RE 25 M Litronic

LIEBHERR

Railroad excavator

Generation
8

Operating weight
24,400–25,700 kg

Engine
120 kW / 163 HP
Stage V

Bucket capacity
0.17–0.95 m³

Railroad excavator RE 25 M Litronic overview

Optimally designed boom and stick configurations for maximum reliability

- Second high-pressure circuit for the use of special attachments (e.g. tamping devices)
- Standard working area limitation in height and slew range as well as an additional virtual wall (optional) for maximum safety
- Various light packages ensure perfect illumination of the working area including the rail axis and overhead line as well as the entire area around the machine
- Specific boom designs ensure optimum visibility of working area
- Liebherr quick coupling systems (optional)
- Wide selection of Liebherr attachments (optional)
- Tool Control for attachments
- Liebherr hydraulic cylinders
- Pipe fracture safety valves for hoist, adjusting and stick cylinder

New, pioneering rail undercarriage

- Hydrostatic rail wheel drive (category 9A) and drive with tyres on rails (category 9C) combined in one undercarriage
- Patent-pending hydrostatic rail axle
- Travel speeds from 20 km/h (standard) up to 40 km/h (optional)
- Maximum tensile force of 50 kN (category 9A) or 117 kN (category 9C)
- Innovative torsion compensation (oscillation)
- The centrally positioned outriggers feature an innovative, patent-pending 2-point support system. This design enhances lifting capacity while maintaining optimal visibility of the working area. With a constant undercarriage length, the outriggers ensure stability without compromising maneuvrability, making it ideal for use in confined construction sites.

Innovative cab design meets intuitive controls

- Completely new crew cab with intuitive operating concept (INTUSI), 10" touchscreen display and premium joysticks for maximum comfort
- All rail functions in a central display for convenient operation and an ideal field of vision
- Optimised cab mounting for maximum comfort
- Individual, personalised machine settings (with Smart Key)
- MiC 4.0 BUS communication standard as standard
- Various innovative assistance systems: Skyview 360°, 2D machine control, person detection (optional)

Short-tail uppercarriage offers maximum performance with minimum outreach

- Short tail radius of 1,570 mm enables worldwide track use
- Highest payloads thanks to optimised component arrangement and 6.1 t ideally positioned counterweight
- Optimum maintenance accessibility despite compact design and central maintenance points accessible from the ground
- Uppercarriage access behind the cab is possible despite compact machine design
- Proven 120 kW construction machinery engine with emission stage V
- 2-circuit load sensing control
- Variable displacement double pump (with independent control circuits) with 2 x 220 l/min.
- Independent variable displacement pump for the rail trolley

Technical data

Diesel engine

Rating per ISO 9249	120 kW (163 HP) at 1,900 RPM
Model	D924 – FPT motor designed for Liebherr
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 145 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	236 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 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 electro-hydraulic pilot control and proportional joystick levers
Chassis	Electro-proportional via foot pedal
Additional functions	Via switch or electro-proportional foot pedals
Proportional control	Proportionally acting transmitters on the joysticks 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 controlled swing drive priority
Hydraulic tank	160 l
Hydraulic system	max. 340 l
Filtration	1 main return filter with integrated partial micro filtration (10 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
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
Option	Tool Control: 20 pre-adjustable pump flows and pressures for add-on attachments
Additional function	Second high pressure circuit for special applications

Swing drive

Drive	Liebherr axial piston motor with integrated brake valve and torque control
Swing ring	Liebherr, sealed race ball bearing swing ring, internal teeth
Swing speed	0–9.0 RPM stepless
Swing torque	54 kNm
Holding brake	Wet multi-disc (spring applied, pressure released)
Option	Positioning swing brake manual Positioning swing brake automatic

Cab

Double cabin	ROPS safety cab structure (roll-over protection system for complete operator's cab), shock-absorbing suspension, sound damping insulating, electrically unlockable door, two-piece retractable front windscreen, laminated safety glass, separate window shades for the sunroof window and windscreen, roof window wiper, headlights integrated in the ceiling, ambient lighting for night operations in addition to interior lighting, access lighting outside, operator's door with a sliding window, large stowing and depositing possibilities, 12 V / 24 V electrical connections
Operator's seat Comfort	Air cushioned operator's seat with 3D-adjustable armrests, headrest, lap belt, seat heater (2-stage), adjustable seat cushion inclination and length, 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
Arm consoles	Joysticks with control consoles and swivel seat, folding left control console
Operation and displays	Large high-resolution operating unit, self-explanatory, colour display with touchscreen, video-compatible, numerous setting, control and monitoring options, e.g. air conditioning control, fuel consumption, machine and attachment parameters, assistance and safety systems as well as rail chassis settings
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	1,500 g
CO_2 equivalent	2.145 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

Equipment

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

Undercarriage

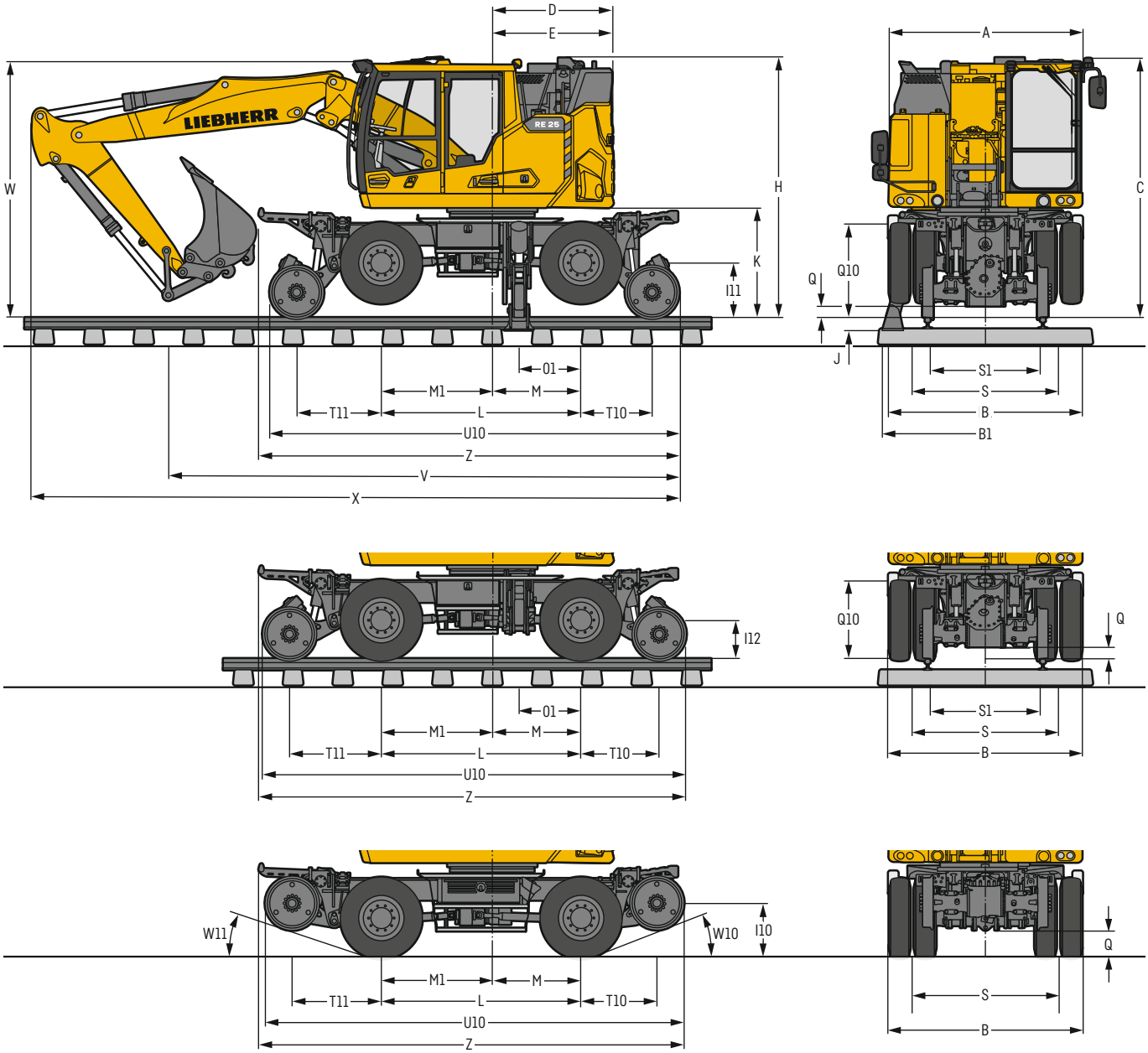
Drive	Oversized two speed power shift transmission with additional creeper speed, Liebherr axial piston motor with functional brake valve on both sides
Pulling force	50 kN (category 9A) 117 kN (category 9C)
Travel speed	0– 3.5 km/h stepless (creeper speed off-road) 0– 7.0 km/h stepless (off-road) 0–13.0 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 (country-dependent)
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; wet and backlash-free disc 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
Stabilization	Without outriggers Centre outriggers
Rail undercarriage	
Speed on rail	0–20.0 km/h stepless 0–max. 40.0 km/h Speeder (Option)
Drive	Hydrostatic rail wheel drive (category 9A) and drive with tyres on rails (category 9C) or hydrostatic rail wheel drive only (category 9A)
Gauge	Standard gauge 1,435 mm Width gauge Special widths available on request
Profiles	Rail wheel profile UIC Rail wheel profile UIC, isolated Special profiles available on request
Option	Disengagement of the drive to allow for towing

Complete machine

Lubrication	Liebherr central lubrication system for uppercarriage and equipment, automatically
Option	Liebherr central lubrication system for undercarriage, automatically
Noise emission	
2000/14/EC	101 dB(A) = L_{WA} (surround noise)

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

Dimensions


D
E
A
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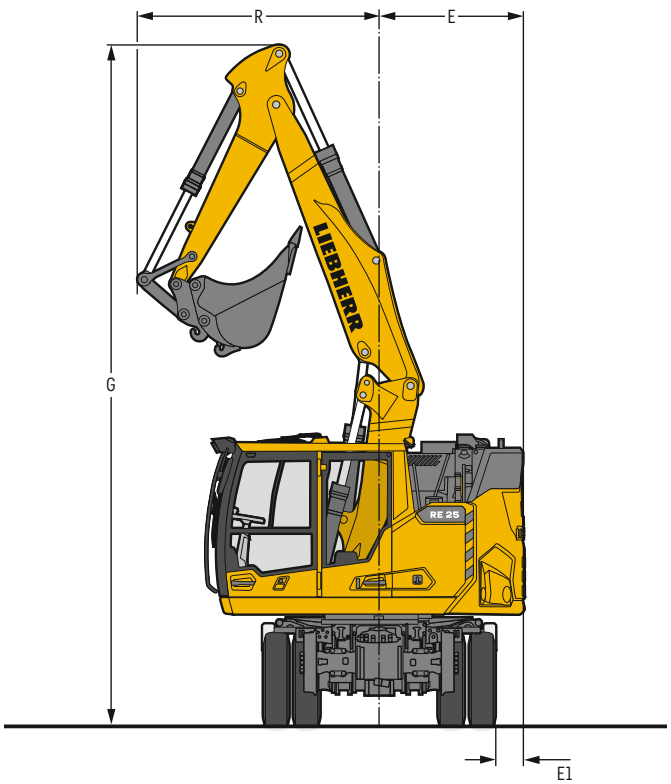
V
X
S1
S
B
B1
I12
W11
W10
I10

	over road mm	over rail 9A mm	over rail 9C mm
A	2,535	2,535	2,535
B	2,540	2,540	2,540
B1	–	2,700	–
C	3,180	3,390	3,180
D	1,570	1,570	1,570
E	1,570	1,570	1,570
H	3,180	3,390	3,180
I10	700	–	–
I11	–	715	–
I12	–	–	505
J	–	170	–
K	1,220	1,430	1,220
L	2,600	2,600	2,600
M	1,150	1,150	1,150
M1	1,450	1,450	1,450
O1	800	800	800
Q	340	340	340
Q10	–	1,220	1,015
S	1,912	1,912	1,912
S1	–	1,435	1,435
T10	1,000	935	1,030
T11	1,170	1,105	1,200
U10	5,480	5,360	5,540
W10	20°	–	–
W11	20°	–	–
Z	5,550	5,500	5,590

E = Tail radius
Tyres 10.00-20

	Stick m	Two-piece boom 5.05 m mm
V	1.85	7,000
	2.05	6,600
	2.25	6,750
W	1.85	3,050
	2.05	3,050
	2.25	3,150
X	1.85	8,750
	2.05	8,600
	2.25	8,550

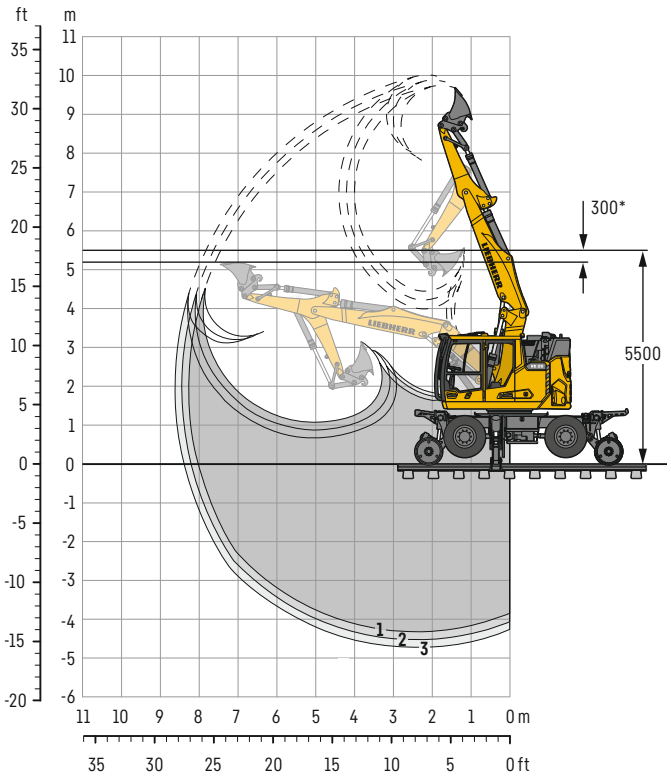
Dimensions are with equipment over steering axle
W = Max. ground clearance including approx. 150 mm piping



Boom	Stick m	G mm	R mm	E mm	E1 mm
Two-piece boom 5.05 m	1.85	7,550	2,610	1,570	300
Two-piece boom 5.05 m	2.05	7,440	2,620	1,570	300
Two-piece boom 5.05 m	2.25	7,440	2,640	1,570	300

Ditch cleaning bucket

with two-piece boom 5.05 m



* Safety distance to overhead wires

Digging envelope

with quick coupler		1	2	3
Stick length	m	1.85	2.05	2.25
Max. digging depth	m	4.30	4.50	4.70
Max. reach at ground level	m	8.05	8.25	8.40
Max. dumping height	m	7.80	7.90	8.05
Max. dumping height under overhead wires	m	3.29	3.20	3.12
Max. teeth height	m	9.75	9.85	10.00
Min. equipment radius	m	2.61	2.62	2.64

Digging forces

without quick coupler		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 99,4 kN (10,1 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, quick coupler SWA 33 and ditch cleaning bucket 2,000 mm / 0.65 m³.

Undercarriage versions	Weight (kg)
RE 25 M Litronic without outriggers	24,600
RE 25 M Litronic with centre outriggers	25,800

Ditch cleaning buckets Machine stability per ISO 10567* (75 % of tipping capacity)

Cutting width	Capacity ISO 7451[1]	Weight	without outriggers over rail (9A)			without outriggers over rail (9C)			over tyres			over rail (9A)			over rail (9C)			Centre outriggers over tyres			Centre outriggers over rail (9A)			Centre outriggers over rail (9C)		
			Stick length (m)			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	1.85	2.05	2.25
1,600[1]	0.50	330	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
1,800[1]	0.57	360	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
2,000[1]	0.65	390	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
1,600[2]	0.80	760	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
2,000[2]	0.70	820	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■

* 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		7.5 m				m
	over tyres	8.9*	8.9*							5.9*	5.9*	
7.5	lifted over rail (9A)	8.1	8.7*							4.2	5.6*	4.2
	over rail (9C)	8.1	8.9*							4.7	5.9*	
	over tyres	7.5*	7.5*	6.2	7.1*					4.1	4.5*	
6.0	lifted over rail (9A)	7.5*	7.5*	4.5	7.1*					2.7	4.4*	5.8
	over rail (9C)	7.5*	7.5*	4.5	7.1*					2.9	4.5*	
	over tyres	10.2*	10.2*	6.1	7.7*	3.9	5.8			3.2	4.0*	
4.5	lifted over rail (9A)	7.7	10.0*	4.5	7.8*	2.8	6.3*			2.2	4.0*	6.7
	over rail (9C)	7.8	10.2*	4.5	7.7*	2.8	6.2*			2.3	4.0*	
	over tyres	10.1*	10.1*	6.0	8.6	3.9	5.8			2.9	3.9*	
3.0	lifted over rail (9A)	7.5	10.4*	4.4	8.8*	2.8	6.6*			2.0	3.9*	7.1
	over rail (9C)	7.5	10.1*	4.4	8.7*	2.8	6.5*			2.0	3.9*	
	over tyres	10.4	12.5*	6.0	8.6	3.8	5.7			2.8	3.9*	
1.5	lifted over rail (9A)	7.3	12.9*	4.2	9.1*	2.7	6.7*			1.9	3.9*	7.2
	over rail (9C)	7.4	12.6*	4.3	9.1*	2.7	6.7*			1.9	3.9*	
	over tyres	10.2	14.5*	5.7	8.7	3.7	5.6			2.9	4.2*	
0	lifted over rail (9A)	6.8	14.7*	4.0	9.2*	2.6	6.7*			2.0	4.3*	7.0
	over rail (9C)	6.9	14.5*	4.0	9.2*	2.6	6.8*			2.0	4.2*	
	over tyres	10.0	15.0*	5.5	8.6	3.6	5.5			3.2	4.0*	
−1.5	lifted over rail (9A)	6.7	15.1*	3.8	9.3*	2.5	5.1*			2.3	3.9*	6.4
	over rail (9C)	6.7	15.0*	3.8	9.4*	2.5	5.5*			2.2	4.0*	
	over tyres	9.9	12.5*	5.4	6.1*					5.1	5.5*	
−3.0	lifted over rail (9A)	6.6	11.1*							4.3	6.5*	4.6
	over rail (9C)	6.6	12.4*	3.7	6.0*					3.6	5.6*	

Stick 2.05 m

m	Undercarriage	3.0 m		4.5 m		6.0 m		7.5 m				m
	over tyres									4.9*	4.9*	
7.5	lifted over rail (9A)			4.4	6.6*					3.9	4.6*	4.5
	over rail (9C)									4.3	4.9*	
	over tyres			6.2	6.9*	3.9	3.9*			3.9*	3.9*	
6.0	lifted over rail (9A)	6.8*	6.8*	4.6	6.9*	2.8	5.5*			2.6	3.8*	6.0
	over rail (9C)			4.6	6.9*	2.8	4.1*			2.8	3.9*	
	over tyres	10.6*	10.6*	6.1	7.5*	4.0	5.9			3.1	3.5*	
4.5	lifted over rail (9A)	7.8	10.5*	4.5	7.7*	2.9	6.2*			2.2	3.5*	6.9
	over rail (9C)	7.8	10.6*	4.5	7.5*	2.9	6.2*			2.2	3.5*	
	over tyres	10.5	10.7*	6.0	8.6*	4.0	5.8			2.8	3.4*	
3.0	lifted over rail (9A)	7.5	10.9*	4.4	8.7*	2.8	6.5*			1.9	3.4*	7.3
	over rail (9C)	7.6	10.7*	4.4	8.6*	2.9	6.5*			2.0	3.4*	
	over tyres	10.5	12.6*	6.0	8.6	3.9	5.8			2.7	3.5*	
1.5	lifted over rail (9A)	7.4	12.9*	4.3	9.2*	2.7	6.7*			1.9	3.6*	7.4
	over rail (9C)	7.5	12.6*	4.3	9.2*	2.8	6.7*			1.9	3.5*	
	over tyres	10.3	14.5*	5.8	8.7	3.7	5.6			2.8	3.8*	
0	lifted over rail (9A)	6.9	14.7*	4.1	9.3*	2.6	6.8*			2.0	3.9*	7.2
	over rail (9C)	7.0	14.5*	4.1	9.2*	2.6	6.8*			1.9	3.8*	
	over tyres	10.1	14.9*	5.6	8.7	3.6	5.5			3.1	4.2*	
−1.5	lifted over rail (9A)	6.7	15.0*	3.9	9.5*	2.5	5.7*			2.2	4.0*	6.6
	over rail (9C)	6.7	14.9*	3.9	9.5*	2.5	6.0*			2.2	4.1*	
	over tyres	10.0	13.4*	5.4	7.0*					4.6	5.0*	
−3.0	lifted over rail (9A)	6.6	12.3*	3.7	6.0*					3.6	5.6*	5.1
	over rail (9C)	6.7	13.4*	3.7	7.0*					3.2	5.0*	

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 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 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.

The specified lift capacities are subject to change.

Lift capacities

with two-piece boom 5.05 m (without outriggers)

Stick 2.25 m

		3.0 m		4.5 m		6.0 m		7.5 m				
m	Undercarriage											m
9.0	over tyres											
	lifted over rail (9A)									7.1*	7.1*	
	over rail (9C)											
7.5	over tyres			5.8*	5.8*					4.2*	4.2*	
	lifted over rail (9A)			4.4	6.3*					3.6	4.0*	4.8
	over rail (9C)			4.4	5.8*					3.9	4.1*	
6.0	over tyres			6.2	6.7*	3.9	5.1*			3.4*	3.4*	
	lifted over rail (9A)			4.6	6.7*	2.8	5.7*			2.5	3.4*	6.2
	over rail (9C)			4.6	6.7*	2.8	5.1*			2.6	3.4*	
4.5	over tyres	8.8*	8.8*	6.1	7.3*	4.0	5.9			3.0	3.2*	
	lifted over rail (9A)	7.8	10.6*	4.5	7.5*	2.9	6.1*			2.1	3.1*	7.1
	over rail (9C)	7.9	8.9*	4.5	7.3*	2.9	6.0*			2.1	3.2*	
3.0	over tyres	10.5	11.0*	6.0	8.4*	4.0	5.8			2.7	3.1*	
	lifted over rail (9A)	7.5	11.3*	4.4	8.6*	2.9	6.5*	1.9	3.4*	1.9	3.1*	7.5
	over rail (9C)	7.6	11.0*	4.4	8.4*	2.9	6.4*			1.9	3.1*	
1.5	over tyres	10.4	12.6*	6.0	8.6	3.9	5.8	2.7	4.0	2.6	3.2*	
	lifted over rail (9A)	7.4	12.8*	4.3	9.1*	2.8	6.7*	1.8	4.4*	1.8	3.2*	7.6
	over rail (9C)	7.4	12.6*	4.4	9.1*	2.8	6.7*	1.8	4.5*	1.8	3.2*	
0	over tyres	10.4	14.3*	5.8	8.7	3.8	5.7			2.7	3.5*	
	lifted over rail (9A)	6.9	14.5*	4.1	9.2*	2.6	6.7*			1.9	3.5*	7.4
	over rail (9C)	7.0	14.3*	4.1	9.2*	2.6	6.7*			1.8	3.5*	
−1.5	over tyres	10.0	14.8*	5.6	8.7	3.6	5.5			3.0	4.0*	
	lifted over rail (9A)	6.7	14.9*	3.9	9.5*	2.5	6.1*			2.1	4.0*	6.8
	over rail (9C)	6.7	14.8*	3.9	9.4*	2.5	6.3*			2.1	4.0*	
−3.0	over tyres	10.0	14.1*	5.4	7.7*					4.1	4.5*	
	lifted over rail (9A)	6.6	13.3*	3.7	6.9*					3.1	5.0*	5.5
	over rail (9C)	6.6	14.1*	3.7	7.7*					2.8	4.6*	

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 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 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.
The specified lift capacities are subject to change.

Lift capacities

with two-piece boom 5.05 m (centre outriggers)

Stick 1.85 m

		3.0 m		4.5 m		6.0 m		7.5 m				
m	Undercarriage											m
	over tyres	8.9*	8.9*							5.9*	5.9*	
	lifted over rail (9A)	8.4	8.7*							4.4	5.6*	
7.5	lifted over rail (9A) supported	8.7*	8.7*							5.6*	5.6*	4.2
	over rail (9C)	8.4	8.9*							4.9	5.9*	
	over rail (9C) supported	8.9*	8.9*							5.9*	5.9*	
	over tyres	7.5*	7.5*	6.4	7.1*					4.2	4.5*	
	lifted over rail (9A)	7.5*	7.5*	4.7	7.1*					2.9	4.4*	
6.0	lifted over rail (9A) supported	7.5*	7.5*	7.0	7.1*					4.4*	4.4*	5.8
	over rail (9C)	7.5*	7.5*	4.7	7.1*					3.0	4.5*	
	over rail (9C) supported	7.5*	7.5*	7.1*	7.1*					4.5*	4.5*	
	over tyres	10.2*	10.2*	6.3	7.7*	4.1	6.1			3.4	4.0*	
	lifted over rail (9A)	8.0	10.0*	4.7	7.8*	2.9	6.3*			2.3	4.0*	
4.5	lifted over rail (9A) supported	10.0*	10.0*	6.9	7.8*	4.6	6.3*			3.7	4.0*	6.7
	over rail (9C)	8.1	10.2*	4.7	7.7*	2.9	6.2*			2.4	4.0*	
	over rail (9C) supported	10.2*	10.2*	7.0	7.7*	4.6	6.2*			3.8	4.0*	
	over tyres	10.1*	10.1*	6.2	8.7*	4.1	6.1			3.0	3.9*	
	lifted over rail (9A)	7.8	10.4*	4.6	8.8*	2.9	6.6*			2.1	3.9*	
3.0	lifted over rail (9A) supported	10.4*	10.4*	6.8	8.8*	4.5	6.6*			3.4	3.9*	7.1
	over rail (9C)	7.8	10.1*	4.6	8.7*	2.9	6.5*			2.1	3.9*	
	over rail (9C) supported	10.1*	10.1*	6.9	8.7*	4.6	6.5*			3.4	3.9*	
	over tyres	10.8	12.5*	6.2	9.0	4.0	6.1			2.9	3.9*	
	lifted over rail (9A)	7.6	12.9*	4.4	9.1*	2.8	6.7*			2.0	3.9*	
1.5	lifted over rail (9A) supported	12.0	12.9*	6.8	9.1*	4.4	6.7*			3.3	3.9*	7.2
	over rail (9C)	7.7	12.6*	4.5	9.1*	2.8	6.7*			2.0	3.9*	
	over rail (9C) supported	12.0	12.6*	6.9	9.1*	4.5	6.7*			3.3	3.9*	
	over tyres	10.7	14.5*	6.0	9.1	3.9	5.9			3.0	4.2*	
	lifted over rail (9A)	7.1	14.7*	4.2	9.2*	2.7	6.7*			2.1	4.3*	
0	lifted over rail (9A) supported	12.0	14.7*	6.7	9.2*	4.3	6.7*			3.4	4.3*	7.0
	over rail (9C)	7.2	14.5*	4.2	9.2*	2.7	6.8*			2.1	4.2*	
	over rail (9C) supported	12.1	14.5*	6.7	9.2*	4.3	6.8*			3.4	4.2*	
	over tyres	10.5	15.0*	5.8	9.2	3.8	5.6*			3.4	4.0*	
	lifted over rail (9A)	7.0	15.1*	4.0	9.3*	2.6	5.1*			2.4	3.9*	
−1.5	lifted over rail (9A) supported	11.9	15.1*	6.5	9.3*	4.2	5.1*			3.9*	3.9*	6.4
	over rail (9C)	7.0	15.0*	4.0	9.4*	2.6	5.5*			2.4	4.0*	
	over rail (9C) supported	11.9	15.0*	6.5	9.4*	4.2	5.5*			3.9	4.0*	
	over tyres	10.4	12.5*	5.7	6.1*					5.4	5.5*	
	lifted over rail (9A)	6.9	11.1*							4.5	6.5*	
−3.0	lifted over rail (9A) supported	11.1*	11.1*							6.5*	6.5*	4.6
	over rail (9C)	6.9	12.4*	3.9	6.0*					3.8	5.6*	
	over rail (9C) supported	11.8	12.4*	6.0*	6.0*					5.6*	5.6*	

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 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 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.
The specified lift capacities are subject to change.

Lift capacities

with two-piece boom 5.05 m (centre outriggers)

Stick 2.05 m

m	Undercarriage	3.0 m		4.5 m		6.0 m		7.5 m				m
	over tyres											
	lifted over rail (9A)											
9.0	lifted over rail (9A) supported											
	over rail (9C)											
	over rail (9C) supported											
	over tyres									4.9*	4.9*	
	lifted over rail (9A)			4.6	6.6*					4.1	4.6*	
7.5	lifted over rail (9A) supported			6.6*	6.6*					4.6*	4.6*	4.5
	over rail (9C)									4.5	4.9*	
	over rail (9C) supported									4.9*	4.9*	
	over tyres			6.5	6.9*	3.9*	3.9*			3.9*	3.9*	
	lifted over rail (9A)	6.8*	6.8*	4.7	6.9*	2.9	5.5*			2.8	3.8*	
6.0	lifted over rail (9A) supported	6.8*	6.8*	6.9*	6.9*	4.6	5.5*			3.8*	3.8*	6.0
	over rail (9C)			4.7	6.9*	2.9	4.1*			2.9	3.9*	
	over rail (9C) supported			6.9*	6.9*	4.1*	4.1*			3.9*	3.9*	
	over tyres	10.6*	10.6*	6.4	7.5*	4.2	6.2*			3.3	3.5*	
	lifted over rail (9A)	8.1	10.5*	4.7	7.7*	3.0	6.2*			2.3	3.5*	
4.5	lifted over rail (9A) supported	10.5*	10.5*	7.0	7.7*	4.6	6.2*			3.5*	3.5*	6.9
	over rail (9C)	8.1	10.6*	4.7	7.5*	3.0	6.2*			2.3	3.5*	
	over rail (9C) supported	10.6*	10.6*	7.0	7.5*	4.6	6.2*			3.5*	3.5*	
	over tyres	10.7*	10.7*	6.3	8.6*	4.2	6.1			3.0	3.4*	
	lifted over rail (9A)	7.8	10.9*	4.6	8.7*	3.0	6.5*			2.0	3.4*	
3.0	lifted over rail (9A) supported	10.9*	10.9*	6.9	8.7*	4.6	6.5*			3.3	3.4*	7.3
	over rail (9C)	7.9	10.7*	4.6	8.6*	3.0	6.5*			2.1	3.4*	
	over rail (9C) supported	10.7*	10.7*	6.9	8.6*	4.6	6.5*			3.3	3.4*	
	over tyres	10.9	12.6*	6.3	9.0	4.1	6.1			2.9	3.5*	
	lifted over rail (9A)	7.7	12.9*	4.5	9.2*	2.9	6.7*			2.0	3.6*	
1.5	lifted over rail (9A) supported	12.1	12.9*	6.9	9.2*	4.5	6.7*			3.2	3.6*	7.4
	over rail (9C)	7.8	12.6*	4.5	9.2*	2.9	6.7*			2.0	3.5*	
	over rail (9C) supported	12.1	12.6*	6.9	9.2*	4.5	6.7*			3.2	3.5*	
	over tyres	10.8	14.5*	6.1	9.1	3.9	6.0			3.0	3.8*	
	lifted over rail (9A)	7.2	14.7*	4.2	9.3*	2.7	6.8*			2.1	3.9*	
0	lifted over rail (9A) supported	12.1	14.7*	6.7	9.3*	4.4	6.8*			3.4	3.9*	7.2
	over rail (9C)	7.3	14.5*	4.3	9.2*	2.8	6.8*			2.0	3.8*	
	over rail (9C) supported	12.2	14.5*	6.8	9.2*	4.4	6.8*			3.3	3.8*	
	over tyres	10.5	14.9*	5.9	9.2	3.8	5.9			3.3	4.2*	
	lifted over rail (9A)	7.0	15.0*	4.0	9.5*	2.6	5.7*			2.3	4.0*	
−1.5	lifted over rail (9A) supported	11.9	15.0*	6.5	9.5*	4.3	5.7*			3.8	4.0*	6.6
	over rail (9C)	7.0	14.9*	4.1	9.5*	2.6	6.0*			2.3	4.1*	
	over rail (9C) supported	12.0	14.9*	6.6	9.5*	4.3	6.0*			3.7	4.1*	
	over tyres	10.4	13.4*	5.7	7.0*					4.8	5.0*	
	lifted over rail (9A)	6.9	12.3*	3.9	6.0*					3.8	5.6*	
−3.0	lifted over rail (9A) supported	11.8	12.3*	6.0*	6.0*					5.6*	5.6*	5.1
	over rail (9C)	7.0	13.4*	3.9	7.0*					3.3	5.0*	
	over rail (9C) supported	11.9	13.4*	6.4	7.0*					5.0*	5.0*	

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 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 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.
The specified lift capacities are subject to change.

Stick 2.25 m

m	Undercarriage	3.0 m		4.5 m		6.0 m		7.5 m				m
	over tyres											
	lifted over rail (9A)									7.1*	7.1*	
9.0	lifted over rail (9A) supported									7.1*	7.1*	
	over rail (9C)											
	over rail (9C) supported											
	over tyres			5.8*	5.8*					4.2*	4.2*	
	lifted over rail (9A)			4.6	6.3*					3.8	4.0*	
7.5	lifted over rail (9A) supported			6.3*	6.3*					4.0*	4.0*	4.8
	over rail (9C)			4.6	5.8*					4.1	4.1*	
	over rail (9C) supported			5.8*	5.8*					4.1*	4.1*	
	over tyres			6.5	6.7*	4.1	5.1*			3.4*	3.4*	
	lifted over rail (9A)			4.8	6.7*	3.0	5.7*			2.6	3.4*	
6.0	lifted over rail (9A) supported			6.7*	6.7*	4.6	5.7*			3.4*	3.4*	6.2
	over rail (9C)			4.8	6.7*	2.9	5.1*			2.7	3.4*	
	over rail (9C) supported			6.7*	6.7*	4.6	5.1*			3.4*	3.4*	
	over tyres	8.8*	8.8*	6.4	7.3*	4.2	6.0*			3.2*	3.2*	
	lifted over rail (9A)	8.1	10.6*	4.7	7.5*	3.0	6.1*			2.2	3.1*	
4.5	lifted over rail (9A) supported	10.6*	10.6*	7.0	7.5*	4.7	6.1*			3.1*	3.1*	7.1
	over rail (9C)	8.2	8.9*	4.7	7.3*	3.0	6.0*			2.2	3.2*	
	over rail (9C) supported	8.9*	8.9*	7.0	7.3*	4.7	6.0*			3.2*	3.2*	
	over tyres	10.9	11.0*	6.3	8.4*	4.2	6.1			2.9	3.1*	
	lifted over rail (9A)	7.8	11.3*	4.6	8.6*	3.0	6.5*	2.0	3.4*	2.0	3.1*	
3.0	lifted over rail (9A) supported	11.3*	11.3*	6.8	8.6*	4.6	6.5*	3.2	3.4*	3.1*	3.1*	7.5
	over rail (9C)	7.9	11.0*	4.6	8.4*	3.0	6.4*			2.0	3.1*	
	over rail (9C) supported	11.0*	11.0*	6.9	8.4*	4.7	6.4*			3.1*	3.1*	
	over tyres	10.8	12.6*	6.2	9.0	4.1	6.1	2.8	4.3	2.8	3.2*	
	lifted over rail (9A)	7.7	12.8*	4.5	9.1*	2.9	6.7*	1.9	4.4*	1.9	3.2*	
1.5	lifted over rail (9A) supported	12.0	12.8*	6.8	9.1*	4.5	6.7*	3.1	4.4*	3.1	3.2*	7.6
	over rail (9C)	7.7	12.6*	4.5	9.1*	2.9	6.7*	1.9	4.5*	1.9	3.2*	
	over rail (9C) supported	12.0	12.6*	6.8	9.1*	4.6	6.7*	3.2	4.5*	3.1	3.2*	
	over tyres	10.8	14.3*	6.1	9.0	4.0	6.0			2.8	3.5*	
	lifted over rail (9A)	7.2	14.5*	4.3	9.2*	2.8	6.7*			2.0	3.5*	
0	lifted over rail (9A) supported	12.2	14.5*	6.7	9.2*	4.4	6.7*			3.2	3.5*	7.4
	over rail (9C)	7.3	14.3*	4.3	9.2*	2.8	6.7*			1.9	3.5*	
	over rail (9C) supported	12.2	14.3*	6.8	9.2*	4.4	6.7*			3.2	3.5*	
	over tyres	10.5	14.8*	5.9	9.2	3.8	5.9			3.2	4.0*	
	lifted over rail (9A)	7.0	14.9*	4.1	9.5*	2.6	6.1*			2.2	4.0*	
−1.5	lifted over rail (9A) supported	11.9	14.9*	6.5	9.5*	4.3	6.1*			3.6	4.0*	6.8
	over rail (9C)	7.0	14.8*	4.1	9.4*	2.6	6.3*			2.2	4.0*	
	over rail (9C) supported	11.9	14.8*	6.6	9.4*	4.3	6.3*			3.6	4.0*	
	over tyres	10.4	14.1*	5.7	7.7*					4.3	4.5*	
	lifted over rail (9A)	6.9	13.3*	3.9	6.9*					3.3	5.0*	
−3.0	lifted over rail (9A) supported	11.8	13.3*	6.4	6.9*					5.0*	5.0*	5.5
	over rail (9C)	6.9	14.1*	3.9	7.7*					3.0	4.6*	
	over rail (9C) supported	11.9	14.1*	6.4	7.7*					4.6*	4.6*	

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 hook.
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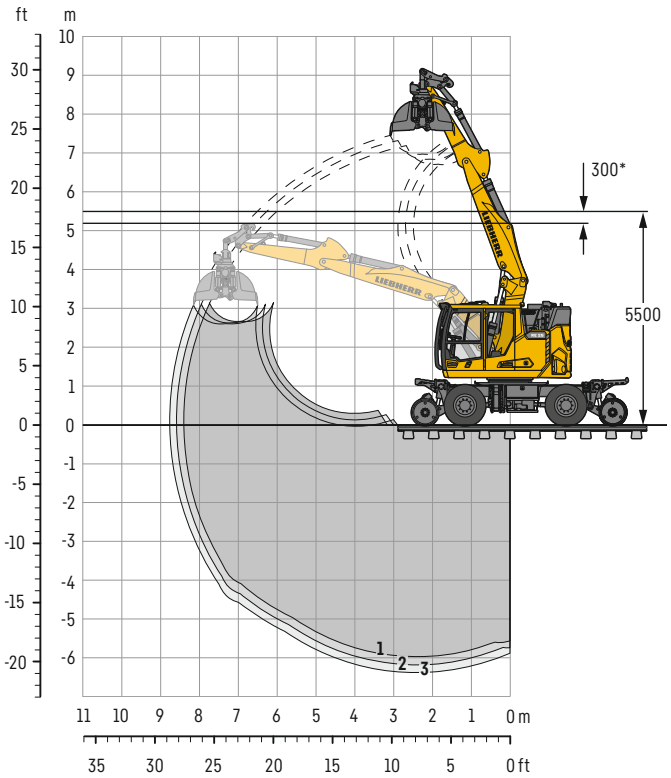
The specified lift capacities are subject to change.

Clamshell grab

with two-piece boom 5.05 m



* Safety distance to overhead wires

Digging envelope

with quick coupler		1	2	3
Stick length	m	1.85	2.05	2.25
Max. digging depth	m	5.95	6.15	6.35
Max. reach at ground level	m	8.40	8.55	8.75
Max. dumping height	m	6.70	6.85	6.95
Max. dumping height under overhead wires	m	2.68	2.64	2.61

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, quick coupler SWA 33 and clamshell grab GMZ 22 / 0.30 m³.

Undercarriage versions	Weight (kg)
RE 25 M Litronic without outriggers	25,400
RE 25 M Litronic with centre outriggers	25,600

Clamshell grabs GMZ 22 Machine stability per ISO 10567* (75 % of tipping capacity)

Width of clamshells	Capacity	Weight	without outriggers over rail (9A)			without outriggers over rail (9C)			without outriggers over tyres			Centre outriggers over rail (9A)			Centre outriggers over rail (9C)			Centre outriggers over tyres			Centre outriggers over rail (9A)			Centre outriggers over rail (9C)		
			Stick length (m)			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	1.85	2.05	2.25
300[1]	0.08	690	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
400[2]	0.12	720	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
500[2]	0.16	770	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
600[2]	0.20	820	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
700[2]	0.24	860	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
800[2]	0.28	880	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
1,000[2]	0.34	950	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
300[3]	0.14	770	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
400[3]	0.20	800	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
600[3]	0.30	900	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
800[3]	0.42	970	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
1,000[2]	0.54	1,050	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■

* 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 buckets

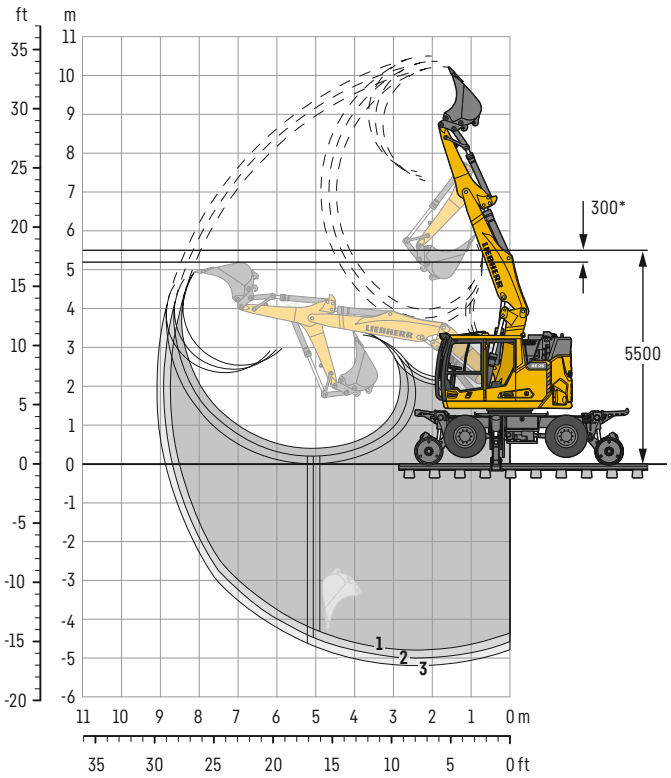
[2] Combination bucket

[3] Clamshell buckets

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

Backhoe bucket

with two-piece boom 5.05 m



* Safety distance to overhead wires

Digging envelope

with quick coupler		1	2	3
Stick length	m	1.85	2.05	2.25
Max. digging depth	m	4.80	5.00	5.20
Max. reach at ground level	m	8.55	8.75	8.90
Max. dumping height	m	7.25	7.35	7.50
Max. dumping height under overhead wires	m	2.54	2.44	2.35
Max. teeth height	m	10.20	10.35	10.50
Min. equipment radius	m	2.61	2.62	2.64

Digging forces

without quick coupler		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 99.4 kN (10.1 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, quick coupler SWA 33 and bucket 850 mm / 0.60 m³.

Undercarriage versions	Weight (kg)
RE 25 M Litronic without outriggers	24,800
RE 25 M Litronic with centre outriggers	26,000

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

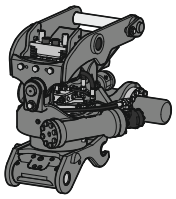
Cutting width	Capacity ISO 7451[1]	Weight	without outriggers over rail (9A)			without outriggers over rail (9C)			without outriggers over tyres			with outriggers over rail (9A)			with outriggers over rail (9C)			Centre outriggers over tyres			Centre outriggers over rail (9A)			Centre outriggers over rail (9C)		
			Stick length (m)			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	1.85	2.05	2.25
400	0.24	250	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
500	0.32	300	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
650	0.42	360	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
850	0.60	410	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
1,050	0.80	490	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
1,250	0.95	530	■	■	△	■	■	△	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■

* 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)

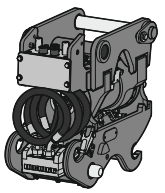
Max. material weight ■ = ≤ 1.8 t/m³, ■ = ≤ 1.5 t/m³, △ = ≤ 1.2 t/m³, – = not authorised

Attachments



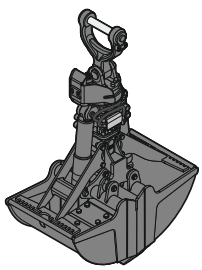
Tilt rotator

Mounting machine side		SW stick mechanical, SWA 33 mechanical, SWA 33 hydraulic, SWA 33 Solidlink, SWA 48 mechanical, SWA 48 hydraulic, SWA 48 Solidlink					
TR 20B							
Mountings attachment side		SW stick mechanical, SWA 33 mechanical, SWA 33 hydraulic, SWA 48 mechanical, SWA 48 hydraulic					
Weight[1]	kg	641					
Rotation		360°					
Tilt		2 x 50°					
TR 25							
Mountings attachment side		SW stick mechanical, SWA 33 mechanical, SWA 33 hydraulic, SWA 48 mechanical, SWA 48 hydraulic					
Weight[2]	kg	787					
Rotation		360°					
Tilt		2 x 50°					



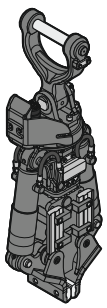
Tilt unit[4] [5]

LiTiU 33							
Mounting machine side		SWA 33 Solidlink					
Mountings attachment side		SWA 33 hydraulic, SWA 33 Solidlink					
Weight[3]	kg	410					
Tilt		2 x 50°					
LiTiU 48							
Mounting machine side		SWA 48 Solidlink					
Mountings attachment side		SWA 48 hydraulic, SWA 48 Solidlink					
Weight[3]	kg	740					
Tilt		2 x 45°					



Clamshell grab GMZ 22 / GMZ 22 HD[6]

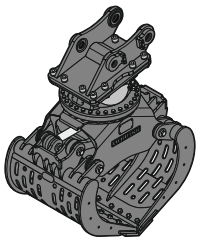
Mountings		direct mounting, SW stick mechanical, SWA 33 mechanical, SWA 33 hydraulic, SWA 33 Solidlink, SWA 48 mechanical, SWA 48 hydraulic, SWA 48 Solidlink, Oilquick OQ Rail, Oilquick OQ 65, Oilquick OQ 70, Oilquick OQ 70/55						
Clamshell buckets								
Shell width	mm	300	400	600	800	1,000		
Capacity	m³	0.14	0.20	0.30	0.42	0.54		
Opening width	mm	1,502	1,502	1,502	1,502	1,502		
Weight[7]	kg	680	710	780	855	935		
Track construction buckets								
Shell width	mm	300						
Capacity	m³	0.08						
Opening width	mm	1,141						
Weight[7]	kg	605						
Combination buckets								
Shell width	mm	400	500	600	700	800	1,000	1,600
Capacity	m³	0.12	0.16	0.20	0.24	0.28	0.34	0,56[8]
Opening width	mm	1,227	1,227	1,227	1,227	1,227	1,227	1,227
Weight[7]	kg	630	670	700	740	770	835	1,020



Clamshell grab GMZ 22 / GMZ 22 HD with track grab[6]

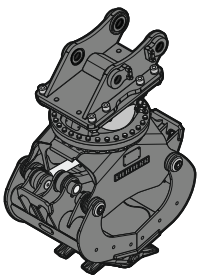
Mountings		direct mounting, SW stick mechanical, SWA 33 mechanical, SWA 33 hydraulic, SWA 33 Solidlink, SWA 48 mechanical, SWA 48 hydraulic, SWA 48 Solidlink
Shell width	mm	280
Opening width	mm	499
Weight[7]	kg	495

[1] based on standard tiltrotator TR 20B with mounting SWA 33 Solidlink machine side and mounting SWA 33 hydraulic on the underside tiltrotator
[2] based on standard tiltrotator TR 25 with mounting SWA 48 Solidlink machine side and mounting SWA 48 hydraulic on the underside tiltrotator
[3] based on standard tilt unit LiTiU 33 / 48 with both side SWA 33 / 48 Solidlink (underside of tilt unit and machine side mounting)
[4] on the machine side, a 14-pin signal contact strip is always required; switching takes place between tilting the LiTiU and the grab rotation circle for the attachment
[5] on the machine side, the control unit for the second quick coupler is always required
[6] 20 kg additional weight for HD version
[7] weights without suspension
[8] specifically for unloading half-pipe type tippers and filling the track bed with ballast



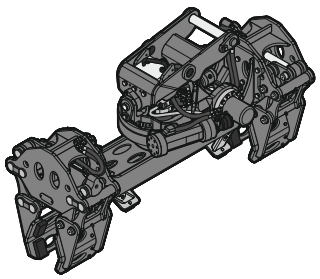
Sorting grab

		perforated	ribbed	closed	perforated	ribbed	closed	perforated	ribbed	closed	perforated	closed
Mountings		direct mounting, SW stick mechanical, SWA 33 mechanical, SWA 33 hydraulic, SWA 33 Solidlink, SWA 48 mechanical, SWA 48 hydraulic, SWA 48 Solidlink										
SG 20B												
Shell width	mm	800		800	1,000		1,000	1,200		1,200	1,400	1,400
Capacity	m³	0.40		0.40	0.50		0.50	0.60		0.60	0.70	0.70
Max. closing force	kN	40		40	40		40	40		40	40	40
Weight[1]	kg	915		925	955		970	1,000		1,015	1,040	1,060
SG 25B												
Shell width	mm	800	800	800	1,000	1,000	1,000	1,200	1,200	1,200	1,400	1,400
Capacity	m³	0.55	0.50	0.55	0.75	0.65	0.75	0.90	0.80	0.90	1.10	1.10
Max. closing force	kN	60	60	60	60	60	60	60	60	60	60	60
Weight[1]	kg	1,170	1,220	1,190	1,235	1,300	1,260	1,300	1,395	1,325	1,380	1,415



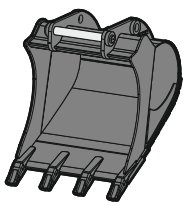
Sorting grab SG 20B with universal shell

Mountings		direct mounting, SW stick mechanical, SWA 33 mechanical, SWA 33 hydraulic, SWA 33 Solidlink, SWA 48 mechanical, SWA 48 hydraulic, SWA 48 Solidlink
Shell width	mm	650
Capacity	m³	0.15
Max. closing force	kN	57
Weight[1]	kg	985



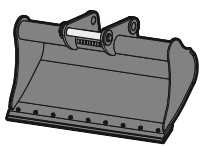
Parallel grab GMP 25 with pole clamp[2]

Mountings		SWA Solidlink 33-9, SW stick mechanical
Clamp diameter min.	mm	250
Clamp diameter max.	mm	600
Weight[1]	kg	1,470



Backhoe bucket TL 03

Mountings		direct mounting, SW stick mechanical, SWA 33 mechanical, SWA 33 hydraulic, SWA 33 Solidlink, SWA 48 mechanical, SWA 48 hydraulic, SWA 48 Solidlink, Oilquick OQ Rail, Oilquick OQ 60/5, Oilquick OQ 65, Oilquick OQ 70, Oilquick OQ 70/55, Open-S 60 mechanical, Open-S 65 mechanical, Open-S 70 mechanical, Open-S 70/55 mechanical						
Cutting width	mm	300[3] [4]	400[3] [4]	500[4]	650	850	1,050	1,250
Capacity	m³	0,17[5]	0,24[5]	0.32	0.42	0.60	0.80	0.95
Weight[1]	kg	225	250	295	350	405	485	530

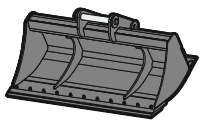


Universal bucket UL 03

Mountings		SWA 33 mechanical, SWA 33 hydraulic, SWA 33 Solidlink, SWA 48 mechanical, SWA 48 hydraulic, SWA 48 Solidlink
Cutting width	mm	1,500
Capacity	m³	0.60
Weight[1]	kg	390

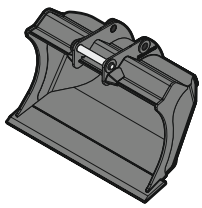
[1] weights based on an attachment in a standard design with the machine SWA 33 Solidlink / SWA Solidlink 33-9 mounting
[2] on the machine side, a 14-pin signal contact strip and a power socket on the stick, switchable via signal contacts are always required
[3] limited digging depth due to mounting for SWA 33 quick coupler
[4] limited digging depth due to mounting for SWA 48 quick coupler
[5] reduced capacity with direct mounting

Attachments



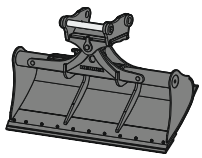
Ditch cleaning bucket (rigid)

GRL rigid 02B								
Mountings		SWA 33 mechanical, SWA 33 hydraulic, SWA 33 Solidlink						
Cutting width	mm	600	800	1,000	1,200	1,400	1,600	1,800	2,000
Capacity	m³	0.17	0.25	0.30	0.38	0.45	0.50	0.57	0.65
Weight[1)]	kg	185	215	245	275	310	350	380	410
GRL rigid Rail								
Mountings		direct mounting, SW stick mechanical, SWA 33 mechanical, SWA 33 hydraulic, SWA 33 Solidlink						
Cutting width	mm	1,600	2,000	2,000				
Capacity	m³	0.80	0.48	0.65				
Weight[1)]	kg	470	370	410				



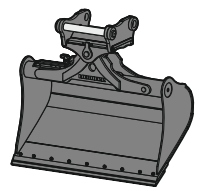
Grading bucket PL 03

Mountings		SW stick mechanical, SWA 33 mechanical, SWA 33 hydraulic, SWA 33 Solidlink, SWA 48 mechanical, SWA 48 hydraulic, SWA 48 Solidlink, Oilquick OQ Rail, Oilquick OQ 65, Oilquick OQ 70, Oilquick OQ 70/55, Open-S 65 mechanical, Open-S 70 mechanical, Open-S 70/55 mechanical	
Cutting width	mm	1,400	1,600
Capacity	m³	0.65	0.75
Weight[1)]	kg	350	405



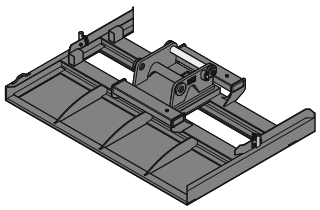
Ditch cleaning bucket

Mountings		direct mounting, SW stick mechanical, SWA 33 mechanical, SWA 33 hydraulic, SWA 33 Solidlink, SWA 48 mechanical, SWA 48 hydraulic, SWA 48 Solidlink			
GRL 90					
Cutting width	mm	1,600	1,600	2,000	2,200
Capacity	m³	0.55	0.80	0.50	0.80
Weight[1)]	kg	685	815	705	840
Tilt angle		2 x 50°	2 x 50°	2 x 50°	2 x 50°
GRL 90 Rail					
Cutting width	mm	2,000	2,000		
Capacity	m³	0.70	1.00		
Weight[1)]	kg	820	870		
Tilt angle		2 x 50°	2 x 50°		



Tilt bucket SL 90

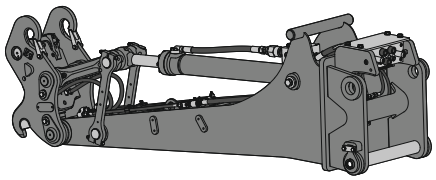
Mountings		direct mounting, SW stick mechanical SWA 33 mechanical, SWA 33 hydraulic, SWA 33 Solidlink, SWA 48 mechanical, SWA 48 hydraulic, SWA 48 Solidlink		
Cutting width	mm	1,500	1,600	1,600
Capacity	m³	0.60	0.80	1.00
Weight[1)]	kg	700	785	825
Tilt angle		2 x 50°	2 x 50°	2 x 50°



Grading beam PB 20

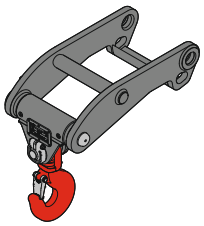
Mountings		SWA 33 mechanical, SWA 33 hydraulic, SWA 33 LIKUFIX, SWA 48 mechanical, SWA 48 hydraulic, SWA 48 Solidlink
Cutting width	mm	2,500
Weight[1)]	kg	627

[1)] weights based on an attachment in a standard design with the machine SWA 33 Solidlink mounting



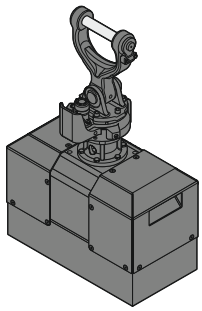
Stick extension LS 12

Mounting machine side		SWA 33 Solidlink, SWA Solidlink 33-9, SWA 48 Solidlink
Mountings attachment side		SWA 33 mechanical, SWA 33 mechanical Solidlink[2], SWA 33 hydraulic[4], SWA 33 Solidlink[3] [4] [5]
Length	m	2.25
Weight[1]	kg	approx. 530–700



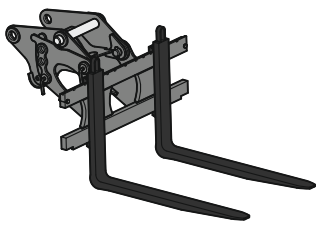
Load hook

Mountings		direct mounting, SW stick mechanical, SWA 33 mechanical, SWA 33 hydraulic, SWA 48 mechanical, SWA 48 hydraulic
Max. load	t	8
Rotatable		360°, mechanical
Height to bolting point	mm	508
Weight[1]	kg	120



Hydro magnet

Mountings		direct mounting, SW stick mechanical, SWA 33 mechanical, SWA 33 hydraulic, SWA 33 Solidlink, SWA 48 mechanical, SWA 48 hydraulic, SWA 48 Solidlink
Power	kW	5
Lift capacity	t	5
Swivel circuit		330°
Overall height to bearing fork	mm	1,182
Weight[1]	kg	1,485



Pallet fork

PG SWA 33 FEM II			
Mountings		SWA 33 mechanical, SWA 33 hydraulic, SWA 33 Solidlink	
Pallet forks length	mm	1,200	1,400
Max. width pallet fork	mm	1,245	1,245
Lift capacity (ISO 2328)	t	2.5	2.5
Weight	kg	330	363
PG SWA 33 FEM III			
Mountings		SWA 33 mechanical, SWA 33 hydraulic, SWA 33 Solidlink	
Pallet forks length	mm	1,200	1,500
Max. width pallet fork	mm	1,500	1,500
Lift capacity (ISO 2328)	t	5.0	5.0
Weight	kg	579	620
PG SWA 48 FEM II			
Mountings		SWA 48 mechanical, SWA 48 hydraulic, SWA 48 Solidlink	
Pallet forks length	mm	1,200	1,400
Max. width pallet fork	mm	1,245	1,245
Lift capacity (ISO 2328)	t	2.5	2.5
Weight	kg	345	378

[1] weights based on an attachment in a standard design with the machine SWA 33 Solidlink mounting
[2] attachment with high pressure circuit only possible with the manual switchover tipping cylinder or an extended hydraulic circuit on the carrier machine
[3] attachment with high pressure circuit only possible with the electric / manual switchover tipping cylinder or an extended hydraulic circuit on the carrier machine
[4] 14-pin signal contact strip is required, for example to control and monitor the hydraulic quick coupling system on the stick extension on the attachment side or to transfer electrical signals for the switchover
[5] either a socket on the stick above the signal contact strip of the carrier machine or machine side Solidlink 33-9 is required for switching between different hydraulic circuits

Equipment

Undercarriage

General	
Support frame (front and rear)	+
Support frame, lockable (front and rear)	+
Trailer couplings on both sides, with bolts, automatic	+
Ascent laterally, left*	+
Ascent laterally, right*	+
Lighting white / red incl. socket*	+
Electric slip ring (22-ways) including angle sensor	●
Earthing cable with ball pin	●
Fire extinguisher 6 kg	+
Grab suspension bracket	+
Drag shoe	●
Hydraulic connection for tipping the trailer (single-acting tipping cylinder – additional function)	+
Rail sweeper	+
Cardan shaft protection, safety gear	●
Signal support on undercarriage	+
Storage compartment left, incl. base plate	+
Storage compartment with drawer right	+
Storage compartment right, incl. base plate	+
Power socket on undercarriage, 24 V / 10 A (ISO 1724) (front / rear)	+
Hydraulic wagon braking system (2 circuits)	+
Pneumatic wagon braking system (1 circuit)	+
Pneumatic wagon braking system (2 circuits)	+
Automatic central lubrication system, undercarriage	+
Central lubrication of undercarriage, manual (one grease point)	+
Pull rod trailer	+
Pull rod trailer and pull rod wagon	+
Pull rod wagon	+
Stabilization & driving	
Plastic outrigger feet (raised support)	+
Standard outrigger feet	●
Add-on-axle*	+
Rear bumper	+
Front bumper	+
Hydrostatic drive (9A)	+
Hydrostatic drive (9A) or rail (9C)*	+
Wide gauge delivery condition*	+
Standard gauge delivery condition	+
Excavator axle with wheel head width of 2,100 mm	+
Excavator axle with wheel head width of 2,424 mm	+
Lighting on undercarriage white, LED, incl. socket, 24 V (ISO 1724)	+
Brake at friction wheel	●
Individual control, two outriggers	+
Travel speed of 20 km/h	+
Travel speed on rails 20 km/h	+
Automatic swing axle lock	●
Outriggers centre	+
Tyre inflation hose with pressure gauge	+
Rail undercarriage convertible (position and pressure control)[2]	+
Rail guide, gauge width 1,435 mm*	+
Rail guide, gauge width 1,520 mm*	+
Rail guide, gauge width 1,600 mm*	+
Rail guide, gauge width 1,668 mm*	+
Rail wheel profile ANZR-1, isolated*[1]	+
Rail wheel profile Network Rail*[1]	+
Rail wheel profile UIC*[1]	+
Rail wheel profile UIC, isolated*[1]	+
Guard for oscillating axle cylinder	+
Single tyres, Michelin XF-445/70R19.5	+
Speeder 25 km/h*	+
Speeder 30 km/h*	+
Speeder rail 30 km/h*	+
Speeder rail 40 km/h*	+
Twin tyres, Continental RT20, 10.00-20	+
Twin tyres, Magna MB800 inside and outside, 10.00-20	+
Twin tyres, Magna MB800 inside, MB100 outside, 10.00-20	+
Twin tyres, Mitas NB 59 inside, EM 22 outside, 10.00-20	+

Uppercarriage

General	
Counterweight swivel radius rear 1,570 mm	●
Extended tool kit including toolbox	+
External starting aid (battery connectors)	+
Warning board rear, slow-moving vehicle	+
Amber beacon, at uppercarriage, LED, 1 piece	+
Signal light track, LED	+
Storage box in the uppercarriage	+
Power socket on uppercarriage (24 V)	+
Automatic central lubrication system, uppercarriage and equipment	●
Hydraulic & engine	
Filling with provided hydraulic oil (biodegradable)	+
Refuelling system with refuilling pump	+
Hydraulic oil, Liebherr Hydraulic Basic 100 (0 to +55 °C)	+
Hydraulic oil, Liebherr Hydraulic HVI (-20 to +40 °C)	+
Hydraulic oil, Liebherr Hydraulic Plus, high performance oil (-30 to +45 °C)	+
Declaration of Conformity for particulate filter for indoor applications (according to TRGS 554)	+
Liebherr-SCR technology incl. diesel particulate filter	+
Air pre-filter with cyclonical dust trap	+
Automatic engine shutdown after idling (with timer)	+
Bypass filter (external)	+
Emergency actuation, electric	●
Power Pack EU Stage V	+
Lubricants and operating fluids Standard (-20 to +40 °C)	●
Preheating fuel	+

Equipment

Boom	
Load lug on boom	+
PowerLift	●
Pipe fracture safety valve stick cylinder	●
Pipe fracture safety valve stick cylinder, both sides	+
Floating boom	+
Two-piece boom	+
Stick & attachment mounting	
GPS for attachment (via 5-pin signal contacts)	+
GPS for attachment (via 14-pin signal contacts)	+
Coupling system Solidlink 33-9 for quick coupler SWA 33	+
Coupling system Solidlink for quick coupler SWA 33	+
Coupling system Solidlink for quick coupler SWA 48	+
Load lift hook on connecting link	+
Load holding valve for tipping cylinder	+
Load holding valve for tipping cylinder (both sides)	+
Load lug on stick	+
Light package stick	+
Stick 1.85 m	+
Stick 2.05 m	+
Stick 2.25 m	+
Quick coupler SWA 33 hydraulic	+
Quick coupler SWA 48 hydraulic	+
Hydraulic hose guard Solidlink 33	+
Hydraulic hose guard Solidlink 48	+
Signal contacts for Solidlink 5-pin	+
Signal contacts for Solidlink 14-pin	+
Power socket on stick, commutable (2 circuits)	+
Power socket on stick, commutable (2 circuits) external and via signal contacts	+
Power socket on stick, commutable (3 circuits)	+
Power socket on stick, commutable (3 circuits), 2 circuits via signal contacts	+
Control system for hydraulic quick coupler (for Liebherr quick coupler)	+
Stick camera	+
Preparation for competitor quick coupler	+
Preparation for hydro magnet	+
Preparation for hydro magnet including control unit	+
Centralised lubrication extended for quick coupler	+
Centralised lubrication extended for connecting link	+

Cab

Interior	
2-points seat belt, 2"	+
3-points seat belt, 2"	+
Storage tablet	●
Mood lighting LED	●
Armrests adjustable in length, height and inclination	●
Event Recorder AS7502*	+
Double pedal, left	+
Operator's seat Comfort	+
Operator's seat Premium	+
Operator's seat cover	+
Travel alarm system switchable	+
Fire extinguisher	+
Air-conditioned bottle holder	●
Wireless communication device*	+
Footrest	+
Seat belt reminder	●
Mobile phone holder with inductive charging	+
Automatic air conditioning	●
Wheel steering	+
Steering column	+
Multifunction mounting bracket	+
Positioning swing brake manual	+
Radio Comfort	●
Acoustic back-up warning system not switchable	+
Portable lamp	●
Roll-down sun blinds for windscreen and roof window	●
Roll-down sun blinds for rear and side window, right	+
Auxiliary heater programmable	+
Air-conditioned storage compartment	●
Electric sockets in cab (USB)	●
First-aid box	●
Warning triangle	+
Exterior	
Integrated antenna	●
Electrically adjustable and heated outside rear-view mirrors	+
Rearview mirror	+
Dark tinted windows*	+
Full beam road headlight	●
Licence plate holder with light	+
Light changeover from railway to tram	+
Warning beacon foldable on cab, LED, 1 piece	+
Roof window wiper	●
Horn pneumatic (Rail)	●
Retractable laminated two-piece windscreen	●
Warning light rail*	+
Warning zone illumination*	+

Control

Safety & operation	
Acceptance Apave for lifting application*	+
Attachment continuous operation system	●
Operation of stick extension	+
Electronic anti-theft protection with code	+
Electronic anti-theft protection with key	+
Ride control	+
Load torque warning	+
Automatic engine idling / speed increase	●
Modetronic	●
Emergency stop hydraulic and engine in cab	+
Emergency stop traction drive	●
Lock swing axle automatically when uppercarriage swivels	●
Positioning swing brake automatic	+
Power Plus for Tools	●
Lift chart digital	●
Lift chart for forks digital	+
Lift chart for stick extension digital	+
Overload warning system	●
Hydraulic & control	
10" colour touchscreen	●
Shut-down electrical, tipping cylinder by grapple operation	+
Alternative connection medium pressure circuit on right side of stick	+
Control pattern digital	●
Operation pallet fork	+
Display with haptic feedback	●
Grapple lines for stick with tipping kinematic	+
High pressure circuit II with Tool Control, two-piece boom	●
High pressure circuit with Tool Control	●
Joysticks Premium	●
Leak oil lines for attachment	+
Wheel and joystick steering	+
Machine settings personalised on display	●
Medium pressure circuit	●
Mode selector	●
Touchpad 3.5"	●
Preparation for machine guidance system	+
Assistance systems	
Working envelope limitation advanced	+
Working envelope limitation essential	+
Machine guidance system 2D passiv	●
Integral tyre pressure monitoring system	+
Load torque limitation	+
MiC 4.0 BUS communication standard	●
Automatic pedestrian detection warning system*	+
Rear view and right hand side view monitoring cameras	+
Skyview 360°	+
Smart Key Comfort	+

General

Coating & transport	
Standard coating Network Rail*	+
Standard coating Rail	+
Acceptance & transport	
Acceptance DB*	+
Operator manual digital	●
Preparation acceptance Network Rail*	+
Liebherr Connect	
MyLiebherr Maintenance	+
MyLiebherr Performance	+
MyLiebherr Portal[3)]	●

Packages

Light package Access*	+
Light package Comfort	+
Light package Premium	+
Light package Standard	+
Light package Surround	+

● = Standard, + = Option

* country-dependent

[1)] other rail wheel profiles on request, [2)] only with tyre-on-rail drive (category 9C), [3)] free activation required

Options and / or special equipment, 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

Global and independent: more than 70 years of success
Liebherr was founded in 1949 when, with the development of the world's first mobile tower crane, Hans Liebherr laid the foundations for a family-run company which now has more than 50,000 employees and comprises over 150 companies across every continent. The holding company of the Group is Liebherr-International AG in Bulle, Switzerland, whose shareholders are exclusively members of the Liebherr family.

Technology leadership and pioneering spirit
Liebherr is a pioneer and its forward-looking approach has seen it make important contributions to technology history over a wide variety of industries. Employees throughout the world continue to share the courage of the company founder, sharing a passion to produce innovative products and a determination to provide world-leading equipment and machinery.

Diversified product programme
Liebherr is one of the world's biggest construction machine manufacturers and provides high-quality, user-oriented products and services. Its product programme includes earthmoving machinery, material handling technology, deep foundation machines, mining, mobile and crawler cranes, tower cranes, concrete technology, maritime cranes, aerospace and transportation systems, gear technology and automation systems, refrigerators and freezers, components and hotels.

Customised solutions and maximum customer value
Liebherr solutions are characterised by precision, implementation and longevity. The company is committed to technological excellence and to providing customers with solutions that match their needs exactly. For Liebherr, customer focus does not end with delivery of a product but continues through a comprehensive range of back-up and support services.

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