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# Quarry excavators

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## **LIEBHERR**

Crawler excavators



# The range



**Diesel:**  
250 to 420 kW  
340 to 571 HP

**Electric:**  
400 kW  
544 HP



**Backhoe:**  
3.00 to 7.20 m<sup>3</sup>



**Shovel:**  
2.50 to 6.50 m<sup>3</sup>



53 to 104 t

R 956



R 978 SME



R 960 SME



R 972



R 992



R 998 SME



A yellow Liebherr excavator is shown in a quarry setting, loading a dump truck with dark gravel. The excavator's arm is extended, and its bucket is tilted, pouring the material into the truck's bed. The background features a large pile of earth and a muddy stream. The scene is brightly lit, suggesting a sunny day.

**Productivity**

**Reliability**

**Safety**



**Performance**

**Easy**

**Comfort**

**maintenance**

Productivity

# Innovative technology

## New Modetronic operating modes

- Machine hydraulic performance adapted to the application and the operator's driving style
- Maximum operator comfort and increased productivity
- Control of all machine movements: rotation, driving, boom, stick and bucket

**EFFICIENT**

For balanced machine performance (default mode)

To facilitate precision work

**FINE**

**DYNAMIC**

For more dynamic machine performance

To adapt individual movements via the display according to the application or the operator's preferences

**CUSTOM**



Discover the **Modetronic** video

**+8%**  
loading capacity





### **Bucket Fill Assist (BFA)**

#### **Semi-automatic bucket filling**

- Higher bucket filling level, faster cycles and better penetration
- Higher performance, even in the most challenging extraction conditions
- Less wear on the bucket
- Up to 10% lower fuel consumption
- Reduced vibration for maximum operator comfort



Discover the **BFA** video



#### **Anti-stalling function**

This function automatically prevents the bucket from stalling during the excavation phase. The operator continues to use the machine in the normal way without performing any specific action during the bucket-filling phase.

## Reliability

# Long-lasting performance



- Components specifically designed for mining and quarrying applications
- Diesel engine, hydraulic pumps, slewing gear, cylinders and electronic components designed and made by Liebherr
- Custom equipment lengths
- Technical expertise and continuous improvement programmes



### Equipment

- Heavy-duty, reinforced boom and sticks
- Large-size attachments



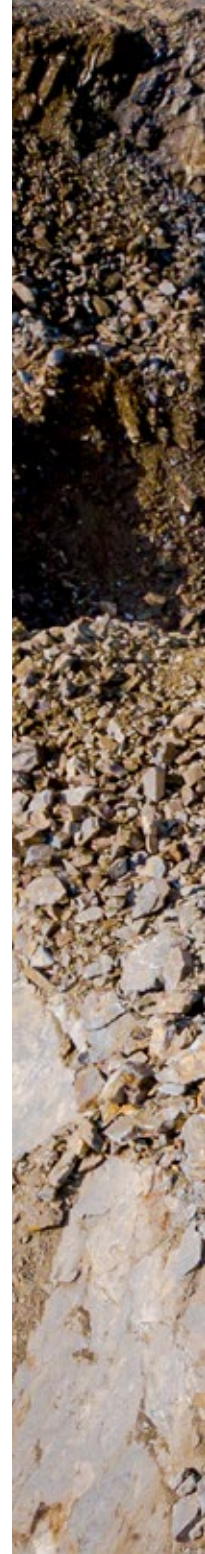
### Uppercarriage

- Improved hydraulics
- Reinforced components



### Undercarriage

- Moulded two-tooth sprocket for longer service life
- Carrier rollers on double bearings for increased reliability and durability







Up to **30,000**  
operating hours

Performance

# Advanced hydraulic system

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Highest digging force

**426 kN**

and breakout force

**506 kN**

in its category\*

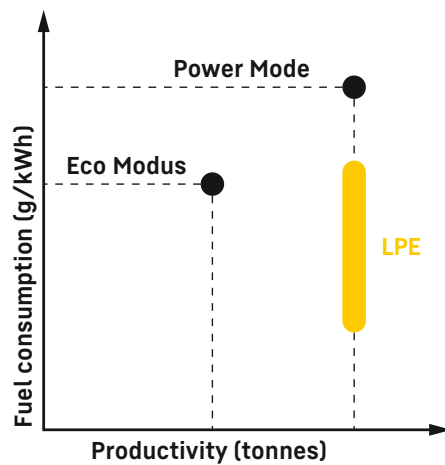
\* model R 978 SME



# Move more with less

## Patented Liebherr Power Efficiency (LPE) assistance system

- Reduced fuel consumption thanks to individual control of the engine and hydraulics
- Electronic control of pressure and oil flow
- Reduced hydraulic pressure and engine load profile for increased component service life
- Fast, precise movement



- R 980 SME (previous model)
- R 998 SME

Up to  
**10 %**  
lower fuel  
consumption\*

\* model R 972

Adaptable hydraulic oil pressure and flow to suit any application.

## Safety

# Operator protection



### Wide catwalks

- Guarantee ergonomic and completely safe access to the operator's cab and daily maintenance areas
- Wide catwalks with handrails and retractable access ladders (optional)
- Available as an option on R 972 to R 998 SME excavators
- Complete safety for after-sales support technicians carrying out daily maintenance work (fluid levels, consumable supplies, etc.)



### Cab protection

- FGPS/FOPS-certified protective grilles
- Impact-resistant glass windscreen and roof panel protects the operator from any falling rocks







Comfort  
**Cab**

## Working environment

### Maximum operator comfort

- Spacious modern cab that reduces vibration and limits noise
- Ideal working conditions and optimal view of attachments
- Large, high-resolution 9" colour touchscreen for R 972 to R 998 SME models
- New joysticks and foot pedals for maximum precision of machine movements



**Maximum comfort  
and ergonomics**



**New options**

- Service light pack
- Headlight packs
- Timer-controlled lighting
- Bottom windscreen wiper



**Optional**

- Cab pressurisation
- FOPS top guard on cab
- High-quality heated seats
- Four-point safety belt
- HEPA filtration system
- Front protective grille

Easy maintenance

**Fast, safe working**

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**2**  
Oper



# The biggest fuel tank on the market

# 1,498 litres\*

- Less time needed for filling up
- Up to 24 hours of operation possible without refuelling

\* model R 998 SME



**Liebherr Connect**

## Responsive, high-performance after-sales support

- After-sales support services that can be tailored to requirements
- A large number of plans are available to deliver the most effective and economical solution, with manufacturer's quality standards and guarantee
- Our service technicians have the latest diagnostic tools to ensure less machine downtime

## Liebherr Connect – connecting man, machine and environment

- Liebherr Connect provides access to machine data and digital solutions and services
- Customers and partners are equipped for every type of fleet or asset management system
- Liebherr Connect: the basis for machine networking and another milestone in digitalisation

## Ergonomic access and time saved

- Wide central platform for easy access to engine and hydraulic distributor compartments
- Large walkways with anti-slip surfaces
- Two-part bonnet on engine side for easier opening and closing
- Levels of fluids such as motor oil and urea solution can be checked quickly and easily via the screen in the cab
- Automatic central lubrication system to minimise the time required for lubrication and ensure optimal machine operating status

**4/7**  
ration

# Excavator with bottom dump shovel

## ① Safety

- Rear-view and side-view monitoring cameras for increased safety
- Retractable ladder for safe and easy access to the cab (optional)

## ② Cab

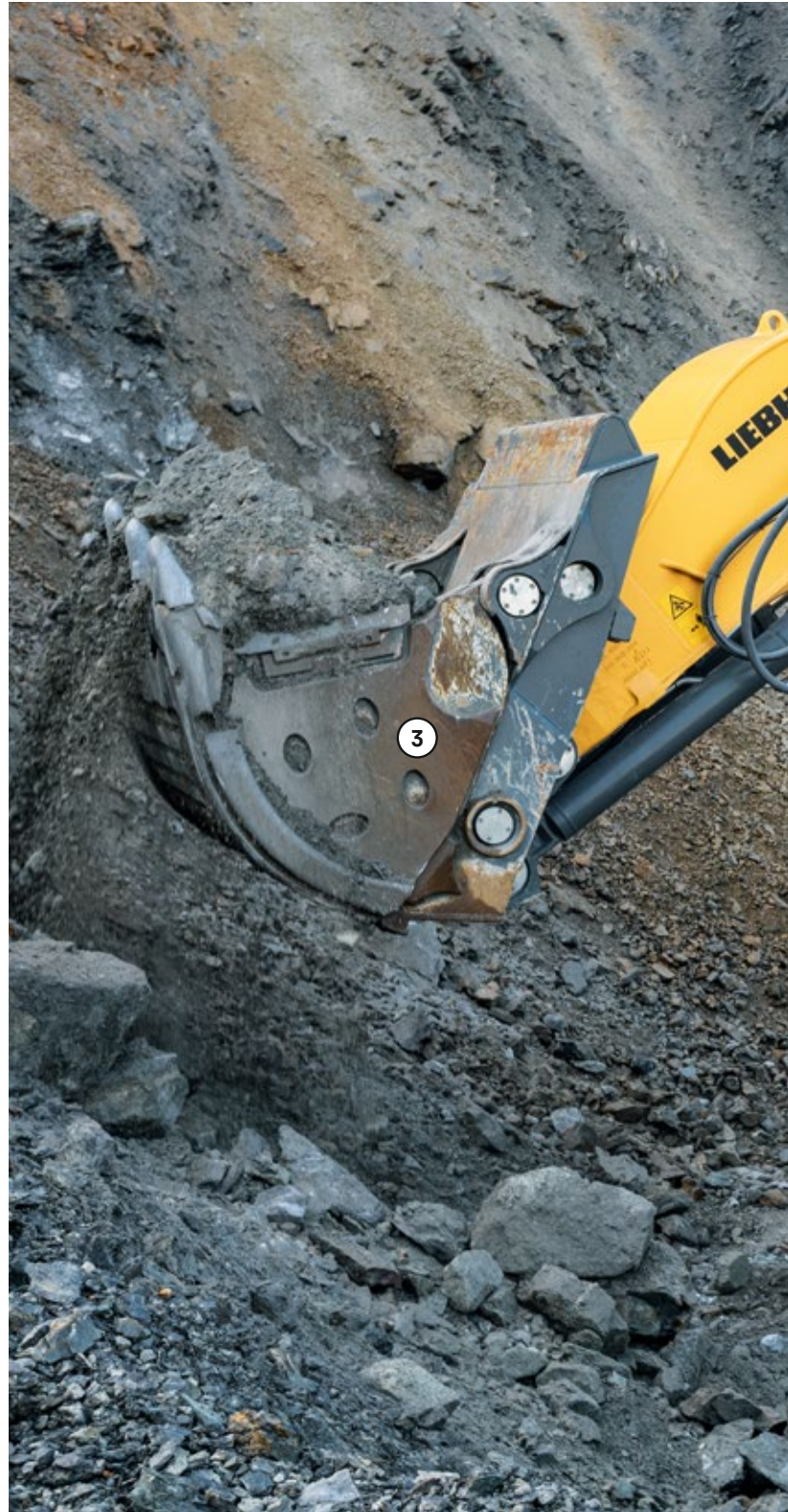
- Cab riser for improved visibility of the working area
- The largest and quietest cab in its category
- Mounted on viscoelastic rivets to absorb vibration
- Seat with heater and pneumatic multi-directional shock absorption (air conditioning optional)
- Large high-resolution colour touchscreen

## ③ Attachment

- Cast steel components
- Shovel attachment with parallel drivetrain for powerful, consistent penetration
- Bucket cylinders located under the attachments for better protection
- Cylinder check valves for additional safety
- Bottom dump shovel with semi-automatic flap closure, ideally shaped for maximum material penetration and high filling rate

## ④ Uppercarriage

- Heavy counterweight for more stability and improved performance



## ⑤ Maintenance

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

## ⑥ Undercarriage

- Chamfered double grouser track pads for improved mobility on difficult terrain
- Moulded two-tooth sprocket for longer service life
- Carrier rollers on double bearings for increased reliability and durability
- Stronger travel motor housing protection for improved resistance to wear and tear from hard, abrasive rocks



# Electric excavators

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Two models available:  
R 992 E and R 998 SME E



No downtime  
for refuelling



Zero CO<sub>2</sub> emissions



Easier maintenance



Constant  
engine speed



Maximum energy efficiency  
in quarrying operations



Reduced noise level in  
the working environment



# The extraction excavator range


<b>R 956</b>		
Engine power	kW/HP	250 / 340
Operating weight	kg	53,100–57,400
Backhoe bucket capacity	m <sup>3</sup>	1.65–3.50
Bottom dump shovel capacity	m <sup>3</sup>	2.50–3.10

<b>R 960 SME</b>		
Engine power	kW/HP	250 / 340
Operating weight	kg	60,000–62,850
Backhoe bucket capacity	m <sup>3</sup>	3.00–3.70
Bottom dump shovel capacity	m <sup>3</sup>	3.50


<b>R 972</b>		
Engine power	kW/HP	330 / 449
Operating weight	kg	68,450–77,550
Backhoe bucket capacity	m <sup>3</sup>	1.65–5.50
Bottom dump shovel capacity	m <sup>3</sup>	3.50–5.00

<b>R 978 SME</b>		
Engine power	kW/HP	330 / 449
Operating weight	kg	78,350–81,000
Backhoe bucket capacity	m <sup>3</sup>	4.00–5.00
Bottom dump shovel capacity	m <sup>3</sup>	4.00–5.00

<b>R 992</b>		
Engine power	kW/HP	420 / 571
Operating weight	kg	85,800–96,500
Backhoe bucket capacity	m <sup>3</sup>	2.00–6.80
Bottom dump shovel capacity	m <sup>3</sup>	5.10–6.00

<b>R 992 E</b> 		
Engine power	kW/HP	400 / 544
Operating weight	kg	90,550–97,100
Backhoe bucket capacity	m <sup>3</sup>	2.00–6.80
Bottom dump shovel capacity	m <sup>3</sup>	5.10–6.00

<b>R 998 SME</b>		
Engine power	kW/HP	420 / 571
Operating weight	kg	97,700–101,500
Backhoe bucket capacity	m <sup>3</sup>	5.20–7.20
Bottom dump shovel capacity	m <sup>3</sup>	5.10–6.50

<b>R 998 SME E</b> 		
Engine power	kW/HP	400 / 544
Operating weight	kg	100,450–104,200
Backhoe bucket capacity	m <sup>3</sup>	5.20–7.20
Bottom dump shovel capacity	m <sup>3</sup>	4.40–6.50

	<b>BFA</b> Bucket Fill Assist	<b>Modetronic</b> Operating modes	<b>LPE</b> Liebherr Power Efficiency	<b>Electric 6 kV</b> ZERO emission solution	<b>Roomy cab</b> and fixed windscreen
R 956	-	-	-	-	-
R 960 SME	-	-	-	-	-
R 972	Yes	Yes	Yes	-	Yes
R 978 SME	Yes	Yes	Yes	-	Yes
R 992	Yes	Yes	Yes	Yes	Yes
R 998 SME	Yes	Yes	Yes	Yes	Yes





# 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-run company which now has more than 50,000 employees and comprises over 150 companies across every continent. The holding company of the Group is Liebherr-International AG in Bulle, Switzerland, whose shareholders are exclusively members of the Liebherr family.

## Technology leadership and pioneering spirit

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

## Diversified product programme

Liebherr is one of the world's biggest construction machine manufacturers and provides high-quality, user-oriented products and services. Its product programme includes earthmoving machinery, material handling technology, deep foundation machines, mining, mobile and crawler cranes, tower cranes, concrete technology, maritime cranes, aerospace and transportation systems, gear technology and automation systems, refrigerators and freezers, components and hotels.

## Customised solutions and maximum customer value

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. For Liebherr, 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)