

Mining Excavator

R 996 B

Operating Weight with
Backhoe Attachment:
672 tonnes / 740 tons

Shovel Attachment:
676 tonnes / 745 tons

Engine:
2,240 kW / 3,000 HP

Bucket Capacity:
36 m³ / 47.1 yd³

Shovel Capacity:
34 m³ / 44.5 yd³



LIEBHERR

R 996 B

Operating Weight with Backhoe Attachment:

672 tonnes / 740 tons

Shovel Attachment:

676 tonnes / 745 tons

Engine:

2,240 kW / 3,000 HP

Bucket Capacity:

36 m³ / 47.1 yd³

Shovel Capacity:

34 m³ / 44.5 yd³



Productivity

Working Harder and Faster



Efficiency

Moving More for Less





Reliability

Ready to Work
When You Need It



Customer Service

Worldclass Support,
Everywhere, Every Day



Safety

Protecting Your Most
Important Assets



Environment

Mining Responsibly





Productivity



Working Harder and Faster

The R 996 B is built to outperform all competitors in the 600 t class mining market. As a perfect loader for 220 t class mining trucks and above, the R 996 B is the right match for the Liebherr T 264. Developed as the optimal loading tool for large scale mining operations, the R 996 B can achieve the most challenging targets.

Fast and Precise Movement

Powerful Drive System

The R 996 B is equipped with two V16 Cummins engines specifically designed to withstand the most extreme environments. Set for minimum downtime and to boast a 36 m³/47.1 yd³ bucket, R 996 B's drive system allows to reach the highest uptime performance for maximum productivity.

Fast Cycle Time

Rather than using open hydraulic circuit, the R 996 B employs a closed-loop swing circuit to enable maximum swing torque while retaining the full oil flow for the working circuit. The independent swing circuit in combination with the powerful drive system leads to fast arm motion, which contributes to faster cycle times.

Easy Machine Control

R 996 B's electronic machine control Litronic Plus contributes to fast loading cycles and easy control, even if multiple movements are required at the same time.

High Digging and Lifting Capabilities

High Digging Forces

Designed for the best mechanical force distribution, the production-tailored attachment delivers high digging and lifting forces. Integrating Liebherr-made cylinders and a wide range of buckets, the R 996 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 996 B's attachment is equipped with the 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.



Highest Bucket Capacity in Backhoe Configuration

- Capacity of 36 m³/47.1 yd³ @1,8 t/m³ or 3,000 lb/yd³
- Improved shape for wear reduction
- Integrated approach on machine and trucks target payloads
- Customized and site-specific wear package configuration

Compact Machine Design

Liebherr's excavator design is well-balanced and provides best machine stability enabling:

- High weight distribution towards the undercarriage
- Efficient utilization of the strong digging forces
- Fast cycle times

High Altitude Kit

Designed to offer maximum efficiency and productivity for operation in high altitude:

- Solution integrated in machine structure
- Adapted engine
- Pressurized hydraulic tank
- Can be combined with the Arctic Kit



Efficiency



Moving More for Less

The R 996 B follows the Liebherr design philosophy of maximizing the machine's performance by improving the efficiency of all individual subsystems. Engineered for optimum serviceability, the machine is designed to ensure maximum uptime. The R 996 B's modern cab creates a comfortable working environment ensuring peak operator performance, every shift.

Optimized for Maximum Profitability

Electro-Hydraulic System Efficiency

Liebherr hydraulic technology in combination with the precision of electronic control contributes to the R 996 B's energy optimization. The high-pressure hydraulic system and the optimized pipe and hose layout maximize usable power transmission. The 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.

Independent Cooling System

Liebherr's large dimensioned cooling system reduces fan power consumption and ensures an ideal machine temperature. The hydrostatic fans operate always on the required level for optimal hydraulic oil cooling efficiency.

Closed Loop Swing Circuit

The Liebherr Mining excavators are all equipped with a closed loop swing circuit. Kinetic energy is regenerated when the swing motion deceleration, to drive the main and auxiliary pumps, reducing fuel consumption and allowing faster boom lift motion.

Comfortable Cab for Efficient Work

The large and spacious cab which equips the R 996 B offers ideal working conditions and optimal operator's comfort. Mounted on silent blocks, the cab design reduces vibrations and limits noise pollution to provide a quiet environment.

Extended Components Lifetime

The R 996 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. To promote availability, the grease and fuel tanks are sized to considerably extend the time between service intervals.



Comfort-Oriented Cab Design

An array of features:

- Tinted laminated safety glass
- Armored front and attachment side windows
- Heavy duty sun louvers on windows
- Adjustable air suspended seat
- A/C with dust filter in fresh air/recirculated
- Pressurization to prevent dust penetration
- Trainer seat

Fast Maintenance System

The service flap is hydraulically actuated and accessible from the ground level allowing for fast maintenance:

- Hydraulic oil refill
- Engine oil exchange
- Splitterbox and swing gearbox oil exchange
- Attachment/swing ring bearing grease barrel refilling with filters
- Windshield washer water refilling
- Fast fuel refilling line

Hydraulic System Efficiency

- Optimal oil flow distribution through the valves blocks reducing hydraulic losses
- Reduced pressure drops between pumps and consumers (hydraulic motors/cylinders)
- Allows the combination of the main movements under maximal forces
- Enables fast cycle times



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 the mining customers.

Quality: the Liebherr Trademark

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 996 B integrates robust and reliable mining optimized components that are developed, manufactured and controlled by Liebherr ensuring reliability and high performance for the entire machine.

Machine Reliability Survey

Based on years of experience and the systematic measurement of key performance indicators of the machine behavior in the field, the Liebherr Mining Reliability Engineering Group is constantly seeking new ways to enhance reliability.

Quality Management Continuous Improvement

Liebherr quality begins during machine design and simulations. Liebherr meets the highest standards for special selections of steels and casting materials. Based on the expertise of certified internal auditors and a highly qualified workforce, all manufacturing process steps are devised to provide the most comprehensive control, monitoring and traceability. Liebherr-Mining Equipment Colmar SAS is ISO 9001 certified.

Long-lasting Job Performances

Maximized Components Lifetime

The R 996 B is equipped with an automatic single line lubrication system for the entire attachment and swing ring. All greasing points are suitably protected against external damages. This extends component life and ensures constant performance over the excavator's operational life.

Rugged Undercarriage Structure

The R 996 B is mounted on a heavy duty fatigue resistant undercarriage. The swing ring is reinforced to provide an improved superstructure weight distribution. Designed and built for both shovel and backhoe configurations, the enlarged undercarriage offers an efficient ground bearing pressure repartition providing the necessary stability and reliability.



Arctic Package (optional)

Designed for maximum reliability in regions with temperatures of down to -50°C / -58°F :

- Integrated into machine structure
- For maximum efficiency
- Increases machine and component lifetime
- Optimum operator comfort even in harsh temperature conditions
- Facilitate machine servicing

Reliable Attachment Design

Backhoe or face shovel attachments are built to face all standard and specific applications:

- Use of advanced welding techniques
- Reinforced with strategically located castings in high stress areas
- Heat treatment to reduce residual stresses and increase fatigue life
- Designed for maximum structure life
- Use of cutting-edge engineering tools such as Finite Element Analysis and Fatigue Life Analysis

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



Worldclass Support, Everywhere, Every Day

A daily partner to the customer, for global long term sustainable performances, 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 Program

From fully trained technicians to a full team of certified field service engineers, Liebherr commits to provide you with world class training. Dedicated to mining, the Liebherr training team provides maintenance staff training programs to allow cost-efficient and safe operations.

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.

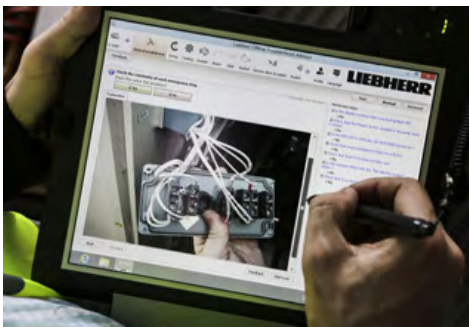
Parts Business

Performance

Using genuine Liebherr components ensures the best interaction within your machine, encouraging optimal performance and most effective machine operation and you can be sure that you are in line with the latest improvements and updates on parts providing peace of mind as all major components are tracked in the Liebherr Maintenance Management System.

Partnership

Liebherr regularly reviews requirements for parts and components for individual machines, based on operating hours, consumption and planned maintenance, resulting in minimized down time 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

Repair and Remanufacturing Programs

- Liebherr certified quality
- As-new warranty
- OEM expertise
- Reduced costs and investment
- Fast availability

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 996 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 996 B allows quick and safe maintenance. The R 996 B's cab provides numerous features for operator safety.

Safety-First Working Conditions

Safe Service Access

The R 996 B is fitted with ergonomic access for fast and safe maintenance. The R 996 B's top structure is accessible via a powered 45° stairway with handrails. The robust service flap provides easy ground level access to the main service points.

Secure Maintenance

All components have been located allowing effortless inspection and replacement. Numerous service lights are strategically located in the service areas to sustain suitable maintenance conditions, day or night. Emergency stops have been strategically placed in the cab, engine compartment and at ground level. The R 996 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. The turbochargers and exhaust systems are heat shielded, and all the hydraulic hoses are made from a highly resistant material to prevent the risk of fires.

Automatic Fire Suppression System

The R 996 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

- Ten long-range working xenon lights located on attachment, uppercarriage and counterweight
- Six additional long-range working xenon lights on the top of the cab, fuel tank's bottom part and hydraulic tank's bottom part (option)
- Travel alarm system with light and buzzer
- LED lights in option

Machine Access

Designed for safe access on the machine upperstructure via:

- A 45° powered stairway and catwalks with handrails and perforated steps
- Walkways with slip-resistant surfaces
- Emergency egress with handrails in front of the excavator

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
- Maintenance fluids reach at ground level in option
- Rear and Side Vision System



Mining Responsibly

Liebherr considers the preservation of the environment as a major challenge for the present and future. Liebherr take greater account of environmental issues in designing, manufacturing and managing machine's structures. This commitment provides solutions that allow customers to balance high performance with environmental consciousness.

Minimized Impact on Life

Optimized Energy Consumption, Fewer Emissions

Constant power regulation of the hydraulic system and engine output optimizes equipment fuel efficiency, depending on the application. Hydraulic coolers speed is adjusted on-demand in order to optimize energy consumption. The automatic idling system reduces the engine speed when the machine is at rest.

Noise Pollution Attenuation

Liebherr is able to provide machine-specific sound attenuation packages for operations in noiserestricted areas without any power loss. Developed with the latest noise measurement technologies, this approach is based on both removal of noise at the source as well as passive sound attenuation. The R 996 B is the ideal tool for operations close to residential areas.

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 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



Remanufacturing Program

- Second life for your major components
- Liebherr certified quality
- Reduced environmental impact
- Reduced costs and investment

Fuel Efficiency

The R 996 B provides numerous features contributing to fuel efficiency while optimizing productivity and cost performance:

- Pressureless boom down function
- Closed-loop swing circuit
- Litronic Plus control system
- On-demand power regulation

Sound Attenuation Kit (optional)

Developed with the latest noise measurement technologies, this approach is based on both removal of noise at the source and passive sound attenuation:

- Noise-optimized fan regulation
- Larger and additional mufflers with tail pipe absorbers
- Additional high volume sound attenuation boxes
- Sound attenuation on louvers, doors and walls

Technical Data



Engine

2 Cummins diesel engines	
Rating per ISO 9249	2 x 1,120 kW/2 x 1,500 HP at 1,800 rpm
Model	Cummins K 1800 E
Type	16 cylinder V-engine water-cooled direct injection turbo-charged after-cooler
Bore/Stroke	159/159 mm / 6.26/6.26 in
Displacement	50.3 l/3,069 in ³
Air cleaner	dry-type air cleaner with pre-cleaner, with automatic dust ejector, primary and safety elements
Fuel tank	13,000 l/3,440 gal
Engine idling	automatic idle control
Electrical system	
Voltage	24 V
Batteries	8 (+2) x 170 Ah/12 V
Alternator	2 x 24 V/150 Amp



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 relief valves and flanged on secondary valves for travel to attachment and travel drive
Flow summation	
Control functions	
Attachment and swing	proportional via joystick levers
Travel	proportional via foot pedals or hand levers
Bottom dump bucket	proportional via foot pedals
Operation with one engine possible	



Swing Drive

Hydraulic motor	4 Liebherr axial piston motors
Swing gear	4 Liebherr planetary reduction gears
Swing ring	Liebherr, sealed triple roller swing ring, internal teeth
Swing speed	0 – 3.5 rpm
Swing-holding brake	hydraulically released, maintenance-free, multi-disc brakes integrated in each swing gear



Hydraulic System

Hydraulic pump	
for attachment and travel drive	8 variable flow axial piston pumps
Max. flow	8 x 840 l/min./8 x 222 gpm
Max. pressure	320 bar/4,641 psi
for swing drive	4 reversible swashplate pumps, closed-loop circuit
Max. flow	4 x 413 l/min./4 x 109 gpm
Max. pressure	320 bar/4,641 psi
Pump management	
	electronically controlled pressure and flow management with oil flow optimisation
Hydraulic tank capacity	4,600 l/1,215 gal
Hydraulic system capacity	8,200 l/2,166 gal
Hydraulic oil filter	1 high pressure safety filter after each high pressure pump + fine filtration of entire return flow
Hydraulic oil cooler	
	2 separate coolers, 4 temperature controlled fans driven via hydraulic piston motors
Electronic engine speed sensing	
	over the entire engine RPM range
Lubrication	central lubrication system



Electric System

Electric isolation	easy accessible battery isolations
Working lights	
	Xenon lights:
	– 4 on working attachment
	– 2 on RHS (top of the fuel tank)
	– 2 on LHS (top of the hydraulic tank)
	– 2 on counterweight
	6 additional Xenon lights:
	– 2 on the top of the cab
	– 2 on the RHS (bottom part of the fuel tank)
	– 2 on the LHS (bottom part of the hydraulic tank)
	LED lights in option
Emergency stop switches	at ground level, in hydraulic compartment, in engine compartment and 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	torsion 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



Operator's Cab

Design	resiliently mounted, sound insulated, large windows for all-around visibility, integrated falling object protection FOPS
Operator's seat	suspended, body-contoured with shock absorber, adjustable to operator's weight
Cabin windows	20.5 mm/0.8 in tinted armored glass for front window and 18 mm/0.7 in for left hand side windows, all other windows in tinted safety glass, high pressure windshield-washer system with 75 l/20 gal water-tank, sun louvers on all windows in heavy duty design
Heating system/ Air conditioning	heavy duty, fully automatic, high output air conditioner and heater unit
Cabin pressurization	ventilation unit with filters
Controls	joystick levers integrated into armrest of seat
Monitoring	via LCD-Display, data memory
Rear vision system	camera installation on counterweight and left-hand side of the uppercarriage, displayed over an additional LCD-display
Automatic engine shut off	in case of low engine oil pressure or low coolant level
Destroking of main pumps	in case of engine overheating or low hydraulic oil level
Safety functions	additional gauges with constant display for: engine speed, hourmeter, engine oil pressure, coolant temperature and hydraulic oil temperature
Noise level (ISO 6396)	L_{pA} (inside cab) = 78 dB(A) with oil/water fans at 100 % and AC fan at 65 %



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 reduction gear
Travel speed	0 – 2.2 km/h/0 – 1.4 mph
Parking brake	spring engaged, hydraulically released wet multi-disc brakes for each travel motor, maintenance-free
Track components	maintenance-free combined pad-link, heavy duty track shoes
Track rollers / Carrier rollers	7/3 per side frame
Automatic track tensioner	pressurized hydraulic cylinder with accumulator, maintenance free
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"> – fuel fast refill – hydraulic oil refill – engine oil quick change – splitterbox oil quick change – swing gearbox oil quick change – swing ring teeth grease barrel refilling via grease filter – attachment/swing ring bearing grease barrel refilling via grease filter – windshield washer water refilling other coupler type on request
---------------	---



Central Lubrication System

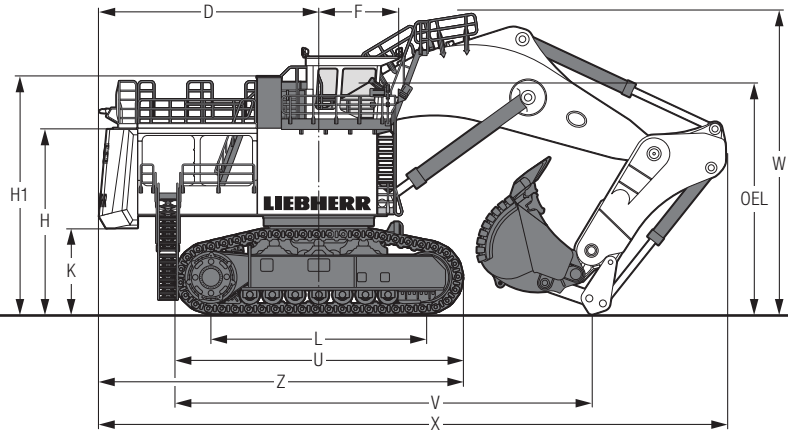
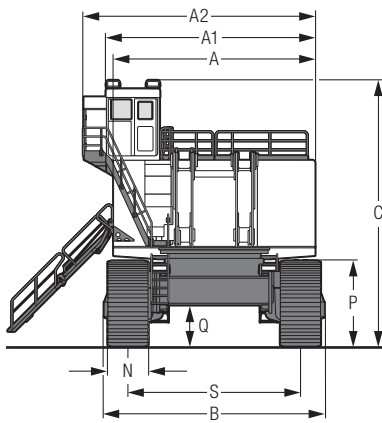
Type	single line lubrication system for the entire attachment/swing ring bearing and teeth
Grease pumps	2 hydraulic pumps for attachment/swing ring bearing lubrication with switch over function and 1 hydraulic pump for swing ring teeth lubrication
Capacity	600 l/158.5 gal bulk container for attachment/swing ring bearing, separated 80 l/21 gal container for swing ring teeth
Refill	via the service flap for both containers with grease filters



Attachment

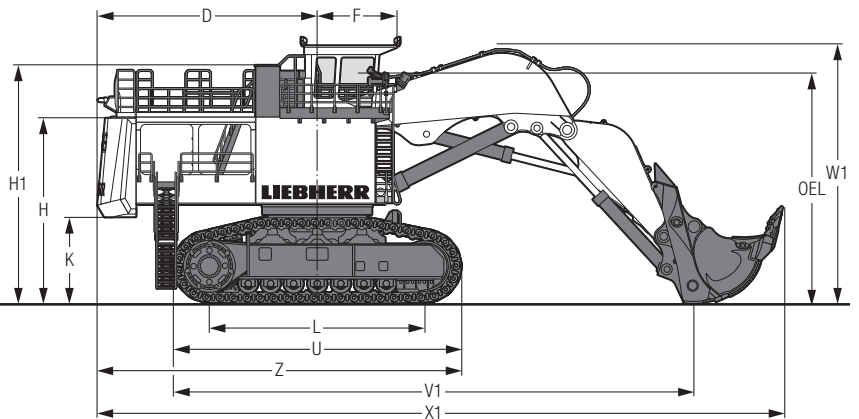
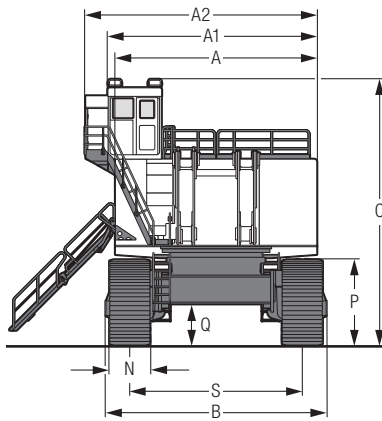
Design	box-type structure with large steel castings in all high-stress areas
Pivots	sealed with double side centering with 1 single floating pin per side, all bearings with wear resistant, steel bushings, bolts hardened and chromium-plated
Hydraulic cylinders	Liebherr design, all cylinders located in well protected areas
Hydraulic connections	pipes and hoses equipped with SAE split-flange connections
Kinematics	Liebherr parallel face shovel attachment geometry

Dimensions



	mm/ft in
A	7,000/22'11"
A1	7,260/23' 9"
A2	8,080/26' 6"
B	7,908/25'11"
C	9,260/30' 4"
D	7,635/25'
F	2,780/ 9' 1"
H	6,435/21' 1"
H1	8,280/27' 1"
K	3,005/ 9'10"
L	7,500/24' 7"

	mm/ft in
N	1,400/ 4'7"
P	2,985/ 9'9"
Q	1,435/ 4'8"
S	6,000/19'8"
U	10,000/32'9"
V	14,550/47'8"
W	10,600/34'9"
X	22,000/72'1"
Z	12,635/41'5"
OEL	Operator's eye level 7,850/25'8"

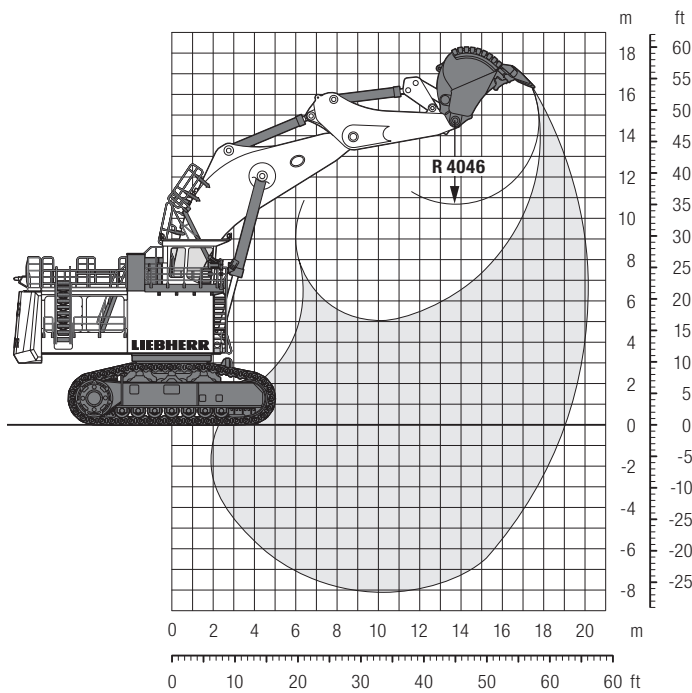


	mm/ft in
A	7,000/22'11"
A1	7,260/23' 9"
A2	8,080/26' 6"
B	7,908/25'11"
C	9,260/30' 4"
D	7,635/25'
F	2,780/ 9' 1"
H	6,435/21' 1"
H1	8,280/27' 1"
K	3,005/ 9'10"
L	7,500/24' 7"

	mm/ft in
N	1,400/ 4'7"
P	2,985/ 9'9"
Q	1,435/ 4'8"
S	6,000/19'8"
U	10,000/32'9"
V1	18,100/59'4"
W1	9,050/29'8"
X1	23,900/78'4"
Z	12,635/41'5"
OEL	Operator's eye level 7,850/25'8"

Backhoe Attachment

with Mono Boom 11.00 m/36'1"



Digging Envelope

Stick length	5.00 m/16' 4"
Max. digging depth	8.11 m/26' 7"
Max. reach at ground level	19.03 m/62' 5"
Max. dumping height	10.67 m/34'11"
Max. teeth height	16.56 m/54' 3"
Max. digging force (ISO 6015)	1,535 kN/345,082 lbf
Max. breakout force (ISO 6015)	1,640 kN/368,687 lbf

Operating Weight and Ground Pressure

The operating weight includes the basic machine with backhoe attachment and backhoe bucket 36.00 m³/47.1 yd³.

Pad width	mm / ft in	1,400 / 4'7"
Weight	kg / lb	672,000 / 1,481,500
Ground pressure*	kg/cm² / psi	2.86 / 40.62

* according to ISO 16754

Backhoe Buckets

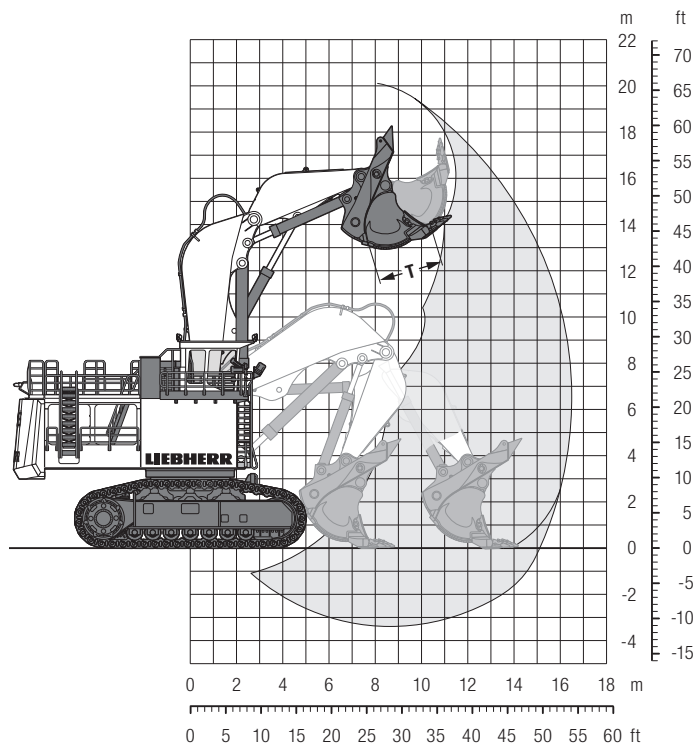
		5 – 6	5 – 6	5 – 6	7 – 8
For materials class according to VOB, Section C, DIN 18300		5 – 6	5 – 6	5 – 6	7 – 8
Typical operation according to VOB Section C, DIN 18300		HD	HD	HD	XHD
Capacity ISO 7451	m³	32.00	34.00	36.00	34.00
	yd³	41.9	44.5	47.1	44.5
Suitable for material up to a specific weight of	t/m³	2.0	1.9	1.8	1.8
	lb/yd³	3,373	3,204	3,035	3,035
Cutting width	mm	4,800	4,800	4,800	4,800
	ft in	15'8"	15'8"	15'8"	15'8"
Weight	kg	39,500	40,400	40,400	44,000
	lb	87,082	89,067	89,067	97,003

HD: Heavy-duty bucket with Esco S145 teeth

XHD: Heavy-duty rock bucket with Esco S145 teeth

Face Shovel Attachment

with Shovel Boom 8.00 m/26'3"



Digging Envelope

Stick length	5.00 m/16'4"
Max. reach at ground level	15.09 m/49'5"
Max. dumping height	12.90 m/42'3"
Max. crowd length	5.38 m/17'7"
Bucket opening width T	2.80 m/ 9'2"
Max. crowd force at ground level (ISO 6015)	2,245 kN/504,696 lbf
Max. crowd force (ISO 6015)	2,330 kN/523,804 lbf
Max. breakout force (ISO 6015)	1,930 kN/433,881 lbf

Operating Weight and Ground Pressure

The operating weight includes the basic machine with shovel attachment and bucket
34.00 m³/44.5 yd³.

Pad width	mm/ft in	1,400/4'7"
Weight	kg/lb	676,000/1,490,300
Ground pressure*	kg/cm ² /psi	2.88/40.87

* according to ISO 16754

Face Shovel Buckets

	5 – 6	5 – 6	5 – 6	7 – 8
For materials class according to VOB, Section C, DIN 18300	5 – 6	5 – 6	5 – 6	7 – 8
Typical operation according to VOB Section C, DIN 18300	HD	HD	HD	XHD
Capacity ISO 7451	m ³	32.00	34.00	36.00
	yd ³	41.9	44.5	47.1
Suitable for material up to a specific weight of	t/m ³	1.9	1.8	1.65
	lb/yd ³	3,204	3,035	2,782
Cutting width	mm	5,500	5,500	5,500
	ft in	18'	18'	18'
Weight	kg	63,900	64,600	65,000
	lb	140,875	142,418	143,300

HD: Heavy-duty bucket with Esco S145 teeth

XHD: Heavy-duty rock bucket with Esco S145 teeth

Optional Equipment

Undercarriage

Undercarriage bottom cover
Travel motor guard with access hatch

Uppercarriage

Wiggins/Banlaw/other brand name fast refilling system
Fast fueling system with Multiflo Hydrau-Flo®
Wiggins/Banlaw/other brand name counter plugs (service trucks)
Rock protection for fuel tank
Rock protection for hydraulic tank
Swing ring scrapers
LED lighting
Slewing ring with 90° installation arrangement
Easy maintenance air filters arrangement
Hydrostatic fan drive
Additional xenon lighting

Hydraulic System

Oil cooler inlet screens

Engine

Cummins oil reserve system
Cummins Cense™
Automatic engine shutdown (5 min.)

Operator's Cab

4-point seat belt
Additional back and side wipers
Double A/C system
Cab elevation (1,000 mm/3'3")

Attachment

Piston rod guard for bucket cylinders

Specific Solutions

Arctic package (−30 °C/−22 °F, −40 °C/−40 °F)
Sound attenuation package
High altitude kit

Safety

Automatic fire suppression system
Installation kit for extra cameras

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 application.

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 that time, the enterprise has steadily grown to a group of more than 130 companies with over 41,000 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.

www.liebherr.com