

Quarrying industry

LIEBHERR

Earthmoving machines



Liebherr earthmoving machines for the quarrying industry

Liebherr has decades of experience in the development and production of class-leading machines for the quarrying industry, including crawler and mining excavators, wheel loaders, crawler dozers, dump trucks and duty cycle crawler cranes. With innovative design and major components all produced by Liebherr, the machines can be deployed with great efficiency and performance in the most challenging and difficult environments in the quarrying world. Quarry machines from Liebherr perform all tasks perfectly, and every component has been purpose-designed. They feed breakers, sifting systems and trucks, and transport the

surface mine material. Liebherr machines work with immense power, and advanced technology reduces down fuel consumption – the perfect machines for economical use in the quarrying industry.

- Large hydraulic excavators
- Wheel loaders
- Articulated dump truck
- Crawler dozers
- Duty cycle crawler cranes
- Customer service





Large hydraulic excavators



Performance

Liebherr's large hydraulic excavators follow our principle of maximising machine performance by improving the efficiency of all of the individual parts. Each machine is designed for optimum serviceability and minimum downtimes. An ultra-modern engine management system maintains perfect performance, under the toughest of working conditions.

Economy

For Liebherr, protection of the environment is one of our guiding principles and the most important challenge for the present and future. Environmentally-configured power regulation of the hydraulic system and engine performance optimises the fuel efficiency of the machine to match the application. The automatic idling system reduces engine speed when the machine is stationary, and if less power is required, "eco mode" can be selected on the control panel to reduce the engine load, further improving the fuel efficiency and reducing CO₂ emissions.

Reliability

As an original equipment manufacturer, Liebherr has a leading and healthy reputation in the development and production of high quality major components. All large hydraulic excavators from Liebherr feature robust and reliable components that have been optimised for the unique conditions of mining and are designed and manufactured by Liebherr to ensure reliability, high performance and longevity. Liebherr excavator customers can expect lasting performance throughout the whole service life of the machine.

Comfort

Liebherr large hydraulic excavators provide the driver with ideal conditions for fatigue-free and effective working. All of the excavators feature large and spacious cabs that are comfortably equipped and comply with the latest ergonomic conventions. This maintains the driver's concentration and safety over many hours. Cab windows with impact-resistant reinforced glass enable safe working and an optimal view over the working space and surrounding area. For easy access during maintenance work, Liebherr large hydraulic excavators feature safe and comfortable catwalks as well as an innovative layout of the components and service points on the uppercarriage.

Maintainability

The Liebherr excavators offer perfect safety for the operator and maintenance team. As it is serviced from just one side, the machine offers trouble-free access to the main service points for fast and safe maintenance in the field. The cab has been designed with further reinforcement for the safety of the driver.

Overview of large hydraulic excavators with backhoe attachment

Stick and bucket cylinders

- With increased diameter in combination with adapted kinematics
- Higher breakout and digging forces

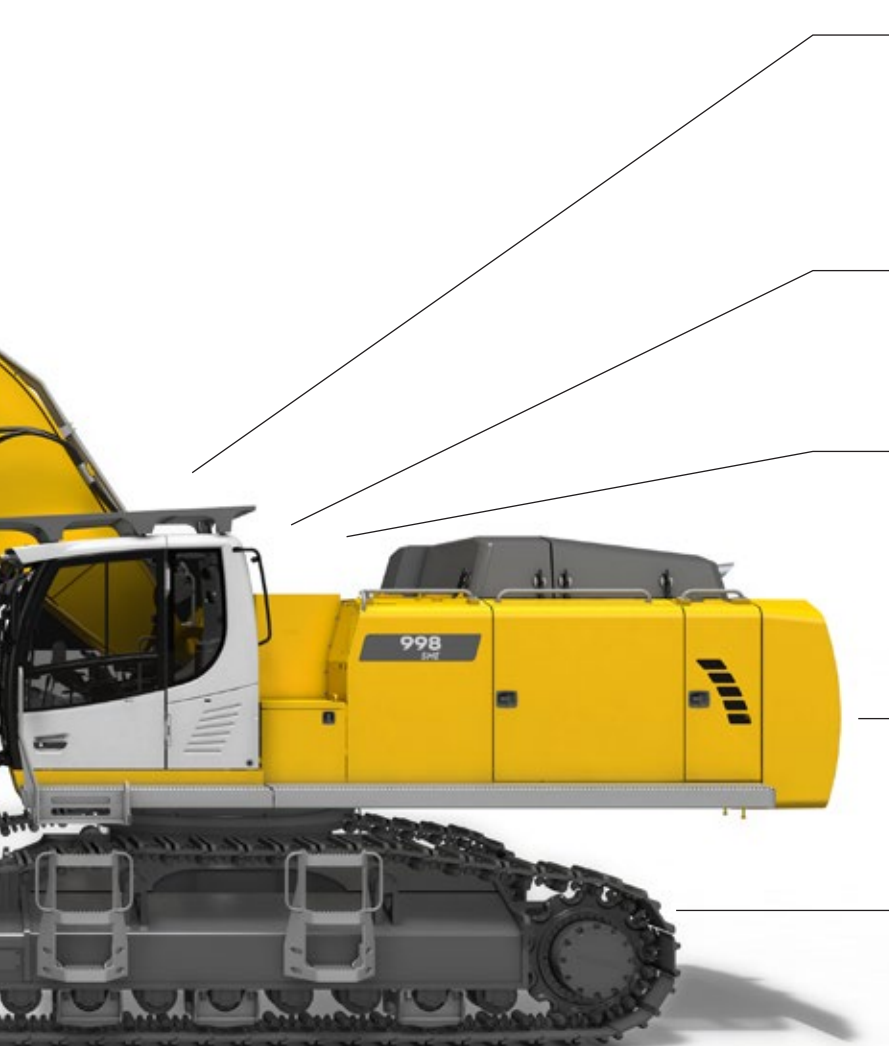
Stick with internal protection

- For a longer service life
- Protection from bulky material in the bucket

Standard HD bucket

- For increased service life
- Other types available





Standard reinforced glass window

- At front and in roof

Cab on hydraulic mountings

- For optimal vibration insulation

Standard automatic air conditioning

- With 13 diffusers

Standard counterweight

- For greater stability and performance

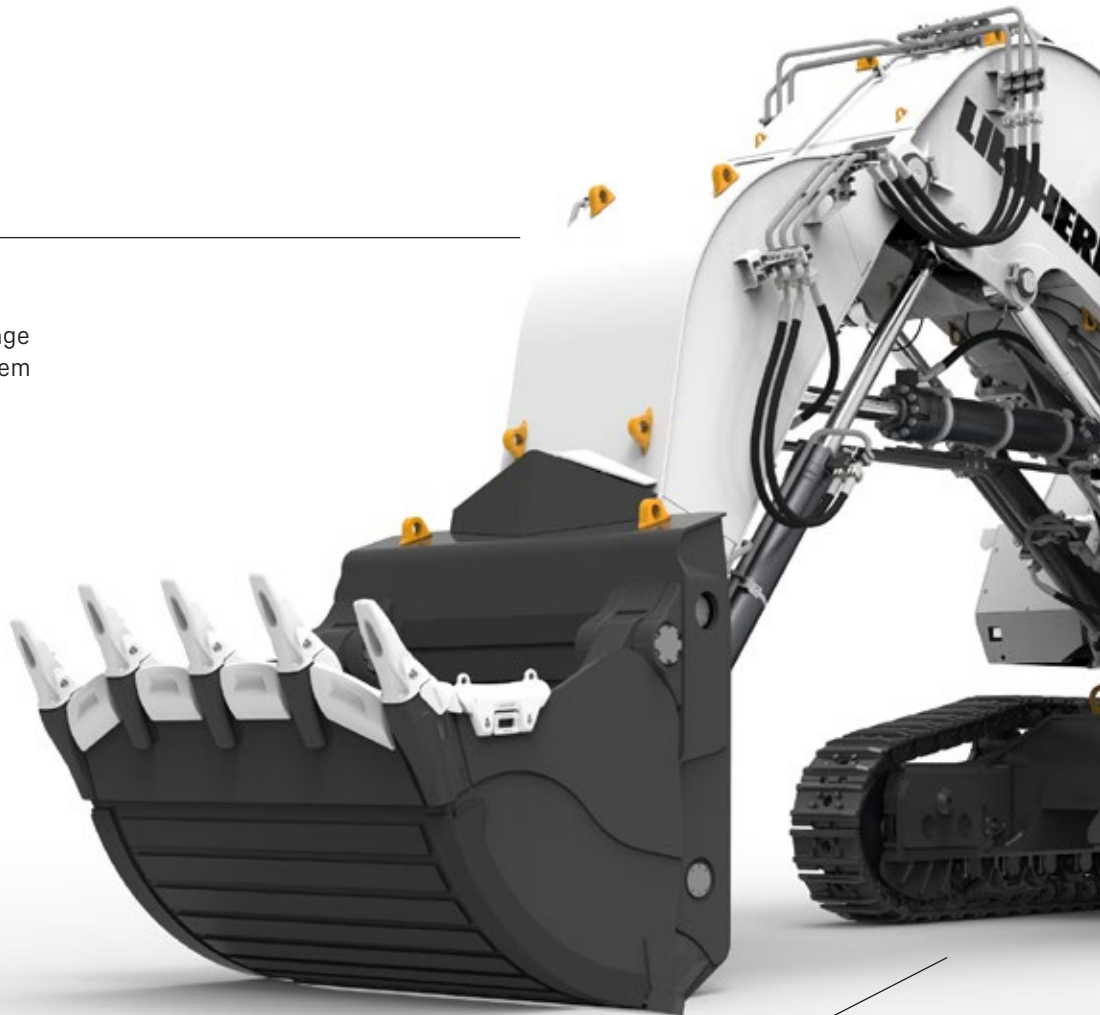
Chamfered track pads

- For better manoeuvrability on difficult terrain

Overview of large hydraulic excavators with face shovel attachment

Built for mining

- Liebherr GET
- Liebherr customised wear package
- Automatic central greasing system for all lubrication points
- Ram guard for the lift cylinder*
- Protection for front swing gear*



Sturdy structure

- Heavy duty undercarriage
- Additional full length chain guide*
- Rock protection for track wheels*

*optionally available



Efficient work

- Electronic control
- Rear- and side-view cameras
- Semi-automatic swing brake
- Operator comfort kit *
- Various optional protective equipment *
- Standard automatic air conditioning
- Cab pressurisation

Liebherr vertical integration

- Diesel engine US EPA Tier 4 Final / EU Stage V
- Hydraulic pumps and motors
- Splitter box
- Hydraulic cylinders
- Swivel bearing
- Swing and travel drives

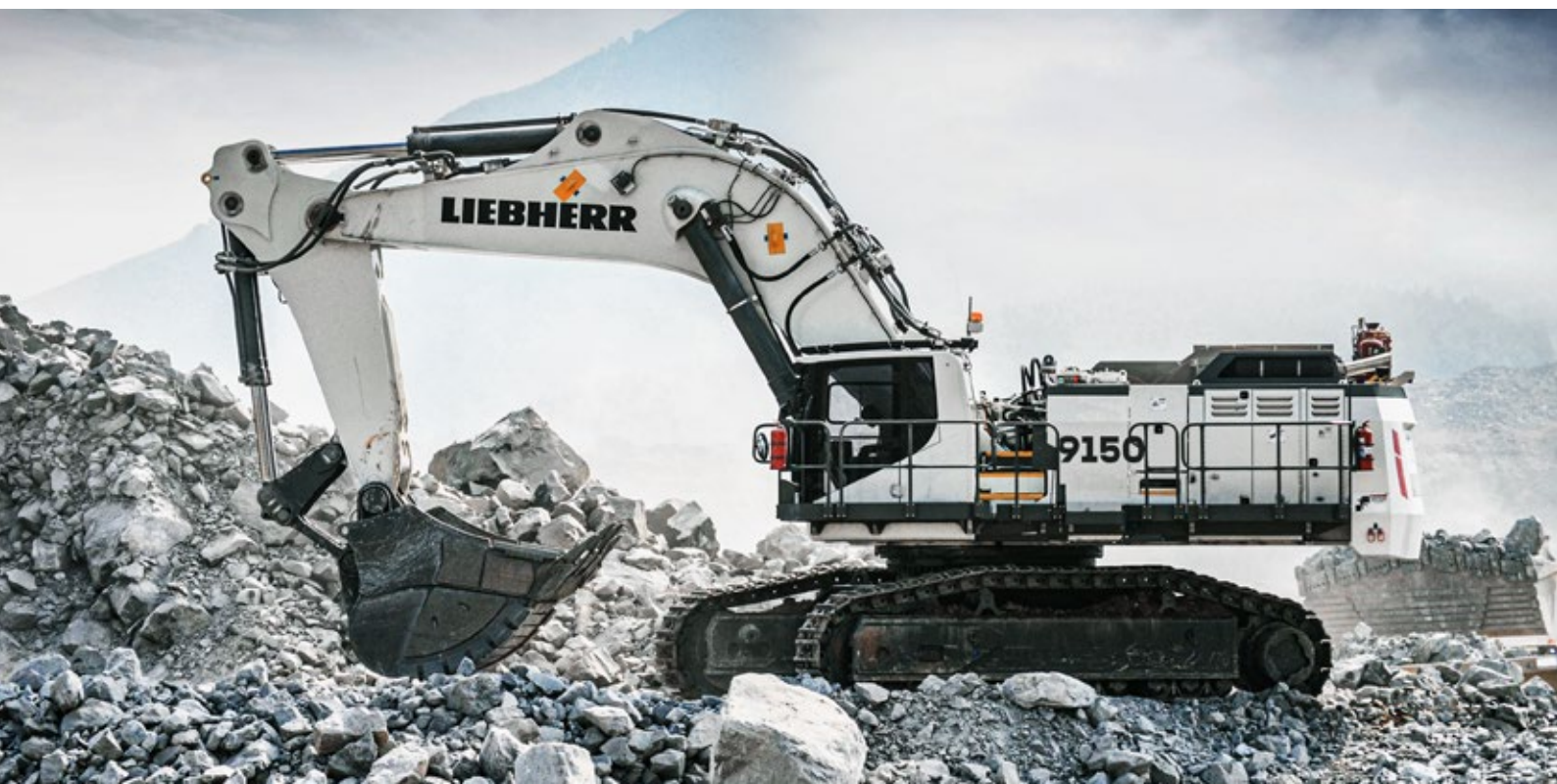
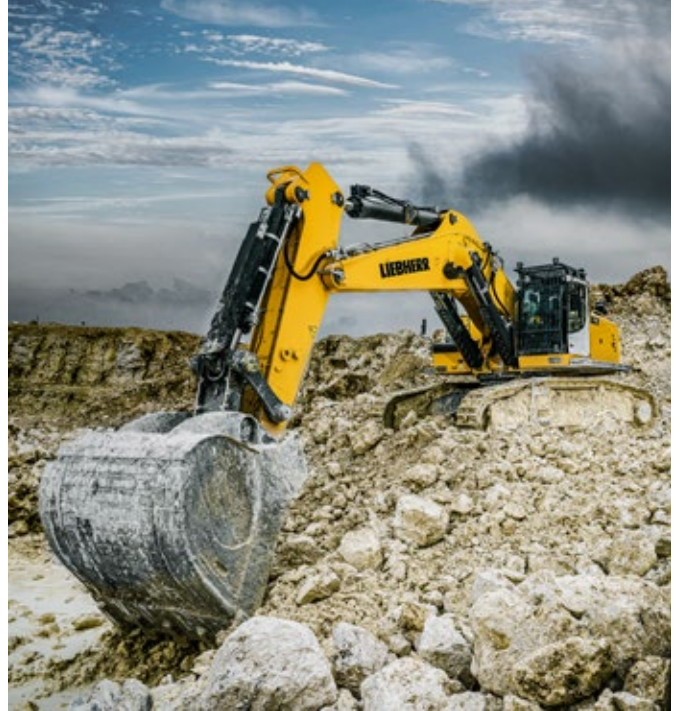
First class service

- Single side service access
- Wide catwalk and railings
- Hydraulically operated 45° access ladder *
- Quick-release coupling for filling from ground level *
- Quick fuel filling system *

Examples of use and technical data

			R 945 Litronic	R 948 Litronic
Generation			8	8
Operating weight BH	kg		41,400–47,250	48,600–51,180
Bucket capacity *	m ³		2.0–3.0	2.0–3.5
Operating weight FS	kg		-	-
Shovel capacity *	m ³		-	-
Engine power	kW/HP		220/299	280/381
Emission standard			V/Tier 4 Final	V/Tier 4 Final
			R 952 Litronic	R 958 Litronic
Generation			8	8
Operating weight BH	kg		51,110–58,930	56,750–58,810
Bucket capacity *	m ³		2.0–4.0	2.5–4.0
Operating weight FS	kg		-	-
Shovel capacity *	m ³		-	-
Engine power	kW/HP		300/408	300/408
Emission standard			V/Tier 4 Final	V/Tier 4 Final
			R 972 Litronic	R 978 SME Litronic
Generation			6	6
Operating weight BH	kg		68,450–77,550	78,350–80,150
Bucket capacity *	m ³		1.65–5.5	4.0–5.0
Operating weight FS	kg		69,950–70,650	79,100–81,000
Shovel capacity *	m ³		3.5–5.0	4.0–5.0
Engine power	kW/HP		330/449	330/449
Emission standard			V/Tier 4 Final	V/Tier 4 Final
			R 992 Litronic	R 998 SME Litronic
Generation			6	6
Operating weight BH	kg		85,800–96,500	97,700–101,400
Bucket capacity *	m ³		2.0–6.8	5.2–7.2
Operating weight FS	kg		91,500–93,300	99,800–101,500
Shovel capacity *	m ³		5.1–6.0	5.1–6.5
Engine power	kW/HP		420/571	420/571
Emission standard			V/Tier 4 Final	V/Tier 4 Final
			R 9100	R 9150
Generation			6	7
Operating weight BH	kg		113,000	130,000
Bucket capacity *	m ³		7.0–7.5	8.8–9.6
Operating weight FS	kg		116,000	130,000
Shovel capacity *	m ³		7.3	8.3
Engine power	kW/HP		565/757	565/757
Emission standard			V/Tier 4 Final	V/Tier 4 Final

* HD backhoe and face shovel equipment at 1.8 t/m³



Wheel loaders



Performance

The powerful Liebherr L 550 XPower – L 586 XPower wheel loaders excel with their high handling capacity in quarrying operations. XPower offers the greatest level of efficiency and maximum output in all areas, regardless of whether the distances are long or short, or whether the ground is level or even has an incline. This increases productivity in all work cycles and improves profit for the customer.

Economy

The Liebherr-XPower travel drive with Liebherr-Power-Efficiency (LPE) provides enormous fuel savings. In addition there is minimal tyre wear and hardly any brake wear. At maximum handling capacity and efficiency, this reduces operating costs significantly, further increasing profitability.

Reliability

Liebherr wheel loaders provide maximum performance even under the toughest and most challenging conditions in surface mines. The components of the Liebherr-XPower wheel loaders are extremely rugged and low-wear. XPower ensures a long machine life and reliability in use.

Comfort

The modern ergonomic cab design provides the operator with maximum comfort enabling him to concentrate on accurate operation without fatigue, which once again means more safety and productivity. The Liebherr control lever, which is built into the operator's seat as standard, allows precise and sensitive control of the machine. The generous glass surfaces and the design of the engine hood, which has been optimised for viewing, provide excellent all-round visibility. This ensures maximum safety for people, the machine and the load.

Maintainability

The most important points for daily maintenance can be seen at a glance in the access area of Liebherr-XPower wheel loaders. Quick and safe control saves time and money.

Wheel loaders L 550 XPower – L 586 XPower overview

Maximum operator comfort for greater productivity

- Automatic central lubrication system (L 550–L 580 * / L 586 as standard)
- Premiumdisplay (Touchscreen)
- Joystick steering or 2-in-1 steering *
- 3-way continuously adjustable steering column
- Operator's cab without steering wheel / steering column – joystick steering only *
- Liebherr weighing system with "Truck Payload Assist" *
- Ride control

Ruggedness and quality for durable machines

- Tilt cylinder protection *
- Special buckets in HD or rock version *
- Lamp carrier in steel design *
- Guard for headlights *
- Fuel tank steel version
- Integral tyre pressure monitoring system *
- Special tyres for quarrying industry *
- Tyre protection chains *
- Crash protection, rear *
- Widening for fender and rear mudguard *



* optionally available



Productive and safe working

- Soundproof ROPS / FOPS cab
- Safety roof over cab *
- Additional working lights, rear *
- Adaptive working lighting *
- Skyview 360° *
- Liebherr key with remote control incl. Coming Home / Leaving Home function *
- Active personnel detection at the rear *
- Safe, non-slip ladder access to cabin
- Folding windscreen guard for increased safety and easy access for cleaning *
- Anti-slip steps and sturdy handrails
- Rear space monitoring with camera via Liebherr display
- Headlights halogen (double design on engine hood)

Short service times for greater productivity

- Important maintenance points visible in access area
- Radiator easy to maintain
- Reversible fan drive *
- Air pre-cleaner TOP AIR *

Highest level of performance

- Powerful and efficient Liebherr-XPower driveline
- Automatic self-locking differentials in both axles

Examples of use and technical data

		L 550 XPower	L 556 XPower
Tipping load	kg	8,300–12,500	9,300–13,750
Bucket capacity	m ³	2.6–9.5	2.6–10.0
Operating weight	kg	18,550–20,600	19,600–21,600
Engine power	kW/HP	163/222	183/249
Emission standard		V	V

		L 566 XPower	L 576 XPower
Tipping load	kg	12,100–15,900	16,250–17,600
Bucket capacity	m ³	3.5–12.0	4.2–5.2
Operating weight	kg	23,900–26,900	25,650–25,800
Engine power	kW/HP	203/276	218/296
Emission standard		V	V

		L 580 XPower	L 586 XPower
Tipping load	kg	14,800–19,500	19,000–22,500
Bucket capacity	m ³	4.5–14.0	5.0–8.5
Operating weight	kg	27,650–30,100	32,600–33,900
Engine power	kW/HP	233/317	263/358
Emission standard		V	V





Articulated dump truck



Performance

Powerful and robust – The TA 230 was developed for tough offroad operations. The efficient yet powerful drivetrain, permanent 6x6 all-wheel drive, reliable traction control and solid axle suspension allow the Liebherr dump truck to dig its way through any terrain. Even in tough quarry applications, the dumper impresses with very good driving properties and always moves safely thanks to its phenomenal retarder performance.

Economy

Invest in a successful future with the Liebherr dump truck. It is the perfect combination of investment and yield. Short cycle times due to maximum efficiency in acceleration, transport and deceleration performance deliver enormous handling capacity and therefore maximum economy. Moreover, the modern Liebherr D956 construction machine engine marries power and efficiency for the sustainable protection of our environment.

Reliability

Liebherr has decades of experience in the development, design and production of components. When coordinated perfectly with each other, they guarantee maximum performance and reliability. The TA 230 has been developed and designed on the back of extensive test trials to ensure the resilience and quality of the component parts time after time. Even in the most adverse of conditions, the TA 230 still satisfies Liebherr's high quality standards.

Comfort

The cab on the TA 230 with standard roll-over protection system (ROPS) provides the perfect environment for comfort, concentrated and productive work. Thanks to large all-round glass windows and the short, angled bonnet, the operator has perfect visibility of the machine's driving, working and articulation areas. The ergonomic control elements and touchscreen display with integral rear-view camera simplify operation and extend visibility at the rear of the machine.

Maintainability

The TA 230 is not only powerful, robust, precise and efficient, but also features fast, simple and safe maintenance. This minimises the construction machine's costs and down times.

Articulated dump truck overview

Simplified maintenance concept for maximum productivity

- Service-based machine design with easy access to the maintenance points
- Smart machine check-up
- Central lubrication system, sensor-controlled
- Storage compartment for toolbox and grease cartridges
- Qualified, experienced specialists for competent advice
- 24 / 7 Spare parts service with 24 hour deliveries

Superior technology for highest economy

- 6-cylinder Liebherr construction machinery engine with emissions Stage V, Tier 4 Final and Non-regulated
- MyLiebherr – Liebherr's information system for efficient fleet management and evaluation

Perfect combination for highest possible performance

- Permanent 6 x 6 all-wheel drive
- Automatic 8-speed powershift transmission
- Continuous-operation brake (engine brake, hydrodynamic primary retarder), zero wear
- Power shifting inter-axle and lateral differential locks for permanent traction
- Innovative weighing system to show the current payload
- Optional loading traffic light system
- Large, solidly designed dump body
- Optional dump body tailgate
- Optional dump body cladding and heating





Ergonomic operator's work station for maximum comfort

- Cab with large glass areas for improved visibility
- Rear window heating
- Electrically adjusted and heated rear mirror, optional
- Sound-insulated cab
- Sealed pressurised ventilation
- 9" large colour touchscreen
- Rear monitor
- Convenient radio control with hands-free kit
- Mobile phone holder and USB charging sockets
- Additional DIN installation frame
- Automatic air-conditioning system
- High quality operator's seats in a range of versions
- Air-conditioned compartment
- LED dipped headlights with integral high-beam light
- Extra powerful LED headlights to illuminate the working area
- Manoeuvring lights for reversing
- Optional access ladder lighting

Excellent machine concept for maximum reliability

- Painstakingly developed structural components
- Robust construction made of high-tensile steel
- Partly autonomous long-term load tests at the only testing centre of its kind in Europe
- ROPS/FOPS cab structure
- Tinted safety glass
- Hill start assistant
- Speed limiter
- Activation and deactivation of limit position dampening on the dump body cylinders
- Height limitation

Examples of use and technical data

		TA 230 Litronic
Empty vehicle weight	kg	24,600
Payload	kg	28,000
Dump body capacity	m ³	18.1
Engine power	kW/HP	265/360
Emission standard		V/Tier 4 Final/ non-regulated





Crawler dozers



Power and innovative technology: These are the trademarks of the Liebherr crawler dozers. Whether in tough ripping operations or for pushing heavy material, the PR 756, PR 766 and PR 776 impress in every scenario with outstanding performance and economy.

Performance

To mechanically dig and break out hard rock, high penetration and pushing forces are required. The Liebherr crawler dozers PR 756, PR 766 and PR 776 offer the ideal performance capacities with operating weights of 40, 50 and 70 tonnes respectively in conjunction with the innovative hydrostatic drive concept. Engine power is constantly transmitted through a positive connection without slippage, which means that the material is worked loose evenly and efficiently pushed away.

Economy

The latest generation Liebherr diesel engines combine high performance with frugal operation. Thanks to the consistently low engine speed, fuel is saved and a high service life of the components is achieved. Additional clear economical advantages speak in favour of Liebherr: as with all Liebherr equipment, the PR 756, PR 766 and PR 776 models also benefit from being user-friendly. This reduces maintenance costs and downtime.

Reliability

Tough and sturdy: Liebherr crawler dozers are designed for a long operational lifetime with careful attention to construction and material quality. All parts that are subject to particularly heavy loads are made from the strongest materials available, whilst sensitive areas are optimally protected. All of these factors make Liebherr crawler dozers reliable machines with the highest level of availability.

Comfort

Liebherr crawler dozers offer operators a generously proportioned workspace, designed with the latest ergonomic aspects in mind. The spacious and comfortable cabin enables an optimal overview of the working area and the equipment. With the intuitive single joystick control, the machine can be controlled accurately and safely at all times.

Maintainability

Thanks to their minimal maintenance requirements, Liebherr crawler dozers make a reliable contribution to your economic success. A dense service network means short distances, efficient systems and fast response times for the user.

Overview of crawler dozers

LED-lighting *

- Guarantees best illumination of the working area
- Better working performance even in the dark / bad light conditions

Hydrostatically driven cooling fan

- Fast engine warm-up and reliable cooling in each situation
- Laminar air flow facilitates a long radiator-life

Different types of blades with HD-cutting edge

- High flexibility for all kind of material
- High productivity

HD-track pads

- Highly wear-resistant in hard applications
- Longer uptime



*optionally available



Cab with integrated ROPS / FOPS protection

- Best all-around view for the operator
- Higher safety and productivity

Separate hydraulic oil cooler

- Reliable cooling performance even in the hottest ambient temperatures
- Reduced fuel consumption due to demand-controlled fan

HD-ripper

- Excellent ripping performance in hard underground conditions
- Robust design for longevity

Bogie suspension *

- Smoother operation
- Optimal traction

HD-tilt cylinder cover and wear-plates on push arm and blade *

- Best possible protection against large rocks
- Extended lifetime of components exposed to wear

Examples of use and technical data

		PR 756 G8	PR 766 G8	PR 776
Operating weight	kg	43,000	54,333	73,189
Blade capacity semi U-blade	m³	8.9	13.6	18.5
Blade capacity U-blade	m³	11.8	17.0	22.0
Ground clearance	mm	635	604	703
Max. ripping depth of ripper	mm	1,203	1,375	1,445
Max. penetration force of ripper	kN	123.9	173	237
Max. pryout force of ripper	kN	208.8	292	441
Track shoe width	mm	560–711	610–710	610–762
Engine power	kW/HP	260/353	310/422	440/598 forward 565/768 reverse
Emission standard		V/Tier 4 Final	V/Tier 4 Final	V/Tier 4 Final





Mining dragline LMD 1200



Productivity

The hydraulically driven winches allow the rope speed to be adjusted as required to suit different soil and material conditions. This ensures even and optimum filling of the dragline. Combined with powerful swing gears, this results in higher handling speeds and shorter working cycles.

Efficiency

Thanks to the specially developed hydraulic components, the drive train is optimally designed and functionally harmonised. The harmonised combination of engine power and reduced hydraulic pressure enables efficient operation with both low fuel consumption and high handling capacity. The diesel engine is predominantly operated in the optimum speed range.

Availability

A high number of components and innovative solutions from Liebherr reduce wear and downtime to a minimum. The robust steel construction contributes significantly to a long service life of the machine.

Customer service

The global service network ensures fast response times, while the logistics centres offer a high level of parts availability. With the Reman programme, attractive alternatives can also be offered, for example, in terms of price or delivery time. The service and operating experience gained is continuously incorporated into the further development of the components.

Safety

Sophisticated safety systems significantly contribute to the avoidance of injuries and/or damage by protecting operator and machine during tough assignments, and technicians during assembly and service work.

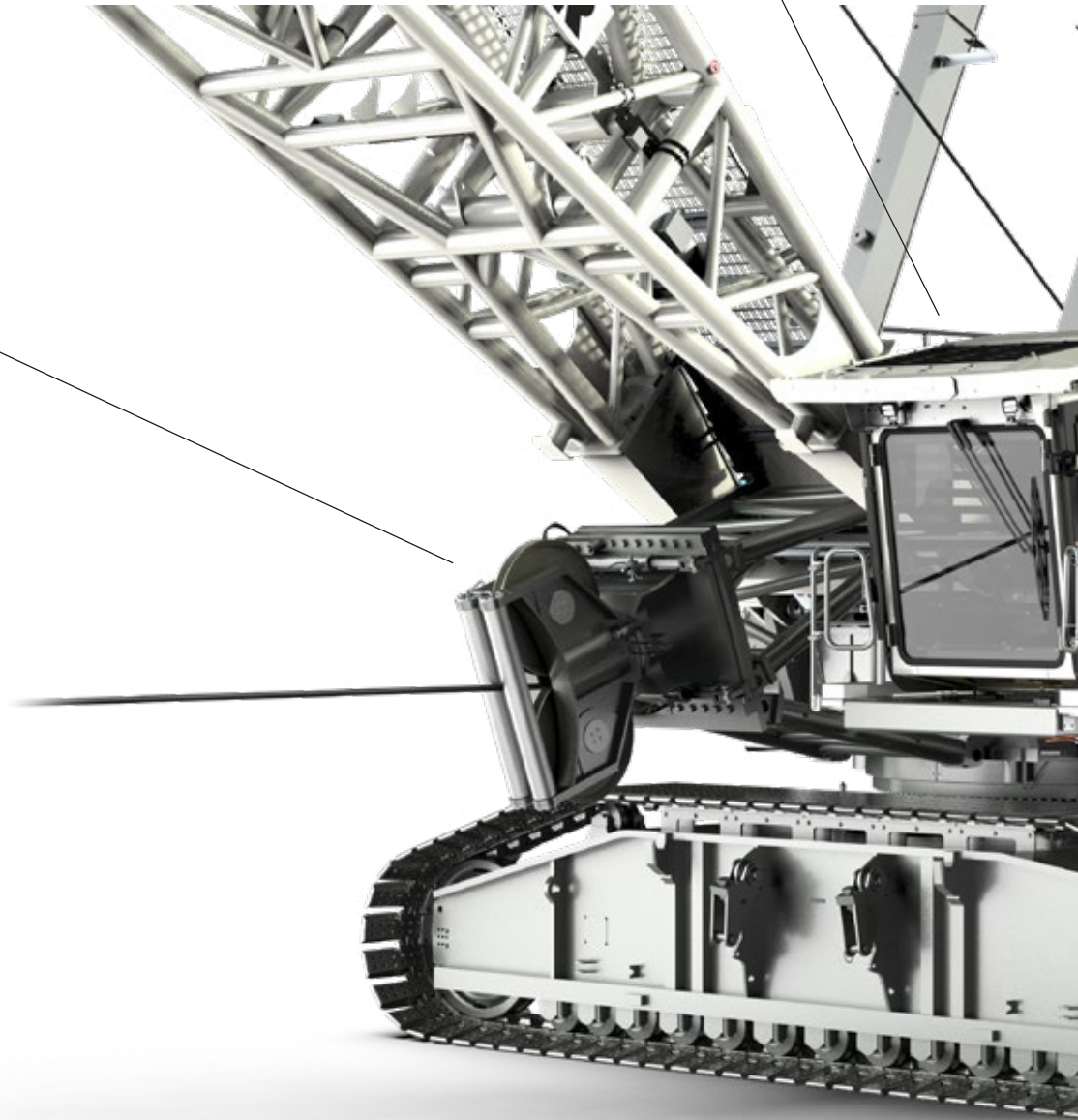
Environment

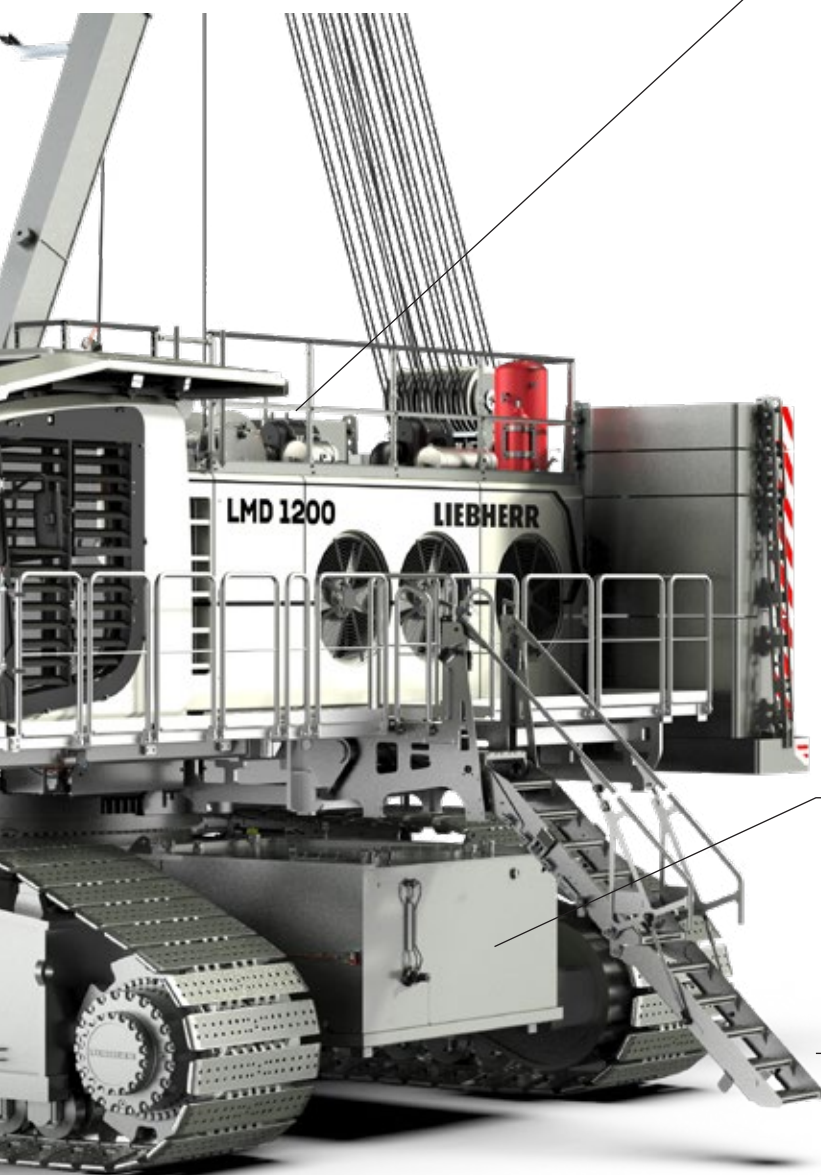
The diesel engines are also designed and built by Liebherr. They impress with low fuel consumption combined with high performance. Liebherr diesel engines are equipped with the latest exhaust gas treatment technology.

Overview of LMD 1200 mining dragline

Sun protection

Fairlead





Air filter easily accessible

8,270-litre additional diesel tank ideal for 24 / 7 operation

Hydraulically foldable steps for easy and safe access

Examples of use and technical data

		LMD 1200
Min. transport width	mm	3,980
Min. transport height	mm	3,260
Min. transport weight	t	72.20
Engine power	kW	670
Max. winch line pull	kN	2x500
Max. boom length for dragline operation	m	50
Operating weight	t	360
Max. depth in dragline operation	m	30
Max. capacity dragline bucket	m³	12.20





Customer service – the hidden benefits

Our services are perfect for the challenges you face every day



For experts

Would you like to maintain and care for your machines yourself? Quickly and flexibly get everything done in the evening for the next shift?

With the online documentation and spare parts shop in MyLiebherr, you can access all the necessary information with just a few clicks. Take advantage of the sophisticated logistics for fast delivery of the desired items, in original quality, of course. So you can work efficiently. And if you do get stuck, our experts are just a phone call away.

For accountants

Are figures and their significance your profession? Do you always want to have an overview of machine operations and current investments and, ideally, be able to calculate clearly in advance what the use of the machine will cost?

Always know what's going on. MyLiebherr Maintenance and MyLiebherr Performance provides you with all relevant machine data, such as upcoming maintenance, machine workload and much more. With the modular CarePacks, you can optimise your maintenance package to your company and budget and accurately predict future costs.

For decision-makers and strategists

Your success is measured not only by the number of projects completed, but also by customer satisfaction, machine reliability and efficient day-to-day operations.

Thanks to our extensive service network, you benefit from a high degree of planning certainty, short response times and expert advice from specialists with in-depth product knowledge.

An extract from our range of services:



A strong partner

Thanks to our extensive service network, our service experts are close at hand. It is important to us that you have a personal contact, because if the worst comes to the worst, it is good to know who can provide reliable help and advice.

To ensure your machines remain reliable and operational, and that your projects stay on schedule, Liebherr offers far more than spare parts and repairs. From genuine parts and professional services to personalised advice and forward-looking solutions, we help you maintain the performance of your machines over the long term.



CarePacks

With the modular CarePacks, you can decide in advance what costs you will incur, so that your machine can continue to perform at full capacity tomorrow and you can concentrate fully on your work.



Reman program

The same performance and quality as a new part, with cost savings at the same time – that's what the replacement parts we offer in our Reman program stand for. An effective solution, particularly for older machines. By reusing components, valuable materials remain in circulation, reducing the need for new raw materials and supporting a more sustainable approach to maintenance.



Retrofit program

With its comprehensive Retrofit program, Liebherr offers an attractive range of products to increase the efficiency and comfort of your machines. Also for older machine types. Adaptations to new legal guidelines can be efficiently implemented.

Information & Sales



Downloads

All brochures for earthmoving and material handling at a glance.

Download now and find out more!



Configurator

Configure the perfect machine for your application.

Start now and choose the ideal solution!



Energy efficiency calculator

See how much fuel you can save with a Liebherr.

Calculate your consumption now and start saving!



Sales partner

Your local contacts.

Find your sales partner and get advice specific to your needs!



MyGuide app

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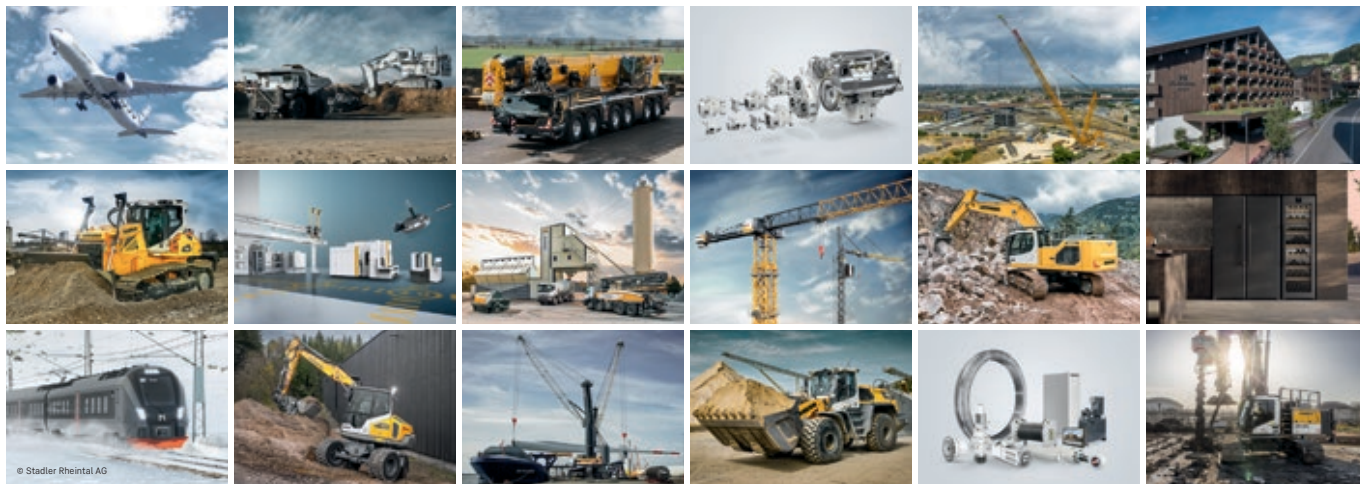
Contact form

We will take care of your request.

Get in touch now and we will work on your enquiry together!

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The Liebherr Group



Global and independent: more than 75 years of success

Liebherr was founded in 1949 when, with the development of the world's first mobile tower crane, Hans Liebherr laid the foundations for a family-run company which now has more than 55,000 employees and comprises over 150 companies across every continent. The holding company of the Group is Liebherr-International AG in Bulle, Switzerland, whose shareholders are exclusively members of the Liebherr family.

Technology leadership and pioneering spirit

Liebherr is a pioneer and its forward-looking approach has seen it make important contributions to technology history over a wide variety of industries. Employees throughout the world continue to share the courage of the company founder, sharing a passion to produce innovative products and a determination to provide world-leading equipment and machinery.

Diversified product programme

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

Customised solutions and maximum customer value

Liebherr solutions are characterised by precision, implementation and longevity. The company is committed to technological excellence and to providing customers with solutions that match their needs exactly. For Liebherr, customer focus does not end with delivery of a product but continues through a comprehensive range of back-up and support services.

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