

# Product Information Crawler Excavator

## R 980 SME

Litronic®



### Generation

6

### Motor

420 kW/571 HP

Stage V

### Operating Weight

Backhoe: 95,900 – 101,100 kg

Shovel: 99,500 – 101,200 kg

### Bucket Capacity

Backhoe: 5.20 – 7.20 m<sup>3</sup>

Shovel: 4.40 – 6.50 m<sup>3</sup>

# 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 Stage V
- 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 7.2 m<sup>3</sup> for density of 1.65 t/m<sup>3</sup>
- 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

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- 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)
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# Technical Data



## Engine

<b>Rating per ISO 9249</b>	420 kW (571 HP) at 1,800 RPM
<b>Torque</b>	2,989 Nm at 1,300 RPM
<b>Model</b>	Liebherr D9508 A7 SCR
<b>Type</b>	8 cylinder V engine
Bore	128 mm
Stroke	157 mm
Displacement	16.16 l
<b>Engine operation</b>	4-stroke diesel Common-Rail
<b>Exhaust gas treatment</b>	Stage V DOC + DPF + SCR Passive regeneration by thermo management
<b>Cooling system</b>	Water-cooled and integrated motor oil cooler, after-cooled and fuel cooled
<b>Air cleaner</b>	Dry-type air cleaner with pre-cleaner, primary and safety elements
<b>Fuel tank</b>	1,498 l
<b>Urea tank</b>	180 l
<b>Electrical system</b>	
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
<b>Motor management</b>	Connection to the integrated excavator system controlling via CAN-BUS to the economical utilisation of the service that is available



## Hydraulic Controls

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



## Hydraulic System

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



## Swing Drive

<b>Drive</b>	Liebherr swashplate motor with integrated brake valve
<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 – 5.9 RPM stepless
<b>Swing torque</b>	295 kNm
<b>Holding brake</b>	Wet multi-disc (spring applied, pressure released)



## Operator's Cab

<b>Cab</b>	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
<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
<b>Arm consoles</b>	Oscillating consoles with seat, tiltable console left
<b>Operation and displays</b>	Large high-resolution operating unit, intuitive, colour display with touchscreen, video-compatible, numerous setting, control and monitoring options, e.g. air conditioning control, fuel consumption, machine and attachment parameters
<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 The air conditioning system contains fluorinated greenhouse gases
Refrigerant	R134a
Global warming potential	1,430
Quantity at 25 °C*	1,260 g
CO <sub>2</sub> equivalent	1.80 t
<b>Vibration emission**</b>	
Hand/arm vibrations	< 2.5 m/s <sup>2</sup> , according with ISO 5349-1:2001
Whole-body vibrations	< 0.5 m/s <sup>2</sup>
Measuring inaccuracy	According with standard EN 12096:1997
<b>Noise emission</b>	
ISO 6396	L <sub>pA</sub> (inside cab) = 71 dB(A)
2000/14/EC	L <sub>WA</sub> (surround noise) = 109 dB(A)



## Undercarriage

<b>S-HD</b>	Gauge 3,600 mm
<b>Drive</b>	Liebherr swashplate motor with brake valves on both sides
<b>Transmission</b>	Liebherr compact planetary reduction gear
<b>Maximum travel speed</b>	Low range 2.6 km/h High range 3.7 km/h
<b>Drawbar pull on crawler</b>	645 kN
<b>Track components</b>	BMP280, maintenance-free
<b>Track rollers/ Carrier rollers</b>	8/2
<b>Tracks</b>	Sealed and greased
<b>Track pads</b>	Double grouser
<b>Holding brake</b>	Wet multi-disc (spring applied, pressure released)
<b>Brake valves</b>	Outside the travel motor
<b>Lashing eyes</b>	Integrated



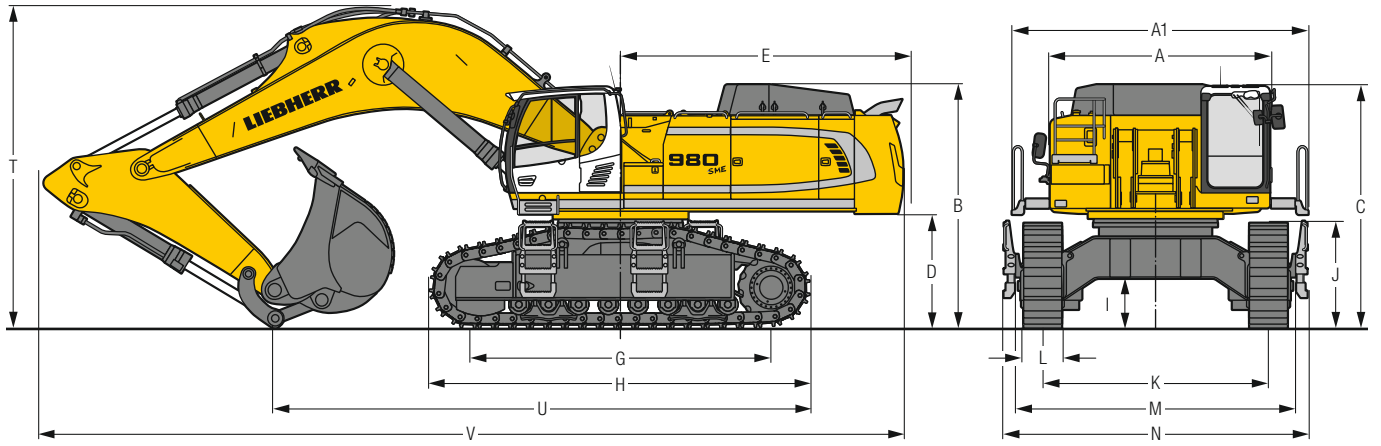
## Equipment

<b>Type</b>	Combination of resistant steel plates and cast steel components
<b>Hydraulic cylinders</b>	Liebherr cylinders with seal and guidance systems
<b>Bearings</b>	Sealed, low maintenance
<b>Lubrication</b>	Automatic central lubrication system (except link and tilt geometry)
<b>Hydraulic connections</b>	Pipes and hoses equipped with SAE split-flange connections
<b>Buckets</b>	Standard equipped with Liebherr tooth system

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

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

# Dimensions





		<b>mm</b>		
<b>A</b>	Uppercarriage width	3,565		
<b>A1</b>	Uppercarriage width with catwalks	4,730		
<b>B</b>	Uppercarriage height	3,965		
<b>C</b>	Cab height	3,935/4,130*		
<b>D</b>	Counterweight ground clearance	1,860		
<b>E</b>	Rear-end length	4,640		
<b>G</b>	Wheelbase	4,810		
<b>H</b>	Undercarriage length	6,095		
<b>I</b>	Undercarriage ground clearance	810		
<b>J</b>	Track height	1,715		
<b>K</b>	Track gauge	3,600		
<b>L</b>	Track pad width	500	600	750
<b>M</b>	Width over tracks	4,465	4,465	4,465
<b>N</b>	Width over steps	4,845	4,845	4,845

\* with FOPS top guard

		<b>Stick length m</b>	<b>Mono boom SME 7.20 m direct mounting mm</b>	
<b>T</b>	Boom height	2.90 SME	5,250	
		3.30 SME	5,400	
<b>U</b>	Length on ground	2.90 SME	8,600	
		3.30 SME	8,400	
<b>V</b>	Overall length	2.90 SME	13,800	
		3.30 SME	13,450	
	Bucket		6.30 m <sup>3</sup>	

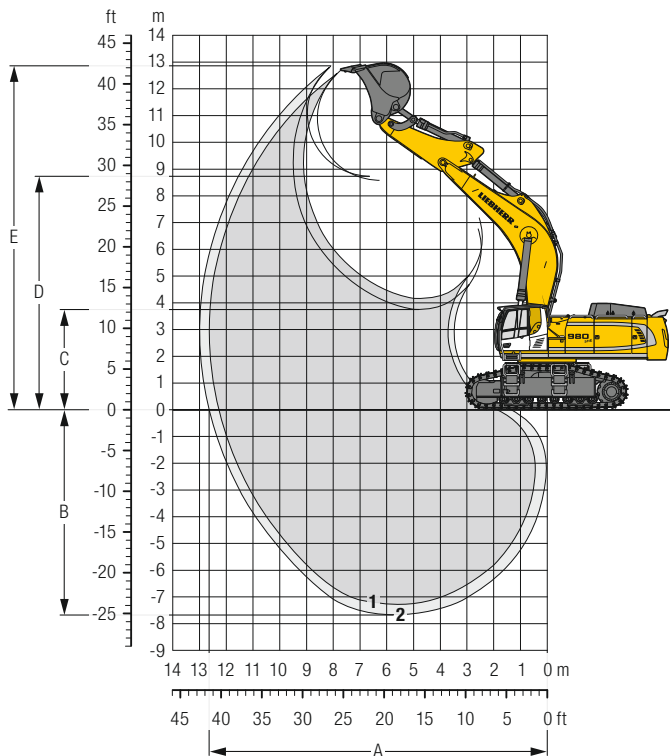
## Transport Dimensions

**removable elements disassembled**

	<b>Stick m</b>	<b>Mono boom SME 7.20 m mm</b>	
Transport width		4,845	
Transport length	2.90 SME	13,800	
	3.30 SME	13,450	
Transport height	2.90 SME	5,250	
	3.30 SME	5,400	
Bucket		6.30 m <sup>3</sup>	

# Backhoe Bucket

with Mono Boom SME 7.20 m and Counterweight 16.0 t



## Digging Envelope

without quick coupler	1	2
Stick length	m	2.90 3.30
		SME SME
A Max. reach at ground level	m	12.30 12.65
B Max. digging depth	m	7.30 7.70
C Min. dumping height	m	4.15 3.75
D Max. dumping height	m	8.60 8.75
E Max. cutting height	m	12.70 12.85

## Forces

without quick coupler	1	2
Stick digging force (ISO 6015)	kN	426 394
Bucket digging force (ISO 6015)	kN	506 506
Stick digging force (SAE J1179)	kN	406 377
Bucket digging force (SAE J1179)	kN	454 454

## Operating Weight and Ground Pressure

The operating weight includes the basic machine with counterweight 16.0 t, mono boom SME 7.20 m, stick SME 2.90 m and HD bucket with semi-delta cutting edge 6.20 m<sup>3</sup> (6,500 kg).

Undercarriage	S-HD		
Pad width	mm	500	600 750
Weight	kg	95,900	96,600 97,600
Ground pressure	kg/cm <sup>2</sup>	1.82	1.53 1.24

The operating weight includes the basic machine with counterweight 18.0 t, mono boom SME 7.20 m, stick SME 2.90 m and HDV bucket with semi-delta cutting edge 6.30 m<sup>3</sup> (7,600 kg).

Undercarriage	S-HD		
Pad width	mm	500	600 750
Weight	kg	99,400	100,100 101,100
Ground pressure	kg/cm <sup>2</sup>	1.89	1.59 1.28

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

	Cutting width mm	Capacity ISO 7451 m <sup>3</sup>	Weight kg	S-HD-Undercarriage SME-Equipment (with track pads 600 mm)	
				Stick length (m)	
				2.90	3.30
HD <sup>1)</sup>	2,350	6.20	6,500	■	■
HD <sup>2)</sup>	2,500	6.80	6,800	■	▲
	2,550	7.20	7,000	▲	■
HDV <sup>3)</sup>	2,200	5.20	7,200	▲	▲
	2,350	5.70	7,300	▲	■
	2,350	6.30	7,600	■	▲

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

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

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

<sup>3)</sup> 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/m<sup>3</sup>, ■ = ≤ 1.8 t/m<sup>3</sup>, ▲ = ≤ 1.65 t/m<sup>3</sup>, ■ = ≤ 1.5 t/m<sup>3</sup>

# Lift Capacities

with Mono Boom SME 7.20 m, Counterweight 16.0 t and Track Pads 600 mm

### Stick SME 2.90 m

Under-carriage	3.0 m		4.5 m		6.0 m		7.5 m		9.0 m		10.5 m		m		
	↕	↔	↕	↔	↕	↔	↕	↔	↕	↔	↕	↔			
S-HD	10.5												23.1*	23.1*	<b>6.8</b>
	9.0												21.3*	21.3*	<b>8.2</b>
	7.5												20.5*	20.5*	<b>9.2</b>
	6.0					27.7*	27.7*	23.3*	23.3*	20.8*	20.8*		18.1	20.1*	<b>9.8</b>
	4.5					31.8*	31.8*	25.3*	25.3*	20.4	21.7*		16.7	20.0*	<b>10.2</b>
	3.0					25.7	27.2*	19.7	22.7*				16.0	20.1*	<b>10.3</b>
	1.5					34.0	36.5*	24.7	28.3*	19.1	23.2*		15.9	20.1*	<b>10.2</b>
	0					33.4	36.0*	24.2	28.3*	18.8	23.0*		16.5	20.2*	<b>9.9</b>
	-1.5			42.7*	42.7*	33.3	33.9*	24.0	27.0*	18.7	21.3*		18.0	20.1*	<b>9.3</b>
	-3.0	43.9*	43.9*	37.0*	37.0*	29.8*	29.8*	23.5*	23.5*				19.5*	19.5*	<b>8.4</b>
-4.5			27.8*	27.8*	22.3*	22.3*						17.4*	17.4*	<b>7.0</b>	

### Stick SME 3.30 m

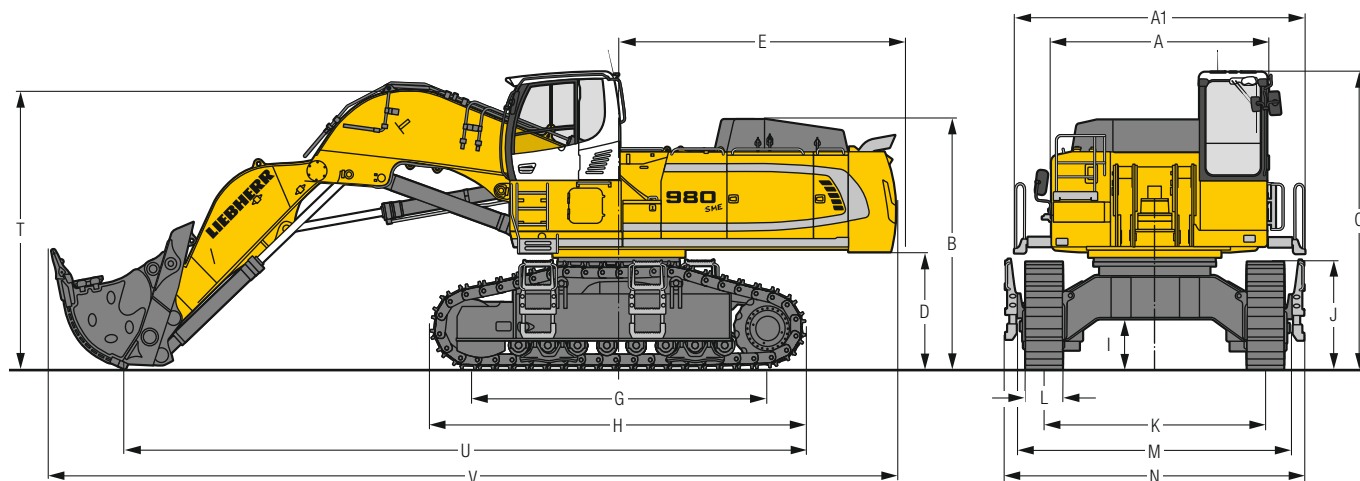
Under-carriage	3.0 m		4.5 m		6.0 m		7.5 m		9.0 m		10.5 m		m			
	↕	↔	↕	↔	↕	↔	↕	↔	↕	↔	↕	↔				
S-HD	10.5												21.3*	21.3*	<b>7.3</b>	
	9.0							20.0*	20.0*				19.9*	19.9*	<b>8.7</b>	
	7.5							20.7*	20.7*	19.4*	19.4*		19.2	19.3*	<b>9.6</b>	
	6.0					26.4*	26.4*	22.4*	22.4*	20.0*	20.0*		17.1	19.1*	<b>10.2</b>	
	4.5					30.6*	30.6*	24.5*	24.5*	20.5	21.1*	16.0	19.1*	15.8	19.0*	<b>10.6</b>
	3.0					34.3*	34.3*	25.8	26.6*	19.8	22.2*	15.6	19.4*	15.2	19.1*	<b>10.7</b>
	1.5					34.3	36.2*	24.8	27.9*	19.1	22.9*	15.3	19.4*	15.1	19.3*	<b>10.6</b>
	0					33.5	36.2*	24.2	28.3*	18.7	23.0*			15.6	19.4*	<b>10.3</b>
	-1.5			42.4*	42.4*	33.2	34.6*	23.9	27.3*	18.5	21.9*			16.9	19.4*	<b>9.7</b>
	-3.0	42.6*	42.6*	39.3*	39.3*	31.1*	31.1*	24.0	24.6*					19.1*	19.1*	<b>8.8</b>
-4.5			31.0*	31.0*	24.7*	24.7*							17.8*	17.8*	<b>7.5</b>	

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 1,400 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.

## Dimensions Front Shovel



		mm
<b>A</b>	Uppercarriage width	3,565
<b>A1</b>	Uppercarriage width with catwalks	4,730
<b>B</b>	Uppercarriage height	3,965
<b>C</b>	Cab height	4,735 / 4,930*
<b>D</b>	Counterweight ground clearance	1,860
<b>E</b>	Rear-end length	4,640
<b>G</b>	Wheelbase	4,810
<b>H</b>	Undercarriage length	6,095
<b>I</b>	Undercarriage ground clearance	810

\* with FOPS top guard

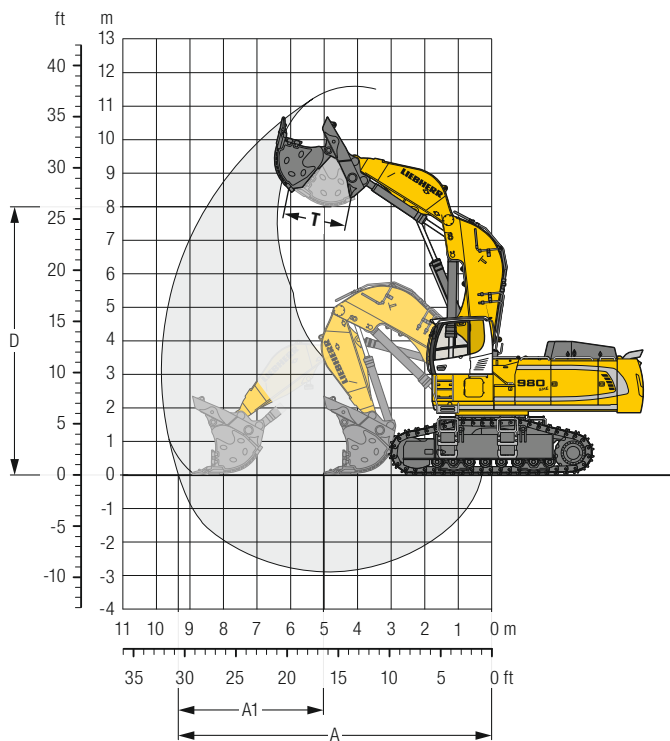
		mm
<b>J</b>	Track height	1,715
<b>K</b>	Track gauge	3,600
<b>L</b>	Track pad width	500 600 750
<b>M</b>	Width over tracks	4,465 4,465 4,465
<b>N</b>	Width over steps	4,845 4,845 4,845
<b>T</b>	Boom height	4,600
<b>U</b>	Length on ground	11,100
<b>V</b>	Overall length	13,800

## Transport Dimensions

removable elements disassembled

	Shovel equipment mm
Transport width	4,845
Transport length	13,800
Transport height	4,930
Shovel	6.00 m <sup>3</sup>

# Front Shovel



## Digging Envelope

<b>A</b> Max. reach at ground level	<b>m</b>	9.35
<b>A1</b> Max. crowd length	<b>m</b>	3.90
<b>D</b> Max. dumping height	<b>m</b>	8.00
<b>T</b> Bucket opening width	<b>mm</b>	1,825

## Forces

<b>Max. crowd force</b>	<b>kN</b>	690
<b>Max. crowd force at ground level</b>	<b>kN</b>	490
<b>Max. breakout force</b>	<b>kN</b>	500

## Operating Weight and Ground Pressure

The operating weight includes the basic machine with counterweight 16.0 t, cab elevation 800 mm, shovel equipment SME and front shovel 6.00 m<sup>3</sup> (10,000 kg), level II.

Undercarriage	S-HD			
	Pad width	<b>mm</b>	500	600
Weight	<b>kg</b>	99,500	100,200	101,200
Ground pressure	<b>kg/cm<sup>2</sup></b>	1.89	1.59	1.28

## Front Shovels

Cutting width	Capacity ISO 7451	Weight	Wear kit level	S-HD-Undercarriage	
				Shovel equipment	
mm	m <sup>3</sup>	kg		▲	■
2,300	4.40	8,310	II	▲	
2,300	4.40	9,160	III	▲	
2,700	5.10	8,450	I	▲	
2,700	5.10	9,100	II	▲	
2,700	5.10	10,150	III	▲	
2,700	5.40	10,600	III	▲	
2,700	5.60	8,750	I	▲	
2,700	5.60	9,500	II	▲	
2,700	5.60	11,000	III	▲	
2,700	6.00	9,000	I	▲	
2,700	6.00	10,000	II	■	
2,700	6.00	11,300	III	■	
3,150	6.50	10,300	I	■	
3,150	6.50	11,000	II	▲	
3,150	6.50	12,900	III	■	

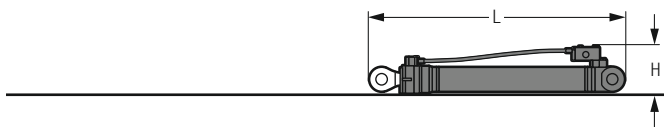
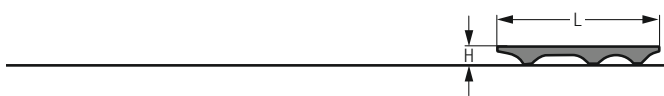
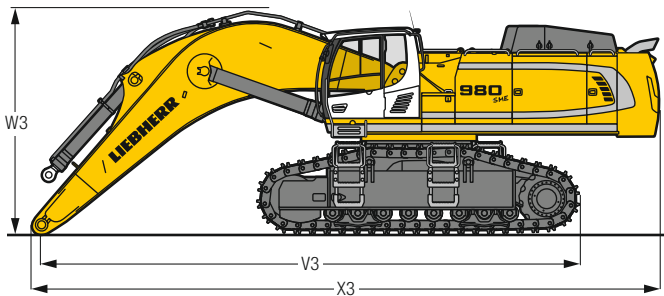
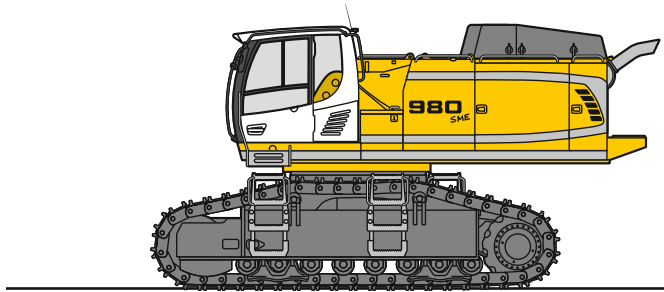
Level I: For non-abrasive materials, such as limestone without flint inclusion, shot material or easily breakable rock, i.e., deteriorated rock, soft limestone, shale, etc.

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/m<sup>3</sup>, ■ = ≤ 1.8 t/m<sup>3</sup>, ▲ = ≤ 1.65 t/m<sup>3</sup>, ■ = ≤ 1.5 t/m<sup>3</sup>

# Dimensions and Weights



## Basic Machine

Track pads	mm	500	600	750
Weight with backhoe equipment and S-HD-undercarriage without counterweight	kg	56,400	57,050	58,100
Weight with shovel equipment and S-HD-undercarriage without counterweight	kg	56,500	57,150	58,200

## Machine without Stick

V3	mm	10,200
W3	mm	4,300
X3	mm	11,850

## Cab Elevation

		<b>800 mm</b>
L Length	mm	1,890
H Height	mm	925
Width	mm	1,370
Weight	kg	600

## Counterweight

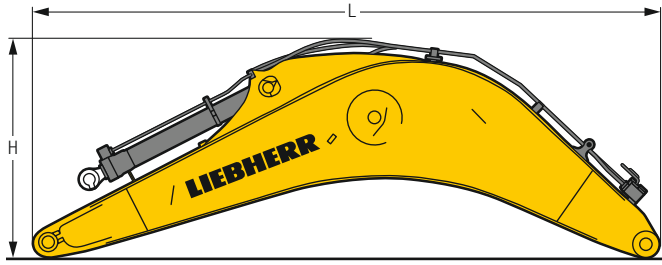
L Length	mm	775	775
H Height	mm	1,595	1,595
Width	mm	3,360	3,360
Weight	kg	16,000	18,000

## Upper Protection Screen

L Length	mm	1,960
H Height	mm	190
Width	mm	1,110
Weight	kg	75

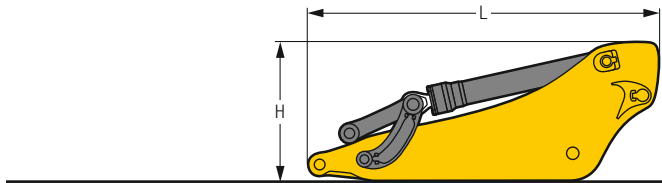
## Hoist Cylinders (two)

L Length	mm	2,920
H Height	mm	550
Width	mm	400
Weight	kg	2 x 1,050



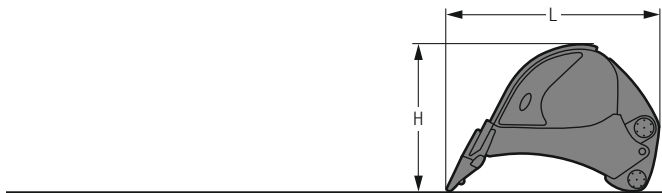
### Mono Boom with Stick Cylinder

Boom length	m	7.20
L Length	mm	7,550
H Height	mm	2,700
Width	mm	1,460
Weight	kg	10,300



### Stick with Bucket Cylinder

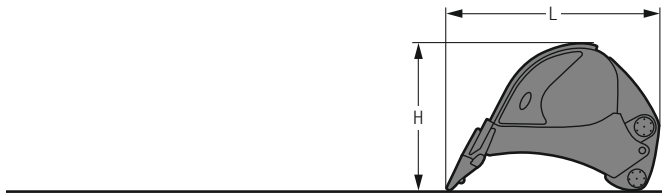
Stick length	m	2.90	3.30
L Length	mm	4,050	4,450
H Height	mm	1,700	1,650
Width	mm	900	900
Weight	kg	5,050	5,350



### Backhoe Buckets (straight cutting edge, teeth Z 100)

HD

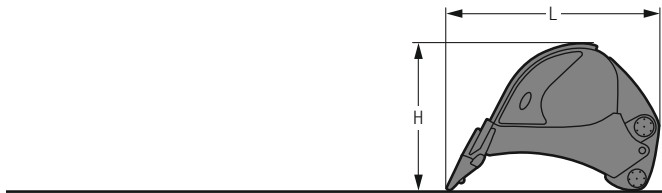
Cutting width	mm	2,350	2,500
Capacity	m <sup>3</sup>	6.20	6.80
L Length	mm	2,850	2,850
H Height	mm	2,150	2,150
Width	mm	2,400	2,550
Weight	kg	6,300	6,600



### Backhoe Buckets (straight cutting edge, teeth Z 100)

HDV

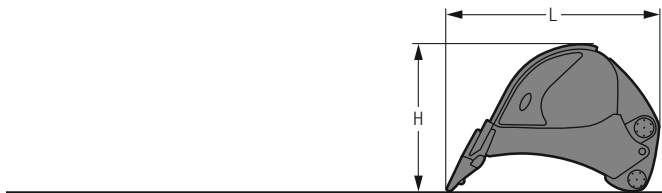
Cutting width	mm	2,200	2,350	2,350
Capacity	m <sup>3</sup>	5.20	5.70	6.30
L Length	mm	2,750	2,750	2,850
H Height	mm	2,150	2,150	2,200
Width	mm	2,250	2,400	2,400
Weight	kg	7,000	7,100	7,450



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

HD

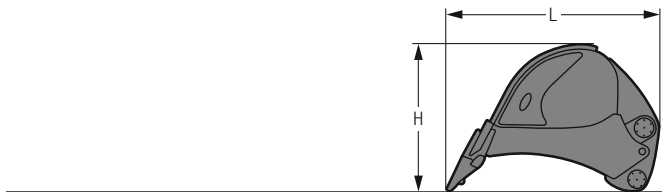
Cutting width	mm	2,550
Capacity	m <sup>3</sup>	7.20
L Length	mm	3,100
H Height	mm	2,200
Width	mm	2,600
Weight	kg	7,000



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

HD

Cutting width	mm	2,350	2,500
Capacity	m <sup>3</sup>	6.20	6.80
L Length	mm	3,050	3,050
H Height	mm	2,150	2,150
Width	mm	2,400	2,550
Weight	kg	6,500	6,800

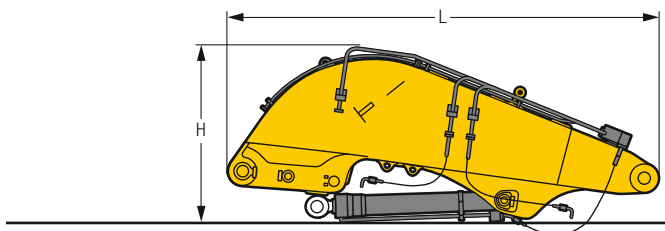


### Backhoe Buckets (semi-delta cutting edge, teeth Z 100)

HDV

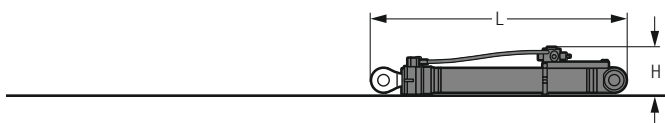
Cutting width	mm	2,200	2,350	2,350
Capacity	m <sup>3</sup>	5.20	5.70	6.30
L Length	mm	2,950	2,950	3,050
H Height	mm	2,150	2,150	2,200
Width	mm	2,250	2,400	2,400
Weight	kg	7,200	7,300	7,600

# Dimensions and Weights



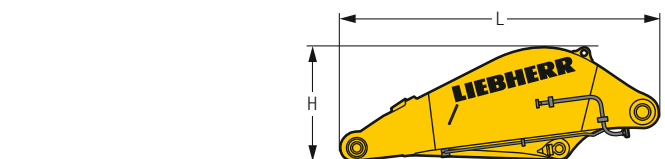
## Shovel Boom

L Length	mm	4,950
H Height	mm	2,050
Width	mm	1,650
Weight without crowd cylinder	kg	7,300
Weight crowd cylinder	kg	2 x 450



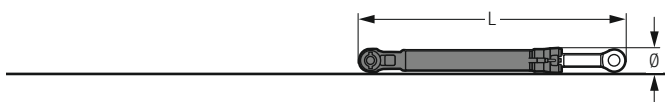
## Shovel Hoist Cylinders (two)

L Length	mm	2,920
H Height	mm	550
Width	mm	450
Weight	kg	2 x 1,100



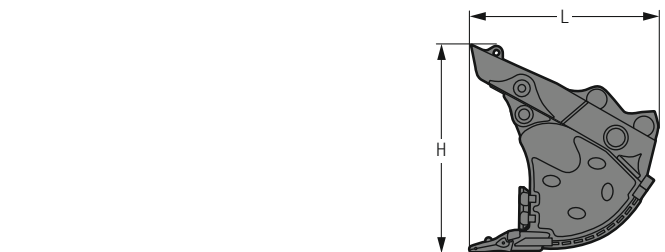
## Shovel Stick

L Length	mm	3,660
H Height	mm	1,300
Width	mm	1,800
Weight	kg	4,650



## Shovel Bucket Cylinders (two)

L Length	mm	3,050
Ø Diameter	mm	450
Width	mm	450
Weight	kg	2 x 625



## Front Shovels

Cutting width	mm	2,700	2,700	2,700	3,150
Capacity	m <sup>3</sup>	5.10	5.60	6.00	6.50
L Length	mm	2,600	2,800	2,800	2,800
H Height	mm	2,700	2,700	2,700	2,700
Width	mm	2,700	2,700	2,700	3,150
Weight					
Level I	kg	–	8,750	9,000	10,300
Level II	kg	–	9,500	10,000	11,000
Level III	kg	10,150	11,000	11,300	–



# 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
- Centralised lubrication system (automatic)
- Counterweight heavy 16.0 t
- Counterweight super heavy 18.0 t
- 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 – DOC + DPF + SCR
- Fixed geometry turbocharger
- Fuel fine filter
- Fuel pre-filter and water separator
- Fuel priming pump
- Intercooler
- Power Pack EU Stage V
- Stepless adjustable engine speed

## Operator's Cab

- 7" multifunction colour 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 windscreen
- 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 windscreen 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 centre section	+
Special painting	+
Track pads double grouser 500 mm, chamfered	+
Track pads double grouser 600 mm, chamfered	•
Track pads double grouser 750 mm, chamfered	+
Travel drive gearbox protection	+
Undercarriage protection plate for drop-ball application	+

## Uppercarriage

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	+
Headlight on uppercarriage, lateral right, LED+, 1 piece	+ <sup>1)</sup>
Headlights on uppercarriage, front, LED+, 2 pieces, protections included	+ <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>	+
Motorised 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 <sup>1)</sup>	+

## Operator's Cab

2" seat belt with retractor	•
3" seat belt with retractor, orange colour	+
4-points seat belt	+
Acoustic travel alarm deactivatable	+
Auxiliary heater programmable	+
Bottom windscreen wiper	+
Cool box (12 V)	+
Dark tinted windows	+
Electrically adjustable and heated outside rear-view mirrors	+
Electronic immobiliser	+
Emergency stop in cab	+
FGPS front guard tiltable	+
Fire extinguisher	+
First-aid box	+
Follow me home	+ <sup>1)</sup>
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 attachment adjustments on display)	+
Lighting for cabin access <sup>1)</sup>	+
Luminosity control (LED+ headlights) <sup>1)</sup>	+
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	+
Shortkey button on joystick configurable	•
Special painting	+
Sun visor	+

## Equipment

Boom cylinder rods protection	+
Bucket cylinder rod protection	+
Centralised lubrication extended for connecting link	+
Floating boom	+
Headlights on boom, LED+, 2 pieces, protections included	+ <sup>1)</sup>
Mono boom SME 7.20 m	+
Preparation for ripper tooth	+
Quick coupler SWA 105 hydraulic	+
Shovel boom 4.60 m	+
Shovel stick 3.30 m	+
Special painting	+
Stick SME 2.90 m	+
Stick SME 3.30 m	+

• = Standard, + = Option

<sup>1)</sup> 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



## Wide Product Range

The Liebherr Group is one of the largest construction equipment manufacturers in the world. Liebherr's high-value products and services enjoy a high reputation in many other fields. 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 acknowledged quality, Liebherr products offer a maximum of customer benefits in practical applications.

## State-of-the-art Technology

To provide consistent, top quality products, Liebherr attaches great importance to each product area, its components and core technologies. Important modules and components are developed and manufactured in-house, for instance the entire drive and control technology for construction equipment.

## Worldwide and Independent

Hans Liebherr founded the Liebherr family company in 1949. Since then, the family business 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.

[www.liebherr.com](http://www.liebherr.com)

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