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# R 9250

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Generation 6

**LIEBHERR**

Mining excavator



**Powertrain option**

GE E-Motor: 1,050 kW (50 Hz, 60 Hz)  
1,408 HP

**Backhoe configuration**

Overall weight: 250 tonnes  
276 tons  
Bucket payload: 28.5 tonnes  
31.5 tons

**Face shovel configuration**

Overall weight: 253 tonnes  
279 tons  
Bucket payload: 27 tonnes  
30 tons

# Technical data

## E-drive

| 1 GE E-Motor    |   |
|-----------------|---|
| Power output    | 1,050 kW (1,408 HP)                             |
| Type            | 3-phase AC squirrel cage motor                  |
| Voltage         | 6,000V, other voltage on request                |
| Frequency       | 50 Hz (or 60 Hz)                                |
| Revolutions     | 1,500 rpm or 1,800 rpm                          |
| Motor cooling   | integrated air-to-air heat exchanger            |
| Starting method | inrush current limited to 2.2 full load current |

## Electro-hydraulic controls

|                      |  |
|----------------------|--|
| Servo circuit        | independent, electric over hydraulic proportional controls of each function                        |
| Emergency control    | via accumulator for all attachment functions with stopped powertrain                               |
| Power distribution   | via monoblock control valves with integrated primary relief valves and flanged on secondary valves |
| Flow summation       | to attachment and travel drive   |
| Control functions    |  |
| Attachment and swing | proportional via joystick levers   |
| Travel               | proportional via foot pedals or hand levers  |
| Bottom dump bucket   | proportional via foot pedals   |

## Swing drive

|                     |   |
|---------------------|---|
| Hydraulic motor     | 2 Liebherr axial piston motors  |
| Swing gear          | 2 Liebherr planetary reduction gears  |
| Swing ring          | Liebherr, sealed triple roller swing ring, internal teeth                                 |
| Swing speed         | 0-4.4 rpm   |
| Swing-holding brake | hydraulically actuated, maintenance-free, multi-disc brakes integrated in each swing gear |

## Hydraulic system

|                                 |   |
|---------------------------------|---|
| Hydraulic pump                  |   |
| for attachment and travel drive | 3 variable flow axial piston pumps  |
| Max. flow                       | 2 x 771 l/min. + 1 x 579 l/min. / 2 x 204 gpm + 1 x 153 gpm   |
| Max. pressure                   | 320 bar / 4,640 psi   |
| for swing drive                 | 2 reversible swashplate pumps, closed-loop circuit  |
| Max. flow                       | 2 x 352 l/min. / 2 x 93 gpm   |
| Max. pressure                   | 320 bar / 4,640 psi   |
| Pump management                 | electronically controlled pressure and flow management with oil flow optimisation                               |
| Hydraulic tank capacity         | 2,826 l / 747 gal   |
| Hydraulic system capacity       | 4,050 l / 1,070 gal   |
| Hydraulic oil filter            | 1 high pressure safety filter after each high pressure pump + fine filtration of entire return flow (15 / 5 µm) |
| Hydraulic oil cooler            | cooler with temperature controlled fans driven via hydraulic piston motor                                       |

## Electric system

|                     |  |
|---------------------|--|
| Electric isolation  | easy accessible battery isolators  |
| Working lights      | high brightness LED lights:<br>- 4 on working attachment<br>- 2 on cabin<br>- 4 on RHS of uppercarriage<br>- 4 on LHS of uppercarriage |
| 24 V E-stop         | at ground level, in hydraulic compartment, in powertrain compartment, on control valve and in operator cab                             |
| High voltage E-stop | in operator cab  |
| Electrical wiring   | heavy duty execution in IP 65 standard for operating conditions of -50 °C to 100 °C / -58 °F to 212 °F                                 |

## Uppercarriage

|                     |  |
|---------------------|--|
| Design              | torque resistant designed upper frame in box-type construction for superior strength and durability  |
| Attachment mounting | parallel longitudinal main girders in box section construction   |
| Machine access      | 45° access system with handrails on the cab side of the uppercarriage, full controlled descent in case of emergency stop additional emergency ladder fitted near the cab |

## Cab

|                                   |  |
|-----------------------------------|--|
| Design                            | resiliently mounted, sound insulated, large windows for all around visibility, integrated falling object protection FOPS (ISO 10262)   |
| Operator's seat                   | suspended, body-contoured with shock absorber, adjustable to operator's weight   |
| Cabin windows                     | 20.5mm / 0.8in tinted armored glass for front window and 18mm / 0.7 in for right-hand side windows, all other windows in tinted safety glass, high pressure windshield-washer system 75l / 20gal watertank, sun louvers on all windows in heavy duty design  |
| Heating system / Air conditioning | heavy duty, fully automatic, high output air conditioner and heater unit, contains fluorinated greenhouse gases HFC 134a with a Global Warming Potential (GWP) of 1430, the AC circuit contains 7.5 kg / 16.5 lb of HFC-134 representing an equivalent of 10.7 tonnes / 11.6 tons of CO <sub>2</sub> , the 2 <sup>nd</sup> AC circuit (optional) contains 5 kg / 11 lb of HFC-134 representing an equivalent of 7.2 tonnes / 7.9 tons of CO <sub>2</sub> |
| Cabin pressurization              | ventilation with filter, minimum pressurization of 50 Pa (ISO 10263-3)   |
| Controls                          | joystick levers integrated into armrest of seat  |
| Monitoring                        | via LCD-display, data memory   |
| Rear vision system                | camera installation on counterweight and right-hand side of the uppercarriage displayed over an additional LCD-display   |
| Destroking of main pumps          | in case of low hydraulic oil level   |
| Noise level (ISO 6396)            | L <sub>PA</sub> (inside cab) = 70 dB(A)  |

## Undercarriage

|                                 |   |
|---------------------------------|---|
| Design                          | 3-piece undercarriage, box-type structures for center piece and side frames, stress relieved                  |
| Hydraulic motor                 | 2 axial piston motors per side frame  |
| Travel gear                     | Liebherr planetary reduction gear   |
| Travel speed                    | 0-2.0 km/h / 0-1.24 mph   |
| Parking brake                   | spring engaged, hydraulically pressure released wet multi-disc brakes for each travel motor, maintenance-free |
| Track components                | D 12, maintenance-free, forged double grouser pad   |
| Track rollers / Carrier rollers | 9 / 2 per side frame  |
| Automatic track tensioner       | hydraulic and grease tensioner  |
| Transport                       | undercarriage side frames are removable   |

## Service flap

|        |  |
|--------|--|
| Design | hydraulically actuated service flap, easily accessible from ground level to allow: <ul style="list-style-type: none"> <li>- swing ring teeth grease barrel refilling via grease filter</li> <li>- attachment / swing ring bearing grease barrel refilling via grease filter</li> <li>- hydraulic oil refill</li> <li>- hydraulic oil draining</li> <li>- splitterbox oil refill</li> <li>- windshield wash water refilling</li> <li>other coupler type on request</li> </ul> |
|--------|--|

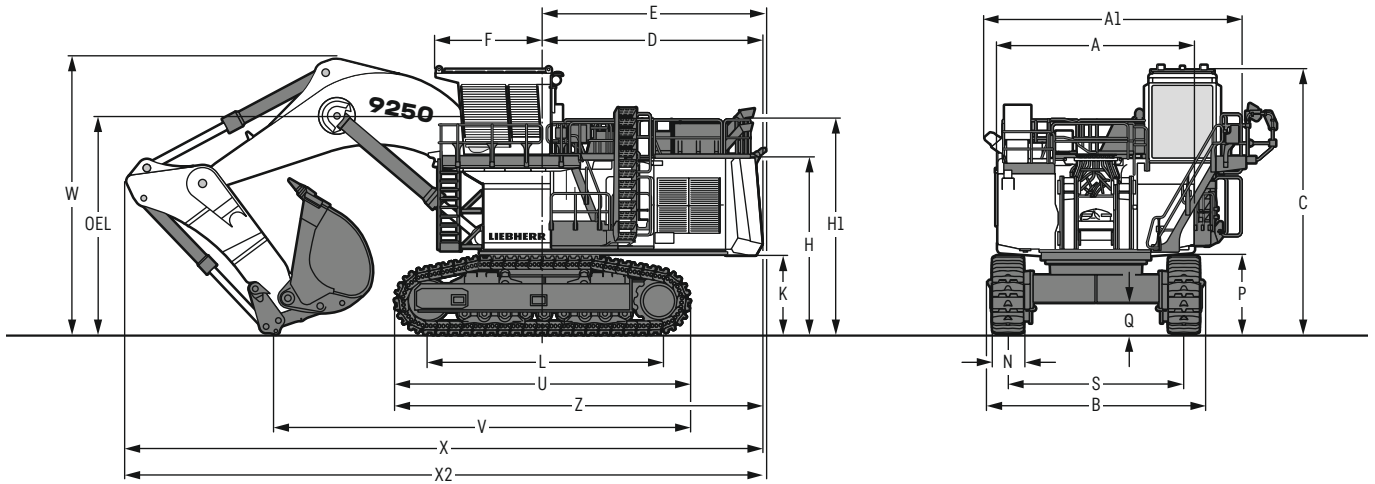
## Central lubrication system

|              |   |
|--------------|---|
| Type         | automatic single-line lubrication system, for the entire attachment / swing ring bearing and teeth                          |
| Grease pumps | Lincoln Powermaster pump plus separate P203 pump for swing ring teeth   |
| Capacity     | 200l / 53 gal bulk container for attachment / swing ring bearing, separated 15l / 4 gal bulk container for swing ring teeth |
| Refill       | via the service flap for both containers, fill line with grease filters   |
| Monitoring   | via a specific Liebherr control module with data memory   |

## Attachment

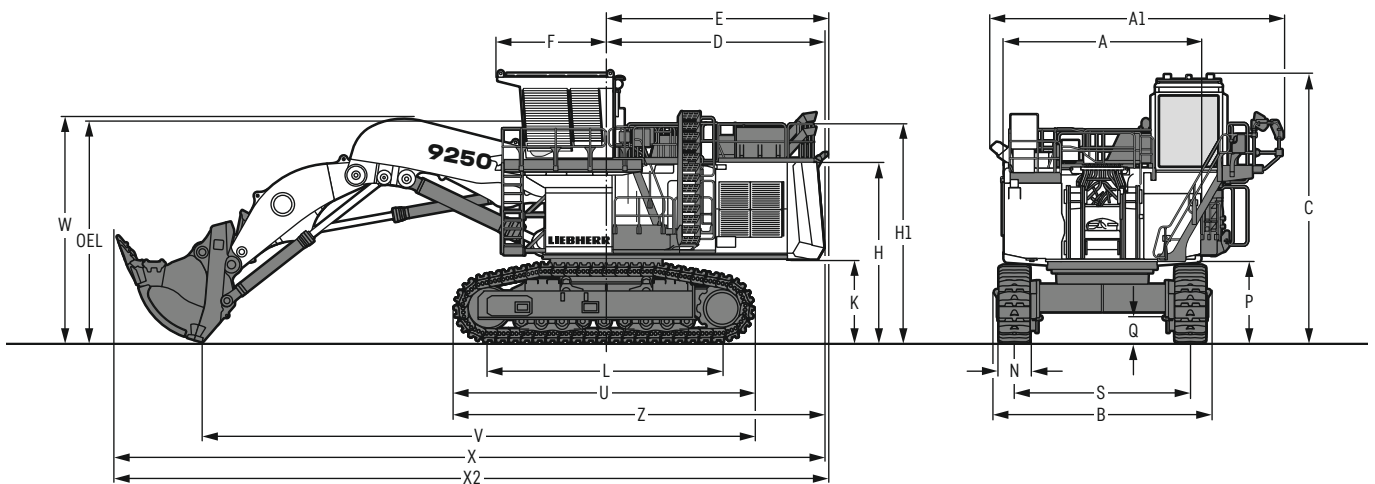
|   |   |
|---|---|
| Design  | box-type structure with large steel castings in all high-stress areas                   |
| Stick   | wear protection underneath lower beam plate   |
| Pivots  | sealed and floating pins  |
| Hydraulic cylinder                              | Liebherr design, sealed bearings, electronically controlled end-cushioning              |
| Hydraulic connections                           | pipes and hoses equipped with SAE split-flange connections                              |
| Pivots bucket-to-stick<br>Pivots bucket-to-link | O-ring sealed and completely enclosed   |
| Kinematics                                      | Liebherr parallel face shovel attachment geometry, electronic controlled end-cushioning |

# Dimensions



|    | mm / ft in     |    | mm / ft in     |   | mm / ft in      |                            | mm / ft in     |
|----|----------------|----|----------------|---|-----------------|----------------------------|----------------|
| A  | 5,500 / 18'    | F  | 3,000 / 9'10"  | P | 2,185 / 7' 2"   | X                          | 17,800 / 58'4" |
| A1 | 8,145 / 26' 9" | H  | 4,930 / 16' 2" | Q | 875 / 2'10"     | X2                         | 17,900 / 58'9" |
| B  | 6,183 / 20' 3" | H1 | 6,000 / 19' 8" | S | 4,900 / 16'     | Z                          | 10,250 / 33'8" |
| C  | 7,600 / 24'11" | K  | 2,200 / 7' 3"  | U | 8,255 / 27'     | OEL (Operator's eye level) | 6,350 / 20'9"  |
| D  | 6,100 / 20'    | L  | 6,396 / 21'    | V | 13,610 / 44' 8" |                            |                |
| E  | 6,200 / 20' 4" | N  | 850 / 2' 9"    | W | 7,800 / 25' 7"  |                            |                |

The R 9250 G6 equipped with an internal combustion engine is no longer available for sale.

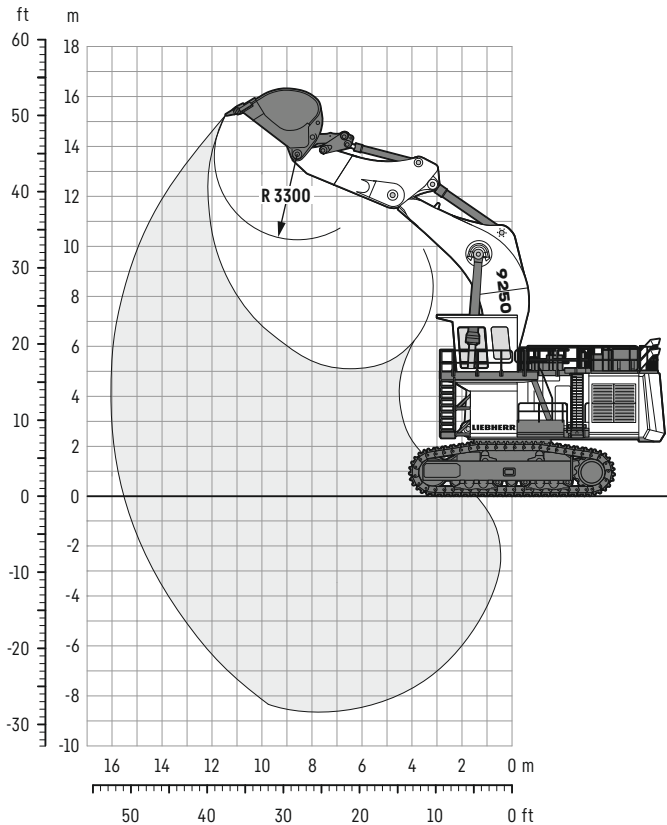


|    | mm / ft in     |    | mm / ft in     |   | mm / ft in      |                            | mm / ft in     |
|----|----------------|----|----------------|---|-----------------|----------------------------|----------------|
| A  | 5,500 / 18'    | F  | 3,000 / 9'10"  | P | 2,185 / 7' 2"   | X                          | 19,600 / 64'3" |
| A1 | 8,145 / 26' 9" | H  | 4,930 / 16' 2" | Q | 875 / 2'10"     | X2                         | 19,700 / 64'8" |
| B  | 6,183 / 20' 3" | H1 | 6,000 / 19' 8" | S | 4,900 / 16'     | Z                          | 10,250 / 33'8" |
| C  | 7,600 / 24'11" | K  | 2,200 / 7' 3"  | U | 8,255 / 27'     | OEL (Operator's eye level) | 6,350 / 20'9"  |
| D  | 6,100 / 20'    | L  | 6,396 / 21'    | V | 15,190 / 49'10" |                            |                |
| E  | 6,200 / 20' 4" | N  | 850 / 2' 9"    | W | 6,200 / 20' 4"  |                            |                |

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# Backhoe attachment

with mono boom 9.00 m / 29'6"



The R 9250 G6 equipped with an internal combustion engine is no longer available for sale.

## Digging envelope

|                            |       |        |
|----------------------------|-------|--------|
| Stick length               | m     | 4.00   |
|                            | ft in | 13'1"  |
| Max. digging depth         | m     | 8.70   |
|                            | ft in | 28'6"  |
| Max. reach at ground level | m     | 15.50  |
|                            | ft in | 50'10" |
| Max. dumping height        | m     | 10.30  |
|                            | ft in | 33'9"  |
| Max. teeth height          | m     | 15.20  |
|                            | ft in | 49'10" |

## Forces

|                                |     |         |
|--------------------------------|-----|---------|
| Max. digging force (ISO 6015)  | kN  | 800     |
|                                | lbf | 179,847 |
| Max. breakout force (ISO 6015) | kN  | 870     |
|                                | lbf | 195,584 |

## Operating weight and ground pressure

The operating weight includes the basic machine with backhoe attachment and backhoe bucket 15.70 m<sup>3</sup> / 20.54 yd<sup>3</sup>.

|                  |                    |         |
|------------------|--------------------|---------|
| Pad width        | mm                 | 850     |
|                  | ft in              | 2'9"    |
| Weight           | kg                 | 250,000 |
|                  | lb                 | 551,200 |
| Ground pressure* | kg/cm <sup>2</sup> | 2.09    |
|                  | psi                | 29.63   |

\* according to ISO 16754

## Backhoe buckets

| For materials class according to VOB, Section C, DIN 18300 | <5                                     | <5               | 5-6              | 5-6              | 5-6              | 7-8              | 7-8              |                  |
|--|--|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| Typical operation according to VOB, Section C, DIN 18300   | GP                                     | GP               | HD               | HD               | HD               | XHD              | XHD              |                  |
| Capacity ISO 7451  | m <sup>3</sup><br>yd <sup>3</sup>      | 18.00<br>23.5    | 17.00<br>22.2    | 16.40<br>21.5    | 15.70<br>20.5    | 14.20<br>18.6    | 14.90<br>19.5    | 13.00<br>17.0    |
| Suitable for material up to a specific weight of           | t/m <sup>3</sup><br>lb/yd <sup>3</sup> | 1.6<br>2,698     | 1.7<br>2,867     | 1.7<br>2,867     | 1.8<br>3,035     | 2.0<br>3,373     | 1.8<br>3,035     | 2.1<br>3,541     |
| Cutting width  | mm<br>ft in                            | 3,550<br>11'7"   | 3,500<br>11'5"   | 3,300<br>10'9"   | 3,120<br>10'2"   | 3,100<br>10'2"   | 3,100<br>10'2"   | 2,800<br>9'2"    |
| Weight   | kg<br>lb                               | 14,100<br>31,085 | 14,000<br>30,865 | 15,100<br>33,290 | 14,800<br>32,628 | 14,500<br>31,967 | 16,200<br>37,715 | 15,800<br>34,833 |

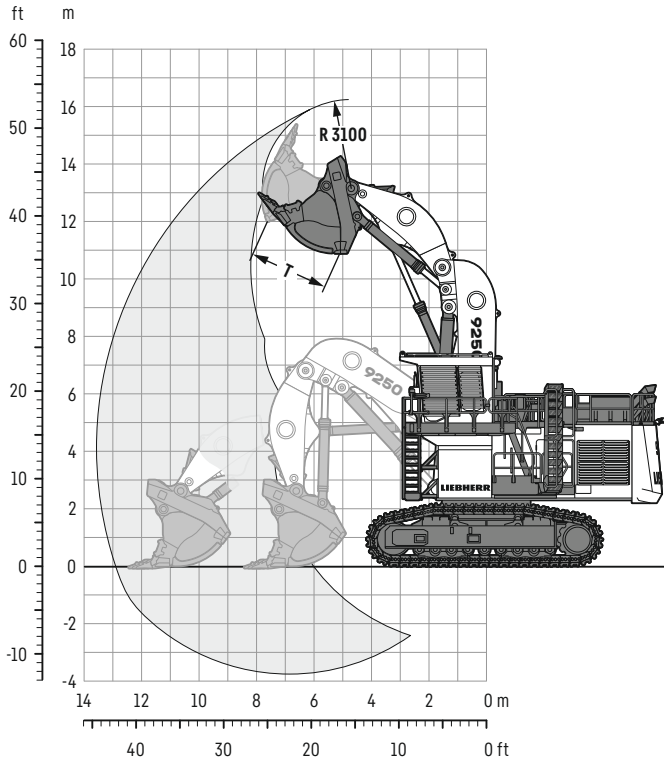
GP: General purpose bucket with Liebherr Z120 teeth

HD: Heavy-duty bucket with Liebherr Z120 teeth

XHD: Heavy-duty rock bucket with Liebherr Z140 teeth

# Face shovel attachment

with shovel boom 6.37 m / 20'9"



The R 9250 G6 equipped with an internal combustion engine is no longer available for sale.

## Digging envelope

|                            |       |       |
|----------------------------|-------|-------|
| Stick length               | m     | 4.20  |
|                            | ft in | 13'9" |
| Max. reach at ground level | m     | 13.00 |
|                            | ft in | 42'7" |
| Max. dumping height        | m     | 11.00 |
|                            | ft in | 36'   |
| Max. crowd length          | m     | 4.00  |
|                            | ft in | 13'1" |
| Bucket opening width T     | m     | 2.70  |
|                            | ft in | 8'10" |

## Forces

|   |     |         |
|---|-----|---------|
| Max. crowd force at ground level (ISO 6015) | kN  | 1,050   |
|   | lbf | 236,049 |
| Max. crowd force (ISO 6015)                 | kN  | 1,220   |
|   | lbf | 274,266 |
| Max. breakout force (ISO 6015)              | kN  | 940     |
|   | lbf | 211,320 |

## Operating weight and ground pressure

The operating weight includes the basic machine with shovel attachment and bucket 15.00 m<sup>3</sup> / 19.6 yd<sup>3</sup>.

|                  |                    |         |
|------------------|--------------------|---------|
| Pad width        | mm                 | 850     |
|                  | ft in              | 2'9"    |
| Weight           | kg                 | 253,500 |
|                  | lb                 | 558,900 |
| Ground pressure* | kg/cm <sup>2</sup> | 2.12    |
|                  | psi                | 30.05   |

\* according to ISO 16754

## Face shovel buckets

| For materials class according to VOB, Section C, DIN 18300 | < 5                       | 5-6              | 5-6              | 7-8              | 7-8              |
|--|---------------------------|------------------|------------------|------------------|------------------|
| Typical operation according to VOB, Section C, DIN 18300   | GP                        | HD               | HD               | XHD              | XHD              |
| Capacity ISO 7451  | m <sup>3</sup><br>22.2    | 13.00<br>17.0    | 15.00<br>19.6    | 11.00<br>14.4    | 13.00<br>17.0    |
| Suitable for material up to a specific weight of           | t/m <sup>3</sup><br>2,698 | 2.1<br>3,541     | 1.8<br>3,035     | 2.3<br>3,879     | 1.8<br>3,035     |
| Cutting width  | mm<br>12'1"               | 3,700<br>12'1"   | 3,700<br>12'1"   | 3,700<br>12'1"   | 3,700<br>12'1"   |
| Weight   | kg<br>59,525              | 27,000<br>59,525 | 27,000<br>59,525 | 28,000<br>61,729 | 29,000<br>63,934 |
| Wear kit level   | I                         | II               | II               | III              | III              |

GP: General purpose bucket with Liebherr Z120 teeth

HD: Heavy-duty bucket with Liebherr Z140 teeth

XHD: Heavy-duty rock bucket with Liebherr Z140 teeth

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 5 to 6, according to DIN 18300)

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

# Optional equipment

## Undercarriage

Full length chain guide  
HD travel gear seal for muddy applications  
Undercarriage bottom cover  
Rock protection for idler wheel  
Travel motor guard with access hatch

## Uppercarriage

Swing ring scrapers  
Slewing ring with 90° installation arrangement

## Hydraulic system

Oil cooler inlet screens  
Suction valve position monitoring

## Cab

4-point seat belt  
Additional back and side wipers  
Double A/C system  
Front protective grid

## Attachment

Piston rod guard for bucket cylinder (BH)  
Piston rod guard for stick cylinder (BH)  
Piston rod guard for hoist cylinder (BH)

## Specific solutions

Arctic package (different stages available)

## Safety

Automatic fire suppression system

## General

Maritime transport packaging

## E-drive

Automatic cable reel



Mining excavator



Mining truck



Mining dozer



Mining dragline



Service tools



Customer service

## Quality commitment

- Liebherr-Mining Equipment Colmar, France, ISO 9001 certified
- Compliance of materials tested in laboratory
- Quality control during all stages of production
- IEC certified

Subject to technical modifications. All comparisons and claims of performance are made with respect to the prior Liebherr model unless specifically stated.

### Liebherr-Mining Equipment Colmar SAS

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