
R 922 Litronic

LIEBHERR

Crawler excavator



Generation
8

Operating weight
22,250–24,550 kg

Engine
120 kW / 163 HP
Stage V

Bucket capacity
0.55–1.65 m³

Experience the progress R 922

① Safety

- Panoramic visibility with no obstructions and camera on the rear and the right side equipment
- Liftable console for easy and safe access to cab
- ROPS-certified cab structure: rollover protection
- Emergency exit via the rear cab window whatever the configuration of the excavator
- Right window and windshield in laminated and tinted glass

② Equipment

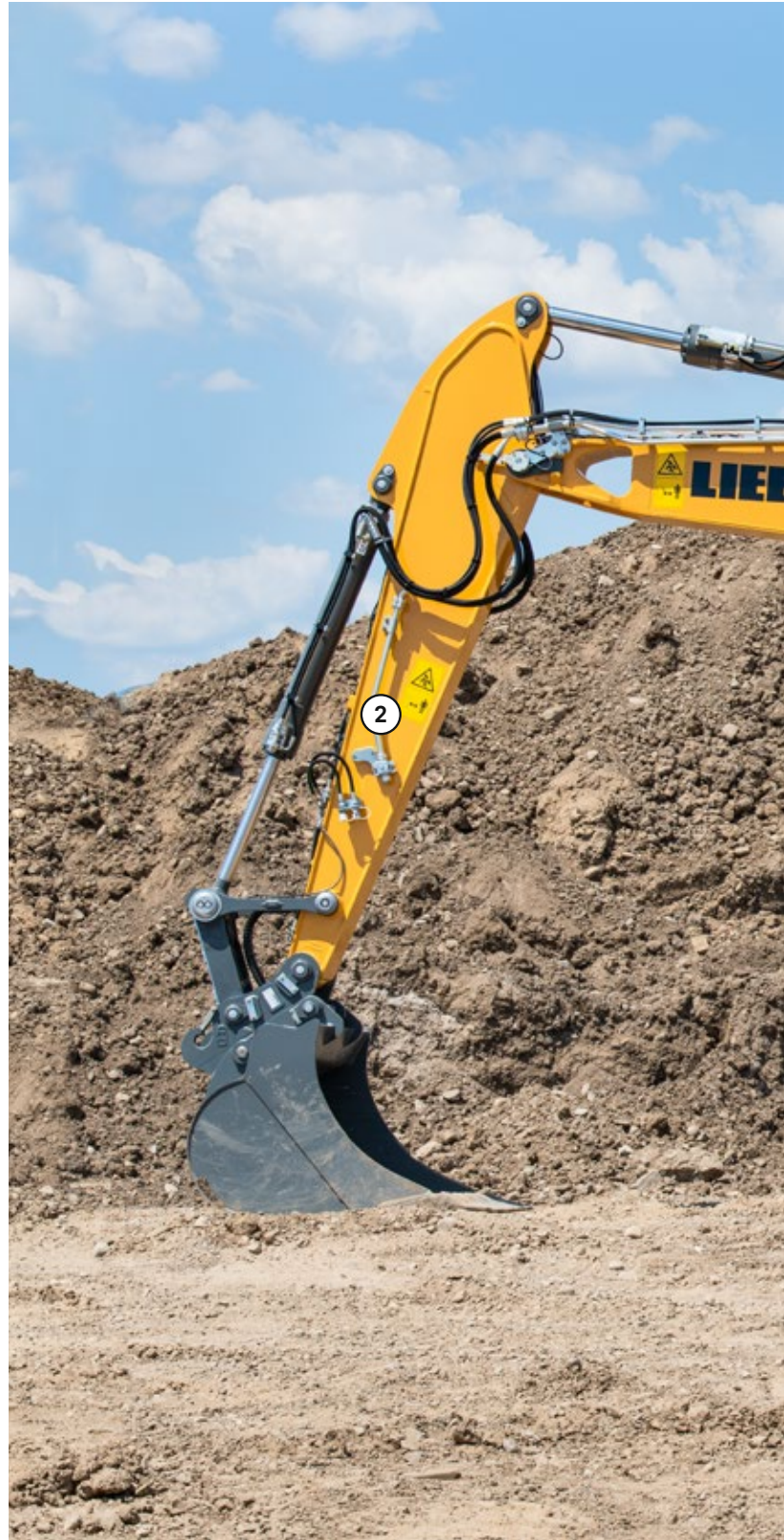
- Large choice of types and sizes of equipment
- Safety check valves for hoist and stick cylinders
- Longer lifespan of components and higher productivity thanks to automatic centralised lubrication system

③ Maintenance

- Innovative servicing concept, with service points accessible from ground level
- Lateral access to uppercarriage and large maintenance platform
- Engine oil, hydraulic oil, fuel and urea levels visible on the display

④ Comfort

- Spacious, air-conditioned work space
- Pneumatic seat with vertical and horizontal suspension
- Easy-to-use high resolution 9" colour touchscreen
- Completely retractable front cab window
- LED lighting as standard



⑤ Engine

- Liebherr engine that conforms with the Stage V European exhaust emissions standard
- Automatic engine idling and engine stop

⑥ Undercarriage

- Robust, reliable X-frame undercarriage, easy to secure thanks to its integrated eyelets
- Easy maintenance
- Maintenance-free travel gear and track rollers with lifetime lubrication
- Extra storage as an option



Technical data



Engine

Rating per ISO 9249	120 kW (163 HP) at 1,800 RPM
Torque	682 Nm at 1,400 RPM
Model	D924 A7-05 – FPT motor designed for Liebherr
Type	4 cylinder in-line
Bore	104 mm
Stroke	132 mm
Displacement	4.5 l
Engine operation	4-stroke diesel Common-Rail Turbo-charged and after-cooler
Exhaust gas treatment	Stage V DOC + SCR Filter Passive regeneration by thermo management
Cooling system	Water-cooled and oil cooler, after-cooled and fuel cooled
Air cleaner	Dry-type air cleaner with pre-cleaner
Fuel tank	400 l
Urea tank	46 l
Electrical system	
Voltage	24 V
Batteries	2 x 135 Ah / 12 V
Alternator	Three-phase current 28 V / 140 A
Engine idling	Sensor controlled



Hydraulic controls

Power distribution	Via control valves, simultaneous and independent actuation of undercarriage, swing drive and equipment
Electric servo circuit	Electro-hydraulic control
Equipment and swing	Proportional via joystick levers
Travel	– Proportional control via foot pedals or removable levers – Automatic or manual speed adjustment
Additional functions	Proportional regulation via foot pedals or mini-joystick



Hydraulic system

Hydraulic system	Positive Control hydraulic system. Demand-based, double independent pump flows Features high system dynamics and sensitivity provided by integrated system controlling
Hydraulic pump	
For equipment and travel drive	Liebherr, variable displacement, swashplate double pump
Max. flow	2 x 210 l/min.
Max. pressure	380 bar
Pump management	Electronic management synchronous to the control block. Open circuit for the rotation
Hydraulic tank	155 l
Hydraulic system	max. 320 l
Filtration	1 main return filter with integrated partial micro filtration (10 µm)
Cooling system	Compact cooler, consisting of a water cooler, sandwiched with hydraulic oil cooler and fuel and after-cooler cores and hydrostatically driven fan
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
Engine speed and performance setting	Stepless adjustment of engine output and hydraulic power via engine speed



Swing drive

Drive	Liebherr swashplate motor with integrated brake valve and torque control
Transmission	Liebherr compact planetary reduction gears
Swing ring	Liebherr, sealed race ball bearing swing ring, internal teeth
Swing speed	0–12.9 RPM stepless
Swing torque	74.3 kNm
Holding brake	Wet multi-disc (spring applied, pressure released)



Cab

Cab	ROPS safety cab structure (roll-over protection system according to ISO 12117-2:2008) with windscreen, totally or partially retractable (only upper part), under cab roof, LED headlights integrated in the ceiling, a door with a sliding window (can be opened on both sides), large storing box and several stowing possibilities, shock-absorbing suspension, laminated right hand side and roof windows, all windows tinted, separate extensible window shades for the sunroof window and windscreen, cigarette lighter and 24 V plug, 12V plug, cup holder, mobile phone storage net
Operator's seat	Liebherr-Comfort seat, airsprung with automatic weight adjustment, vertical and longitudinal seat damping including consoles and joysticks. Seat and armrests adjustable separately and in combination (adjustable in length, height and inclination), seat heating as standard
Arm consoles	Oscillating consoles with seat, tiltable console left
Operation and displays	Large high-resolution operating unit, intuitive, colour display with touchscreen, video-compatible, numerous setting, control and monitoring options, e.g. air conditioning control, fuel consumption, machine and attachment parameters
Air-conditioning	Automatic air-conditioning, recirculated air function, fast de-icing and demisting at the press of a button, air vents can be operated via a menu. Recirculated air and fresh air filters can be easily replaced and are accessible from the outside. Heating-cooling unit, designed for extreme outside temperatures, sensors for solar radiation, inside and outside temperatures The air conditioning system contains fluorinated greenhouse gases
Refrigerant	R134a
Global warming potential	1,430
Quantity at 25 °C*	1,260 g
CO ₂ equivalent	1.80 t
Vibration emission**	
Hand / arm vibrations	< 2.5 m/s ² , according with ISO 5349-1:2001
Whole-body vibrations	< 0.5 m/s ²
Measuring inaccuracy	According with standard EN 12096:1997
Noise emission	
ISO 6396	70 dB(A) = L _{PA} (inside cab)
2000/14/EC	102 dB(A) = L _{WA} (surround noise)



Undercarriage

Versions	
NLC	Gauge 2,000 mm
SLC	Gauge 2,240 mm
LC	Gauge 2,390 mm
Drive	Liebherr swashplate motor with brake valves on both sides
Transmission	Liebherr planetary reduction gear
Maximum travel speed	3.1 km/h low range 5.9 km/h high range
Drawbar pull on crawler	236 kN
Track components	B60, D6C, maintenance-free
Track rollers / Carrier rollers	8 / 2
Tracks	Sealed and greased
Track pads	Triple grouser
Holding brake	Wet multi-disc (spring applied, pressure released)
Brake valves	Integrated into travel motor
Lashing eyes	Integrated



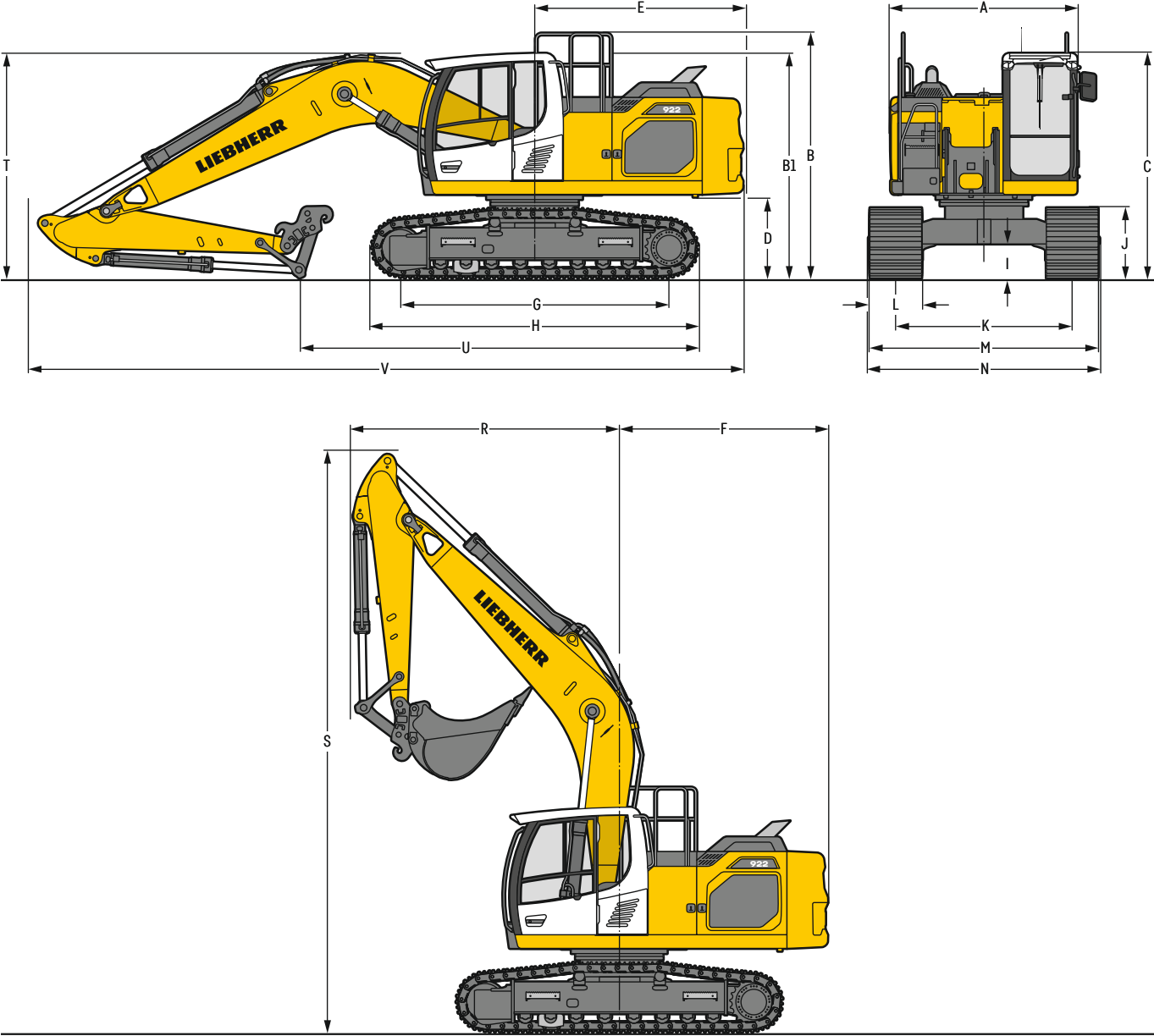
Equipment

Type	Combination of resistant steel plates and cast steel components
Hydraulic cylinders	Liebherr cylinders with seal and guidance systems
Bearings	Sealed, low maintenance
Lubrication	Liebherr central lubrication system
Hydraulic connections	Pipes and hoses equipped with SAE split-flange connections
Buckets	Standard equipped with Liebherr tooth system

* Valid for standard machine without operator's cab elevation and without height adjustable cab

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

Dimensions



		NLC				mm				SLC				mm				LC				mm			
A	Uppercarriage width					2,555 ²⁾								2,555 ²⁾								2,555 ²⁾			
B	Uppercarriage height					3,335								3,335								3,335			
B1	Uppercarriage height (handrails folded)					3,060								3,060								3,060			
C	Cab height					3,060								3,060								3,060			
D	Counterweight ground clearance					1,100								1,100								1,100			
E	Rear-end length					2,830								2,830								2,830			
F	Tail swing radius					2,880								2,880								2,880			
G	Wheelbase					3,640								3,640								3,640			
H	Undercarriage length					4,435								4,435								4,435			
I	Undercarriage ground clearance					485								485								485			
J	Track height					960								960								960			
K	Track gauge					2,000								2,240								2,390			
L	Track pad width	500	600	700	750	500	600	700	750	800	900	500	600	700	750	800	900	500	600	700	750	800	900		
M	Width over tracks	2,500	2,500	2,700	2,750	2,740	2,840	2,940	2,990	3,040	3,140	2,890	2,990	3,090	3,140	3,190	3,290	2,890	2,990	3,090	3,140	3,190	3,290		
N	Width over steps	2,500	2,500	2,700 ¹⁾	2,700 ¹⁾	2,775	2,775	2,975 ¹⁾	2,975 ¹⁾	2,975 ¹⁾	3,075 ¹⁾	2,925	2,925	3,125 ¹⁾	3,125 ¹⁾	3,125 ¹⁾	3,225 ¹⁾	2,925	2,925	3,125 ¹⁾	3,125 ¹⁾	3,125 ¹⁾	3,225 ¹⁾		

¹⁾ width with removable steps

²⁾ without door stop device and spacer

		Stick length	Mono boom 5.70 m with quick coupler				Mono boom straight 5.90 m with quick coupler				Two-piece boom 5.90 m with quick coupler				Mono boom offset 5.65 m with quick coupler			
		m	mm				mm				mm				mm			
R	Front swing radius	2.50	3,650				3,050				2,500				3,350			
		2.90	3,650				3,050				2,600				3,350			
		3.50	3,600				2,850				2,550				3,350			
S	Height with boom up	2.50	7,900				8,600				8,700				7,950			
		2.90	3,050				2,850				2,800				2,900			
		3.50	3,100				3,000				2,950				2,900			
T	Boom height	2.50	3,050				3,050				3,050				2,900			
		2.90	5,400				5,900				5,900				8,050			
		3.50	5,050				5,650				5,600				7,650			
U	Length on ground	2.50	7,150				5,000				5,000				7,000			
		2.90	9,700				9,950				9,900				9,550			
		3.50	1,15 m ³				1,15 m ³				1,15 m ³				1,15 m ³			
V	Overall length Bucket	2.50	9,700				9,950				9,900				9,550			
		2.90	1,15 m ³				1,15 m ³				1,15 m ³				1,15 m ³			
		3.50	1,15 m ³				1,15 m ³				1,15 m ³				1,15 m ³			

Transport dimensions

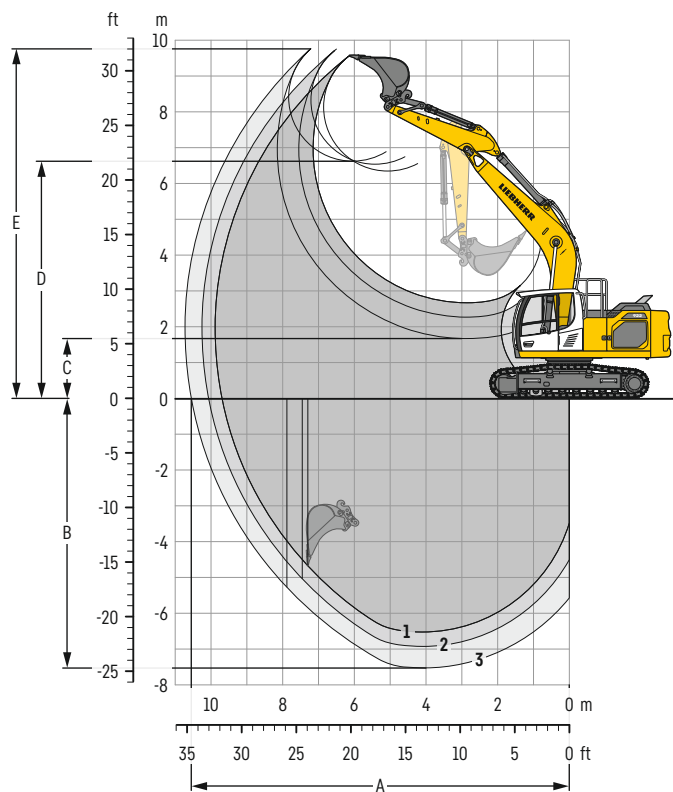
removable elements disassembled

	Undercarriage	Mono boom 5.70 m mm						Mono boom straight 5.90 m mm						Two-piece boom 5.90 m mm						Mono boom offset 5.65 m mm					
Pad width		500	600	700	750	800	900	500	600	700	750	800	900	500	600	700	750	800	900	500	600	700	750	800	900
Transport width	NLC	2,555	2,555	2,700	2,750	-	-	2,555	2,555	2,700	2,750	-	-	2,555	2,555	2,700	2,750	-	-	2,555	2,555	2,700	2,750	-	-
	SLC	2,740	2,840	2,940	2,990	3,040	3,140	2,740	2,840	2,940	2,990	3,040	3,140	2,740	2,840	2,940	2,990	3,040	3,140	2,740	2,840	2,940	2,990	3,040	3,140
	LC	2,890	2,990	3,090	3,140	3,190	3,290	2,890	2,990	3,090	3,140	3,190	3,290	2,890	2,990	3,090	3,140	3,190	3,290	2,890	2,990	3,090	3,140	3,190	3,290

	Undercarriage / Stick m	NLC / SLC / LC mm				NLC / SLC / LC mm				NLC / SLC / LC mm				NLC / SLC / LC mm			
Transport length		9,700				9,950				9,900				9,550			
Transport height	2.50	3,060				3,060				3,060				3,060			
	2.90	3,100				3,060				3,060				3,060			
	3.50	3,060				3,060				3,060				3,060			

Backhoe bucket

with mono boom 5.70 m



Digging envelope

with quick coupler		1	2	3
Stick length	m	2.50	2.90	3.50
A Max. reach at ground level	m	9.69	10.07	10.55
B Max. digging depth	m	6.53	6.93	7.52
C Min. dumping height	m	2.67	2.27	1.67
D Max. dumping height	m	6.34	6.54	6.62
E Max. cutting height	m	9.54	9.75	9.76

Forces

without quick coupler		1	2	3
Stick digging force (ISO 6015)	kN	125	113	99
Bucket digging force (ISO 6015)	kN	160	160	160
Stick digging force (SAE J1179)	kN	120	109	95
Bucket digging force (SAE J1179)	kN	140	140	140

Operating weight and ground pressure

The operating weight includes the basic machine with counterweight 4.0t, mono boom 5.70 m, stick 2.90 m, quick coupler SWA 48 (250 kg) and bucket 1.15 m³ (830 kg).

Undercarriage		NLC			
Pad width	mm	500	600	700	750
Weight	kg	22,250	22,500	22,750	22,850
Ground pressure	kg/cm ²	0.57	0.48	0.41	0.39

Undercarriage		SLC					
Pad width	mm	500	600	700	750	800	900
Weight	kg	22,350	22,600	22,850	22,950	23,250	23,550
Ground pressure	kg/cm ²	0.57	0.48	0.42	0.39	0.37	0.33

Undercarriage	LC						
Pad width	mm	500	600	700	750	800	900
Weight	kg	22,450	22,700	22,950	23,050	23,350	23,650
Ground pressure	kg/cm ²	0.57	0.48	0.42	0.39	0.37	0.34

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

	Cutting width mm	Capacity ISO 7451 m ³	Weight ³⁾ kg	Weight ⁴⁾ kg	NLC undercarriage (with track pads 500 mm)						SLC undercarriage (with track pads 600 mm)						LC undercarriage (with track pads 600 mm)					
					Stick length (m)						Stick length (m)						Stick length (m)					
					without quick coupler			with quick coupler			without quick coupler			with quick coupler			without quick coupler			with quick coupler		
					2.50	2.90	3.50	2.50	2.90	3.50	2.50	2.90	3.50	2.50	2.90	3.50	2.50	2.90	3.50	2.50	2.90	3.50
STD ¹⁾	650	0.55	580	590	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲
	850	0.75	620	630	▲	▲	▲	▲	▲	■	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲
	1,050	0.95	700	710	▲	■	▲	■	▲	△	▲	▲	■	▲	▲	■	▲	▲	▲	▲	▲	▲
	1,250	1.15	810	830	▲	■	△	■	△	—	▲	▲	■	■	▲	△	▲	■	▲	■	■	■
	1,250	1.25	890	910	■	△	—	△	△	—	▲	■	△	▲	△	△	■	▲	■	■	▲	△
	1,400	1.35	850	880	△	△	—	△	—	—	▲	■	△	■	△	—	■	▲	△	▲	■	△
HD ²⁾	1,400	1.50	950	980	△	—	—	—	—	—	△	△	—	△	△	—	■	△	△	■	△	—
	1,500	1.65	1,020	1,030	—	—	—	—	—	—	△	—	—	△	—	—	△	△	—	△	△	—
	650	0.55	640	650	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲
	850	0.75	695	705	▲	▲	▲	▲	▲	■	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	■
	1,050	0.95	790	800	▲	■	■	■	▲	△	▲	▲	■	▲	▲	▲	▲	▲	▲	▲	▲	■
	1,250	1.15	910	940	■	△	△	△	△	—	■	▲	■	■	■	△	▲	■	▲	▲	▲	■
HD ²⁾	1,250	1.25	1,010	1,030	△	△	—	△	—	—	▲	■	△	■	△	△	■	▲	△	■	■	△
	1,400	1.35	970	990	△	—	—	△	—	—	■	△	△	■	△	—	▲	■	△	▲	△	△
	1,400	1.50	1,090	1,120	—	—	—	—	—	—	△	△	—	△	—	—	■	△	—	△	△	—

* Indicated loads are based on ISO 10567, at maximum reach, and may be swung 360° on firm and even ground

¹⁾ Standard bucket with teeth Z 40

²⁾ HD bucket with teeth Z 40

³⁾ Bucket for direct mounting

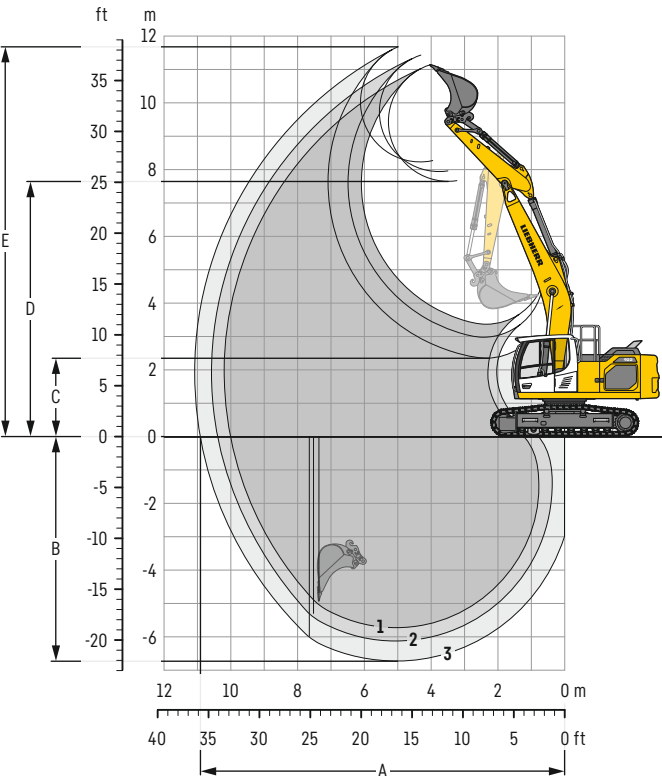
⁴⁾ Bucket for mounting to quick coupler SWA 48 (250 kg)

Other buckets available upon request

Max. material weight ▲ = ≤ 2.0t/m³, ■ = ≤ 1.8t/m³, ▲ = ≤ 1.65t/m³, ■ = ≤ 1.5t/m³, △ = ≤ 1.2t/m³, — = not authorised

Backhoe bucket

with mono boom straight 5.90 m



Digging envelope

with quick coupler		1	2	3
Stick length	m	2.50	2.90	3.50
A Max. reach at ground level	m	10.01	10.40	10.91
B Max. digging depth	m	5.73	6.13	6.73
C Min. dumping height	m	3.37	2.98	2.35
D Max. dumping height	m	7.65	7.94	8.23
E Max. cutting height	m	11.14	11.43	11.63

Forces

without quick coupler		1	2	3
Stick digging force (ISO 6015)	kN	125	113	99
Bucket digging force (ISO 6015)	kN	160	160	160
Stick digging force (SAE J1179)	kN	120	109	95
Bucket digging force (SAE J1179)	kN	140	140	140

Operating weight and ground pressure

The operating weight includes the basic machine with counterweight 4.0t, mono boom straight 5.90 m, stick 2.90 m, quick coupler SWA 48 (250 kg) and bucket 1.15 m³ (830 kg).

Undercarriage		NLC			
Pad width	mm	500	600	700	750
Weight	kg	22,250	22,500	22,750	22,850
Ground pressure	kg/cm²	0.57	0.48	0.41	0.39

Undercarriage		SLC					
Pad width	mm	500	600	700	750	800	900
Weight	kg	22,350	22,600	22,850	22,950	23,250	23,550
Ground pressure	kg/cm²	0.57	0.48	0.42	0.39	0.37	0.33

Undercarriage		LC					
Pad width	mm	500	600	700	750	800	900
Weight	kg	22,450	22,700	22,950	23,050	23,350	23,650
Ground pressure	kg/cm²	0.57	0.48	0.42	0.39	0.37	0.34

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

	Cutting width mm	Capacity ISO 7451 m ³	Weight ³⁾ kg	Weight ⁴⁾ kg	NLC undercarriage (with track pads 500 mm)						SLC undercarriage (with track pads 600 mm)						LC undercarriage (with track pads 600 mm)					
					Stick length (m)						Stick length (m)						Stick length (m)					
					without quick coupler			with quick coupler			without quick coupler			with quick coupler			without quick coupler			with quick coupler		
					2.50	2.90	3.50	2.50	2.90	3.50	2.50	2.90	3.50	2.50	2.90	3.50	2.50	2.90	3.50	2.50	2.90	3.50
STD ¹⁾	650	0.55	580	590	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲
	850	0.75	620	630	▲	▲	■	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲
	1,050	0.95	700	710	■	▲	△	▲	■	△	▲	▲	△	▲	■	■	▲	▲	■	▲	▲	△
	1,250	1.15	810	830	■	△	—	△	—	—	■	■	△	▲	△	△	■	▲	■	■	△	△
	1,250	1.25	890	910	△	—	—	△	—	—	■	△	△	△	△	—	▲	■	△	▲	△	△
	1,400	1.35	850	880	△	—	—	—	—	—	■	△	—	△	△	—	▲	△	△	■	△	—
	1,400	1.50	950	980	—	—	—	—	—	—	△	—	—	△	—	—	△	△	—	△	—	—
HD ²⁾	1,500	1.65	1,020	1,030	—	—	—	—	—	—	—	—	—	—	—	—	△	—	—	△	—	—
	650	0.55	640	650	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲
	850	0.75	695	705	▲	▲	■	▲	■	■	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲
	1,050	0.95	790	800	■	■	△	▲	△	△	▲	■	▲	▲	■	■	▲	▲	■	▲	▲	△
	1,250	1.15	910	940	△	△	—	△	—	—	▲	■	△	■	△	—	■	▲	△	▲	■	△
	1,250	1.25	1,010	1,030	△	—	—	—	—	—	■	△	—	△	△	—	▲	■	△	■	△	—
	1,400	1.35	970	990	—	—	—	—	—	—	△	△	—	△	—	—	■	△	△	△	△	—
	1,400	1.50	1,090	1,120	—	—	—	—	—	—	△	—	—	—	—	—	△	△	—	△	—	—

* Indicated loads are based on ISO 10567, at maximum reach, and may be swung 360° on firm and even ground

¹⁾ Standard bucket with teeth Z 40

²⁾ HD bucket with teeth Z 40

³⁾ Bucket for direct mounting

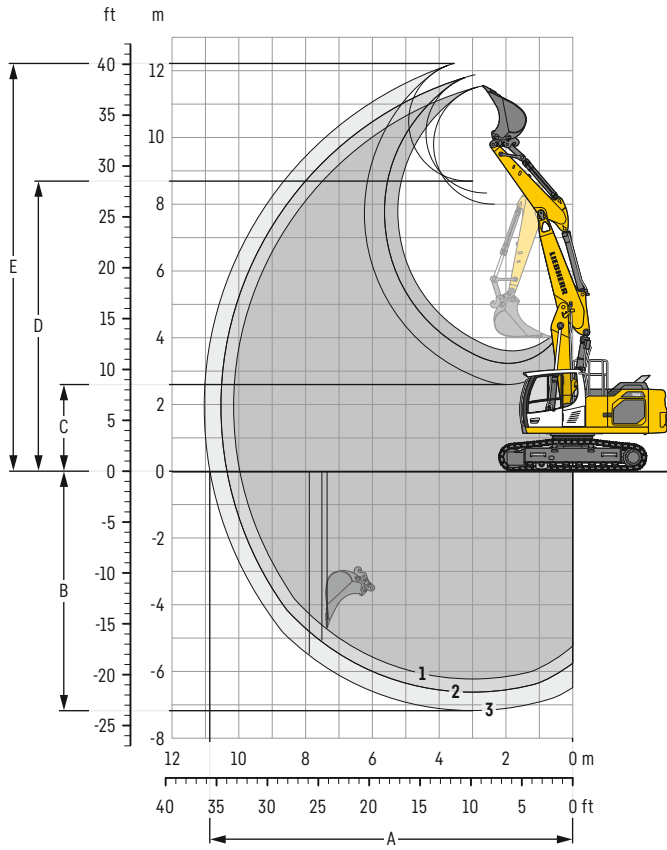
⁴⁾ Bucket for mounting to quick coupler SWA 48 (250 kg)

Other buckets available upon request

Max. material weight ▲ = ≤ 2.0t/m³, ■ = ≤ 1.8t/m³, ▲ = ≤ 1.65t/m³, ■ = ≤ 1.5t/m³, △ = ≤ 1.2t/m³, — = not authorised

Backhoe bucket

with two-piece boom 5.90 m



Digging envelope

with quick coupler		1	2	3
Stick length	m	2.50	2.90	3.50
A Max. reach at ground level	m	9.97	10.36	10.87
B Max. digging depth	m	6.23	6.62	7.17
C Min. dumping height	m	3.61	3.23	2.60
D Max. dumping height	m	8.00	8.33	8.69
E Max. cutting height	m	11.55	11.88	12.22

Forces

without quick coupler		1	2	3
Stick digging force (ISO 6015)	kN	125	113	99
Bucket digging force (ISO 6015)	kN	160	160	160
Stick digging force (SAE J1179)	kN	120	109	95
Bucket digging force (SAE J1179)	kN	140	140	140

Operating weight and ground pressure

The operating weight includes the basic machine with counterweight 4.0t, two-piece boom 5.90 m, stick 2.90 m, quick coupler SWA 48 (250 kg) and bucket 1.15 m³ (830 kg).

Undercarriage		NLC			
Pad width	mm	500	600	700	750
Weight	kg	22,950	23,200	23,450	23,550
Ground pressure	kg/cm ²	0.59	0.49	0.43	0.40

Undercarriage		SLC					
Pad width	mm	500	600	700	750	800	900
Weight	kg	23,050	23,300	23,550	23,650	23,950	24,250
Ground pressure	kg/cm ²	0.59	0.50	0.43	0.40	0.38	0.34

Undercarriage		LC					
Pad width	mm	500	600	700	750	800	900
Weight	kg	23,150	23,400	23,650	23,750	24,050	24,350
Ground pressure	kg/cm ²	0.59	0.50	0.43	0.40	0.38	0.35

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

	Cutting width mm	Capacity ISO 7451 m ³	Weight ³⁾ kg	Weight ⁴⁾ kg	NLC undercarriage (with track pads 500 mm)						SLC undercarriage (with track pads 600 mm)						LC undercarriage (with track pads 600 mm)					
					Stick length (m)						Stick length (m)						Stick length (m)					
					without quick coupler			with quick coupler			without quick coupler			with quick coupler			without quick coupler			with quick coupler		
					2.50	2.90	3.50	2.50	2.90	3.50	2.50	2.90	3.50	2.50	2.90	3.50	2.50	2.90	3.50	2.50	2.90	3.50
STD ¹⁾	650	0.55	580	590	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲
	850	0.75	620	630	▲	▲	■	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲
	1,050	0.95	700	710	■	▲	△	▲	△	△	▲	▲	▲	▲	■	■	▲	▲	■	▲	▲	▲
	1,250	1.15	810	830	△	△	—	△	—	—	▲	■	△	■	△	△	■	▲	■	■	△	△
	1,250	1.25	890	910	△	—	—	—	—	—	■	△	△	△	△	—	▲	■	△	■	△	△
	1,400	1.35	850	880	△	—	—	—	—	—	△	△	—	△	△	—	▲	△	△	■	△	—
HD ²⁾	1,400	1.50	950	980	—	—	—	—	—	—	△	—	—	—	—	—	△	△	—	△	—	—
	1,500	1.65	1,020	1,030	—	—	—	—	—	—	—	—	—	—	—	—	△	—	—	—	—	—
	650	0.55	640	650	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲
	850	0.75	695	705	▲	▲	▲	▲	■	■	▲	▲	▲	▲	▲	■	▲	▲	▲	▲	▲	▲
	1,050	0.95	790	800	▲	■	△	■	△	—	▲	■	▲	▲	▲	△	▲	▲	■	▲	■	▲
	1,250	1.15	910	940	△	△	—	△	—	—	▲	■	△	■	△	—	■	▲	△	▲	■	△
	1,250	1.25	1,010	1,030	△	—	—	—	—	—	■	△	—	△	△	—	▲	△	△	■	△	—
	1,400	1.35	970	990	—	—	—	—	—	—	△	△	—	△	—	—	■	△	△	△	△	—
	1,400	1.50	1,090	1,120	—	—	—	—	—	—	△	—	—	—	—	—	△	△	—	△	—	—

* Indicated loads are based on ISO 10567, at maximum reach, and may be swung 360° on firm and even ground

¹⁾ Standard bucket with teeth Z 40

²⁾ HD bucket with teeth Z 40

³⁾ Bucket for direct mounting

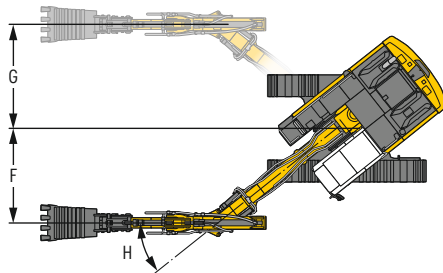
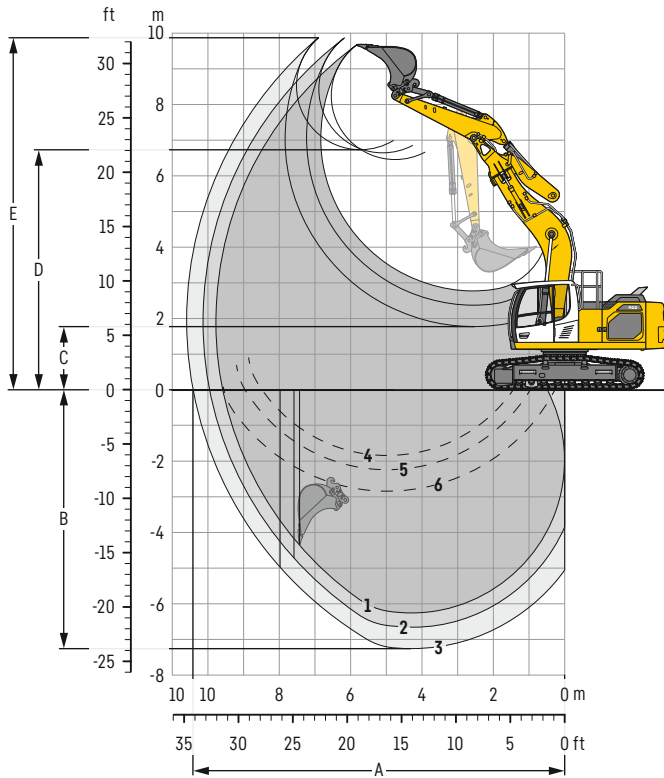
⁴⁾ Bucket for mounting to quick coupler SWA 48 (250 kg)

Other buckets available upon request

Max. material weight ▲ = ≤ 2.0t/m³, ■ = ≤ 1.8t/m³, ▲ = ≤ 1.65t/m³, ■ = ≤ 1.5t/m³, △ = ≤ 1.2t/m³, — = not authorised

Backhoe bucket

with mono boom offset 5.65 m



Digging envelope

with quick coupler		1	2	3
Stick length	m	2.50	2.90	3.50
A Max. reach at ground level	m	9.58	9.95	10.42
B Max. digging depth	m	6.26	6.66	7.26
C Min. dumping height	m	2.77	2.37	1.77
D Max. dumping height	m	6.45	6.64	6.72
E Max. cutting height	m	9.66	9.85	9.87
F Max. offset right	m	2.92		
G Max. offset left	m	2.92		
H Max. offset angle	°	38.5		

1 with stick 2.50 m

2 with stick 2.90 m

3 with stick 3.50 m

with set straight boom

4 with stick 2.50 m

5 with stick 2.90 m

6 with stick 3.50 m

at max. equipment offset with vertical ditch walls

Forces

without quick coupler		1	2	3
Stick digging force (ISO 6015)	kN	125	113	99
Bucket digging force (ISO 6015)	kN	160	160	160
Stick digging force (SAE J1179)	kN	120	109	95
Bucket digging force (SAE J1179)	kN	140	140	140

Operating weight and ground pressure

The operating weight includes the basic machine with counterweight 4.0 t, mono boom offset 5.65 m, stick 2.90 m, quick coupler SWA 48 (250 kg) and bucket 1.15 m³ (830 kg).

Undercarriage		NLC			
Pad width	mm	500	600	700	750
Weight	kg	23,150	23,400	23,650	23,750
Ground pressure	kg/cm ²	0.59	0.50	0.43	0.40

Undercarriage		SLC					
Pad width	mm	500	600	700	750	800	900
Weight	kg	23,250	23,500	23,750	23,850	24,150	24,450
Ground pressure	kg/cm ²	0.59	0.50	0.43	0.41	0.39	0.35

Undercarriage		LC					
Pad width	mm	500	600	700	750	800	900
Weight	kg	23,350	23,600	23,850	23,950	24,250	24,550
Ground pressure	kg/cm ²	0.60	0.50	0.43	0.41	0.39	0.35

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

	Cutting width mm	Capacity ISO 7451 m ³	Weight ³⁾ kg	Weight ⁴⁾ kg	NLC undercarriage (with track pads 500 mm)						SLC undercarriage (with track pads 600 mm)						LC undercarriage (with track pads 600 mm)					
					Stick length (m)						Stick length (m)						Stick length (m)					
					without quick coupler			with quick coupler			without quick coupler			with quick coupler			without quick coupler			with quick coupler		
					2.50	2.90	3.50	2.50	2.90	3.50	2.50	2.90	3.50	2.50	2.90	3.50	2.50	2.90	3.50	2.50	2.90	3.50
STD ¹⁾	650	0.55	580	590	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲
	850	0.75	620	630	▲	▲	■	▲	■	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲
	1,050	0.95	700	710	■	▲	△	▲	■	△	▲	▲	△	▲	■	■	▲	▲	▲	▲	▲	■
	1,250	1.15	810	830	△	△	—	△	—	—	■	■	△	▲	△	△	▲	▲	■	■	△	△
	1,250	1.25	890	910	△	—	—	—	—	—	■	△	△	■	△	—	▲	■	△	▲	△	△
	1,400	1.35	850	880	△	—	—	—	—	—	■	△	—	△	△	—	▲	■	△	■	△	△
	1,400	1.50	950	980	—	—	—	—	—	—	△	—	—	△	—	—	△	△	—	△	△	—
HD ²⁾	1,500	1.65	1,020	1,030	—	—	—	—	—	—	—	—	—	—	—	—	△	—	—	△	—	—
	650	0.55	640	650	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲
	850	0.75	695	705	▲	▲	■	▲	■	■	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲
	1,050	0.95	790	800	■	■	△	▲	△	△	▲	▲	■	▲	■	■	▲	▲	■	■	▲	▲
	1,250	1.15	910	940	△	△	—	△	—	—	▲	■	△	■	△	—	■	▲	■	■	■	△
	1,250	1.25	1,010	1,030	△	—	—	—	—	—	■	△	—	△	△	—	▲	■	△	■	△	△
	1,400	1.35	970	990	—	—	—	—	—	—	△	△	—	△	—	—	■	△	△	■	△	—
	1,400	1.50	1,090	1,120	—	—	—	—	—	—	△	—	—	—	—	—	△	△	—	△	—	—

* Indicated loads are based on ISO 10567, at maximum reach, and may be swung 360° on firm and even ground

¹⁾ Standard bucket with teeth Z 40

²⁾ HD bucket with teeth Z 40

³⁾ Bucket for direct mounting

⁴⁾ Bucket for mounting to quick coupler SWA 48 (250 kg)

Other buckets available upon request

Max. material weight ▲ = ≤ 2.0t/m³, ■ = ≤ 1.8t/m³, ▲ = ≤ 1.65t/m³, ■ = ≤ 1.5t/m³, △ = ≤ 1.2t/m³, — = not authorised

Lift capacities

with mono boom 5.70 m, counterweight 4.0 t and track pads 500 mm / 600 mm

Stick 2.50 m

Under-carriage	3.0m	4.5m	6.0m	7.5m	9.0m		
m							m
9.0						4.5	5.7*
7.5						3.3	5.3*
6.0						2.7	4.9
4.5		6.2	7.8*			2.5	4.5
3.0		5.7	10.0*	3.8	7.0	2.4	4.3
1.5		5.2	10.6	3.6	6.7	2.4	4.4
0		5.0	10.3	3.4	6.5	2.6	4.9
-1.5	9.3	11.1*	5.0	10.3	3.4	3.2	6.1
-3.0	9.5	15.4*	5.1	10.4	3.5	4.9	7.5*
-4.5		5.4	8.3*				
9.0						5.1	5.7*
7.5						3.7	5.3*
6.0						3.1	4.9
4.5		7.1	7.8*	4.8	6.1*	2.8	4.5
3.0		6.5	10.0*	4.3	7.1	2.7	4.4
1.5		6.0	10.7	4.1	6.8	3.0	5.0
0		5.8	10.4	3.9	6.6	3.0	4.5
-1.5	11.0	11.1*	5.8	10.4	3.9	3.7	6.1
-3.0	11.3	15.4*	5.9	10.6	4.0	5.7	7.5*
-4.5		6.2	8.3*				
9.0						5.4	5.7*
7.5						4.0	5.3*
6.0						3.3	5.0
4.5		7.6	7.8*	5.1	6.1*	2.9	4.4
3.0		7.0	10.0*	4.6	7.1	3.0	4.5
1.5		6.5	10.7	4.4	6.8	3.0	4.5
0		6.3	10.5	4.2	6.7	3.2	5.0
-1.5	11.1*	11.1*	6.3	10.5	4.2	4.0	6.1
-3.0	12.4	15.4*	6.4	10.6	4.3	6.1	7.5*
-4.5		6.7	8.3*				

Stick 2.90 m

Under-carriage	3.0m	4.5m	6.0m	7.5m	9.0m		
m							m
9.0						4.3	5.6*
7.5						4.1	5.6*
6.0						3.8	5.1
4.5		6.3	7.1*			2.7	4.9
3.0		5.7	9.3*	3.8	7.0	2.6	4.8
1.5		5.2	10.6	3.5	6.7	2.5	4.7
0	5.7*	5.7*	4.9	10.3	3.4	2.5	4.7
-1.5	9.1	10.5*	4.9	10.2	3.3	2.4	4.5
-3.0	9.3	16.3*	4.9	10.3	3.3	2.8	5.4
-4.5	9.7	13.0*	5.2	9.3*		4.1	7.4*
9.0						4.8	5.6*
7.5						4.8	5.6*
6.0						4.6	5.1
4.5		7.1*	7.1*	4.6	6.2*	3.2	5.1
3.0		6.5	9.3*	4.3	7.1	3.1	5.0
1.5		6.0	10.7	4.0	6.8	3.0	4.9
0	5.7*	5.7*	5.7	10.4	3.9	2.9	4.7
-1.5	10.5*	10.5*	5.7	10.3	3.8	2.8	4.7
-3.0	11.0	16.3*	5.7	10.4	3.8	3.3	5.4
-4.5	11.4	13.0*	6.0	9.3*		4.7	7.4*
9.0						5.2	5.6*
7.5						5.1	5.6*
6.0						4.9	5.1
4.5		7.1*	7.1*	4.6	6.2*	3.4	5.2
3.0		7.1	9.3*	4.6	7.1	3.3	5.0
1.5		6.5	10.8	4.4	6.8	3.2	4.9
0	5.7*	5.7*	6.2	10.4	4.2	3.1	4.8
-1.5	10.5*	10.5*	6.2	10.3	4.1	3.1	4.7
-3.0	12.2	16.3*	6.2	10.4	4.2	3.5	5.5
-4.5	12.6	13.0*	6.5	9.3*		5.0	7.4*

Stick 3.50 m

Under-carriage	3.0m	4.5m	6.0m	7.5m	9.0m		
m							m
9.0						3.4	3.7*
7.5						2.7	3.5*
6.0						2.3	3.5*
4.5						2.0	3.6*
3.0	10.8	12.8*	5.9	8.3*	3.8	2.7	5.0
1.5	6.2*	6.2*	5.3	10.4*	3.5	2.6	4.8
0	7.2*	7.2*	4.9	10.3	3.3	2.4	4.6
-1.5	8.8	10.4*	4.8	10.1	3.2	2.4	4.6
-3.0	9.0	15.0*	4.8	10.1	3.2	2.4	4.7
-4.5	9.3	14.7*	4.9	10.3*	3.3	3.3	6.3
9.0						3.7*	3.7*
7.5						3.0	3.5*
6.0						2.6	3.5*
4.5						2.3	3.6*
3.0	12.7	12.8*	6.7	8.3*	4.4	2.2	3.7
1.5	6.2*	6.2*	6.1	10.4*	4.1	2.3	3.8
0	7.2*	7.2*	5.7	10.4	3.8	2.4	4.1
-1.5	10.4*	10.4*	5.5	10.2	3.7	2.8	4.7
-3.0	10.7	15.0*	5.6	10.2	3.7	2.8	4.7
-4.5	11.0	14.7*	5.7	10.3*	3.8	3.8	6.4
9.0						3.7*	3.7*
7.5						3.2	3.5*
6.0						2.8	3.5*
4.5						2.5	3.6*
3.0	12.8*	12.8*	7.2	8.3*	4.7	2.4	3.8
1.5	6.2*	6.2*	6.6	10.4*	4.4	2.6	4.1
0	7.2*	7.2*	6.2	10.4	4.1	3.0	4.7
-1.5	10.4*	10.4*	6.0	10.2	4.0	3.0	4.6
-3.0	11.9	15.0*	6.1	10.3	4.0	4.1	6.4
-4.5	12.2	14.7*	6.2	10.3*	4.2		

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

The load values are quoted in tons (t) at stick end (without bucket), and may be swung 360° on firm and even ground. Adjacent values are valid for the undercarriage when in the longitudinal position. Capacities are valid for 600mm wide track pads. Indicated loads are based on ISO 10567 standard and do not exceed 75% of tipping or 87% of hydraulic capacity (indicated via *). Without bucket cylinder, link and lever the lift capacities will increase by 320 kg. Lifting capacity of the excavator is limited by machine stability and hydraulic capacity.

According to European Standard, EN 474-5: In the European Union excavators have to be equipped with an overload warning device, a load diagram and automatic safety check valves on hoist cylinders and stick cylinder(s), when they are used for lifting operations which require the use of lifting accessories.

Determine maximum load lift from load lift chart displayed in the operator's cab or from load lift chart detailed in the operator's manual supplied with the machine.

¹⁾ Values are calculated with 500 mm wide track pads for the NLC-Undercarriage

Lift capacities

with mono boom straight 5.90 m, counterweight 4.0 t and track pads 500 mm / 600 mm

Stick 2.50 m

Under-carriage	3.0m	4.5m	6.0m	7.5m	9.0m		
m							m
9.0						6.9	7.2*
7.5						3.9	5.9*
6.0						2.9	5.3
4.5						2.5	4.5
3.0						2.3	4.1
1.5						2.2	4.0
0						2.2	4.2
-1.5	8.3*	8.3*				2.5	4.6
-3.0						3.0	5.5*
-4.5							
9.0						7.2*	7.2*
7.5						4.4	5.9*
6.0						3.3	5.3
4.5						2.8	4.6
3.0						2.6	4.2
1.5						2.5	4.1
0						2.6	4.2
-1.5	8.3*	8.3*				2.8	4.6
-3.0						3.4	5.5*
-4.5							
9.0						7.2*	7.2*
7.5						4.7	5.9*
6.0						3.6	5.3
4.5						3.0	4.6
3.0						2.8	4.2
1.5						2.7	4.1
0						2.8	4.2
-1.5	8.3*	8.3*				3.0	4.7
-3.0						3.7	5.5*
-4.5							

Stick 2.90 m

Under-carriage	3.0m	4.5m	6.0m	7.5m	9.0m		
m							m
9.0						5.5	5.8*
7.5						3.4	4.9*
6.0						2.7	4.5*
4.5						2.3	4.1
3.0						2.1	3.8
1.5						2.0	3.7
0						2.0	3.8
-1.5	8.1*	8.1*				2.2	4.2
-3.0						2.6	4.9
-4.5							
9.0						5.8*	5.8*
7.5						3.9	4.9*
6.0						3.0	4.5*
4.5						2.6	4.2
3.0						2.4	3.9
1.5						2.3	3.8
0						2.4	3.9
-1.5	8.1*	8.1*				2.6	4.2
-3.0						3.0	5.0
-4.5							
9.0						5.8*	5.8*
7.5						4.1	4.9*
6.0						3.2	4.5*
4.5						2.8	4.2
3.0						2.6	3.9
1.5						2.5	3.8
0						2.5	3.9
-1.5	8.1*	8.1*				2.8	4.3
-3.0						3.3	5.0
-4.5							

Stick 3.50 m

Under-carriage	3.0m	4.5m	6.0m	7.5m	9.0m		
m							m
9.0						4.3*	4.3*
7.5						3.0	3.8*
6.0						2.4	3.5*
4.5						2.0	3.5*
3.0						1.9	3.5
1.5						1.8	3.4
0						1.8	3.5
-1.5	5.0*	5.0*				1.9	3.7
-3.0	8.2*	8.2*				2.2	4.3
-4.5	8.9	12.8*				2.9	4.7*
9.0						4.3*	4.3*
7.5						3.3	3.8*
6.0						2.7	3.5*
4.5						2.3	3.5*
3.0						2.1	3.5
1.5						2.1	3.4
0						2.1	3.5
-1.5	5.0*	5.0*				2.2	3.8
-3.0	8.2*	8.2*				2.6	4.4
-4.5	10.7	12.8*				3.4	4.7*
9.0						4.3*	4.3*
7.5						3.6	3.8*
6.0						2.9	3.5*
4.5						2.5	3.5*
3.0						2.3	3.5
1.5						2.3	3.5
0						2.3	3.5
-1.5	5.0*	5.0*				2.4	3.8
-3.0	8.2*	8.2*				2.8	4.4
-4.5	11.8	12.8*				3.6	4.7*

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

The load values are quoted in tons (t) at stick end (without bucket), and may be swung 360° on firm and even ground. Adjacent values are valid for the undercarriage when in the longitudinal position. Capacities are valid for 600mm wide track pads. Indicated loads are based on ISO 10567 standard and do not exceed 75% of tipping or 87% of hydraulic capacity (indicated via *). Without bucket cylinder, link and lever the lift capacities will increase by 320 kg. Lifting capacity of the excavator is limited by machine stability and hydraulic capacity.

According to European Standard, EN 474-5: In the European Union excavators have to be equipped with an overload warning device, a load diagram and automatic safety check valves on hoist cylinders and stick cylinder(s), when they are used for lifting operations which require the use of lifting accessories.

Determine maximum load lift from load lift chart displayed in the operator's cab or from load lift chart detailed in the operator's manual supplied with the machine.

¹⁾ Values are calculated with 500 mm wide track pads for the NLC-Undercarriage

Lift capacities

with two-piece boom 5.90 m, counterweight 4.0 t and track pads 500 mm / 600 mm

Stick 2.50 m

Under-carriage	3.0m	4.5m	6.0m	7.5m	9.0m		
m							m
9.0						7.1*	7.1*
7.5						3.9	5.8*
6.0	7.4*	7.4*	6.9	8.6*		2.9	5.3
4.5	12.2	15.9*	6.7	10.7*		2.5	4.5
3.0	11.7	15.6*	6.4	11.2		2.2	4.2
1.5	10.0	16.4*	5.7	11.1		2.1	4.1
0	9.4	17.5*	5.3	10.8		2.2	4.2
-1.5	9.3	19.2*	5.1	10.6		2.4	4.6
-3.0	9.4	17.5*	5.1	10.6		3.0	4.5*
-4.5							
9.0						7.1*	7.1*
7.5						4.5	5.8*
6.0	7.4*	7.4*	7.7	8.6*		3.3	5.4*
4.5	13.7	15.9*	7.5	10.7*		2.8	4.6
3.0	13.3	15.6*	7.2	11.3		2.6	4.2
1.5	11.8	16.4*	6.6	11.2		2.5	4.1
0	11.2	17.5*	6.1	11.0		2.5	4.2
-1.5	11.0	19.2*	5.9	10.7		2.8	4.7
-3.0	11.2	17.5*	5.9	10.7		3.4	4.5*
-4.5							
9.0						7.1*	7.1*
7.5						4.8	5.8*
6.0	7.4*	7.4*	8.2	8.6*		3.6	5.4*
4.5	14.8	15.9*	8.0	10.7*		3.0	4.6
3.0	14.2	15.6*	7.8	11.3		2.8	4.2
1.5	13.1	16.4*	7.1	11.2		2.7	4.1
0	12.4	17.5*	6.6	11.0		2.7	4.2
-1.5	12.2	19.2*	6.4	10.8		3.0	4.7
-3.0	12.4	17.5*	6.4	10.8		3.7	4.5*
-4.5							

Stick 2.90 m

Under-carriage	3.0m	4.5m	6.0m	7.5m	9.0m		
m							m
9.0						5.7	5.8*
7.5						3.5	4.9*
6.0						2.7	4.5*
4.5	12.3	13.9*	6.7	9.8*		2.2	4.2
3.0	11.8	15.7*	6.5	11.2		2.0	3.9
1.5	10.3	16.8*	5.8	11.0		2.0	3.8
0	9.4	17.7*	5.3	10.9		2.0	3.9
-1.5	9.2	19.2*	5.0	10.5		2.2	4.2
-3.0	9.2	18.1*	5.0	10.5		2.6	4.1*
-4.5	9.6	13.6*	5.1	7.8*		4.5	6.3*
9.0						5.8*	5.8*
7.5						3.9	4.9*
6.0						3.0	4.5*
4.5	13.9	13.9*	7.5	9.8*		2.6	4.2
3.0	13.2	15.7*	7.3	11.3		2.3	3.9
1.5	12.2	16.8*	6.6	11.1		2.3	3.8
0	11.2	17.7*	6.1	11.0		2.3	3.9
-1.5	10.9	19.2*	5.9	10.7		2.5	4.3
-3.0	11.0	18.1*	5.8	10.6		3.0	4.1*
-4.5	11.4	13.6*	5.9	7.8*		5.2	6.3*
9.0						5.8*	5.8*
7.5						4.2	4.9*
6.0						3.2	4.5*
4.5	13.9*	13.9*	8.0	9.8*		2.8	4.3
3.0	14.2	15.7*	7.8	11.3		2.5	3.9
1.5	13.4	16.8*	7.2	11.1		2.5	3.8
0	12.4	17.7*	6.6	11.0		2.5	3.9
-1.5	12.1	19.2*	6.4	10.7		2.7	4.3
-3.0	12.2	18.1*	6.3	10.7		3.2	4.1*
-4.5	12.6	13.6*	6.4	7.8*		5.6	6.3*

Stick 3.50 m

Under-carriage	3.0m	4.5m	6.0m	7.5m	9.0m		
m							m
9.0						4.3*	4.3*
7.5						3.0	3.7*
6.0						2.4	3.5*
4.5	6.7*	6.7*	6.8	7.3*		2.0	3.5*
3.0	11.8	16.6*	6.5	10.9*		1.8	3.5
1.5	10.9	16.4*	6.0	11.0		1.7	3.4
0	9.6	17.9*	5.4	10.9		1.8	3.5
-1.5	9.1	19.0*	5.0	10.5		1.9	3.7
-3.0	9.0	18.7*	4.9	10.4		2.2	4.3*
-4.5	9.3	16.3*	4.9	10.0*		3.1	4.7*
9.0						4.3*	4.3*
7.5						3.4	3.7*
6.0						2.7	3.5*
4.5	6.7*	6.7*	7.3*	7.3*		2.3	3.5*
3.0	13.3	16.6*	7.3	10.9*		2.1	3.6
1.5	12.7	16.4*	6.8	11.0		2.0	3.5
0	11.4	17.9*	6.2	11.0		2.1	3.5
-1.5	10.9	19.0*	5.8	10.7		2.2	3.8
-3.0	10.8	18.7*	5.7	10.5		2.6	4.3*
-4.5	11.1	16.3*	5.7	10.0*		3.6	4.7*
9.0						4.3*	4.3*
7.5						3.6	3.7*
6.0						2.9	3.5*
4.5	6.7*	6.7*	7.3*	7.3*		2.5	3.5*
3.0	14.3	16.6*	7.8	10.9*		2.3	3.6*
1.5	14.0	16.4*	7.4	11.1		2.2	3.5
0	12.6	17.9*	6.7	11.0		2.2	3.5
-1.5	12.1	19.0*	6.3	10.7		2.4	3.8
-3.0	12.0	18.7*	6.2	10.5		2.8	4.3*
-4.5	12.3	16.3*	6.2	10.0*		3.9	4.7*

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

The load values are quoted in tons (t) at stick end (without bucket), and may be swung 360° on firm and even ground. Adjacent values are valid for the undercarriage when in the longitudinal position. Capacities are valid for 600 mm wide track pads with adjusting cylinder in optimal position. Indicated loads are based on ISO 10567 standard and do not exceed 75% of tipping or 87% of hydraulic capacity (indicated via *). Without bucket cylinder, link and lever the lift capacities will increase by 320 kg. Lifting capacity of the excavator is limited by machine stability and hydraulic capacity.

According to European Standard, EN 474-5: In the European Union excavators have to be equipped with an overload warning device, a load diagram and automatic safety check valves on hoist cylinders and stick cylinder(s), when they are used for lifting operations which require the use of lifting accessories.

Determine maximum load lift from load lift chart displayed in the operator's cab or from load lift chart detailed in the operator's manual supplied with the machine.

¹⁾ Values are calculated with 500 mm wide track pads for the NLC-Undercarriage

Lift capacities

with mono boom offset 5.65 m, counterweight 4.0 t and track pads 500 mm / 600 mm

Stick 2.50 m

Under-carriage	3.0m	4.5m	6.0m	7.5m	9.0m	Max. reach	
m							m
9.0						4.6	5.7*
7.5						3.2	5.3*
6.0						2.5	4.8
4.5	11.2*	11.2*	6.1	8.0*	3.8	6.7*	2.6
3.0		5.3	9.9*	3.5	6.8	2.5	4.7
1.5		4.6	10.1	3.2	6.4	2.3	4.6
0	5.4*	5.4*	4.4	9.7	3.0	6.2	2.2
-1.5	8.2	12.1*	4.3	9.7	2.9	6.1	2.3
-3.0	8.5	13.5*	4.5	9.9	3.1	6.2	2.9
-4.5							5.9
9.0						5.2	5.7*
7.5						3.6	5.3*
6.0						2.9	4.9
4.5	11.2*	11.2*	6.9	8.0*	4.4	6.7*	3.0
3.0		6.1	9.9*	4.0	6.9	2.8	4.8
1.5		5.4	10.2	3.7	6.5	2.7	4.6
0	5.4*	5.4*	5.2	9.8	3.5	6.2	2.6
-1.5	9.9	12.1*	5.1	9.8	3.4	6.2	2.7
-3.0	10.3	13.5*	5.3	10.0*	3.6	6.3	3.4
-4.5							6.0
9.0						5.5	5.7*
7.5						3.9	5.3*
6.0						3.2	4.9
4.5	11.2*	11.2*	7.5	8.0*	4.7	6.7*	3.2
3.0		6.6	9.9*	4.4	6.9	3.1	4.8
1.5		6.0	10.2	4.0	6.5	2.9	4.6
0	5.4*	5.4*	5.7	9.9	3.8	6.3	2.8
-1.5	11.1	12.1*	5.6	9.8	3.8	6.2	3.0
-3.0	11.4	13.5*	5.8	10.0*	3.9	6.4	3.7
-4.5							6.0

Stick 2.90 m

Under-carriage	3.0m	4.5m	6.0m	7.5m	9.0m	Max. reach	
m							m
9.0						4.2	5.2*
7.5						4.1	5.8*
6.0						3.9	6.3*
4.5		6.2	7.4*			2.6	4.9
3.0		5.4	9.3*	3.5	6.8	2.5	4.7
1.5		4.7	10.2	3.2	6.4	2.3	4.5
0	6.6*	6.6*	4.3	9.7	2.9	6.1	2.2
-1.5	8.0	11.3*	4.2	9.6	2.8	6.0	2.1
-3.0	8.3	14.5*	4.3	9.7	2.9	6.1	2.6
-4.5	8.8	10.7*	4.7	7.8*			3.8
9.0						4.7	5.2*
7.5						4.7	5.8*
6.0						4.4	6.3*
4.5		7.1	7.4*			3.0	5.0
3.0		6.2	9.3*	4.1	6.9	2.8	4.8
1.5		5.5	10.3	3.7	6.5	2.7	4.6
0	6.6*	6.6*	5.1	9.8	3.5	6.2	2.5
-1.5	9.7	11.3*	5.0	9.7	3.4	6.1	2.5
-3.0	10.0	14.5*	5.1	9.8	3.4	6.2	3.0
-4.5	10.6	10.7*	5.5	7.8*			4.5
9.0						5.0	5.2*
7.5						5.0	5.8*
6.0						4.8	6.3*
4.5		7.4*	7.4*			3.2	5.0
3.0		6.8	9.3*	4.4	6.9	3.1	4.8
1.5		6.0	10.3	4.0	6.5	2.9	4.6
0	6.6*	6.6*	5.6	9.8	3.8	6.2	2.8
-1.5	10.8	11.3*	5.5	9.7	3.7	6.1	2.7
-3.0	11.1	14.5*	5.6	9.9	3.7	6.2	3.3
-4.5	10.7*	10.7*	6.0	7.8*			4.9

Stick 3.50 m

Under-carriage	3.0m	4.5m	6.0m	7.5m	9.0m	Max. reach	
m							m
9.0						3.5	3.7*
7.5						2.6	3.5*
6.0						2.1	3.5*
4.5						1.9	3.7*
3.0	10.5	12.8*	5.7	8.3*	3.6	6.6*	2.5
1.5	7.3*	7.3*	4.8	10.2*	3.2	6.5	2.3
0	7.7	8.0*	4.3	9.7	2.9	6.1	2.1
-1.5	7.7	11.1*	4.1	9.5	2.8	5.9	2.0
-3.0	7.9	15.7*	4.2	9.5	2.8	5.9	2.2
-4.5	8.4	12.6*	4.4	9.0*			3.0
9.0						3.7*	3.7*
7.5						2.9	3.5*
6.0						2.4	3.5*
4.5						2.2	3.7*
3.0	12.3	12.8*	6.5	8.3*	4.2	6.6*	2.9
1.5	7.3*	7.3*	5.7	10.2*	3.7	6.6	2.7
0	8.0*	8.0*	5.1	9.8	3.4	6.2	2.5
-1.5	9.4	11.1*	4.9	9.6	3.3	6.0	2.4
-3.0	9.6	15.7*	4.9	9.6	3.3	6.0	2.6
-4.5	10.1	12.6*	5.2	9.0*			3.5
9.0						3.7*	3.7*
7.5						3.2	3.5*
6.0						2.6	3.5*
4.5						2.4	3.7*
3.0	12.8*	12.8*	7.1	8.3*	4.5	6.6*	3.1
1.5	7.3*	7.3*	6.2	10.2*	4.1	6.6	2.9
0	8.0*	8.0*	5.6	9.9	3.8	6.2	2.7
-1.5	10.5	11.1*	5.4	9.6	3.6	6.0	2.6
-3.0	10.7	15.7*	5.4	9.6	3.6	6.0	2.8
-4.5	11.3	12.6*	5.7	9.0*			3.9

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

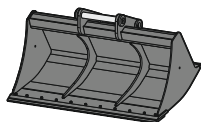
The load values are quoted in tons (t) at stick end (without bucket), and may be swung 360° on firm and even ground. Adjacent values are valid for the undercarriage when in the longitudinal position. Capacities are valid for 600mm wide track pads. Indicated loads are based on ISO 10567 standard and do not exceed 75% of tipping or 87% of hydraulic capacity (indicated via *). Without bucket cylinder, link and lever the lift capacities will increase by 320 kg. Lifting capacity of the excavator is limited by machine stability and hydraulic capacity.

According to European Standard, EN 474-5: In the European Union excavators have to be equipped with an overload warning device, a load diagram and automatic safety check valves on hoist cylinders and stick cylinder(s), when they are used for lifting operations which require the use of lifting accessories.

Determine maximum load lift from load lift chart displayed in the operator's cab or from load lift chart detailed in the operator's manual supplied with the machine.

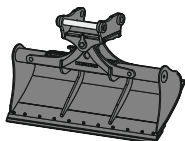
¹⁾ Values are calculated with 500 mm wide track pads for the NLC-Undercarriage

Attachments



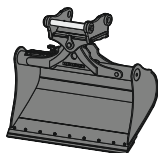
Rigid ditch cleaning bucket

GRL 04, for direct mounting								
Cutting width	mm	1,500	2,000	2,010	2,400			
Capacity	m³	0.50	0.70	0.85	0.85			
Weight	kg	400	500	530	580			
GRL 04, for mounting to quick coupler SWA 48								
Cutting width	mm	1,500	1,500	2,000	2,000	2,000	2,400	2,400
Capacity	m³	0.50	0.95	0.70	1.20	1.25	0.85	1.15
Weight	kg	430	560	400	640	600	600	650



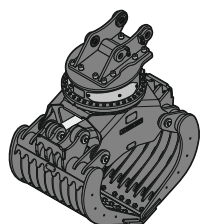
Tiltable ditch cleaning bucket

GRL 90, 2 x 50° tiltable, for direct mounting										
Cutting width	mm	1,600	2,000	2,000	2,000	2,200	2,400	2,800		
Capacity	m³	0.80	0.50	0.70	1.00	1.15	0.85	1.45		
Weight	kg	798	686	819	883	920	885	1,009		
GRL 90, 2 x 50° tiltable, for mounting to quick coupler SWA 48										
Cutting width	mm	1,600	2,000	2,000	2,000	2,200	2,200	2,200	2,400	2,800
Capacity	m³	0.80	0.50	0.70	1.00	0.80	1.15	1.40	0.85	1.25
Weight	kg	850	690	880	940	880	980	1,000	890	1,000



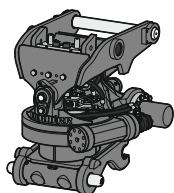
Tilt bucket

SL 90, 2 x 50° tiltable, for direct mounting										
Cutting width	mm	1,600	1,600	1,600						
Capacity	m³	0.80	1.00	1.35						
Weight	kg	768	820	918						
SL 90, 2 x 50° tiltable, for mounting to quick coupler SWA 48										
Cutting width	mm	1,500	1,600	1,600	1,600	1,600	1,600	1,600	1,600	1,600
Capacity	m³	1.20	0.80	1.00	1.35	1.55	0.80	1.00	1.35	1.55
Weight	kg	970	820	890	970	1,035	820	1,006	1,184	1,550
HD version							X	X	X	X



Sorting grab

		ribbed		perforated		stone shell
SG 30B, for direct mounting						
Cutting width	mm	1,000	1,150	1,000	1,150	1,020
Capacity	m³	0.75	0.90	0.85	1.00	0.85
Weight	kg	1,510	1,590	1,490	1,570	1,765
SG 30B, for mounting to quick coupler SWA 48						
Cutting width	mm	1,000	1,150	1,000	1,150	1,020
Capacity	m³	0.75	0.90	0.85	1.00	0.85
Weight	kg	1,510	1,590	1,490	1,570	1,765



Tiltrotator

TR 25, for mounting to quick coupler SWA 48	
Weight	kg 720
Rotation	360°
Tilt	2 x 50°

Serial equipment



Undercarriage

Lashing eyes
Sprocket with dirt ejector
Track and carrier rollers, sealed and lifetime-lubricated



Uppercarriage

Access platforms without protruding parts
Anti-skid surfaces
Automatic swing brake lock
Centralised lubrication system (automatic)
DEF tank filling indicator
DEF tank lockable access hatch
Engine hood with gas spring opening
Filters accessible from ground level
Handrails
Hydraulic oil level, visible from ground level
Lockable service doors
Lockable storage and accessories compartment
Lockable storage box
Main switch, accessible from ground level
Main switch, electric, with timer
Main switch, manual, lockable
Positioning swing brake manual
Protection grid on radiator fan
Safe uppercarriage side access platform
Sound insulation
Swing-out radiators
Windshield washer fluid tank, accessible from ground level



Hydraulic system

Filter with integrated fine filters
Hydraulic pressure measuring ports
Liebherr Positive Control system with 2 independent circuits
Magnetic rod
Pressure accumulator for controlled lowering of equipment with engine turned off



Engine

Air filter with automatic dust ejector
Automatic engine idling / speed increase, controlled via joystick sensors
Common-Rail injection system
Engine oil dipstick
Exhaust gas after-treatment system - DOC + SCR Filter
Fixed geometry turbocharger
Fuel fine filter
Fuel pre-filter and water separator
Fuel priming pump
Intercooler
Power Pack EU Stage V



Cab

9" multifunction colour touchscreen
Air conditioning, automatic, tri-zone, controlled via display
Armrests adjustable in length, height and inclination
Bottle holder
Cab air filters housing, accessible from ground level
Cab door sliding windows
Cigarette lighter
Coat hook
DEF consumption on touchscreen
DEF level on touchscreen
Electric socket in cabin (12 V)
Electric socket in cabin (24 V)
Emergency hammer
Engine coolant level, visible from the cab
Engine oil level on touchscreen
Fuel consumption on touchscreen
Fuel level on touchscreen
Hydraulic oil level on touchscreen
Interior lighting
Laminated right hand side window
LiDAT Plus (Liebherr data transfer system)
Mechanical hour meter, visible from ground level
Mobile phone storage net
Movement priority between swing and boom, adjustable via touchscreen
Movement priority for stick-in, adjustable via touchscreen
Operating modes
Power modes
Rain hood over front window opening
Rearview mirror
Rear view monitoring camera
Rear window emergency exit
Right hand side view monitoring camera
Roll-down sun blinds for windscreen and roof window
ROPS safety cab structure (ISO 12117-2)
Rubber floor mat, fixed on floor and removable
Shortcut buttons on joystick configurable
Stepless adjustable engine speed
Storage box
Storage nets
Storage spaces
Swing braking torque adjustable via touchscreen
Swing drive gearbox oil level, visible from the cab
Tilttable console left
Tinted windows
Visco-elastic damping
Windscreen wiper and washer



Equipment

Anti-drift system boom cylinders
Anti-drift system stick cylinder
Boom cylinders regeneration
Pipe fracture safety valve for stick cylinder
Pipe fracture safety valves for boom cylinders
Pivot points made of cast steel
SAE split flanges on high pressure lines
Stick cylinder regeneration

Equipment standard / option

Undercarriage

Chain guide 1 piece	●
Chain guide 3 pieces	+
Cover and base plate for undercarriage centre section	●
Reinforced cover and base plate for undercarriage centre section	+
Special painting	+
Steps	●
Steps wide	+
Track chains cleaner	+
Track pads triple grouser 500 / 700 / 750 / 800 / 900 mm	+
Track pads triple grouser 600 mm	●
Track pads triple grouser reinforced 500 / 600 / 700 / 750 mm	+
Tracks, sealed and greased	●
Tracks, sealed and greased, reinforced	+
Undercarriage LC	+
Undercarriage NLC	+
Undercarriage SLC	+
Undercarriage storage compartment	+

Uppercarriage

Batteries high capacity	+
Batteries standard capacity	●
Boxing ring	+
Catwalk tiltable front left	+
Counterweight standard 4.0t	●
Electric socket on uppercarriage (24 V)	+
Extended tool set including tool box	+
External starting aid (24 V)	+
Front right rearview mirror	+1)
Fuel anti-theft protection	+
Headlight on uppercarriage, front left, LED+, 1 piece, protection included	+1)
Headlight on uppercarriage, front right, LED, 1 piece, protection included	●1)
Headlight on uppercarriage, front right, LED+, 1 piece, protection included	+1)
Headlight on uppercarriage, lateral left, LED+, 1 piece	+1)
Headlight on uppercarriage, lateral right, LED+, 1 piece	+1)
Headlights on uppercarriage, rear, LED+, 2 pieces	+1)
Lighting for tank area	+1)
Lighting for uppercarriage access	+1)
Lockable fuel tank cap	●
Lockable fuel tank cap with padlock	+
Reflective warning stickers	+
Rotating beacons on uppercarriage, rear, LED, 2 pieces	+
Skyview 360°	+
Special painting	+
Tank refilling pump fuel	+
Tool set including storage case	●
Uppercarriage bottom and side protection	+
Uppercarriage bottom closure sheets	●

Hydraulic system

Bypass filter for hydraulic oil	+
Filter for hydraulic hammer return flow	+
High pressure circuit bypass	+
High pressure circuit flow summation	+
High pressure circuit switchable on pedals or mini-joystick	+
High pressure circuit with Tool Control (20 attachment adjustments on display)	+
Leak oil line for attachment	+
Liebherr hydraulic oil	●
Liebherr hydraulic oil, adapted for extreme climate conditions	+
Liebherr hydraulic oil, biodegradable	+
Medium pressure circuit	+

Engine

Air pre-filter with cyclonical dust trap	+
Automatic engine shutdown after idling	+
Engine shut-down with overrun	+
Lighting for engine compartment	+1)
Pre-heating system for fuel	+
Radiator fine mesh protection grid	+
Reversible fan drive	+



Cab

2" seat belt with retractor	●
3" seat belt with retractor, orange colour	+
4-points seat belt	+
Acoustic travel alarm deactivatable	+
Auxiliary heater programmable	+
Bottom windscreen wiper	+
Coming / Leaving Home	+ ¹⁾
Cool box (12 V)	+
Dark tinted windows	+
Electrically adjustable and heated outside rear-view mirrors	+ ¹⁾
Electronic immobiliser	+
Emergency stop in cab	+
FGPS front guard	+
FGPS front guard tiltable	+
Fire extinguisher	+
First-aid box	+
Footrest	+
FOPS top guard	+
FOPS top guard flat	+
Handrests elevated for joysticks	+
Headlights on cab, front, LED, 2 pieces	● ¹⁾
Headlights on cab, front, LED+, 2 pieces	+ ¹⁾
Headlights on cab roof, front, LED+, 2 pieces	+ ¹⁾
Impact resistant one-piece windscreen	+
Impact resistant roof window	+
Independent travel	+ ¹⁾
Integral protection guard	+
Laminated roof window	+
Lightbar on cabin	+
Lighting for cabin access	+ ¹⁾
Luminosity control (LED+ headlights)	+ ¹⁾
Mini-joystick proportional	+
Movement restriction for boom	+
Movement restriction for stick	+
Operator seat Comfort	●
Operator seat Premium	+
Overload warning system	+
Personalised operator profile	+
Preparation for tiltrotator	+
Radio Comfort	+
Radio pre-installation	●
Remote cab lock	+ ¹⁾
Retractable laminated two-piece windscreen	●
Roof sun shield	+
Roof window wiper	+
Rotating beacon on cabin, LED, 1 piece	+
Seat belt reminder	+
Smart Key	+ ¹⁾
Special painting	+
Straight travel via mini-joystick	+ ¹⁾
Sun visor	+
Switch between high pressure and bucket cylinder controls	+
Travel speed management	+ ¹⁾
Windscreen bottom protection grid	+



Equipment

Bucket cylinder rod protection	+
Centralised lubrication extended for connecting link	+
Floating boom	+
Grapple hydraulic lines (bucket cylinder inactive)	+
Headlight guard on boom, right	+
Headlight guards on boom, right and left	+
Headlight on boom, left, LED+, 1 piece	+ ¹⁾
Headlight on boom, right, LED, 1 piece	● ¹⁾
Headlight on boom, right, LED+, 1 piece	+ ¹⁾
Headlight on stick, bottom, LED+, 1 piece	+ ¹⁾
Hose protection for Solidlink	+
Liebherr bucket range	+
Liebherr tooth system	+
Load holding valve for bucket cylinder	+
Lubrication hoses protection on stick	+
Mono boom 5.70 m	+
Mono boom offset 5.65 m	+
Mono boom straight 5.90 m	+
Quick coupler SWA 48 hydraulic	+
Quick coupler SWA 48 mechanical	+
Solidlink electric signal plug	+
Solidlink for quick coupler SWA 48 hydraulic	+
Special painting	+
Stick 2.50 m	+
Stick 2.90 m	+
Stick 3.50 m	+
Stick bottom protection	+
Tool Management	+
Two-piece boom 5.90 m	+



Assistance system

Machine guidance system Leica 2D passive – "3D ready"	+
Machine guidance system Leica 2D semi-automatic – "3D ready"	+
Machine guidance system Leica 3D passive	+
Machine guidance system Leica 3D semi-automatic	+
Preparation for machine guidance system	+
Preparation for weighing system	+

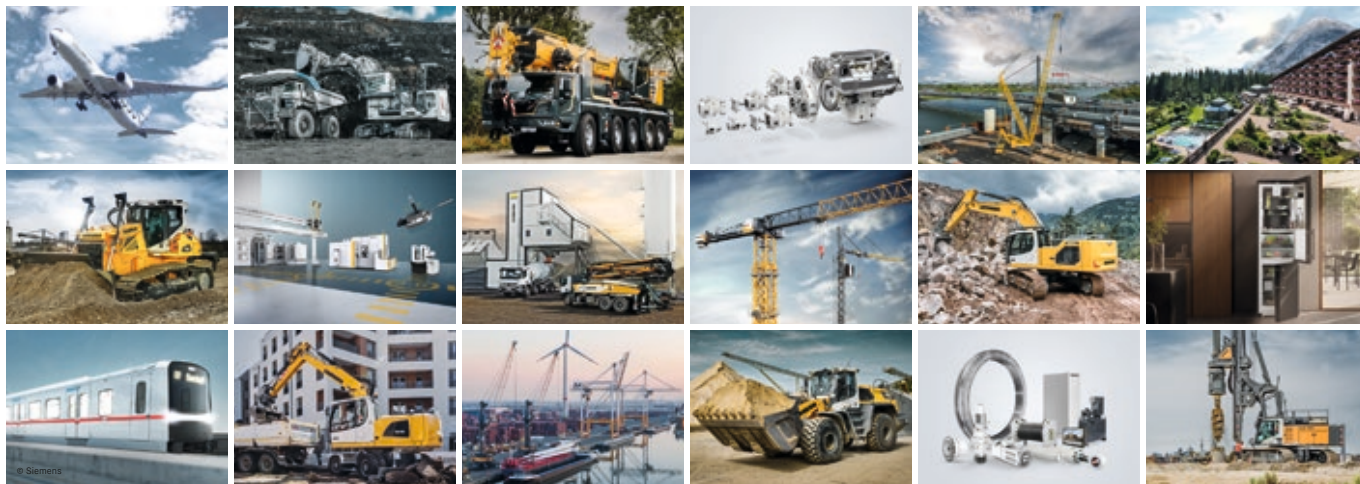
● = Standard, + = Option

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

Non-exhaustive list, please contact us for further information.

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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