# The earthmoving programme

www.liebherr.com

### LIEBHERR

**Earthmoving** 





















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The name Liebherr stands not only for products and services. It has also become a byword for ideas and innovations. In the earthmoving sector, Liebherr develops and manufactures an extensive range of hydraulic excavators, duty cycle crawler cranes, crawler tractors and crawler loaders, as well as wheel loaders and articulated dump trucks. All these products are equipped with state-of-the-art technology and are used successfully worldwide. In view of the high quality standards that Liebherr demands of its products, critical assemblies are manufactured in-house. The entire suite of drive and control technology, including the diesel engines, hydraulics and gearboxes, are developed and manufactured by Liebherr. The company's wide range of products and services is constantly being expanded and improved with great intensity, further cementing Liebherr's position as a global market leader – for customers and business partners all over the world. If you require further information about these products or their availability in your country, please contact the relevant Liebherr companies, our sales partners or visit us on our website at www.liebherr.com.



Here you find all earthmoving brochures available to download directly.

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### Compact wheeled excavators

Power and speed combined with compact dimensions – that's what Liebherr's compact wheeled excavators deliver on construction sites around the world. They guarantee maximum performance even in tight spaces, such as on inner-city construction sites, in traffic route construction, in municipal applications or in gardening and landscaping.

- High digging force despite a short tail radius
- Excellent manoeuvrability on construction sites with confined spaces
- Spacious and modern operator's cabs offer plenty of space and comfort
- The swivel bearing on the A 910 Compact and A 912 Compact enables parallel and precise working
- Powerful engines ensure high performance and excellent mileage with low fuel consumption
- A large selection of attachments and quick coupler systems in different configuration levels guarantees efficiency, productivity and flexibility
- Service-oriented machine design and fast spare parts service

		A 910 Compact Litronic	A 912 Compact Litronic	A 913 Compact Litronic	A 914 Compact Litronic	A 916 Compact Litronic	A 918 Compact Litronic
Generation		6	6	6	6	6	6
Operating weight	kg	12,100-13,100	13,000-14,200	13,900-16,000	15,200-17,500	16,000-18,300	17,500-19,600
Engine output	kW/HP	85/116	90/122	95/129	105/143	110/150	115/156
Tail radius	mm	1,675	1,675	1,700	1,750	1,800	1,850
Bucket capacity	m <sup>3</sup>	0.15-0.48	0.15-0.48	0.17-0.87	0.17-0.87	0.17-0.87	0.17-1.05





### Standard wheeled excavators

Whether for classic earthmoving, traffic route construction, channel or pipeline work – thanks to its enormous and consistently high digging performance, our standard wheeled excavator is an absolute top performer on every construction site. It combines maximum efficiency with low fuel consumption and the highest quality.

- Large digging capacity, large loads and fast working cycles guarantee maximum productivity
- Secure standing and stability thanks to various undercarriage designs with welded supports
- The exceptional sensitivity of the hydraulic system enables precise work
- Ergonomically designed operator's work station for healthy, focused and productive work
- The powerful Liebherr diesel engine with low fuel consumption protects the environment and its resources
- The use of a Liebherr quick coupler system increases efficiency and productivity
- Large range of attachments and optional equipment
- Central maintenance points accessible from the ground and easy to reach

		A 914 Litronic	A 916 Litronic	A 918 Litronic	A 920 Litronic	A 924 Litronic
Generation		6	6	6	6	6
Operating weight	kg	14,900-17,600	16,400-18,400	17,600-20,100	18,300-21,900	21,500-26,500
Engine output	kW/HP	105/143	115/156	120/163	129/175	140/190
Bucket capacity	m <sup>3</sup>	0.17-0.87	0.17-1.05	0.17-1.05	0.55-1.20	0.55-1.65





### **Heavy Lift wheeled excavator**

Above-average performance, high efficiency, extraordinarily large loads, the Heavy Lift wheeled excavator is designed for tough earthmoving operations or for channel and pipeline construction. It impresses with its enormous digging power and, thanks to its high load-bearing capacity and reinforced equipment, it can reliably handle the heaviest loads.

- High breakout forces for permanently high digging performance even in hard soils
- High-strength sheet steel designed for the toughest requirements guarantees high torsional stiffness
- Ergonomic and clearly arranged work station for maximum performance
- Maximum stability for increased performance and larger attachments
- Powerful Liebherr diesel engine with low fuel consumption for maximum efficiency
- Equipped with a Liebherr quick coupler system attachments can be changed efficiently and safely
- The service-oriented machine design guarantees short servicing times, thus minimising maintenance costs

		A 924 Heavy Lift Litronic
Generation		6
Operating weight	kg	26,700-27,500
Engine output	kW/HP	160/217
Bucket capacity	m <sup>3</sup>	0.75-1.70



### **Machines for selected markets**

These wheeled excavators are designed for the special requirements in markets outside Europe, North America and Australia. With their powerful and robust engines that are specially designed for construction machinery, their solid construction and key components produced in-house, they meet the highest quality standards and are perfectly tailored for economical use in these countries.

- Road-legal and ideally suited for construction sites which involve a lot of driving
- Balanced weight distribution and high ballast weight for fast, fluid and safe working
- Outrigger and blade support ensures optimum stability with high payloads
- Powerful, reliable and yet economical diesel engine
- The machine concept enables high digging and breakout forces with simultaneous combined and flowing movements
- Ergonomically designed operator's work station for maximum comfort
- Consolidated lubrication points simplify manual lubrication and reduce maintenance time

		A 916 Litronic	A 918 Litronic	A 920 Litronic
Generation		5	5	5
Operating weight	kg	17,300	18,900	20,700
Engine output	kW/HP	115/156	120/163	129/175
Bucket capacity	m <sup>3</sup>	0.30-1.05	0.32-1.05	0.55-1.20







Liebherr has been developing rail-road excavators since 1967 and – as an OEM manufacturer – is the world market leader in this field. These machines are adapted to country-specific specifications (e.g. track width) and therefore comply with local conditions and safety regulations. Our rail excavators can be used either on the road or on railway tracks.

- Robust and powerful construction machine engine for high working speeds and continuous use under full load
- Different undercarriage variants, track widths and track wheels enable worldwide use on railway tracks
- High-quality, optimally matched Liebherr hydraulic components allow exceptionally precise movements
- Spacious double cab with roll-over protection (ROPS) as standard for comfortable, focused and productive work
- Numerous safety systems such as load torque, height and slew limitation or the virtual wall guarantee maximum safety in every application
- Variable-displacement double pump with independent regulating circuits for high driving and working performance
- Two high-pressure circuits for operating special attachments
- Maximum efficiency and productivity can be achieved by using the fully automatic Solidlink quick coupler system
- A large selection of attachments and optional equipment makes this machine perfect for a wide range of applications
- Easily accessible components, a service-oriented machine design and long replacement intervals for the high-quality hydraulic oils ensure low maintenance costs and short downtimes

		A 922 Rail Litronic	A 924 Rail Litronic	R 914 Rail Litronic
Generation		6	6	6
Operating weight	kg	20,400-23,400	21,800-25,000	18,900-19,900
Engine output	kW/HP	120/163	120/163	90/122
Bucket capacity	m <sup>3</sup>	0.24-0.95	0.24-0.95	0.17-0.80









### **Compact crawler excavators**

Our "Compact" crawler excavator series combines the versatility and performance of standard crawler excavators with the advantages of short-tail excavators. With its compact machine design, this crawler excavator is perfect for confined work areas and urban construction sites.

- Short tail radius for construction sites with tight spaces
- Diverse range of equipment enables a wide range of applications
- Good transportability
- Excellent visibility into the work area
- Dozer blade / stabilizer blade for maximum stability and productivity
- Extremely user-friendly
- Central maintenance points are accessible from the ground

		R 914 Compact Litronic	R 920 Compact Litronic	R 926 Compact Litronic	R 936 Compact Litronic
Generation		6	6	6	6
Operating weight	kg	14,900-17,850	18,750-21,900	25,500-29,450	33,800-38,250
Engine output	kW/HP	90/122	110/150	129/175	190/258
Tail radius	mm	1,550	1,850	1,700	1,975





### Standard crawler excavators

Low fuel consumption and enormously high performance characterise our standard crawler excavators and guarantee outstanding economic efficiency. In addition, these machines stand for high reliability and maximum comfort. These powerful, productive and efficient crawler excavators are used in mass earthmoving, material processing and quarrying.

- 8th-generation design
- Construction machinery engine that complies with the respective standards
- Excellent visibility into the work area
- Uppercarriage platform provides safe access
- Large selection of LED lighting
- High digging and breakout forces

		R 918 Litronic	R 922 Litronic	R 924 Litronic	R 926 Litronic	R 928 Litronic
Generation		6	8	8	8	8
Operating weight	kg	19,550-22,650	22,250-23,750	23,400-25,600	26,500-28,450	28,950-31,500
Engine output	kW/HP	120/163	120/163	129/175	150/204	150/204
	1	R 930 Litronic	R 934 Litronic	R 938 Litronic	R 945 Litronic	
		K 950 LITTOTIC			K 945 LITTOTIC	
Generation		8	8	8	8	
Operating weight	kg	30,400-36,350	34,800-37,200	37,300-40,400	41,400-47,250	
Engine output	kW/HP	180/245	200/272	220/299	220/299	





### Large crawler excavators

Liebherr's large excavators have been specially developed for tough and demanding applications and ensure consistently high performance in the mining and mass earthmoving industries. The versatile and modular Liebherr excavators provide the operator with the ideal conditions for low-fatigue and effective working.

- Reinforced undercarriages and equipment
- High safety thanks to cab safety guard
- Large selection of LED lighting
- High digging and breakout forces
- Large portfolio of backhoe buckets and shovel equipment
- Cab elevation for optimal visibility

		R 956 Litronic	R 960 SME Litronic	R 972 Litronic	R 978 SME Litronic	R 992 Litronic
Generation		6	6	6	6	6
Operating weight	kg	51,000-59,350	60,000-62,850	68,450-77,550	78,350-81,000	85,800-96,500
Engine output	kW/HP	250/340	250/340	330/449	330/449	420/571
,						

		R 992-E LITTONIC	R 998 SME LITTONIC	R 998 SME-E LITTONIC
Generation		6	6	6
Operating weight	kg	90,550-97,100	97,700-101,400	100,450-104,200
Engine output	kW/HP	400/544	420/571	400/544



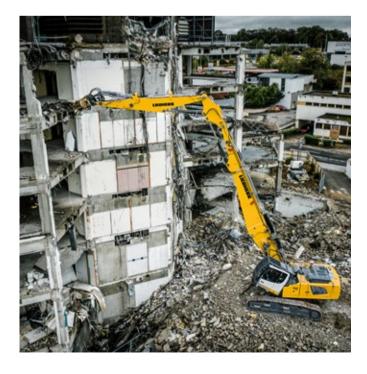


### **Demolition excavators**

Liebherr demolition excavators combine a variety of outstanding technical developments with durable components and innovative solutions. These special machines ensure optimum performance in all areas of selective mining. Their robust construction allows them to withstand extreme loads and ensures high availability and long-term, lasting profitability in tough demolition operations.

- The LDC system (Liebherr Demolition Control) visualises the position of the demolition equipment and thus ensures a high degree of safety and stability
- The 30° adjustable operator's cab ensures optimum visibility into the working area
- Easy transport thanks to the hydraulically adjustable undercarriage width and removable counterweight (optionally also hydraulic)
- The optional water sprinkler system prevents dust formation in the working area

		R 940 Demolition Litronic	R 950 Demolition Litronic	R 960 Demolition Litronic	R 980 Demolition Litronic
Generation		6	6	6	6
Operating weight	kg	48,700-63,900	53,100-75,850	77,300-97,700	180,000-205,000
Engine output	kW/HP	200/272	220/299	250/340	420/571
Working height	m	23	27,50	33	60





### **Tunnel excavators**

Liebherr tunnel excavators meet the highest demands for extreme underground use. The special tunnel swivel arm and various attachments, such as the cutter head, provide the necessary performance for tunnel construction.

- LED headlights for optimum visibility and increased user comfort
- Extremely robust and reliable mechanical and hydraulic quick couplers for a long service life
- Optional power increase and special hydraulic system for optimum use of the mill
- Short tail radius for work in confined spaces
- Reinforced undercarriages, equipment and bodies

		R 924 Compact Tunnel Litronic	R 950 Tunnel Litronic
Generation		5	6
Operating weight	kg	33,000-34,500	43,200-45,300
Engine output	kW/HP	129/175	190/258
Tunnel height	m	4.75-7.50	5.00-8.00





### **Machines for selected markets**

Power, economy, reliability, comfort and easy maintenance are among the strengths of Liebherr crawler excavators. These powerful and productive machines are used in mass earthmoving, material processing and in the quarrying industry. In each case, the engine is adapted to meet the specific exhaust gas regulations of the country concerned.

- Engines that meet the respective standards of the destination countries
- Excellent visibility into the work area
- Uppercarriage platform provides safe access
- Large selection of LED lighting
- High digging and breakout forces

		R 920	R 922	R 924	R 925	R 926
Generation		5	5	5	5	7
Operating weight	kg	21,000-21,500	22,150-25,600	24,550-25,100	25,250-25,800	26,350-27,700
Engine output	kW/HP	110/150	110/150	125/170	125/170	150/204
		R 928	R 930	R 934	R 938	R 945
Generation		<b>R 928</b> 7	<b>R 930</b> 7	<b>R 934</b> 7	<b>R 938</b> 7	<b>R 945</b> 7
Generation Operating weight	kg	<b>R 928</b> 7 28,750-30,300	<b>R 930</b> 7 30,050-32,200	<b>R 934</b> 7 34,150-36,400	<b>R 938</b> 7 36,800-39,550	<b>R 945</b> 7 40,800-46,400





# Mining excavators



### Liebherr mining excavators are known for their exceptional performance, excellent reliability, simple operation, operator comfort and easy serviceability.

- 30 years of experience in electric drive mining excavators with all machine models available ranging from 150t to 800t class
- Bucket capacities from 7 to 47.5 m³ (13 to 80 tonnes material weight)
- Powered by diesel engines or electric motors, with engine power ratings up to 4,000 HP
- Liebherr combustion engine compliant with Hydrogenated Vegetable Oil (HVO) fuel
- Tier 4 Final certified engine available
- New machine generation equipped with Liebherr Power Efficiency Solutions
- Electric drive system available for all Liebherr mining excavators
- Assistance systems

		R 9100	R 9150	R 9200	R 9250
Generation		6	7	7	6
Operating weight with backhoe equipment	t	113	130	205	250
Operating weight with face shovel equipment	t	116	130	210	253,5
Engine output	kW/HP	565/757	565/757	810/1,086	960/1,287
					•
	· 	R 9350	R 9400	R 9600	R 9800
Generation		<b>R 9350</b> 6	R 9400	R 9600	R 9800
Generation Operating weight with backhoe equipment	t	,	R 9400 6 345,5		,
	t	6	6	8	6





# Articulated dump truck





### **Articulated dump truck**

The new TA 230 Litronic has been developed for rugged off-road use. Its efficient drive-train, permanent  $6 \times 6$  all-wheel drive, reliable traction control and solid axle mounts enable the new Liebherr dump truck to tackle any terrain. This means it can produce incredibly fast cycle times – regardless of whether it is on a large construction site, in a quarry or in a tunnel.

- Powerful and robust 6-cylinder Liebherr construction machine engine for continuous operation under full load and enormous traction, even with difficult ground conditions and on slopes
- Maximum ground clearance and large bank angle enable excellent off-road mobility
- Optimal arrangement of components for quick, easy and safe maintenance
- Safe material transport and low material loss thanks to the perfect shape of the dump box
- Exhaust-gas-based dump box heating system ensures optimum heating performance in the dump box and thus smooth unloading
- Sloped engine bonnet for perfect all-round visibility and increased safety
- Overall width of less than 3 metres, even with wide tyres and tailgate, for quick and easy transport
- Innovative weighing system visualises the payload on the display during the loading process
- Modern driver assistance systems provide support and increase productivity and safety during operation

		TA 230 Litronic
Generation		8
Engine output	kW/HP	265/360
Empty vehicle weight	kg	24,600
Max. dump body capacity	m <sup>3</sup>	18.10
Payload	kg	28,000





### **Assistance systems**



#### **Automatic traction control**

The actively controlled inter-axle differential locks give the Liebherr TA 230 and automatic traction control system. As soon as slip occurs on one axle, the torque is intelligently redistributed to the axles with traction. Add-on axle differential locks deliver maximum forward momentum in the most adverse conditions.



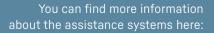
#### Hill start assistant

Release the brake, press the accelerator and move off uphill with full control. The standard hill start assistant prevents the nuisance of rolling backwards on gradients through its intelligent control of the starting torque thus enabling you to start on any gradient, safely and conveniently, regardless of whether the truck is fully laden or empty.



#### Height lift limitation

The TA 230 has been developed for a wide range of uses from one construction site to another. Our new dump truck has a height lift limitation for this purpose, which can be adjusted intuitively using the touchscreen display. When working in a height-critical area, the dump body lift is limited by this system. Easily and safely.





# Mining trucks



Liebherr provides mining trucks and customer-specific solutions that give a competitive edge at the lowest cost per ton in all equipment classes. Technical innovation, brand reliability, and excellent productivity make Liebherr trucks impressive.

- 30 years of proven design and operational experience
- Low emissions solutions available with Trolley Assist on all Liebherr mining trucks
- Complete Liebherr powertrain with the D98 engine
- Tier 4 Final certified engine available
- Liebherr AC drive system on all truck models providing a modular platform for future powertrain technologies
- Next generation of machine automation
- On-board operator assistance systems

		T 236	T 264	T 274	T 284
Nominal payload	t	100	240	305	up to 375
Gross vehicle weight	t	180	416	534	up to 617
Engine output	kW/HP	895/1.200	2,013/2,700	2,720/3,648	3,000/4,023









### **Compact loaders**

The L 504 – L 508 compact loaders combine power with safety, and they are flexible all-rounders for all types of application.

- The compact design provides a high payload with maximum stability and smooth convenient driving behaviour
- A wide range of working attachments, along with a High Lift version and a Speeder version, increase versatility and make the compact loaders into powerful and profitable all-rounders
- The modern, ergonomic cab design enables concentrated and fatigue-free work
- The extensive use of glass in the cab and the conical form of the lift arms ensure all-round visibility and greater safety

		L 504 Compact	L 506 Compact	L 508 Compact
Generation		8	8	8
Tipping load	kg	3,000	3,500	3,900
Bucket capacity	m <sup>3</sup>	0.70	0.80	1.00
Operating weight	kg	4,600	4,970	5,700
Engine output	kW/HP	34/46	47.5/64	47.5/64

The machine data is listed for the standard version. Available in all countries apart from USA and Canada.





### **Stereoloaders**

The L 507 – L 518 Stereoloaders impress with their compact design and outstanding manoeuvrability. Thanks to their unique stereo steering, a combination of articulated steering and steered rear axle, they are especially manoeuvrable and efficient.

- Stereo steering enables outstanding manoeuvrability in this machine class the Stereoloaders can manoeuvre safely even in tight spaces
- The damped articulated pendulum joint ensures a comfortable and stable driving behaviour on all types of terrain
- Faster work cycles, high payloads, and high machine availability result in a high handling capacity

		L 507 Stereo	L 509 Stereo	L 514 Stereo	L 518 Stereo
Generation		6	6	6	6
Tipping load	kg	3,750	4,430	5,750	6,550
Bucket capacity	m <sup>3</sup>	0.90	1.20	1.50	1.70
Operating weight	kg	5,550	6,390	8,860	9,190
Engine output	kW/HP	50/68	54/73	76/103	76/103

The machine data is listed for the standard version. Available in all countries apart from USA and Canada.





### Telescopic wheel loader

The telescopic wheel loader perfectly combines the lifting height and reach of a telescopic loader with the productive handling capacity of a traditional wheel loader, and is thus prepared for any operation.

- Specially designed telescopic lift arms enable high manipulation heights and long reach
- A unique steering system (stereo steering) and a compact design ensure extreme manoeuvrability and flexibility, which ensures precise and safe operation and improves operational efficiency
- Optimised Z-bar kinematics offer extremely precise parallel guidance in fork operation without manual readjustment

		L 509 Tele
Generation		6
Tipping load	kg	3,800
Bucket capacity	m <sup>3</sup>	0.90
Operating weight	kg	7,000
Max. payload for fork carrier and fork	kg	2,3001)
Max. lifting height for fork carrier and fork	mm	4,800
Engine output	kW/HP	54/73

 $<sup>^{1)}</sup>$  recommended payload for smooth surfaces = 80% of tipping load, articulated – according to 474-3

The machine data is listed for the standard version. Available in all countries apart from USA and Canada.





### Mid-size wheel loaders

The all-rounders among wheel loaders combine the best features of all the series and are genuine powerhouses. The efficiency of large wheel loaders and the manoeuvrability and versatility of small wheel loaders are perfectly combined in this machine class and provide exceptional productivity and performance.

- Powerful, optimised Z-bar kinematics and improved working hydraulics ensure maximum breakout, holding and return forces
- An optimised hydrostatic travel drive and increased engine power create considerable efficiency increases with consistently low fuel consumption
- Numerous assistance systems, such as active personnel detection and the automatic functions for the lift arms enable safe, efficient and convenient operation
- The L 538 Speeder convinces with greater speed and enables faster work cycles, especially over longer distances, which increases performance and productivity

		L 526	L 538	L 538 Speeder	L 546
Generation		8	8	8	8
Tipping load	kg	8,730	9,650	9,900	11,010
Bucket capacity	m <sup>3</sup>	2.20	2.60	2.60	3.00
Operating weight	kg	13,170	14,520	14,850	15,410
Engine output	kW/HP	116/158	129/175	168/228	138/188

The machine data is listed for the standard version.





### **XPower wheel loaders**

XPower® is an innovative machine concept that combines performance, fuel-efficiency, robustness and comfort. With their power-split travel drive, the XPower wheel loaders work with superior economy and maximum efficiency for all applications.

- The Liebherr XPower travel drive combines the hydrostatic drive for short loading manoeuvres with the mechanical drive for long distances and inclines
- The powerful and efficient travel drive ensures maximum efficiency for all requirements, and thus a low fuel consumption and lower operating costs
- Available with industrial or Z-bar kinematics as well as various attachments for a high handling capacity
- Intelligent component installation ensures greater productivity due to lower wear and reduced downtimes

		L 550 XPower®	L 556 XPower®	L 566 XPower®	L 576 XPower®	L 580 XPower®	L 586 XPower®
Generation		6	6	6	6	6	6
Tipping load	kg	12,500	13,750	15,900	17,600	19,200	21,600
Bucket capacity	m <sup>3</sup>	3.40	3.70	4.20	4.70	5.20	6.00
Operating weight	kg	18,550	19,600	23,900	25,700	27,650	32,600
Engine output	kW/HP	163/222	183/249	203/276	218/296	233/317	263/358

The machine data is listed for the standard version.





### **Machines for selected markets**

This wheel loader series is specially designed for the requirements of markets outside Europe, North America and Australia. The Liebherr wheel loaders stand out especially in these regions due to their familiar Liebherr quality, their impressive power and their fuel efficiency.

- Sophisticated engine concepts adapt to the respective requirements of the target country
- The hydrostatic travel drive enables optimal load transmission to the components, which significantly improves working efficiency and promotes faster loading cycles
- The fuel-saving drive concept also reduces operating costs and the environmental load while providing maximum handling capacity
- Specially developed components, sophisticated technology and high-quality materials ensure high levels of reliability and availability
- The spacious and ergonomic operator's cab provides the perfect conditions for safe, comfortable and productive work

		L 524	L 538	L 550	L 566	L 580
Generation		5	5	5	5	5
Tipping load	kg	7,500	9,500	12,430	15,900	18,950
Bucket capacity	m <sup>3</sup>	2.00	2.50	3.40	4.20	5.20
Operating weight	kg	10,400	12,800	17,750	23,450	26,950
Engine output Stage II	kW/HP	-	-	168/228	200/272	219/298
Engine output Stage IIIA	kW/HP	86/117	104/141	-	-	_
Engine output BS4	kW/HP	-	-	168/228	-	-
Engine output NR-IV	kW/HP	-	-	161/219	212/288	224/305

The machine data is listed for the standard version.





### **Assistance systems**



### Rear personnel detection with automatic braking

Four eyes are better than two – active personnel detection helps the operator avoid collisions with people and obstacles. This is achieved through active warning and an automatic brake assistant, with the assistant reacting to persons at a greater distance than to other obstacles. This avoids unnecessary warnings and braking interventions while improving safety and productivity at work.



#### Roof camera for front area monitoring

Extended view – the roof camera for front area monitoring greatly extends the field of vision in front of the wheel loader. Particularly when using large working attachments such as light material and high dump buckets, persons in the area can be identified more easily and quickly, thus greatly reducing the potential risk.



#### Liebherr weighing device with "Truck Payload Assist"

Intelligently balanced – the integrated weighing system not only determines the weight of the individual bucket loads, but Truck Payload Assist shows the operator the ideal target weight for each work cycle based on the total amount to be loaded. This helps make loading cycles faster and more accurate, protects the machine and increases productivity.



### Skyview 360°

Everything in view – the Skyview 360° system has been fundamentally revised and now has impressive high-definition image quality. The system offers an overview of the whole area around the machine, so that potential hazards can be identified earlier and accidents prevented. The work cycles can be carried out faster, more efficiently and more safely, saving time and money.



### **Automatic bucket functions**

Automatically practical – the optional and individually available assistance systems allow faster work cycles for more effective and therefore more productive work. The automatic lift arm functions include a bucket tilt assistant, stroke limit damping, a visualisation of the equipment position, a programmable bucket return-to-dig function, and programmable auto lifting and lowering.



### Integral tyre pressure monitoring system

Perfect pressure – the sensor-based, integrated tyre pressure monitoring system provides an important overview of the current tyre pressure. As soon as the pressure changes, a warning appears on the display.

You can find more information about the assistance systems here:





When it comes to perfect utilisation of limited space, the Liebherr telescopic handlers show their strength as powerful universal machines: fast and manoeuvrable with strong working hydraulics for transporting large volumes of material efficiently and offloading them quickly to the maximum height.

- Continuously variable hydrostatic travel drive with maximum drawbar pull and powerful Liebherr working hydraulics
- Compact cab with perfect all-round visibility
- Compatible with quick coupler systems from other manufacturers for an easy transition
- Available with "Auto Power" and "Auto Hill Assist" for optimised loading cycles and unique operator comfort

		T 32-7	T 35-6	T 36-7	T 41-7	T 33-10
Generation		4	4	4	4	4
Engine output	kW/HP	100/136	100/136	100/136	100/136	100/136
Operating weight	kg	7,280	7,320	7,310	7,460	8,050
Lift height	m	6.9	6.1	6.9	6.9	9.7
Reach	m	4.1	3.2	4.0	4.0	7.2
		T 32-7s	T 35-6s	T 36-7s	T 41-7s	T 33-10s
Generation		4	4	4	4	4
Engine output	kW/HP	100/136	100/136	100/136	100/136	100/136
Operating weight	kg	7,585	7,510	7,420	7,640	8,230
Lift height	m	6.9	6.1	6.9	6.9	9.7

		T46-7s	T55-7s	T60-9s
Generation		4	4	4
Engine output	kW/HP	100/136	115/156	115/156
Operating weight	kg	8,995	11,500	11,700
Lift height	m	7.0	7.0	8.8
Reach	m	3.8	3.9	4.9

Not available in USA and Canada etc.

Reach

More information is available here:











### **Crawler tractors**

Always utilise the full performance – even with changing weather conditions and material qualities. Whether during heavy shifting operations or precise levelling: Liebherr crawler tractors keep you in the fast lane. The hydrostatic travel drive always provides the optimum pushing speed. Driver assistance systems guarantee maximum levelling quality and efficiency.

- Continuously variable hydrostatic drive for maximum productivity and efficiency due to constant engine speed and ECO mode
- Outstanding levelling capabilities and generation 8 driver assistance systems as standard
- Quiet comfort cab where all control elements can be individually adjusted to the operator, and with perfect visibility in every direction
- Centralised and easily accessible maintenance points and tilting cab as standard for maximum machine availability

		PR 716	PR 726	PR 736	PR 746	PR 756
Generation		8	8	8	8	8
Engine output	kW/HP	97/132	125/170	160/217	190/258	260/353
Operating weight	kg	13,300-15,800	17,500-20,800	21,200-25,500	25,900-31,500	35,400-43,000
Capacity	m <sup>3</sup>	2.92-3.30	3.33-3.87	4.10-5.56	6.00-7.20	8.92-11.80
Speed	km/h	0-10	0-11	0-11	0-11	0-11

PR 766	PR 776
Generation 8	6
Engine output kW/HP 310/422	565/768
Operating weight kg 53,460-54,333	71,800-73,189
Capacity m <sup>3</sup> 13.60-17.00	18.50-22.00
Speed km/h 0-10.5	0-10.5





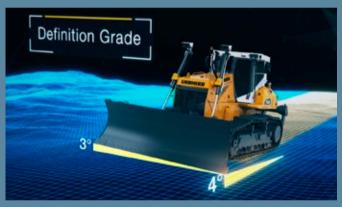
### **Assistance systems**



### Let your creativity run wild

The "Free Grade" Liebherr assistance system is provided as standard, providing active blade stabilisation during the levelling of surfaces, ramps and banks on longitudinal and lateral slopes. The system improves the levelling quality of unpractised operators – and provides convenient relief for professionals. This increases productivity while also saving time.

Due to the continuous graphic display of the blade and crawler position, "Free Grade" also functions as a fall-back solution if laser or GPS systems fail.



### Define your standard

"Definition Grade" is standard in all new generation 8 crawler tractors and makes it possible to model a surface without a rotation laser. All you need is a point of reference from your surveying technician. Automatic blade lowering to the reference dimension makes the creation of a precise 2D surface into child's play – even over long distances and in different directions of propulsion.

You need neither a laser nor a machine control system with a satellite connection. At the same time, the Liebherr technology enables levelling speeds that have not been reached before.



You can find more information about the assistance systems here:



### Precision in every dimension

The optional roof-mounted "3D Grade" solution (Topcon) is assembled and calibrated at the factory, so you can get started straight away. The fully automatic machine control system positions the 6-way blade of your crawler precisely in all three dimensions. An open architecture and standardised terrain models allow easy integration into digital construction site processes.

### Ready for Trimble and Leica

As a further option, preparations for fitting the latest 2D and 3D machine control systems from Trimble and Leica are available for your Liebherr crawler tractor, allowing you to upgrade your machine for future operations at any time.



Maximum traction and breakout forces with unbeatable manoeuvrability: Liebherr crawler loaders serve in operating locations that remain out of reach for other construction machines. With an efficient hydrostatic travel drive and intelligent driver assistance systems, they integrate themselves into earthwork sites as perfect all-rounders.

- A continuously variable and always friction-locked hydrostatic travel drive for enormous propulsive force and outstanding manoeuvrability
- Individually adjustable working hydraulics with intelligent assistance systems for fast loading cycles
- High working comfort due to large noise- and vibration-dampened cab, ergonomic control elements and automatic air conditioning
- Outstanding visibility, ideal illumination of the working environment and fast service accessibility for safe operation and high machine availability

		LR 626	LR 636
Generation		8	8
Engine output	kW/HP	110/150	135/184
Operating weight	kg	16,460-19,360	21,690-23,047
Bucket capacity	m <sup>3</sup>	1.50-1.80	1.90-4.60







Whether laying pipes on slopes or soft ground: A high load force, a continuously variable hydrostatic drive, precisely controllable working hydraulics and intelligent safety functions enable maximum productivity and construction site safety.

- Robust and proven construction with special cold and heat options for maximum machine availability at any operating location
- Large comfort cab, designed according to the latest ergonomic insights, with optimal visibility of the operating area
- Sophisticated safety concept: Roll over protective structure cab, variable adjustment boom cylinders, automatic parking brake, load moment limitation etc.
- Low-maintenance hydrostatic drive system with load-sensing working hydraulics for lower fuel consumption
- Intuitive single-lever control of travel and working hydraulics and precise boom guidance via lift cylinder

		RL 56	RL 66
Generation		6	6
Engine output	kW/HP	210/286	275/374
Operating weight	kg	46,050-46,280	59,350-59,900
Lift capacity	kg	72,000	98,100





In addition to material handling, gravel extraction and recycling, Liebherr's duty cycle crawler cranes are used mainly for deep foundation work. The product range includes machines for all performance classes from 40 tonnes to 300 tonnes. The proven machines are distinguished through flexibility, cost effectiveness and outstanding performance.

- State-of-the-art drive and control systems
- Low-maintenance free-fall winches with high pull forces
- High energy efficiency minimum consumption despite high turnover
- Ideal for continuous operation in material handling operation thanks to robust design

		HS 8040.1	HS 8070.1	HS 8100.1	HS 8130.1	HS 8200	HS 8300.2
Max. capacity	t	40	70	100	130	200	300
Min. transport weight	t	41	47	40	51	47	69
Min. transport width	mm	3,000	3,000	3,500	3,500	3,500	3,980
Dragline bucket max. depth	m	13	14	15	17	22	25
Dragline bucket max. capacity	m <sup>3</sup>	1.9	3.1	4.6	5.4	7.6	10.8
Clamshell grab							
mechanical/hydraulic	m³	3/-	6/7	7/8	8/10	14/17	15/22
Pull force winches							
(2 winches each)	t	2 x 16	2 x 20	2 x 27.5	2 x 35	2 x 35	2 x 50
Engine output	kW	230	320	390	565	750	750









### Deep foundation machines

### **Drilling rigs**

Liebherr drilling rigs (LB series) are suitable for a wide spectrum of applications in the deep foundation sector. In addition to Kelly drilling, they are also commonly used for continuous flight auger, full displacement, and double rotary drilling. Down-the-hole drilling is an exceptionally efficient method when working in hard ground or rock.

- User-friendly rotary drive with high torque
- Optimum force transmission, thus low wear and long service life
- Designed for continuous operation
- Fast working cycles achieved
- High stability thanks to long crawlers

		LB 20.1	LB 25	LB 30	LB 35	LB 45	LB 55
Weight	t	52.8	71.5	78.5	100.1	116	159
Max. torque	kNm	200	250	300	347	452	550
Max. pull / crowd force	kN	200	300	320	400	400	560
Kelly drilling max. drilling depth	m	34.5	58.8	70.8	77	95	120
Kelly drilling max. drilling diameter	mm	1,500	3,300	3,400	4,100	4,500	4,200
Engine output	kW	230	320	320	390	390	565
Available as battery-powered version		LB 16	LB 25	LB 30			
		unplugged	unplugged	unplugged			





### Deep foundation machines

### Piling and drilling rigs

The combined piling and drilling rigs (LRB series) are suitable for carrying out piling work with vibrator or hydraulic hammer on the one hand, and for drilling applications using a double rotary head, continuous flight auger, or Kelly drilling equipment on the other. The universal machines are characterised by both high performance and reliability, as well as high efficiency.

- Excellent stability and low ground pressure thanks to an especially robust undercarriage
- Rope crowd system for high pull and crowd forces
- Large working area thanks to parallel kinematics
- Compact uppercarriage resulting in a small swing radius
- Easy transportation and quick set-up

		LRB 16	LRB 18	LRB 23	LRB 355.1
Weight	t	50	52	73-83	95-109
Max. crowd distance	m	16	18	23	27
Max. pull / crowd force	kN	200/150	200/150	320	400
Max. torque rotary drive	kNm	120	120	300	450
Engine output	kW	390	390	600	600
					750





### Deep foundation machines

### **Piling rigs**

The piling rigs (LRH series) with a fixed or swinging leader are the first choice when large radii and extreme angles are required. The combination of carrier machine from the successful series of duty cycle crawler cranes, drilling rigs, or crawler cranes and a stable leader convinces with excellent performance and flexibility.

- Robust leader thanks to the lattice design
- Sophisticated leader kinematics for high radii and inclinations
- Vertical leader adjustment for larger working ranges
- Optimum electrical and hydraulic control of leader and working attachments
- High level of stability and working safety

		LRH 100.1	LRH 200	LRH 600
Max. pile length	m	19	24.5	34/44/55
Max. pile weight	t	8	16	40
Max. inclination		1:3	1:3	1:4/1:3
Radius	m	8.7	7.8	15
Hammer		H 6	H 6, H 10	H 15
Impact energy	kNm	72	120	225
Carrier machines		LB 25	LB 30	HS 8200 LR 1300.1 SX, LR 1400 SX
Available as battery-powere	ed version	LRH 100.1 unplugged	LRH 200 unplugged	





### Duty cycle crawler cranes and deep foundation machines

### Assistance systems



### **MyJobsite**

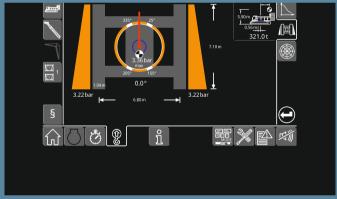
Using the MyJobsite software solution all relevant process, machine, construction site, and positioning data (LIPOS) can be recorded, displayed, analysed, managed, and evaluated in one central location. The collected data can be accessed via a web browser when an internet connection is active.

With the recorded PDE data, a working protocol is automatically generated as proof of quality directly after completion of a work process. The parameters of the driving protocol can be defined and assigned in advance, which is a significant time-saver.



### LIPOS - Liebherr positioning system

Deep foundation machines from Liebherr equipped with LIPOS create the ideal conditions for precise positioning and execution of drilling and pile driving activities. The positioning system supports the machine operator with the precise alignment of the attachment tools using the latest satellite technology. The recorded data serves as evaluation of the jobsite and can be used as proof of quality. The deep foundation jobsite becomes transparent and comprehensible.



### **Ground pressure visualisation**

The ground load-bearing capacity and the monitoring of the ground pressure are decisive for the safe operation of a construction machine. Ground pressure visualisation calculates the current ground pressure of the machine in real time and compares it with the specified safety limits that the operator has entered in the control system. Machine centre of gravity and ground pressure are displayed on the control monitor so that the operator can avoid dangerous situations.

You can find further digital solutions and assistance systems here:



# Quick coupling systems and attachments





### **Quick coupling systems**

Liebherr's quick coupler systems, which have been tried and tested for decades and are subject to continuous development, guarantee maximum safety and efficiency as well as outstanding flexibility. Almost any hydraulic or mechanical attachment can be changed conveniently, quickly and easily. Depending on the machine and application, the fully automatic Solidlink quick coupler system as well as hydraulic or mechanical quick coupler systems are available.

Depending on the configuration level of the quick coupler system:

- Load lift hooks with solid safety flaps
- Quick coupler adapter made of high-strength sheet steel
- Positive locking transverse to the digging direction
- Maximum safety thanks to sensors for position and attitude monitoring
- The locking pin is visible from the cab during attachment changes
- Efficient attachment changes in seconds, controlled from the cab
- Robust and durable coupling block for hydraulic and electrical connections
- Offers maximum flexibility in daily use on the construction site
- Increased machine utilisation of up to 90% thanks to the expanded application spectrum

	Fully automatic quick coupler system Solidlink	Hydraulic quick coupler system	Mechanical quick coupler system
Opening / closing the quick coupler	hydraulic	hydraulic	manual
Connecting / disconnecting the hydraulic lines	automatic	manual	manual
Available for	hydraulic excavators, wheel loaders	hydraulic excavators	hydraulic excavators





## Attachments for hydraulic excavators

Liebherr develops numerous attachments which, in terms of their shape, build and technical equipment, are specially tailored to the respective applications and the size of the respective machines. Real-world experience and continuous product updates ensure that Liebherr attachments are always state-of-the-art.

- Our large bucket range offers a perfect selection for a wide variety of jobs in accordance with the respective ground conditions. Depending on bucket type, use and ground condition, a choice can be made between a cutting edge, different teeth and other features. Our backhoe and 2in1 buckets, with their innovative geometry and optimum weight, enable perfect penetration and low digging resistance, while our tilt and ditch cleaning buckets are ideal for levelling work and slope grading thanks to their internal and thus optimally protected slewing cylinder and wide cutting edge.
- Clamshell grabs with different shell types and sizes are ideally suited to a wide range of applications and can be specified with numerous optional features. Large, flow-optimised oil ducts and powerful rotary actuators ensure fast work cycles, while the sealed rotary drive and solid construction guarantee a long service life.
- Robust sorting and demolition grabs are available for tasks in the fields of quarrying, demolition and river engineering.
- The tilt angle and endless rotation of the tiltrotator, as well as the tilt angle of the LiTiU tilt unit, extend the working range and application spectrum enormously, even in places that are difficult to access. Your flexibility and productivity can thus be vastly increased, and the elimination of shunting the machine into position protects the ground.
- The stick extension, pallet fork and a wide range of load-lifting attachments turn our hydraulic excavators into multifunctional working machines on any construction site and offer countless expanded applications.









### Service

## Our solutions for your satisfaction

### Reliability and support - for decision-makers and easy planning

Are you interested in more than just short term success – do you also want to be successful in the long term? Do you regard success not just in terms of turnover, but also in terms of satisfied customers and the conservation of resources? Our comprehensive service network delivers consistency and a sound basis for planning – today and in the future. If necessary, our experts are available for you 24/7. Furthermore, our genuine parts and service experts will ensure that your machines retain their value.

### Saving time - hand in hand to find the perfect solution

Do you want to maintain and service your machines yourself? In the evening, do you want to get everything ready quickly and flexibly for the next day's work?

With the MyLiebherr portal, you can access all our services and solutions with just a few clicks. Use our sophisticated logistics for fast deliveries of the parts you require, all in genuine manufacturer quality, of course. This will enable you to maximise the efficiency of your operations. If you get stuck, our MyAssistant will support you and our experts are only a phone call away.

### Transparency – ensure your "number crunchers" always have access to detailed information about availability, costs and much more

Modular maintenance packages and Reman components to suit your company and budget.

Do you tend to focus on the numbers and the information they convey? Do you want to keep your current investments under review at all times and ideally be able to calculate in advance how much using the machine will cost, and evaluate its availability?

Liebherr's modular CarePacks are tailored to your needs to show you in advance precisely what costs you can expect to bear to ensure that your machine will continue to perform at its best in the future. For older machines, our Reman range delivers a smart, low cost solution for your business.



For further information, services and contact details, visit:



### Service

## A selection of our services for you



### MyLiebherr

Whether construction machines, mining equipment, mobile and crawler cranes, material handling equipment, maritime cranes or components: at www.myLiebherr.com you will find everything you need for your Liebherr machines. Our customer portal offers extensive, digital services and software applications. You can also contact Liebherr and our service partners directly.



### CarePacks

Investments that can be clearly planned and advance machine planning – all this is made easy with our modular CarePacks. That leaves you to concentrate exclusively on your work.



### Reman range

The same performance and quality as a new part with reduced costs – this is what the replacement parts in our Reman range deliver. An ideal solution, particularly for older machines, that also lets you contribute to the conservation of valuable resources.



### **MyAssistant for Earthmoving**

The MyAssistant for our Earthmoving app provides you with contextual data from various databases around the world relating to the operation and maintenance of your machines – simply, quickly and intelligently.

#### Liebherr-Mining Equipment Colmar SAS

49 rue Frédéric Hartmann 68025 Colmar Cedex, France Phone +33 369 49 20 00 info.lec@liebherr.com www.liebherr.com www.facebook.com/LiebherrMining

#### Liebherr-Werk Bischofshofen GmbH

Postfach 49 5500 Bischofshofen, Austria Phone +43 50809 1-0 Fax +43 50809 11385 info.lbh@liebherr.com www.liebherr.com www.facebook.com/LiebherrConstruction

#### Liebherr-Werk Nenzing GmbH

Dr. Hans Liebherr Straße 1
6710 Nenzing, Austria
Phone +43 50809 41-473
Fax +43 50809 41-499
www.liebherr.com
crawler.crane@liebherr.com
www.facebook.com/LiebherrConstruction

#### Liebherr-France SAS

2 avenue Joseph Rey, B.P. 90287 68005 Colmar Cedex, France Phone +33 389 2130 30 info.lfr@liebherr.com www.liebherr.com www.facebook.com/LiebherrConstruction

### Liebherr Mining Equipment Newport News Co.

4100 Chestnut Avenue Newport News, VA 23607, USA Phone +1 (757) 245 5251 Fax +1 (757) 928 8755 info.lme@liebherr.com www.liebherr.us www.facebook.com/LiebherrMining

#### Liebherr-Werk Telfs GmbH

Hans-Liebherr-Straße 35
6410 Telfs, Austria
Phone +43 50809 6-100
Fax +43 50809 6-7772
lwt.marketing@liebherr.com
www.liebherr.com
www.facebook.com/LiebherrConstruction



