# R 930 Litronic

## LIEBHERR

930

81

**Crawler excavator** 

Generation 7

**Engine** 180 kW / 245 HP Stage IIIA / Tier 3 **Operating weight** 30,050 – 32,200 kg a mail

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**Bucket capacity** 1.00 - 2.15 m<sup>3</sup>

## Experience the progress R 930

### Safety

- Fully unobstructed all-round visibility – optional rear and side surveillance cameras
- Tiltable console for easy and safe access to cab
- Emergency exit via the rear cab window
- Right window and windshield in laminated and tinted glass

## Equipment -

- Large choice of sticks
- Longer lifespan of components thanks to a grouping of the lubrication points
- Safety check valves for hoist and stick cylinders (option)



## Maintenance -

- Innovative servicing concept, with service points accessible from ground level
- Engine oil, hydraulic oil and fuel levels visible on display



- Robust, reliable X-frame undercarriage, easy to secure thanks to its integrated eyelets
- Easy maintenance
- Maintenance-free track chains and track rollers with lifetime lubrication

## **Technical data**

### Engine

Rating per ISO 9249 Torque Model Type Bore Stroke Displacement Engine operation

Exhaust gas treatment Cooling system Air cleaner Fuel tank Electrical system Voltage Batteries Alternator Engine idling

180 kW (245 HP) at 1,800 RPM     1,255 Nm at 1,350 RPM     Liebherr D934 A7-23     4 cylinder in-line     122 mm     150 mm     7.0 l     4-stroke diesel     Common-Rail     Turbo-charged and after-cooler     Engine equivalent to EU Stage IIIA/EPA Tier 3: with EGR     Water-cooled and oil cooler, after-cooled and fuel cooled     Dry-type air cleaner with pre-cleaner     620 l     24 V     24 V     2x V     2x V     2x V     Sensor controlled	
Liebherr D934 A7-23 4 cylinder in-line 122 mm 150 mm 7.0 l 4-stroke diesel Common-Rail Turbo-charged and after-cooler Engine equivalent to EU Stage IIIA/EPA Tier 3: with EGR Water-cooled and oil cooler, after-cooled and fuel cooled Dry-type air cleaner with pre-cleaner 620 l 24 V 2 x 135 Ah/12 V Three-phase current 24 V/140 A	180 kW (245 HP) at 1,800 RPM
4 cylinder in-line 122 mm 150 mm 7.0 l 4-stroke diesel Common-Rail Turbo-charged and after-cooler Engine equivalent to EU Stage IIIA/EPA Tier 3: with EGR Water-cooled and oil cooler, after-cooled and fuel cooled Dry-type air cleaner with pre-cleaner 620 l 24 V 2 x 135 Ah/12 V Three-phase current 24 V/140 A	1,255 Nm at 1,350 RPM
122 mm     150 mm     7.0 l     4-stroke diesel     Common-Rail     Turbo-charged and after-cooler     Engine equivalent to EU Stage IIIA/EPA Tier 3: with EGR     Water-cooled and oil cooler, after-cooled and fuel cooled     Dry-type air cleaner with pre-cleaner     620 l     24 V     2 x 135 Ah/12 V     Three-phase current 24 V/140 A	Liebherr D934 A7-23
150 mm 7.0 l 4-stroke diesel Common-Rail Turbo-charged and after-cooler Engine equivalent to EU Stage IIIA/EPA Tier 3: with EGR Water-cooled and oil cooler, after-cooled and fuel cooled Dry-type air cleaner with pre-cleaner 620 l 24 V 2 x 135 Ah/12 V Three-phase current 24 V/140 A	4 cylinder in-line
7.0 l 4-stroke diesel Common-Rail Turbo-charged and after-cooler Engine equivalent to EU Stage IIIA/EPA Tier 3: with EGR Water-cooled and oil cooler, after-cooled and fuel cooled Dry-type air cleaner with pre-cleaner 620 l 24 V 2 x 135 Ah/12 V Three-phase current 24 V/140 A	122 mm
4-stroke diesel Common-Rail Turbo-charged and after-cooler Engine equivalent to EU Stage IIIA/EPA Tier 3: with EGR Water-cooled and oil cooler, after-cooled and fuel cooled Dry-type air cleaner with pre-cleaner 620 l 24 V 2 x 135 Ah/12 V Three-phase current 24 V/140 A	150 mm
Common-Rail Turbo-charged and after-cooler Engine equivalent to EU Stage IIIA/EPA Tier 3: with EGR Water-cooled and oil cooler, after-cooled and fuel cooled Dry-type air cleaner with pre-cleaner 620 l 24 V 2 x 135 Ah/12 V Three-phase current 24 V/140 A	7.0 l
Turbo-charged and after-cooler     Engine equivalent to EU Stage IIIA/EPA Tier 3: with EGR     Water-cooled and oil cooler, after-cooled and fuel cooled     Dry-type air cleaner with pre-cleaner     6201     24 V     2 x 135 Ah/12 V     Three-phase current 24 V/140 A	4-stroke diesel
Engine equivalent to EU Stage IIIA/EPA Tier 3: with EGR Water-cooled and oil cooler, after-cooled and fuel cooled Dry-type air cleaner with pre-cleaner 620 l 24 V 2 x 135 Ah/12 V Three-phase current 24 V/140 A	Common-Rail
Water-cooled and oil cooler, after-cooled and fuel cooled Dry-type air cleaner with pre-cleaner 620 l 24 V 2 x 135 Ah/12 V Three-phase current 24 V/140 A	Turbo-charged and after-cooler
Dry-type air cleaner with pre-cleaner 620 l 24 V 2 x 135 Ah / 12 V Three-phase current 24 V / 140 A	Engine equivalent to EU Stage IIIA / EPA Tier 3: with EGR
620 l 24 V 2 x 135 Ah / 12 V Three-phase current 24 V / 140 A	Water-cooled and oil cooler, after-cooled and fuel cooled
24 V 2 x 135 Ah / 12 V Three-phase current 24 V / 140 A	Dry-type air cleaner with pre-cleaner
2 x 135 Ah/12 V Three-phase current 24 V/140 A	620 l
2 x 135 Ah/12 V Three-phase current 24 V/140 A	
Three-phase current 24 V/140 A	24 V
	2 x 135 Ah/12 V
Sensor controlled	Three-phase current 24 V/140 A
	Sensor controlled

## Hydraulic controls

Electric servo circuit Equipment and swing Travel

Additional functions

Via control valves, simultaneous and independent actuation of undercarriage, swing drive and equipment Electro-hydraulic control Proportional via joystick levers - Proportional control via foot pedals or removable levers - Automatic or manual speed adjustment Proportional regulation via foot pedals or mini-joystick

<mark>Ы</mark> Нуd	raulic systen	n
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Hydraulic system	Positive Control hydraulic system. Demand-based, double independent pump flows Features high system dynamics and sensitivity provided by integrated system controlling Independent circuit for rotation
Hydraulic pumps	
For equipment and travel drive	Liebherr, variable displacement, swashplate double pump
Max. flow	2 x 265 l/min.
Max. pressure	380 bar
For swing drive	Swashplate pump, closed-loop circuit
Max. flow	200 l/min.
Max. pressure	400 bar
Pump management Hydraulic tank	Electronic management synchronous to the control block 239 l
Hydraulic system	max. 475 l
Hydraulic oil filter	1 main return filter with integrated partial micro filtration $(10 \ \mu m)$
Cooling system	Compact cooler, consisting of a water cooler, with hydraulic oil cooler, gearbox oil cooler, fuel cooler 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 espe- cially 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

$\mathcal{O}$	Swing	drive
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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 – 10.1 RPM stepless
Swing torque	99 kNm
Holding brake	Wet multi-disc (spring applied, pressure released)

Cab	
Cab	ROPS safety cab structure optional (roll-over protection system according to ISO 12117-2:2008) with windscreen, totally or partially retractable (only upper part), under cab roof, LED work headlights integrated in the ceiling, a door with a sliding window (can be opened on both sides), large storing box and several stowing possibili- ties, 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, 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 condi- tioning control, fuel consumption, machine and attach- ment 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
Noise emission	
ISO 6396	80 dB(A) = L <sub>pA</sub> (inside cab)
2000/14/EC	106 dB(A) = L <sub>WA</sub> (surround noise)

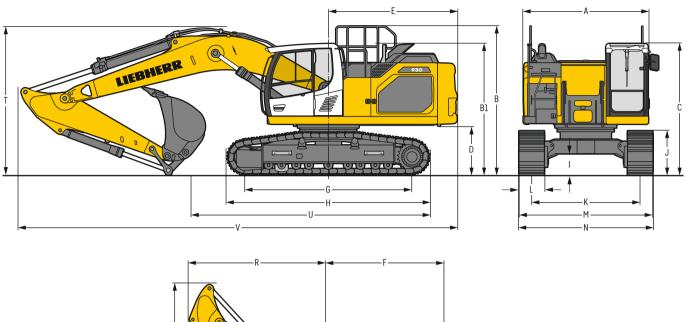
#### Undercarriage

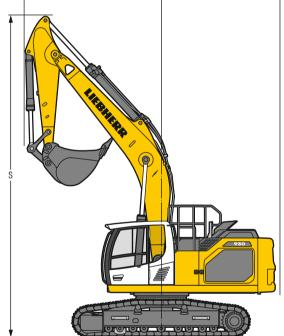
-	
LC	Gauge 2 590 mm
Drive	Liebherr swashplate motor with brake valves on both sides
Transmission	Liebherr planetary reduction gear
Maximum travel speed	3.5 km/h low range
	5.8 km/h high range
Drawbar pull on crawler	261 kN
Track components	D7, D7G, maintenance-free
Track rollers / Carrier rollers	9/2
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

Ĩ.	Equipment

Туре	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 connec- tions
Buckets	Standard equipped with Liebherr tooth system







		LC			mm
Α	Uppercarriage width				2,990**
В	Uppercarriage height				3,570
B1	Uppercarriage height (handrails folded)				3,130
С	Cab height				3,150
D	Counterweight ground clearance				1,175
E	Rear-end length				3,075
F	Tail swing radius				3,200
G	Wheelbase				3,990
Н	Undercarriage length				4,840
1	Undercarriage ground clearance				505
J	Track height				1,055
K	Track gauge				2,590
L	Track pad width	600	700	800	900
М	Width over tracks	3,190	3,290	3,390	3,490
Ν	Width over steps	3,190	3,190	3,390*	3,390*

\* width with removable steps
\*\* without door stop device and spacer

		Stick length	Mono boom 6.20 m direct mounting
		m	mm
R	Front swing radius		3,700
S	Height with boom up		8,700
Т	Boom height	2.50	3,250
		2.80	3,550
		3.20	3,400
		3.70	3,200*
U	Length on ground	2.50	6,400
		2.80	6,250
		3.20	5,600
		3.70	4,850*
۷	Overall length	2.50	10,400
		2.80	10,400
		3.20	10,400
		3.70	10,400*
	Bucket		1.75 m <sup>3</sup>

\* without bucket

## **Transport dimensions**

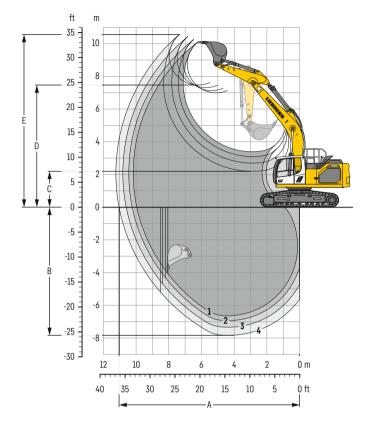
#### removable elements disassembled

		Mono boom 6.20	m		
			m	m	
Pad width		600	700	800	900
Transport width		3,190	3,290	3,390	3,490
	Stick				
	m		m	m	
Transport length	2.50		10,4	+00	
	2.80		10,4	00	
	3.20		10,4	00	
	3.70		10,4	+00*	
Transport height	2.50		3,2	250	
	2.80		3,5	50	
	3.20		3,4	00	
	3.70		3,2	200*	
Bucket			1.75	5 m <sup>3</sup>	

\* without bucket

## **Backhoe bucket**

#### with mono boom 6.20 m



#### **Digging envelope**

without quick coupler		1	2	3	4
Stick length	m	2.50	2.80	3.20	3.70
A Max. reach at ground level	m	9.95	10.23	10.60	11.04
B Max. digging depth	m	6.64	6.94	7.34	7.84
C Min. dumping height	m	3.39	3.09	2.69	2.19
D Max. dumping height	m	6.99	7.13	7.31	7.47
E Max. cutting height	m	10.10	10.23	10.42	10.56

#### Forces

without quick coupler		1	2	3	4
Stick digging force (ISO 6015)	kN	168	156	142	128
Bucket digging force (ISO 6015)	kN	204	204	204	204
Stick digging force (SAE J1179)	kN	160	149	136	123
Bucket digging force (SAE J1179)	kN	178	178	178	178

#### Operating weight and ground pressure

The operating weight includes the basic machine with counterweight 5.1 t, mono boom 6.20 m, stick 3.20 m and bucket 1.75 m<sup>3</sup> (1,160 kg).

Undercarriage			L	C	
Pad width	mm	600	700	800	900
Weight	kg	30,050	30,400	30,750	31,100
Ground pressure	kg/cm <sup>2</sup>	0.59	0.51	0.45	0.40

The operating weight includes the basic machine with counterweight 6.2 t, mono boom 6.20 m, stick 3.20 m and bucket 1.75 m $^3$  (1,160 kg).

Undercarriage			L	С	
Pad width	mm	600	700	800	900
Weight	kg	31,150	31,500	31,850	32,200
Ground pressure	kg/cm <sup>2</sup>	0.61	0.53	0.47	0.42

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

D	uche	S mac	inne sta	initity be	r 150 1056/* (/5% 0)	cipping capacity)						
	÷								rcarriage			
	Cutting width	<b>_</b>	_	_				(with track p	ads 600 mm)			
	bu	Capacity ISO 7451	Weight <sup>3)</sup>	Weight <sup>4)</sup>				<b>A</b> 11 I I				
	iĦ	apa SO 7	/eig	/eig				Stick le	ngth (m)		l	
					0.50		lick coupler	7 70	0.50	with quic		7 70
	mm	m <sup>3</sup>	kg	kg	2.50	2.80	3.20	3.70	2.50	2.80	3.20	3.70
wi	th coun	erweigl	ht 5.1 t									
	1,050	1.00	870	930	<b>A</b>	<b>A</b>	<b>A</b>	<b></b>	<b>A</b>	<b></b>	<b></b>	<b>A</b>
	1,250	1.25	1,000	1,050	<b>A</b>	<b>A</b>	<b>A</b>	<b>A</b>	<b>A</b>	<b>A</b>	<b>A</b>	<b>A</b>
	1,400	1.45	1,070	1,130	<b>A</b>	<b>A</b>	<b>A</b>	<b>A</b>	<b>A</b>	<b>A</b>	<b>A</b>	
Ē	1,550 1,650	1.60	1,110	1,170	<b>A</b>	<b>A</b>	<b>A</b>		<b>A</b>	<b>A</b>		
ST	1,650	1.75	1,160	1,220	<b>A</b>	<b>A</b>			<b>A</b>			
	1,550	1.85	1,170	1,230	<b>A</b>		<b>A</b>					Δ
	1,650	2.00	1,210	1,270		<b>A</b>		Δ				Δ
	1,750	2.15	1,260	1,320			Δ	Δ	<b>A</b>		Δ	Δ
	1,050	1.00	1,000	1,050	<b>A</b>	<b>A</b>	<b>A</b>	<b>A</b>	<b>A</b>	<b>A</b>	<b>A</b>	<b>A</b>
	1,250	1.25	1,140	1,200	<b>A</b>	<b>A</b>	<b>A</b>	<b>A</b>	<b>A</b>	<b>A</b>	<b>A</b>	<b>A</b>
	1,400	1.45	1,230	1,290	<b>A</b>	<b>A</b>	<b>A</b>	<b>A</b>	<b>A</b>	<b>A</b>		
5	1,550	1.60	1,290	1,350	<b>A</b>	<b>A</b>			<b>A</b>	<b>A</b>		
HD <sup>2)</sup>	1,650	1.75	1,350	1,410	<b>A</b>		<b>A</b>		<b>A</b>			Δ
	1,550	1.85	1,340	1,400	<b>A</b>							Δ
	1,650	2.00	1,400	1,460		<b>A</b>		Δ	<b>A</b>		Δ	Δ
	1,750	2.15	1,450	1,510			Δ	Δ		Δ	Δ	-
WI	th coun											
	,	1.00	870		<b>A</b>	<b>A</b>	<b>A</b>	<b>A</b>	<b>A</b>	<b>A</b>	<b>A</b>	<b>A</b>
	1,250	1.25	1,000		<b>A</b>	<b>A</b>	<b>A</b>	<b>A</b>	<b>A</b>	<b>A</b>	<b>A</b>	<b>A</b>
	1,400		1,070		<b>A</b>	<b>A</b>	<b>A</b>	<b>A</b>	<b>A</b>	<b>A</b>	<b>A</b>	<b>A</b>
ā	1,550 1,650		1,110		<b>A</b>	<b>A</b>	<b>A</b>	<b>A</b>	▲	<b>A</b>	<b>A</b>	<b>A</b>
ST					<b>A</b>	<b>A</b>	<b>A</b>		▲	<b>A</b>	<b>A</b>	
	1,550	1.85	1,170		<b>A</b>	<b>A</b>	<b>A</b>		<b>A</b>	<b>A</b>		
	1,650		1,210		<b>A</b>	<b>A</b>		<b>A</b>	▲			
	1,750		1,260									Δ
	1,050	1.00	1,000		<b>A</b>	<b>A</b>	<b>A</b>	<b>A</b>	▲	<b>A</b>		<b>A</b>
	1,250	1.25	1,140		<b>A</b>	<b>A</b>	<b>A</b>	<b>A</b>	<b>A</b>	<b>A</b>		<b>A</b>
	1,400		1,230		<b>A</b>	<b>A</b>	<b>A</b>	<b>A</b>	<b>A</b>	<b>A</b>	<b>A</b>	<b>A</b>
53	1,550	1.60		1,350	<b>A</b>	<b>A</b>	<b>A</b>	<b>A</b>	<b>A</b>	<b>A</b>	<b>A</b>	
Ŧ	1,550 1,650	1.75	1,350		<b>A</b>	<b>A</b>	<b>A</b>	•	<b>A</b>	<b>A</b>	•	<b>A</b>
	1,550	1.85	1,340	1,400	<b>A</b>	<b>A</b>		<b>A</b>	<b>A</b>	<b>A</b>	•	<b>A</b>
	1,650	2.00			<b>A</b>	•			<b>A</b>			
	1,750	2.15	1,450	1,510			<b>A</b>	Δ				Δ

\* 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 50

<sup>2)</sup> HD bucket with teeth Z 50

<sup>3)</sup> Bucket for direct mounting
<sup>4)</sup> Bucket for mounting to quick coupler Other buckets available upon request

 $Max. material weight \blacktriangle = \le 2.0 \text{ t/m}^3, \blacksquare = \le 1.8 \text{ t/m}^3, \blacktriangle = \le 1.65 \text{ t/m}^3, \blacksquare = \le 1.5 \text{ t/m}^3, \bigtriangleup = \le 1.2 \text{ t/m}^3, - = \text{ not authorised}$ 

## Lift capacities

#### with mono boom 6.20 m, counterweight 5.1 t and track pads 600 mm

Stic	ck 2.5	50 m												Stic	:k 2.8	30 m											
Under- carriage		3.0 r	n P	4.5	m P	6.0	) m	7.5	m P	9.0 m	6	~2	50	Under- carriage	Ì	3.0	m P	4.5	m P	6.0	) m 	7.5	m P	9.0 m		<u> </u>	5
Und	m		Ľ		Ľ		Ľ		Ľ			Ľ	m	Und	m		比		Ľ		Ľ		Ľ		)	Ľ	m
	9.0														9.0												
	7.5					8.0	9.0*				7.1	8.3*	6.4		7.5					8.1	8.5*				6.6	7.3*	6.8
	6.0					7.9	9.3*				5.6	8.1*	7.5		6.0					7.9	8.9*	5.5	8.2*		5.2	7.1*	7.8
	4.5			11.6	12.8*	7.5	10.2*	5.4	8.1		4.8	7.2	8.1		4.5	18.5*	18.5*	11.7	12.2*	7.6	9.8*	5.4	8.1		4.5	6.8	8.4
	3.0			10.7	15.3*	7.1	11.2	5.2	7.9		4.4	6.7	8.4		3.0			10.8	14.7*	7.2	11.0*	5.2	7.9		4.2	6.4	8.6
2	1.5			10.1	16.5*	6.8	10.8	5.0	7.7		4.3	6.6	8.4	2	1.5			10.1	16.2*	6.8	10.8	5.0	7.7		4.1	6.2	8.7
	0			10.0	16.2*	6.6	10.6	4.9	7.6		4.4	6.8	8.2		0			9.9	16.3*	6.6	10.6	4.9	7.6		4.2	6.4	8.4
	-1.5	13.0* 1	3.0*	10.0	15.0*	6.6	10.6	4.9	7.6		4.9	7.5	7.6		-1.5	12.5*	12.5*	9.9	15.3*	6.5	10.5	4.9	7.6		4.6	7.0	7.9
	- 3.0	15.9* 1	5.9*	10.2	12.8*	6.7	9.9*				5.9	8.5*	6.7		- 3.0	17.1*	17.1*	10.0	13.4*	6.6	10.3*				5.4	8.3*	7.0
	-4.5			8.7*	8.7*						7.4*	7.4*	5.2		-4.5	12.1*	12.1*	9.7*	9.7*						7.6	7.6*	5.6
	-6.0														-6.0												

Stick 3.20 m Stick 3.70 m 6.0 m 7.5 m 9.0 m 6.0 m 7.5 m 9.0 m 3.0 m 4.5 m 3.0 m 4.5 m 뇬 2 Under-carriage a Under-carriage ÎØ -ා ප් Ľ -ා ප් Ь Ь -ා ප් Ь Ľ Ь -න ස් -50 -5 -5 Ð -50 £) -50 m m m 6.9\* 6.9\* 9.0 5.8 9.0 5.7\* 5.7\* 6.5 6.3\* 6.0\* 5.3\* 7.5 5.9 5.7 7.2 7.5 5.3\* 7.8 6.0 8.0 8.4\* 5.6 7.8\* 4.8 6.1\* 8.2 6.0 5.6 7.3\* 4.4 5.1\* 8.6 4.5 11.4\* 11.4\* 7.6 9.3\* 5.4 8.2 4.2 6.2\* 8.7 4.5 7.7 8.7\* 5.5 7.8\* 4.0 5.9 3.9 5.2\* 9.2 3.0 11.0 14.0\* 7.2 10.5\* 5.2 7.9 3.9 6.0 3.9 6.0 9.0 3.0 11.4\* 11.4\* 11.2 13.1\* 7.3 10.0\* 5.2 8.0 3.9 6.0 3.6 5.4\* 9.4 പ 3.8 3.5 1.5 10.2 15.8\* 6.8 10.8 5.0 77 5.9 3.8 5.8 9.0 പ 1.5 10.3 15.3\* 6.8 10.9 5.0 77 3.8 5.8 5.4 9.5 0 6.5\* 6.5\* 9.8 16.3\* 6.6 10.5 4.8 7.5 3.9 6.0 8.8 0 7.6\* 7.6\* 9.9 16.2\* 6.5 10.5 4.8 7.5 3.7 5.8 3.6 5.5 9.2 -1.5 12.0\* 12.0\* 9.8 15.7\* 6.5 10.4 4.8 7.5 4.2 6.5 8.3 -1.5 11.6\* 11.6\* 9.7 15.9\* 6.4 10.3 4.7 7.4 3.8 5.9 8.8 -3.0 18.6\* 18.6\* 9.9 14.0\* **-3.0** 17.0\* 17.0\* 9.7 14.6\* 6.5 10.5 4.9 7.6 7.5 6.4 10.3 4.7 7.4 4.4 6.8 8.0 -4.5 14.0\* 14.0\* 10.2 10.9\* 6.5 16.1\* 16.1\* 10.0 12.1\* 6.7 8.0\* 7.6\* 6.2 -45 6.5 9.1\* 5.6 7.6\* 6.8 -6.0 6.5\* -6.0 7.1\* 7.1\* 6.5\* 4.9 Height 🖘 Can be slewed through 360° Max. reach \* Limited by hydr. capacity 💾 In longitudinal position of undercarriage 🖉

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. 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 410 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.

## **Lift capacities**

#### with mono boom 6.20 m, counterweight 6.2 t and track pads 600 mm

Stic	:k 2.5	50 m													Stic	:k 2.8	30 m												
er- age	I	3.0 m		4.5	m	6.	0 m	7.5	m	9.0	m	6		ΠΛ	Under- carriage	I	3.0	) m	4.5	m	6.0	) m	7.5	m	9.0	m	6	<u>م</u> لاً ا	Ŋ
Under- carriage	m				B		Ь	-5	Ŀ		Ь		Ь	m	Unde carri	m	-5	Ь	-5	Ь		Ľ		B	-5	Ь	-5	B	m
	9.0															9.0													
	7.5					8.8	9.0*					7.8	8.3*	6.4		7.5					8.5*	8.5*					7.2	7.3*	6.8
	6.0					8.6	9.3*					6.1	8.1*	7.5		6.0					8.7	8.9*	6.1	8.2*			5.8	7.1*	7.8
	4.5		]	2.7	12.8*	8.3	10.2*	6.0	8.8*			5.3	7.9	8.1		4.5	18.5*	18.5*	12.2*	12.2*	8.3	9.8*	6.0	8.6*			5.0	7.2*	8.4
	3.0		]	1.8	15.3*	7.9	11.2*	5.8	8.6			4.9	7.3	8.4		3.0			11.9	14.7*	7.9	11.0*	5.8	8.6			4.7	7.0	8.6
2	1.5		]	1.2	16.5*	7.6	11.8	5.6	8.5			4.8	7.2	8.4	2	1.5			11.3	16.2*	7.6	11.8	5.6	8.4			4.6	6.8	8.7
	0		]	1.1	16.2*	7.4	11.6	5.5	8.3			4.9	7.4	8.2		0			11.0	16.3*	7.3	11.5	5.5	8.3			4.7	7.0	8.4
	-1.5	13.0* 13.	)* ]	1.1	15.0*	7.4	11.5	5.5	8.3			5.4	8.2	7.6		-1.5	12.5*	12.5*	11.0	15.3*	7.3	11.5	5.4	8.3			5.1	7.7	7.9
	- 3.0	15.9* 15.	9* ]	1.3	12.8*	7.5	9.9*					6.5	8.5*	6.7		-3.0	17.1*	17.1*	11.1	13.4*	7.4	10.3*					6.0	8.3*	7.0
	-4.5			8.7*	8.7*							7.4*	7.4*	5.2		-4.5	12.1*	12.1*	9.7*	9.7*							7.6*	7.6*	5.6
	-6.0															-6.0													

Stick 3.20 m Stick 3.70 m 6.0 m 7.5 m 9.0 m 6.0 m 7.5 m 9.0 m 3.0 m 4.5 m 3.0 m 4.5 m 뇬 2 Under-carriage a Under-carriage ÎØ -ා ප් Ь -ා ප් Ь Ľ -ා ප් Ь Ľ Ь -න ස් -50 -5 -5 Ð -50 £) -50 m m m 6.9\* 6.9\* 5.7\* 9.0 5.8 9.0 5.7\* 6.5 6.3\* 6.3\* 6.0\* 5.3\* 7.5 6.0\* 7.2 7.5 5.3\* 7.8 4.9 6.0 8.4\* 8.4\* 6.1 7.8\* 5.3 6.1\* 8.2 6.0 6.2 7.3\* 5.1\* 8.6 4.5 11.4\* 11.4\* 8.4 9.3\* 6.0 8.2\* 4.7 6.2\* 8.7 4.5 8.5 8.7\* 6.0 7.8\* 4.5 5.9 4.3 5.2\* 9.2 3.0 12.1 14.0\* 7.9 10.5\* 5.8 8.6 4.4 6.5\* 4.4 6.4\* 9.0 3.0 11.4\* 11.4\* 12.3 13.1\* 8.0 10.0\* 5.8 8.4\* 4.4 6.5 4.1 5.4\* 9.4 പ 4.3 11.4 15.3\* 1.5 11.3 15.8\* 7.6 11.6\* 5.6 8.4 6.4 4.3 6.4 9.0 പ 1.5 7.6 11.2\* 5.5 8.4 4.3 6.4 4.0 5.8 9.5 0 6.5\* 6.5\* 11.0 16.3\* 7.3 11.5 5.4 8.2 4.4 6.6 8.8 0 7.6\* 7.6\* 11.0 16.2\* 7.3 11.5 5.4 8.2 4.2 6.3 4.0 6.1 9.2 -1.5 12.0\* 12.0\* 10.9 15.7\* 7.2 11.4 5.3 8.2 4.7 7.1 8.3 -1.5 11.6\* 11.6\* 10.8 15.9\* 7.1 11.3 5.3 8.1 4.3 6.5 8.8 **-3.0** 18.6\* 18.6\* 11.0 14.0\* **-3.0** 17.0\* 17.0\* 10.8 14.6\* 7.1 11.1\* 4.9 7.3 10.7\* 5.5 8.0\* 7.5 5.3 7.5 8.0 8.1 -4.5 14.0\* 14.0\* 10.9\* 10.9\* 7.2 16.1\* 16.1\* 11.1 12.1\* 7.5 8.0\* 7.6\* 6.2 -45 7.3 9.1\* 6.2 7.6\* 6.8 -6.0 6.5\* -6.0 7.1\* 7.1\* 6.5\* 4.9 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 600 mm 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 410 kg. Lifting capacity of the excavator is limited by machine stability and hydraulic capacity.

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## Attachments



#### **Rigid ditch cleaning bucket**

GRL 05, for mounting to qu	ick coupler SWA	66			
Cutting width	mm	2,000	2,400	2,400	
Capacity	m <sup>3</sup>	0.70	0.85	1.25	
Weight	kg	546	635	685	



#### Tiltable ditch cleaning bucket

lirect mounting					
mm   2,000	2,000	2,200	2,400	2,400	
m <sup>3</sup> 1.20	1.45	1.65	0.85	1.45	
kg 1,520	1,600	1,680	1,475	1,620	
nounting to quick coupler	SWA 66				
mm   2,000	2,000	2,200	2,400	2,400	
m <sup>3</sup> 1.20	1.45	1.65	0.85	1.45	
kg 1,520	1,600	1,680	1,475	1,620	
	mm 2,000 m <sup>3</sup> 1.20 kg 1,520 mounting to quick coupler mm 2,000 m <sup>3</sup> 1.20	mm     2,000     2,000       m³     1.20     1.45       kg     1,520     1,600       mounting to quick coupler SWA 66	mm     2,000     2,000     2,200       m³     1.20     1.45     1.65       kg     1,520     1,600     1,680       mounting to quick coupler SWA 66	mm     2,000     2,000     2,200     2,400       m³     1.20     1.45     1.65     0.85       kg     1,520     1,600     1,680     1,475       mounting to quick coupler SWA 66	mm     2,000     2,000     2,200     2,400     2,400       m³     1.20     1.45     1.65     0.85     1.45       kg     1,520     1,600     1,680     1,475     1,620       mounting to quick coupler SWA 66



#### Tilt bucket

SL 100, 2 x 50° tiltable, for	mounting to qu	ick coupler SWA 66				
Cutting width	mm	1,600	1,600	1,700	1,800	
Capacity	m <sup>3</sup>	1.45	1.75	1.85	1.60	
Weight	kg	1,520	1,635	1,695	1,620	
HD version				Х		



## Clamshell grab

GM 20C, clamshell buck	ets, for mounting t	o quick coupler	SWA 48			
Cutting width	mm	600	800	1,000	1,200	
Capacity	m <sup>3</sup>	0.45	0.60	0.75	0.90	
Weight	kg	1,080	1,130	1,205	1,270	
GMZ 80, clamshell buck	ets, for mounting t	o quick coupler	SWA 66			
Cutting width	mm	1,200	1,400			
Capacity	m <sup>3</sup>	1.40	1.60			
Weight	kg	2,376	2,486			



Sorting grab		perforate	ed		ribbed			closed			stone tong
SG 30, for direct mounting											
Cutting width	mm	1,000	1,200	1,400	1,000	1,200	1,400	1,000	1,200	1,400	1,020
Capacity	m <sup>3</sup>	0.85	1.00	1.15	0.75	0.90	1.05	0.85	1.00	1.15	0.85
Weight	kg	1,700	1,570	1,850	1,775	1,885	1,990	1,730	1,810	1,890	1,765
SG 30, for mounting to quick co	oupler SWA	48									
Cutting width	mm	1,000	1,200	1,400	1,000	1,200	1,400	1,000	1,200	1,400	1,020
Capacity	m <sup>3</sup>	0.85	1.00	1.15	0.75	0.90	1.05	0.85	1.00	1.15	0.85
Weight	kg	1,700	1,570	1,850	1,775	1,885	1,990	1,730	1,810	1,890	1,765
SG 40, for mounting to quick co	oupler SWA	48 and SV	VA 66								
Cutting width	mm	1,100	1,300		1,100	1,300					
Capacity	m <sup>3</sup>	1.30	1.60		1.10	1.40					
Weight	kg	2,230	2,800		2,320	2,900					

## **Serial equipment**

#### Undercarriage

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

#### Uppercarriage

Access platforms without protruding parts Anti-skid surfaces Automatic swing brake lock Engine coolant level, visible from the cab Engine hood with gas spring opening Filters accessible from ground level Handrails Hvdraulic oil level, visible from ground level Lockable service doors Lockable storage and accessories compartment Main switch, accessible from ground level Main switch, electric, with timer Main switch, manual, lockable Positioning swing brake manual Protection grid on radiator fan Sound insulation Swing drive gearbox oil level, visible from the cab Swing-out radiators Tool set including storage case Windshield washer fluid tank, accessible from ground level

## Hydraulic system

Dedicated swing circuit 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



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 – EGR Fixed geometry turbocharger Fuel gree-filter and water separator Fuel pre-filter and water separator Fuel priming pump Intercooler Power Pack equivalent to EU Stage IIIA / EPA Tier 3



2" seat belt with retractor 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 Electric socket in cabin (24 V) Emergency hammer Engine oil level on touchscreen Footrest Fuel consumption on touchscreen Fuel level on touchscreen Hydraulic oil level on touchscreen Interior lighting Laminated right hand side window Laminated roof 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 Operating modes Power modes Rain hood over front window opening Rear window emergency exit Rearview mirror Retractable laminated two-piece windscreen Roll-down sun blinds for windscreen and roof window Rubber floor mat, fixed on floor and removable Shortkey button on joystick configurable Stepless adjustable engine speed Storage nets Storage spaces Swing braking torque adjustable via touchscreen Tiltable console left Tinted windows Visco-elastic damping Windscreen wiper and washer



Anti-drift system boom cylinders Anti-drift system stick cylinder Boom cylinders regeneration 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 2 pieces	+
Chain guide 3 pieces	+
Chain guide 4 pieces	+
Cover and base plate for undercarriage centre section	٠
Reinforced cover and base plate for undercarriage centre section	+
Steps	•
Steps wide	+
Track pads triple grouser 600 mm	•
Track pads triple grouser 700/800/900 mm	+
Undercarriage LC	•

#### Uppercarriage

Centralised lubrication system (automatic)	+
Centralised lubrication system (manual)	•
Counterweight heavy 6.2 t	+
Counterweight standard 5.1 t	•
External starting aid (24 V)	+
Front right rearview mirror	•
Fuel anti-theft protection	+
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 right, LED+, 1 piece	+1)
Headlight on uppercarriage, lateral left, LED+, 1 piece	+1)
Headlights on uppercarriage, rear, LED+, 2 pieces	+1)
Lockable fuel tank cap	•
Lockable fuel tank cap with padlock	+
Lockable storage box	+
Rearview mirror on counterweight	•
Safe uppercarriage side access platform	+
Tank refilling pump fuel	+
Uppercarriage bottom closure sheets	•

## Hydraulic system

Filter for hydraulic hammer return flow   +     High pressure circuit flow summation   +     High pressure circuit with Tool Control (20 attachment adjustments on display)   +     Liebherr hydraulic oil   •     Liebherr hydraulic oil, adapted for extreme climate conditions   +     Liebherr hydraulic oil, biodegradable   +
High pressure circuit with Tool Control (20 attachment adjustments on display)   +     Liebherr hydraulic oil   •     Liebherr hydraulic oil, adapted for extreme climate conditions   +
Liebherr hydraulic oil Liebherr hydraulic oil, adapted for extreme climate conditions +
Liebherr hydraulic oil, adapted for extreme climate conditions +
Liebberr bydraulic oil biodegradable
Medium pressure circuit +



Air pre-filter with cyclonical dust trap	+
Air pre-filter with oil bath dust trap	+
Pre-heating system for fuel	+



Acoustic travel alarm deactivatable	+
Auxilary heater programmable	+
Dark tinted windows	+
Electric socket in cabin (12 V)	+
Emergency stop in cab	+
FGPS front guard	+
FGPS front guard tiltable	+
FOPS top guard	+
Handrests elevated for joysticks	+
Headlights on cab, front, LED, 2 pieces	•1)
Headlights on cab, front, LED+, 2 pieces	+1)
Luminosity control (LED+ headlights)	+1)
Mini-joystick proportional	+
Operator seat Comfort	+
Operator seat Standard	•
Overload warning system	+
Radio Comfort	+
Radio pre-installation	•
Rear view monitoring camera	+
Right hand side view monitoring camera	+
Roof window protection grid	+
ROPS safety cab structure (ISO 12117-2)	+
Rotating beacon on cabin, LED, 1 piece	+
Shortkey button on joystick configurable	•
Sun visor	+
Windscreen bottom protection grid	+



Floating boom	+
Headlight on boom, right, LED, 1 piece	•1)
Headlight on boom, right, LED+, 1 piece	+1)
Liebherr bucket range	+
Liebherr tooth system	+
Mono boom 6.20 m	•
Pipe fracture safety valve for stick cylinder	+
Pipe fracture safety valves for boom cylinders	+
Quick coupler SWA 48 hydraulic	+
Quick coupler SWA 48 mechanical	+
Quick coupler SWA 66 hydraulic	+
Quick coupler SWA 66 mechanical	+
Stick 2.50 m	+
Stick 2.80 m	+
Stick 3.20 m	+
Stick 3.70 m	+
Stick bottom protection	+

#### • = Standard, + = Option

<sup>1)</sup> 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.

## Notes

## **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 business now employing nearly 50,000 people and comprising over 140 companies across every continent.

The parent company is Liebherr-International AG in Bulle, Switzerland, whose associates are exclusively members of the Liebherr family.

#### Leaders and pioneers

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 founder, sharing a passion to produce innovative products and a determination to provide world-leading equipment and machinery.

#### **Diversified portfolio**

The company is one of the world's biggest construction equipment manufacturers and provides high-quality, user-oriented products and services to sectors including: earthmoving, material handling, deep foundations, mining, mobile and crawler cranes, tower cranes, concrete production and distribution, maritime cranes, aerospace and transportation, gear technology and automation, refrigeration and freezing, components and hotels.

#### **Customised care**

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. That customer focus does not end with delivery of a product but continues through a comprehensive range of back-up and support services.

#### www.liebherr.com

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