2.25	2.45	2.05	2.25	2.45
1,600 ²⁾	0.55	640	■	△	△	■	■	■
2,000 ²⁾	0.50	660	■	■	△	■	■	■
1,500 ³⁾	0.50	360	■	■	■	■	■	■
2,000 ³⁾	0.48	350	■	■	■	■	■	■
2,000 ³⁾	0.65	390	■	△	△	■	■	■

* 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 ■ = ≤ 1.8 t/m³, ■ = ≤ 1.5 t/m³, △ = ≤ 1.2 t/m³, – = not authorised

Lift Capacities

with Two-Piece Boom 4.85 m, Narrow Gauge 1,067 mm

Stick 2.05 m

m	Undercarriage	3.0 m		4.5 m		6.0 m		Max. reach		m
7.5	on rail							2.5	3.2*	4.0
	on chain							3.4*	3.4*	
6.0	on rail			2.2	5.0*			1.4	2.7*	5.6
	on chain			4.7	4.9*			2.7*	2.7*	
4.5	on rail	3.8	7.5*	2.2	5.4*	1.3	4.5*	1.1	2.5*	6.5
	on chain	6.8*	6.8*	4.7	5.3*	3.0	4.4*	2.5*	2.5*	
3.0	on rail	3.6	9.3*	2.2	6.2*	1.3	4.7*	0.9	2.6*	6.9
	on chain	8.2	9.3*	4.6	6.0*	3.0	4.5	2.3	2.6*	
1.5	on rail	3.6	9.8*	2.1	6.6*	1.2	4.8*	0.9	2.8*	7.0
	on chain	8.1	9.6*	4.6	6.6*	2.9	4.5	2.2	2.7*	
0	on rail	3.3	10.5*	1.9	6.7*	1.1	4.8*	0.9	3.2*	6.8
	on chain	8.2	10.5*	4.5	6.6*	2.8	4.4	2.3	3.1*	
-1.5	on rail	3.1	10.8*	1.7	6.7*	1.0	3.7*	1.0	3.4*	6.1
	on chain	7.9	10.7*	4.2	6.8*	2.7	4.1*	2.5	3.5*	
-3.0	on rail	2.9	8.2*					1.7	4.0*	4.4
	on chain	7.6	9.2*	4.1	4.6*			3.5*	3.5*	

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

The load values are quoted in tons (t) 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 500 mm 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.

In accordance with the harmonised European Standard EN 474-5, hydraulic excavators used for lifting operations must be equipped with pipe fracture safety valves, an overload warning device, a load lift hook and a lift capacity chart.

Please note that the stability will be reduced by approx. 25% in case of a 50 mm cant and 40% in case of a 105 mm cant.

Lift Capacities

with Two-Piece Boom 4.85 m, Standard Gauge 1,435 mm

Stick 2.05 m

m	Undercarriage	3.0 m		4.5 m		6.0 m		Max. reach		m
		on rail	on chain	on rail	on chain	on rail	on chain	on rail	on chain	
7.5	on rail							3.3*	3.3*	3.9
	on chain							3.4*	3.4*	
6.0	on rail			3.0	5.0*			2.1	2.7*	5.6
	on chain			4.7	4.9*			2.7*	2.7*	
4.5	on rail	5.3	7.3*	3.0	5.4*	1.9	4.5*	1.6	2.5*	6.5
	on chain	6.8*	6.8*	4.7	5.3*	3.0	4.4*	2.5*	2.5*	
3.0	on rail	5.1	9.3*	3.0	6.1*	1.8	4.7*	1.4	2.6*	6.9
	on chain	8.2	9.3*	4.6	6.0*	3.0	4.5	2.3	2.6*	
1.5	on rail	5.1	9.7*	2.9	6.6*	1.8	4.8*	1.3	2.7*	7.0
	on chain	8.1	9.6*	4.6	6.6*	2.9	4.5	2.2	2.7*	
0	on rail	4.7	10.5*	2.7	6.6*	1.7	4.8*	1.3	3.1*	6.8
	on chain	8.2	10.5*	4.5	6.6*	2.8	4.4	2.3	3.1*	
-1.5	on rail	4.5	10.8*	2.5	6.7*	1.6	3.8*	1.5	3.4*	6.2
	on chain	7.9	10.7*	4.2	6.8*	2.7	4.1*	2.6	3.5*	
-3.0	on rail	4.3	8.5*	2.4	4.0*			2.3	3.8*	4.6
	on chain	7.6	9.2*	4.1	4.6*			3.5*	3.5*	

Stick 2.25 m

m	Undercarriage	3.0 m		4.5 m		6.0 m		Max. reach		m
		on rail	on chain	on rail	on chain	on rail	on chain	on rail	on chain	
7.5	on rail							2.9*	2.9*	4.3
	on chain							3.0*	3.0*	
6.0	on rail			3.1	4.6*			1.9	2.4*	5.8
	on chain			4.6*	4.6*			2.4*	2.4*	
4.5	on rail	5.3	6.3*	3.0	5.2*	1.9	4.4*	1.5	2.3*	6.7
	on chain	5.7*	5.7*	4.7	5.1*	3.0	4.3*	2.3*	2.3*	
3.0	on rail	5.1	9.4*	3.0	6.0*	1.9	4.6*	1.3	2.3*	7.1
	on chain	8.2	9.2*	4.6	5.9*	3.0	4.5	2.2	2.3*	
1.5	on rail	5.0	9.6*	2.9	6.5*	1.8	4.8*	1.2	2.4*	7.2
	on chain	8.1	9.5*	4.6	6.5*	2.9	4.5	2.1	2.4*	
0	on rail	4.7	10.5*	2.7	6.6*	1.7	4.8*	1.3	2.8*	7.0
	on chain	8.2	10.4*	4.5	6.6*	2.8	4.4	2.2	2.7*	
-1.5	on rail	4.5	10.7*	2.5	6.8*	1.6	4.2*	1.4	3.4*	6.4
	on chain	7.9	10.6*	4.2	6.8*	2.7	4.3	2.4	3.3*	
-3.0	on rail	4.3	9.2*	2.4	4.7*			2.0	3.4*	5.0
	on chain	7.6	9.8*	4.1	5.2*			3.2*	3.2*	

Stick 2.45 m

m	Undercarriage	3.0 m		4.5 m		6.0 m		Max. reach		m
		on rail	on chain	on rail	on chain	on rail	on chain	on rail	on chain	
7.5	on rail							2.6*	2.6*	4.6
	on chain							2.6*	2.6*	
6.0	on rail			3.1	4.3*	1.8	2.4*	1.8	2.2*	6.1
	on chain			4.2*	4.2*			2.2*	2.2*	
4.5	on rail	5.2*	5.2*	3.0	5.0*	1.9	4.3*	1.4	2.1*	6.9
	on chain	4.8*	4.8*	4.7	5.0*	3.0	4.2*	2.1*	2.1*	
3.0	on rail	5.1	9.1*	3.0	5.8*	1.9	4.5*	1.2	2.1*	7.3
	on chain	8.2	8.8*	4.6	5.7*	3.0	4.5*	2.1*	2.1*	
1.5	on rail	5.0	9.5*	2.9	6.5*	1.8	4.7*	1.2	2.2*	7.4
	on chain	8.1	9.5*	4.6	6.4*	3.0	4.5	2.0	2.2*	
0	on rail	4.7	10.4*	2.7	6.6*	1.7	4.8*	1.2	2.5*	7.2
	on chain	8.1	10.3*	4.5	6.6*	2.8	4.4	2.1	2.4*	
-1.5	on rail	4.4	10.6*	2.5	6.7*	1.6	4.4*	1.3	3.1*	6.6
	on chain	7.9	10.6*	4.3	6.7*	2.7	4.3	2.3	3.0*	
-3.0	on rail	4.2	9.8*	2.4	5.3*			1.9	3.2*	5.2
	on chain	7.7	10.2*	4.1	5.7*			2.9*	2.9*	

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

The load values are quoted in tons (t) 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 500 mm 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.

In accordance with the harmonised European Standard EN 474-5, hydraulic excavators used for lifting operations must be equipped with pipe fracture safety valves, an overload warning device, a load lift hook and a lift capacity chart.

Please note that the stability will be reduced by approx. 20% in case of a 100 mm cant and 40% in case of a 180 mm cant.

Lift Capacities

with Two-Piece Boom 4.85 m, Broad Gauge 1,600 mm

Stick 2.05 m

m	Undercarriage	3.0 m		4.5 m		6.0 m		Max. reach		m
7.5	on rail							3.3*	3.3*	3.9
	on chain							3.4*	3.4*	
6.0	on rail			3.4	5.0*			2.4	2.7*	5.6
	on chain			4.8	4.9*			2.7*	2.7*	
4.5	on rail	6.0	7.3*	3.4	5.4*	2.1	4.5*	1.8	2.5*	6.5
	on chain	6.8*	6.8*	4.7	5.3*	3.0	4.4*	2.5*	2.5*	
3.0	on rail	5.8	9.3*	3.4	6.1*	2.1	4.7*	1.6	2.6*	6.9
	on chain	8.2	9.3*	4.6	6.0*	3.0	4.5	2.3	2.6*	
1.5	on rail	5.8	9.7*	3.3	6.6*	2.0	4.8*	1.5	2.7*	7.0
	on chain	8.1	9.6*	4.6	6.6*	2.9	4.5	2.2	2.7*	
0	on rail	5.4	10.5*	3.1	6.6*	1.9	4.8*	1.6	3.1*	6.8
	on chain	8.2	10.5*	4.5	6.6*	2.8	4.4	2.3	3.1*	
-1.5	on rail	5.2	10.8*	2.9	6.7*	1.8	3.8*	1.8	3.4*	6.2
	on chain	7.9	10.7*	4.2	6.8*	2.7	4.1*	2.6	3.5*	
-3.0	on rail	5.0	8.5*	2.8	4.0*			2.7	3.8*	4.6
	on chain	7.7	9.2*	4.1	4.6*			3.5*	3.5*	

Stick 2.25 m

m	Undercarriage	3.0 m		4.5 m		6.0 m		Max. reach		m
7.5	on rail							2.9*	2.9*	4.3
	on chain							3.0*	3.0*	
6.0	on rail			3.5	4.6*			2.2	2.4*	5.8
	on chain			4.6*	4.6*			2.4*	2.4*	
4.5	on rail	6.0	6.3*	3.4	5.2*	2.1	4.4*	1.7	2.3*	6.7
	on chain	5.7*	5.7*	4.7	5.1*	3.0	4.3*	2.3*	2.3*	
3.0	on rail	5.8	9.4*	3.4	6.0*	2.1	4.6*	1.5	2.3*	7.1
	on chain	8.2	9.2*	4.6	5.9*	3.0	4.5	2.2	2.3*	
1.5	on rail	5.8	9.6*	3.3	6.5*	2.0	4.8*	1.4	2.4*	7.2
	on chain	8.1	9.5*	4.6	6.5*	2.9	4.5	2.1	2.4*	
0	on rail	5.4	10.5*	3.1	6.6*	1.9	4.8*	1.5	2.8*	7.0
	on chain	8.2	10.4*	4.5	6.6*	2.8	4.4	2.2	2.7*	
-1.5	on rail	5.2	10.7*	2.9	6.8*	1.8	4.2*	1.7	3.4*	6.4
	on chain	7.9	10.6*	4.2	6.8*	2.7	4.3	2.4	3.3*	
-3.0	on rail	5.0	9.2*	2.7	4.7*			2.4	3.4*	5.0
	on chain	7.7	9.8*	4.1	5.2*			3.2*	3.2*	

Stick 2.45 m

m	Undercarriage	3.0 m		4.5 m		6.0 m		Max. reach		m
7.5	on rail			2.8*	2.8*			2.6*	2.6*	4.6
	on chain							2.6*	2.6*	
6.0	on rail			3.5	4.3*	2.1	2.4*	2.1	2.2*	6.1
	on chain			4.2*	4.2*			2.2*	2.2*	
4.5	on rail	5.2*	5.2*	3.4	5.0*	2.2	4.3*	1.6	2.1*	6.9
	on chain	4.8*	4.8*	4.7	5.0*	3.0	4.2*	2.1*	2.1*	
3.0	on rail	5.8	9.1*	3.4	5.8*	2.2	4.5*	1.4	2.1*	7.3
	on chain	8.2	8.8*	4.6	5.7*	3.0	4.5*	2.1*	2.1*	
1.5	on rail	5.7	9.5*	3.3	6.5*	2.1	4.7*	1.4	2.2*	7.4
	on chain	8.1	9.5*	4.6	6.4*	3.0	4.5	2.0	2.2*	
0	on rail	5.5	10.4*	3.1	6.6*	1.9	4.8*	1.4	2.5*	7.2
	on chain	8.1	10.3*	4.5	6.6*	2.8	4.4	2.1	2.4*	
-1.5	on rail	5.2	10.6*	2.9	6.7*	1.8	4.4*	1.6	3.1*	6.6
	on chain	7.9	10.6*	4.3	6.7*	2.7	4.3	2.3	3.0*	
-3.0	on rail	5.0	9.8*	2.7	5.3*			2.2	3.2*	5.2
	on chain	7.7	10.2*	4.1	5.7*			2.9*	2.9*	

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

The load values are quoted in tons (t) 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 500 mm 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.

In accordance with the harmonised European Standard EN 474-5, hydraulic excavators used for lifting operations must be equipped with pipe fracture safety valves, an overload warning device, a load lift hook and a lift capacity chart.

Please note that the stability will be reduced by approx. 20% in case of a 100 mm cant and 40% in case of a 180 mm cant.

Equipments

Buckets/Tilt Buckets

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

Cutting width mm	Capacity ISO 7451 ¹⁾ m ³	Weight kg	on rail 1,435 mm			on chain		
			Stick length (m)			Stick length (m)		
			2.05	2.25	2.45	2.05	2.25	2.45
300 ²⁾	0.17	220	■	■	■	■	■	■
400 ²⁾	0.24	250	■	■	■	■	■	■
500 ²⁾	0.28	250	■	■	■	■	■	■
550 ²⁾	0.29	260	■	■	■	■	■	■
650 ²⁾	0.36	290	■	■	■	■	■	■
850 ²⁾	0.50	340	■	■	■	■	■	■
1,050 ²⁾	0.65	380	■	△	△	■	■	■
1,250 ²⁾	0.80	430	△	—	—	■	■	■

* 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 ■ = ≤ 1.8 t/m³, ■ = ≤ 1.5 t/m³, △ = ≤ 1.2 t/m³, — = not authorised

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

Cutting width mm	Capacity ISO 7451 ¹⁾ m ³	Weight kg	on rail 1,435 mm			on chain		
			Stick length (m)			Stick length (m)		
			2.05	2.25	2.45	2.05	2.25	2.45
1,500 ²⁾	0.60	660	△	△	—	■	■	■

* 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 ■ = ≤ 1.8 t/m³, ■ = ≤ 1.5 t/m³, △ = ≤ 1.2 t/m³, — = not authorised

Equipment

Undercarriage

Crawler track operation	
500 mm 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) 25 km/h*	+
Gauge 1,067 mm, narrow gauge	+
Gauge 1,435 mm, standard gauge	+
Gauge 1,600 mm, broad gauge	+
Undercarriage STD Rail, track gauge 2,000 mm	•
Attachment holder, front	+
Pull rod	•

Upper-carriage

Upper-carriage rear light, 2 pieces, LED	+
Upper-carriage right side light, 1 piece, LED	+
Upper-carriage front light, 2 pieces, LED	+
Refuelling system with filling pump	+
Main battery switch for electrical system	•
Engine hood with gas spring	•
Emergency stop, left and right	+
Amber beacon, at upper-carriage, 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 –20 °C to +40 °C	•
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	+
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	+
Cab lights front, LED (above rain cover)	+
Cab lights front, LED (under rain cover)	+
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	+
All tinted windows	•
Windscreen wiper, roof	+
Door with sliding window	•
Top guard	+
Front guard	+
Front guard, adjustable	+
Right side window and windshield made from laminated safety glass	•
Signal horn	•
Sun visor	+
Sun blind	•
Vigilance system	+
Electronic immobilizer	+
Cigarette lighter	•
Second display	•



Equipment

Boom lights, 2 pieces, halogen	•
Boom lights, 2 pieces, LED	+
Stick lights, 2 pieces, LED	+
High pressure circuit incl. unpressurised return line and Tool Control	+
Load holding valve bucket cylinder (not available in combination with protection for piston rods, bucket cylinder)	+
Leak oil line, additional for attachments	+
Liebherr ditch cleaning bucket	+
Liebherr quick coupler, hydraulic or mechanical	+
Liebherr tilt bucket	+
Liebherr tilt rotator	+
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	•
Quick coupling system LIKUFIX SWA 33	+
Quick coupling system LIKUFIX SWA 48	+
Protection for piston rod, bucket cylinder	+
Protection for bottom side of stick	+
Tool Control, 20 attachment adjustments selectable over the display	+
Two-piece boom	•



Complete Machine

Lubrication	
Lubrication undercarriage, manually – decentralised (grease points)	•
Central lubrication system for uppercarriage and equipment, automatically (without quick coupler and connecting link)*	•
Central lubrication system, extension for quick coupler	+
Central lubrication system, extension 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	+