

# Product Information: Crawler Excavator

## R 924

Litronic®

**Generation**

8

**Engine**

173 HP / 129 kW

Tier 4 Final

**Operating Weight**

24,500 kg / 54,015 lb

**Bucket Capacity**

0.55 – 1.65 m<sup>3</sup> / 0.72 – 2.16 yd<sup>3</sup>

# LIEBHERR

# Experience the Progress

## R 924

### Safety

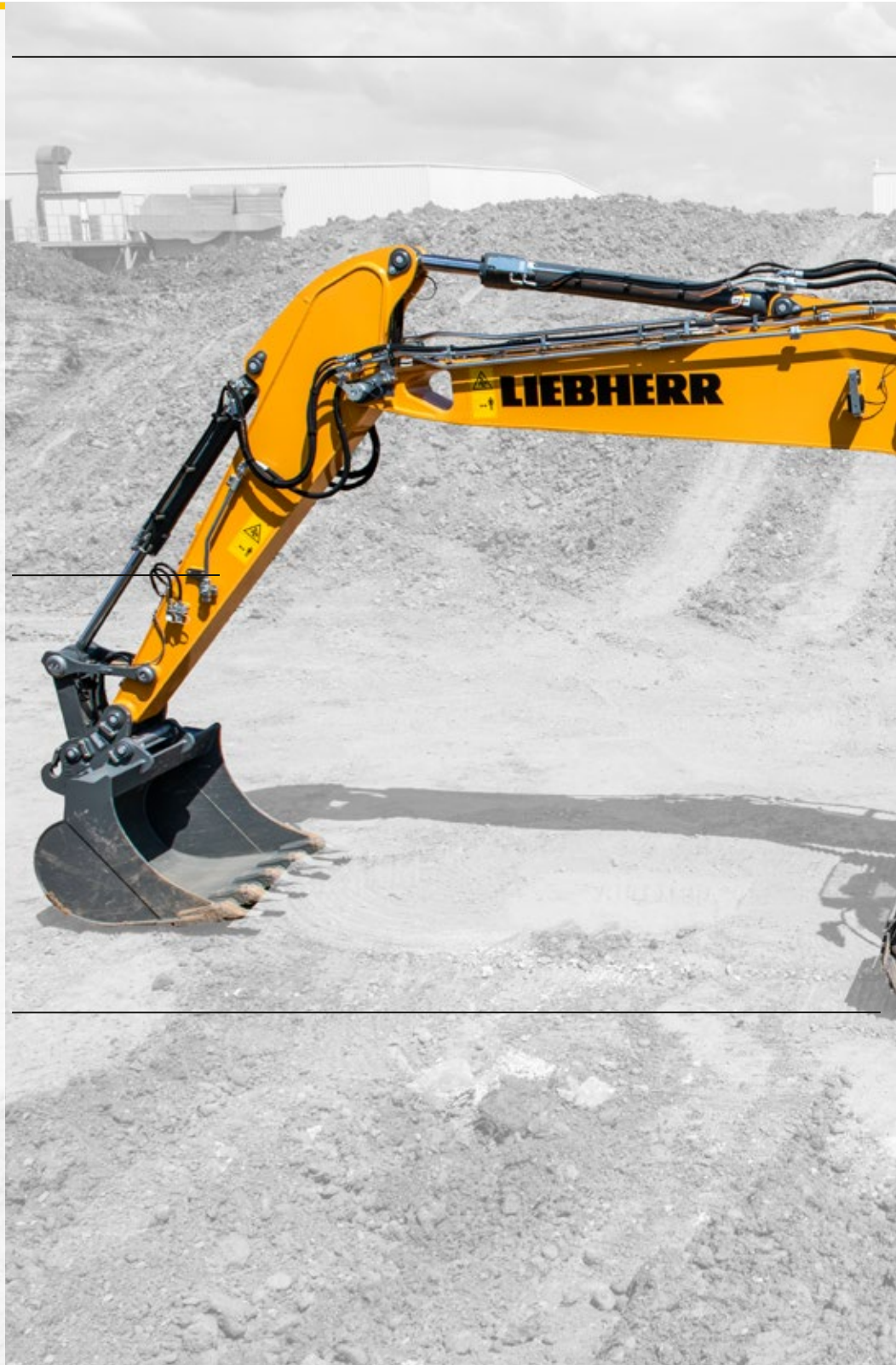
- Panoramic visibility with no obstructions and camera on the rear and the right side equipment for enhanced safety
- Lifiable console for easy and safe access to cab
- ROPS-certified cab structure: rollover protection
- Emergency exit via the rear cab window
- Right window and windshield in laminated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

### Equipment

- Large choice of types and sizes of equipment
- Safety check valves for hoist and stick cylinders
- Guaranteed maintenance thanks to automatic centralised lubrication system (option)

### 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





### **Comfort**

- Spacious, air-conditioned work space
- Airsprung seat with vertical and horizontal suspension
- Easy-to-use high resolution 7" colour touchscreen
- Completely retractable front cab window
- New LED lighting as standard

### **Engine**

- New engine that conforms with the US EPA Tier 4 Final exhaust emissions standard
- Automatic idle-stop

### **Maintenance**

- Innovative servicing concept, with service points accessible from ground level
- New concept for lateral access to uppercarriage and large maintenance platform
- Engine oil, hydraulic oil, fuel and urea (diesel exhaust fluid) levels visible on the display

# Technical Data



## Engine

<b>Rating</b>	
per SAE J1349	173 HP (129 kW) at 1,900 rpm
per ISO 9249	175 HP (129 kW) at 1,900 rpm
<b>Torque</b>	682 Nm at 1,400 rpm / <b>503 lbf ft at 1,400 rpm</b>
<b>Model</b>	Liebherr D924 A7-04
<b>Type</b>	4 cylinder in-line
Bore	104 mm / <b>4.1 in</b>
Stroke	132 mm / <b>5.2 in</b>
Displacement	4.5 l / <b>275 in³</b>
<b>Engine operation</b>	4-stroke diesel Common-Rail turbo-charged and after-cooler
<b>Exhaust gas treatment</b>	Tier 4f DOC + SCR passive regeneration by thermo management
<b>Cooling system</b>	water-cooled and oil cooler, after-cooled and fuel cooled
<b>Air cleaner</b>	dry-type air cleaner with pre-cleaner
<b>Fuel tank</b>	400 l / <b>106 gal</b>
<b>Urea tank</b>	46 l / <b>12 gal</b>
<b>Electrical system</b>	
Voltage	24 V
Batteries	2 x 135 Ah/ 12 V
Alternator	three-phase current 28 V/ 140 A
Engine idling	sensor controlled



## Hydraulic Controls

<b>Power distribution</b>	via control valves, simultaneous and independent actuation of chassis, swing drive and attachment
<b>Electric servo circuit</b>	electro-hydraulic control
Attachment and swing	proportional via joystick levers
Travel	- with proportionally functioning foot pedals or adjusted with plugable levers - automatic or manual speed change
<b>Additional functions</b>	proportional regulation via foot pedals or mini-joystick



## Hydraulic System

<b>Hydraulic system</b>	Positive Control dual circuit hydraulic system for independent and need-based quantity allotment via the hydraulic pumps; sensor-guided features high system dynamics and sensitivity provided by integrated system controlling
<b>Hydraulic pump</b>	
for attachment and travel drive	Liebherr, variable displacement, swashplate double pump
Max. flow	2 x 210 l/min. / <b>2 x 55 gpm</b>
Max. pressure	380 bar / <b>5,511 psi</b>
<b>Pump management</b>	electronic management via the integrated system controlling (CAN-BUS) synchronous to the control block. Open circuit for the rotation
<b>Hydraulic tank</b>	155 l / <b>41 gal</b>
<b>Hydraulic system</b>	max. 320 l / <b>max. 85 gal</b>
<b>Hydraulic oil filter</b>	1 main return filter with integrated partial micro filtration (10 µm / <b>1,250 mesh</b> )
<b>Cooling system</b>	compact cooler, consisting of a water cooler, sand-wiched with hydraulic oil cooler and fuel and after-cooler cores and hydrostatically driven fan
<b>MODE selection</b>	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
<b>Engine speed and performance setting</b>	stepless alignment of engine output and hydraulic power via engine speed



## Swing Drive

<b>Drive</b>	Liebherr swashplate motor with integrated brake valve and torque control
<b>Transmission</b>	Liebherr compact planetary reduction gears
<b>Swing ring</b>	Liebherr, sealed race ball bearing swing ring, internal teeth
<b>Swing speed</b>	0 – 12.9 rpm stepless
<b>Swing torque</b>	74.3 kNm / <b>54,801 lbf ft</b>
<b>Holding brake</b>	wet multi-disc (spring applied, pressure released)



## Operator's Cab

<b>Cab</b>	ROPS safety cab structure (roll-over protection system) with individual windscreens or featuring a slide-in sub-part under the ceiling, work headlights integrated in the ceiling, a door with a sliding window (can be opened on both sides), large stowing and depositing possibilities, shock-absorbing suspension, laminated right hand side and roof windows, all windows tinted, separate extensible window shades for the sunroof window and wind-screen, 24 V plug, cigarette lighter and 12 V plug, cup holder, mobile phone storage net
<b>Operator's seat</b>	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 width, height and inclination), seat heating as standard tiltable console left, oscillating with seat
<b>Arm consoles</b>	tiltable console left, oscillating with seat
<b>Operation and displays</b>	large high-resolution operating unit, self-explanatory, color display with touchscreen, video-compatible, numerous setting, control and monitoring options, e.g. air conditioning control, fuel consumption, machine and tool parameters
<b>Air-conditioning</b>	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



## Undercarriage

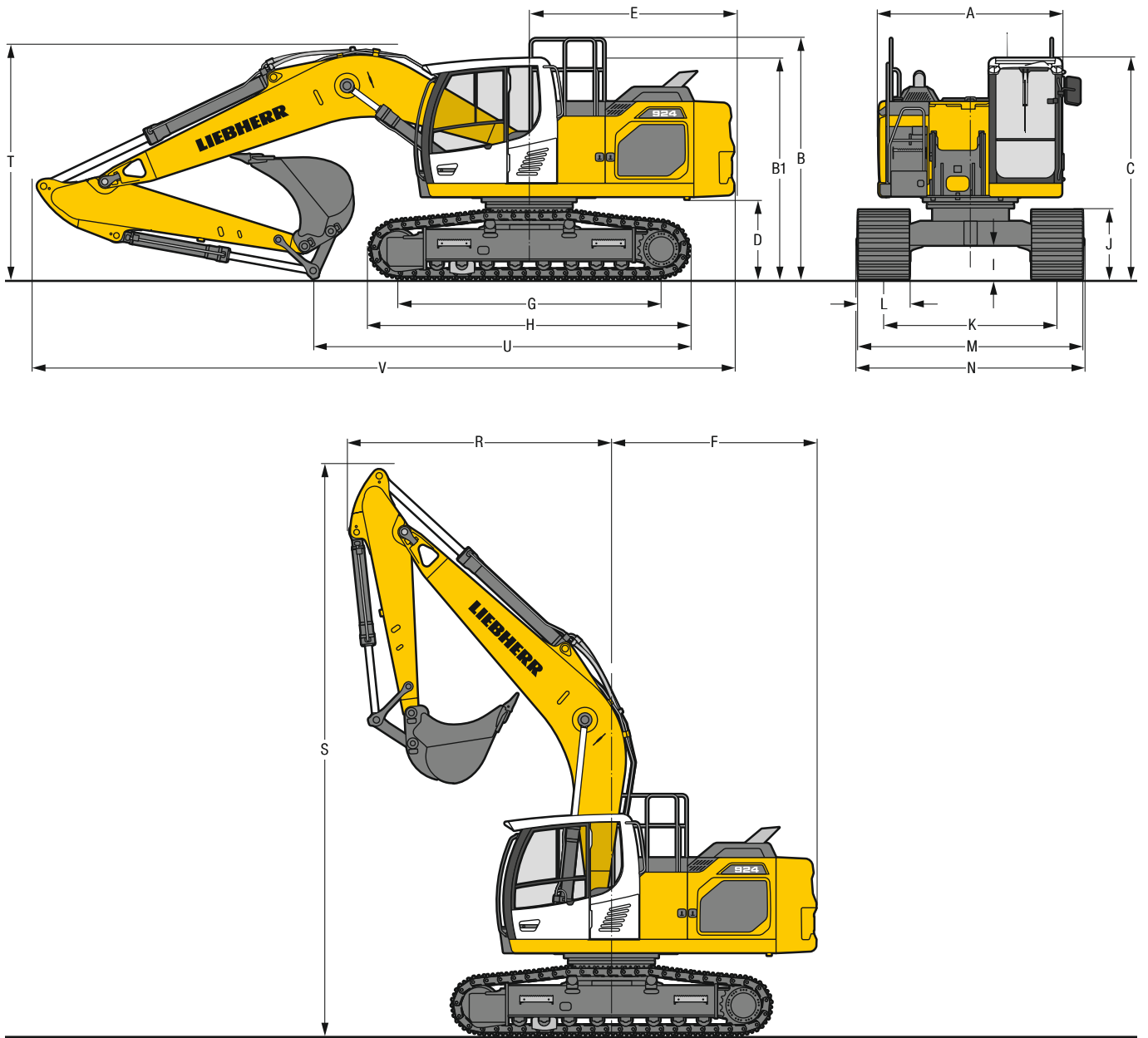
<b>LC</b>	gauge 2,390 mm / <b>7'10"</b>
<b>Drive</b>	Liebherr swashplate motor with brake valves on both sides
<b>Transmission</b>	Liebherr planetary reduction gear
<b>Maximum travel speed</b>	low range 3.1 km/h / <b>1.9 mph</b> high range 5.9 km/h / <b>3.7 mph</b>
<b>Net drawbar pull on crawler</b>	236 kN / <b>53,060 lbf</b>
<b>Track components</b>	B60, D6C, maintenance-free
<b>Track rollers/Carrier rollers</b>	8/2
<b>Tracks</b>	sealed and greased
<b>Track pads</b>	triple grouser
<b>Holding brake</b>	wet multi-disc (spring applied, pressure released)
<b>Brake valves</b>	integrated into travel motor
<b>Lashing eyes</b>	integrated



## Attachment

<b>Type</b>	combination of resistant steel plates and cast steel components
<b>Hydraulic cylinders</b>	Liebherr cylinders with special seal-system, shock protection
<b>Bearings</b>	sealed, low maintenance
<b>Lubrication</b>	Liebherr central lubrication system
<b>Hydraulic connections</b>	pipes and hoses equipped with SAE split-flange connections
<b>Buckets</b>	standard equipped with Liebherr tooth system

# Dimensions



		<b>LC</b>				mm/ft in	
<b>A</b>	Uppercarriage width					2,545**/ 8' 4"***	
<b>B</b>	Uppercarriage height					3,335 /10'11"	
<b>B1</b>	Uppercarriage height (handrails folded)					3,060 /10'	
<b>C</b>	Cab height					3,060 /10'	
<b>D</b>	Counterweight ground clearance					1,100 / 3' 7"	
<b>E</b>	Rear-end length					2,830 / 9' 3"	
<b>F</b>	Tail swing radius					2,880 / 9' 5"	
<b>G</b>	Wheelbase					3,640 /11'11"	
<b>H</b>	Undercarriage length					4,435 /14' 7"	
<b>I</b>	Undercarriage ground clearance					485 / 1' 7"	
<b>J</b>	Track height					960 / 3' 2"	
<b>K</b>	Track gauge					2,390 / 7'10"	
<b>L</b>	Track pad width	600/ 24"	700 / 28"	800 / 31"	900 / 35"		
<b>M</b>	Width over tracks	2,990/9'10"	3,090 /10' 2"	3,190 /10' 6"	3,290 /10'10"		
<b>N</b>	Width over steps	2,925/9' 7"	3,125*/10' 3"*	3,125*/10' 3"*	3,225*/10' 7"*		

\* width with removable steps

\*\* without door stop device and spacer

		<b>Stick length</b>	<b>Mono boom 5.70 m/18'8"</b>			
		m/ft in	mm/ft in			
<b>R</b>	Front swing radius	2.50/ 8'2"	3,650/12'			
		2.90/ 9'6"	3,650/12'			
		3.50/11'6"	3,600/11'10"			
<b>S</b>	Height with boom up	7,900/25'11"				
<b>T</b>	Boom height	2.50/ 8'2"	3,250/10' 8"			
		2.90/ 9'6"	3,250/10' 8"			
		3.50/11'6"	3,150/10' 4"			
<b>U</b>	Length on ground	2.50/ 8'2"	6,200/20' 4"			
		2.90/ 9'6"	5,900/19' 4"			
		3.50/11'6"	4,450/14' 7"			
<b>V</b>	Overall length	9,700/31'10"				

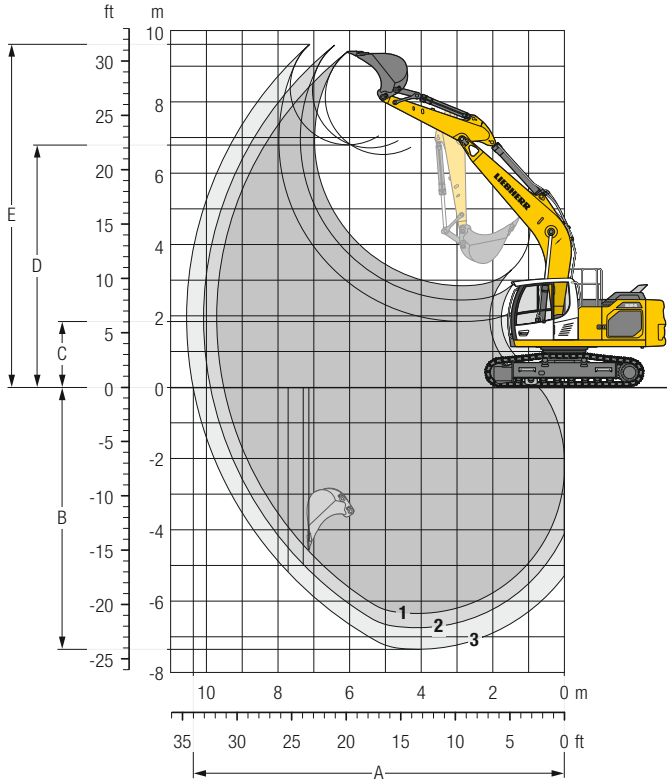
## Transport Dimensions

### removable elements dismantled

		<b>Stick</b>	<b>Mono boom 5.70 m/18'8"</b>			
		mm/ft in	mm/ft in			
Pad width			600/ 24"	700/ 28"	800/ 31"	900/ 35"
Transport width			2,990/9'10"	3,125/10' 3"	3,190/10' 6"	3,290/10'10"
Transport length			9,700/31'10"			
Transport height	2.50/ 8'2"	3,250/10' 8"				
	2.90/ 9'6"	3,250/10' 8"				
	3.50/11'6"	3,150/10' 4"				

# Backhoe Bucket

with Mono Boom 5.70 m / 18'8" and Counterweight 5.0 t / 11,020 lb



## Digging Envelope

without quick coupler		1	2	3
Stick length	m/ft in	2.50/ 8' 2"	2.90/ 9'6"	3.50/11'6"
A Max. reach at ground level	m/ft in	9.51/31' 2"	9.89/32'5"	10.37/34'
B Max. digging depth	m/ft in	6.35/20'10"	6.75/22'2"	7.35/24'1"
C Min. dumping height	m/ft in	2.85/ 9' 4"	2.45/ 8'	1.85/ 6'1"
D Max. dumping height	m/ft in	6.53/21' 5"	6.71/22'	6.80/22'4"
E Max. cutting height	m/ft in	9.40/30'10"	9.59/31'6"	9.61/31'6"

## Forces

without quick coupler		1	2	3
Max. digging force (ISO 6015)	kN/lbf	135/30,350	122/27,430	106/23,830
Max. breakout force (ISO 6015)	kN/lbf	173/38,890	173/38,890	173/38,890
Max. digging force (SAE J1179)	kN/lbf	129/29,000	117/26,300	103/23,160
Max. breakout force (SAE J1179)	kN/lbf	151/33,950	151/33,950	151/33,950

## Operating Weight and Ground Pressure

The operating weight includes the basic machine with counterweight 5.0 t / 11,020 lb, mono boom 5.70 m / 18'8", stick 2.90 m / 9'6" and bucket 1.25 m<sup>3</sup> / 1.63 yd<sup>3</sup> (890 kg / 1,960 lb).

Undercarriage		LC			
Pad width	mm/in	600/24"	700/28"	800/31"	900/35"
Weight	kg/lb	23,600/52,030	23,850/52,580	24,250/53,460	24,550/54,120
Ground pressure	kg/cm <sup>2</sup> /psi	0.50/7.1	0.44/6.3	0.39/5.5	0.35/5.0

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

	Cutting width mm in	Capacity ISO 7451 m <sup>3</sup> yd <sup>3</sup>	Weight <sup>3)</sup> kg lb	Weight <sup>4)</sup> kg lb	LC-Undercarriage (with track pads 800 mm / 31")						
					without quick coupler			with quick coupler			
					Stick length (m / ft in)						
					2.50 8'2"	2.90 9'6"	3.50 11'6"	2.50 8'2"	2.90 9'6"	3.50 11'6"	
STD <sup>1)</sup>	1,050 41"	0.95 1.24	700 1,540	710 1,570	▲	▲	▲	▲	▲	▲	
	1,250 49"	1.15 1.50	810 1,790	830 1,830	▲	▲	▲	▲	▲	▲	
	1,250 49"	1.25 1.63	890 1,960	910 2,010	▲	▲	■	▲	▲	■	
	1,400 55"	1.35 1.77	850 1,870	880 1,940	▲	■	▲	▲	■	▲	
	1,400 55"	1.50 1.96	950 2,090	980 2,160	■	▲	■	■	▲	△	
	1,500 59"	1.65 2.16	1,020 2,250	1,030 2,270	▲	■	△	▲	■	△	
	HD <sup>2)</sup>	1,050 41"	0.95 1.24	790 1,740	800 1,760	▲	▲	▲	▲	▲	▲
		1,250 49"	1.15 1.50	910 2,010	940 2,070	▲	▲	▲	▲	▲	■
		1,250 49"	1.25 1.63	1,010 2,230	1,030 2,270	▲	▲	▲	▲	■	▲
		1,400 55"	1.35 1.77	970 2,140	990 2,180	▲	■	▲	■	▲	■
1,400 55"		1.50 1.96	1,090 2,400	1,120 2,470	■	▲	■	▲	■	△	
1,500 59"		1.65 2.16	1,160 2,560	1,160 2,560	▲	■	△	■	△	△	

\* Indicated loads are based on ISO 10567, at maximum reach, and may be swung 360° on firm and even ground  
<sup>1)</sup> Standard bucket with teeth Z 40 <sup>2)</sup> HD bucket with teeth Z 40 <sup>3)</sup> Bucket for direct mounting <sup>4)</sup> Bucket for mounting to quick coupler  
 Other buckets available upon request

Max. material weight ▲ = ≤ 2.0 t/m<sup>3</sup> / 3,400 lb/yd<sup>3</sup>, ■ = ≤ 1.8 t/m<sup>3</sup> / 3,000 lb/yd<sup>3</sup>, ▲ = ≤ 1.65 t/m<sup>3</sup> / 2,800 lb/yd<sup>3</sup>, ■ = ≤ 1.5 t/m<sup>3</sup> / 2,500 lb/yd<sup>3</sup>, △ = ≤ 1.2 t/m<sup>3</sup> / 2,000 lb/yd<sup>3</sup>



# Lift Capacities

with Mono Boom 5.70 m / 18'8", Counterweight 5.0 t / 11,020 lb and Track Pads 800 mm / 31"

## Stick 2.50 m / 8'2"

Under-carriage	Height	3.0 m 10 ft		4.5 m 15 ft		6.0 m 20 ft		7.5 m 25 ft		m		
		Can be steered through 360°	In longitudinal position of undercarriage	Can be steered through 360°	In longitudinal position of undercarriage	Can be steered through 360°	In longitudinal position of undercarriage	Can be steered through 360°	In longitudinal position of undercarriage	ft	in	
LC	7.5 m t									6.0*	6.0*	5.8
	25 ft lb									13,3*	13,3*	18'7"
	6.0 m t					6.0	6.1*			4.7	5.6*	7.0
	20 ft lb					13,0	13,3*			10,6	12,3*	22'7"
	4.5 m t			7.8*	7.8*	5.8	6.7*	4.2	6.1	4.0	5.5*	7.7
	15 ft lb			16,9*	16,9*	12,6	14,5*	8,9	12,5*	8,9	12,1*	25'1"
	3.0 m t			8.4	10.0*	5.6	7.6*	4.0	6.0	3.7	5.4	8.0
	10 ft lb			18,1	21,5*	12,0	16,5*	8,7	12,9	8,1	12,0	26'4"
	1.5 m t			7.9	11.7*	5.3	8.2	3.9	5.9	3.5	5.3	8.1
	5 ft lb			17,0	25,3*	11,5	17,6	8,5	12,7	7,8	11,6	26'6"
0 m t			7.7	12.4*	5.2	8.0	3.8	5.8	3.6	5.4	7.9	
0 ft lb			16,5	26,9	11,1	17,2	8,3	12,5	8,0	12,0	25'10"	
-1.5 m t	12.0*	12.0*	7.6	12.2*	5.1	7.9			4.0	6.0	7.3	
-5 ft lb	27,3*	27,3*	16,4	26,5*	11,1	17,1			8,8	13,2	24'	
-3.0 m t	15.0	15.4*	7.7	11.1*	5.2	8.0			4.8	7.4	6.4	
-10 ft lb	32,2	33,4*	16,7	24,0*	11,3	17,3			10,7	16,4	20'10"	
-4.5 m t			8.1	8.2*					7.4	7.5*	4.8	
-15 ft lb			17,2*	17,2*					16,5*	16,5*	15'5"	

## Stick 2.90 m / 9'6"

Under-carriage	Height	3.0 m 10 ft		4.5 m 15 ft		6.0 m 20 ft		7.5 m 25 ft		m		
		Can be steered through 360°	In longitudinal position of undercarriage	Can be steered through 360°	In longitudinal position of undercarriage	Can be steered through 360°	In longitudinal position of undercarriage	Can be steered through 360°	In longitudinal position of undercarriage	ft	in	
LC	7.5 m t									5.6*	5.6*	6.3
	25 ft lb									11,8*	11,8*	20'4"
	6.0 m t					6.0	6.1*			4.3	4.7*	7.4
	20 ft lb					12,2*	12,2*			9,7	10,4*	24'
	4.5 m t			7.1*	7.1*	5.9	6.2*	4.2	5.8*	3.7	4.6*	8.1
	15 ft lb			15,4*	15,4*	12,7	13,5*	8,9	12,8*	8,2	10,2*	26'4"
	3.0 m t			8.5	9.3*	5.6	7.2*	4.0	6.0	3.4	4.8*	8.4
	10 ft lb			18,3	20,0*	12,0	15,6*	8,7	12,9	7,5	10,5*	27'6"
	1.5 m t			7.9	11.2*	5.3	8.1	3.9	5.8	3.3	4.9	8.5
	5 ft lb			17,0	24,2*	11,4	17,5	8,4	12,6	7,2	10,8	27'8"
0 m t			6.1*	6.1*	7.6	12.2*	5.1	7.9	3.8	5.7	8.2	
0 ft lb			14,1*	14,1*	16,4	26,5*	11,0	17,1	8,2	12,4	27'	
-1.5 m t	11.3*	11.3*	7.5	12.3*	5.0	7.8			3.6	5.5	7.7	
-5 ft lb	25,7*	25,7*	16,2	26,6	10,9	16,9			8,0	12,1	25'4"	
-3.0 m t	14.8	16.3*	7.6	11.5*	5.1	7.9			4.3	6.6	6.8	
-10 ft lb	31,6	35,3*	16,4	24,8*	11,0	17,0			9,6	14,6	22'4"	
-4.5 m t			12.9*	12.9*	7.9	9.2*			6.1	7.3*	5.4	
-15 ft lb			27,7*	27,7*	17,0	19,7*			13,8	16,2*	17'6"	

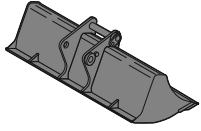
## Stick 3.50 m / 11'6"

Under-carriage	Height	3.0 m 10 ft		4.5 m 15 ft		6.0 m 20 ft		7.5 m 25 ft		m		
		Can be steered through 360°	In longitudinal position of undercarriage	Can be steered through 360°	In longitudinal position of undercarriage	Can be steered through 360°	In longitudinal position of undercarriage	Can be steered through 360°	In longitudinal position of undercarriage	ft	in	
LC	7.5 m t									3.9*	3.9*	6.9
	25 ft lb									8,6*	8,6*	22'4"
	6.0 m t							4.3	4.8*	3.7*	3.7*	7.9
	20 ft lb							9,2	9,7*	8,1*	8,1*	25'10"
	4.5 m t					5.5*	5.5*	4.2	5.3*	3.4	3.7*	8.5
	15 ft lb					12,1*	12,1*	9,0	11,5*	7,5	8,1*	27'11"
	3.0 m t	12.8*	12.8*	8.2*	8.2*	5.6	6.6*	4.0	5.8*	3.1	3.8*	8.9
	10 ft lb	27,2*	27,2*	17,8*	17,8*	12,1	14,3*	8,7	12,6*	6,8	8,4*	29'1"
	1.5 m t	6.7*	6.7*	8.0	10.4*	5.3	7.7*	3.9	5.8	3.0	4.1*	8.9
	5 ft lb	15,9*	15,9*	17,2	22,5*	11,5	16,7*	8,3	12,6	6,6	9,0*	29'4"
0 m t	7.8*	7.8*	7.6	11.8*	5.1	7.9	3.7	5.7	3.0	4.6*	8.7	
0 ft lb	17,7*	17,7*	16,3	25,5*	10,9	17,0	8,1	12,3	6,7	10,1*	28'7"	
-1.5 m t	11.2*	11.2*	7.4	12.2*	5.0	7.8	3.7	5.6	3.2	4.9	8.2	
-5 ft lb	25,3*	25,3*	16,0	26,4	10,7	16,7	7,9	12,1	7,2	10,9	27'	
-3.0 m t	14.4	16.2*	7.4	11.8*	4.9	7.8			3.8	5.7	7.4	
-10 ft lb	30,9	36,7*	16,0	25,5*	10,7	16,7			8,3	12,7	24'2"	
-4.5 m t	14.7*	14.7*	7.6	10.3*	5.1	7.4*			5.0	7.2*	6.1	
-15 ft lb	31,5*	31,5*	16,4	22,0*					11,2	15,8*	19'10"	

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

The load values are quoted in tons (t) / lb x 1,000 at stick end (without bucket), and may be swung 360° on firm and even ground. Adjacent values are valid for the undercarriage when in the longitudinal position. Capacities are valid for 800 mm / 31" 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 325 kg / 720 lb. Lifting capacity of the excavator is limited by machine stability and hydraulic capacity.

# Available Tools



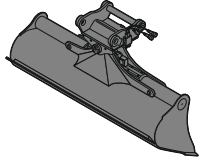
## Rigid Ditch Cleaning Bucket

### GRL 90, for direct mounting

Cutting width	mm/in	1,500/59"	2,000/79"	2,010/79"	2,400/95"				
Capacity	m <sup>3</sup> /yd <sup>3</sup>	0.50/0.65	0.70/0.92	0.85/1.11	0.85/1.11				
Weight	kg/lb	400/880	500/1,100	530/1,170	580/1,280				

### GRL 90, for mounting to quick coupler SWA 48

Cutting width	mm/in	1,500/59"	1,500/59"	2,000/79"	2,000/79"	2,000/79"	2,400/95"	2,400/95"	2,400/95"
Capacity	m <sup>3</sup> /yd <sup>3</sup>	0.50/0.65	0.95/1.24	0.70/0.92	1.20/1.57	1.25/1.63	0.85/1.11	1.15/1.50	
Weight	kg/lb	430/950	560/1,240	400/880	640/1,410	600/1,320	600/1,320	650/1,430	



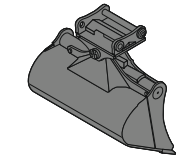
## Ditch Cleaning Bucket

### GRL 90, 2 x 50° tiltable, for direct mounting

Cutting width	mm/in	1,600/63"	2,000/79"	2,000/79"	2,000/79"	2,200/87"	2,400/95"	2,800/110"		
Capacity	m <sup>3</sup> /yd <sup>3</sup>	0.80/1.05	0.50/0.65	0.70/0.92	1.00/1.31	1.15/1.50	0.85/1.11	1.45/1.90		
Weight	kg/lb	798/1,760	686/1,510	819/1,810	883/1,950	920/2,030	885/1,950	1,009/2,220		

### GRL 90, 2 x 50° tiltable, for mounting to quick coupler SWA 48

Cutting width	mm/in	1,600/63"	2,000/79"	2,000/79"	2,000/79"	2,200/87"	2,200/87"	2,200/87"	2,400/95"	2,400/95"	2,800/110"
Capacity	m <sup>3</sup> /yd <sup>3</sup>	0.80/1.05	0.50/0.65	0.70/0.92	1.00/1.31	0.80/1.05	1.15/1.50	1.40/1.83	0.85/1.11	1.25/1.63	1.85/2.42
Weight	kg/lb	850/1,870	690/1,520	880/1,940	940/2,070	880/1,940	980/2,160	1,000/2,210	890/1,960	1,000/2,210	1,088/2,400



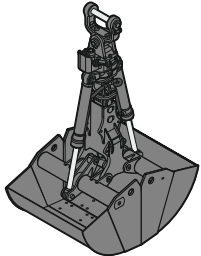
## Tilt Bucket

### SL 90, 2 x 50° tiltable, for direct mounting

Cutting width	mm/in	1,600/63"	1,600/63"	1,600/63"					
Capacity	m <sup>3</sup> /yd <sup>3</sup>	0.80/1.05	1.00/1.31	1.35/1.77					
Weight	kg/lb	768/1,690	820/1,810	918/2,020					

### SL 90, 2 x 50° tiltable, for mounting to quick coupler SWA 48

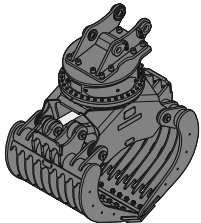
Cutting width	mm/in	1,500/59"	1,600/63"	1,600/63"	1,600/63"	1,600/63"	1,600/63"	1,600/63"	1,600/63"	1,600/63"
Capacity	m <sup>3</sup> /yd <sup>3</sup>	1.20/1.57	0.80/1.05	1.00/1.31	1.35/1.77	1.55/2.03	0.80/1.05	1.00/1.31	1.35/1.77	1.55/2.03
Weight	kg/lb	970/2,140	820/1,810	890/1,960	970/2,140	1,035/2,280	820/1,810	1,006/2,220	1,184/2,610	1,550/3,420
HD-version							X	X	X	X



## Clamshells

### GM 20C, earthmoving shell, for mounting to quick coupler SWA 48 (exists for direct mounting)

Cutting width	mm/in	600/24"	800/31"	1,000/39"	1,200/47"
Capacity	m <sup>3</sup> /yd <sup>3</sup>	0.45/0.59	0.60/0.78	0.75/0.98	0.90/1.18
Weight	kg/lb	575/1,270	625/1,380	700/1,540	765/1,690



## Sorting Grab

ribbed

perforated

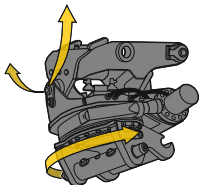
stone tong

### SG 30, for direct mounting

Cutting width	mm/in	1,000/39"	1,150/45"	1,000/39"	1,150/45"	1,020/40"
Capacity	m <sup>3</sup> /yd <sup>3</sup>	0.75/0.98	0.90/1.18	0.85/1.11	1.00/1.31	0.85/1.11
Weight	kg/lb	1,510/3,330	1,590/3,510	1,490/3,290	1,570/3,460	1,765/3,890

### SG 30, for mounting to quick coupler SWA 48

Cutting width	mm/in	1,000/39"	1,150/45"	1,000/39"	1,150/45"	1,020/40"
Capacity	m <sup>3</sup> /yd <sup>3</sup>	0.75/0.98	0.90/1.18	0.85/1.11	1.00/1.31	0.85/1.11
Weight	kg/lb	1,510/3,330	1,590/3,510	1,490/3,290	1,570/3,460	1,765/3,890



## Tiltrotator

### LH-TR 25, for mounting to quick coupler SWA 48

Weight	kg/lb	720/1,590
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
- DEF tank filling indicator
- DEF tank lockable access hatch
- Engine coolant level, visible from the cab
- Engine hood with gas spring opening
- Filters accessible from ground level
- Handrails
- Hydraulic oil level, visible from ground level
- Lockable fuel tank cap
- Lockable service doors
- Lockable storage and accessories compartment
- Lockable storage box
- Main switch, electric, with timer
- Main switch, manual, lockable
- Protection grid on radiator fan
- Safe uppercarriage side access platform
- Sound insulation
- Swing drive gearbox oil level, visible from the cab
- 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
- Exhaust gas after-treatment system – DOC + SCR
- Fixed geometry turbocharger
- Fuel fine filter
- Fuel pre-filter and water separator
- Fuel priming pump
- Intercooler
- Motorisation US EPA Tier 4 Final
- Stepless adjustable engine speed

## Operator's Cab

- 7" multifunction color touchscreen
- Air conditioning, automatic, tri-zone, controlled via display
- Armrests adjustable in width, 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 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 meters, 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
- 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 windshield and roof window
- ROPS safety cab structure (ISO 12117-2)
- Rubber floor mat, fixed on floor and removable
- Storage box
- Storage nets
- Storage spaces
- Swing braking torque adjustable via touchscreen
- Tilttable console left
- Tinted windows
- Visco-elastic damping
- Windscreen wiper and washer
- Work mode selector

## Attachment

- 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

\* optionally extendable after one year

# Equipment Standard/Option

## Undercarriage

Chain guide 1 piece	•
Chain guide 3 pieces	+
Reinforced cover and base plate for undercarriage center section	+
Special painting	•
Standard cover plate for undercarriage center section	•
Steps	+
Steps wide	•
Track pads triple grouser 600 mm / <b>24"</b> / 700 mm / <b>28"</b> / 900 mm / <b>35"</b>	+
Track pads triple grouser 800 mm / <b>31"</b>	•
Track pads triple grouser reinforced 600 mm / <b>24"</b> / 700 mm / <b>28"</b>	+
Tracks, sealed and greased, with track pads	•
Tracks, sealed and greased, with track pads, reinforced	+
Undercarriage LC	+
Undercarriage storage compartment	+

## Uppercarriage

Air pre-filter with cyclonical dust trap	+
Boxing ring	+
Centralized lubrication system (automatic)	•
Centralized lubrication system (manual)	+
Counterweight standard 5.0 t / <b>11,020 lb</b>	•
Electric socket on uppercarriage (24 V)	+
Extended tool set including tool box	+
Fuel anti-theft protection	+
Headlight on uppercarriage, front left, LED+, 1 piece, protection included	+ <sup>1)</sup>
Headlight on uppercarriage, front right, LED, 1 piece, protection included	• <sup>1)</sup>
Headlight on uppercarriage, front right, LED+, 1 piece, protection included	+ <sup>1)</sup>
Headlight on uppercarriage, lateral left, LED+, 1 piece	+ <sup>1)</sup>
Headlight on uppercarriage, lateral right, LED+, 1 piece	+ <sup>1)</sup>
Headlights on uppercarriage, rear, LED+, 2 pieces	+ <sup>1)</sup>
Lighting for tank area	+ <sup>1)</sup>
Lighting for uppercarriage access	+ <sup>1)</sup>
Pre-heating system for fuel	+
Radiator fine mesh protection grid	+
Reflective warning stickers	+
Reversible fan drive	+
Rotating beacons on uppercarriage, rear, LED, 2 pieces	+
Skyview 360°	+
Special painting	+
Tank refilling pump fuel	+
Tool set including storage case	•

## Hydraulic System

Bypass filter for hydraulic oil	+
Liebherr hydraulic oil	•
Liebherr hydraulic oil, adapted for extreme climate conditions	+
Liebherr hydraulic oil, biodegradable	+

## Engine

Automatic engine shutdown after idling	+
Engine shut-down with overrun	+
Lighting for engine compartment	+ <sup>1)</sup>

## Operator's Cab

3" seat belt with retractor, orange color	•
4-points seat belt	+
Acoustic travel alarm deactivatable	+
Auxiliary heater programmable	+
Bottom windscreen wiper	+
Cool box (12 V)	+
Dark tinted windows	+

• = Standard, + = Option

<sup>1)</sup> Equipment not individually available, but only as predefined lighting packages  
Non-exhaustive list, please contact us for further information.

## Operator's Cab

Electrically adjustable and heated outside rear-view mirrors	+
Electronic immobilizer	+
Emergency stop in cab	+
FGPS front guard	+
Filter for hydraulic hammer return flow	+
Fire extinguisher	+
First-aid box	+
Footrest	+
FOPS top guard	+
Handrests elevated for joysticks	+
Headlights on cab, front, LED, 2 pieces	• <sup>1)</sup>
Headlights on cab, front, LED+, 2 pieces	+ <sup>1)</sup>
Headlights on cab roof, front, LED+, 2 pieces	+ <sup>1)</sup>
High pressure circuit switchable on pedals or mini-joystick	+
High pressure circuit with Tool Control (20 tool adjustments on display)	+
Impact resistant one-piece windscreen	+
Impact resistant roof window	+
Integral protection guard	+
Laminated roof window	•
Lightbar on cabin	+
Luminosity control (LED+ headlights)	+ <sup>1)</sup>
Medium pressure circuit	+
Mini-joystick proportional	•
Movement restriction for boom	+
Movement restriction for stick	+
Operator seat Comfort	•
Operator seat Premium	+
Overload warning system	+
Preparation for machine guidance system	+
Preparation for tiltrotator	+
Preparation for weighing system	+
Radio Comfort	+
Radio pre-installation	•
Retractable laminated two-piece windscreen	•
Roof sun shield	+
Roof window wiper	+
Rotating beacon on cabin, LED, 1 piece	+
Seat belt reminder	+
Shortcut button on joystick configurable	•
Special painting	+
Sun visor	+
Switch between high pressure and bucket cylinder controls	+
Windscreen bottom protection grid	+

## Attachment

Bucket cylinder rod protection	+
Centralized 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	+ <sup>1)</sup>
Headlight on boom, right, LED, 1 piece	• <sup>1)</sup>
Headlight on boom, right, LED+, 1 piece	+ <sup>1)</sup>
Headlight on stick, bottom, LED+, 1 piece	+ <sup>1)</sup>
Liebherr bucket range	+
Liebherr tooth system	+
LIKUFIX electric signal plug	+
LIKUFIX for quick coupler SWA 48 hydraulic	+
Load holding valve for bucket cylinder	+
Lubrication hoses protection on stick	+
Mono boom 5.70 m / <b>18'8"</b>	+
Quick coupler SWA 48 hydraulic	+
Quick coupler SWA 48 mechanical	+
Special painting	+
Stick 2.50 m / <b>8'2"</b>	+
Stick 2.90 m / <b>9'6"</b>	+
Stick 3.50 m / <b>11'6"</b>	+
Stick bottom protection	+
Tool Management	+

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