

Mining Excavator

R 9150 B



Operating Weight
Backhoe Configuration
130 tonnes / 143 tons

Face Shovel Configuration
130 tonnes / 143 tons

Engine Power
565 kW / 757 HP

Standard Bucket
Backhoe Configuration
8.8 – 9.6 m³ / 11.5 – 12.6 yd³

Face Shovel Configuration
8.3 m³ / 10.9 yd³

LIEBHERR



Productivity

Working Harder and Faster



Efficiency

Moving More for Less



Reliability

Ready to Work
When You Need It

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Backhoe Configuration

130 tonnes / 143 tons

Face Shovel Configuration

130 tonnes / 143 tons

Engine Power

565 kW / 757 HP

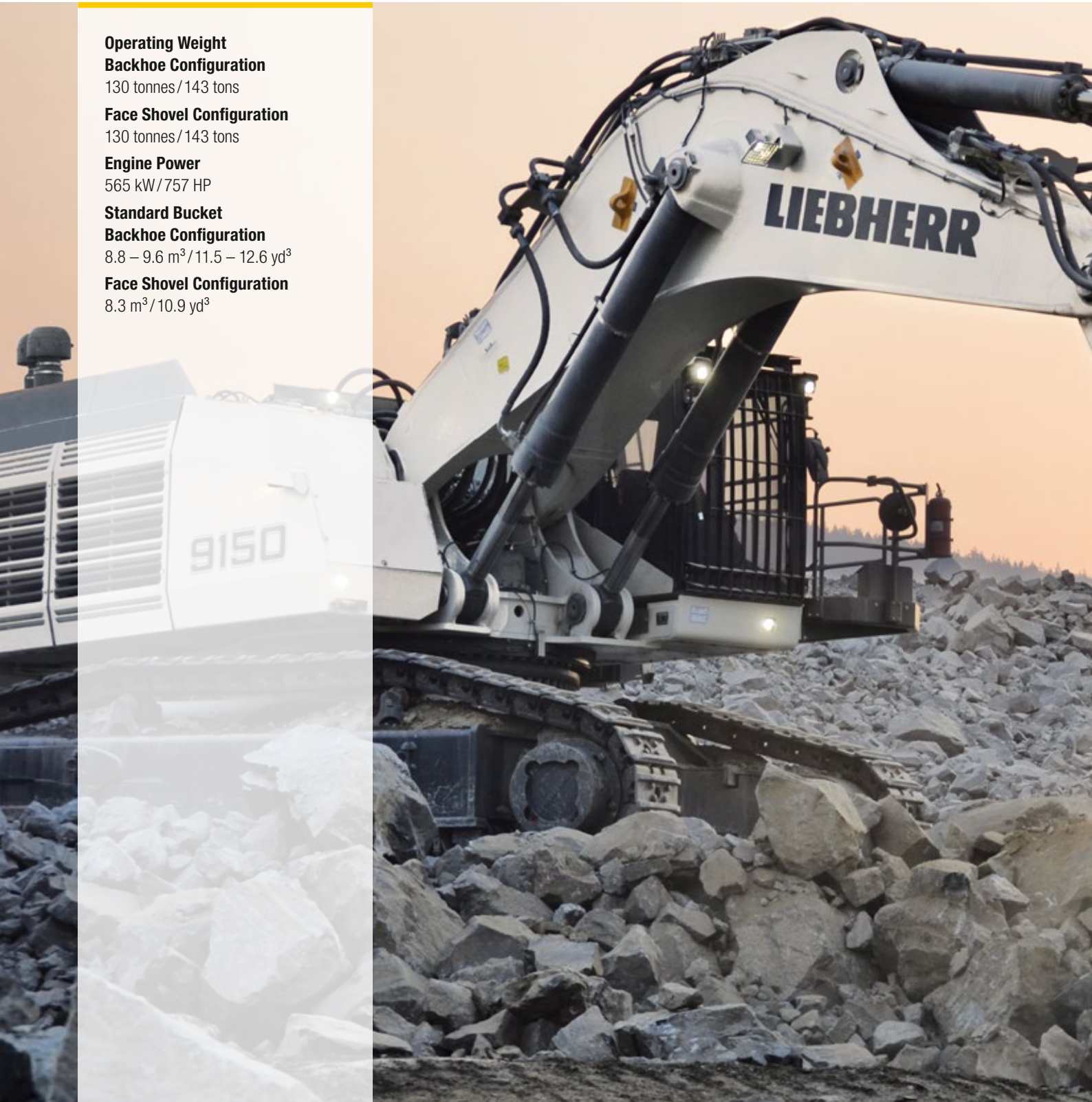
Standard Bucket

Backhoe Configuration

8.8 – 9.6 m³ / 11.5 – 12.6 yd³

Face Shovel Configuration

8.3 m³ / 10.9 yd³





Customer Service

World-Class Support,
Everywhere, Every Day



Safety

Protecting Your Most
Important Assets



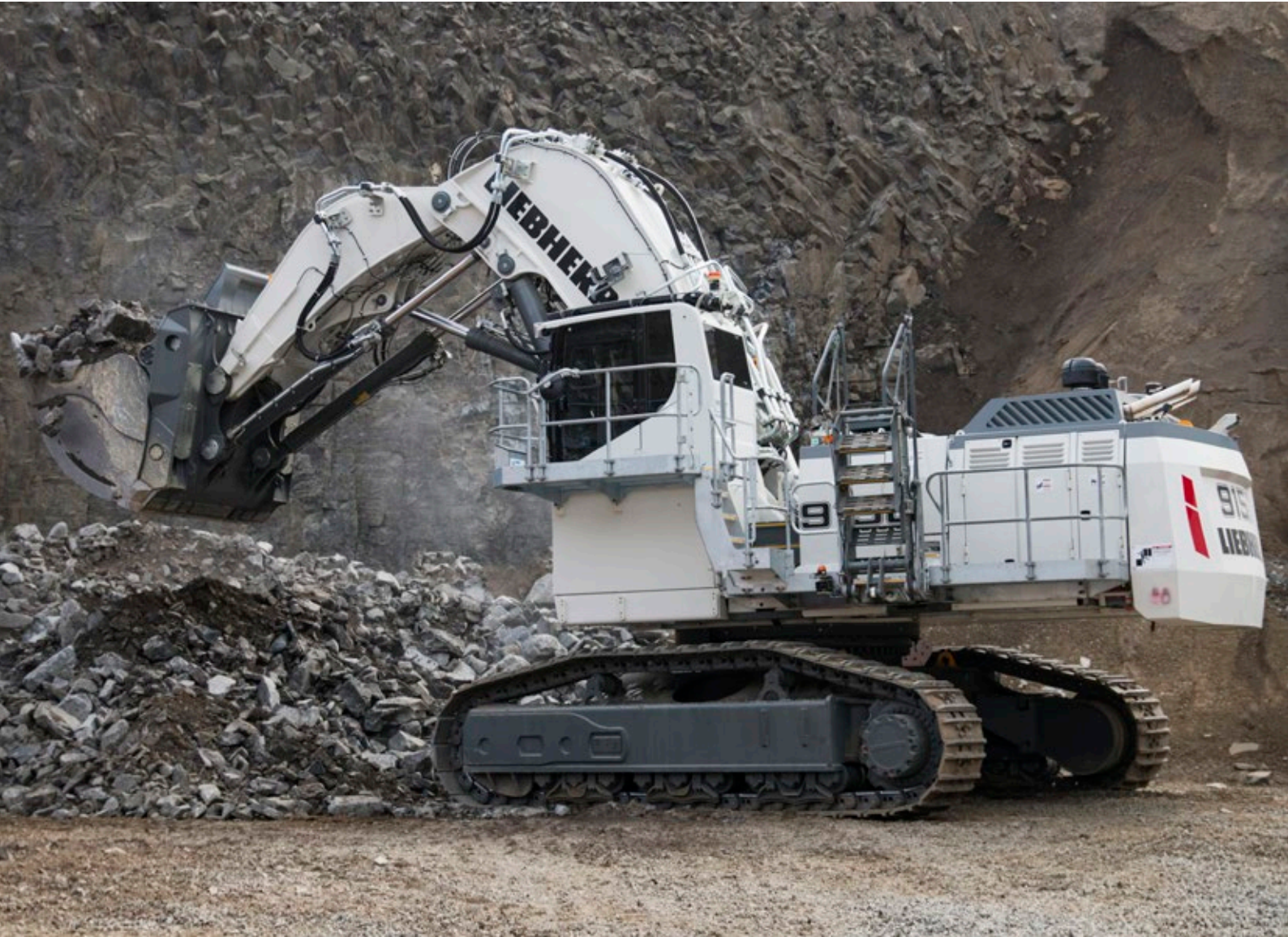
Environment

Mining Responsibly





Productivity



Working Harder and Faster

The R 915 B is built to outperform all competitors in the small class mining market. As a perfect loader for 50 t up to 100 t off-highway trucks and offering a wide array of uses. As the most powerful excavator in the small mining market, this machine reaches the highest excavating forces and an optimal cycle time.

Fast and Precise Movement

Liebherr Engine V12

The R 9150 B is equipped with the long-lasting and proven Liebherr V12 diesel engine specifically designed to withstand extreme outside temperatures and high altitudes with low atmospheric pressure. Integrating the latest engine management system, the R 9150 B is built for extreme conditions.

Fast Cycle Time

Like all other Liebherr mining excavators, the R 9150 B uses a closed-loop swing circuit. The main hydraulic circuit comprises a combination of three main valves fed by three working pumps, providing unrivaled flexibility of attachment control and force distribution, while allowing full oil flow integration for fast movement and lowest cycle times.

Precise Machine Motions

The R 9150 B design integrates the Litronic Plus electronic control system allowing for easy control even when simultaneous movements are required. The patented Liebherr electronic bucket cylinder damping system provides controlled endcushioning for smooth attachment motions.

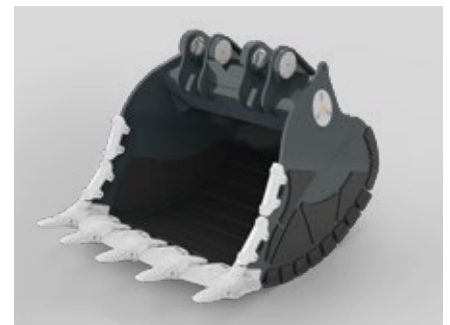
High Digging and Lifting Capabilities

High Digging Forces

Designed for the best mechanical force distribution, the production-tailored attachment delivers increased digging and lifting forces. Integrating Liebherr-made cylinders and a wide range of buckets with mining-optimized GET, the R 9150 B's attachment ensures the highest forces, easy bucket penetration and high fill factor to perform even in the most demanding conditions.

Power-Oriented Energy Management

The R 9150 B's attachment is equipped with pressureless boom-down function to enable fast cylinder retraction without the need for pump energy. Intelligent energy management diverts the pump flow during boom lowering, allowing other cylinder motions to operate unimpeded.



An Array of Applications

The integration of the electronic control system – Litronic Plus – in combination with the R 9150 B's design enables:

- Maximum machine versatility
- To use various long reach attachments and specific tools
- To answer the most specific customers requirements

Liebherr Site-Specific Bucket

- 4 passes to load a 50 t off-highway truck
- Optimized solution for loading 90-100 t off-highway truck
- 3 types of wear package
- Maximized bucket fill factor
- Integrated approach on machine capabilities

Exclusive EVO Bucket Solution

- Liebherr patented EVO bucket design to maximize the loading capacity
- Customized Liebherr GET and wear package according to customer application
- Ensure maximal penetration efficiency
- Single GET hammerless locking system for safe and easy maintenance
- Fully patented GET system design for optimal penetration / lifetime
- 4 tooth profiles available for various range of applications



Efficiency



Moving More for Less

The R 915 B follows the Liebherr design philosophy of maximizing a machine's performance by improving the efficiency of all individual subsystems. Engineered for easy serviceability, the machine is designed to ensure maximum uptime. The R 915 B modern cab creates a comfortable working environment, ensuring peak operator performance at every shift.

Built for Maximum Profitability

Electro-Hydraulic System Efficiency

Liebherr hydraulic technology in combination with the precision of electronic control contributes to the R 9150 B's efficient use of energy. The high-pressure hydraulic system and the optimized pipe and hose layout maximize usable power transmission. Hydraulic pumps are electronically managed to provide optimal pressure compensation and oil flow management. The hydraulic system is independently regulated over the engine circuit for the best operational efficiency.

Closed Loop Swing Circuit

All Liebherr Mining excavators are equipped with a closed loop swing circuit. Kinematic energy is recovered when the swing motion is used during deceleration, to drive the main and auxiliary pumps, reducing fuel consumption and allowing faster boom lift motion.

Independent Cooling System

Oil and water cooling fans are independent and electronically managed. The on-demand cooling control enables to maximize available power for the working process. This technology contributes to maintaining sustainable temperature of all hydraulic components extending their life.



Advanced Machine Monitoring

- 10.5" LCD color screen
- Information interface to operator
- On-board diagnostics to service staff
- Real text information
- Long term data storage for maintenance

First-Class Service Arrangements

Service friendly design allows for easy and fast maintenance for maximum uptime:

- Service from one-side
- Large catwalks and walkways
- Refillable grease tanks instead of drums to be changed
- Centralized lubrication system
- Enhanced single-line lubrication system

Comfort-Oriented Cab Design

An array of features:

- Tinted laminated safety glass
- Armored front window
- Adjustable air suspended seat
- A/C with dust filter in fresh/recirculated air
- Pressurization to prevent dust penetration (optional)
- Operator Comfort Kit (optional): sun blinds, bottle cooler, reading light, automatic operator's seat weight adjustment
- Pre-heating system (optional)

Comfortable Cab for Efficient Work

Superior Operator Comfort

The modern large cab provides ideal working conditions and optimal operator's comfort. Mounted on silent blocks, the R 9150 B's cab design reduces vibrations. The new headliner limits noise pollution to provide a quiet working environment.

Extended Components Lifetime

The R 9150 B's high pressure hydraulic oil filtration systems remove contaminants from the fluid to offer the highest rate of hydraulic system efficiency. To maintain the oil quality, all return hydraulic oil flow goes through a 15/5 μm fine filtration system, while the grease and fuel tanks are sized to considerably extend the time between service intervals.



Reliability



Ready to Work When You Need It

With over 50 years of innovative thinking, engineering and manufacturing excellence, Liebherr sets the industry standard for advanced equipment design and technology tools to provide the most up-to-date product, responding to the requirements of mining customers.

Quality: the Liebherr Trademark

Structure Made Exclusively for Mining

Liebherr mining excavators are conceptualised, designed and dedicated to the mining industry. The engineering department uses specific 3D solution in order to meet possible requirements, such as Finite Element and Fatigue Life Analysis. In combination, the manufacturing department uses advanced welding techniques to strategically reinforce the structure. The synergy of our skills allows to obtain maximal machine availability.

Reinforced Undercarriage Structure

Specifically designed for extreme mining conditions, the rugged R 9150 B undercarriage represents the basis for the stability of the machine. Developed and built for both shovel and backhoe configurations, the enlarged undercarriage offers an efficient ground bearing pressure management providing the necessary stability and reliability. The access to the travel motors and brakes has been designed to provide maximum protection to the components, while providing easy and fast service access.



Long-lasting Job Performances

Maximized Components Lifetime

The R 9150 B is equipped with a single line centralized lubrication system for the entire attachment and swing ring. All greasing points are suitably protected against external damages, extending component life and ensuring constant performance over the excavator's operational life.

Liebherr Components Integration

As an OEM, Liebherr has built a solid reputation for its development and production of high quality strategic mining components. The R 9150 B integrates robust and reliable mining optimized components that are developed, manufactured and controlled by Liebherr ensuring reliable performance for the entire machine.

Arctic Package (optional)

- Designed for reliability in regions with temperatures of down to $-50\text{ }^{\circ}\text{C} / -58\text{ }^{\circ}\text{F}$:
- Integrated into machine structure
- Start up easily even at very low temperatures
- Increases machine and components lifetime
- Optimum operator comfort even in harsh temperature conditions
- Facilitate machine servicing

Liebherr Component Integration

- Diesel engine
- Hydraulic pumps and motors
- Electronic and control technology
- Swing and travel drives
- Hydraulic cylinders
- Splitter box
- Swing ring
- GET

Quality Commitment

- Liebherr-Mining Equipment Colmar, France, ISO 9001 certified
- Compliance of materials tested in laboratory
- Quality control during the stages of production
- Vertical integration practice



Customer Service



World-Class Support, Everywhere, Every Day

By partnering with our customers, Liebherr implements tailored solutions from technical support, spare parts and logistics solutions to global maintenance for all types of equipment, all over the world.

Customer Support

International Service Organization

The Liebherr Service Support has always been an important focus for the company. Complete service during all operating phases from machinery installation to problem solving, spare parts inventory and technical service. Our service team is close to our customers, delivering the best specific maintenance solution to reduce both equipment downtime and repair costs.

Complete Training Programs

The Liebherr Mining Training System provides blended training sessions for operator and maintenance staff to encourage productive, cost-effective and safe mining operation. The Liebherr Mining Training System employs online learning programs, factory and on-site sessions and simulator training.



Remanufacturing

Reduced Costs and Investment

Over the course of a mining machine's lifetime, major components must be replaced to ensure continued safety, productivity and reliability. The Liebherr Mining Remanufacturing Program offers customers an OEM alternative to purchasing brand new replacement components. Enabling customers to achieve lowest possible equipment lifecycle costs without compromising quality, performance or reliability.

Fast Availability

A international service network and component facilities worldwide means that component repair services and exchange components are available to customers regardless of their location.



Genuine Parts

Performance

Using genuine Liebherr components ensures the best interaction within your machine, encouraging optimal performance and most effective machine operation. For all major components, Liebherr relies on its Liebherr Maintenance Management System to follow and monitor service life while predicting maintenance activities.

Partnership

Liebherr regularly reviews requirements for parts and components for individual machines, based on operating hours, consumption and planned maintenance, resulting in minimized downtime for customers. With access to the Global stock via all Liebherr Mining Warehouses, you will improve productivity by having the part you need, when you need it.



Troubleshoot Advisor Platform

- Unique maintenance system to help you identify problems
- Easy and friendly-user interface
- Compatible with mobile, tablet or laptop
- Regular updating of the database
- Procedures described by specialist with images and videos

Connectivity Kit

- Machine is serially equipped with GSM data transmission functionalities
- Collection of operating parameters + error codes / machine faults
- Data access through the Liebherr-Mining Data platform (LMD)
- Customized reports accessible on LMD to track & analyze machine data
- Monitor & follow your fleet
- Maintenance prediction, machine troubleshooting and uptime optimization

MyLiebherr Customer Portal

- Easy access parts online
- Available any time anywhere
- User friendly interface
- Online ordering
- Save time and money



Safety



Protecting Your Most Important Assets

The Liebherr R 9150 B provides uncompromising safety for operators and maintenance crews. Equipped with the service flap accessible from the ground level and integrating wide open accesses, the R 9150 B allows quick and safe maintenance. The R 9150 B's cab provides numerous features for operator safety.

Safety-First Working Conditions

Safe Service Access

The R 9150 B is fitted with ergonomic access for fast and safe maintenance. All service points are within reach from one side and at machine level. The R 9150 B's upperstructure is accessible via a robust fixed ladder and integrates one large central platform equipped with slip resistant surfaces. The wide catwalks facilitate maintenance and ensure comfort during all the operations.

Secure Maintenance

All components have been located to allow for effortless inspection and replacement. Numerous service lights are perfectly located in the service areas to guaranty suitable maintenance conditions, day or night. Emergency stops have been strategically placed in the cab, engine compartment and at ground level. The R 9150 B eliminates hazards to ensure a safe environment for the service staff during maintenance.

Efficient Machine Protection

Protection Against Fire Ignition

The engine compartment integrates a bulkhead wall that separates the engine from the hydraulic pumps. This reduces the risk of hydraulic oil entering the engine compartment. The turbochargers and exhaust systems are heat shielded, and all the hydraulic hoses are made from a fire resistant material.

Automatic Fire Suppression System

The R 9150 B can be equipped with a fully integrated fire suppression, employing a dual agent solution to prevent and protect the machine. The fire suppression system has both automatic and manual release capabilities, emergency stop devices are strategically located on the machine to be easily accessible in any case by the operator.



Improved Accessibility Ease of Maintenance

- Wide walkways with slip-resistant surfaces
- Emergency ladder available outside the cab
- Wide open service access
- Reflective stripes on counterweight
- 45° hydraulic driven access stair (optional)

Working Environment Control

- Rear and side camera system
- LCD color screen to display cameras view
- 9 Long-range working LED lights located on attachment and upperstructure

Commitment to Employees Safety

- Safe and protected access to the components
- Major components centralized to be easily accessible
- E-stops located for the operator and maintenance staff
- Ground-level fluid maintenance hub



Mining Responsibly

Liebherr considers the conservation and preservation of the environment as a major challenge for the present and future. Liebherr are considerate of environmental issues in designing, manufacturing and managing machine structures, providing solutions that allow customers to balance performance with environmental consciousness.

Minimized Impact on Life

Optimized Energy Consumption, Fewer Emissions

Constant power regulation of the hydraulic system and engine output optimize equipment fuel efficiency, depending on the application. In "Eco-Mode" setting, the machine is set up to reduce engine load, significantly improve fuel consumption and reduce emissions.

Controlled Emission Rejection

The R 9150 B is powered by a high horsepower diesel engine which complies with the US EPA Tier 2 or US EPA Tier 4f/EU Stage V compliant emission limits. This power drive makes the R 9150 B cost effective without compromising productivity and reduces the machines impact on the environment.

Sustainable Design and Manufacturing Process

Certified Environment Management Systems

Subject to the stringent European program for the regulation of the use of chemical substances in the manufacturing process REACH*, Liebherr undertakes a global evaluation to minimize the impacts of hazardous material, pollution control, water conservation, energy and environmental campaigns.

Extended Components and Fluids Lifetime

Liebherr is constantly working on ways to extend component life. Through the Exchange Components program, superior lubrication systems and the reinforcement of parts under stress, Liebherr can reduce frequency of part replacement. The result minimizes environmental impact and lowers the overall total cost of ownership.

*REACH is the European Community Regulation on chemicals and their safe use (EC 1907/2006) It deals with the Registration, Evaluation, Authorization and Restriction of Chemical Substances.



The Liebherr-Mining Remanufacturing Program

- Reduced environmental impact
- Second life for your components
- Reduced costs and investment
- Liebherr certified workshops
- Alternative to purchase brand-new replacement components

Eco-Mode

The Eco-Mode can be manually selected by the operator when maximal power is not required according to job need for:

- An improved fuel efficiency
- Less load on the engine
- Less noise pollution
- Less dioxide carbon emissions

Automatic Idle Control

Electronic idle control of the engine results in:

- Less fuel consumption
- Less load on the engine
- Reduced emissions
- More comfort to the operator (reduced noise pollution)

Technical Data



Engine

1 Liebherr diesel engine	
Rating per ISO 9249	565 kW (757 HP) at 1,800 rpm
Model	Liebherr D9512 (US EPA Tier 2, US EPA Tier 4f/EU Stage V compliant)
Type	V12 cylinder engine
Bore/Stroke	128/157 mm / 5.04/6.18 in
Displacement	24.24 l/1,479 in ³
Engine operation	4-stroke diesel common-rail direct injection turbo-charged
Cooling	water-cooled, hydrostatic fan drive
Air cleaner	dry-type air cleaner, primary and safety elements, automatic dust discharge
Fuel tank capacity	1,984 l/524 gal
Engine idling	automatic idle control
Electrical system	
Voltage	24 V
Batteries	4 x 75 Ah/12 V
Starter	24 V/2 x 8.4 kW
Alternator	24 V/140 A
RPM adjustment	step by step via rpm selector



Electric Motor (optional)

Power output	565 kW/757 HP
Type	3-phase AC squirrel cage motor
Voltage	6,000 V, 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 engine
Power distribution	via monoblock control valves with integrated primary and secondary relief valves
Flow summation	to attachment and travel drive
Closed-loop circuit	for uppercarriage swing drive
Servo circuit	
Attachment and swing	proportional via electronic joystick levers
Travel	proportional via electronic pedals or removable hand levers
Shovel flap functions	proportional via electronic pedals



Swing Drive

Hydraulic motor	2 Liebherr axial piston motors
Swing gear	2 Liebherr planetary reduction gears
Swing ring	Liebherr, sealed single race ball bearing swing ring, internal teeth
Swing speed	0 – 6.5 rpm
Swing-holding brake	wet multi-disc brakes, spring applied, hydraulically released



Hydraulic System

Hydraulic pump	
for attachment and travel drive	3 Liebherr variable flow axial piston pumps
Max. flow	3 x 512 l/min./3 x 135 gpm
Max. pressure	350 bar/5,076 psi
for swing drive	1 Liebherr reversible swashplate pump, closed-loop circuit
Max. flow	635 l/min./168 gpm
Max. pressure	350 bar/5,076 psi
Pump management	electronically controlled pressure and flow management with oil flow optimisation
Hydraulic tank capacity	1,200 l/317 gal
Hydraulic system capacity	1,600 l/423 gal
Hydraulic oil filter	1 high pressure safety filter after each high pressure pump + extra-fine filtration of entire return flow with integrated by-pass filtration (15/5 µm) + dedicated leak-oil filtration
Hydraulic oil cooler	1 separated cooler, temperature controlled fan driven via 1 hydraulic piston motor
MODE selection	
ECO	for economical operation (can be combined with fuel optimized setting)
POWER	for maximum digging power and heavy duty jobs



Electric System

Electric isolation	easy accessible battery isolators
Working lights	high brightness LED lights: – 2 on working attachment – 2 on cabin – 2 on RHS of uppercarriage – 3 on LHS of uppercarriage
Emergency stop switches	in the cab and in engine compartment
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 modular design upper frame
Attachment mounting	parallel length girders
Catwalks	large catwalk on the left-hand side with ladder



Operator's Cab

Design	sound insulated, tinted windows, front window armored glass, door with sliding window
Operator's seat	air suspended, body-contoured with shock absorber, adjustable to operator's weight
Joysticks	joystick levers integrated into armrest of seat, armrest adjusted to seat position
Condition monitoring	machine condition monitoring system with error reporting and operational information
Display	color LCD-display with low and high brightness settings, 1 additional fixation for supplementary customer device
Vision system	camera installation on counterweight and right-hand side of the uppercarriage, displayed over the LCD-display
Heating system/ Air conditioning	standard automatic air conditioning, contains fluorinated greenhouse gases HFC 134a with a Global Warming Potential (GWP) of 1430, the AC circuit contains 1.7 kg/3.8 lb of HFC-134 representing an equivalent of 2.4 tonnes/ 2.7 tons of CO ₂ , combined cooler/heater, additional dust filter in fresh air/recirculated
Noise level (ISO 6396)	Diesel: L _{pA} (inside cab) = 74 dB(A)



Undercarriage

Version HD	heavy duty
Drive	Liebherr swashplate motors
Travel gear	Liebherr planetary reduction gears
Travel speed	0 – 2.9 km/h/0 – 1.80 mph
Track components	track pitch 280 mm/11.02 in, maintenance-free
Track rollers/ Carrier rollers	9/2 per side frame
Track pads	double grouser
Track tensioner	spring with grease tensioner
Parking brake	wet multi-discs (spring applied, pressure released)
Brake valves	integrated in main valve block



Central Lubrication System

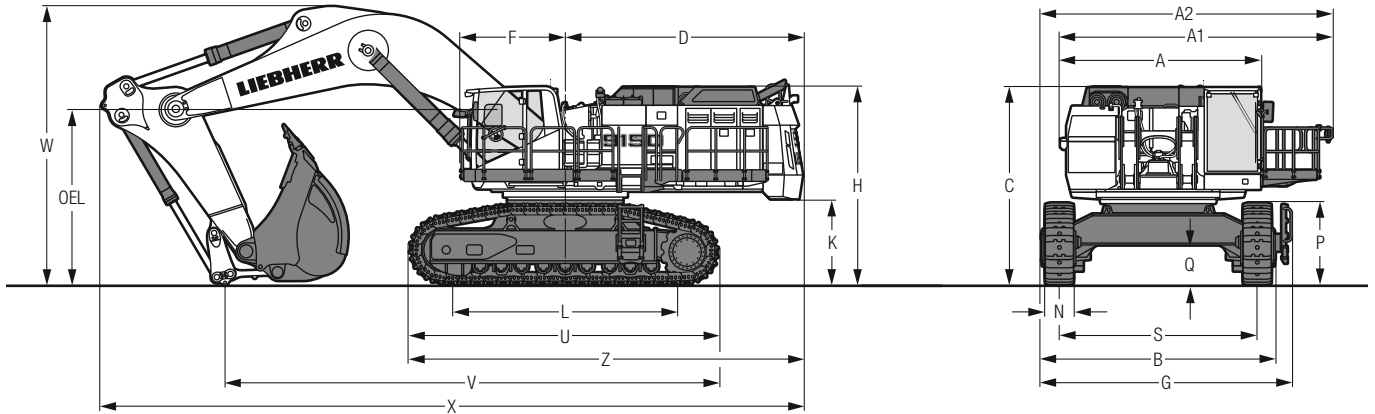
Type	single line lubrication system, for the entire attachment/swing ring bearing and teeth
Grease pumps	1 hydraulic pump for attachment/swing ring bearing lubrication, 1 electric pump for swing teeth lubrication
Capacity	80 l/21.1 gal bulk container for attachment/swing ring bearing, separated 8 l/2.1 gal container for swing ring teeth
Refill	via quick connections and grease filters for both containers



Attachment

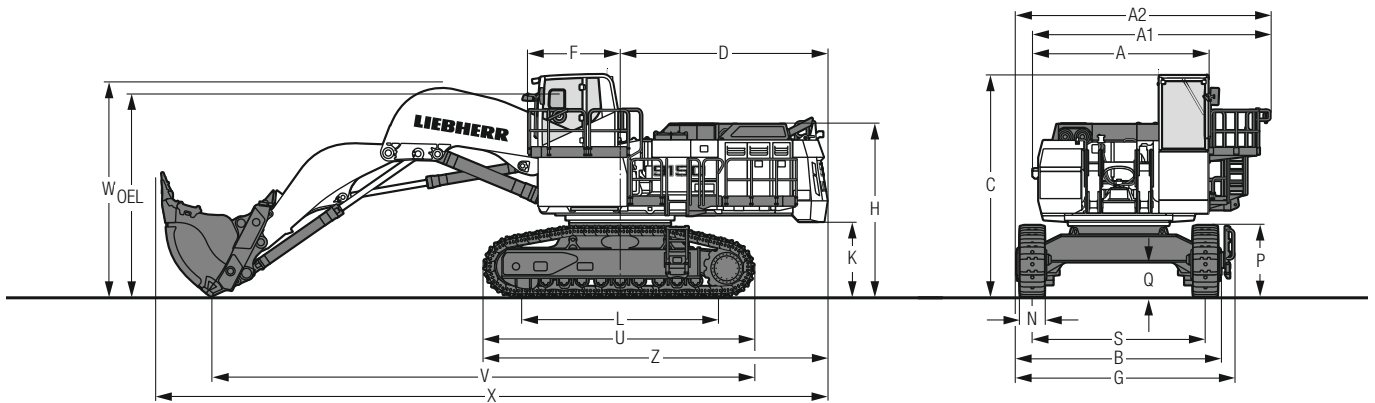
Design	box-type, combination of resistant steel plates and cast steel components
Hydraulic cylinders	Liebherr design
Hydraulic connections	pipes and hoses equipped with SAE flange connections
Pivots	sealed, low maintenance
Pivots bucket-to-stick	O-ring sealed and completely enclosed
Pivots bucket-to-link	

Dimensions



	mm/ft in
A	4,318/14'2"
A1	5,702/18'7"
A2	6,105/20'
B	4,995/16'4"
C	4,230/13'4"
D	5,060/16'6"
F	2,233/ 7'3"
G	5,355/17'6"
H	4,225/13'9"
K	1,840/ 6'
L	5,200/17'1"
N	500/1'6" 600/2'
P	1,748/ 5'7"
Q	852/ 2'8"
S	4,230/13'9"
U	6,610/21'7"
Z	8,365/27'4"
OEL	Operator's eye level 3,614/11'9"

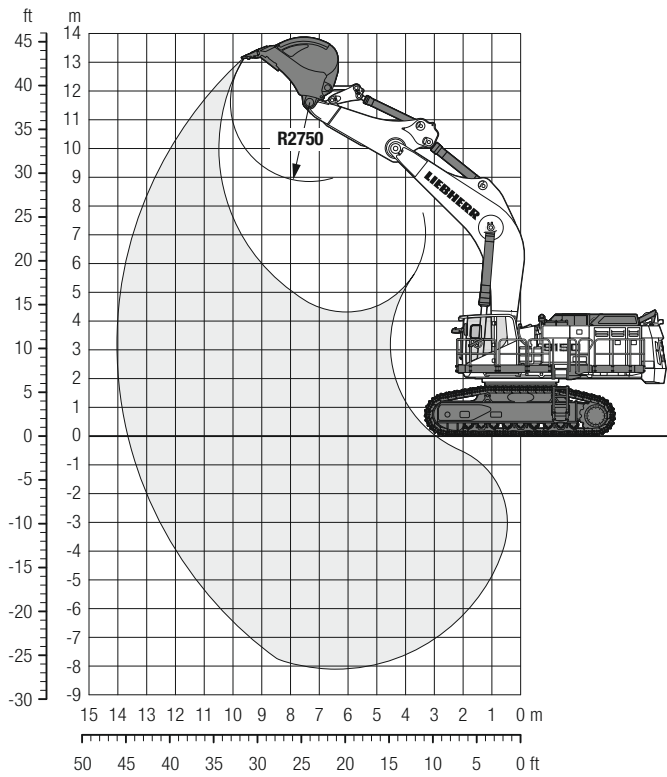
	Stick length m/ft in	Mono boom 7.40 m /24'3" mm/ft in	Mono boom 7.80 m /25'6" mm/ft in	Mono boom 9.30 m /30'5" mm/ft in
V	3.40/11'2" 4.60/15'1" 5.70/18'7"	10,400/34'1" -/-	10,550/34'6" -/-	12,140/39'8" 10,225/33'5" 10,450/34'3"
W	3.40/11'2" 4.60/15'1" 5.70/18'7"	6,250/20'5" -/-	6,320/20'7" -/-	6,145/20'2" 7,130/23'4" 8,025/26'3"
X	3.40/11'2" 4.60/15'1" 5.70/18'7"	14,550/47'7" -/-	15,000/49'2" -/-	16,500/54'1" 15,700/51'5" 15,145/49'7"



	mm/ft in
A	4,318/14'2"
A1	5,702/18'7"
A2	6,105/20'
B	4,995/16'4"
C	5,430/17'8"
D	5,060/16'6"
F	2,233/ 7'3"
G	5,355/17'6"
H	4,225/13'9"
K	1,840/ 6'
L	5,200/17'1"

	mm/ft in
N	500/1'6" 600/2'
P	1,748/ 5'7"
Q	852/ 2'8"
S	4,230/13' 9"
U	6,610/21' 7"
V1	13,250/43' 5"
W1	5,265/17' 3"
X1	16,400/53' 8"
Z	8,365/27' 4"
OEL	Operator's eye level 4,814/15' 8"

Backhoe Attachment (Standard) with Boom 7.80 m / 25'6"



Digging Envelope

Stick length	m	3.40
	ft in	11'2"
Max. digging depth	m	8.10
	ft in	26'6"
Max. reach at ground level	m	13.65
	ft in	44'8"
Max. dumping height	m	8.84
	ft in	29'
Max. teeth height	m	13.20
	ft in	43'3"

Forces

Max. digging force (ISO 6015)	kN	530
	lbf	119,149
Max. breakout force (ISO 6015)	kN	620
	lbf	139,382

Operating Weight and Ground Pressure

The operating weight includes the basic machine with boom 7.80 m / 25'6", stick 3.40 m / 11'2" and bucket 8.80 m³ / 11.5 yd³.

Undercarriage		HD	
Pad width	mm / ft in	600 / 2'	750 / 2'5"
Weight	kg / lb	129,700 / 285,939	133,100 / 293,435
Ground pressure*	kg/cm ² / psi	1.90 / 27.02	1.56 / 22.19

* 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	7 – 8
Typical operation according to VOB Section C, DIN 18300	GP	GP	HD	HD	HD	XHD	XHD	XHD
Capacity ISO 7451	m ³	10.60	9.60	9.60	8.80	8.00	8.80	8.00
	yd ³	13.9	12.6	12.6	11.5	10.5	11.5	10.5
Suitable for material up to a specific weight of	t/m ³	1.5	1.7	1.6	1.8	2.0	1.7	1.9
	lb/yd ³	2,528	2,865	2,697	3,034	3,371	2,865	3,203
Weight	kg	7,700	7,440	8,280	7,810	7,630	8,650	8,350
	lb	16,976	16,402	18,254	17,218	16,821	19,070	18,409

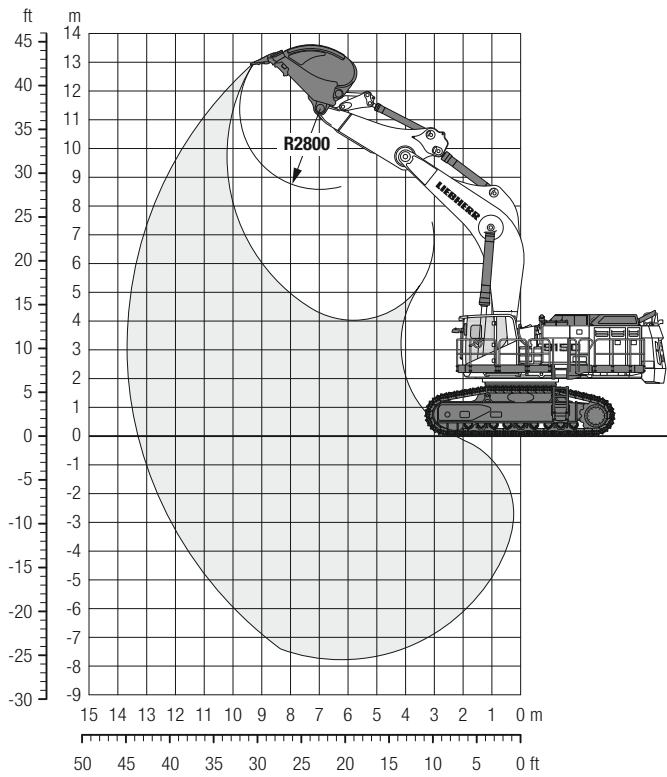
GP: General purpose bucket with Liebherr Z100 teeth

HD: Heavy-duty bucket with Liebherr Z110 teeth

XHD: Heavy-duty rock bucket with Liebherr Z110 teeth

Backhoe Attachment

with Boom 7.40 m / 24'3"



Digging Envelope

Stick length	m	3.40
	ft in	11'2"
Max. digging depth	m	7.80
	ft in	25'6"
Max. reach at ground level	m	13.30
	ft in	43'6"
Max. dumping height	m	8.60
	ft in	28'2"
Max. teeth height	m	13.00
	ft in	42'7"

Forces

Max. digging force (ISO 6015)	kN	522
	lbf	117,350
Max. breakout force (ISO 6015)	kN	603
	lbf	135,560

Operating Weight and Ground Pressure

The operating weight includes the basic machine with boom 7.40 m / 24'3", stick 3.40 m / 11'2" and bucket 9.60 m³ / 12.6 yd³.

Undercarriage		HD	
Pad width	mm / ft in	600 / 2'	750 / 2'5"
Weight	kg / lb	130,000 / 286,001	133,400 / 294,096
Ground pressure*	kg/cm ² / psi	1.90 / 27.02	1.56 / 22.19

* 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	7 – 8
Typical operation according to VOB Section C, DIN 18300		GP	GP	HD	HD	HD	XHD	XHD	XHD
Capacity ISO 7451	m ³	11.70	10.60	10.00	9.60	8.80	9.20	8.30	7.60
	yd ³	15.3	13.9	13.1	12.6	11.5	12.0	10.9	9.9
Suitable for material up to a specific weight of	t/m ³	1.5	1.7	1.7	1.8	2.0	1.8	2.0	2.2
	lb/yd ³	2,528	2,865	2,865	3,034	3,371	3,034	3,371	3,708
Weight	kg	8,050	7,700	8,500	8,280	7,810	8,950	8,750	8,600
	lb	17,747	16,976	18,739	18,254	17,218	19,731	19,290	18,960

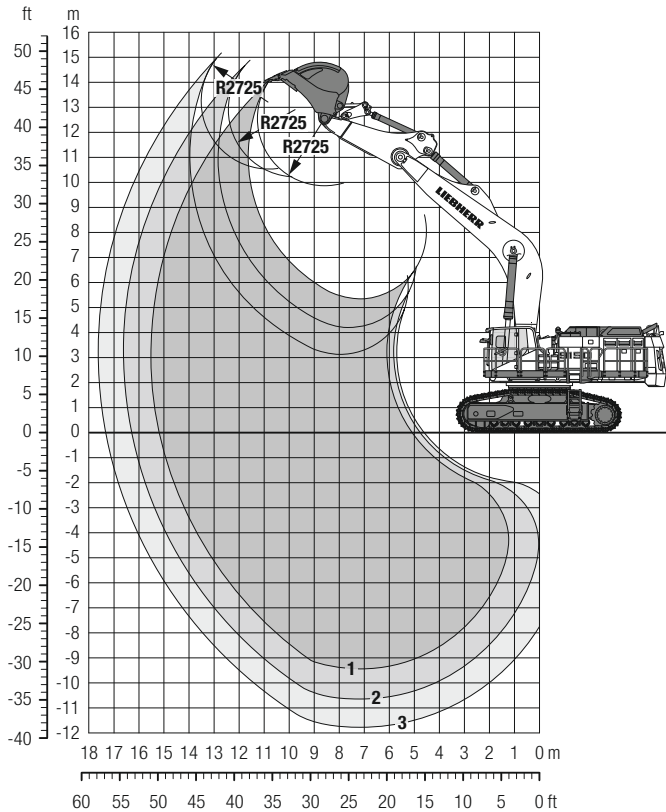
GP: General purpose bucket with Liebherr Z100 teeth

HD: Heavy-duty bucket with Liebherr Z110 teeth

XHD: Heavy-duty rock bucket with Liebherr Z110 teeth

Backhoe Attachment

with Boom 9.30 m/30'5"



Digging Envelope

		1	2	3
Stick length	m	3.40	4.60	5.70
	ft in	11'2"	15'1"	18'7"
Max. digging depth	m	9.45	10.65	11.80
	ft in	31'	34'9"	38'7"
Max. reach at ground level	m	15.20	16.30	17.35
	ft in	49'9"	53'5"	56'9"
Max. dumping height	m	9.85	10.20	10.50
	ft in	32'3"	33'5"	34'4"
Max. teeth height	m	14.15	14.90	15.20
	ft in	46'4"	48'9"	49'9"

Forces

		1	2	3
Max. digging force (ISO 6015)	kN	530	440	390
	lbf	119,149	98,916	87,676
Max. breakout force (ISO 6015)	kN	620	620	620
	lbf	139,382	139,382	139,382

Operating Weight and Ground Pressure

The operating weight includes the basic machine with boom 9.30 m/30'5", stick 4.60 m/15'1" and bucket 5.00 m³/6.5 yd³.

Undercarriage		HD	
Pad width	mm / ft in	600 / 2'	750 / 2'5"
Weight	kg / lb	132,300 / 291,671	135,700 / 299,167
Ground pressure*	kg/cm ² / psi	1.93 / 27.45	1.59 / 22.62

* according to ISO 16754

Backhoe Buckets

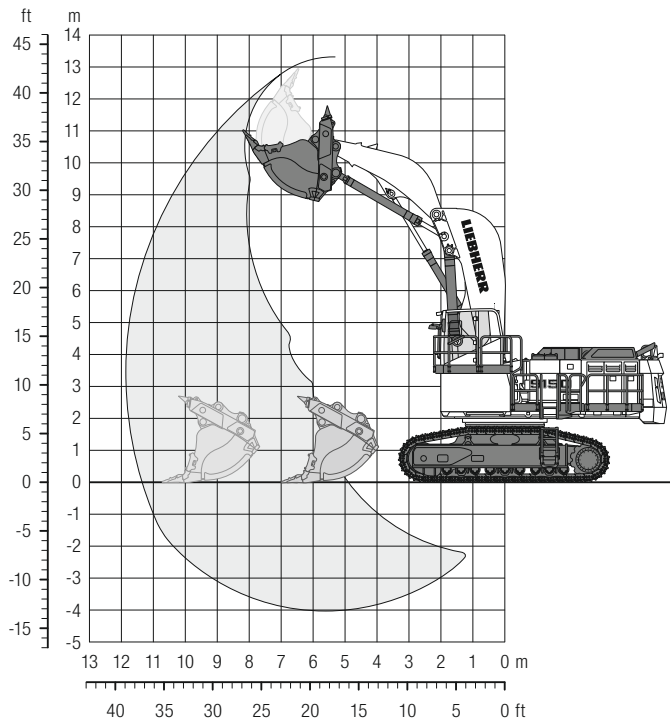
For materials class according to VOB, Section C, DIN 18300	< 5	< 5	5 – 6	5 – 6	5 – 6	7 – 8	
Typical operation according to VOB Section C, DIN 18300	GP	GP	HD	HD	HD	XHD	
Capacity ISO 7451	m ³	5.50	6.50	4.20	5.00	6.00	4.20
	yd ³	7.2	8.5	5.5	6.5	7.8	5.5
Suitable for material up to a specific weight of							
with stick 3.40 m	t/m ³	–	1.6	–	2.2	1.8	2.2
with stick 11'2"	lb/yd ³	–	2,697	–	3,708	3,034	3,708
with stick 4.60 m	t/m ³	1.6	1.3	2.1	1.8	1.3	2.0
with stick 15'1"	lb/yd ³	2,697	2,191	3,540	3,034	2,191	3,371
with stick 5.70 m	t/m ³	1.4	–	1.8	1.5	–	1.6
with stick 18'7"	lb/yd ³	2,360	–	3,034	2,528	–	2,697
Weight	kg	6,500	7,000	6,600	6,800	7,200	7,300
	lb	14,330	15,432	14,551	14,991	15,873	16,094

GP: General purpose bucket with Liebherr Z100 teeth

HD: Heavy-duty bucket with Liebherr Z110 teeth

XHD: Heavy-duty rock bucket with Liebherr Z110 teeth

Face Shovel Attachment with Boom 5.30 m / 17'4"



Digging Envelope

Stick length	m	3.80
	ft in	12'5"
Max. reach at ground level	m	11.39
	ft in	37'4"
Max. dumping height	m	8.80
	ft in	28'9"
Max. crowd length	m	4.03
	ft in	13'2"
Bucket opening width T	mm	2,150
	ft in	7'1"

Forces

Max. crowd force at ground level (ISO 6015)	kN	640
	lbf	143,878
Max. crowd force (ISO 6015)	kN	750
	lbf	168,607
Max. breakout force (ISO 6015)	kN	630
	lbf	141,630

Operating Weight and Ground Pressure

The operating weight includes the basic machine with shovel attachment and bucket 8.30 m³ / 10.9 yd³.

Undercarriage		HD	
Pad width	mm / ft in	600 / 2'	750 / 2'5"
Weight	kg / lb	130,000 / 286,601	133,400 / 294,097
Ground pressure*	kg/cm ² / psi	1.90 / 27.02	1.56 / 22.20

* according to ISO 16754

Face Shovel Buckets

For materials class according to VOB, Section C, DIN 18300	< 5	< 5	5 – 6	5 – 6	5 – 6	5 – 6	7 – 8	7 – 8	7 – 8
Typical operation according to VOB Section C, DIN 18300	GP	GP	HD	HD	HD	HD	XHD	XHD	XHD
Capacity ISO 7546	m ³	9.30	8.90	8.90	8.30	7.70	7.00	8.30	7.70
	yd ³	12.2	11.6	11.6	10.9	10.1	9.2	10.9	10.1
Suitable for material up to a specific weight of	t/m ³	1.6	1.7	1.6	1.8	2.0	2.4	1.7	1.85
	lb/yd ³	2,697	2,865	2,697	3,034	3,371	4,045	2,865	3,118
Cutting width	mm	2,900	2,900	2,900	2,900	2,900	2,600	2,900	2,900
	ft in	9'5"	9'5"	9'5"	9'5"	9'5"	8'5"	9'5"	9'5"
Weight	kg	13.500	13.100	14.020	13.250	12.920	11.550	14.180	13.800
	lb	29,762	28,881	30,909	29,211	28,484	25,463	31,262	30,424

GP: General purpose bucket with Liebherr Z100 teeth

HD: Heavy-duty bucket with Liebherr Z110 teeth

XHD: Heavy-duty rock bucket with Liebherr Z110 teeth

Optional Equipment

Undercarriage

- Narrow track pad width
- Large track pad width
- Removable side frames
- Rock protection for travel drive
- Protection for undercarriage center frame
- Rock protection for idler wheel
- Rock protection for sprocket
- Full length chain guide

Uppercarriage

- Hydraulically operated 45° access stair
- Electric-powered refueling pump
- Heavy counterweight (22,000 kg / 48,500 lb)
- Increased fuel tank capacity (24h operation)
- Grid protection for front headlights
- Semi-automatic swing brake with joystick control
- Rock protection for swing gear and grease lines
- Wiggins fast fueling system
- Wiggins fast fueling system with Multiflo Hydrau-Flo®
- Wiggins couplings for ground level access service
- Steel grease lines on swing ring
- Swing ring scrapers
- External grease refill station (hydraulic-powered)
- Hydraulic connection with quick coupler for external grease refill station
- Right-hand bumper
- External starting device

Hydraulic System

- Oil cooler inlet screen

Operator's Cab

- 4-point seat belt
- Cab elevation (500 mm / 1'6" / 1,200 mm / 3'9" / 1,600 mm / 5'3")
- Cab pressurization / cab pressurization with HEPA filter
- FOPS top guard with additional sun protection
- Operator comfort package
- Front protective grid
- Pre-heating system for cab
- Roof glazing
- External louvers

Attachment

- Piston rod guard for bucket cylinder (BH)
- Piston rod guard for hoist cylinder (BH/FS)
- Piston rod guard for stick cylinder (FS)
- Quick change coupling

Specific Solutions

- Arctic package (−20 °C / −4 °F, −35 °C / −31 °F, −50 °C / −58 °F)
- Sound attenuation package
- Hydraulic arrangement for special application (hammer / shear / tooth ripper / grapple / coupler)
- Arrangement for object handling operation

Safety

- Additional LED lighting with timer (for main access)
- Automatic fire suppression system
- Additional emergency stop (ground level)

General

- Maritime transport packaging

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 nearly 44,000 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.

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