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# R 998 SME Litronic

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## LIEBHERR

Crawler excavator



**Generation**

6.2

**Engine**

420 kW / 571 HP  
Stage V

**Operating weight**

Backhoe: 97,700–101,400 kg  
Shovel: 99,800–101,500 kg

**Bucket capacity**

Backhoe: 5.20–7.20 m<sup>3</sup>  
Shovel: 5.10–6.50 m<sup>3</sup>

# Experience progress: R 998 SME Super Mass Excavation

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## Equipment

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- Wide choice of backhoe front boom and stick configurations
- Welded structure with cast steel components for improved stress-resistance and longer service life
- Safety check valves to prevent boom and stick cylinder pipes from bursting, with integrated regeneration system for lower fuel consumption

## Buckets

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- Different levels of protection to suit different areas of application:
  - Standard for loose, non-abrasive materials
  - HD for hard-to-break, moderately abrasive materials
  - HDV for highly abrasive materials
- Different blade designs:
  - straight (for earth-moving and grading)
  - semi-delta (for hard-to-break, hard-to-extract materials)
  - delta (for compacted or slightly cracked materials)

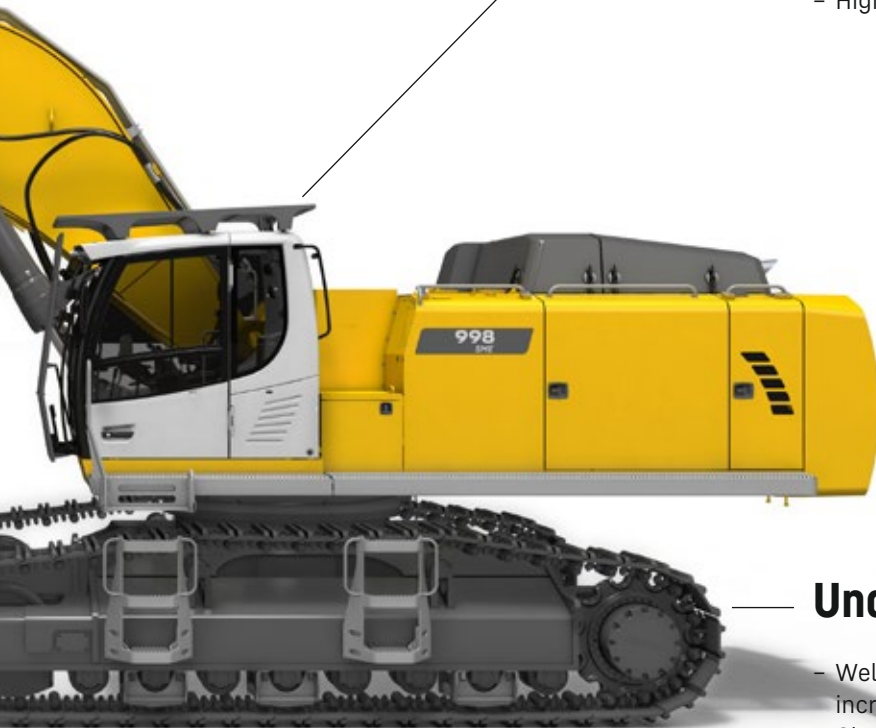


## New functions / options

- **Liebherr Power Efficiency – Engine Control**  
Up to 10% lower fuel consumption
- **Bucket Fill Assist**  
Automatic bucket-filling cycle for increased productivity
- **Modetronic**  
Customisable operating modes for optimum adjustment of work cycles to each type of application

## Comfort

- Quiet, comfortable cab, the largest and most spacious in its category
- Seat with heater and pneumatic multi-directional shock absorption (air conditioning optional)
- High-resolution 9" color touchscreen



## Undercarriage

- Welded undercarriage with rigid X profile for increased robustness
- Chamfered rack pads with double grouser for more manoeuvrability on difficult terrain
- Moulded two-tooth sprocket for longer service life
- Track rollers on double bearings for increased reliability and durability over time
- Stronger travel motor housing protection for improved resistance to wear and tear from hard, abrasive rocks

# Experience progress: R 998 SME Super Mass Excavation Sho

## Cab

- Cab riser for the best possible view of the loading area
- The largest and quietest cab in its category to date
- Mounted on viscoelastic rivets to absorb vibration
- Impact-resistant windscreen and roof glass panel
- Seat with heater and pneumatic multi-directional shock absorption (air conditioning optional)
- Large high-resolution colour touchscreen

## Safety

- Completely unobstructed panoramic view, plus rear-view and side-view monitoring cameras for increased safety
- Retractable console for safe and easy access to the cab
- Impact-resistant windscreen and roof glass panel
- Cab riser for the best possible view of the loading area (optional)

## Equipment second to none

- Cast steel components
- Shovel attachment with parallel drivetrain for powerful, even penetration
- Bucket cylinders located under the equipment for better protection
- Safety check valves to prevent boom cylinder pipes from bursting
- Front shovel with semi-automatic flap closure, ideally shaped for optimum material penetration and high filling rate



# ovel



## Uppercarriage

- Left and right catwalks as standard; wide catwalks with hand rail optional
- Access platform for engine and hydraulic control block compartments to enable safe, ergonomic maintenance work
- Sleek design for a more extensive view
- New Stage V compliant engine
- Heavier counterweight for more stability and improved performance

## Maintenance

- Access platform for engine and hydraulic control block compartments to enable safe, ergonomic maintenance work
- Left and right catwalks as standard; wide catwalks with hand rail optional
- Automatic central lubrication system as standard
- Shut-off valve on hydraulic tank outlet as standard

## Robust undercarriage

- Fitted with components from the next size up excavator
- Chamfered rack pads with double grouser for more manoeuvrability on difficult terrain
- Moulded two-tooth sprocket for longer service life
- Carrier rollers on double bearings for increased reliability and durability over time
- Stronger travel motor housing protection for improved resistance to wear and tear from hard, abrasive rocks

# 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
<b>Bore</b>	128 mm
<b>Stroke</b>	157 mm
<b>Displacement</b>	16.16 l
<b>Engine operation</b>	4-stroke diesel Common-Rail
<b>Exhaust gas treatment</b>	Stage V DOC + SCR Filter 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>	
<b>Voltage</b>	24 V
<b>Batteries</b>	2 x 180 Ah / 12 V
<b>Starter</b>	24 V / 7.8 kW
<b>Alternator</b>	Three-phase current 28 V / 140 A
<b>Engine idling</b>	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
<b>Flow summation</b>	To boom and stick
<b>Closed-loop circuit</b>	For uppercarriage swing drive
<b>Servo circuit</b>	Electro-hydraulic control
<b>Equipment and swing</b>	Proportional via joystick levers
<b>Travel</b>	- 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
<b>Max. flow</b>	2 x 498 l/min.
<b>Max. pressure</b>	350 bar
For swing drive	Reversible, variable displacement, swashplate pump, closed-loop circuit
<b>Max. flow</b>	315 l/min.
<b>Max. pressure</b>	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>Filtration</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 pre-adjustable 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)


**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, sound damping 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 length, 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


**Undercarriage**

<b>S-HD</b>	Gauge 3,900 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>	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

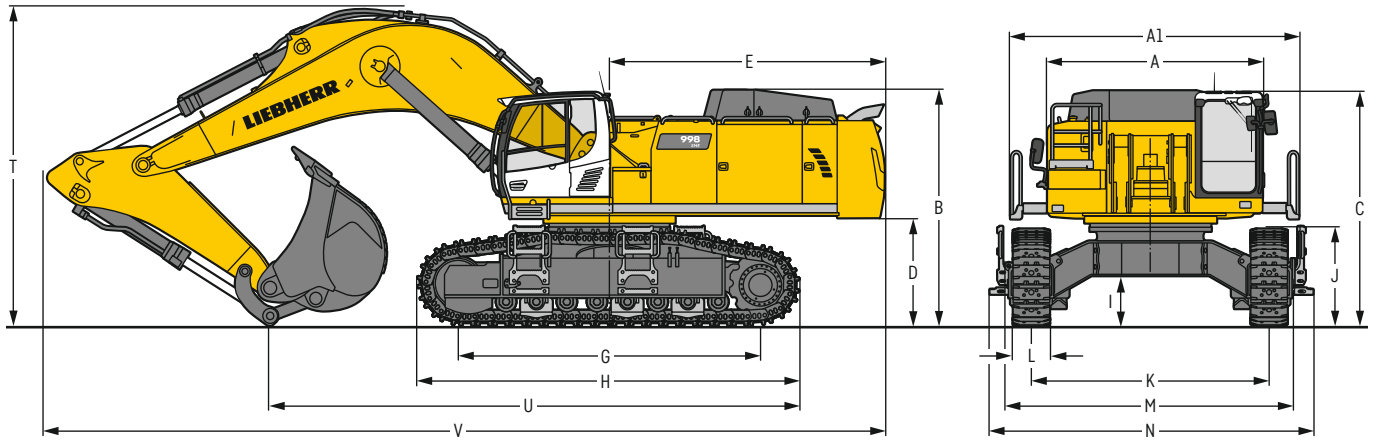

**Equipment**

<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>S-HD</b>	<b>mm</b>		
<b>A</b>	Uppercarriage width		3,565		
<b>A1</b>	Uppercarriage width with catwalks		4,730		
<b>B</b>	Uppercarriage height		3,870		
<b>C</b>	Cab height		3,840		
<b>D</b>	Counterweight ground clearance		1,765		
<b>E</b>	Rear-end length		4,515		
<b>G</b>	Wheelbase		4,960		
<b>H</b>	Undercarriage length		6,250		
<b>I</b>	Undercarriage ground clearance		820		
<b>J</b>	Track height		1,595		
<b>K</b>	Track gauge		3,900		
<b>L</b>	Track pad width		500	600	750
<b>M</b>	Width over tracks		4,770	4,770	4,770
<b>N</b>	Width over steps		5,315	5,315	5,315

		<b>Stick length</b>	<b>Mono boom SME 7.20 m</b>		
		<b>m</b>	<b>direct mounting</b>		
			<b>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	8,700		
		3.30 SME	8,500		
<b>V</b>	Overall length	2.90 SME	13,800		
		3.30 SME	13,450		
	Bucket		6.30 m <sup>3</sup>		

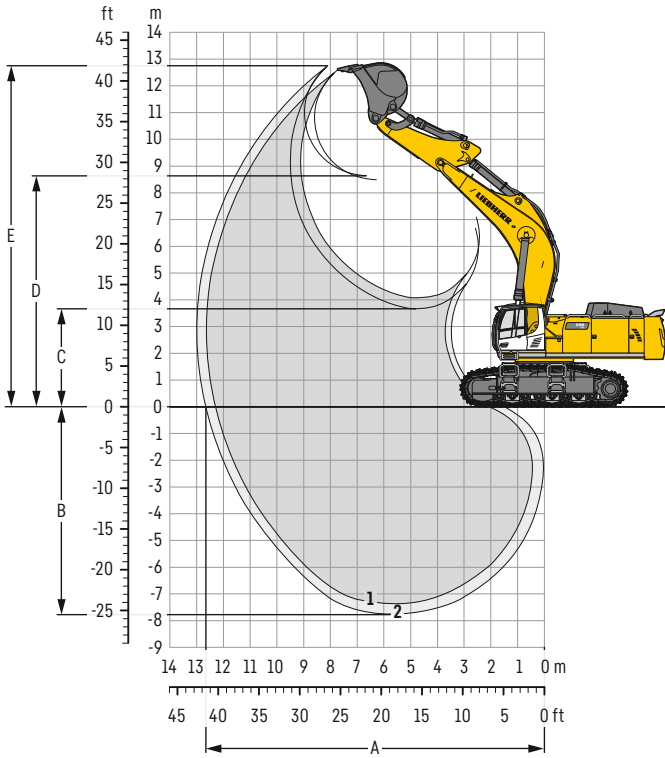
## Transport dimensions

### removable elements disassembled

		<b>Mono boom SME 7.20 m</b>		
		<b>mm</b>		
Transport width		5,315		
		<b>Stick</b>	<b>m</b>	
		<b>m</b>	<b>mm</b>	
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



## Digging envelope

without quick coupler	1	2
Stick length	m	2.90 3.30
A Max. reach at ground level	m	12.30 12.65
B Max. digging depth	m	7.35 7.75
C Min. dumping height	m	4.05 3.65
D Max. dumping height	m	8.50 8.65
E Max. cutting height	m	12.60 12.75

## 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 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	97,700	98,400 99,400
Ground pressure	kg/cm <sup>2</sup>	1.81	1.52 1.23

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	99,700	100,400 101,400
Ground pressure	kg/cm <sup>2</sup>	1.84	1.55 1.25

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

	Cutting width	Capacity ISO 7451	Weight	S-HD undercarriage SME equipment (with track pads 600 mm)	
				2.90	3.30
HD <sup>1)</sup>	mm	m <sup>3</sup>	kg	▲	■
	2,350	6.20	6,500	▲	■
	2,500	6.80	6,800	■	▲
HD <sup>2)</sup>	mm	m <sup>3</sup>	kg	▲	■
	2,500	6.80	6,500	▲	■
	2,550	7.20	7,000	▲	■
HDV <sup>3)</sup>	mm	m <sup>3</sup>	kg	▲	■
	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 ▲ = ≤ 2.0t/m<sup>3</sup>, ■ = ≤ 1.8t/m<sup>3</sup>, ▲ = ≤ 1.65t/m<sup>3</sup>, ■ = ≤ 1.5t/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 m	3.0 m		4.5 m		6.0 m		7.5 m		9.0 m		10.5 m		Max. reach		
10.5													23.2*	23.2*	6.7
9.0													21.2*	21.2*	8.2
7.5													20.3*	20.3*	9.1
6.0													19.1	20.0*	9.8
4.5													17.5	19.8*	10.2
3.0													16.8	19.9*	10.3
1.5													16.7	19.9*	10.2
0													17.3	20.0*	9.9
-1.5													18.8	19.9*	9.3
-3.0	43.9*	43.9*	37.1*	37.1*	29.9*	29.9*	23.6*	23.6*					19.3*	19.3*	8.4
-4.5													17.4*	17.4*	7.1

## Stick SME 3.30 m

Under-carriage m	3.0 m		4.5 m		6.0 m		7.5 m		9.0 m		10.5 m		Max. reach		
10.5													21.2*	21.2*	7.2
9.0													19.8*	19.8*	8.6
7.5													19.1*	19.1*	9.5
6.0													17.9	18.8*	10.2
4.5													16.6	18.8*	10.5
3.0													15.9	18.8*	10.7
1.5													15.8	19.0*	10.6
0													16.2	19.1*	10.3
-1.5													17.5	19.1*	9.7
-3.0	41.1*	41.1*	39.2*	39.2*	31.0*	31.0*	24.5*	24.5*					18.8*	18.8*	8.9
-4.5													17.6*	17.6*	7.6

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 1,450 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.

with mono boom SME 7.20 m, counterweight 18.0 t and track pads 600 mm

## Stick SME 2.90 m

Under-carriage m	3.0 m		4.5 m		6.0 m		7.5 m		9.0 m		10.5 m		Max. reach		
10.5													23.2*	23.2*	6.7
9.0													21.2*	21.2*	8.2
7.5													20.3*	20.3*	9.1
6.0													20.0*	20.0*	9.8
4.5													17.9	19.9*	10.2
3.0													17.9	19.9*	10.3
1.5													17.8	19.9*	10.2
0													18.5	20.0*	9.9
-1.5													19.9*	19.9*	9.3
-3.0	43.9*	43.9*	37.1*	37.1*	29.9*	29.9*	23.6*	23.6*					19.3*	19.3*	8.4
-4.5													17.4*	17.4*	7.1

## Stick SME 3.30 m

Under-carriage m	3.0 m		4.5 m		6.0 m		7.5 m		9.0 m		10.5 m		Max. reach		
10.5													21.2*	21.2*	7.2
9.0													19.8*	19.8*	8.6
7.5													19.1*	19.1*	9.5
6.0													18.8*	18.8*	10.2
4.5													17.7	18.8*	10.5
3.0													17.4	19.1*	10.7
1.5													16.8	19.0*	10.6
0													17.4	19.1*	10.3
-1.5													18.7	19.1*	9.7
-3.0	41.1*	41.1*	39.2*	39.2*	31.0*	31.0*	24.5*	24.5*					18.8*	18.8*	8.9
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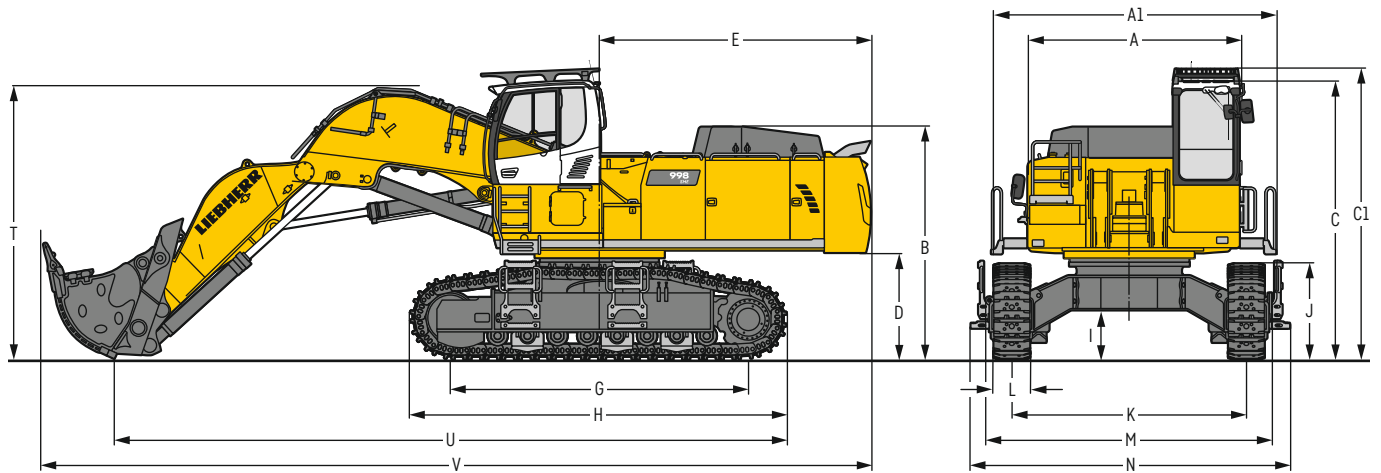
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# Dimensions front shovel



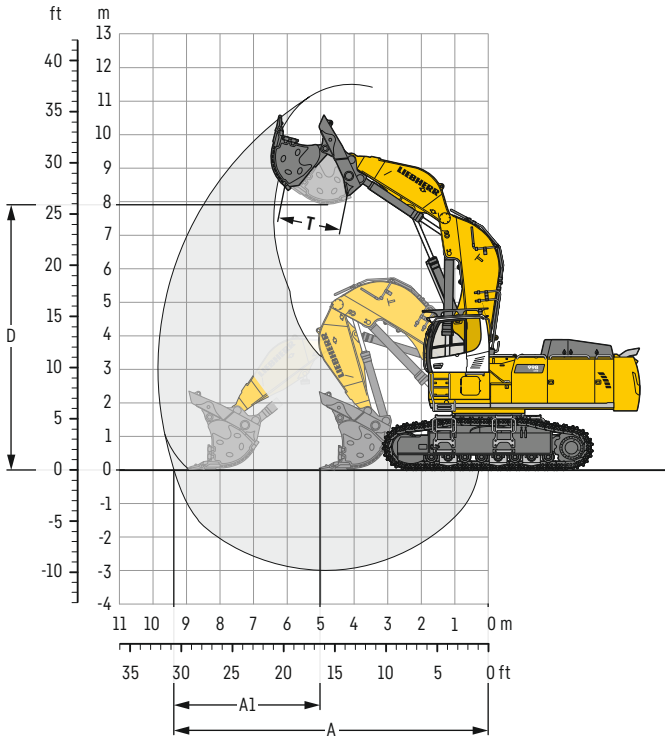
	S-HD	mm		S-HD	mm
A	Uppercarriage width	3,565	I	Undercarriage ground clearance	820
A1	Uppercarriage width with catwalks	4,730	J	Track height	1,595
B	Uppercarriage height	3,870	K	Track gauge	3,900
C	Cab height	4,650	L	Track pad width	500 600 750
C1	Cab height with FOPS top guard	4,845	M	Width over tracks	4,770 4,770 4,770
D	Counterweight ground clearance	1,765	N	Width over steps	5,315 5,315 5,315
E	Rear-end length	4,515	T	Boom height	4,550
G	Wheelbase	4,960	U	Length on ground	11,200
H	Undercarriage length	6,250	V	Overall length	13,800

# Transport dimensions

removable elements disassembled

	Shovel equipment
Transport width	5,315
Transport length	13,800
Transport height	4,845
Shovel	6.00 m <sup>3</sup>

# Front shovel



## Digging envelope

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

## Forces

Max. crowd force	kN	690
Max. crowd force at ground level	kN	490
Max. breakout force	kN	500

## Operating weight and ground pressure

The operating weight includes the basic machine with counterweight 16.0 t, cab elevation 800 mm, operator's cab protective guard, shovel equipment SME and front shovel 6.00 m<sup>3</sup> (10,000 kg), level II.

Undercarriage	S-HD		
Pad width	mm	500	600 750
Weight	kg	99,800	100,500 101,500
Ground pressure	kg/cm <sup>2</sup>	1.84	1.55 1.25

## Front shovels

Cutting width	Capacity ISO 7451	Weight	Wear kit level	S-HD undercarriage	
				Shovel equipment	
mm	m <sup>3</sup>	kg			
2,700	5.10	8,450	I	▲	
2,700	5.10	9,100	II	▲	
2,700	5.10	10,150	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	■	

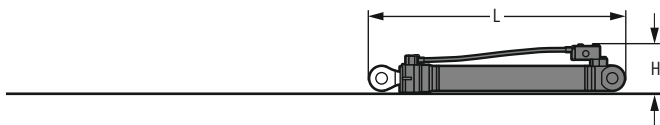
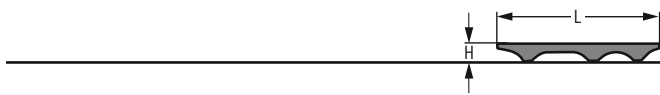
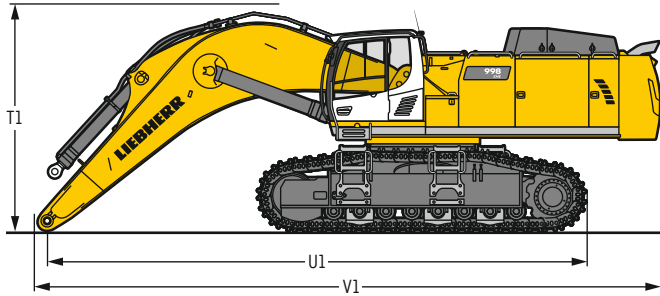
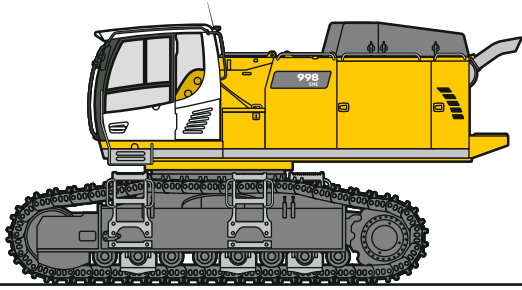
Level I: For non-abrasive materials, such as limestone without flint inclusion, shot material or easily breakable rock, i.e., deteriorated rock, soft limestone, shale, etc.

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 ▲ = ≤ 2.0t/m<sup>3</sup>, ■ = ≤ 1.8t/m<sup>3</sup>, ▲ = ≤ 1.65t/m<sup>3</sup>, ■ = ≤ 1.5t/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	56,600	57,300	58,350
Weight with shovel equipment and S-HD-undercarriage without counterweight	kg	56,700	57,400	58,450

## Machine without stick

T1	mm	4,250
U1	mm	10,300
V1	mm	11,850

## Cab elevation

800 mm

L Length	mm	1,890
H Height	mm	925
Width	mm	1,370
Weight	kg	600

## Counterweight

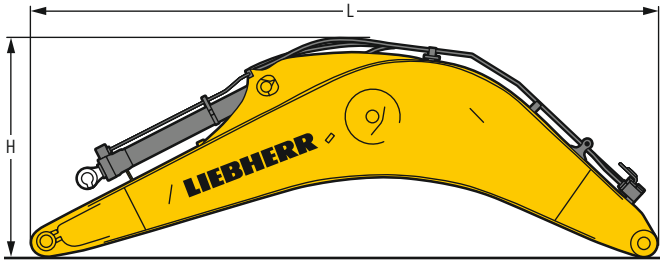
L Length	mm	775	775
H Height	mm	1,595	1,595
Width	mm	3,360	3,360
Weight	kg	16,000	18,000

## Upper protection screen

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

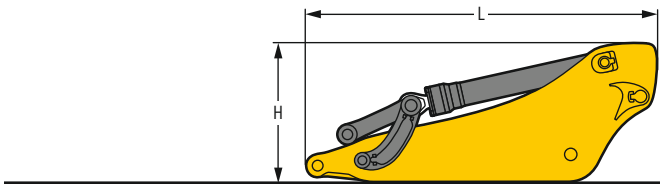
## Hoist cylinders (two)

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



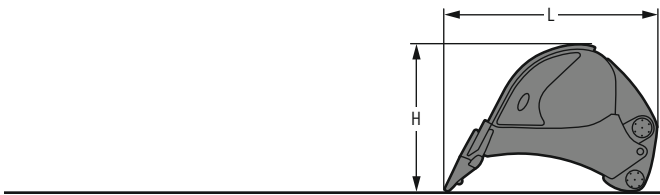
### Mono boom with stick cylinder

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

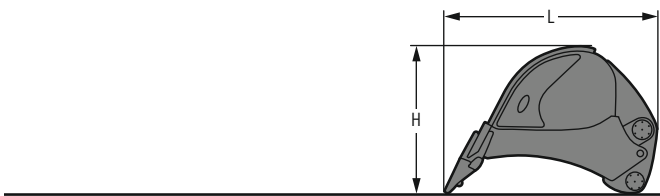
Stick length	m	2.90	3.30
L Length	mm	4,050	4,450
H Height	mm	1,700	1,650
Width	mm	900	900
Weight	kg	5,050	5,350



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

HD

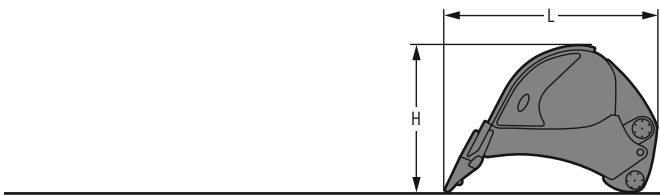
Cutting width	mm	2,350	2,500
Capacity	m <sup>3</sup>	6.20	6.80
L Length	mm	3,050	3,050
H Height	mm	2,150	2,150
Width	mm	2,400	2,550
Weight	kg	6,500	6,800



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

HD

Cutting width	mm	2,500	2,550
Capacity	m <sup>3</sup>	6.80	7.20
L Length	mm	3,100	3,100
H Height	mm	2,200	2,200
Width	mm	2,600	2,600
Weight	kg	6,500	7,000

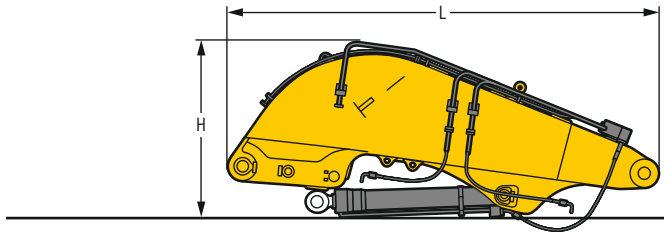


### Backhoe buckets (semi-delta cutting edge, teeth Z 100)

HDV

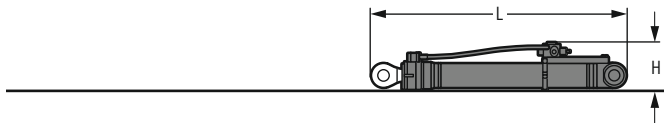
Cutting width	mm	2,200	2,350	2,350
Capacity	m <sup>3</sup>	5.20	5.70	6.30
L Length	mm	2,950	2,950	3,050
H Height	mm	2,150	2,150	2,200
Width	mm	2,250	2,400	2,400
Weight	kg	7,200	7,300	7,600

# Dimensions and weights



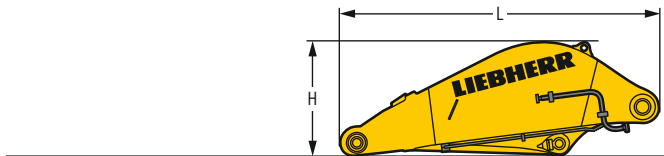
## Shovel boom

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



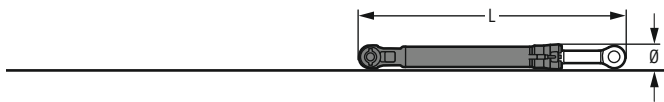
## Shovel hoist cylinders (two)

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



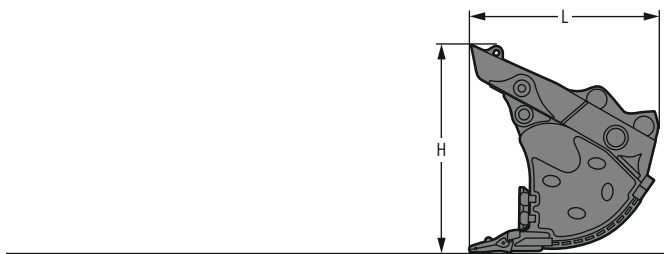
## Shovel stick

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 Height	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	8,450	8,750	9,000	10,300
Level II	kg	9,100	9,500	10,000	11,000
Level III	kg	10,150	11,000	11,300	12,900



# 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)
- DEF tank lockable access hatch
- Engine hood with gas spring opening
- Extended tool set including tool box
- Handrails
- Liebherr Power Efficiency - Engine Control
- 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 + 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

## Cab

- 9" multifunction colour touchscreen
- Air conditioning, automatic, tri-zone, controlled via display
- Armrests adjustable in length, 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 (12V)
- Electric socket in cabin (24V)
- 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)\*
- Mobile phone storage net
- Modetronic
- Movement priority between swing and boom, adjustable via touchscreen
- Rain hood over front window opening
- Rearview mirror
- Rear view monitoring camera
- Rear view monitoring camera distance gauge
- 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
- 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 3 pieces	●
Chain guide full length	+
Reinforced cover and base plate for undercarriage centre section	+
Special painting	+
Steps	●
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	+
Counterweight heavy 16.0t	●
Counterweight super heavy 18.0t	+
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, 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>
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>

## Cab

2" seat belt with retractor	●
3" seat belt with retractor, orange colour	+
4-points seat belt	+
Acoustic travel alarm deactivatable	+
Auxiliary heater programmable	+
Bottom windscreen wiper	+
Coming / Leaving Home	+ <sup>1)</sup>
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	+
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	+
Shortcut button on joystick configurable	●
Special painting	+
Sun visor	+ <sup>1)</sup>

## Equipment

Boom cylinder rods protection	+
Bucket cylinder rod protection	+
Bucket Fill Assist	+
Centralised lubrication extended for connecting link	+
Floating boom	+
Headlights on boom, LED, 2 pieces, protections included	● <sup>1)</sup>
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	+ <sup>1)</sup>

● = 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.



# 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 51,000 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](http://www.liebherr.com)

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