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# R 9250

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Generation 6

**LIEBHERR**

Mining excavator



**Powertrain option**

Electric: 2,400 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 electric 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: - 4 on working attachment - 2 on cabin - 4 on RHS of uppercarriage - 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>
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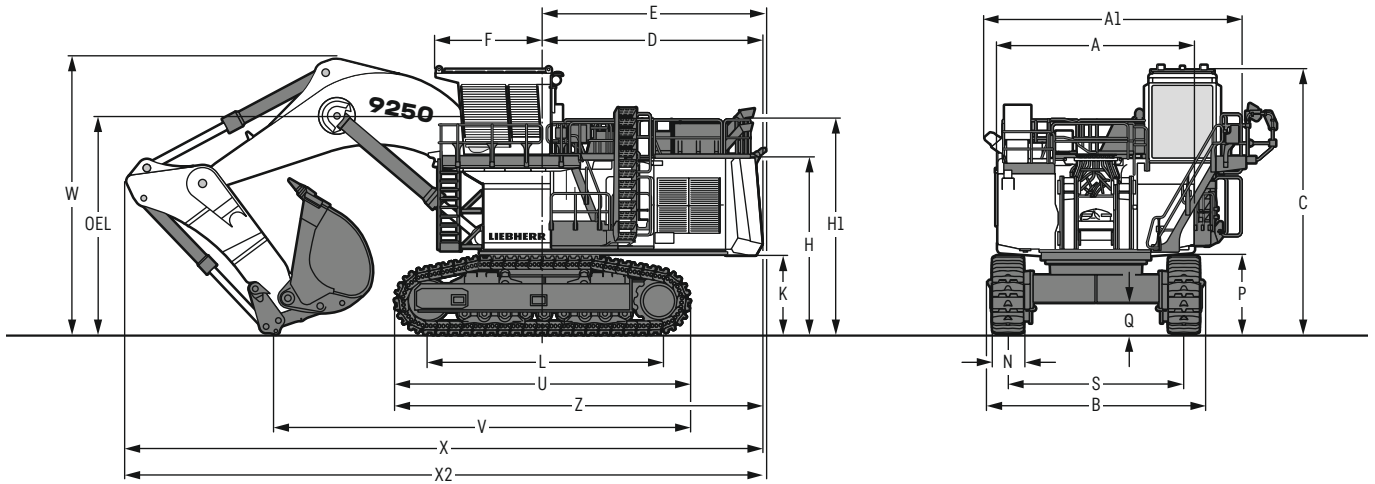
## Central lubrication system

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

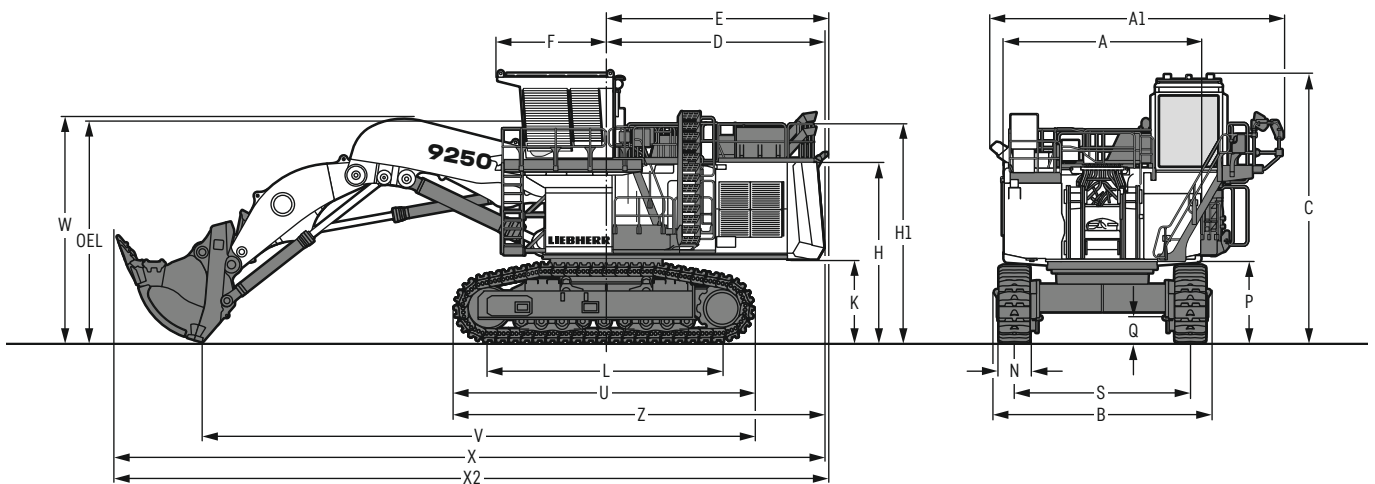
Design	box-type structure with large steel castings in all high-stress areas
Stick	wear protection underneath lower beam plate
Pivots	sealed and floating pins
Hydraulic cylinder	Liebherr design, sealed bearings, electronically controlled end-cushioning
Hydraulic connections	pipes and hoses equipped with SAE split-flange connections
Pivots bucket-to-stick 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.

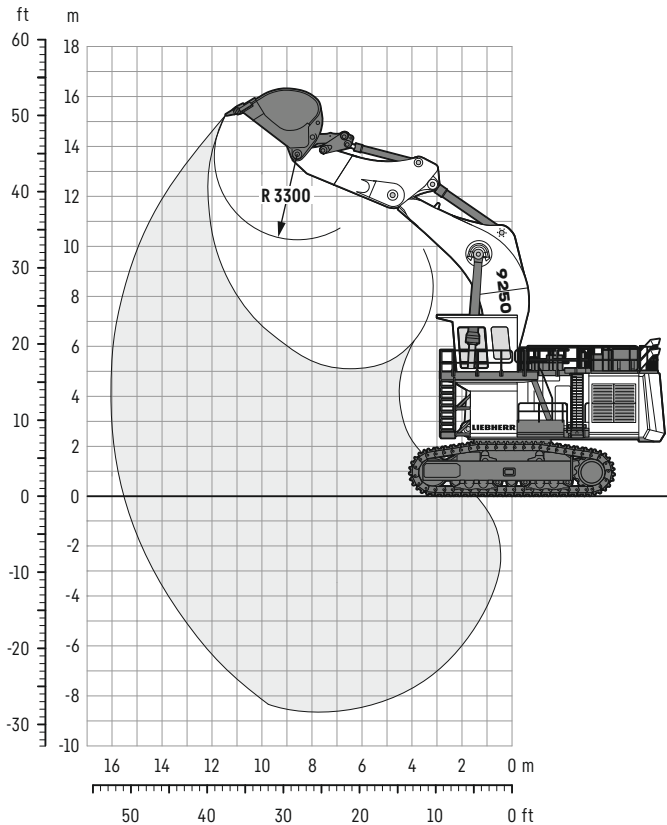


	mm / ft in		mm / ft in		mm / ft in		mm / ft in
A	5,500 / 18'	F	3,000 / 9'10"	P	2,185 / 7' 2"	X	19,600 / 64'3"
A1	8,145 / 26' 9"	H	4,930 / 16' 2"	Q	875 / 2'10"	X2	19,700 / 64'8"
B	6,183 / 20' 3"	H1	6,000 / 19' 8"	S	4,900 / 16'	Z	10,250 / 33'8"
C	7,600 / 24'11"	K	2,200 / 7' 3"	U	8,255 / 27'	OEL (Operator's 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"



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## 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> yd <sup>3</sup>	18.00 23.5	17.00 22.2	16.40 21.5	15.70 20.5	14.20 18.6	14.90 19.5	13.00 17.0
Suitable for material up to a specific weight of	t/m <sup>3</sup> lb/yd <sup>3</sup>	1.6 2,698	1.7 2,867	1.7 2,867	1.8 3,035	2.0 3,373	1.8 3,035	2.1 3,541
Cutting width	mm ft in	3,550 11'7"	3,500 11'5"	3,300 10'9"	3,120 10'2"	3,100 10'2"	3,100 10'2"	2,800 9'2"
Weight	kg lb	14,100 31,085	14,000 30,865	15,100 33,290	14,800 32,628	14,500 31,967	16,200 37,715	15,800 34,833

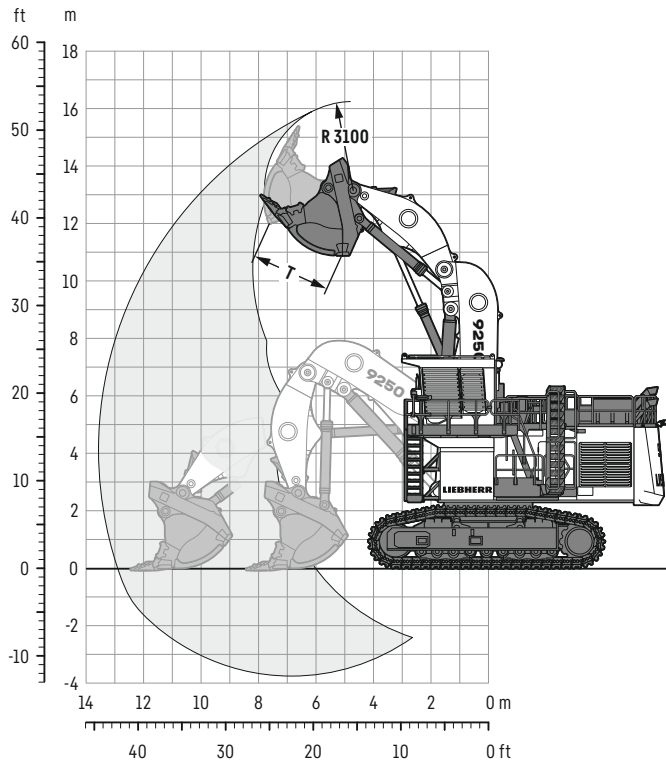
GP: General purpose bucket with Liebherr Z120 teeth

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> 22.2	13.00 17.0	15.00 19.6	11.00 14.4	13.00 17.0
Suitable for material up to a specific weight of	t/m <sup>3</sup> 2,698	2.1 3,541	1.8 3,035	2.3 3,879	1.8 3,035
Cutting width	mm 12'1"	3,700 12'1"	3,700 12'1"	3,700 12'1"	3,700 12'1"
Weight	kg 59,525	27,000 59,525	27,000 59,525	28,000 61,729	29,000 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 (-30 °C / -22 °F, -40 °C / -40 °F)

## Safety

Automatic fire suppression system

## General

Maritime transport packaging

## E-Drive

Automatic cable reeler



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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