Wheeled Excavator

A 922 Rail

Litronic®

Generation
6

Operating Weight
20,400 – 23,400 kg

Engine
120 kW / 163 HP
Stage V

LIEBHERR

Technical Data

Diesel Engine

Rating per ISO 9249	120 kW (163 HP) at 1,900 RPM
Model	Liebherr D924 A7
Type	4 cylinder in-line
Bore/Stroke	104/132 mm
Displacement	4.5 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/140 A
Stage V	
Harmful emissions values	according to regulation (EU) 2016/1628
Emission control	Liebherr-SCRT technology
Fuel tank	250 l
Urea tank	46 l

Cooling System

Diesel engine	water-cooled compact cooling system consisting cooling unit for water, hydraulic oil and charge air with step-less 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 electroproportional joystick levers
Chassis	electroproportional via foot pedal
Additional functions	via switch or electroproportional foot pedals
Proportional control	proportionally acting transmitters on the joy-sticks for additional hydraulic functions

Hydraulic System

Hydraulic pump	
for equipment and travel drive	2 Liebherr axial piston variable displacement pumps (double construction)
Max. flow	2 x 220 l/min.
Max. pressure	350 bar/PowerLift 375 bar
Hydraulic pump regulation and control	Liebherr-Synchron-Comfort-system (LSC) with electronic engine speed sensing regulation, pressure and flow compensation, torque con-trolled swing drive priority
Hydraulic tank	130 l
Hydraulic system	max. 300 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 environmen-tally 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 environ-mentally friendly operation
P (Power)	mode for high performance with low fuel con-sumption
P+ (Power-Plus)	mode for highest performance and for very heavy duty applications, suitable for continuous operation
Engine speed and performance setting	stepless alignment of engine output and hydraulic power via engine speed
	Tool Control: 20 preadjustable pump flows and pressures for add-on attachments

Swing Drive

Drive	Liebherr axial piston motor with integrated brake valve and torque control, Liebherr plane-tary reduction gear
Swing ring	Liebherr, sealed race ball bearing swing ring, internal teeth
Swing speed	0 – 9.0 RPM stepless
Swing torque	54 kNm
Holding brake	wet multi-disc (spring applied, pressure released)
	pedal controlled positioning swing brake

Operator's Cab

Double cabin	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, operator's 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 readjustment), 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, separate display for rear view and side view monitoring
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
Refrigerant	R134a
Global warming potential	1,430
Quantity at 25 °C	1,300 g
CO_2 equivalent	1.859 t
Vibration emission*	
Hand/arm vibrations	< 2.5 m/s²
Whole-body vibrations	< 0.5 m/s²
Measuring inaccuracy	according with standard EN 12096:1997

Undercarriage

Drive	oversized two speed power shift transmission with additional creeper speed, Liebherr axial piston motor with functional brake valve on both sides
Pulling force	117 kN
Travel speed	0 – 3.5 km/h stepless (creeper speed off-road) 0 – 7.0 km/h stepless (off-road) 0 – 13.0 km/h stepless (creeper speed on-road) 0 – 20.0 km/h stepless (road travel) 0 – max. 25.0 or 30.0 km/h Speeder (Option)
Driving operation	automotive driving using accelerator pedal, cruise control function: storage of variable accelerator pedal positions, both off-road, on-road and on-rail
Axles	manual or automatic hydraulically controlled front axle oscillation lock
Option	axle with wheel head width 2,100 mm and differential lock 100 %
Service brake	two circuit travel brake system with accumulator; road axle wet and backlash-free disc brake; rail wheels with drum brake
Holding brake	wet multi-disc (spring applied, pressure released)
Wagon braking system	1 circuit compressed air brake for railway wagon
Option	2 circuit compressed air brake for trailer 2 circuit hydraulic brake for trailer
Rail guide	standard gauge 1,435 mm
Option	width gauge, narrow gauge type friction drive
Stabilization	without outriggers
Option	rear + front outriggers

Equipment

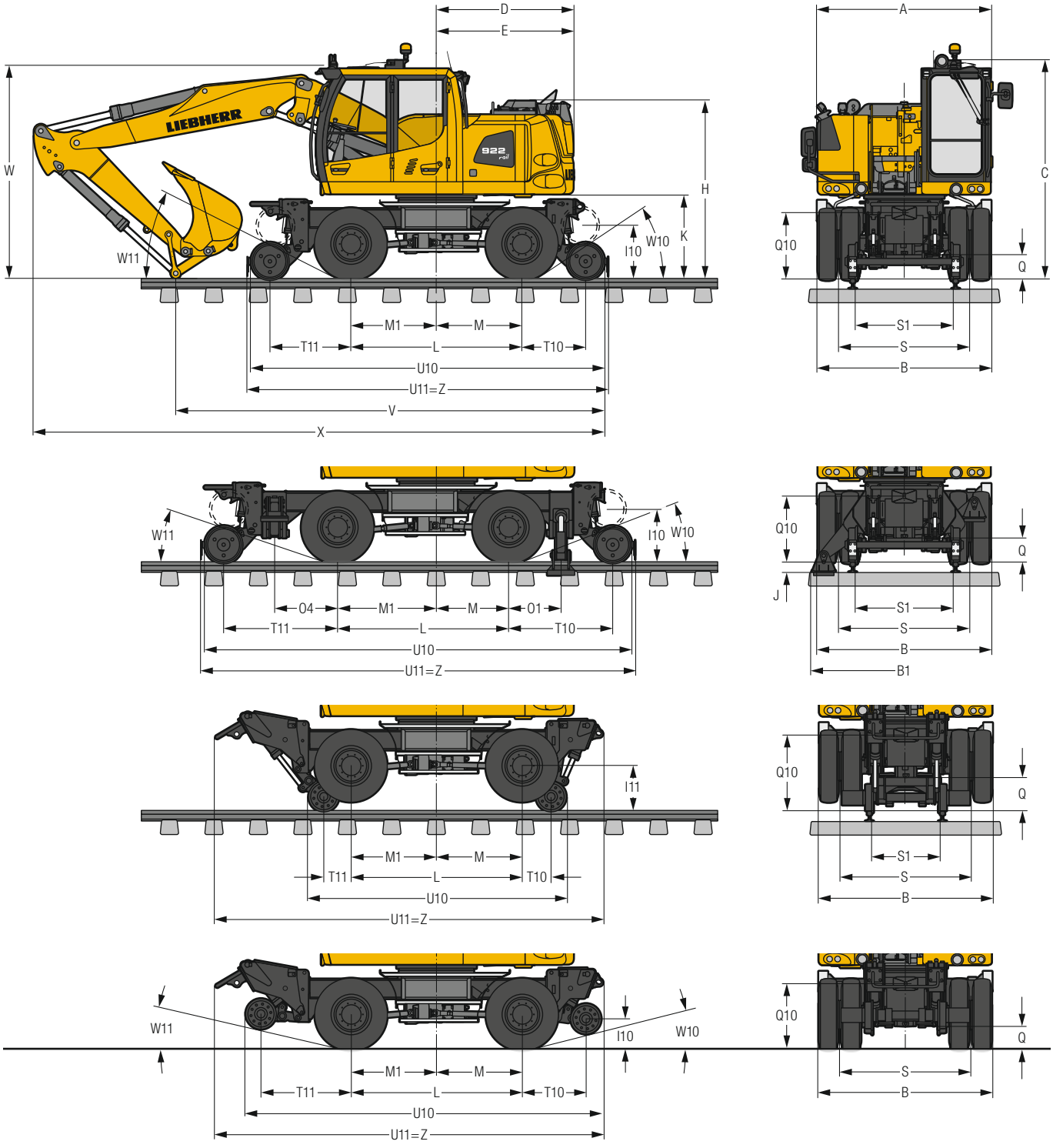
Type	high-strength steel plates at highlystressed points for the toughest requirements. Complex and stable mountings of equipment and cylinders
Hydraulic cylinders	Liebherr cylinders with special seal system as well as shock absorption
Bearings	sealed, low maintenance

Complete Machine

Lubrication	Liebherr central lubrication system for uppercarriage and equipment, automatically
Noise emission	
ISO 6396	L_{pA} (inside cab) = 70 dB(A)
2000/14/EC	L_{WA} (surround noise) = 101 dB(A)

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

Dimensions


D
E
A
W
H
C
W11
I10
W10
K
Q10
Q
M1
M
T11
L
T10
S1
S
U10
U11=Z
B
V
X
O4
O1
J
B1
I11

	without outriggers (Asym. / Sym. Rail)	Rear + front outriggers	Narrow gauge (Asym. / Sym. Rail) rail	Narrow gauge (Asym. / Sym. Rail) road
	mm	mm	mm	mm
A	2,525	2,525	2,525	2,525
B	2,550	2,550	2,550	2,550
B1	–	2,700	–	–
C*	3,185	3,185	3,335	3,185
D	2,000	2,000	2,000	2,000
E	2,000	2,000	2,000	2,000
H	2,600	2,600	2,745	2,600
I10	780	780	–	440
I11	–	–	655	–
J	–	145	–	–
K	1,235	1,235	1,380	1,235
L	2,500	2,500	2,500	2,500
M	1,050 / 1,250**	1,050	1,050 / 1,250**	1,050 / 1,250**
M1	1,450 / 1,250**	1,450	1,450 / 1,250**	1,450 / 1,250**
O1	–	770	–	–
O4	–	920	–	–
Q	190	190	135	345
Q10	965	965	1,115	965
S	1,912	1,912	1,912	1,912
S1	1,435	1,435	1,000	–
T10	930	1,525	430	935
T11	1,180	1,675	400	1,320
U10	5,185	6,270	3,780	5,200
U11	5,315	6,395	5,670	5,670
W10	33.8°	20.7°	–	15.2°
W11	26.5°	18.8°	–	13.7°
Z	5,315	6,395	5,670	5,670

* without signal light DB and amber beacon; can be removed for transport

** Symetric Rail

E = Tail radius

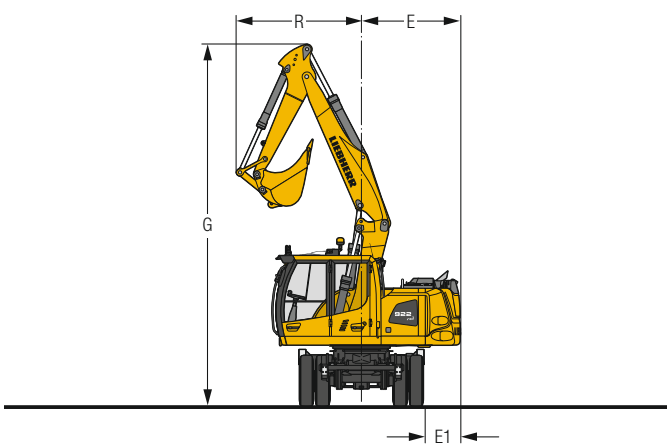
Tyres 10.00-20

	Stick	Two-piece boom 5.05 m		
		without outriggers (Asymetric Rail)	without outriggers (Symetric Rail)	Rear + front outriggers
	m	mm	mm	mm
V	1.85	6,300	6,500	7,450*
	2.05	6,050	6,250	7,200*
	2.25	6,550*	6,100	7,050*
W	1.85	3,000	3,000	3,000*
	2.05	3,050	3,050	3,050*
	2.25	3,100*	3,100	3,100*
X	1.85	8,300	8,500	9,450*
	2.05	8,150	8,350	9,300*
	2.25	8,150*	8,350	9,350*

	Stick	Offset two-piece boom 5.00 m		
		without outriggers (Asymetric Rail)	without outriggers (Symetric Rail)	Rear + front outriggers
	m	mm	mm	mm
V	1.85	6,750	6,950	7,350
	2.05	6,350	6,550	7,500*
	2.25	6,650*	6,150	7,150*
W	1.85	3,150	3,150	3,150
	2.05	3,150	3,150	3,150*
	2.25	3,150*	3,150	3,150*
X	1.85	8,300	8,500	8,900
	2.05	8,150	8,350	9,300*
	2.25	8,800*	8,350	9,300*

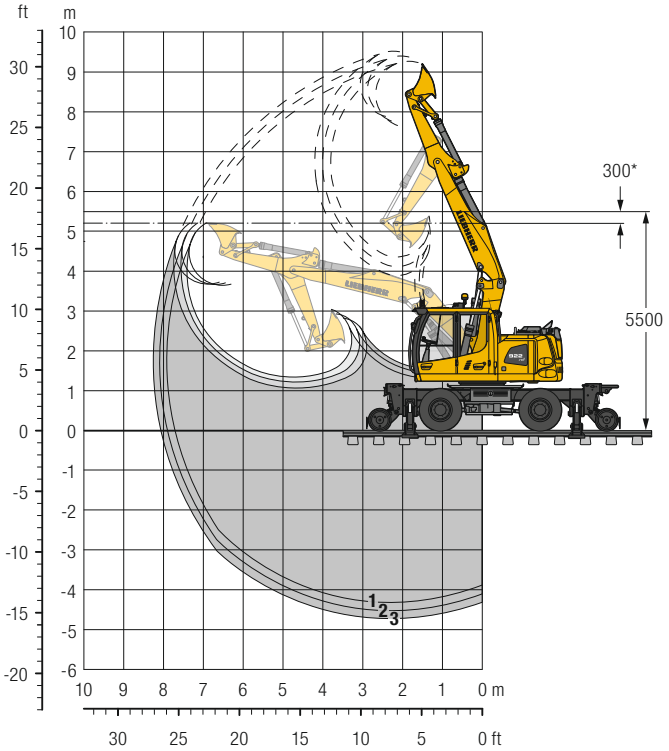
Dimensions are with attachment over steering axle

* Attachment over digging axle for shorter transport dimensions



Boom	Stick	G	R	E	E1
	m	mm	mm	mm	mm
Two-piece boom 5.05 m	1.85	7,380	2,560	2,000	739
Two-piece boom 5.05 m	2.05	7,380	2,560	2,000	739
Two-piece boom 5.05 m	2.25	7,380	2,570	2,000	739

Ditch Cleaning Bucket
with Two-Piece Boom 5.05 m



* Safety distance to overhead wires

Digging Envelope

		1	2	3
Stick length	**m**	1.85	2.05	2.25
Max. digging depth	**m**	4.35	4.55	4.75
Max. reach at ground level	**m**	7.70	7.90	8.05
Max. dumping height	**m**	7.65	7.75	7.85
Max. dumping height under overhead wires	**m**	3.64	3.66	3.67
Max. teeth height	**m**	9.25	9.40	9.50
Min. equipment radius	**m**	2.56	2.56	2.57

Digging Forces

		1	2	3
Max. digging force (ISO 6015)	**kN**	110.6	102.2	95.2
	t	11.3	10.4	9.7
Max. breakout force (ISO 6015)	**kN**	101.3	101.3	101.3
	t	10.3	10.3	10.3

Max. breakout force with ripper bucket 134.6 kN (13.7 t)

Operating Weight

The operating weight includes the basic machine with 8 tyres plus intermediate rings, two-piece boom 5.05 m, stick 2.25 m and ditch cleaning bucket 2,000 mm / 0.65 m³.

Undercarriage versions	Weight (kg)
A 922 Rail Litronic without outriggers (Asymetric Rail)	20,400
A 922 Rail Litronic without outriggers (Symetric Rail)	20,400
A 922 Rail Litronic with rear + front outriggers	22,100

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

Cutting width	Capacity ISO 7451[1]	Weight	without outriggers						Rear + front outriggers									Narrow gauge 1,000 mm					
			on rail			on tyres			on rail			on tyres			down			on rail			on tyres		
			Stick length (m)			Stick length (m)			Stick length (m)			Stick length (m)			Stick length (m)			Stick length (m)			Stick length (m)		
mm	m³	kg	1.85	2.05	2.25	1.85	2.05	2.25	1.85	2.05	2.25	1.85	2.05	2.25	1.85	2.05	2.25	1.85	2.05	2.25	1.85	2.05	2.25
1,600[1]	0.80	445	■	■	△	■	■	■	■	■	■	■	■	■	■	■	■	–	–	–	■	■	■
2,000[1]	0.65	388	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	△	△	△	■	■	■
1,600[2]	0.80	766	△	△	–	■	■	■	△	△	△	■	■	■	■	■	■	–	–	–	■	■	■
2,000[2]	0.70	811	△	△	△	■	■	■	■	■	△	■	■	■	■	■	■	–	–	–	■	■	■

* 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

Lift Capacities

with Two-Piece Boom 5.05 m (without Outriggers)

Stick 1.85 m

m	Undercarriage	3.0 m		4.5 m		6.0 m				m
7.5	on rail	6.9	8.5*					4.3	5.9*	4.0
	on tyres	8.5*	8.5*					5.8	5.9*	
6.0	on rail	6.9	7.6*	3.8	6.9*			2.5	4.5*	5.6
	on tyres	7.6*	7.6*	5.0	6.9*			3.4	4.5*	
4.5	on rail	6.7	10.3*	3.8	7.4*	2.3	6.1*	1.9	4.0*	6.5
	on tyres	9.0	10.3*	5.0	7.4*	3.1	4.7	2.6	4.0*	
3.0	on rail	6.4	10.2*	3.8	8.4*	2.3	6.4*	1.7	3.8*	7.0
	on tyres	8.7	10.2*	5.0	7.3	3.1	4.7	2.3	3.6	
1.5	on rail	6.4	12.4*	3.6	8.9*	2.2	6.6*	1.6	3.9*	7.1
	on tyres	8.7	12.4*	4.9	7.3	3.0	4.6	2.2	3.5	
0	on rail	5.9	14.0*	3.4	9.0*	2.1	6.6*	1.7	4.2*	6.9
	on tyres	8.3	13.9	4.6	7.3	2.9	4.5	2.3	3.6	
–1.5	on rail	5.7	14.4*	3.2	9.2*	2.0	5.2*	1.9	4.3*	6.3
	on tyres	8.1	14.4	4.4	7.0	2.8	4.4	2.6	4.1	
–3.0	on rail	5.5	11.9*	3.1	5.7*			3.0	5.6*	4.5
	on tyres	7.9	11.9*	4.3	5.7*			4.2	5.6*	

Stick 2.05 m

m	Undercarriage	3.0 m		4.5 m		6.0 m				m
7.5	on rail							3.9	4.8*	4.3
	on tyres							4.8*	4.8*	
6.0	on rail			3.8	6.7*			2.4	3.9*	5.8
	on tyres			5.1	6.7*			3.2	3.9*	
4.5	on rail	6.7	9.9*	3.8	7.3*	2.3	6.0*	1.9	3.5*	6.7
	on tyres	9.0	9.9*	5.1	7.3*	3.2	4.8	2.6	3.5*	
3.0	on rail	6.4	10.6*	3.8	8.3*	2.3	6.3*	1.6	3.4*	7.1
	on tyres	8.7	10.6*	5.0	7.3	3.1	4.8	2.3	3.4*	
1.5	on rail	6.4	12.4*	3.7	8.9*	2.3	6.6*	1.5	3.5*	7.2
	on tyres	8.7	12.4*	4.9	7.3	3.1	4.7	2.2	3.4	
0	on rail	5.9	14.0*	3.4	9.0*	2.1	6.6*	1.6	3.8*	7.0
	on tyres	8.3	13.9	4.7	7.4	2.9	4.5	2.2	3.5	
–1.5	on rail	5.7	14.3*	3.2	9.2*	2.0	5.8*	1.8	4.4*	6.5
	on tyres	8.1	14.3	4.4	7.1	2.8	4.4	2.5	3.9	
–3.0	on rail	5.6	12.8*	3.1	6.6*			2.7	5.0*	5.0
	on tyres	7.9	12.8*	4.3	6.6*			3.7	5.0*	

Stick 2.25 m

m	Undercarriage	3.0 m		4.5 m		6.0 m				m
7.5	on rail			3.7	4.8*			3.5	4.1*	4.6
	on tyres			4.8*	4.8*			4.1*	4.1*	
6.0	on rail			3.9	6.4*	2.3	3.9*	2.3	3.4*	6.0
	on tyres			5.1	6.4*	3.1	3.9*	3.1	3.4*	
4.5	on rail	6.7	8.6*	3.8	7.0*	2.4	5.9*	1.8	3.1*	6.9
	on tyres	8.6*	8.6*	5.1	7.0*	3.2	4.8	2.4	3.1*	
3.0	on rail	6.4	10.9*	3.7	8.1*	2.4	6.2*	1.6	3.1*	7.3
	on tyres	8.7	10.9*	5.0	7.3	3.2	4.8	2.2	3.1*	
1.5	on rail	6.3	12.4*	3.7	8.8*	2.3	6.5*	1.5	3.2*	7.4
	on tyres	8.6	12.4*	4.9	7.3	3.1	4.7	2.1	3.2*	
0	on rail	6.0	13.8*	3.4	8.9*	2.1	6.6*	1.5	3.5*	7.2
	on tyres	8.4	13.8	4.7	7.4	2.9	4.6	2.1	3.3	
–1.5	on rail	5.7	14.2*	3.2	9.2*	2.0	6.1*	1.7	4.1*	6.7
	on tyres	8.1	14.1	4.4	7.1	2.8	4.4	2.4	3.8	
–3.0	on rail	5.5	13.5*	3.0	7.4*			2.4	4.5*	5.3
	on tyres	7.9	13.5*	4.2	6.9			3.3	4.5*	

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

The lift capacities are stated in metric tonnes (t) with PowerLift of 375 bar at the stick end without attachment. This applies to a firm flat substrate with a closed steering axle. These capacities can be slewed through 360° with the undercarriage in the transverse position. Capacities in the longitudinal position of the undercarriage (+/– 15°) are specified over the steering axle with the stabilizers raised. The values apply when the adjusting cylinder is in the optimal position. Indicated loads based on the ISO 10567 standard and do not exceed 75 % of tipping or 87 % of hydraulic capacity, or are limited by the permissible load of the load lift hook.

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 200 mm cant.

Lift Capacities

with Two-Piece Boom 5.05 m (without Outriggers, Heavy Counterweight)

Stick 1.85 m

m	Undercarriage	3.0 m		4.5 m		6.0 m				m
7.5	on rail	7.3	8.5*					4.6	5.9*	4.0
	on tyres	8.5*	8.5*					5.9*	5.9*	
6.0	on rail	7.4	7.6*	4.0	6.9*			2.7	4.5*	5.6
	on tyres	7.6*	7.6*	5.3	6.9*			3.6	4.5*	
4.5	on rail	7.1	10.3*	4.1	7.4*	2.5	6.1*	2.1	4.0*	6.5
	on tyres	9.5	10.3*	5.3	7.4*	3.3	5.0	2.8	4.0*	
3.0	on rail	6.9	10.2*	4.0	8.4*	2.5	6.4*	1.8	3.8*	7.0
	on tyres	9.2	10.2*	5.3	7.7	3.3	5.0	2.5	3.8*	
1.5	on rail	6.8	12.4*	3.9	8.9*	2.4	6.6*	1.8	3.9*	7.1
	on tyres	9.1	12.4*	5.2	7.6	3.2	4.9	2.4	3.7	
0	on rail	6.3	14.0*	3.7	9.0*	2.3	6.6*	1.8	4.2*	6.9
	on tyres	8.8	14.0*	5.0	7.8	3.1	4.8	2.5	3.9	
–1.5	on rail	6.1	14.4*	3.4	9.2*	2.2	5.2*	2.1	4.3*	6.3
	on tyres	8.6	14.4*	4.7	7.5	3.0	4.7	2.8	4.3*	
–3.0	on rail	6.0	11.9*	3.3	5.7*			3.3	5.6*	4.5
	on tyres	8.5	11.9*	4.6	5.7*			4.5	5.6*	

Stick 2.05 m

m	Undercarriage	3.0 m		4.5 m		6.0 m				m
7.5	on rail							4.2	4.8*	4.3
	on tyres							4.8*	4.8*	
6.0	on rail			4.1	6.7*			2.6	3.9*	5.8
	on tyres			5.4	6.7*			3.5	3.9*	
4.5	on rail	7.1	9.9*	4.1	7.3*	2.5	6.0*	2.0	3.5*	6.7
	on tyres	9.5	9.9*	5.3	7.3*	3.4	5.1	2.7	3.5*	
3.0	on rail	6.9	10.6*	4.0	8.3*	2.5	6.3*	1.8	3.4*	7.1
	on tyres	9.2	10.6*	5.3	7.7	3.4	5.1	2.4	3.4*	
1.5	on rail	6.8	12.4*	3.9	8.9*	2.4	6.6*	1.7	3.5*	7.2
	on tyres	9.1	12.4*	5.2	7.6	3.3	5.0	2.3	3.5*	
0	on rail	6.4	14.0*	3.7	9.0*	2.3	6.6*	1.8	3.8*	7.0
	on tyres	8.9	14.0*	5.0	7.8	3.1	4.8	2.4	3.7	
–1.5	on rail	6.1	14.3*	3.5	9.2*	2.2	5.8*	2.0	4.4*	6.5
	on tyres	8.6	14.3*	4.7	7.5	3.0	4.7	2.7	4.2	
–3.0	on rail	6.0	12.8*	3.3	6.6*			2.9	5.0*	5.0
	on tyres	8.5	12.8*	4.6	6.6*			4.0	5.0*	

Stick 2.25 m

m	Undercarriage	3.0 m		4.5 m		6.0 m				m
7.5	on rail			3.9	4.8*			3.8	4.1*	4.6
	on tyres			4.8*	4.8*			4.1*	4.1*	
6.0	on rail			4.1	6.4*	2.5	3.9*	2.4	3.4*	6.0
	on tyres			5.4	6.4*	3.3	3.9*	3.3	3.4*	
4.5	on rail	7.2	8.6*	4.1	7.0*	2.6	5.9*	1.9	3.1*	6.9
	on tyres	8.6*	8.6*	5.3	7.0*	3.4	5.1	2.6	3.1*	
3.0	on rail	6.9	10.9*	4.0	8.1*	2.6	6.2*	1.7	3.1*	7.3
	on tyres	9.2	10.9*	5.3	7.7	3.4	5.1	2.3	3.1*	
1.5	on rail	6.8	12.4*	4.0	8.8*	2.5	6.5*	1.6	3.2*	7.4
	on tyres	9.1	12.4*	5.2	7.6	3.3	5.0	2.2	3.2*	
0	on rail	6.4	13.8*	3.7	8.9*	2.3	6.6*	1.7	3.5*	7.2
	on tyres	8.9	13.8*	5.0	7.7	3.2	4.8	2.3	3.5*	
–1.5	on rail	6.1	14.2*	3.5	9.2*	2.2	6.1*	1.9	4.1*	6.7
	on tyres	8.6	14.2*	4.8	7.5	3.0	4.7	2.6	4.0	
–3.0	on rail	6.0	13.5*	3.3	7.4*			2.6	4.5*	5.3
	on tyres	8.5	13.5*	4.6	7.3			3.6	4.5*	

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

The lift capacities are stated in metric tonnes (t) with PowerLift of 375 bar at the stick end without attachment. This applies to a firm flat substrate with a closed steering axle. These capacities can be slewed through 360° with the undercarriage in the transverse position. Capacities in the longitudinal position of the undercarriage (+/– 15°) are specified over the steering axle with the stabilizers raised. The values apply when the adjusting cylinder is in the optimal position. Indicated loads based on the ISO 10567 standard and do not exceed 75 % of tipping or 87 % of hydraulic capacity, or are limited by the permissible load of the load lift hook.

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 200 mm cant.

Lift Capacities

with Two-Piece Boom 5.05 m (Rear + Front Outriggers)

Stick 1.85 m

m	Undercarriage	3.0 m		4.5 m		6.0 m				m
	on rail	7.3	8.5*					4.6	5.9*	
7.5	on tyres	8.5*	8.5*					5.9*	5.9*	4.0
	Rear + front outriggers down	8.5*	8.5*					5.9*	5.9*	
	on rail	7.3	7.6*	4.0	6.9*			2.7	4.5*	
6.0	on tyres	7.6*	7.6*	5.4	6.9*			3.7	4.5*	5.6
	Rear + front outriggers down	7.6*	7.6*	6.7	6.9*			4.5*	4.5*	
	on rail	7.1	10.3*	4.1	7.4*	2.5	6.1*	2.1	4.0*	
4.5	on tyres	9.6	10.3*	5.4	7.4*	3.4	5.1	2.9	4.0*	6.5
	Rear + front outriggers down	10.3*	10.3*	6.6	7.4*	4.3	6.1*	3.7	4.0*	
	on rail	6.9	10.2*	4.0	8.4*	2.5	6.4*	1.8	3.8*	
3.0	on tyres	9.3	10.2*	5.3	7.8	3.4	5.1	2.6	3.8*	7.0
	Rear + front outriggers down	10.2*	10.2*	6.5	8.4*	4.2	6.4*	3.3	3.8*	
	on rail	6.8	12.4*	3.9	8.9*	2.4	6.6*	1.8	3.9*	
1.5	on tyres	9.2	12.4*	5.3	7.8	3.3	5.0	2.5	3.8	7.1
	Rear + front outriggers down	11.7	12.4*	6.6	8.9*	4.2	6.6*	3.1	3.9*	
	on rail	6.3	14.0*	3.7	9.0*	2.3	6.6*	1.8	4.2*	
0	on tyres	8.9	14.0*	5.0	7.9	3.2	4.9	2.5	3.9	6.9
	Rear + front outriggers down	11.9	14.0*	6.4	9.0*	4.0	6.6*	3.3	4.2*	
	on rail	6.1	14.4*	3.4	9.2*	2.2	5.2*	2.1	4.3*	
–1.5	on tyres	8.7	14.4*	4.8	7.6	3.1	4.8	2.9	4.3*	6.3
	Rear + front outriggers down	11.7	14.4*	6.1	9.2*	3.9	5.2*	3.7	4.3*	
	on rail	6.0	11.9*	3.3	5.7*			3.3	5.6*	
–3.0	on tyres	8.6	11.9*	4.7	5.7*			4.6	5.6*	4.5
	Rear + front outriggers down	11.6	11.9*	5.7*	5.7*			5.6*	5.6*	

Stick 2.05 m

m	Undercarriage	3.0 m		4.5 m		6.0 m				m
	on rail							4.2	4.8*	
7.5	on tyres							4.8*	4.8*	4.3
	Rear + front outriggers down							4.8*	4.8*	
	on rail			4.1	6.7*			2.6	3.9*	
6.0	on tyres			5.5	6.7*			3.5	3.9*	5.8
	Rear + front outriggers down			6.7*	6.7*			3.9*	3.9*	
	on rail	7.1	9.9*	4.1	7.3*	2.5	6.0*	2.0	3.5*	
4.5	on tyres	9.6	9.9*	5.4	7.3*	3.4	5.2	2.8	3.5*	6.7
	Rear + front outriggers down	9.9*	9.9*	6.7	7.3*	4.3	6.0*	3.5*	3.5*	
	on rail	6.9	10.6*	4.0	8.3*	2.5	6.3*	1.8	3.4*	
3.0	on tyres	9.3	10.6*	5.3	7.8	3.4	5.1	2.5	3.4*	7.1
	Rear + front outriggers down	10.6*	10.6*	6.6	8.3*	4.3	6.3*	3.2	3.4*	
	on rail	6.8	12.4*	3.9	8.9*	2.4	6.6*	1.7	3.5*	
1.5	on tyres	9.2	12.4*	5.3	7.7	3.3	5.1	2.4	3.5*	7.2
	Rear + front outriggers down	11.7	12.4*	6.5	8.9*	4.2	6.6*	3.0	3.5*	
	on rail	6.4	14.0*	3.7	9.0*	2.3	6.6*	1.8	3.8*	
0	on tyres	9.0	14.0*	5.0	7.9	3.2	4.9	2.5	3.8	7.0
	Rear + front outriggers down	11.9	14.0*	6.4	9.0*	4.1	6.6*	3.2	3.8*	
	on rail	6.1	14.3*	3.5	9.2*	2.2	5.8*	2.0	4.4*	
–1.5	on tyres	8.7	14.3*	4.8	7.6	3.1	4.8	2.8	4.3	6.5
	Rear + front outriggers down	11.7	14.3*	6.2	9.2*	4.0	5.8*	3.5	4.4*	
	on rail	6.0	12.8*	3.3	6.6*			2.9	5.0*	
–3.0	on tyres	8.6	12.8*	4.6	6.6*			4.0	5.0*	5.0
	Rear + front outriggers down	11.6	12.8*	6.0	6.6*			5.0*	5.0*	

Stick 2.25 m

m	Undercarriage	3.0 m		4.5 m		6.0 m				m
	on rail			3.9	4.8*			3.8	4.1*	
7.5	on tyres			4.8*	4.8*			4.1*	4.1*	4.6
	Rear + front outriggers down			4.8*	4.8*			4.1*	4.1*	
	on rail			4.1	6.4*	2.5	3.9*	2.4	3.4*	
6.0	on tyres			5.5	6.4*	3.4	3.9*	3.3	3.4*	6.0
	Rear + front outriggers down			6.4*	6.4*	3.9*	3.9*	3.4*	3.4*	
	on rail	7.2	8.6*	4.1	7.0*	2.6	5.9*	1.9	3.1*	
4.5	on tyres	8.6*	8.6*	5.4	7.0*	3.5	5.2	2.7	3.1*	6.9
	Rear + front outriggers down	8.6*	8.6*	6.7	7.0*	4.3	5.9*	3.1*	3.1*	
	on rail	6.9	10.9*	4.0	8.1*	2.6	6.2*	1.7	3.1*	
3.0	on tyres	9.3	10.9*	5.3	7.8	3.4	5.2	2.4	3.1*	7.3
	Rear + front outriggers down	10.9*	10.9*	6.5	8.1*	4.3	6.2*	3.0	3.1*	
	on rail	6.8	12.4*	4.0	8.8*	2.5	6.5*	1.6	3.2*	
1.5	on tyres	9.2	12.4*	5.3	7.7	3.4	5.1	2.3	3.2*	7.4
	Rear + front outriggers down	11.7	12.4*	6.5	8.8*	4.2	6.5*	2.9	3.2*	
	on rail	6.4	13.8*	3.7	8.9*	2.3	6.6*	1.7	3.5*	
0	on tyres	9.0	13.8*	5.1	7.8	3.2	4.9	2.4	3.5*	7.2
	Rear + front outriggers down	11.8	13.8*	6.5	8.9*	4.1	6.6*	3.0	3.5*	
	on rail	6.1	14.2*	3.5	9.2*	2.2	6.1*	1.9	4.1*	
–1.5	on tyres	8.7	14.2*	4.8	7.6	3.1	4.8	2.6	4.1*	6.7
	Rear + front outriggers down	11.7	14.2*	6.2	9.2*	4.0	6.1*	3.4	4.1*	
	on rail	6.0	13.5*	3.3	7.4*			2.6	4.5*	
–3.0	on tyres	8.6	13.5*	4.6	7.4*			3.6	4.5*	5.3
	Rear + front outriggers down	11.5	13.5*	6.0	7.4*			4.5*	4.5*	

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

The lift capacities are stated in metric tonnes (t) with PowerLift of 375 bar at the stick end without attachment. This applies to a firm flat substrate with a closed steering axle. These capacities can be slewed through 360° with the undercarriage in the transverse position. Capacities in the longitudinal position of the undercarriage (+/– 15°) are specified over the steering axle with the stabilizers raised and over the rigid axle with the stabilizers down. The values apply when the adjusting cylinder is in the optimal position. Indicated loads based on the ISO 10567 standard and do not exceed 75 % of tipping or 87 % of hydraulic capacity, or are limited by the permissible load of the load lift hook.

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 200 mm cant.

Lift Capacities

with Two-Piece Boom 5.05 m (Rear + Front Outriggers, Heavy Counterweight)

Stick 1.85 m

m	Undercarriage	3.0 m		4.5 m		6.0 m				m
7.5	on rail	7.8	8.5*					4.9	5.9*	
	on tyres	8.5*	8.5*					5.9*	5.9*	4.0
	Rear + front outriggers down	8.5*	8.5*					5.9*	5.9*	
6.0	on rail	7.6*	7.6*	4.3	6.9*			2.9	4.5*	
	on tyres	7.6*	7.6*	5.7	6.9*			3.9	4.5*	5.6
	Rear + front outriggers down	7.6*	7.6*	6.9*	6.9*			4.5*	4.5*	
4.5	on rail	7.5	10.3*	4.4	7.4*	2.7	6.1*	2.3	4.0*	
	on tyres	10.0	10.3*	5.7	7.4*	3.6	5.4	3.1	4.0*	6.5
	Rear + front outriggers down	10.3*	10.3*	7.0	7.4*	4.5	6.1*	3.9	4.0*	
3.0	on rail	7.3	10.2*	4.3	8.4*	2.7	6.4*	2.0	3.8*	
	on tyres	9.7	10.2*	5.6	8.1	3.6	5.4	2.7	3.8*	7.0
	Rear + front outriggers down	10.2*	10.2*	6.9	8.4*	4.5	6.4*	3.5	3.8*	
1.5	on rail	7.3	12.4*	4.2	8.9*	2.6	6.6*	1.9	3.9*	
	on tyres	9.7	12.4*	5.6	8.1	3.5	5.3	2.6	3.9*	7.1
	Rear + front outriggers down	12.3	12.4*	6.9	8.9*	4.4	6.6*	3.4	3.9*	
0	on rail	6.8	14.0*	4.0	9.0*	2.5	6.6*	2.0	4.2*	
	on tyres	9.5	14.0*	5.3	8.3	3.4	5.2	2.7	4.2	6.9
	Rear + front outriggers down	12.5	14.0*	6.8	9.0*	4.3	6.6*	3.5	4.2*	
−1.5	on rail	6.6	14.4*	3.7	9.2*	2.4	5.2*	2.3	4.3*	
	on tyres	9.3	14.4*	5.1	8.0	3.3	5.1	3.1	4.3*	6.3
	Rear + front outriggers down	12.4	14.4*	6.5	9.2*	4.2	5.2*	3.9	4.3*	
−3.0	on rail	6.4	11.9*	3.6	5.7*			3.6	5.6*	
	on tyres	9.1	11.9*	5.0	5.7*			4.9	5.6*	4.5
	Rear + front outriggers down	11.9*	11.9*	5.7*	5.7*			5.6*	5.6*	

Stick 2.05 m

m	Undercarriage	3.0 m		4.5 m		6.0 m				m
7.5	on rail							4.5	4.8*	
	on tyres							4.8*	4.8*	4.3
	Rear + front outriggers down							4.8*	4.8*	
6.0	on rail			4.4	6.7*			2.8	3.9*	
	on tyres			5.8	6.7*			3.7	3.9*	5.8
	Rear + front outriggers down			6.7*	6.7*			3.9*	3.9*	
4.5	on rail	7.6	9.9*	4.4	7.3*	2.7	6.0*	2.2	3.5*	
	on tyres	9.9*	9.9*	5.7	7.3*	3.6	5.5	3.0	3.5*	6.7
	Rear + front outriggers down	9.9*	9.9*	7.0	7.3*	4.6	6.0*	3.5*	3.5*	
3.0	on rail	7.3	10.6*	4.3	8.3*	2.7	6.3*	1.9	3.4*	
	on tyres	9.8	10.6*	5.6	8.1	3.6	5.4	2.7	3.4*	7.1
	Rear + front outriggers down	10.6*	10.6*	6.9	8.3*	4.5	6.3*	3.4	3.4*	
1.5	on rail	7.3	12.4*	4.2	8.9*	2.6	6.6*	1.9	3.5*	
	on tyres	9.7	12.4*	5.6	8.1	3.5	5.3	2.6	3.5*	7.2
	Rear + front outriggers down	12.3	12.4*	6.8	8.9*	4.5	6.6*	3.2	3.5*	
0	on rail	6.8	14.0*	4.0	9.0*	2.5	6.6*	1.9	3.8*	
	on tyres	9.6	14.0*	5.4	8.2	3.4	5.2	2.6	3.8*	7.0
	Rear + front outriggers down	12.4	14.0*	6.8	9.0*	4.3	6.6*	3.4	3.8*	
−1.5	on rail	6.6	14.3*	3.7	9.2*	2.4	5.8*	2.2	4.4*	
	on tyres	9.3	14.3*	5.1	8.1	3.3	5.1	3.0	4.4*	6.5
	Rear + front outriggers down	12.4	14.3*	6.5	9.2*	4.2	5.8*	3.8	4.4*	
−3.0	on rail	6.4	12.8*	3.6	6.6*			3.1	5.0*	
	on tyres	9.1	12.8*	5.0	6.6*			4.3	5.0*	5.0
	Rear + front outriggers down	12.2	12.8*	6.4	6.6*			5.0*	5.0*	

Stick 2.25 m

m	Undercarriage	3.0 m		4.5 m		6.0 m				m
7.5	on rail			4.2	4.8*			4.1	4.1*	
	on tyres			4.8*	4.8*			4.1*	4.1*	4.6
	Rear + front outriggers down			4.8*	4.8*			4.1*	4.1*	
6.0	on rail			4.4	6.4*	2.7	3.9*	2.6	3.4*	
	on tyres			5.8	6.4*	3.6	3.9*	3.4*	3.4*	6.0
	Rear + front outriggers down			6.4*	6.4*	3.9*	3.9*	3.4*	3.4*	
4.5	on rail	7.6	8.6*	4.4	7.0*	2.8	5.9*	2.1	3.1*	
	on tyres	8.6*	8.6*	5.7	7.0*	3.7	5.5	2.9	3.1*	6.9
	Rear + front outriggers down	8.6*	8.6*	7.0	7.0*	4.6	5.9*	3.1*	3.1*	
3.0	on rail	7.3	10.9*	4.3	8.1*	2.7	6.2*	1.9	3.1*	
	on tyres	9.8	10.9*	5.6	8.1*	3.7	5.4	2.6	3.1*	7.3
	Rear + front outriggers down	10.9*	10.9*	6.8	8.1*	4.6	6.2*	3.1*	3.1*	
1.5	on rail	7.2	12.4*	4.2	8.8*	2.7	6.5*	1.8	3.2*	
	on tyres	9.7	12.4*	5.6	8.1	3.6	5.4	2.5	3.2*	7.4
	Rear + front outriggers down	12.2	12.4*	6.8	8.8*	4.5	6.5*	3.1	3.2*	
0	on rail	6.8	13.8*	4.0	8.9*	2.5	6.6*	1.8	3.5*	
	on tyres	9.6	13.8*	5.4	8.1	3.4	5.2	2.5	3.5*	7.2
	Rear + front outriggers down	12.4	13.8*	6.8	8.9*	4.3	6.6*	3.2	3.5*	
−1.5	on rail	6.6	14.2*	3.8	9.2*	2.4	6.1*	2.0	4.1*	
	on tyres	9.3	14.2*	5.1	8.1	3.3	5.1	2.8	4.1*	6.7
	Rear + front outriggers down	12.4	14.2*	6.6	9.2*	4.2	6.1*	3.6	4.1*	
−3.0	on rail	6.4	13.5*	3.6	7.4*			2.8	4.5*	
	on tyres	9.1	13.5*	4.9	7.4*			3.9	4.5*	5.3
	Rear + front outriggers down	12.2	13.5*	6.4	7.4*			4.5*	4.5*	

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

The lift capacities are stated in metric tonnes (t) with PowerLift of 375 bar at the stick end without attachment. This applies to a firm flat substrate with a closed steering axle. These capacities can be slewed through 360° with the undercarriage in the transverse position. Capacities in the longitudinal position of the undercarriage (+/– 15°) are specified over the steering axle with the stabilizers raised and over the rigid axle with the stabilizers down. The values apply when the adjusting cylinder is in the optimal position. Indicated loads based on the ISO 10567 standard and do not exceed 75 % of tipping or 87 % of hydraulic capacity, or are limited by the permissible load of the load lift hook.

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 200 mm cant.

Lift Capacities

with Two-Piece Boom 5.05 m (Heavy Counterweight), Narrow Gauge 1,000 mm

Stick 1.85 m

m	Undercarriage	3.0 m		4.5 m		6.0 m				m
7.5	on rail	5.4	8.4*					3.1	5.6*	4.2
	on tyres	8.5*	8.5*					5.9*	5.9*	
6.0	on rail	5.4	7.6*	3.0	6.9*			1.9	4.4*	5.7
	on tyres	7.6*	7.6*	5.3	6.9*			3.6	4.5*	
4.5	on rail	5.1	10.1*	3.0	7.5*	1.8	5.6	1.5	4.0*	6.6
	on tyres	9.5	10.3*	5.3	7.4*	3.3	5.0	2.8	4.0*	
3.0	on rail	4.9	10.3*	3.0	8.4	1.8	5.6	1.3	3.8*	7.0
	on tyres	9.2	10.2*	5.3	7.7	3.3	5.0	2.5	3.8*	
1.5	on rail	4.9	12.6*	2.8	8.4	1.7	5.5	1.2	3.9*	7.1
	on tyres	9.1	12.4*	5.2	7.6	3.2	4.9	2.4	3.7	
0	on rail	4.4	14.1*	2.6	8.5	1.6	5.4	1.2	4.2*	6.8
	on tyres	8.8	14.0*	5.0	7.8	3.1	4.8	2.5	3.9	
–1.5	on rail	4.3	14.4*	2.4	8.3	1.5	4.9*	1.5	4.2*	6.2
	on tyres	8.6	14.4*	4.7	7.5	3.0	4.7	2.8	4.3*	
–3.0	on rail	4.2	11.0*					2.6	6.1*	4.2
	on tyres	8.5	11.9*	4.6	5.7*			4.5	5.6*	

Stick 2.05 m

m	Undercarriage	3.0 m		4.5 m		6.0 m				m
7.5	on rail							2.9	4.7*	4.5
	on tyres							4.8*	4.8*	
6.0	on rail	5.4	6.9*	3.1	6.7*			1.8	3.8*	5.9
	on tyres			5.4	6.7*			3.5	3.9*	
4.5	on rail	5.2	10.2*	3.0	7.3*	1.8	5.7	1.4	3.5*	6.8
	on tyres	9.5	9.9*	5.3	7.3*	3.4	5.1	2.7	3.5*	
3.0	on rail	5.0	10.8*	3.0	8.4*	1.8	5.7	1.2	3.4*	7.2
	on tyres	9.2	10.6*	5.3	7.7	3.4	5.1	2.4	3.4*	
1.5	on rail	4.9	12.6*	2.9	8.4	1.7	5.6	1.2	3.5*	7.2
	on tyres	9.1	12.4*	5.2	7.6	3.3	5.0	2.3	3.5*	
0	on rail	4.5	14.1*	2.7	8.5	1.6	5.4	1.2	3.9*	7.0
	on tyres	8.9	14.0*	5.0	7.8	3.1	4.8	2.4	3.7	
–1.5	on rail	4.3	14.4*	2.4	8.4	1.5	5.3	1.4	4.3*	6.4
	on tyres	8.6	14.3*	4.7	7.5	3.0	4.7	2.7	4.2	
–3.0	on rail	4.1	12.1*	2.3	6.0*			2.2	5.4*	4.7
	on tyres	8.5	12.8*	4.6	6.6*			4.0	5.0*	

Stick 2.25 m

m	Undercarriage	3.0 m		4.5 m		6.0 m				m
7.5	on rail			2.9	5.6*			2.6	4.0*	4.8
	on tyres			4.8*	4.8*			4.1*	4.1*	
6.0	on rail			3.1	6.5*	1.8	4.7*	1.7	3.3*	6.2
	on tyres			5.4	6.4*	3.3	3.9*	3.3	3.4*	
4.5	on rail	5.2	9.8*	3.0	7.1*	1.9	5.7	1.3	3.1*	6.9
	on tyres	8.6*	8.6*	5.3	7.0*	3.4	5.1	2.6	3.1*	
3.0	on rail	4.9	11.1*	3.0	8.2*	1.9	5.6	1.2	3.1*	7.3
	on tyres	9.2	10.9*	5.3	7.7	3.4	5.1	2.3	3.1*	
1.5	on rail	4.9	12.5*	2.9	8.3	1.8	5.6	1.1	3.2*	7.4
	on tyres	9.1	12.4*	5.2	7.6	3.3	5.0	2.2	3.2*	
0	on rail	4.5	13.9*	2.7	8.4	1.6	5.4	1.1	3.5*	7.2
	on tyres	8.9	13.8*	5.0	7.7	3.2	4.8	2.3	3.5*	
–1.5	on rail	4.3	14.3*	2.5	8.4	1.5	5.3	1.3	4.1*	6.6
	on tyres	8.6	14.2*	4.8	7.5	3.0	4.7	2.6	4.0	
–3.0	on rail	4.1	13.0*	2.3	6.8*			1.9	4.8*	5.1
	on tyres	8.5	13.5*	4.6	7.3			3.6	4.5*	

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

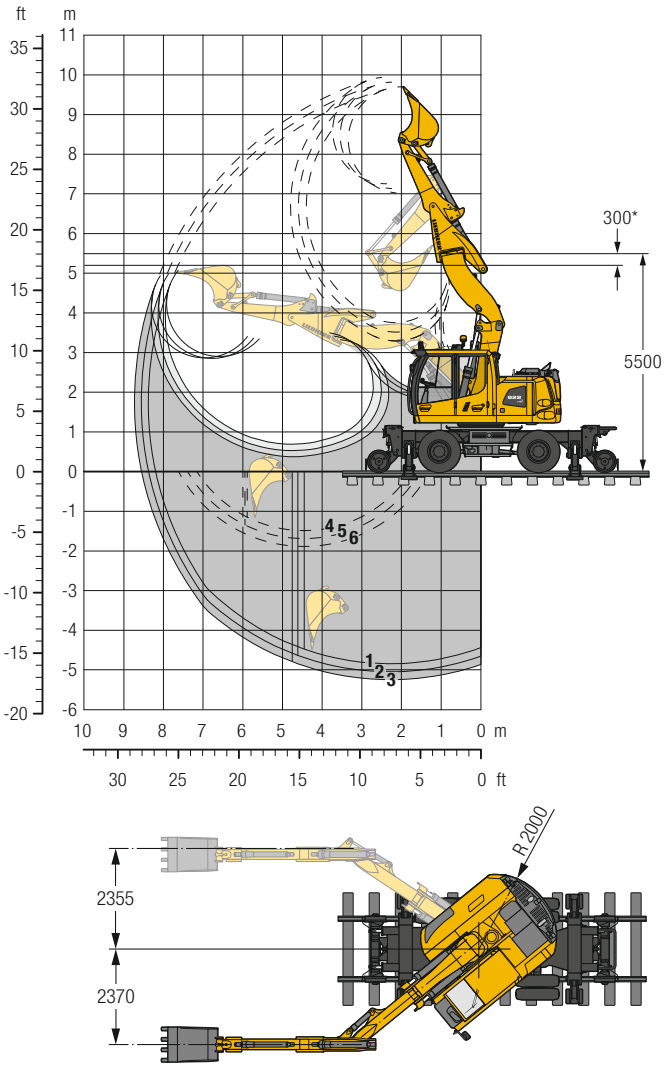
The lift capacities are stated in metric tonnes (t) with PowerLift of 375 bar at the stick end without attachment. This applies to a firm flat substrate with a closed steering axle. These capacities can be slewed through 360° with the undercarriage in the transverse position. Capacities in the longitudinal position of the undercarriage (+/– 15°) are specified over the steering axle with the stabilizers raised. The values apply when the adjusting cylinder is in the optimal position. Indicated loads based on the ISO 10567 standard and do not exceed 75 % of tipping or 87 % of hydraulic capacity, or are limited by the permissible load of the load lift hook.

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 200 mm cant.

Backhoe Bucket

with Offset Two-Piece Boom 5.00 m



* Safety distance to overhead wires

Digging Envelope

		1	2	3
Stick length	**m**	1.85	2.05	2.25
Max. digging depth	**m**	4.85	5.05	5.25
Max. reach at ground level	**m**	8.20	8.40	8.55
Max. dumping height	**m**	7.05	7.15	7.25
Max. dumping height under overhead wires	**m**	2.85	2.85	2.85
Max. teeth height	**m**	9.70	9.80	9.95
Min. equipment radius	**m**	2.58	2.57	2.56

1 with stick 1.85 m
2 with stick 2.05 m
3 with stick 2.25 m
with set straight boom

4 with stick 1.85 m
5 with stick 2.05 m
6 with stick 2.25 m
at max. equipment offset
with vertical ditch walls

Digging Forces

		1	2	3
Max. digging force (ISO 6015)	**kN**	110.6	102.2	95.2
	t	11.3	10.4	9.7
Max. breakout force (ISO 6015)	**kN**	101.3	101.3	101.3
	t	10.3	10.3	10.3

Max. breakout force with ripper bucket 134,6 kN (13,7 t)

Operating Weight

The operating weight includes the basic machine with 8 tyres plus intermediate rings, offset two-piece boom 5.00 m, stick 2.25 m and bucket 850 mm/0.60 m³.

Undercarriage versions	Weight (kg)
A 922 Rail Litronic without outriggers (Asymetric Rail)	21,100
A 922 Rail Litronic without outriggers (Symetric Rail)	21,100
A 922 Rail Litronic with rear + front outriggers	22,800

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

Cutting width	Capacity ISO 7451[1]	Weight	without outriggers						Rear + front outriggers								
			on rail			on tyres			on rail			on tyres			down		
			Stick length (m)			Stick length (m)			Stick length (m)			Stick length (m)			Stick length (m)		
mm	m³	kg	1.85	2.05	2.25	1.85	2.05	2.25	1.85	2.05	2.25	1.85	2.05	2.25	1.85	2.05	2.25
400	0.24	310	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
650	0.45	348	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
850	0.60	401	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
1,050	0.80	480	△	△	–	■	■	■	■	△	△	■	■	■	■	■	■
1,250	0.95	525	–	–	–	■	■	■	△	△	–	■	■	■	■	■	■

* 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)

Max. material weight ■ = ≤ 1.8 t/m³, ■ = ≤ 1.5 t/m³, △ = ≤ 1.2 t/m³, – = not authorised

Lift Capacities

with Offset Two-Piece Boom 5.00 m (without Outriggers)

Stick 1.85 m

m	Undercarriage	3.0 m		4.5 m		6.0 m				m
7.5	on rail	6.9	8.3*					4.3	5.4*	3.9
	on tyres	8.3*	8.3*					5.4*	5.4*	
6.0	on rail	6.9	7.8*	3.7	6.6*			2.4	4.1*	5.6
	on tyres	7.8*	7.8*	5.0	6.6*			3.3	4.1*	
4.5	on rail	6.6	9.9*	3.7	7.1*	2.1	5.9*	1.8	3.7*	6.5
	on tyres	8.9	9.9*	5.0	7.1*	2.9	4.6	2.5	3.7*	
3.0	on rail	6.3	9.9*	3.7	8.0*	2.1	6.1*	1.5	3.6*	6.9
	on tyres	8.5	9.9*	4.9	7.2	2.9	4.6	2.2	3.5	
1.5	on rail	6.2	12.1*	3.5	8.5*	2.0	6.3*	1.4	3.6*	7.0
	on tyres	8.5	12.1*	4.8	7.1	2.9	4.5	2.1	3.3	
0	on rail	5.7	13.6*	3.3	8.6*	1.9	6.4*	1.4	3.9*	6.8
	on tyres	8.1	13.5	4.5	7.3	2.7	4.3	2.1	3.5	
–1.5	on rail	5.4	14.0*	3.0	8.9*	1.8	5.0*	1.7	4.2*	6.2
	on tyres	7.8	14.0*	4.2	6.9	2.6	4.2	2.4	4.0	
–3.0	on rail	5.3	11.5*	2.8	5.3*			2.8	5.3*	4.5
	on tyres	7.6	11.5*	4.0	5.3*			4.0	5.3*	

Stick 2.05 m

m	Undercarriage	3.0 m		4.5 m		6.0 m				m
7.5	on rail							3.9	4.5*	4.2
	on tyres							4.5*	4.5*	
6.0	on rail			3.8	6.4*			2.3	3.6*	5.8
	on tyres			5.0	6.4*			3.1	3.6*	
4.5	on rail	6.6	9.5*	3.8	7.0*	2.2	5.8*	1.7	3.2*	6.7
	on tyres	9.0	9.5*	5.0	7.0*	3.0	4.7	2.4	3.2*	
3.0	on rail	6.3	10.4*	3.7	7.9*	2.2	6.1*	1.5	3.2*	7.1
	on tyres	8.6	10.4*	4.9	7.2	3.0	4.7	2.1	3.2*	
1.5	on rail	6.2	12.1*	3.6	8.5*	2.1	6.3*	1.4	3.3*	7.2
	on tyres	8.5	12.1*	4.9	7.1	2.9	4.6	2.0	3.2	
0	on rail	5.8	13.5*	3.3	8.6*	1.9	6.4*	1.4	3.6*	7.0
	on tyres	8.2	13.4	4.6	7.3	2.7	4.4	2.1	3.3	
–1.5	on rail	5.5	13.9*	3.0	8.9*	1.8	5.5*	1.6	4.2*	6.4
	on tyres	7.9	13.9	4.2	6.9	2.6	4.2	2.3	3.8	
–3.0	on rail	5.3	12.4*	2.8	6.3*			2.4	4.7*	5.0
	on tyres	7.6	12.4*	4.0	6.3*			3.5	4.7*	

Stick 2.25 m

m	Undercarriage	3.0 m		4.5 m		6.0 m				m
7.5	on rail			3.5	4.0*			3.5	3.8*	4.5
	on tyres			4.0*	4.0*			3.8*	3.8*	
6.0	on rail			3.8	6.2*	2.1	3.1*	2.1	3.1*	6.0
	on tyres			5.1	6.2*	3.0	3.1*	3.0	3.1*	
4.5	on rail	6.7	8.9*	3.8	6.8*	2.2	5.6*	1.6	2.9*	6.8
	on tyres	8.9*	8.9*	5.0	6.8*	3.1	4.7	2.3	2.9*	
3.0	on rail	6.3	10.7*	3.7	7.7*	2.2	6.0*	1.4	2.9*	7.3
	on tyres	8.6	10.7*	4.9	7.2	3.1	4.7	2.0	2.9*	
1.5	on rail	6.2	12.1*	3.6	8.4*	2.1	6.2*	1.3	3.0*	7.4
	on tyres	8.4	12.1*	4.9	7.1	3.0	4.6	1.9	3.0*	
0	on rail	5.8	13.4*	3.3	8.6*	2.0	6.3*	1.3	3.2*	7.2
	on tyres	8.2	13.3	4.6	7.3	2.8	4.4	2.0	3.2	
–1.5	on rail	5.4	13.8*	3.0	8.9*	1.8	5.8*	1.5	3.8*	6.6
	on tyres	7.9	13.8	4.3	6.9	2.6	4.2	2.2	3.6	
–3.0	on rail	5.2	13.1*	2.8	7.0*			2.3	4.5*	5.0
	on tyres	7.6	13.1*	4.0	6.7			3.3	4.5*	

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

The lift capacities are stated in metric tonnes (t) with PowerLift of 375 bar at the stick end without attachment. This applies to a firm flat substrate with a closed steering axle. These capacities can be slewed through 360° with the undercarriage in the transverse position. Capacities in the longitudinal position of the undercarriage (+/– 15°) are specified over the steering axle with the stabilizers raised. The values apply when the adjusting cylinder is in the optimal position. Indicated loads based on the ISO 10567 standard and do not exceed 75 % of tipping or 87 % of hydraulic capacity, or are limited by the permissible load of the load lift hook.

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 200 mm cant.

Lift Capacities

with Offset Two-Piece Boom 5.00 m (without Outriggers, Heavy Counterweight)

Stick 1.85 m

m	Undercarriage	3.0 m		4.5 m		6.0 m				m
7.5	on rail	7.3	8.3*					4.6	5.4*	3.9
	on tyres	8.3*	8.3*					5.4*	5.4*	
6.0	on rail	7.4	7.8*	4.0	6.6*			2.6	4.1*	5.6
	on tyres	7.8*	7.8*	5.3	6.6*			3.5	4.1*	
4.5	on rail	7.0	9.9*	4.0	7.1*	2.3	5.9*	1.9	3.7*	6.5
	on tyres	9.3	9.9*	5.3	7.1*	3.2	4.9	2.7	3.7*	
3.0	on rail	6.7	9.9*	4.0	8.0*	2.3	6.1*	1.7	3.6*	6.9
	on tyres	9.0	9.9*	5.2	7.5	3.2	4.9	2.4	3.6*	
1.5	on rail	6.7	12.1*	3.8	8.5*	2.2	6.3*	1.6	3.6*	7.0
	on tyres	8.9	12.1*	5.1	7.5	3.1	4.8	2.2	3.6	
0	on rail	6.1	13.6*	3.6	8.6*	2.1	6.4*	1.6	3.9*	6.8
	on tyres	8.7	13.6*	4.8	7.7	2.9	4.6	2.3	3.7	
–1.5	on rail	5.9	14.0*	3.2	8.9*	2.0	5.0*	1.9	4.2*	6.2
	on tyres	8.4	14.0*	4.5	7.3	2.8	4.5	2.7	4.2*	
–3.0	on rail	5.7	11.5*	3.1	5.3*			3.1	5.3*	4.5
	on tyres	8.2	11.5*	4.4	5.3*			4.3	5.3*	

Stick 2.05 m

m	Undercarriage	3.0 m		4.5 m		6.0 m				m
7.5	on rail							4.2	4.5*	4.2
	on tyres							4.5*	4.5*	
6.0	on rail			4.0	6.4*			2.5	3.6*	5.8
	on tyres			5.3	6.4*			3.4	3.6*	
4.5	on rail	7.1	9.5*	4.0	7.0*	2.4	5.8*	1.9	3.2*	6.7
	on tyres	9.4	9.5*	5.3	7.0*	3.2	5.0	2.6	3.2*	
3.0	on rail	6.8	10.4*	4.0	7.9*	2.4	6.1*	1.6	3.2*	7.1
	on tyres	9.0	10.4*	5.2	7.5	3.2	5.0	2.3	3.2*	
1.5	on rail	6.7	12.1*	3.9	8.5*	2.3	6.3*	1.5	3.3*	7.2
	on tyres	8.9	12.1*	5.2	7.5	3.1	4.8	2.2	3.3*	
0	on rail	6.2	13.5*	3.6	8.6*	2.1	6.4*	1.6	3.6*	7.0
	on tyres	8.7	13.5*	4.9	7.7	3.0	4.7	2.2	3.6*	
–1.5	on rail	5.9	13.9*	3.3	8.9*	2.0	5.5*	1.8	4.2*	6.4
	on tyres	8.4	13.9*	4.5	7.3	2.8	4.5	2.5	4.1	
–3.0	on rail	5.7	12.4*	3.1	6.3*			2.7	4.7*	5.0
	on tyres	8.2	12.4*	4.3	6.3*			3.8	4.7*	

Stick 2.25 m

m	Undercarriage	3.0 m		4.5 m		6.0 m				m
7.5	on rail			3.8	4.0*			3.8	3.8*	4.5
	on tyres			4.0*	4.0*			3.8*	3.8*	
6.0	on rail			4.1	6.2*	2.3	3.1*	2.3	3.1*	6.0
	on tyres			5.4	6.2*	3.1*	3.1*	3.1*	3.1*	
4.5	on rail	7.1	8.9*	4.0	6.8*	2.4	5.6*	1.8	2.9*	6.8
	on tyres	8.9*	8.9*	5.3	6.8*	3.3	5.0	2.5	2.9*	
3.0	on rail	6.8	10.7*	3.9	7.7*	2.4	6.0*	1.5	2.9*	7.3
	on tyres	9.0	10.7*	5.2	7.5	3.3	5.0	2.2	2.9*	
1.5	on rail	6.6	12.1*	3.9	8.4*	2.3	6.2*	1.5	3.0*	7.4
	on tyres	8.9	12.1*	5.2	7.4	3.2	4.9	2.1	3.0*	
0	on rail	6.2	13.4*	3.6	8.6*	2.2	6.3*	1.5	3.2*	7.2
	on tyres	8.8	13.4*	4.9	7.6	3.0	4.7	2.1	3.2*	
–1.5	on rail	5.9	13.8*	3.3	8.9*	2.0	5.8*	1.7	3.8*	6.6
	on tyres	8.4	13.8*	4.6	7.4	2.8	4.5	2.4	3.8*	
–3.0	on rail	5.7	13.1*	3.1	7.0*			2.5	4.5*	5.0
	on tyres	8.2	13.1*	4.3	7.0*			3.6	4.5*	

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

The lift capacities are stated in metric tonnes (t) with PowerLift of 375 bar at the stick end without attachment. This applies to a firm flat substrate with a closed steering axle. These capacities can be slewed through 360° with the undercarriage in the transverse position. Capacities in the longitudinal position of the undercarriage (+/– 15°) are specified over the steering axle with the stabilizers raised. The values apply when the adjusting cylinder is in the optimal position. Indicated loads based on the ISO 10567 standard and do not exceed 75 % of tipping or 87 % of hydraulic capacity, or are limited by the permissible load of the load lift hook.

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 200 mm cant.

Lift Capacities

with Offset Two-Piece Boom 5.00 m (Rear + Front Outriggers)

Stick 1.85 m

m	Undercarriage	3.0 m		4.5 m		6.0 m				m
7.5	on rail	7.3	8.3*					4.6	5.4*	
	on tyres	8.3*	8.3*					5.4*	5.4*	3.9
	Rear + front outriggers down	8.3*	8.3*					5.4*	5.4*	
6.0	on rail	7.4	7.8*	3.9	6.6*			2.6	4.1*	
	on tyres	7.8*	7.8*	5.3	6.6*			3.6	4.1*	5.6
	Rear + front outriggers down	7.8*	7.8*	6.6*	6.6*			4.1*	4.1*	
4.5	on rail	7.0	9.9*	4.0	7.1*	2.3	5.9*	1.9	3.7*	
	on tyres	9.4	9.9*	5.3	7.1*	3.2	5.0	2.7	3.7*	6.5
	Rear + front outriggers down	9.9*	9.9*	6.5	7.1*	4.1	5.9*	3.5	3.7*	
3.0	on rail	6.7	9.9*	3.9	8.0*	2.3	6.1*	1.7	3.6*	
	on tyres	9.1	9.9*	5.2	7.6	3.2	5.0	2.4	3.6*	6.9
	Rear + front outriggers down	9.9*	9.9*	6.4	8.0*	4.1	6.1*	3.1	3.6*	
1.5	on rail	6.7	12.1*	3.8	8.5*	2.2	6.3*	1.6	3.6*	
	on tyres	9.0	12.1*	5.2	7.6	3.1	4.9	2.3	3.6	7.0
	Rear + front outriggers down	11.4	12.1*	6.4	8.5*	4.0	6.3*	3.0	3.6*	
0	on rail	6.1	13.6*	3.5	8.6*	2.1	6.4*	1.6	3.9*	
	on tyres	8.8	13.6*	4.9	7.8	3.0	4.7	2.4	3.8	6.8
	Rear + front outriggers down	11.7	13.6*	6.3	8.6*	3.9	6.4*	3.1	3.9*	
−1.5	on rail	5.9	14.0*	3.2	8.9*	2.0	5.0*	1.9	4.2*	
	on tyres	8.5	14.0*	4.6	7.4	2.9	4.6	2.7	4.2*	6.2
	Rear + front outriggers down	11.5	14.0*	6.0	8.9*	3.7	5.0*	3.5	4.2*	
−3.0	on rail	5.7	11.5*	3.1	5.3*			3.1	5.3*	
	on tyres	8.3	11.5*	4.4	5.3*			4.4	5.3*	4.5
	Rear + front outriggers down	11.3	11.5*	5.3*	5.3*			5.3*	5.3*	

Stick 2.05 m

m	Undercarriage	3.0 m		4.5 m		6.0 m				m
7.5	on rail							4.2	4.5*	
	on tyres							4.5*	4.5*	4.2
	Rear + front outriggers down							4.5*	4.5*	
6.0	on rail			4.0	6.4*			2.5	3.6*	
	on tyres			5.4	6.4*			3.4	3.6*	5.8
	Rear + front outriggers down			6.4*	6.4*			3.6*	3.6*	
4.5	on rail	7.1	9.5*	4.0	7.0*	2.4	5.8*	1.9	3.2*	
	on tyres	9.5	9.5*	5.3	7.0*	3.3	5.1	2.6	3.2*	6.7
	Rear + front outriggers down	9.5*	9.5*	6.6	7.0*	4.2	5.8*	3.2*	3.2*	
3.0	on rail	6.8	10.4*	3.9	7.9*	2.4	6.1*	1.6	3.2*	
	on tyres	9.1	10.4*	5.2	7.6	3.3	5.0	2.3	3.2*	7.1
	Rear + front outriggers down	10.4*	10.4*	6.4	7.9*	4.2	6.1*	3.0	3.2*	
1.5	on rail	6.7	12.1*	3.9	8.5*	2.3	6.3*	1.5	3.3*	
	on tyres	9.0	12.1*	5.2	7.6	3.2	4.9	2.2	3.3*	7.2
	Rear + front outriggers down	11.4	12.1*	6.4	8.5*	4.1	6.3*	2.9	3.3*	
0	on rail	6.2	13.5*	3.6	8.6*	2.1	6.4*	1.6	3.6*	
	on tyres	8.9	13.5*	4.9	7.8	3.0	4.8	2.3	3.6*	7.0
	Rear + front outriggers down	11.7	13.5*	6.4	8.6*	3.9	6.4*	3.0	3.6*	
−1.5	on rail	5.9	13.9*	3.3	8.9*	2.0	5.5*	1.8	4.2*	
	on tyres	8.5	13.9*	4.6	7.5	2.9	4.6	2.6	4.1	6.4
	Rear + front outriggers down	11.5	13.9*	6.0	8.9*	3.8	5.5*	3.4	4.2*	
−3.0	on rail	5.7	12.4*	3.1	6.3*			2.7	4.7*	
	on tyres	8.3	12.4*	4.4	6.3*			3.8	4.7*	5.0
	Rear + front outriggers down	11.3	12.4*	5.8	6.3*			4.7*	4.7*	

Stick 2.25 m

m	Undercarriage	3.0 m		4.5 m		6.0 m				m
7.5	on rail			3.8	4.0*			3.8	3.8*	
	on tyres			4.0*	4.0*			3.8*	3.8*	4.5
	Rear + front outriggers down			4.0*	4.0*			3.8*	3.8*	
6.0	on rail			4.1	6.2*	2.3	3.1*	2.3	3.1*	
	on tyres			5.4	6.2*	3.1*	3.1*	3.1*	3.1*	6.0
	Rear + front outriggers down			6.2*	6.2*	3.1*	3.1*	3.1*	3.1*	
4.5	on rail	7.1	8.9*	4.0	6.8*	2.4	5.6*	1.8	2.9*	
	on tyres	8.9*	8.9*	5.3	6.8*	3.3	5.1	2.5	2.9*	6.8
	Rear + front outriggers down	8.9*	8.9*	6.6	6.8*	4.2	5.6*	2.9*	2.9*	
3.0	on rail	6.8	10.7*	3.9	7.7*	2.4	6.0*	1.5	2.9*	
	on tyres	9.1	10.7*	5.2	7.6	3.3	5.1	2.2	2.9*	7.3
	Rear + front outriggers down	10.7*	10.7*	6.4	7.7*	4.2	6.0*	2.9*	2.9*	
1.5	on rail	6.6	12.1*	3.9	8.4*	2.3	6.2*	1.4	3.0*	
	on tyres	9.0	12.1*	5.2*	7.5	3.2	5.0	2.1	3.0*	7.4
	Rear + front outriggers down	11.4	12.1*	6.4	8.4*	4.1	6.2*	2.8	3.0*	
0	on rail	6.2	13.4*	3.6	8.6*	2.1	6.3*	1.5	3.2*	
	on tyres	8.9	13.4*	5.0	7.7	3.0	4.8	2.2	3.2*	7.2
	Rear + front outriggers down	11.6	13.4*	6.4	8.6*	3.9	6.3*	2.9	3.2*	
−1.5	on rail	5.9	13.8*	3.3	8.9*	2.0	5.8*	1.7	3.8*	
	on tyres	8.5	13.8*	4.6	7.5	2.9	4.6	2.4	3.8*	6.6
	Rear + front outriggers down	11.5	13.8*	6.0	8.9*	3.8	5.8*	3.2	3.8*	
−3.0	on rail	5.7	13.1*	3.1	7.0*			2.5	4.5*	
	on tyres	8.3	13.1*	4.4	7.0*			3.6	4.5*	5.0
	Rear + front outriggers down	11.3	13.1*	5.8	7.0*			4.5*	4.5*	

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

The lift capacities are stated in metric tonnes (t) with PowerLift of 375 bar at the stick end without attachment. This applies to a firm flat substrate with a closed steering axle. These capacities can be slewed through 360° with the undercarriage in the transverse position. Capacities in the longitudinal position of the undercarriage (+/– 15°) are specified over the steering axle with the stabilizers raised and over the rigid axle with the stabilizers down. The values apply when the adjusting cylinder is in the optimal position. Indicated loads based on the ISO 10567 standard and do not exceed 75 % of tipping or 87 % of hydraulic capacity, or are limited by the permissible load of the load lift hook.

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 200 mm cant.

Lift Capacities

with Offset Two-Piece Boom 5.00 m (Rear + Front Outriggers, Heavy Counterweight)

Stick 1.85 m

m	Undercarriage	3.0 m		4.5 m		6.0 m				m
	on rail	7.8	8.3*					4.9	5.4*	
7.5	on tyres	8.3*	8.3*					5.4*	5.4*	3.9
	Rear + front outriggers down	8.3*	8.3*					5.4*	5.4*	
	on rail	7.8*	7.8*	4.2	6.6*			2.8	4.1*	
6.0	on tyres	7.8*	7.8*	5.6	6.6*			3.8	4.1*	5.6
	Rear + front outriggers down	7.8*	7.8*	6.6*	6.6*			4.1*	4.1*	
	on rail	7.5	9.9*	4.3	7.1*	2.5	5.9*	2.1	3.7*	
4.5	on tyres	9.9	9.9*	5.6	7.1*	3.4	5.3	2.9	3.7*	6.5
	Rear + front outriggers down	9.9*	9.9*	6.8	7.1*	4.4	5.9*	3.7*	3.7*	
	on rail	7.2	9.9*	4.2	8.0*	2.5	6.1*	1.8	3.6*	
3.0	on tyres	9.5	9.9*	5.5	7.9	3.4	5.3	2.6	3.6*	6.9
	Rear + front outriggers down	9.9*	9.9*	6.7	8.0*	4.4	6.1*	3.3	3.6*	
	on rail	7.1	12.1*	4.1	8.5*	2.4	6.3*	1.7	3.6*	
1.5	on tyres	9.5	12.1*	5.5	7.9	3.3	5.2	2.5	3.6*	7.0
	Rear + front outriggers down	11.9	12.1*	6.7	8.5*	4.3	6.3*	3.2	3.6*	
	on rail	6.6	13.6*	3.8	8.6*	2.3	6.4*	1.8	3.9*	
0	on tyres	9.3	13.6*	5.2	8.1	3.2	5.0	2.5	3.9*	6.8
	Rear + front outriggers down	12.2	13.6*	6.7	8.6*	4.1	6.4*	3.3	3.9*	
	on rail	6.3	14.0*	3.5	8.9*	2.2	5.0*	2.0	4.2*	
−1.5	on tyres	9.1	14.0*	4.9	7.8	3.1	4.9	2.9	4.2*	6.2
	Rear + front outriggers down	12.2	14.0*	6.3	8.9*	4.0	5.0*	3.8	4.2*	
	on rail	6.1	11.5*	3.4	5.3*			3.4	5.3*	
−3.0	on tyres	8.8	11.5*	4.7	5.3*			4.7	5.3*	4.5
	Rear + front outriggers down	11.5*	11.5*	5.3*	5.3*			5.3*	5.3*	

Stick 2.05 m

m	Undercarriage	3.0 m		4.5 m		6.0 m				m
	on rail							4.4	4.5*	
7.5	on tyres							4.5*	4.5*	4.2
	Rear + front outriggers down							4.5*	4.5*	
	on rail			4.3	6.4*			2.7	3.6*	
6.0	on tyres			5.7	6.4*			3.6*	3.6*	5.8
	Rear + front outriggers down			6.4*	6.4*			3.6*	3.6*	
	on rail	7.5	9.5*	4.3	7.0*	2.6	5.8*	2.0	3.2*	
4.5	on tyres	9.5*	9.5*	5.6	7.0*	3.5	5.3	2.8	3.2*	6.7
	Rear + front outriggers down	9.5*	9.5*	6.9	7.0*	4.4	5.8*	3.2*	3.2*	
	on rail	7.2	10.4*	4.2	7.9*	2.6	6.1*	1.8	3.2*	
3.0	on tyres	9.5	10.4*	5.5	7.9*	3.5	5.3	2.5	3.2*	7.1
	Rear + front outriggers down	10.4*	10.4*	6.7	7.9*	4.4	6.1*	3.2*	3.2*	
	on rail	7.1	12.1*	4.1	8.5*	2.5	6.3*	1.7	3.3*	
1.5	on tyres	9.5	12.1*	5.5	7.9	3.4	5.2	2.4	3.3*	7.2
	Rear + front outriggers down	11.9	12.1*	6.7	8.5*	4.3	6.3*	3.1	3.3*	
	on rail	6.6	13.5*	3.9	8.6*	2.3	6.4*	1.7	3.6*	
0	on tyres	9.4	13.5*	5.3	8.0	3.2	5.0	2.5	3.6*	7.0
	Rear + front outriggers down	12.1	13.5*	6.7	8.6*	4.2	6.4*	3.2	3.6*	
	on rail	6.3	13.9*	3.5	8.9*	2.2	5.5*	2.0	4.2*	
−1.5	on tyres	9.1	13.9*	4.9	7.9	3.1	4.9	2.8	4.2*	6.4
	Rear + front outriggers down	12.2	13.9*	6.4	8.9*	4.0	5.5*	3.6	4.2*	
	on rail	6.1	12.4*	3.4	6.3*			2.9	4.7*	
−3.0	on tyres	8.8	12.4*	4.7	6.3*			4.1	4.7*	5.0
	Rear + front outriggers down	12.0	12.4*	6.2	6.3*			4.7*	4.7*	

Stick 2.25 m

m	Undercarriage	3.0 m		4.5 m		6.0 m				m
	on rail			4.0*	4.0*			3.8*	3.8*	
7.5	on tyres			4.0*	4.0*			3.8*	3.8*	4.5
	Rear + front outriggers down			4.0*	4.0*			3.8*	3.8*	
	on rail			4.4	6.2*	2.5	3.1*	2.5	3.1*	
6.0	on tyres			5.7	6.2*	3.1*	3.1*	3.1*	3.1*	6.0
	Rear + front outriggers down			6.2*	6.2*	3.1*	3.1*	3.1*	3.1*	
	on rail	7.6	8.9*	4.3	6.8*	2.6	5.6*	2.0	2.9*	
4.5	on tyres	8.9*	8.9*	5.6	6.8*	3.6	5.4	2.7	2.9*	6.8
	Rear + front outriggers down	8.9*	8.9*	6.8*	6.8*	4.5	5.6*	2.9*	2.9*	
	on rail	7.2	10.7*	4.2	7.7*	2.6	6.0*	1.7	2.9*	
3.0	on tyres	9.5	10.7*	5.5	7.7*	3.5	5.3	2.4	2.9*	7.3
	Rear + front outriggers down	10.7*	10.7*	6.7	7.7*	4.5	6.0*	2.9*	2.9*	
	on rail	7.1	12.1*	4.2	8.4*	2.5	6.2*	1.6	3.0*	
1.5	on tyres	9.4	12.1*	5.5	7.8	3.4	5.2	2.3	3.0*	7.4
	Rear + front outriggers down	11.8	12.1*	6.7	8.4*	4.4	6.2*	3.0*	3.0*	
	on rail	6.7	13.4*	3.9	8.6*	2.3	6.3*	1.6	3.2*	
0	on tyres	9.4	13.4*	5.3	8.0	3.3	5.1	2.4	3.2*	7.2
	Rear + front outriggers down	12.1	13.4*	6.7	8.6*	4.2	6.3*	3.1	3.2*	
	on rail	6.3	13.8*	3.6	8.9*	2.2	5.8*	1.8	3.8*	
−1.5	on tyres	9.1	13.8*	5.0	7.9	3.1	4.9	2.6	3.8*	6.6
	Rear + front outriggers down	12.2	13.8*	6.4	8.9*	4.0	5.8*	3.4	3.8*	
	on rail	6.1	13.1*	3.3	7.0*			2.7	4.5*	
−3.0	on tyres	8.8	13.1*	4.7	7.0*			3.9	4.5*	5.0
	Rear + front outriggers down	11.9	13.1*	6.1	7.0*			4.5*	4.5*	

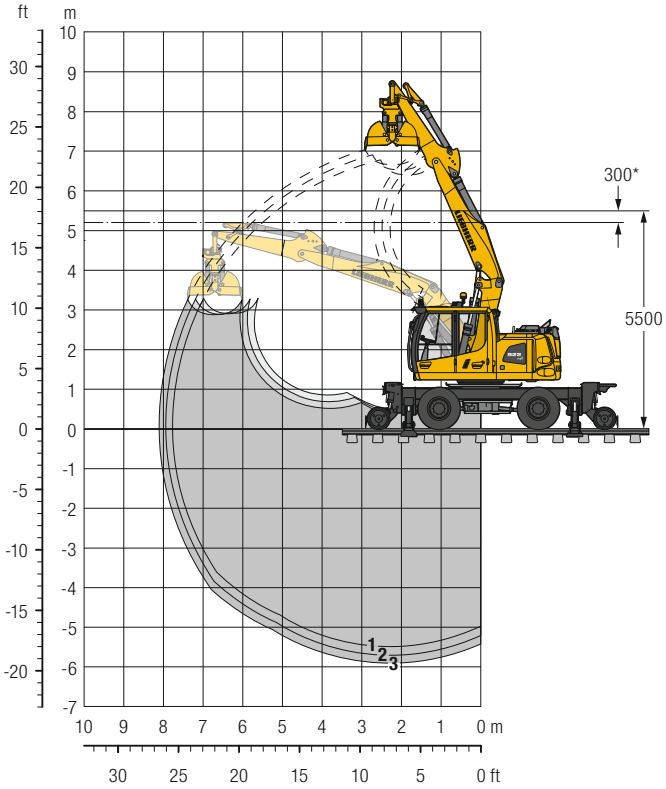
Height **Can be slewed through 360°** **In longitudinal position of undercarriage** **Max. reach** *** Limited by hydr. capacity**

The lift capacities are stated in metric tonnes (t) with PowerLift of 375 bar at the stick end without attachment. This applies to a firm flat substrate with a closed steering axle. These capacities can be slewed through 360° with the undercarriage in the transverse position. Capacities in the longitudinal position of the undercarriage (+/– 15°) are specified over the steering axle with the stabilizers raised and over the rigid axle with the stabilizers down. The values apply when the adjusting cylinder is in the optimal position. Indicated loads based on the ISO 10567 standard and do not exceed 75 % of tipping or 87 % of hydraulic capacity, or are limited by the permissible load of the load lift hook.

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 200 mm cant.

Clamshell Grab
with Two-Piece Boom 5.05 m



* Safety distance to overhead wires

Digging Envelope

		1	2	3
Stick length	**m**	1.85	2.05	2.25
Max. digging depth	**m**	5.50	5.70	5.90
Max. reach at ground level	**m**	7.75	7.95	8.10
Max. dumping height	**m**	6.40	6.55	6.65
Max. dumping height under overhead wires	**m**	2.90	2.90	2.85

Operating Weight

The operating weight includes the basic machine with 8 tyres plus intermediate rings, two-piece boom 5.05 m, stick 2.25 m and clamshell grab GM 7C/0.35 m³.

Undercarriage versions	Weight (kg)
A 922 Rail Litronic without outriggers (Asymetric Rail)	20,900
A 922 Rail Litronic without outriggers (Symetric Rail)	20,900
A 922 Rail Litronic with rear + front outriggers	22,600

Clamshell Grab GM 7C Machine stability per ISO 10567* (75 % of tipping capacity)

Width of clamshells	Capacity	Weight	without outriggers						Rear + front outriggers								
			on rail			on tyres			on rail			on tyres			down		
			Stick length (m)			Stick length (m)			Stick length (m)			Stick length (m)			Stick length (m)		
mm	m³	kg	1.85	2.05	2.25	1.85	2.05	2.25	1.85	2.05	2.25	1.85	2.05	2.25	1.85	2.05	2.25
300[1]	0.10	685	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
500[2]	0.19	780	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
600[2]	0.25	830	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
700[2]	0.30	865	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
800[2]	0.30	890	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
1,000[2]	0.38	965	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
600[3]	0.35	905	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
800[3]	0.48	985	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
1,000[3]	0.70	1,115	–	–	–	■	■	■	△	△	–	■	■	■	■	■	■

* 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

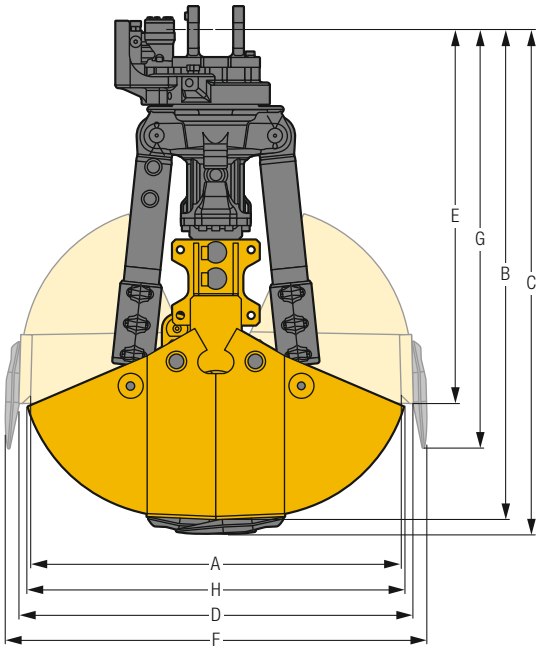
[1] Track construction bucket

[2] Combination bucket

[3] Clamshell bucket

Max. material weight ■ = ≤ 1.8 t/m³, ■ = ≤ 1.5 t/m³, △ = ≤ 1.2 t/m³, – = not authorised

Clamshell Grab GM 7C



Scope of Delivery

	mm	Weight kg
Suspension		
suiteable for quick change stick and standard pins		
Swing angle 45°	265	85
Swing angle 90°	370	90
for quick coupler SWA 33	645	165
Clamshell grab mechanism and clamshell carrier – upper part		
GM 7C		285
GM 7C-HD		310

Optional

	Weight kg
Ejectors (set of two)	
for special track clamshells and digging clamshells	
for clamshell width 300 mm	45
for clamshell width 600 mm	75
for clamshell width 800 mm	80

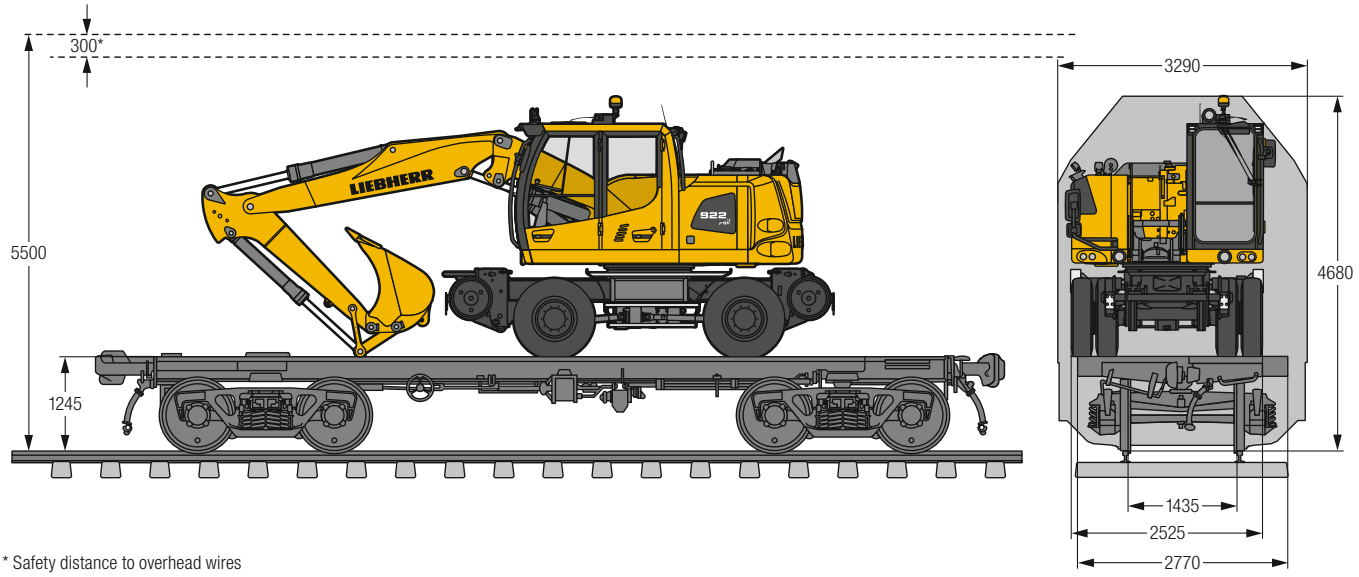
Dimensions / Weights

Capacity	Shell width	Number of teeth	Shell closed A Width	Shell closed B Height	Shell closed C Height with teeth	Shell open D Width	Shell open E Height	Shell open F Width with teeth	Shell open G Height with teeth	Shell open H Opening width	Weight without suspension
m^3	mm	Piece	mm	mm	mm	mm	mm	mm	mm	mm	kg
Track construction bucket (two-piece clamshell carrier)											
0.10	300	3	1,143	1,492	1,534	1,200	1,139	1,284	1,275	1,128	595
Combination bucket (two-piece clamshell carrier)											
0.19	500	5	1,189	1,542	1,585	1,298	1,140	1,386	1,258	1,225	690
0.25	600	5	1,189	1,542	1,585	1,298	1,140	1,386	1,258	1,225	740
0.30	700	7	1,189	1,542	1,585	1,298	1,140	1,386	1,258	1,225	775
0.30	800	7	1,189	1,542	1,585	1,298	1,140	1,386	1,258	1,225	800
0.38	1.000	9	1,189	1,542	1,585	1,298	1,140	1,386	1,258	1,225	875
Clamshell bucket (two-piece clamshell carrier)											
0.35	600	5	1,439	1,677	1,723	1,568	1,140	1,657	1,262	1,495	815
0.48	800	7	1,439	1,677	1,723	1,568	1,140	1,657	1,262	1,495	895
0.70	1,000	7	1,439	1,677	1,723	1,568	1,140	1,657	1,262	1,495	1,025

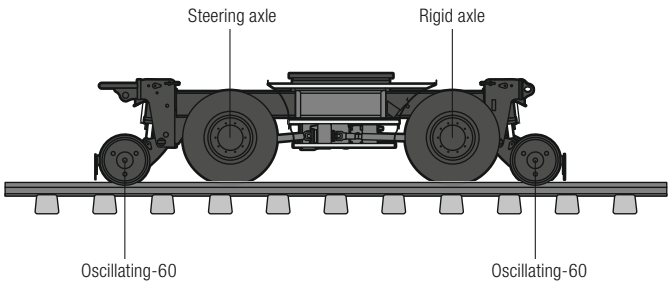
Technical Data

Lift capacity max.	Grab open / close Pressure max.	Grab open / close Flow max.	Grab turning Pressure max.	Grab turning Flow max.	Torque 1 motor 200 cm^3
10 t	36 MPa	200 l/min.	15 MPa	30 l/min.	1.38 kNm

Dimensions for Transport / Choice of Bogie Systems



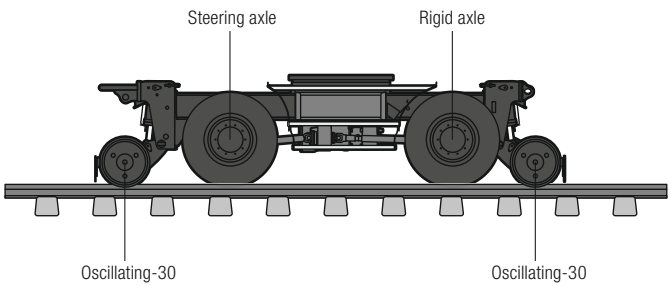
* Safety distance to overhead wires



Variant A

steering axle end oscillating-60
rigid axle end oscillating-60

Area of application
for rail track unevenness

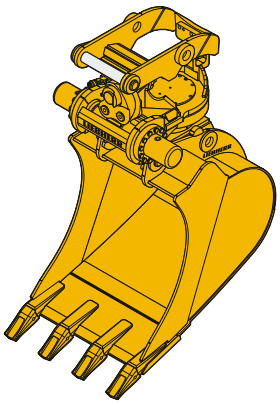


Variant B

steering axle end oscillating-30
rigid axle end oscillating-30

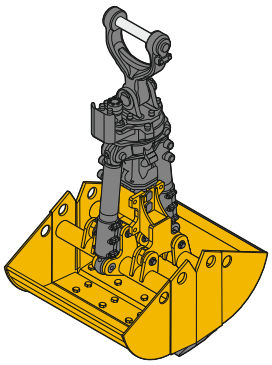
Area of application
for heavy loads / rear + front outriggers

Attachments



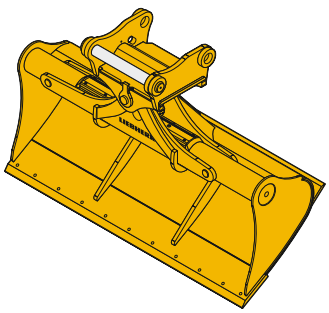
Tilt Rotator

Technical data	Slewing angle of 2 x 50° 360° rotation Quick change stick/SWA 33/SWA 48/LIKUFIX
Description	The tilt rotaror with its 360° rotatability, its patented tilt mechanism and a tilting angle of up to 50° offers a maximum of flexibility, specifically for channel digging. Its robust design makes it suitable for heavy operations.



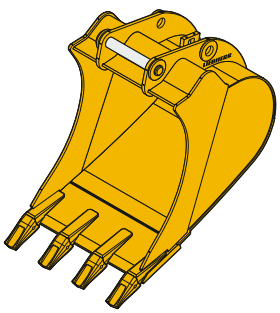
Clamshell Grab

Technical data	Width of clamshells 300 – 1,000 mm Capacity 0.10 – 0.48 m³ Opening length 1,200 – 1,580 mm Quick change stick/SWA 33/SWA 48/LIKUFIX
Description	It's possible to individually fit special track shells or grab shells with only one clam mechanism. The grab shells and teeth are standardly in HD-version, moreover the reinforced cutting sheets ensure a high stability.



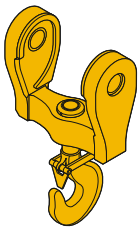
Ditch Cleaning Bucket

Technical data	Cutting width 1,600 and 2,000 mm Capacity (SAE) 0.70 – 1.00 m³ Slewing angle of 2 x 50° Quick change stick/SWA 33/SWA 48/LIKUFIX
Description	With the ditch cleaning bucket Liebherr offers a specific attachment for railroader applications. The cutting edge persists paralelly to the rotation axis, so that it's also possible to drive around obstacles without any difficulty. This attachment makes racking, arranging and profiling an easy task. The cylinders are inside and therefore optimally protected.



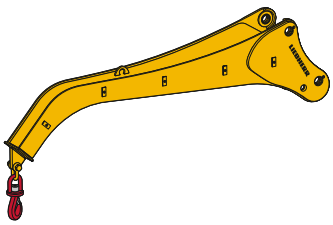
Backhoe Bucket

Technical data	Cutting width 400 – 1,250 mm Capacity 0.24 – 0.95 m³ Quick change stick/SWA 33/SWA 48/LIKUFIX
Description	Liebherr offers a suitable backhoe bucket for nearly every application. A broad programm in approved Liebherr quality and the appropriate quick hitch adapters provide a maximum of productivity.



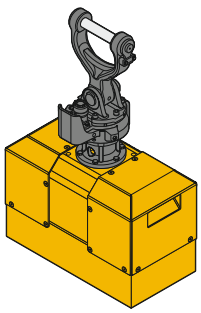
Load Lift Hook

Technical data	Lifting capacity up to 8 t Mechanical 360° rotating High-strength special type Quick change stick/SWA 33/SWA 48/LIKUFIX
Description	Due to its low operating weight the Liebherr load hook allows the lifting of heavy loads. With this 360° rotatable attachment it's possible to exactly deposit loads.



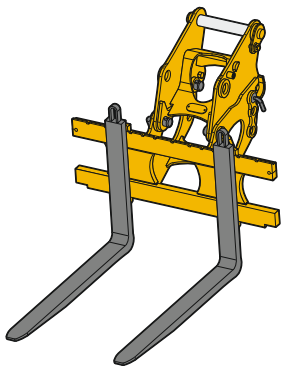
Load-Lifting Stick

Technical data	Length 2,500 mm Integrated load hook 2.5 t Quick change stick/SWA 33/SWA 48/LIKUFIX
Description	With the load-lifting stick an outreach of up to 10.0 m can be achieved. The load-lifting stick enables to work on the side rail track and to lift of long loads without any difficulty.



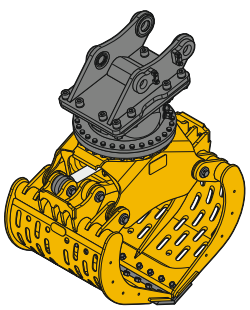
Hydro Magnet

Technical data	Hydro magnet II 5 kW Lifting capacity up to 5 t Swing drive 330° Quick change stick/SWA 33/SWA 48/LIKUFIX
Description	The hydro magnet is particulary suitable for picking up small iron parts for applications in the area of rebuilding and deconstruction.



Pallet Fork

Technical data	Max. width pallet fork 1,245 mm Pallet forks length 1,200 mm Lifting capacity up to 2,5 t (ISO 2328) Quick change stick/SWA 33/SWA 48/LIKUFIX
Description	Particularly well suited for transportation of pallets and pallet cages. Fast and secure setting of desired deployment height and width.



Sorting Grab

Technical data	Width of clamshells 800 – 1,400 mm Capacity 0.40 – 1.10 m^3 Opening length 1,200 – 1,970 mm Quick change stick/SWA 33/SWA 48/LIKUFIX
Description	Sensitive working on sorting activities. Different tine shapes for individual applications available. High closing force combined with lightweight construction.

Equipment

Undercarriage

Dual-circuit braking system with rail wheel brake, hydraulically	•
Support frame, lockable (front and rear)	+
Add-on-axle	+
Bumper (front and rear)	+
Trailer coupling Rockinger, semi-automatic	•
Lighting system white/red incl. power socket*	+
Earthing cable with ball-headed pin	✖
Fire extinguisher 6 kg	✖
Grab suspension bracket	+
Drag shoe, 2 pieces	•
Coupling bar	✖
Load holding valve on each stabilization cylinder	•
Line protection for rail guide cylinders	+
Parking brake, maintenance-free	•
Outrigger with individual control	+
Rear + front outriggers	+
Tyre inflation hose with pressure gauge at wagon braking system	+
Tyres, variants	+
Rail undercarriage friction wheel, gauge 1.000 mm (not available in combination with rear + front outriggers)	+
Rail undercarriage convertible (position and pressure control)	+
Rail guide axles, oscillating 30 on the steering and rigid axle side	•
Rail guide axles, oscillating 60 on the steering and rigid axle side	+
Rail sweeper, swivelling	+
Narrow excavator axles with wheel head width of 2,100 mm	+
Rail guide, gauge 1,435 mm	+
Rail guide, gauge 1,600 mm	+
Protection for oscillating axle cylinders	+
Proportional servo-steering with emergency function	•
Speeder*	+
Storage compartment left – lockable	•
Storage compartment right – lockable	•
Power socket 24 V/10 A (front/rear)	+
Lashing eyelets for transport	•
Wagon braking system (hydraulic, 2 circuits)	+
Wagon braking system (pneumatic, 1 circuit)	•
Wagon braking system (pneumatic, 2 circuits)	+
Tool equipment, extended	+

Uppercarriage

Uppercarriage rear light, 2 pieces, LED	+
Uppercarriage right side light, 1 piece, LED	•
Counterweight (tail swing radius 2,000 mm)	•
Counterweight (tail swing radius 2,000 mm), heavy	+
Refuelling system with filling pump	+
External starting aid (battery connectors)	+
Handrails, non slip surfaces	•
Main battery switch for electrical system	•
Engine hood with gas spring	•
Uppercarriage doors, lockable	•
Amber beacon, at uppercarriage, LED double flash	+
Signal light DB, halogen	✖
Signal light DB, LED	+

Hydraulic System

Shut-off valve between hydraulic tank and pump(s)	•
Pressure test fittings	•
Electronic pump regulation	•
High pressure circuit, continuous operation	•
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 clamshell operation and tipping cylinder	•
Switchover high pressure circuit 1 and tipping cylinder	+
Switchover high pressure circuit 1 and two-piece boom	+
Preparation Liebherr hydro-magnet	+

Diesel Engine

Fuel anti-theft device	+
Sensor controlled engine idling	•
Liebherr particle filter	•
Air pre-filter with dust discharge	+
Preheating hydraulic oil	+
Preheating fuel	+
Preheating engine oil	+

Work Space Limitation

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

Operator's Cab

Storage compartment	•
Activation of the lighting (compliant with the Road Traffic Licensing authority) for tramway operations	+
Cab lights rear, 2 pieces, LED	•
Cab lights front, 2 pieces, LED (under rain cover)	•
Exterior mirror, electrical adjustable, with heating	+
Control elements for signal-horn and emergency brake at co-driver's seat	•
Mechanical hour meters, readable from outside the cab	•
Roof window made from impact-resistant laminated safety glass	•
Data logger	✖
Two seater cab	•
Circular bubble level	+
Pressure indication of rail axles on the display	•
Driver identification code	+
Driver profile, personalised	•
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 2 kg	+
Windscreen retractable (including upper part)	•
Intermittent windscreen wiper with wiper washer	•
Footrest	+
Speed indication on the rail-display	•
Cruise control*	•
Rubber floor mat, removable	•
Dome light	•
Licence plate holder with light*	+
Coat hook	•
Automatic air conditioning	•
Fuel consumption indicator	•
Electric cooler	+
Steering wheel lock	•
Steering column adjustable	•
LiDAT, vehicle fleet management*/**	•
Emergency exit rear window	•
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	•
Back-up alarm (acoustic signal is emitted traveling backward, can not be switched off)	+
Amber beacon, on cabin, LED double flash	+
Windshield wiper with interval switching and washer, roof window	•
Windshield wiper with interval switching and washer, rear window	•
Driver door with sliding window	•
Slipcover for operator seat	+
Right side window and windshield made from laminated safety glass	•
Safety components DB (safety flag, signal horn, warning triangle, warning light, first-aid box)	✖
Sun blind	•
Auxiliary heating, adjustable (week time switch)	+
Power socket 12 V	•
Left control console, folding	•
Electronic immobilizer	+
Cigarette lighter/power socket 24 V	•

Equipment

Alternative connection medium pressure circuit on right side of stick	+
Boom lights, 2 pieces, LED	•
Stick lights, 2 pieces, LED	+
Grab lines for stick with tipping kinematic	+
High pressure circuit 1 incl. unpressurised return line and Tool Control	•
High pressure circuit 2 incl. lines	•
Free rotating load lift hook	+
Load holding valve bucket cylinder	+
Load lug on boom	+
Load lug on stick	+
Leak oil line, additional for attachments	+
Liebherr ditch cleaning bucket	+
Liebherr quick coupler, hydraulic or mechanical	+
Liebherr tilt bucket	+
Liebherr tilt rotator	+
Liebherr sorting grab	+
Liebherr backhoe bucket	+
Liebherr tooth system	+
Liebherr clamshell grab	+
Stick prepared for quick coupler stick	•
Medium pressure circuit incl. lines	•
PowerLift	•
Pipe fracture safety valves hoist cylinders	•
Pipe fracture safety valve stick cylinder	•
Hose quick coupling at grab lines	•
Hose protection for LIKUFIX	+
Quick coupling system LIKUFIX SWA 33	+
Quick coupling system LIKUFIX SWA 48	+
Signal contacts for LIKUFIX, 14-pin	+
Signal contacts for LIKUFIX, 14-pin, with control unit for second SWA	+
Special buckets and other attachments	+
Power socket on stick, commutable (2 circuits)	+
Tool Control, 20 attachment adjustments selectable over the display	•
Tool Management, automatic attachment recognition (in combination with LIKUFIX)	+
Latching for connecting link in grab operation	+
Two-piece boom	•
Offset two-piece boom	+
Cylinders with end damping	•

Complete Machine

Lubrication	
Lubrication undercarriage, manually – decentralised (grease points)	•
Lubrication undercarriage steering axle, manually – centralised (one grease point)	+
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	
DB-coating	✖
Special coating undercarriage, uppercarriage, equipment	+
Monitoring	
Rear view monitoring with camera	•
Side view monitoring with camera	•
Machine guidance system	
Preparation	+

• = Standard, + = Option, ✖ = für DB (Deutsche Bahn AG) – Abnahme erforderlich
* = country-dependent, ** = optionally extendable after one year

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.

The Liebherr Group of Companies

Wide Product Range
The Liebherr Group is one of the largest construction equipment manufacturers in the world. Liebherr's high-value products and services enjoy a high reputation in many other fields. The wide range includes domestic appliances, aerospace and transportation systems, machine tools and maritime cranes.

Exceptional Customer Benefit
Every product line provides a complete range of models in many different versions. With both their technical excellence and acknowledged quality, Liebherr products offer a maximum of customer benefits in practical applications.

State-of-the-art Technology
To provide consistent, top quality products, Liebherr attaches great importance to each product area, its components and core technologies. Important modules and components are developed and manufactured in-house, for instance the entire drive and control technology for construction equipment.

Worldwide and Independent
Hans Liebherr founded the Liebherr family company in 1949. Since then, the family business has steadily grown to a group of more than 130 companies with nearly 44,000 employees located on all continents. The corporate headquarters of the Group is Liebherr-International AG in Bulle, Switzerland. The Liebherr family is the sole owner of the company.

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Liebherr-Hydraulikbagger GmbH
Liebherrstraße 12, D-88457 Kirchdorf/Iller
☎ +49 7354 80-0, Fax +49 7354 80-7294
www.liebherr.com, E-Mail: info.lhb@liebherr.com
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