

Compact Loaders

L 506 / L 508

Compact

Compact

Generation

6

Tipping load

3,450 kg – 3,850 kg

Engine

Stage V



LIEBHERR

Performance

Power for
Increased Productivity

L 506 Compact

Tipping load, articulated

3,450 kg

Bucket capacity 0.8 m³

Operating weight 5,160 kg

Engine output 46 kW/63 HP

L 508 Compact

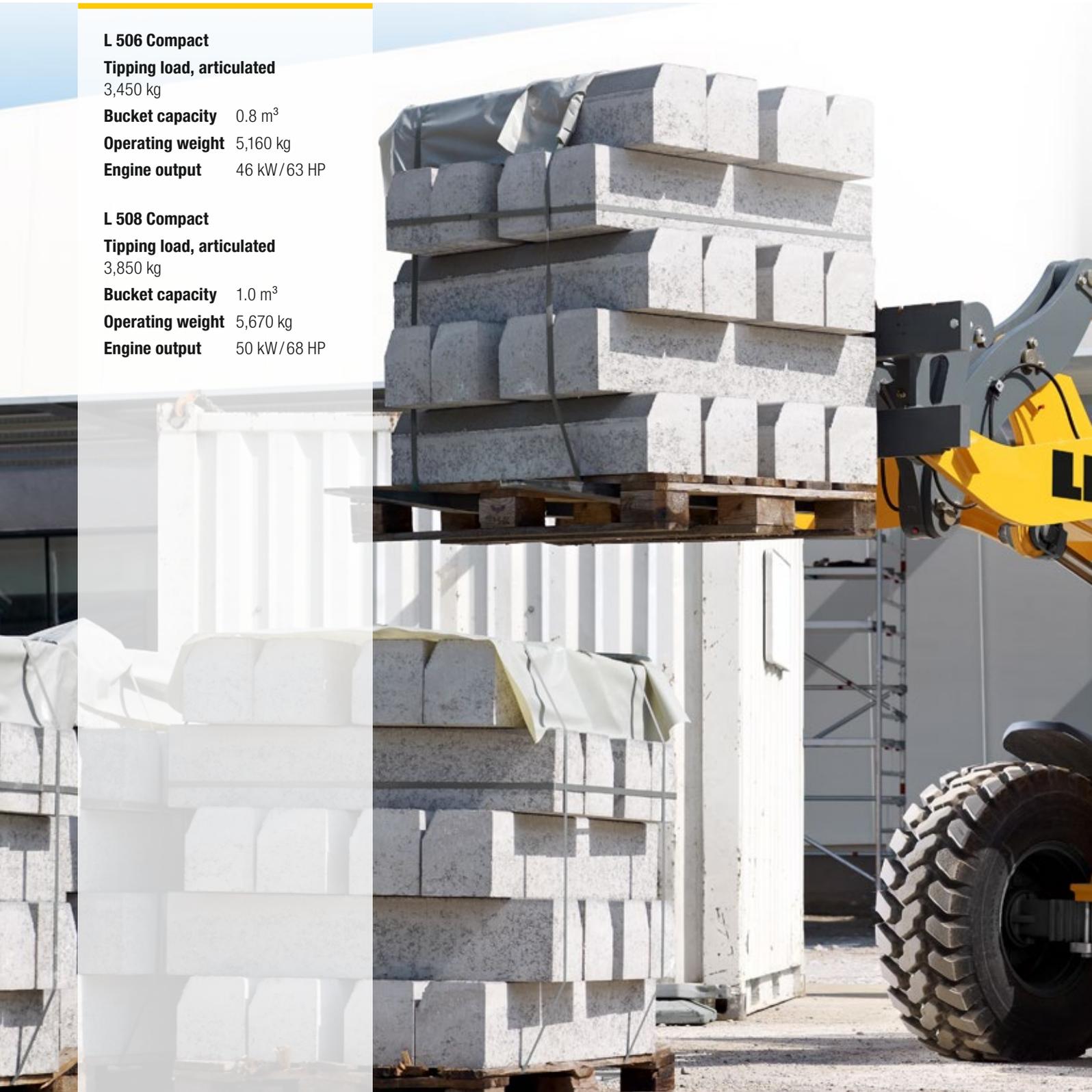
Tipping load, articulated

3,850 kg

Bucket capacity 1.0 m³

Operating weight 5,670 kg

Engine output 50 kW/68 HP



Economy

Minimum Costs at
High Handling Capacity

Reliability

Robustness and Quality
for Durable Machines

Comfort

Maximum Operator Comfort
for More Productivity



Performance



Power for Increased Productivity

The Compact Loaders combine power with safety and are also very flexible to use. With the 50 kW L 508 Liebherr has the only compact loader on the market with such a low machine height design in this capacity class. The compact design makes the wheel loaders flexible whilst also ensuring maximum stability and tipping safety.

Powerful and Efficient Machine Concept

Highest Level of Performance

The high-performance Liebherr wheel loaders L 506 Compact – L 508 Compact are the ideal solution for all applications. They are suited to road construction, municipal tasks and diverse construction applications. Their low machine height design means that their centre of gravity has been shifted downward. This results in increased stability and safety on all terrains. At the same time, the compact design combined with a low operating weight means that the loaders can carry high payloads and therefore provide excellent handling capacity.

Fast and Safe Load Transport

The tapered design of the lift arm ensures excellent visibility. The lift arm narrows towards the cab to provide excellent visibility of the equipment and load. The cab's windscreen extends on both sides to floor level, thus enhancing visibility of the whole working area in front of the machine. The geometry of the equipment ensures particularly good stability and high handling capacity.

Flexibility and Versatility

Lift Arm Optimised for the Application

The Z-bar linkage provides maximum power, regardless of the task. It delivers high breakout forces in the lower lift arm position. The ideal prerequisite for conventional wheel loader applications – simple, quick filling of the bucket leads to high handling capacity. At the same time, it boasts high holding forces in the upper lift arm area. The best solution for industrial use as it allows transporting heavy loads. In fork operation, the Z-bar linkage provides precise parallel control over the entire lifting range. Secured against tipping out of position, the loading fork allows for working in a particularly safe, smooth and precise manner.

Wide Range of Applications

The wide range of attachments means the right tool is always to hand. This enables the Compact Loaders to act as powerful and profitable all-rounders, ready to tackle the widest possible variety of applications with ease. The hydraulic quick hitch as standard, LIKUFIX optional, allows quick and efficient attachment changeover. This improves the utilisation of the machine, boosts productivity and greatly extends the range of possible applications.

Compact Design

- Particularly compact and low design: Overall height is less than 2.5 meters
- Excellent weight distribution: The centre of gravity is particularly low due to the compact design and therefore high payloads and maximum stability and tipping safety



Tapered Lift Arm

- Parallel guidance in fork mode over the entire lifting range for safe lifting of loads without manual adjustment (no loss of load)
- Excellent visibility of the equipment during loading and unloading



Practical, Versatile and Flexible in Use

- Z-bar linkage for increased productivity in all applications
- Optimised load guidance provides for safer, smoother and more precise working
- Quickly interchangeable attachments increase productivity



Economy



Minimum Costs at High Handling Capacity

The Compact Loaders provide companies with a safe, practical and compact machine – and they all offer unbeatable value for money! Their low machine height design ensures that the machines are flexible to use and transport. Transporting the Compact Loaders will rarely be hampered by a tunnel or underpass with low clearance.

Quickly Applicable Everywhere

Compact Design

The compact, low design further increases the flexibility of the Compact Loaders in usage: The machines have a low weight and a particularly low height at just 2.5 m. This means they will fit through most tunnels or underpasses and can be transported by tipper vehicles or in high cube containers. The low machine height makes them ideal for unique work in low entrances and at low clearance heights. At the same time the Compact Loaders guarantee the safe transportation of high payloads and thus an excellent handling capacity.



Low Machine Design

- Fast and straightforward transportation due to low machine height design of less than 2.5 meters
- Efficient and flexible use – low entrances and clearance heights on site are not an obstacle

Profitable Investment

Maximum Productivity at Low Purchase Cost

The powerful hydrostatic Liebherr driveline allows smooth, continuous acceleration without noticeable gear shifting or interruption in tractive force. Excellent traction, even in heavy terrain, is a result of the automatic self-locking differential. Powerful working and high driving comfort increases productivity. Their compact design, powerful lift arm with parallel control and high payloads despite the small machine size enable the Compact Loaders to provide maximum efficiency of use at a low purchase cost – an excellent value for money.



Efficient Use

- Maximum productivity by high payloads
- Excellent traction even in heavy terrain
- Quick and safe control saves time and money

Efficient and Simple Maintenance

Safe and Free Service Access

The entire engine compartment is accessible via just one access panel. All points requiring day-to-day maintenance can be reached comfortably, safely and cleanly from the ground. A mere walk-around inspection will suffice when the machine is handed over between operators. All check points and fluid levels are instantly visible during a machine walk-around.



Optimum Service Accessibility

- The entire engine compartment is accessible via just one enclosure
- All points for daily maintenance can be reached from the ground
- Short downtimes means more efficiency

Reliability



Robustness and Quality for Durable Machines

Decades of experience in the development and production of wheel loaders has been used in the development of the Liebherr Compact Loaders. At the same time special attention was paid to the wishes and needs of our customers during the development process. The result is the safest, most practical and also the most compact machine in this segment which offers high quality and reliability thanks to its sophisticated technology and coordinated components.

OEM Quality Components

Durable and Powerful

Liebherr has many decades of experience in the development, construction and production of components. Ideally adapted to each other, they guarantee a high degree of performance and reliability. Liebherr also develops and produces all steel components. These rugged components ensure the long life of the wheel loaders.

Strenuous endurance tests prove to the strength and quality of the components in use. Even under the toughest of usage conditions, the Compact Loaders satisfy Liebherr's stringent quality standards. This ensures reliable use throughout the entire life time of the machine. Consistently powerful machines increase productivity.

Liebherr Drive Concept

The components of the tried and tested hydrostatic Liebherr driveline are extremely robust and powerful. This ensures that the machine has a long life time and will work reliably even under the toughest of operating conditions. The diesel engine is water-cooled. This ensures constant cooling particularly for travelling uphill and in high outdoor temperatures.



Powerful Components

- Ideal interaction of components to each other for maximum performance
- Maximum endurance even under the toughest operating conditions
- Rugged, durable machines for reliable operations

High Level of Machine Utilisation

- Safe, practical and compact machine for an efficient use
- Reliable cooling performance of the diesel engine thanks to water cooling system
- Sophisticated machine concept for safe and reliable operation

High Machine Availability

- High, safe and versatile usage thanks to robust and powerful components
- Tried and tested exhaust gas treatment system
- Continuous use thanks to active regeneration during operation

High Safe and Versatile Usage

Innovative Exhaust Gas Treatment

To reduce exhaust emission, the exhaust gas treatment system of Compact Loaders is equipped with a Diesel oxidation catalyst (DOC) and a diesel particle filter (DPF). This time-tested solution is state-of-the-art in this machine class and effectively reduces exhaust emissions.

Continuous Use

The diesel particle filter can be burned free by active regeneration during operation in the usual manner, thus allowing uninterrupted operation. The long intervals between regeneration increase productivity, save fuel and reduce operating costs.

Comfort



Maximum Operator Comfort for More Productivity

The cab design is optimally adapted to the operator's day-to-day requirements. The roomy and ergonomic operator's cab and easy operation of Compact Loaders create perfect conditions for comfortable and productive working.

Clearly Arranged Cab

Productive and Safe Working

The modern, ergonomic cab design allows the operator to work with high concentration without fatigue – this increases safety and productivity. The displays, controls and operator's seat are carefully coordinated to form an ergonomic unit. The operating and control instruments are well laid out and user-friendly and guarantee simple handling. Operators using the machine for the first time can quickly familiarise themselves with its operation. This saves time and increases on-site flexibility.

Perfect Visibility

The high proportion of glass in the cab, which in part has been taken down to floor level, and the tapered design of the lift arm offer exceptional all-round visibility of the attachment and working area. Optimised for visibility, the compact machine design and the engine hood design provides a largely unobstructed view towards the rear. Even in confined spaces, maximum safety for people, the machine and the load is guaranteed.



Exceptional All-Round Visibility

- Improved visibility of the equipment and load due to the tapered design of the lift arm (which narrows towards the cab)
- Excellent visibility in all directions due to the high proportion of glass in the cab incl. partially glazed foot area

Simple and Intuitive Operation

Liebherr Control Lever

The Liebherr control lever allows all working and manoeuvring operations to be performed with a high degree of precision and sensitivity. This ensures precise and safe operation.

The proportional control of hydraulic attachment is carried out by the Liebherr control lever with mini-joystick. The hydraulic attachment can be controlled with great sensitivity and very ergonomically.

Comfortable and Stable Driving Performance

The articulated oscillating centre pivot compensates for uneven ground features and provides for excellent overall and tipping stability and maximum driving comfort even when crossing obstacles. The machine's stability is also enhanced by its compact design and resultant low centre of gravity. This significantly increases efficiency of use.

LIKUFIX

LIKUFIX is a hydraulic quick hitch with an integral automated hydraulic coupling system, which is available as an option. A wide range of hydraulic and mechanical attachments can be changed fully automatically, safely and without any oil leaks direct from the cab in a matter of seconds by pressing a button. LIKUFIX contributes to higher utilisation of the Compact Loaders, thus increasing operational efficiency.



Safe, Comfortable and Wide Entry

- The cab can be entered and exited in a comfortable and safer manner, even with the Compact loader in its fully pivoted position
- Quick and safe cab access boosts productivity



Unique Oscillating Centre Pivot

- Uneven ground features are compensated for
- Excellent stability and tipping safety
- Comfortable and stable driving performance increases efficiency of use

Safety in and Around the Machine

Personnel Safety

- + Excellent all-round visibility
- + Optimal visibility of the equipment and the load
- + Comfortable and safe access for productive working
- ✓ Generous glass surfaces of the operator's cab
- ✓ Compact machine design
- ✓ Tapered design of the lift arm
- ✓ Optimised hydraulic quick hitch, LIKUFIX optional
- ✓ Broad access ladder with anti-slip steps and sturdy handrails

Cargo Safety

- + Safe lifting of the load without manual adjustment and without loss of load
- + Fast, safe positioning of the load
- + Safe transport of the load, even on uneven terrain
- + Optimal visibility of the working equipment during loading and unloading
- + Clear all-round visibility
- ✓ Powerful Z-bar linkage
- ✓ Precise parallel control of the lift arm over the entire lifting range
- ✓ Unique oscillating centre pivot
- ✓ High proportion of glass in the cab
- ✓ Tapered design of the lift arm

Stability and Tipping Safety

- + Maximum stability and safety on all terrains
- + Comfortable and stable driving performance
- + Maximum productivity by high payload
- ✓ Excellent centre of gravity due to the low clearance height
- ✓ Unique oscillating centre pivot
- ✓ Excellent ratio between operating weight and tipping load





Operating Safety

- + Increased performance and productivity
- + Focused operator work is supported
- + Simple handling, can be learned quickly
- + Efficient and simple checks to ensure the machine is safe to use
- ✓ New, modern and ergonomic cab design
- ✓ Control of working and travel functions with one control lever
- ✓ Ergonomic and intuitive arrangement of control instruments
- ✓ All maintenance and check points are easily accessible by walking around the machine

Safe and Versatile Usage

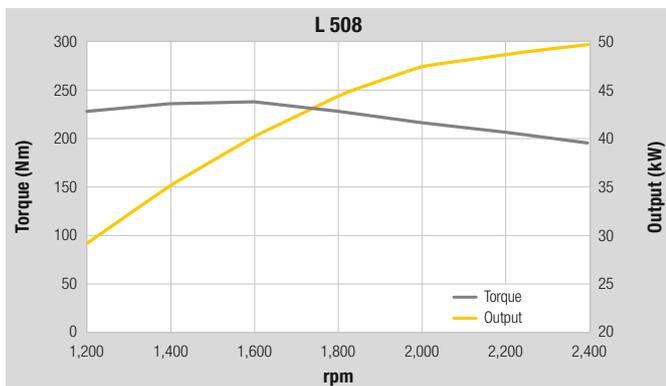
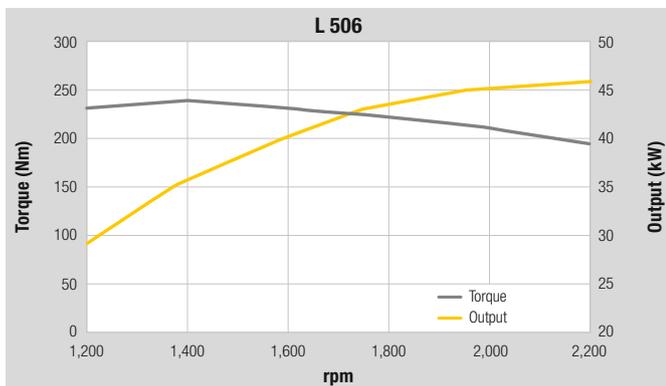
- + Performance-oriented and cost-optimised use
- + Can be transported easily and efficiently
- + Efficient to use in low entrances and exits
- + Flexible in use
- + High performance
- + Reliable cooling
- + Time savings in daily maintenance
- ✓ Most efficient hydrostatic driveline
- ✓ Compact, lightweight design
- ✓ Clearance height below 2.5 meters
- ✓ Overall height on conventional transport vehicles less than 4 meters
- ✓ Wide range of attachments
- ✓ Stable machine design and robust components optimally suited to each other
- ✓ Water-cooled diesel engine
- ✓ Rapid control of all maintenance points from the ground

Technical Data



Engine

	L 506	L 508
Diesel engine	4TNV98C	4TNV98C
Design	Water-cooled diesel suction engine	
Cylinder inline	4	4
Fuel injection process	Common Rail direct injection	
Output		
to ISO 9249 ~ SAE J1349	kW/HP 45/61 at RPM 2,200	48/65 2,400
Rated output to ISO 14396/ ECE-R.120	kW/HP 46/63	50/68
Nominal speed	at RPM 2,200	
Max. torque	Nm 239	237
to ISO 14396	at RPM 1,430	
Displacement	litres 3.32	
Bore/Stroke	mm 98/110	
Stage V		
Harmful emissions values	According to regulation (EU) 2016 /1628	
Emission control	Closed diesel particle filter system	
Fuel tank	litres 50	
Air cleaner system	Dry type filter with main and safety element	
Electrical system		
Operating voltage	V 12	12
Capacity	Ah 1 x 100	1 x 100
Alternator	V/A 12/80	12/80
Starter	V/kW 12/3	12/3



Driveline

Continuous hydrostatic driveline	
Design	Swash plate type variable flow pump and variable axial piston motor in closed loop circuit
Filtration	Suction return line filter for closed circuit
Control	By travel and inching pedal. The inching pedal makes it possible to control the tractive and thrust forces steplessly to match ground and operating conditions. The Liebherr control lever is used to control forward and reverse travel
Travel speed range	Speed range 1 _____ 0 – 6 km/h Speed range 2 _____ 0 – 20 km/h forward and reverse Speeds quoted apply with the tyres indicated as standard on loader model.



Axles

Four-wheel drive	
Design	Fixed mounted planetary-hub axle
Differentials	Automatic multi-disc limited slip differentials with 45 % locking action in both axles
Reduction gear	Planetary final drive in wheel hubs
Track width	Max. 1,350 mm



Brakes

Service brake	Self-locking of the hydrostatic driveline, wear-free, applied to all four wheels and additional hydraulically activated drum brake
Parking brake	Mechanically operated drum brake

The braking system meets the requirements of the ISO 3450.



Steering

Design	Oscillating center pivot
Angle of articulation	40° to each side
Angle of oscillation – centre-pivot steering	10° to each side



Attachment Hydraulics

	L 506	L 508
Design	Gear pump to supply the hydraulic and steering systems (via priority valve)	
Filtration	Suction return line filter in the hydraulic reservoir	
Control	Liebherr control lever, direct control, 1st additional hydraulic function optional	
Lifting function	Lifting, neutral, lowering Float position controlled by Liebherr control lever with detent	
Tilt function	Tilt back, neutral, dump	
Max. flow	l/min. 70.4	76.8
Max. pressure	bar 230	230



Attachment

	L 506	L 508
Geometry	Powerful Z-bar linkage with parallel guidance and hydraulic quick hitch as standard	
Bearings	Lathe-turned thick-walled bushings with lubricating grooves	
Cycle time at nominal load	ZK	ZK
Lifting	s 5.3	6.5
Dumping	s 1.3	1.5
Lowering (empty)	s 2.9	4.0



Operator's Cab

Design	Elastic mounted, noise-proof cab. ROPS roll over protection per EN ISO 3471 / EN 474-1 FOPS falling objects protection per EN ISO 3449 / EN 474-1, Cat. II Operator's door with 178° opening angle, fold-out window on right with gap opener, single-pane safety glass ESG, heated rear window ESG, all windows are tinted. Adjustable steering column optional
Liebherr operator's seat	4 way adjustable, vibration-damped operator's seat "Standard" (mechanically sprung, adjustable to operator's weight)
Cab heating and ventilation	Operator's cabin with defroster and electrically heated rear window, fresh air filter, air recirculation system and hot water heating, cabin ventilation



Sound Level

Sound pressure level to ISO 6396	
L _{pA} (inside cab)	dB(A) 78
Sound power level to 2000/14/EC	
L _{WA} (surround noise)	dB(A) 101

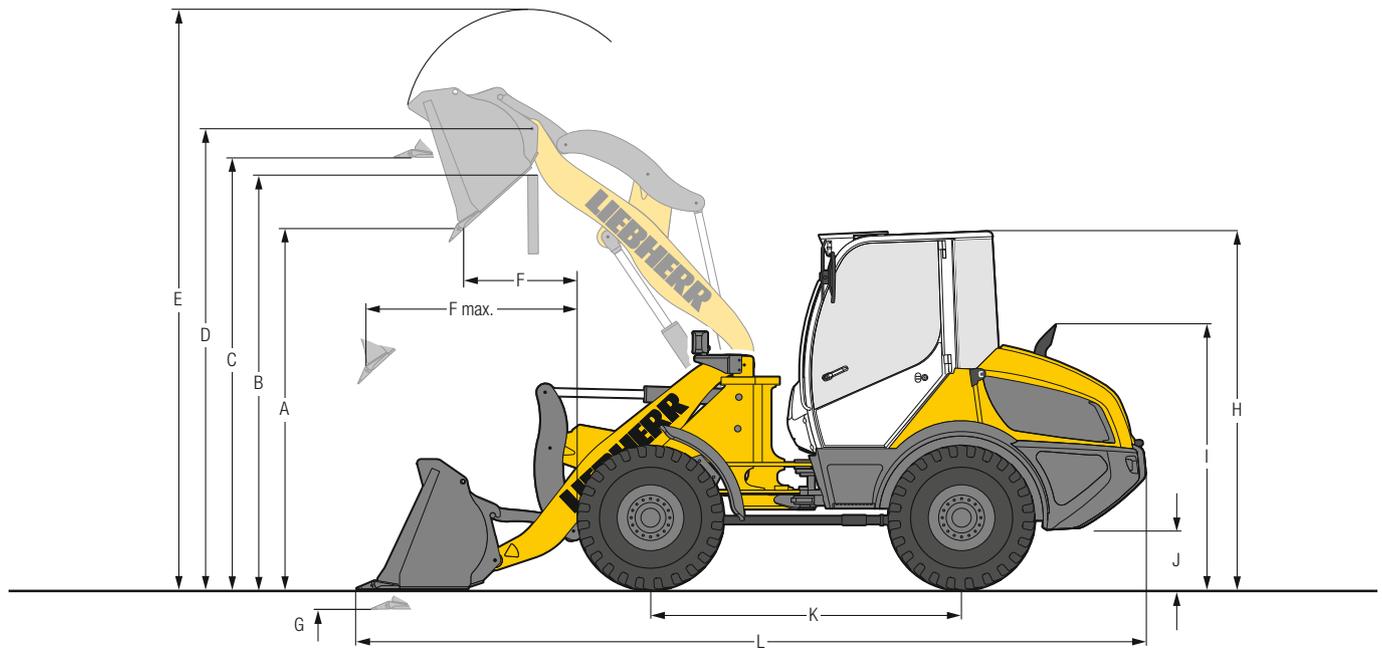


Capacities

Engine oil (inclusive filter change)	l 10.2
Coolant	l 12
Front axle	l 6
Rear axle	l 6
Transmission	l 1
Hydraulic tank	l 55
Hydraulic system, total	l 90

Dimensions

Z-bar Linkage



Excavation Bucket



		L 506	L 508
		ZK-QH	ZK-QH
	Geometry		
	Cutting tools	T	T
	Lift arm length	2,200	2,300
	Bucket capacity according to ISO 7546**	0.8	1.0
	Specific material density	1.8	1.8
	Bucket width	1,900	2,100
A	Dumping height at max. lift height and 42° discharge	2,510	2,650
B	Dump-over height	2,800	3,010
C	Max. height of bucket bottom	2,975	3,180
D	Max. height of bucket pivot point	3,175	3,380
E	Max. operating height	4,015	4,270
F	Reach at max. lift height and 42° discharge	765	810
F max.	Max. reach at 42° discharge	1,505	1,600
G	Digging depth	85	45
H	Height above operator's cab	2,445	2,460
I	Height above exhaust	1,795	1,810
J	Ground clearance	290	310
K	Wheelbase	2,150	2,150
L	Overall length	5,440	5,515
	Turning circle radius over outside bucket edge	4,365	4,500
	Breakout force (SAE)	46	56
	Tipping load, straight*	3,900	4,400
	Tipping load, fully articulated*	3,450	3,850
	Operating weight*	5,160	5,670
	Tyre size	365/70R18	405/70R18

* The figures shown include the above tyres, all lubricants, a full fuel tank, the ROPS/FOPS cab and the operator. Different tyres and optional equipment will change the operating weight and tipping load. (Tipping load, fully articulated according to ISO 14397-1)

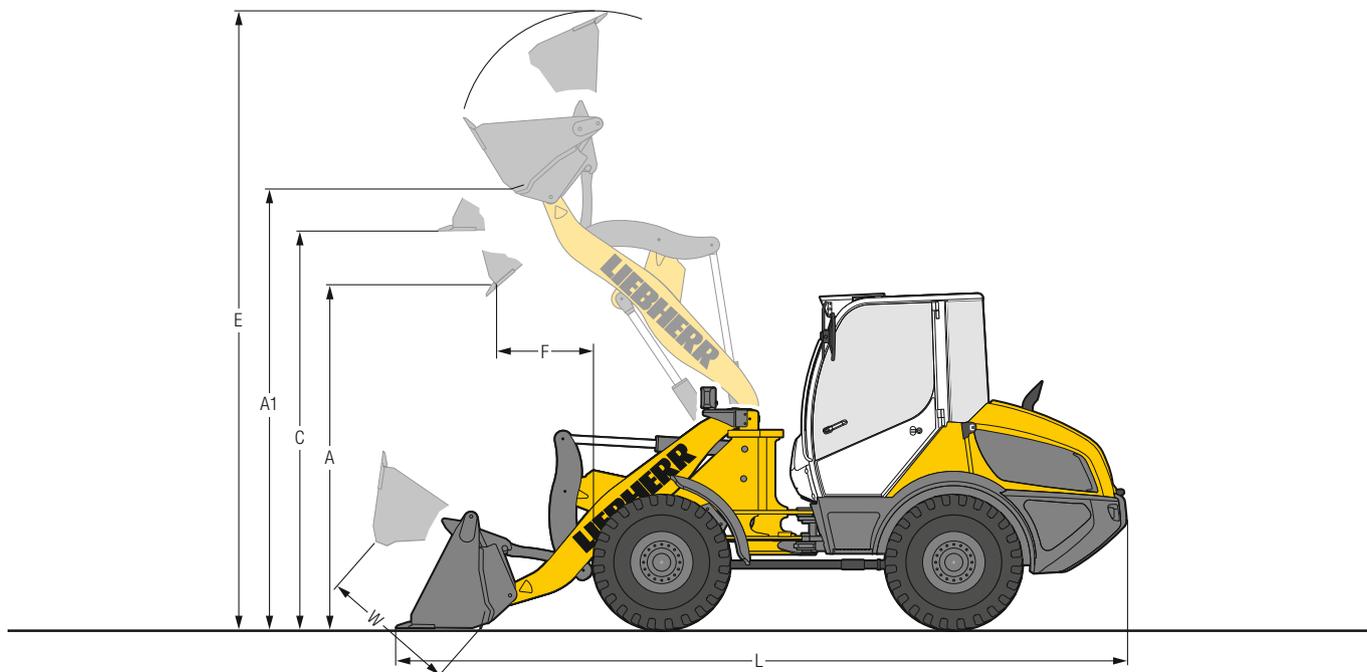
** Actual bucket capacity may be approx. 10% larger than the calculation according to ISO 7546 standard. The degree to which the bucket can be filled depends on the material – see page 19.

ZK-QH = Z-bar linkage incl. quick hitch

T = Welded-on tooth holder with add-on teeth

Attachment

4 in 1 Bucket



4 in 1 Bucket



		L 506	L 508
Geometry		ZK-QH	ZK-QH
Cutting tools		T	T
Bucket capacity	m ³	0.7	0.9
Specific material density	t/m ³	1.8	1.8
Bucket width	mm	1,950	2,100
A Dumping height at max. lift height and 35° discharge	mm	2,495	2,680
A1 Max. dumping height with opened bucket	mm	3,240	3,450
C Max. height of bucket bottom	mm	2,890	3,110
E Max. operating height	mm	4,630	4,830
F Reach at max. lift height and 35° discharge	mm	847	865
L Overall length	mm	5,562	5,565
W Max. bucket opening	mm	1,008	1,008
Turning circle radius over outside bucket edge	mm	4,440	4,530
Tipping load, straight*	kg	3,500	3,930
Tipping load, fully articulated*	kg	3,100	3,450
Operating weight*	kg	5,490	5,920
Tyre size		365/70R18	405/70R18

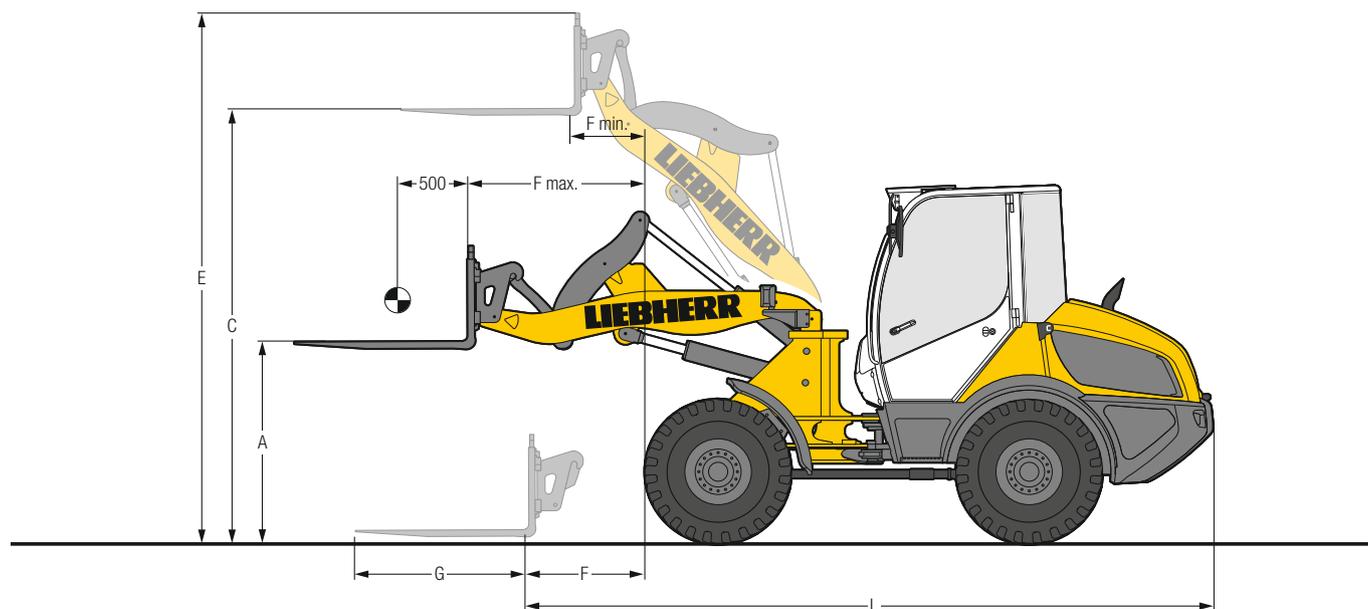
* The figures shown include the above tyres, all lubricants, a full fuel tank, the ROPS/FOPS cab and the operator. Different tyres and optional equipment will change the operating weight and tipping load. (Tipping load, fully articulated according to ISO 14397-1)

ZK-QH = Z-bar linkage incl. quick hitch

T = Welded-on tooth holder with add-on teeth

Attachment

Fork Carrier and Fork



FEM II Fork Carrier and Fork



		L 506	L 508	
	Geometry	ZK-QH	ZK-QH	
A	Lifting height at max. reach	mm	1,340	1,465
C	Max. lifting height	mm	3,015	3,210
E	Max. operating height	mm	3,665	3,875
F	Reach at loading position	mm	800	820
F max.	Max. reach	mm	1,240	1,310
F min.	Reach at max. lifting height	mm	470	505
G	Fork length	mm	1,200	1,200
L	Length – basic machine	mm	4,740	4,770
	Tipping load, straight*	kg	3,200	3,500
	Tipping load, fully articulated*	kg	2,800	3,100
	Recommended payload for uneven ground = 60 % of tipping load, articulated ¹⁾	kg	1,650	1,850
	Recommended payload for smooth surfaces = 80 % of tipping load, articulated ¹⁾	kg	2,000 ²⁾	2,400 ²⁾
	Operating weight*	kg	5,070	5,520
	Tyre size	365/70R18	405/70R18	

* The figures shown include the above tyres, all lubricants, a full fuel tank, the ROPS/FOPS cab and the operator. Different tyres and optional equipment will change the operating weight and tipping load. (Tipping load, fully articulated according to ISO 14397-1)

¹⁾ According to EN 474-3

²⁾ Payload is limited by tilt cylinder

ZK-QH = Z-bar linkage incl. quick hitch

Bucket Selection

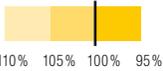
L 506

Lift arm	Bucket	Material density (t/m ³)									
		0.4	0.6	0.8	1.0	1.2	1.4	1.6	1.8	2.0	
ZK-QH	GPB 0.8 m ³							0.9	0.8		
	4in1 0.7 m ³							0.8	0.7		

L 508

Lift arm	Bucket	Material density (t/m ³)									
		0.4	0.6	0.8	1.0	1.2	1.4	1.6	1.8	2.0	
ZK-QH	GPB 1.0 m ³								1.1	1.0	
	4in1 0.9 m ³								1.0	0.9	

Bucket Filling Factor



110% 105% 100% 95%

Lift Arm

ZK-QH	Z-bar linkage with quick hitch, standard lift arm length
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Bucket

GPB	General purpose bucket (Excavation bucket)
4in1	4 in 1 bucket

Bulk Material Densities and Bucket Filling Factors

		t/m ³	%			t/m ³	%			t/m ³	%
Gravel	moist	1.9	105	Earth	dry	1.3	115	Glass waste	broken	1.4	100
	dry	1.6	105		wet excavated	1.6	110		solid	1.0	100
	crushed stone	1.5	100	Topsoil		1.1	110	Compost	dry	0.8	105
Sand	dry	1.5	105	Basalt		1.95	100	wet	1.0	110	
	wet	1.9	110	Granite		1.8	95	Wood chips/Saw dust		0.5	110
Gravel and Sand	dry	1.7	105	Sandstone		1.6	100	Paper	shredded/loose	0.6	110
	wet	2.0	100	Slate		1.75	100	recovered paper/cardboard	1.0	110	
Sand/Clay		1.6	110	Bauxite		1.4	100	Coal	heavy material density	1.2	110
Clay	natural	1.6	110	Limestone		1.6	100		light material density	0.9	110
	dry	1.4	110	Gypsum	broken	1.8	100	Waste	domestic waste	0.5	100
Clay/Gravel	dry	1.4	110	Coke		0.5	110		bulky waste	1.0	100
	wet	1.6	100	Slag	broken	1.8	100				

Tyres



Tyre Types

	Size and tread code		Change of operating weight kg	Width over tyres mm	Change in vertical dimensions* mm	Use
L 506 Compact						
Dunlop	15.5/55R18 SP PG7	L2	- 32	1,780	- 28	Sand, Gravel, Asphalt (all ground conditions)
Dunlop	365/70R18 SP T9	L2	- 16	1,780	1	Sand, Gravel, Asphalt (all ground conditions)
Dunlop	365/80R20 SP T9	L2	60	1,770	56	Sand, Gravel, Asphalt (all ground conditions)
Dunlop	405/70R18 SP T9	L2	40	1,810	24	Sand, Gravel, Asphalt (all ground conditions)
Dunlop	405/70R20 SP T9	L2	96	1,810	50	Sand, Gravel, Asphalt (all ground conditions)
Firestone	340/80R18 Duraforce UT	L3	21	1,760	15	Gravel, Asphalt, Industry (all ground conditions)
Firestone	365/80R20 Duraforce UT	L3	80	1,780	53	Gravel, Asphalt, Industry (all ground conditions)
Firestone	400/70R20 Duraforce UT	L3	122	1,810	43	Gravel, Asphalt, Industry (all ground conditions)
Firestone	400/70R20 R8000 UT	L2	99	1,810	43	Earthworks, Green area (all ground conditions)
Firestone	405/70R18 Duraforce UT	L3	92	1,820	23	Gravel, Asphalt, Industry (all ground conditions)
Michelin	400/70R20 BIBLOAD	L3	96	1,810	38	Gravel, Asphalt, Industry (firm ground conditions)
Michelin	400/70R20 XMCL	L2	112	1,820	44	Earthworks, Green area (all ground conditions)
Mitas	365/70R18 EM-01	L2	0	1,780	0	Gravel, Asphalt (all ground conditions)
Mitas	365/80R20 EM-01	L2	60	1,780	52	Gravel, Asphalt (all ground conditions)
Mitas	405/70R18 EM-01	L2	56	1,820	25	Gravel, Asphalt (all ground conditions)
Mitas	405/70R20 EM-01	L2	92	1,820	50	Gravel, Asphalt (all ground conditions)
Nokian	400/70R20 Hakkapeliitta TRI	L2	112	1,810	48	Winter tyres, Gravel, Asphalt (all ground conditions)
Trelleborg	400/70R20 TH400	L2	106	1,810	38	Earthworks, Green area (all ground conditions)
L 508 Compact						
Dunlop	15.5/55R18 SP PG7	L2	- 88	1,780	- 53	Sand, Gravel, Asphalt (all ground conditions)
Dunlop	365/80R20 SP T9	L2	4	1,770	31	Sand, Gravel, Asphalt (all ground conditions)
Dunlop	405/70R18 SP T9	L2	- 16	1,810	- 1	Sand, Gravel, Asphalt (all ground conditions)
Dunlop	405/70R20 SP T9	L2	40	1,810	25	Sand, Gravel, Asphalt (all ground conditions)
Firestone	340/80R18 Duraforce UT	L3	- 35	1,760	- 10	Gravel, Asphalt, Industry (all ground conditions)
Firestone	365/80R20 Duraforce UT	L3	24	1,780	28	Gravel, Asphalt, Industry (all ground conditions)
Firestone	400/70R20 Duraforce UT	L3	66	1,810	18	Gravel, Asphalt, Industry (all ground conditions)
Firestone	400/70R20 R8000 UT	L2	43	1,810	18	Earthworks, Green area (all ground conditions)
Firestone	405/70R18 Duraforce UT	L3	36	1,820	- 2	Gravel, Asphalt, Industry (all ground conditions)
Michelin	400/70R20 BIBLOAD	L3	40	1,810	13	Gravel, Asphalt, Industry (firm ground conditions)
Michelin	400/70R20 XMCL	L2	56	1,820	19	Earthworks, Green area (all ground conditions)
Mitas	365/80R20 EM-01	L2	4	1,780	27	Gravel, Asphalt (all ground conditions)
Mitas	405/70R18 EM-01	L2	0	1,820	0	Gravel, Asphalt (all ground conditions)
Mitas	405/70R20 EM-01	L2	36	1,820	25	Gravel, Asphalt (all ground conditions)
Nokian	400/70R20 Hakkapeliitta TRI	L2	56	1,810	23	Winter tyres, Gravel, Asphalt (all ground conditions)
Trelleborg	400/70R20 TH400	L2	50	1,810	13	Earthworks, Green area (all ground conditions)

* The stated values are theoretical and may deviate in practice.

Before operating the vehicle with tyre foam filling or tyre protection chains, please discuss this with the Liebherr-Werk Bischofshofen GmbH.

Tipping Load



What is tipping load?

Load at centre of gravity of working equipment, so that the wheel loader just begins to tip over the front axle. This is the most unfavourable static-load position for the wheel loader. Lifting arms horizontal, wheel loader fully articulated at centre pivot.

Pay load.

The pay load must not exceed 50% of the tipping load when articulated.

This is equivalent to a static stability-margin factor of 2.0.

Bucket capacity.

The bucket volume is determined from the pay load.

$$\text{Pay load} = \frac{\text{Tipping load, articulated}}{2}$$

$$\text{Bucket capacity} = \frac{\text{Pay load (t)}}{\text{Specific bulk weight of material (t/m}^3\text{)}}$$

The Liebherr Wheel Loaders

Wheel Loader



		L 506 Compact	L 507 Stereo	L 508 Compact	L 509 Stereo	L 514 Stereo
Tipping load	kg	3,450	3,750	3,850	4,430	5,750
Bucket capacity	m ³	0.8	0.9	1.0	1.2	1.5
Operating weight	kg	5,160	5,550	5,670	6,390	8,860
Engine output	kW/HP	46/63	50/68	50/68	54/73	76/103

Wheel Loader



		L 518 Stereo	L 526	L 538	L 546	L 550 XPower®
Tipping load	kg	6,550	8,000	9,500	10,500	12,200
Bucket capacity	m ³	1.7	2.1	2.6	2.8	3.2
Operating weight	kg	9,190	11,770	13,500	14,200	17,700
Engine output	kW/HP	76/103	100/136	123/167	138/188	143/194

Wheel Loader



		L 556 XPower®	L 566 XPower®	L 576 XPower®	L 580 XPower®	L 586 XPower®
Tipping load	kg	13,700	15,900	17,600	19,200	21,600
Bucket capacity	m ³	3.6	4.2	4.7	5.2	6.0
Operating weight	kg	18,400	23,900	25,700	27,650	32,600
Engine output	kW/HP	168/228	203/276	218/296	233/317	263/358

11.20

Equipment

 Basic Wheel Loader	L 506	L 508
	Connection for electrical equipment 7-pole	+
Automatic central lubrication system	+	+
Battery main switch (lockable)	•	•
Tool kit	•	•
Diesel particle filter	•	•
Ride control	+	+
Parking brake	•	•
Pre-heat system for cold starting	•	•
Rear license panel light	+	+
Oscillating center pivot	•	•
Combined inching-braking system	•	•
Fuel pre-filter	•	•
Cooling water pre-heating 230 V	+	+
Multi-disc limited slip differentials in both axles	•	•
Liebherr biodegradable hydraulic oil	+	+
Special paint	+	+
Power socket rear (13-pole, 12 V)	+	+
Lockable doors and engine hood	•	•
Load lashing lugs	•	•
Towing hitch	•	•

 Equipment	L 506	L 508
	Working hydraulics lockout	•
Direct control of attachment hydraulics	•	•
Fork carrier and pallet forks	+	+
Lift arm Z-bar linkage with parallel guidance	•	•
Hydraulic connections rear	+	+
Hydraulic quick hitch	•	•
Hydraulic quick hitch LIKUFIX	+	+
Loading buckets incl. a range of cutting tools	+	+
Load holding valves	+	+
Bucket return (visual mark on lifting frame)	•	•
Float position	•	•
Control lever lock	+	+
1st hydraulic, proportional additional function	+	+
1st hydraulic, proportional additional function on Liebherr control lever	+	+
1st and 2nd hydraulic, proportional additional function	+	+

- = Standard
- + = Option
- = not available

 Operator's Cab	L 506	L 508
	Storage compartment	•
Storage box	•	•
Armrest left	+	+
Exterior mirror, tiltable	•	•
Exterior mirror, tiltable and heatable	+	+
Fold-out window right 180°	+	+
Operating hour meter (integrated in display unit)	•	•
Display	•	•
Electronical theft protection with key	+	+
Operator seat "Comfort" – air sprung with seat heating	+	+
Operator seat "Standard" – mechanically sprung	•	•
Particle filter F5	•	•
Fire extinguisher in cab 2 kg	+	+
Cup holder	•	•
Inching device hand operated	+	+
Rear window heated electrically	•	•
Floor mat	•	•
Clothes hook	•	•
Air conditioning system (manual)	+	+
Steering column adjustable	+	+
LiDAT (Liebherr data transfer system)	+	+
Liebherr control lever with mini-joystick for additional function	+	+
Liebherr control lever (incl. travel direction)	•	•
Emergency exit	•	•
Preparation for radio installation	+	+
Radio Liebherr "Comfort" (USB / AUX / BLUETOOTH / handsfree set)	+	+
Radio Liebherr "Standard" (USB / AUX)	+	+
Interior rear-view mirror	•	•
Amber beacon	+	+
Soundproof ROPS / FOPS cab	•	•
Wipe system front / rear	•	•
Headlights rear, single design, halogen / LED	+	+
Headlights rear, double design, LED	+	+
Headlights front, single design, halogen	•	•
Headlights front, single design, LED	+	+
Headlights front, double design, LED	+	+
Power socket 12 V	•	•
First aid kit	+	+
Hot-water heater with defroster and recirculated air mode	•	•

 Safety	L 506	L 508
	Country-specific versions	+
Back-up alarm acoustical / visual	+	+



Here you can download our wheel loader brochures: