

Product Information Crawler Excavator

R 980 SME

Litronic®



Generation

6

Motor

563 HP / 420 kW

Tier 4 Final

Engine

Backhoe: 101,100 kg / 222,890 lb

Shovel: 101,200 kg / 223,110 lb

Bucket Capacity

Backhoe: 5.20 – 7.20 m³ / 6.80 – 9.42 yd³

Shovel: 4.40 – 6.50 m³ / 5.75 – 8.50 yd³

LIEBHERR

Experience the Progress

R 980 SME

Silent and Comfortable Cab

- To date, the largest and quietest cab in its category
- Mounted on visco-elastic elements to absorb vibrations
- Impact-resistant front window and roof window
- Pneumatic suspension seat, heated, multidirectional (air-conditioned optional)
- Large colour touch screen with high resolution display
- Elevated cab for improved visibility of loading area

Accessible and Protected Uppercarriage

- Left and right walkways as standard and large walkways with optional guardrails
- Platform with access to engine and hydraulic compartments for ergonomic and safe servicing
- Refined design for extended visibility
- New engine which conforms to Tier 4 Final standards
- Heavy counterweight for enhanced stability and better performance





Resized Attachments

- Reinforced welded structure
- Larger kinematics components
- Integrated protection under the dipper stick as standard
- Extra protection available (below the boom, cylinders of boom and bucket)

Increased Productivity

- HD bucket, up to 9.42 yd³ for density of 2.800 lbs/yd³
- Digging and breakout forces increased to over 10 %

Robust Undercarriage

- Fitted with excavator components from the next size up machine
- Track pads with 2 chamfered ribs for improved manoeuvrability on rough terrain
- Cast sprocket wheel with double tooth segment for longer life
- Dual-pivot carrier rollers for increased reliability and long-term durability
- Reinforced protection of travel drive for increased resistance against wear on hard and abrasive rock

Experience the Progress

R 980 SME Shovel

Attachments with No Compromises

- Cast steel elements
- Parallel kinematics for powerful and constant penetration
- Bucket cylinders positioned under the attachments for better protection
- Safety valves for hose ruptures of boom cylinders
- Front shovel flap closure semiautomatic

Robust Undercarriage

- Fitted with excavator components from the next size up machine
- Track pads with 2 chamfered ribs for improved manoeuvrability on rough terrain
- Cast sprocket wheel with double tooth segment for longer life
- Dual-pivot carrier rollers for increased reliability and long-term durability
- Reinforced protection of travel drive for increased resistance against wear on hard and abrasive rock





Silent and Comfortable Cab

- Elevated cab for improved visibility of loading area (optional)
- To date, the largest and quietest cab in its category
- Mounted on visco-elastic elements to absorb vibrations
- Impact-resistant front window and roof window
- Pneumatic suspension seat, heated, multidirectional (air-conditioned optional)
- Large colour touch screen with high resolution display

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- Refined design for extended visibility
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Technical Data



Engine

Rating	per SAE J1349	563 HP (420 kW) at 1,800 rpm
	per ISO 9249	571 HP (420 kW) at 1,800 rpm
Torque		2,989 Nm at 1,300 rpm / 2,210 lbf ft at 1,300 rpm
Model		Liebherr D9508 A7 SCR
Type		8 cylinder V engine
Bore		128 mm / 5.0 in
Stroke		157 mm / 6.2 in
Displacement		16.16 l / 986 in³
Engine operation		4-stroke diesel Common-Rail
Exhaust gas treatment		Tier 4 Final SCR Filter Passive regeneration by thermo management
Cooling system		Water-cooled and integrated motor oil cooler, after-cooled and fuel cooled
Air cleaner		Dry-type air cleaner with pre-cleaner, primary and safety elements
Fuel tank		1,498 l / 396 gal
Urea tank		180 l / 48 gal
Electrical system		
	Voltage	24 V
	Batteries	2 x 180 Ah/12 V
	Starter	24 V/7.8 kW
	Alternator	Three-phase current 28 V/140 A
	Engine idling	Sensor controlled
Motor management		Connection to the integrated excavator system controlling via CAN-BUS to the economical utilisation of the service that is available



Hydraulic Controls

Power distribution		Via control valves in single block with integrated safety valves
	Flow summation	To boom and stick
	Closed-loop circuit	For uppercarriage swing drive
Servo circuit		Electro-hydraulic control
	Equipment and swing	Proportional via joystick levers
	Travel	- Proportional control via foot pedals or removable levers - Speed pre-selection
Additional functions		Proportional regulation via foot pedals or mini-joystick



Hydraulic System

Hydraulic pumps		Two Liebherr variable displacement, swashplate pumps
	For equipment and travel drive	Two Liebherr variable displacement, swashplate pumps
	Max. flow	2 x 498 l/min. / 2 x 131 gpm
	Max. pressure	350 bar / 5,076 psi
	For swing drive	Reversible, variable displacement, swashplate pump, closed-loop circuit
	Max. flow	315 l/min. / 83 gpm
	Max. pressure	350 bar / 5,076 psi
Pump regulation		Electro-hydraulic with electronic engine speed sensing regulation, pressure compensation, flow compensation, high flow
Hydraulic tank		536 l / 142 gal
Hydraulic system		1,134 l / 300 gal
Hydraulic oil filter		2 full flow filters in return line with integrated fine filter area (5 µm / 2,500 mesh)
Cooling system		Cooler for transmission pump oil and cooler for oil and condenser of air-conditioning with hydrostatically controlled fan drives
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
RPM adjustment		Stepless adjustment of engine output via RPM at each selected mode
Tool Control		20 preadjustable pump flows and pressures for add-on attachments



Swing Drive

Drive		Liebherr swashplate motor with integrated brake valve
Transmission		Liebherr compact planetary reduction gears
Swing ring		Liebherr, sealed race ball bearing swing ring, internal teeth
Swing speed		0 – 5.9 rpm stepless
Swing torque		295 kNm / 217,581 lbf ft
Holding brake		Wet multi-disc (spring applied, pressure released)



Operator's Cab

Cab	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 possibilities, shock-absorbing suspension, sounddamping insulating, tinted laminated safety glass, separate window shades for the sunroof window and windscreen, cigarette lighter and 12 V plug, storage bins, lunchbox, cup holder
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 width, 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, color 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
Noise emission	
ISO 6396	L_{pA} (inside cab) = 71 dB(A)
2000/14/EC	L_{WA} (surround noise) = 109 dB(A)



Undercarriage

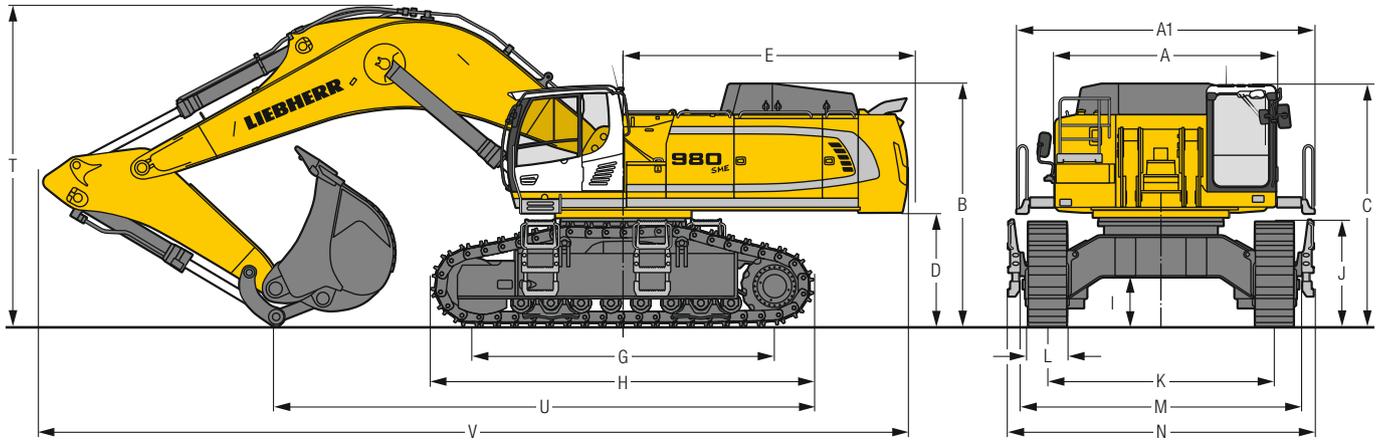
S-HD	Gauge 3,600 mm / 11'10"
Drive	Liebherr swashplate motor with brake valves on both sides
Transmission	Liebherr compact planetary reduction gear
Maximum travel speed	Low range 2.6 km/h / 1.6 mph High range 3.7 km/h / 2.3 mph
Drawbar pull on crawler	645 kN / 145,002 lbf
Track components	BMP280, maintenance-free
Track rollers / Carrier rollers	8/2
Tracks	Sealed and greased
Track pads	Double grouser
Holding brake	Wet multi-disc (spring applied, pressure released)
Brake valves	Outside the 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	Automatic central lubrication system (except link and tilt geometry)
Hydraulic connections	Pipes and hoses equipped with SAE split-flange connections
Buckets	Standard equipped with Liebherr tooth system

Dimensions



		mm/ft in		
A	Uppercarriage width	3,565/11' 8"		
A1	Uppercarriage width with catwalks	4,730/15' 6"		
B	Uppercarriage height	3,965/13'		
C	Cab height	3,935/4,130* /12'11"/13' 7"*		
D	Counterweight ground clearance	1,860/ 6' 1"		
E	Rear-end length	4,640/15' 3"		
G	Wheelbase	4,810/15' 9"		
H	Undercarriage length	6,095/20'		
I	Undercarriage ground clearance	810/ 2' 8"		
J	Track height	1,715/ 5' 8"		
K	Track gauge	3,600/11'10"		
L	Track pad width	500/ 20"	600/ 24"	750/ 30"
M	Width over tracks	4,465/14' 8"	4,465/14' 8"	4,465/14' 8"
N	Width over steps	4,845/15'11"	4,845/15'11"	4,845/15'11"

* with FOPS top guard

	Stick length m/ft in	Mono boom SME 7.20 m/23'7" direct mounting mm/ft in
T	Boom height	2.90/ 9' 6" SME 5,250/17'3" 3.30/10'10" SME 5,400/17'9"
U	Length on ground	2.90/ 9' 6" SME 8,600/28'3" 3.30/10'10" SME 8,400/27'7"
V	Overall length	2.90/ 9' 6" SME 13,800/45'3" 3.30/10'10" SME 13,450/44'2"
	Bucket	6.30 m³/8.24 yd³

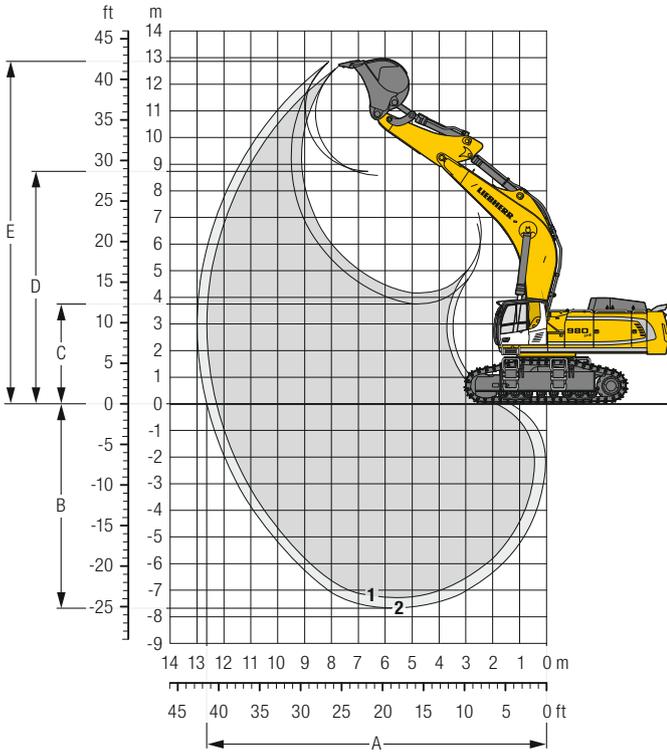
Transport Dimensions

removable elements disassembled

	Stick m/ft in	Mono boom SME 7.20 m/23'7" mm/ft in
Transport width		4,845/15'11"
Transport length	2.90/ 9' 6" SME 3.30/10'10" SME	13,800/45' 3" 13,450/44' 2"
Transport height	2.90/ 9' 6" SME 3.30/10'10" SME	5,250/17' 3" 5,400/17' 9"
Bucket		6.30 m³/8.24 yd³

Backhoe Bucket

with Mono Boom SME 7.20 m/23'7" and Counterweight 16.0 t/35,270 lb



Digging Envelope

without quick coupler		1	2
Stick length	m/ft in	2.90/ 9' 6"	3.30/10'10"
		SME	SME
A Max. reach at ground level	m/ft in	12.30/40' 4"	12.65/41' 6"
B Max. digging depth	m/ft in	7.30/23'11"	7.70/25' 3"
C Min. dumping height	m/ft in	4.15/13' 7"	3.75/12' 4"
D Max. dumping height	m/ft in	8.60/28' 3"	8.75/28' 8"
E Max. cutting height	m/ft in	12.70/41' 8"	12.85/42' 2"

Forces

without quick coupler		1	2
Stick digging force (ISO 6015)	kN/ lbf	426/ 95,770	394/ 88,580
Bucket digging force (ISO 6015)	kN/ lbf	506/113,750	506/113,750
Stick digging force (SAE J1179)	kN/ lbf	406/ 91,270	377/ 84,750
Bucket digging force (SAE J1179)	kN/ lbf	454/102,060	454/102,060

Operating Weight and Ground Pressure

The operating weight includes the basic machine with counterweight 16.0 t/35,270 lb, mono boom SME 7.20 m/23'7", stick SME 2.90 m/9'6" and HD bucket with semi-delta cutting edge 6.20 m³/8.11 yd³ (6,500 kg/14,330 lb).

Undercarriage		S-HD		
Pad width	mm/in	500/20"	600/24"	750/30"
Weight	kg/lb	95,900/211,420	96,600/212,970	97,600/215,170
Ground pressure	kg/cm²/psi	1.82/25.9	1.53/21.8	1.24/17.6

The operating weight includes the basic machine with counterweight 18.0 t/39,680 lb, mono boom SME 7.20 m/23'7", stick SME 2.90 m/9'6" and HDV bucket with semi-delta cutting edge 6.30 m³/8.24 yd³ (7,600 kg/16,760 lb).

Undercarriage		S-HD		
Pad width	mm/in	500/20"	600/24"	750/30"
Weight	kg/lb	99,400/219,140	100,100/220,680	101,100/222,890
Ground pressure	kg/cm²/psi	1.89/26.9	1.59/22.6	1.28/18.2

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

	Cutting width	Capacity ISO 7451	Weight	S-HD-Undercarriage SME-Equipment (with track pads 750 mm/30")	
				2.90 9'6"	3.30 10'10"
HD ¹⁾	2,350 93"	6.20 8.11	6,500 14,330	■	■
	2,500 98"	6.80 8.89	6,800 14,990	■	▲
HD ²⁾	2,550 100"	7.20 9.42	7,000 15,430	▲	■
	2,200 87"	5.20 6.80	7,200 15,870	▲	▲
HDV ³⁾	2,350 93"	5.70 7.45	7,300 16,090	▲	■
	2,350 93"	6.30 8.24	7,600 16,760	■	▲

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

¹⁾ HD bucket with semi-delta cutting edge and teeth Z 100 (appropriate for materials above classification 6, according to VOB, Section C, DIN 18300)

²⁾ HD bucket with semi-delta cutting edge and teeth Z 90 (appropriate for materials above classification 6, according to VOB, Section C, DIN 18300)

³⁾ HDV bucket with semi-delta cutting edge and teeth Z 100 (appropriate for materials above classification 6, according to VOB, Section C, DIN 18300)

Other buckets available upon request

Max. material weight ▲ = ≤ 2.0 t/m³/3,400 lb/yd³, ■ = ≤ 1.8 t/m³/3,000 lb/yd³, ▲ = ≤ 1.65 t/m³/2,800 lb/yd³, ■ = ≤ 1.5 t/m³/2,500 lb/yd³

Lift Capacities

with Mono Boom SME 7.20 m/23'7", Counterweight 16.0 t/35,270 lb and Track Pads 750 mm/30"

Stick SME 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		9.0 m 30 ft		10.5 m 35 ft		m ft in	
		↕	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔		
S-HD	10.5 m t												23.0*	23.0*	6.8
	35 ft lb												51.4*	51.4*	21'7"
	9.0 m t							21.2*	21.2*				21.1*	21.1*	8.2
	30 ft lb							46.7*	46.7*				46.8*	46.8*	26'7"
	7.5 m t							21.6*	21.6*		20.3*	20.3*			9.2
	25 ft lb							47.1*	47.1*						30'
	6.0 m t					27.6*	27.6*	23.1*	23.1*	20.7*	20.7*				9.8
	20 ft lb					59.4*	59.4*	50.2*	50.2*	45.1*	45.1*				32'2"
	4.5 m t					31.6*	31.6*	25.1*	25.1*	20.5*	21.6*				10.2
	15 ft lb					68.1*	68.1*	54.4*	54.4*	44.1*	46.9*				33'5"
	3.0 m t							25.8*	27.0*	19.8*	22.5*				10.3
	10 ft lb					75.2*	75.2*	55.7*	58.3*	42.6*	48.8*				33'11"
	1.5 m t					34.2*	36.2*	24.8*	28.1*	19.2*	23.0*				10.2
	5 ft lb					73.7*	78.4*	53.5*	60.7*	41.4*	49.9*				33'7"
	0 m t					33.6*	35.7*	24.2*	28.1*	18.8*	22.8*				9.9
	0 ft lb					72.2*	77.4*	52.3*	60.8*	40.6*	49.3*				32'5"
-1.5 m t			42.3*	42.3*	33.5*	33.6*	24.1*	26.7*	18.8*	21.1*				9.3	
-5 ft lb			92.1*	92.1*	72.0*	72.8*	51.9*	57.7*	40.6*	45.1*				30'5"	
-3.0 m t	43.3*	43.3*	36.6*	36.6*	29.5*	29.5*	23.2*	23.2*						8.4	
-10 ft lb	94.5*	94.5*	79.4*	79.4*	63.8*	63.8*	49.8*	49.8*						27'4"	
-4.5 m t			27.5*	27.5*	22.0*	22.0*								7.0	
-15 ft lb			58.8*	58.8*	46.4*	46.4*								22'7"	

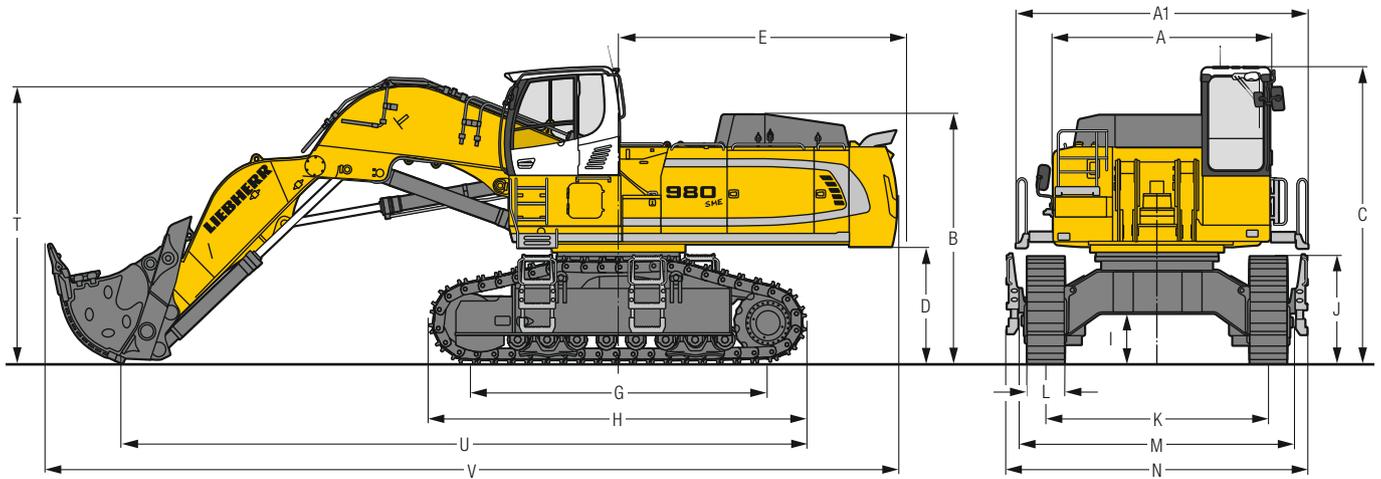
Stick SME 3.30 m/10'10"

Under-carriage	Height	3.0 m 10 ft		4.5 m 15 ft		6.0 m 20 ft		7.5 m 25 ft		9.0 m 30 ft		10.5 m 35 ft		m ft in		
		↕	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔			
S-HD	10.5 m t													21.1*	21.1*	7.3
	35 ft lb													47.1*	47.1*	23'5"
	9.0 m t							19.8*	19.8*					19.7*	19.7*	8.7
	30 ft lb							43.7*	43.7*					43.6*	43.6*	28'1"
	7.5 m t							20.5*	20.5*	19.2*	19.2*			19.1*	19.1*	9.6
	25 ft lb							44.7*	44.7*	42.2*	42.2*			42.1*	42.1*	31'4"
	6.0 m t					26.1*	26.1*	22.1*	22.1*	19.8*	19.8*			17.1*	18.8*	10.2
	20 ft lb					56.4*	56.4*	48.0*	48.0*	43.2*	43.2*			37.9*	41.5*	33'5"
	4.5 m t					30.3*	30.3*	24.3*	24.3*	20.5*	20.9*	15.9	18.8*	15.8*	18.8*	10.6
	15 ft lb					65.2*	65.2*	52.5*	52.5*	44.2*	45.3*			34.9*	41.4*	34'7"
	3.0 m t					33.9*	33.9*	25.9*	26.3*	19.8*	21.9*	15.6	19.1*	15.2*	18.8*	10.7
	10 ft lb					73.1*	73.1*	55.9*	56.8*	42.6*	47.6*	33.5	41.6*	33.5*	41.5*	35'
	1.5 m t					34.3*	35.8*	24.8*	27.6*	19.1*	22.7*	15.3	19.2*	15.1*	19.0*	10.6
	5 ft lb					73.9*	77.4*	53.6*	59.8*	41.2*	49.1*			33.3*	41.9*	34'8"
	0 m t					33.5*	35.8*	24.2*	27.9*	18.7*	22.7*			15.6*	19.1*	10.3
	0 ft lb					72.1*	77.6*	52.1*	60.5*	40.3*	49.1*			34.4*	42.2*	33'7"
-1.5 m t			42.3*	42.3*	33.2*	34.2*	23.9*	27.0*	18.5*	21.6*			16.8*	19.1*	9.7	
-5 ft lb			95.9*	95.9*	71.5*	74.0*	51.4*	58.3*	40.0*	46.4*			37.2*	42.2*	31'8"	
-3.0 m t	42.5*	42.5*	38.8*	38.8*	30.7*	30.7*	24.0*	24.2*					18.8*	18.8*	8.8	
-10 ft lb	96.2*	96.2*	84.2*	84.2*	66.3*	66.3*	51.8*	52.1*					41.4*	41.4*	28'8"	
-4.5 m t			30.6*	30.6*	24.3*	24.3*							17.5*	17.5*	7.5	
-15 ft lb			65.6*	65.6*	51.8*	51.8*							38.2*	38.2*	24'4"	

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) / 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 750 mm/30" 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 1,450 kg/3,200 lb. Lifting capacity of the excavator is limited by machine stability and hydraulic capacity.

Dimensions Front Shovel



	mm / ft in
A Uppercarriage width	3,565 / 11'8"
A1 Uppercarriage width with catwalks	4,730 / 15'6"
B Uppercarriage height	3,965 / 13'
C Cab height	4,735 / 4,930* / 15'6" / 16'2"*
D Counterweight ground clearance	1,860 / 6'1"
E Rear-end length	4,640 / 15'3"
G Wheelbase	4,810 / 15'9"
H Undercarriage length	6,095 / 20'
I Undercarriage ground clearance	810 / 2'8"

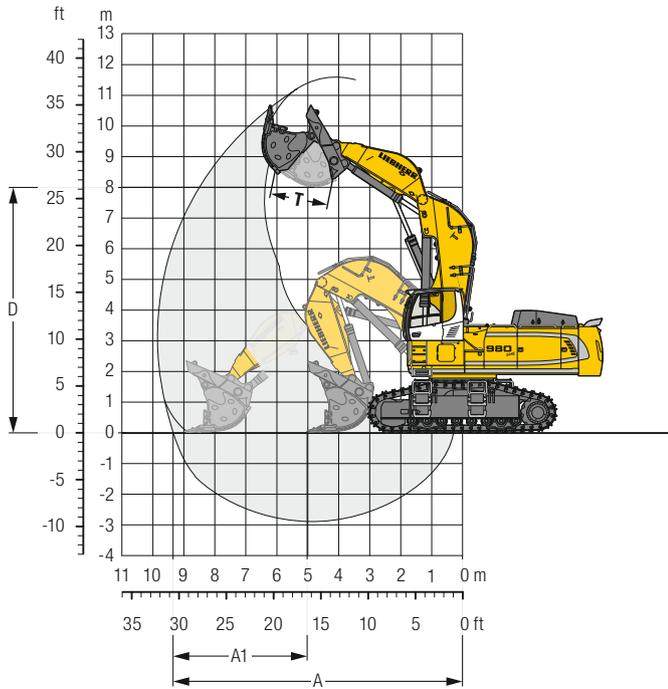
* with FOPS top guard

	mm / ft in
J Track height	1,715 / 5' 8"
K Track gauge	3,600 / 11'10"
L Track pad width	500 / 20" 600 / 24" 750 / 30"
M Width over tracks	4,465 / 14' 8" 4,465 / 14' 8" 4,465 / 14' 8"
N Width over steps	4,845 / 15'11" 4,845 / 15'11" 4,845 / 15'11"
T Boom height	4,600 / 15' 1"
U Length on ground	11,100 / 36' 5"
V Overall length	13,800 / 45' 3"

Transport Dimensions removable elements disassembled

	Shovel equipment mm / ft in
Transport width	4,845 / 15'11"
Transport length	13,800 / 45' 3"
Transport height	4,930 / 16' 2"
Shovel	6.00 m ³ / 7.85 yd ³

Front Shovel



Digging Envelope

A Max. reach at ground level	m/ft in	9.35/30' 8"
A1 Max. crowd length	m/ft in	3.90/12'10"
D Max. dumping height	m/ft in	8.00/26' 3"
T Bucket opening width	mm/ft in	1,825/ 6'

Forces

Max. crowd force	kN/lbf	690/155,120
Max. crowd force at ground level	kN/lbf	490/110,160
Max. breakout force	kN/lbf	500/112,410

Operating Weight and Ground Pressure

The operating weight includes the basic machine with counterweight 16.0 t/35,270 lb, cab elevation 800 mm/2'7", shovel equipment SME and front shovel 6.00 m³/7.85 yd³ (10,000 kg/22,050 lb), level II.

Undercarriage		S-HD		
Pad width	mm	500/20"	600/24"	750/30"
Weight	kg	99,500/219,360	100,200/220,900	101,200/223,110
Ground pressure	kg/cm ²	1.89/26.9	1.59/22.6	1.28/18.2

Front Shovels

Cutting width mm in	Capacity ISO 7451 m ³ yd ³	Weight kg lb	Wear kit level	S-HD-Undercarriage	
				Shovel equipment	
2,300 91"	4.40 5.75	8,310 18,320	II	▲	▲
2,300 91"	4.40 5.75	9,160 20,190	III	▲	▲
2,700 106"	5.10 6.67	8,450 18,630	I	▲	▲
2,700 106"	5.10 6.67	9,100 20,060	II	▲	▲
2,700 106"	5.10 6.67	10,150 22,380	III	▲	▲
2,700 106"	5.40 7.06	10,600 23,370	III	▲	▲
2,700 106"	5.60 7.32	8,750 19,290	I	▲	▲
2,700 106"	5.60 7.32	9,500 20,940	II	▲	▲
2,700 106"	5.60 7.32	11,000 24,250	III	▲	▲
2,700 106"	6.00 7.85	9,000 19,840	I	▲	▲
2,700 106"	6.00 7.85	10,000 22,050	II	■	■
2,700 106"	6.00 7.85	11,300 24,910	III	■	■
3,150 124"	6.50 8.50	10,300 22,710	I	■	■
3,150 124"	6.50 8.50	11,000 24,250	II	▲	▲
3,150 124"	6.50 8.50	12,900 28,440	III	■	■

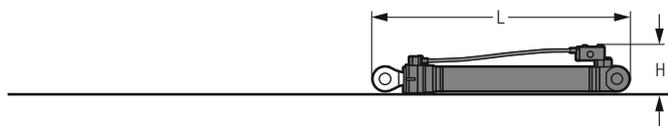
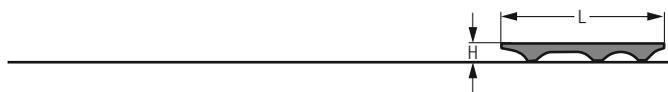
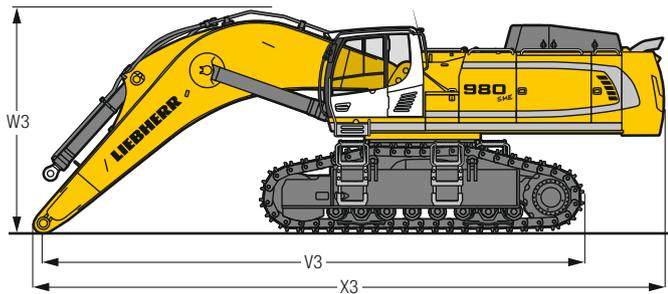
Level I: For non-abrasive materials, such as limestone without flint inclusion, shot material or easily breakable rock, i.e., deteriorated rock, soft limestone, shale, etc.

Level II: For pre-blasted heavy rock, or deteriorated, cracked material (classification 3 to 4, according to DIN 18300)

Level III: For highly-abrasive materials such as rock with a high silica content, sandstone etc.

Max. material weight ▲ = ≤ 2.0 t/m³/3,400 lb/yd³, ■ = ≤ 1.8 t/m³/3,000 lb/yd³, ▲ = ≤ 1.65 t/m³/2,800 lb/yd³, ■ = ≤ 1.5 t/m³/2,500 lb/yd³

Dimensions and Weights



Basic Machine

Track pads	mm/lb	500/20"	600/24"	750/24"
Weight with backhoe attachment and S-HD-undercarriage without counterweight	kg/lb	56,400/124,340	57,050/125,770	58,100/128,090
Weight with shovel attachment and HD-undercarriage without counterweight	kg/lb	56,500/124,560	57,150/125,990	58,200/128,310

Machine without Stick

V3	mm / ft in	10,200 / 33' 6"
W3	mm / ft in	4,300 / 14' 1"
X3	mm / ft in	11,850 / 39' 11"

Cab Elevation

		800 mm / 2'7"
L Length	mm / ft in	1,890 / 6'2"
H Height	mm / ft in	925 / 3'
Width	mm / ft in	1,370 / 4'6"
Weight	kg / lb	600 / 1,320

Counterweight

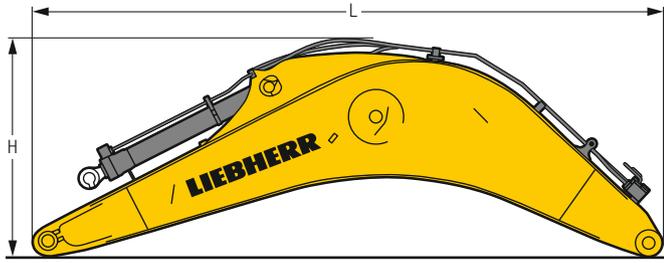
		Std	heavy
L Length	mm / ft in	775 / 2'7"	775 / 2'7"
H Height	mm / ft in	1,595 / 5'3"	1,595 / 5'3"
Width	mm / ft in	3,360 / 11'	3,360 / 11'
Weight	kg / lb	16,000 / 35,270	18,000 / 39,680

Upper Protection Screen

L Length	mm / ft in	1,960 / 6'5"
H Height	mm / ft in	190 / 7"
Width	mm / ft in	1,110 / 3'8"
Weight	kg / lb	75 / 165

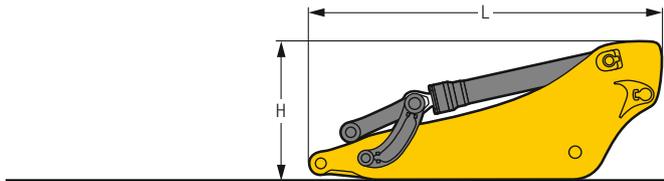
Hoist Cylinders (two)

L Length	mm / ft in	2,920 / 9' 7"
H Height	mm / ft in	550 / 1'10"
Width	mm / ft in	400 / 1' 4"
Weight	kg / lb	2 x 1,050 / 2 x 2,320



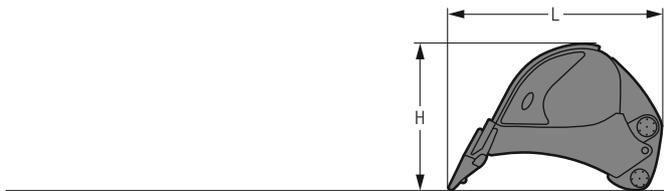
Mono Boom with Stick Cylinder

Stick length	m/ft in	7.20/23' 7"
L Length	mm/ft in	7,550/24' 9"
H Height	mm/ft in	2,700/ 8'10"
Width	mm/ft in	1,460/ 4' 9"
Weight	kg/lb	10,300/22,710



Stick with Bucket Cylinder

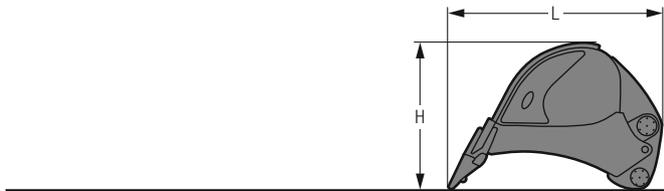
Stick length	m/ft in	2.90/ 9' 6"	3.30/10'10"
L Length	mm/ft in	4,050/13' 3"	4,450/14' 7"
H Height	mm/ft in	1,700/ 5' 7"	1,650/ 5' 5"
Width	mm/ft in	900/ 2'11"	900/ 2'11"
Weight	kg/lb	5,050/11,130	5,350/11,800



Backhoe Buckets (straight cutting edge, teeth Z 100)

HD

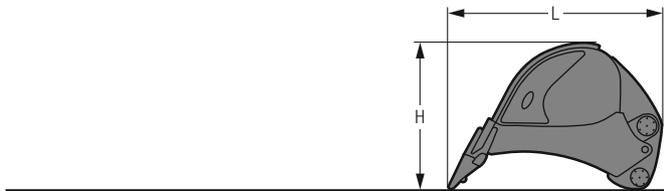
Cutting width	mm/in	2,350/93"	2,500/98"
Capacity	m ³ /yd ³	6.20/8.11	6.80/8.89
L Length	mm/ft in	2,850/9' 4"	2,850/9'4"
H Height	mm/ft in	2,150/7' 1"	2,150/7'1"
Width	mm/ft in	2,400/7'10"	2,550/8'4"
Weight	kg/lb	6,300/13,890	6,600/14,550



Backhoe Buckets (straight cutting edge, teeth Z 100)

HDV

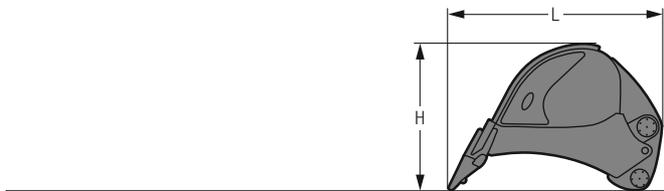
Cutting width	mm/in	2,200/87"	2,350/93"	2,350/93"
Capacity	m ³ /yd ³	5.20/6.80	5.70/7.45	6.30/8.24
L Length	mm/ft in	2,750/9'	2,750/9'	2,850/9' 4"
H Height	mm/ft in	2,150/7'1"	2,150/7' 1"	2,150/7' 1"
Width	mm/ft in	2,550/8'4"	2,400/7'10"	2,400/7'10"
Weight	kg/lb	7,000/15,430	7,100/15,650	7,450/16,420



Backhoe Buckets (semi-delta cutting edge, teeth Z 90)

HD

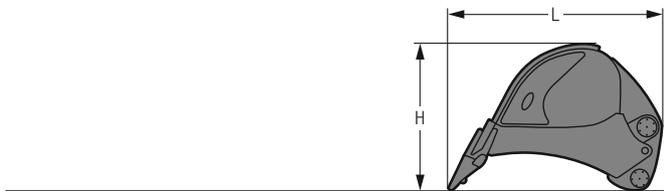
Cutting width	mm/in	2,550/100"
Capacity	m ³ /yd ³	7.20/9.42
L Length	mm/ft in	3,100/10'2"
H Height	mm/ft in	2,200/ 7'3"
Width	mm/ft in	2,600/ 8'6"
Weight	kg/lb	7,000/15,430



Backhoe Buckets (semi-delta cutting edge, teeth Z 100)

HD

Cutting width	mm/in	2,350/93"	2,500/98"
Capacity	m ³ /yd ³	6.20/8.11	6.80/8.89
L Length	mm/ft in	3,050/10'	3,050/10'
H Height	mm/ft in	2,150/ 7' 1"	2,150/ 7' 1"
Width	mm/ft in	2,400/ 7'10"	2,550/ 8' 4"
Weight	kg/lb	6,500/14,330	6,800/14,990

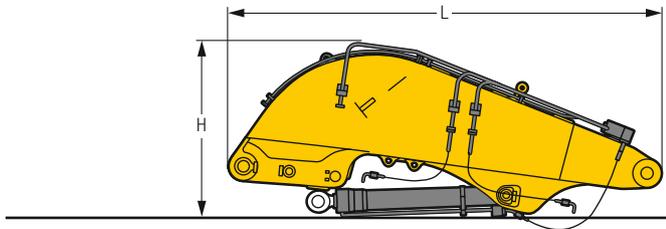


Backhoe Buckets (semi-delta cutting edge, teeth Z 100)

HDV

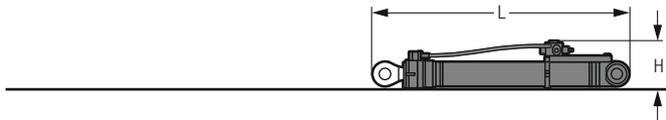
Cutting width	mm/in	2,200/87"	2,350/93"	2,350/93"
Capacity	m ³ /yd ³	5.20/6.80	5.70/7.45	6.30/8.24
L Length	mm/ft in	2,950/9'8"	2,950/9' 8"	3,050/10'
H Height	mm/ft in	2,150/7'1"	2,150/7' 1"	2,200/ 7' 3"
Width	mm/ft in	2,250/7'5"	2,400/7'10"	2,400/ 7'10"
Weight	kg/lb	7,200/15,870	7,300/16,090	7,600/16,760

Dimensions and Weights



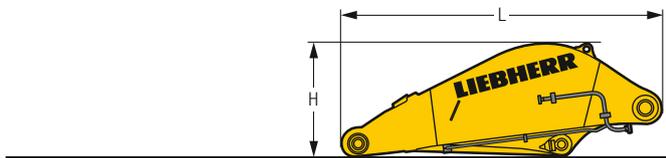
Shovel Boom

L Length	mm / ft in	4,950 / 16'3"
H Height	mm / ft in	2,050 / 6'9"
Width	mm / ft in	1,650 / 5'5"
Weight without crowd cylinder	kg / lb	7,300 / 16,090
Weight crowd cylinder	kg / lb	2 x 450 / 2 x 990



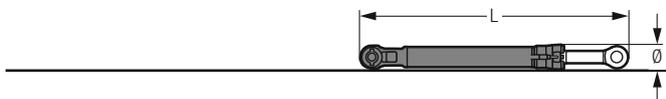
Shovel Hoist Cylinders (two)

L Length	mm / ft in	2,920 / 9' 7"
H Height	mm / ft in	550 / 1'10"
Width	mm / ft in	450 / 1' 6"
Weight	kg / lb	2 x 1,100 / 2 x 2,430



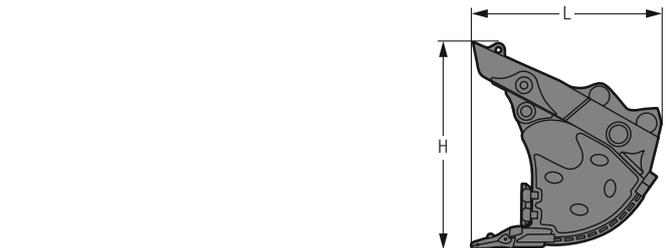
Shovel Stick

L Length	mm / ft in	3,660 / 12'
H Height	mm / ft in	1,300 / 4' 3"
Width	mm / ft in	1,800 / 5'11"
Weight	kg / lb	4,650 / 10,250



Shovel Bucket Cylinders (two)

L Length	mm / ft in	3,050 / 10'
H Height	mm / ft in	450 / 1'6"
Width	mm / ft in	450 / 1'6"
Weight	kg / lb	2 x 625 / 2 x 1,380



Front Shovels

Cutting width	mm / in	2,700 / 106"	2,700 / 106"	2,700 / 106"	3,150 / 124"
Capacity	m ³ / yd ³	5.10 / 6.67	5.60 / 7.32	6.00 / 7.85	6.50 / 8.50
L Length	mm / ft in	2,600 / 8' 6"	2,800 / 9' 2"	2,800 / 9' 2"	2,800 / 9' 2"
H Height	mm / ft in	2,700 / 8'10"	2,700 / 8'10"	2,700 / 8'10"	2,700 / 8'10"
Width	mm / ft in	2,700 / 8'10"	2,700 / 8'10"	2,700 / 8'10"	3,150 / 10' 4"
Weight					
Level I	kg / lb	–	8,750 / 19,290	9,000 / 19,840	10,300 / 22,710
Level II	kg / lb	–	9,500 / 20,940	10,000 / 22,050	11,000 / 24,250
Level III	kg / lb	10,150 / 22,380	11,000 / 24,250	11,300 / 24,910	–

Serial Equipment

Undercarriage

- Lashing eyes
- Sprocket with dirt ejector
- Track and carrier rollers, sealed and lifetime-lubricated
- Travel motor housing protection
- Undercarriage S-HD

Uppercarriage

- Access platforms without protruding parts
- Anti-skid surfaces
- Automatic swing brake lock
- Centralized lubrication system (automatic)
- Counterweight heavy 16.0 t / **35,270 lb**
- Counterweight super heavy 18.0 t / **39,680 lb**
- DEF tank lockable access hatch
- Engine hood with gas spring opening
- Extended tool set including tool box
- Handrails
- Headlights on uppercarriage, front, LED, 2 pieces, protections included
- Lockable fuel tank cap with padlock
- Lockable service doors
- Lockable storage box
- Main switch, accessible from ground level
- Pre-heating system for fuel
- Protection grid on radiator fan
- Sound insulation
- Swing-out radiators
- Windshield washer fluid tank

Hydraulic System

- Dedicated swing circuit
- Filter with integrated fine filters
- Hydraulic pressure measuring ports
- Hydraulic tank shut-off valve
- 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 – SCR
- Fixed geometry turbocharger
- Fuel fine filter
- Fuel pre-filter and water separator
- Fuel priming pump
- Intercooler
- Power Pack 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 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
- Footrest
- Fuel consumption on touchscreen
- Fuel level on touchscreen
- Impact resistant roof window
- Impact resistant two-piece windshield
- Interior lighting
- Laminated right hand side window
- LIDAT Plus (Liebherr data transfer system)*
- Movement priority between swing and boom, 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
- Rubber floor mat, fixed on floor and removable
- Storage box
- Storage nets
- Storage spaces
- Tilttable console left
- Tinted windows
- Visco-elastic damping
- Windscreen wiper and washer
- Work mode selector

Equipment

- Anti-drift system boom cylinders
- Anti-drift system stick cylinder
- Boom bottom protection
- Boom cylinders regeneration
- Headlights on boom, LED, 2 pieces, protections included
- 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 bottom protection
- Stick cylinder regeneration

* optionally extendable after one year

Equipment Standard/Option

Undercarriage

Chain guide 2 pieces	•
Chain guide 3 pieces	+
Reinforced cover and base plate for undercarriage center section	+
Special painting	+
Track pads double grouser 500 mm/20", chamfered	+
Track pads double grouser 600 mm/24", chamfered	•
Track pads double grouser 750 mm/30", chamfered	+
Travel drive gearbox protection	+
Undercarriage protection plate for drop-ball application	+

Upper-carriage

Air pre-filter with cyclonical dust trap	+
Boxing ring	+
Catwalks left and right	•
Catwalk wide with railing	+
Electric socket on uppercarriage (24 V)	+
Filter for hydraulic hammer return flow	+
Fixed cab riser 800 mm/2'7"	+
Headlight on uppercarriage, lateral right, LED+, 1 piece	+ ¹⁾
Headlights on uppercarriage, front, LED+, 2 pieces, protections included	+ ¹⁾
Headlights on uppercarriage, rear, LED+, 2 pieces	+ ¹⁾
Lighting for tank area ¹⁾	+
Lighting for uppercarriage access ¹⁾	+
Motorized tiltable access ladder	+
Radiator fine mesh protection grid	+
Reversible fan drive	+
Skyview 360°	+
Special painting	+
Swing ring and lubrication hoses protection	+
Tank refilling pump fuel	+
Wiggins coupling for fuel	+

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 ¹⁾	+

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	+
Electrically adjustable and heated outside rear-view mirrors	+
Electronic immobilizer	+
Emergency stop in cab	+
FGPS front guard tiltable	+
Fire extinguisher	+
First-aid box	+
Follow me home	+ ¹⁾
FOPS top guard	+
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⁾
High pressure circuit switchable on pedals or mini-joystick	+
High pressure circuit with Tool Control (20 attachment adjustments on display)	+
Lighting for cabin access ¹⁾	+
Luminosity control (LED+ headlights) ¹⁾	+
Medium pressure circuit	+
Mini-joysticks proportional	+
Operator seat Comfort	•
Operator seat Premium	+
Overload warning system	+
Radio Comfort	+
Radio pre-installation	•
Roof sun shield	+
Roof window wiper	+
Rotating beacon on cabin, LED, 1 piece	+
Shortcut button on joystick configurable	•
Special painting	+
Sun visor	+

Equipment

Boom cylinder rods protection	+
Bucket cylinder rod protection	+
Centralized lubrication extended for connecting link	+
Floating boom	+
Headlights on boom, LED+, 2 pieces, protections included	+ ¹⁾
Mono boom SME 7.20 m/23'7"	+
Preparation for ripper tooth	+
Quick coupler SWA 105 hydraulic	+
Shovel boom 4.60 m/15'1"	+
Shovel stick 3.30 m/10'10"	+
Special painting	+
Stick SME 2.90 m/9'6"	+
Stick SME 3.30 m/10'10"	+

• = Standard, + = Option

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

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

The Liebherr Group of Companies



Diverse Product Range

The Liebherr Group is one of the largest construction equipment manufacturers in the world. Liebherr's quality products and services hold a high reputation in many industries. The wide range includes domestic appliances, aerospace and transportation systems, machine tools and maritime cranes.

Exceptional Customer Benefit

Every product line provides a complete range of models in many different versions. With both their technical excellence and superior quality, Liebherr products offer customers the highest benefits in practical applications.

State-of-the-art Technology

Liebherr attributes great importance to the product areas of core technology and components, in order to achieve its consistent, top-quality products. Important modules and components are developed and manufactured in-house, for instance, the entire drive and control technology for the construction equipment and mining trucks.

Worldwide and Family-Owned

Hans Liebherr founded the Liebherr family company in 1949. Since that time, the enterprise has steadily grown to a group of more than 130 companies with more than 46,000 employees located on all continents. The corporate headquarters of the Group is Liebherr-International AG in Bulle, Switzerland. The Liebherr family is the sole owner of the company.

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