## Wheel Loaders

## L 550 - L 586

**⊠power**®



# LIEBHERR

Tipping load, articulated:

12,200 kg

**Bucket capacity:** 

3.2 m<sup>3</sup>

Operating weight:

17,700 kg

**Engine output:** 

140 kW/191 HP

L 556

Tipping load, articulated:

13,700 kg

**Bucket capacity:** 

 $3.6 \, \text{m}^3$ 

Operating weight:

18,400 kg

**Engine output:** 

165 kW/224 HP

L 566

Tipping load, articulated:

15,900 kg

**Bucket capacity:** 

4.2 m<sup>3</sup>

**Operating weight:** 

23,900 kg

**Engine output:** 

200 kW/272 HP

L 576

Tipping load, articulated:

17,600 kg

**Bucket capacity:** 

4.7 m<sup>3</sup>

Operating weight:

25,700 kg

**Engine output:** 

215 kW/292 HP

L 580

Tipping load, articulated:

19,200 kg

**Bucket capacity:** 

5.2 m<sup>3</sup>

Operating weight:

27,650 kg

**Engine output:** 

230 kW/313 HP

L 586

Tipping load, articulated:

21,600 kg

**Bucket capacity:** 

6.0 m<sup>3</sup>

Operating weight:

32,600 kg

Engine output:

260 kW/354 HP



Economy

Minimum Costs at **High Handling Capacity** 

**Reliability** Ruggedness and Quality for Durable Machines

Comfort

Maximum Operator Comfort for More Productivity

**Maintainability**Time and Cost Savings Through Simple Maintenance



## **Performance**



## Power for Increased Productivity

The innovative Liebherr XPower® driveline considerably increases working efficiency. Quick working cycles, high tipping loads and high machine availability lead to increased handling capacity.

## Powerful and Efficient Drive Concept

#### **Highest Level of Performance**

The Liebherr XPower® driveline brings together the hydrostatic and mechanical drive. The interaction between these two different drives is continuously adjusted automatically to the given application. As a result, XPower® offers the optimal level of efficiency during material loading and transport, as well as providing maximum acceleration and performance along all loading cycles – including long routes. All components are also ideally adapted to each other. XPower® stands for maximum efficiency.

#### **Continuously Variable Transmission**

The Liebherr XPower® driveline allows continuous regulation of acceleration in all speed ranges, without noticeable gear shifting or interruption in tractive force. Powerful working and high driving comfort increase your productivity.

#### **High Handling Capacity**

Unnecessary counterweight can be avoided through the unique component mounting position at the rear of the machine. Ideal weight distribution results in high tipping loads and greater handling capacity per hour of operation.

The Liebherr XPower® travel drive accelerates quickly, allowing high travel speeds. Time savings can be made on flat terrain, as well as on inclines. As a result, there are considerable gains in productivity.

## Flexibility and Versatility

#### Lift Arm Variants Optimised for the Application

The standard Z-bar linkage provides a large torque in the lower region of the lift arm. The ideal prerequisite for conventional wheel loader applications – simple, quick filling of the bucket leads to high handling capacity.

An alternative is available in the form of the industrial lift arm for L 550 - L 566 and L 580 wheel loaders at no extra charge. The industrial lift arm boasts a parallel guide arrangement and especially high torque in the upper lifting range. The best solution for industrial use as it allows large attachments to be fitted for transporting heavy loads.

#### **Optimal Bucket Filling**

The new sturdy bucket design from Liebherr allows the bucket to be filled quickly and efficiently. Fully filled attachments increase productivity. The bucket's good penetration and simple filling mechanism result in lower fuel consumption.

#### **Wide Range of Applications**

The wide range of attachments means the right tool is always to hand. As a result, a multitude of uses can easily be covered. This increases utilisation of the machine and raises productivity. Liebherr wheel loaders can manoeuvre quickly and efficiently thanks to their compact design – the best choice for high handling capacity.

#### Liebherr XPower® Driveline L 550 – L 586

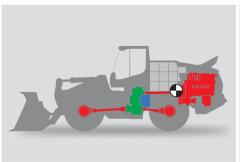
- Future-proof driveline for powerful uses
- Optimum weight distribution due to its unique component mounting position
- Ideal visibility due to to its compact design

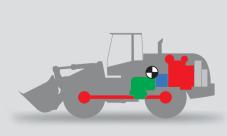
#### Conventional Travel Gear

- Centre of gravity in the middle of the machine
- Additional ballast is needed to increase the tipping load and improve stability
- Poor visibility is the result

#### An all-purpose Loader

The option to choose between industrial lift arm and Z-bar linkage means the right machine is always available for the use specifically required by the customer.







## **Economy**



# Minimum Costs at High Handling Capacity

Liebherr wheel loaders make a reliable contribution to commercial success. The fuel efficient drive concept reduces operating costs and environmental impact at maximum handling capacity.

## Low Operating Costs

## Save Costs and Protect the Environment

#### I iDAT

#### **Lower Fuel Consumption**

The Liebherr XPower® driveline with Liebherr Power Efficiency (LPE) achieves a reduction in fuel consumption of up to 30%. At highest efficiency this reduces operating costs and increases profitability.

#### **Hardly Any Brake Wear**

The Liebherr XPower® travel drive brakes automatically. The service brake only acts as a support and is therefore subject to hardly any wear.

#### **Minimal Tyre Wear**

Its continuous traction control, combined with automatic self-locking differential, prevents wheelspin. Productivity is increased and tyre wear reduced by up to 25%.

#### **Innovative Exhaust After-Treatment**

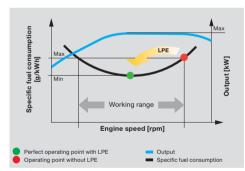
The Liebherr SCR system is an efficient system for the after-treatment of exhaust gases. Consumables around the engine, such as diesel particle filters, are not required. Regeneration is no longer necessary and maintenance is reduced. Higher productivity provide fuel savings and a reduction in operating costs.

#### **Economical Use of Resources**

The lower fuel consumption and efficient exhaust after-treatment cut emissions. This actively saves resources. While actively protecting the environment, Liebherr wheel loaders reduce operating costs.

#### **Efficient Management**

LiDAT. Liebherr's own data transmission and positioning system, facilitates efficient management, monitoring and control of the entire fleet park in terms of machinery data recording, data analysis, fleet park management and service. All of the important machinery data can be viewed at any time in a web browser. LiDAT offers you comprehensive work deployment documentation, greater availability thanks to shorter downtimes, faster support from the manufacturer, quicker detection of strain/overload and subsequently a longer service life of the machine as well as greater planning efficiency in your company. This service includes 1 year of use free of charge as standard for the L 550 XPower® - L 586 XPower® wheel loaders.







## Low Fuel Consumption Thanks to Intelligent Machine Control

- Liebherr Power Efficiency (LPE) optimises the interaction between diesel engine, gearbox and working hydraulics for maximum efficiency.
- LPE maximum performance from every drop of fuel

#### Reduced Brake Wear

 Hardly any brake wear due to hydraulic braking action of the driveline.

#### Reduced Tyre Wear

• Continuous traction control prevents the wheels from spinning.

## Always Be Informed with LiDAT

- Evaluation of machine usage and fuel consumption for economic machine management
- LiDAT comes as standard incl. 1 year free-of-charge use

## Reliability



# **Ruggedness and Quality for Durable Machines**

Liebherr wheel loaders provide maximum performance even under the toughest of operating conditions. Specially-developed components, sophisticated technology and high quality offer a high level of reliability and availability.

## 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.

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

# High Safe and Versatile Usage

#### **Wear-Free Drive Concept**

The components of the Liebherr XPower® driveline are extremely rugged and low-wear. The variable distribution of forces between the hydrostatic and mechanical drive also leads to reduced loads on the drive path. XPower® ensures a long machine life and reliability in use.

#### **Continuous Use**

Thanks to Liebherr's unique SCR system, fewer components – such as diesel particle filters or exhaust gas recirculation – are needed at the engine. This minimises the risk of failure and reduces maintenance expense. This sophisticated technology ensures efficient, continuous work.

## Reliable Cooling System

#### **Optimal Cooling Performance**

The cooling system is fitted directly behind the operator's cab and is thus able to take in air which is free of dust. In especially dusty applications, optional equipment such as reversible fan drive, fluff trap for the radiator and large-mesh radiator protect the cooling system from contaminants getting in. This guarantees even continuous cooling output whilst simultaneously reducing cleaning expenses. Minimal cleaning expenses mean more efficient, more cost-effective working.

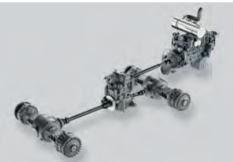
#### **Controlled Cooling**

The cooling fan is driven independently from the Liebherr diesel engine and produces only the cooling air output which is actually required. Heat sensors ensure reliable control.



#### Powerful Liebherr's Own Components

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



#### High Machine Availability

- Reduced load on the driveline through the subdivision of forces
- High safe and versatile usage thanks to rugged, low-wear components
- Fewer components around the engine mean reduced risk of failure



#### Intelligent Cooling System

- Cooling position on the cleanest position of the wheel loader
- High machine availability thanks to lower radiator contamination
- Controlled cooling through thermostatic control for reliable operations

## **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 offers perfect conditions for comfortable and productive work.

## 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 optional laterally-sprung operator's seat offers high seating comfort and relaxed working.

#### **Perfect Visibility**

The generous glass surfaces of the cab offer exceptional all-round visibility of the attachment and working area. The design of the engine hood which has been optimised for viewing provides ideal viewing towards the rear as well as monitoring behind the machine from the Liebherr display. This ensures maximum safety for people, the machine and the load, whilst increasing productivity at the same time.

#### **Well-Being Guaranteed**

Optimum storage areas and stowage spaces and built-in cool-box increase operator well-being. With air conditioning as standard, the improved cooling output ensures a pleasant working atmosphere. This gives the operator maximum comfort and high productivity.

The optional Liebherr key with remote control opens the operator's doors automatically and turns on the lights – for safe and comfortable start-up of the machine.

## Simple and Intuitive Operation

#### **Ergonomic Controls**

The operating and control instruments are well laid out and user-friendly. All operation-relevant data can be recorded quickly and efficiently. The high operating comfort allows the operator to work particularly efficiently and safely.

#### **Liebherr Control Lever**

The Liebherr control lever, which is built into the operator's seat as standard, allows all working and manoeuvring operations to be performed with a high degree of precision and sensitivity. The new electrical-hydraulics system allows the operator to programme the lift arm and bucket positions from the cab.

The Liebherr control lever with mini-joystick is optionally available. The purpose of the mini-joystick is the proportional control of hydraulic attachment tools. The hydraulic attachment can be controlled with great sensitivity and very ergonomically.

#### **Touchscreen Display**

The adjustable touchscreen display, which comes as standard, allows all operating-relevant machine data to be viewed and configured quickly. Visual and acoustic warning devices ensure high operational reliability.

## Exceptional All-Round Visibility

- Unobstructed visibility in all directions through optimal cab and engine bonnet design
- Generous glass surfaces
- More safety and productivity thanks to exceptional visibility

## Liebherr Control Lever with Mini-Joystick (optional)

- Ergonomic and comfortable operation
- Control all driving and operating manoeuvres with a single control lever
- Comfortably programme the hydraulic control from the operator's cab

#### Intuitive Controls

- Quick recoding of operation-relevant machine data
- Ease of controls increases working efficiency
- Liebherr reverse camera available as standard – built into the touchscreen display







## Maintainability



## **Time and Cost Savings Through Simple Maintenance**

The most important items in daily maintenance can be seen at a glance in the loading area of Liebherr wheel loaders. Quick and safe control saves time and money.

# Exceptional Service Accessibility

#### **Efficient and Simple Maintenance**

Thanks to the unique mounting position of the components, Liebherr wheel loaders offer exceptional accessibility for service personnel. The positioning of the cooling package directly behind the operator's cab contributes to a reduction in maintenance and cleaning expenses by reducing contamination. This saves time and money.

#### **Safe and Free Service Access**

All points requiring day-to-day maintenance can be reached comfortably, safely and cleanly. Anti-slip steps and sturdy handrails provide a high degree of safety.

#### **Short Service Times for More Productivity**

The engine hood, which opens up electrically towards the rear, ensures safe, free access to the entire engine compartment. The service points are easy to see and reach. All maintenance work can be carried out comfortably and safely from a level base in the engine hood. This ensures time-saving maintenance and increases productivity.

Improved access to the windscreen and cab filter box is provided by the access on the right hand side of the machine. Sturdy hand rails and a fold-out ladder provide a high level of safety during cleaning and maintenance.

## Strong Service Partner

#### Safe Partnership with Strong Service

When buying a Liebherr wheel loader the customer not only looks to a long-lived high-end product but also a reliable longterm partnership. A service network combined with a highly-modern central warehouse is available for optimum service and quick replacement part provision. This guarantees short routes and rapid support in the event of service. Round-the-clock if required.

#### **Competent Liebherr Service Offers Maximum Reliability**

Comprehensive knowhow ensures a first-class execution of all service and maintenance work. This contributes decisively to the availability and profitability of your machine. Employees at Liebherr service partners are trained on an ongoing basis. They have extensive knowledge of quick and safe service performance. They can turn to the expertise of manufacturing plants at any time.

#### Low

#### Maintenance

- Less contamination of the radiator thanks to its clever position behind the operator's cab
- Quick and safe control saves time and money

#### Optimum Service Accessibility

- The entire engine compartment is accessible via just one enclosure
- The most important fill levels can be seen in the loading area
- Short downtimes means more efficiency

#### Perfect Service for Optimum Machine Availability

- Quick and effective support thanks to an extensive service network
- Replacement parts service with 24-hour delivery
- Quick and reliable service carried out by qualified service specialists







## Wheel Loaders L 550 XPower® L 586 XPower® Overview

## Sturdy **Attachment** + Quick working cycles + Long-life lift arm + Flexible in use + Efficient and cost-optimised use by specially adapted lift arm variants ✓ High-quality hydraulic components ✓ Strong steel construction ✓ Wide range of attachments ✓ Industrial lift arm and Z-bar linkage optional LIEBHERR **Powerful and Efficient** Liebherr XPower® Driveline + Fuel saving of up to 30% + High performance + High safe and versatile usage + Maximum productivity by high tipping load + Tyre wear reduced by up to 25% + Practically no brake wear + Maximum stability and safety on all terrains ✓ Drive components optimally suited to each other by LPE ✓ Powerful load-sharing driveline ✓ Rugged and durable driveline ✓ Ideal weight distribution by intelligent arrangement of drive components ✓ Continuous tractive force prevents wheelspin ✓ Self-locking hydraulic brake system



#### Comfortable **Operator's Cab**

- + Increased performance and productivity
- + Focused operator work is supported
- + Easy and safe operation
- + Excellent all-round visibility
- ✓ New, modern and ergonomic cab design
- ✓ Control of working and travel functions with one control lever
- ✓ Generous glass surfaces

#### Intelligent **Cooling System**

- + Constant and reliable cooling
- + Increased service life of components
- + High machine availability through minimal cleaning expenses
- ✓ Controlled cooling
- ✓ Heat sensors ensure reliable control
- ✓ The radiator is installed at the cleanest position of the wheel loader, directly behind the operator's cab

#### **Optimum Service Accessibility**

- + Time savings in daily maintenance
- + Short service times for more productivity
- ✓ Rapid control of the most important maintenance points in the access area
- ✓ Safe, simple and quick access to all points important for operations

## **Technical Data**

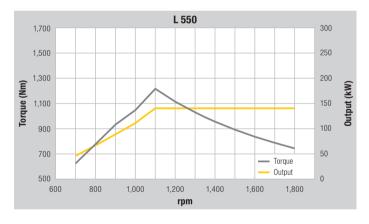
## Engine

Starter

		L 550	L 556
Diesel engine		D934 A7	D944 A7
Design		exhaust after-treatm	ies engine with charge-air cooling, nent through Liebherr SCR diesel particle filter system optional
Cylinder inline		4	4
Fuel injection process		Electronic Common	Rail high-pressure injection
Max. gross output to ISO 3046		143/195	168/228
and SAE J1995	at RPM	1,100 – 1,800	1,100 – 1,800
Max. net output to ISO 9249 and SAE J1349		140/191 1,100 – 1,800	165/224 1,100 – 1,800
Max. net torque to ISO 9249 and SAE J1349		1,215	1,430 1,100
Displacement	litres	7.014	7.964
Bore/Stroke	mm	122/150	130/150
Air cleaner system			nain and safety element, indicator on the Liebherr display
Electrical system			· ·
Operating voltage	V	24	24
Battery	Ah	2 x 180	2 x 180
Alternator	V/A	28/140	28/140

The exhaust emissions are below the limits in stage IV/Tier 4f.

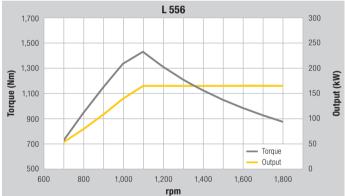
V/kW 24/7.8



24/7.8

## Driveline

Continuous hydraulic loa	ad-sharing XPower® driveline
Design	Continuous, fully-automatic XPower® driveline. No traction interruptions across the entire speed range. Hydrostatic load-sharing with two axial piston units. Identical driving performance – forwards and in reverse
Filtration	Filter system for driveline, depend on working hydraulics
Control	Driveline is controlled from travel pedal for tractive force and speed setting with integrated inch function. The Liebherr control lever is used to control forward and reverse travel
Travel speed range	0 – 40 km/h forward and reverse, fully-automatic Speed restriction available upon request. Speeds quoted apply with the tyres indicated as standard on loader model.



## I→I Axles

		L 550	L 556	
Four-wheel drive				
Front axle		Fixed		
<b>Rear axle</b> Height of obstacles which		Centre pivot	t, with 13° oscillating angle to each si	de
can be driven over	mm	460 with all four ground	442 wheels remaining in contact with the	!
Differentials		Automatic li	imited-slip differentials	
Reduction gear		Planetary final drive in wheel hubs		
<b>Track width</b> 2,003 mm with all types of tyres				

## Attachment

	L 550		L 556			
Geometry variants						
Optional	Powerful	Z-bar linkage	with tilt cylin	der and cast steel		
	cross-tube					
	Industrial lift arm with tilt cylinder, hydraulic quick					
	hitch as	standard				
Bearings	Sealed					
Cycle time at nominal load	ZK	IND	ZK	IND		
Lifting	s 5.5	5.5	5.5	5.5		
Dumping	s 2.3	3.5	2.3	3.5		
Lowering (empty)	s 2.7	2.7	2.7	2.7		

## **Brakes**

Wear-free service brake	Self-locking of the XPower® driveline (acting on
Trour free service brake	all four wheels) and additional pump-accumulator
	ali ioui wileels) aliu auulloriai purip-accumulatoi
	brake system with wet multi-disc brakes (two separate
	brake circuits)
Parking brake	Electro-hydraulically actuated spring-loaded disc
	brake system on the transmission
The braking system meets the r	requirements of the EC guidelines 71/320.



## Operator's Cab

operate. o	
Design	Hydraulically 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 sliding side window, sliding side window on right, front windscreen made of compound safety glass, green tinted as standard, side panels with single-pane safety glass ESG, heated rear window ESG. 3 way continuous adjustable steering column
Liebherr operator's seat	6 way adjustable, vibration-damped operator's seat "Comfort" with seat, depth and incline adjustment as standard (air-cushioned with seat heating adjustable to operator's weight), Liebherr control lever mounted into the operator's seat as standard
Cab heating and ventilation	4-zone air conditioning with new improved cooling output as standard, all filters are easy to access and replaceable

## Steering

Design	"Load-sensing" swash plate type variable flow pump with pressure cut-off and flow control. Central pivot with two double-acting, damped steering cylinders
Angle of articulation	40° to each side
Emergency steering	Electro-hydraulic emergency steering system



		L 550	L 556			
Design		"Load-sensing" swash plate type variable flow pump				
		with output	and flow control, and pressure cut-off in			
		the control	block			
Cooling		Hydraulic oi	I cooling using thermostatically controlled			
		fan and oil o	cooler			
Filtration		Return line	filter in the hydraulic reservoir			
Control		Liebherr co	ntrol lever, electro-hydraulically operated			
Lift circuit		Lifting, neutral, lowering				
		Automatic hoist kick-out and lowering shut-down by				
		Liebherr co	ntrol lever			
		Float position	on controlled by Liebherr control lever			
Tilt circuit		Tilt back, no	eutral, dump			
		Automatic b	bucket return for tilting back and dumping			
		controlled b	y Liebherr control lever			
Max. flow	I/min.	234	234			
Max. pressure						
Z-bar linkage	bar	330	360			
Industrial lift arm	bar	350	380			



#### **Noise Emission**

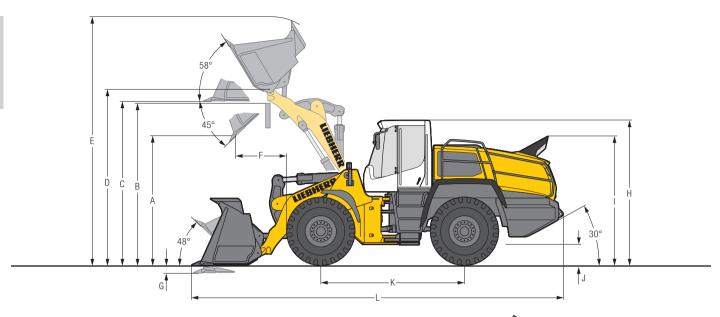
	L 550	L 556	
ISO 6396			
L <sub>pA</sub> (inside cab)	68 dB(A)	68 dB(A)	
2000/14/EG			
L <sub>WA</sub> (surround noise)	104 dB(A)	104 dB(A)	

## Capacities

	L 550	L 556
Fuel tank	I 300	300
Engine oil		
(inclusive filter change)	l 29	26
Carbamide box	l 67.5	67.5
Pump distribution gearbox	l 1.2	1.2
Transmission	l 51	51
Coolant	I 66	66
Front axel	I 35	35
Rear axel	I 35	35
Hydraulic tank	l 91	91
Hydraulic system, total	l 175	175
Air conditioning system		
R134a	g 1,250	1,250

## **Dimensions**

#### Z-bar Linkage



#### **Loading Bucket**



12,200

17,700

12,000

17,800

13,700

18,400

23.5R25 L3

13,500

18,500

kg

kg

= Excavation bu ZK = Z-bar linkage

Operating weight\*

Tyre size

= Excavation bucket with back grading edge for direct mounting

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

Tipping load, fully articulated \*

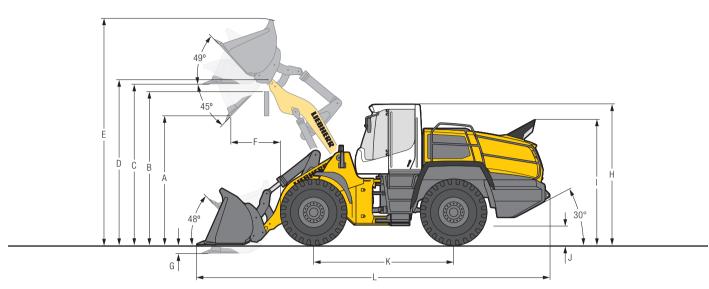
<sup>\*</sup> The figures shown include the above tyres, all lubricants, a full fuel tank, the ROPS/FOPS cab and the operator.

Different tyres and optional equipment will change the operating weight and tipping load. (Tipping load, fully articulated according to ISO 14397-1)

<sup>\*\*</sup> 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 25.

## **Dimensions**

#### Industrial Lift Arm



## Loading Bucket



				L 550		L 556		
			STD	HL	HL	STD	HL	HL
	Geometry		IND-QH	IND-QH	IND-QH	IND-QH	IND-QH	IND-QH
	Cutting tools		T	T	T	T	T	T
	Lift arm length	mm	2,600	3,000	3,000	2,600	3,000	3,000
	Bucket capacity according to ISO 7546**	m <sup>3</sup>	3.0	2.6	2.8	3.3	2.8	3.0
	Bucket width	mm	2,700	2,700	2,700	2,700	2,700	2,700
Α	Dumping height at max. lift height and 45° discharge	mm	2,880	3,550	3,520	2,850	3,520	3,460
В	Dump-over height	mm	3,500	4,100	4,100	3,500	4,100	4,100
C	Max. height of bucket bottom	mm	3,795	4,360	4,360	3,795	4,360	4,360
D	Max. height of bucket pivot point	mm	4,075	4,640	4,640	4,075	4,640	4,640
Е	Max. operating height	mm	5,580	6,090	6,120	5,620	6,120	6,160
F	Reach at max. lift height and 45° discharge	mm	1,135	940	960	1,174	960	1,015
G	Digging depth	mm	80	80	80	80	80	80
Н	Height above cab	mm	3,370	3,370	3,370	3,370	3,370	3,370
I	Height above exhaust	mm	3,020	3,020	3,020	3,020	3,020	3,020
J	Ground clearance	mm	490	490	490	490	490	490
K	Wheelbase	mm	3,395	3,395	3,395	3,395	3,395	3,395
L	Overall length	mm	8,550	8,940	9,000	8,605	9,000	9,080
	Turning circle radius over outside bucket edge	mm	6,630	6,830	6,850	6,650	6,850	6,885
	Breakout force (SAE)	kN	125	136	134	130	134	125
	Tipping load, straight*	kg	12,800	10,700	10,600	14,400	12,000	11,800
	Tipping load, fully articulated*	kg	11,100	9,200	9,100	12,400	10,300	10,100
	Operating weight*	kg	18,700	18,900	18,950	19,500	19,700	19,750
	Tyre size			23.5R25 L3			23.5R25 L3	

<sup>\*</sup> 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)

= Excavation bucket with back grading edge for quick hitch

= Standard lift arm length

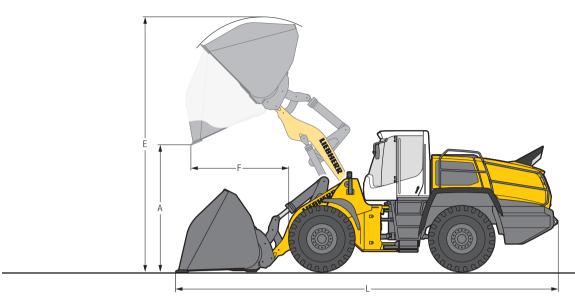
= High Lift

IND-QH = Industrial lift arm with parallel guidance incl. quick hitch

= Welded-on tooth holder with add-on teeth

<sup>\*\*</sup> 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 25.

Light Material Bucket



## Heavy Material Density



		L!	550	L 556	
		STD	HL	STD	HL
Geometry		IND-QH	IND-QH	IND-QH	IND-QH
Cutting tools		BOCE	BOCE	BOCE	BOCE
Bucket capacity	<b>m</b> <sup>3</sup>	5.0	4.5	5.5	5.0
Bucket width	mm	2,950	2,950	2,950	2,950
A Dumping height at max. lift height	mm	2,550	3,220	2,450	3,130
E Max. operating height	mm	5,900	6,320	6,060	6,480
F Reach at maximum lift height	mm	1,450	1,250	1,550	1,330
L Overall length	mm	8,770	9,170	8,900	9,280
Tipping load, straight*	kg	11,900	9,800	13,200	11,100
Tipping load, fully articulated*	kg	10,200	8,300	11,300	9,400
Operating weight*	kg	19,200	19,400	20,100	20,300
Tyre size		23.5F	R25 L3	23.5R	25 L3

## Light Material Density



			L	550	L 556	
			STD	HL	STD	HL
	Geometry		IND-QH	IND-QH	IND-QH	IND-QH
	Cutting tools		BOCE	BOCE	BOCE	BOCE
	Bucket capacity	m³	9.0	8.0	10.0	9.0
	Bucket width	mm	3,400	3,400	3,400	3,400
Α	Dumping height at max. lift height	mm	2,340	2,920	2,265	2,840
E	Max. operating height	mm	6,110	6,470	6,250	6,600
F	Reach at maximum lift height	mm	1,705	1,520	1,780	1,600
L	Overall length	mm	9,140	9,570	9,250	9,690
	Tipping load, straight*	kg	11,500	9,400	13,100	10,700
	Tipping load, fully articulated*	kg	9,800	7,900	11,100	8,900
	Operating weight*	kg	19,700	19,900	20,500	20,800
	Tyre size		23.5F	R25 L3	23.5R	25 L3

<sup>\*</sup> 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)

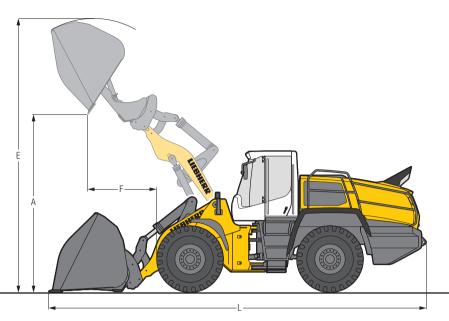
STD = Standard lift arm length

IND-QH = Industrial lift arm with parallel guidance incl. quick hitch

HL = High Lift

BOCE = Bolt-on cutting edge

High-Dump Bucket



## Heavy Material Density



		L 5	50	L 556	
		STD	HL	STD	HL
Geometry		IND-QH	IND-QH	IND-QH	IND-QH
Cutting tools		BOCE	BOCE	BOCE	BOCE
Bucket capacity	m <sup>3</sup>	4.5	4.0	5.0	4.5
Bucket width	mm	2,700	2,700	2,700	2,700
A Dumping height at max. lift height	mm	4,550	5,040	4,590	5,160
E Max. operating height	mm	6,680	7,120	6,850	7,300
F Reach at maximum lift height	mm	1,790	1,560	1,820	1,650
L Overall length	mm	9,000	9,410	9,120	9,550
Tipping load, straight*	kg	11,400	9,200	12,900	10,500
Tipping load, fully articulated *	kg	9,700	7,700	10,900	8,900
Operating weight*	kg	19,700	19,900	20,600	20,800
Tyre size		23.5R	25 L3	23.5R	25 L3

#### **Light Material Density**



		L	550	L 5	556
		STD	HL	STD	HL
	Geometry	IND-QH	IND-QH	IND-QH	IND-QH
	Cutting tools	BOCE	BOCE	BOCE	BOCE
	Bucket capacity m	8.5	7.5	9.5	8.5
	Bucket width mi	<b>n</b> 3,400	3,400	3,400	3,400
Α	Dumping height at max. lift height mi	<b>n</b> 4,450	4,800	4,610	4,950
Е	Max. operating height mi	<b>n</b> 6,900	7,200	7,150	7,500
F	Reach at maximum lift height mi	<b>n</b> 1,800	1,580	1,860	1,650
L	Overall length mi	<b>n</b> 9,200	9,590	9,290	9,750
	Tipping load, straight*	<b>g</b> 10,900	8,700	12,500	10,100
	Tipping load, fully articulated*	<b>g</b> 9,300	7,300	10,500	8,400
	Operating weight*	<b>g</b> 20,300	20,400	21,200	21,300
	Tyre size	23.5F	R25 L3	23.5F	325 L3

<sup>\*</sup> 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)

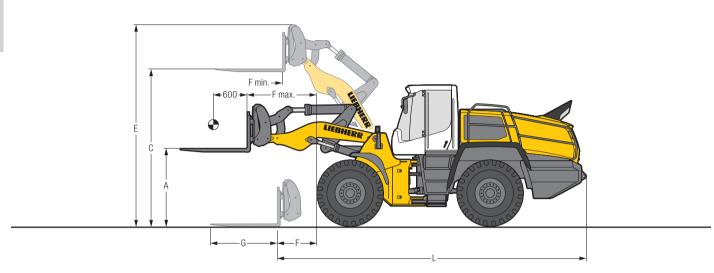
STD = Standard lift arm length

IND-QH = Industrial lift arm with parallel guidance incl. quick hitch

HL = High Lift

BOCE = Bolt-on cutting edge

#### Fork Carrier and Fork



## FEM IV Fork Carrier and Fork



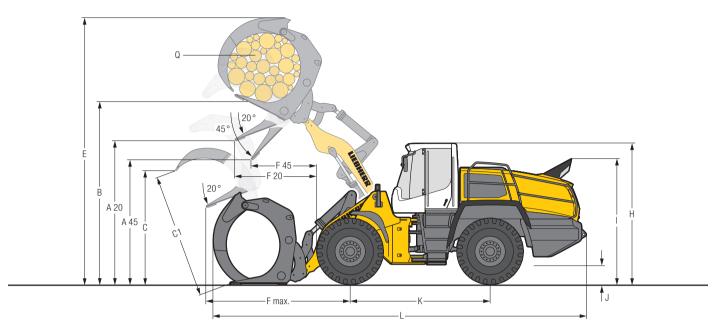
			L 550	L 556
	Geometry		IND-QH	IND-QH
Α	Lifting height at max. reach	mm	1,840	1,840
C	Max. lifting height	mm	3,835	3,835
E	Max. operating height	mm	4,825	4,825
F	Reach at loading position	mm	985	985
F max.	Max. reach	mm	1,680	1,680
F min.	Reach at max. lifting height	mm	750	750
G	Fork length	mm	1,500	1,500
L	Length – basic machine	mm	7,380	7,380
	Tipping load, straight*	kg	9,500	10,700
	Tipping load, fully articulated*	kg	8,300	9,200
	Recommended payload for uneven ground			
	= 60% of tipping load, articulated 1)	kg	4,980	5,520
	Recommended payload for smooth surfaces			
	= 80% of tipping load, articulated 1)	kg	6,640	7,360
	Operating weight*	kg	17,800	18,500
	Tyre size		23.5R25 L3	23.5R25 L3

 $<sup>^{\</sup>star}$  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)

IND-QH = Industrial lift arm with parallel guidance incl. quick hitch

<sup>1)</sup> According to EN 474-3

Log Grapple



## Log Grapple



			L 550	L 556
	Geometry		IND-QH	IND-QH
<b>A20</b>	Discharge height at 20°	mm	3,590	3,570
445	Discharge height at 45°	mm	3,020	2,950
3	Manipulation height	mm	4,530	4,530
)	Max. grapple opening in loading position	mm	2,395	2,740
C1	Max. grapple opening	mm	2,590	2,990
	Max. height	mm	6,320	6,480
20	Reach at max. lifting height at 20° discharge	mm	1,740	1,890
45	Reach at max. lifting height at 45° discharge	mm	1,410	1,530
max.	Max. reach	mm	2,670	2,820
1	Height above cab	mm	3,395	3,395
	Height above exhaust	mm	3,045	3,045
l	Ground clearance	mm	510	510
(	Wheelbase	mm	3,395	3,395
	Overall length	mm	8,720	8,870
	Width over tyres	mm	2,650	2,650
J	Grapple diameter	m²	1.8	2.4
	Grapple width	mm	1,600	1,600
	Payload*	kg	6,300	6,400
	Operating weight*	kg	19,700	20,500
	Tyre size		23.5R25 L4	23.5R25 L4

<sup>\*</sup> 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 payload.

IND-QH = Industrial lift arm with parallel guidance incl. quick hitch

## **Tyres**

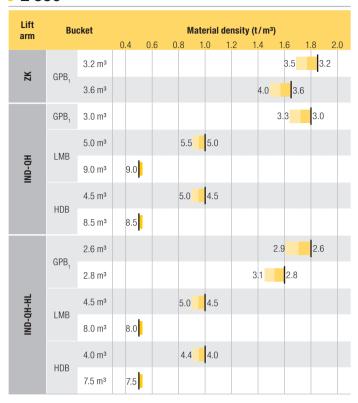
## Tyre Types

	Size and tread code		Change of operating weight	Width over tyres	Change in vertical dimensions	Use
	anu neau cout	5	kg	mm	mm	
L 550 XPow	ver®/L 556 XPower®	)	···g			
Bridgestone	23.5R25 VJT	L3	139	2,670	6	Bulk material (firm ground conditions)
Bridgestone	23.5R25 VSDL	L5	898	2,660	65	Stone, Scrap, Recycling (firm ground conditions)
Bridgestone	23.5R25 VSDT	L5	850	2,670	55	Stone, Scrap, Recycling (firm ground conditions)
Bridgestone	650/65R25 VTS	L3	4	2,700	- 30	Gravel (all ground conditions)
Bridgestone	750/65R25 VTS	L3	792	2,880	11	Gravel, Industry, Wood (all ground conditions)
Goodyear	23.5R25 RT-3B	L3	188	2,670	20	Gravel (all ground conditions)
Goodyear	23.5R25 TL-3A+	L3+	284	2,670	36	Sand, Gravel, Earthworks, Clay (all ground conditions)
Goodyear	23.5R25 GP-4D	L4	328	2,690	25	Gravel, Industry, Wood (firm ground conditions)
Goodyear	23.5R25 RL-4K	L4	500	2,680	39	Gravel, Industry, Stone (firm ground conditions)
Goodyear	23.5R25 RL-5K	L5	928	2,680	57	Stone, Scrap, Recycling (firm ground conditions)
Goodyear	23.5R25 RL-5S	L5S	968	2,680	57	Scrap, Recycling, Slag (firm ground conditions)
Goodyear	23.5R25 RT-5C	L5	620	2,660	55	Stone, Mining spoil (firm ground conditions)
Goodyear	750/65R25 TL-3A+	L3+	744	2,910	24	Sand, Gravel, Industry, Wood (all ground conditions)
Michelin	23.5R25 XHA2	L3	0	2,650	0	Sand, Gravel (all ground conditions)
Michelin	23.5R25 XTLA	L2	- 60	2,650	- 4	Gravel, Earthworks, Clay (all ground conditions)
Michelin	23.5R25 XMINE	L5	760	2,690	61	Stone, Scrap, Recycling (firm ground conditions)
Michelin	23.5R25 XLD D2A	L5	612	2,670	26	Stone, Mining spoil (firm ground conditions)
Michelin	650/65R25 XLD65	L3	- 112	2,690	- 53	Gravel (all ground conditions)
Michelin	750/65R25 XLD65	L3	588	2,870	- 7	Gravel, Industry, Wood (all ground conditions)

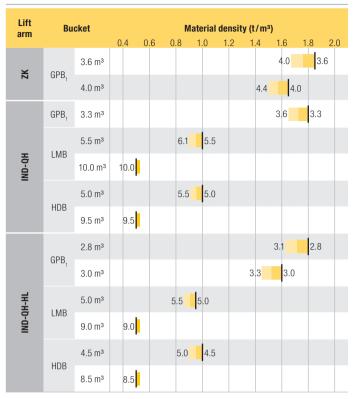
Before operating the vehicle with tyre foam filling or tyre protection chains, please discuss this with the Liebherr-Werk Bischofshofen GmbH.

## **Bucket Selection**

#### L 550



## L 556



## **Bucket Filling Factor**



#### **Lift Arm**

ZK	Z-bar linkage, standard lift arm length
IND-QH	Industrial lift arm with quich hitch, standard lift arm length
IND-QH-HL	Industrial lift arm with quich hitch, High Lift

#### Bucket

GPB <sub>1</sub>	General purpose bucket (Excavation bucket)
LMB	Light material bucket
HDB	High-dump bucket

#### **Bulk Material Densities and Bucket Filling Factors**

		t/m³	%
Gravel	moist	1.9	105
	dry	1.6	105
	crushed stone	1.5	100
Sand	dry	1.5	105
	wet	1.9	110
Gravel and	dry	1.7	105
Sand	wet	2.0	100
Sand/Clay		1.6	110
Clay	natural	1.6	110
	dry	1.4	110
Clay/Gravel	dry	1.4	110
	wet	1.6	100

		t/m³	%
Earth	dry	1.3	115
	wet excavated	1.6	110
Topsoil		1.1	110
Basalt		1.95	100
Granite		1.8	95
Sandstone		1.6	100
Slate		1.75	100
Bauxite		1.4	100
Limestone		1.6	100
Gypsum	broken	1.8	100
Coke		0.5	110
Slag	broken	1.8	100

	t/m³	%
broken	1.4	100
solid	1.0	100
dry	8.0	105
wet	1.0	110
Wood chips/Saw dust		110
shredded/loose	0.6	110
recovered paper/cardboard	1.0	110
heavy material density	1.2	110
light material density	0.9	110
domestic waste	0.5	100
bulky waste	1.0	100
	solid dry wet Saw dust shredded/loose recovered paper/cardboard heavy material density light material density domestic waste	broken 1.4 solid 1.0 dry 0.8 wet 1.0  Saw dust 0.5 shredded/loose 0.6 recovered paper/cardboard 1.0 heavy material density 1.2 light material density 0.9 domestic waste 0.5

## **Technical Data**

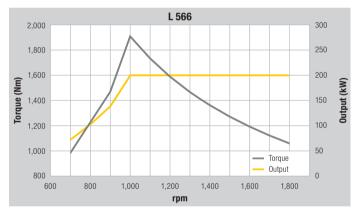
## Engine

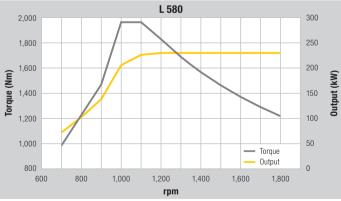
		L 566	L 576	L 580	L 586
Diesel engine		D936 A7	D936 A7	D936 A7	D936 A7
Design		Water-cooled	l in-series eng	ine with charq	ge-air cooling,
	exhaust after	treatment the	ough Liebheri	SCR	
		technology, o	closed diesel p	article filter sy	stem optional
Cylinder inline		6	6	6	6
Fuel injection process		Electronic Co	mmon Rail hi	gh-pressure ir	jection
Max. gross output					
to ISO 3046	kW/HP	203/276	218/296	233/317	263/358
and SAE J1995	at RPM	1,000 - 1,800	1,100 - 1,800	1,200 - 1,800	1,300 - 1,800
Max. net output					
to ISO 9249	kW/HP	200/272	215/292	230/313	260/354
and SAE J1349	at RPM	1,000 - 1,800	1,100 - 1,800	1,200 - 1,800	1,300 - 1,800
Max. net torque					
to ISO 9249	Nm	1,910	1,965	1,965	1,965
and SAE J1349	at RPM	1,000	1,000	1,000	1,000
Displacement	litres	10.52	10.52	10.52	10.52
Bore/Stroke	mm	122/150	122/150	122/150	122/150
Air cleaner system		Dry type filter	r with main ar	d safety elem	ent.

pre-cleaner, service indicator on the Liebherr display

#### **Electrical system** Operating voltage V 24 24 24 Ah 2 x 180 2 x 180 2 x 180 Battery 2 x 180 28/140 Alternator V/A 28/140 28/140 28/140 Starter V/kW 24/7.8 24/7.8 24/7.8 24/7.8

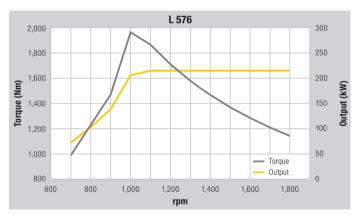
The exhaust emissions are below the limits in stage IV / Tier 4f.

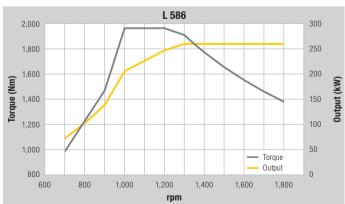




#### Driveline

Continuous hydraulic loa	nd-sharing XPower® driveline
Design	Continuous, fully-automatic XPower® driveline. No traction interruptions across the entire speed range. Hydrostatic load-sharing with two axial piston units.
	Identical driving performance – forwards and in reverse
Filtration	Filter system for driveline, depend on working hydraulics
Control	Driveline is controlled from travel pedal for tractive force and speed setting with integrated inch function. The Liebherr control lever is used to control forward and reverse travel
Travel speed range	L 566 – L 580: 0 – 40 km/h forward and reverse, fully-automatic L 586:
	0 – 33 km/h forward and reverse, fully-automatic Speed restriction available upon request. Speeds quoted apply with the tyres indicated as standard on loader model.





## I→I Axles

		L 566	L 576	L 580	L 586
Four-wheel drive					
Front axle		Fixed			
Rear axle Height of obstacles which		Centre pivo	ot, with 13° (	oscillating ang	le to each side
can be driven over	mm	492	473	473	523
		with all fou ground	r wheels ren	naining in cont	act with the
Differentials		Automatic	limited-slip o	lifferentials	
Reduction gear		Planetary f	inal drive in	wheel hubs	
Track width	,	,,	s of tyres (L 56 s of tyres (L 58	66, L 576, L 580) 36)	

## **Brakes**

Wear-free service brake	Self-locking of the XPower® driveline (acting on all four wheels) and additional pump-accumulator brake system with wet multi-disc brakes (two separate brake circuits)
Parking brake	Electro-hydraulically actuated spring-loaded disc brake system on the transmission
The braking system meets	the requirements of the FC guidelines 71/320.

## Steering

Design	"Load-sensing" swash plate type variable flow pump with pressure cut-off and flow control. Central pivot with two double-acting, damped steering cylinders
Angle of articulation	40° to each side (L 566, L 576, L 580) 37° to each side (L 586)
Emergency steering	Electro-hydraulic emergency steering system

## Attachment Hydraulics

	L 566	L 576	L 580	L 586	
	"Load-se	ensing" swash	plate type var	iable flow pump	
	with outp	out and flow co	ontrol, and pre	ssure cut-off in	
	the contr	rol block			
	Hydraulid	c oil cooling us	ing thermosta	tically controlled	
	fan and o	oil cooler			
	Return line filter in the hydraulic reservoir				
	Liebherr control lever, electro-hydraulically operated				
t circuit Lifting, neutral, lowering					
	Automat	ic hoist kick-oi	ut and lowerin	g shut-down by	
	Liebherr	control lever			
	Float pos	sition controlle	d by Liebherr	control lever	
	Tilt back	, neutral, dum	)		
	Automat	ic bucket retur	n for tilting ba	ck and dumping	
	controlle	d by Liebherr	control lever		
l/min.	290	290	320	410	
bar	350	380	380	330	
har	380		380		
	bar	"Load-se with outp the control	"Load-sensing" swash with output and flow or the control block Hydraulic oil cooling us fan and oil cooler Return line filter in the Liebherr control lever, Lifting, neutral, lowerin Automatic hoist kick-ou Liebherr control lever Float position controlle Tilt back, neutral, dum Automatic bucket retur controlled by Liebherr of I/min. 290 290  bar 350 380	"Load-sensing" swash plate type var with output and flow control, and pre the control block Hydraulic oil cooling using thermosta fan and oil cooler Return line filter in the hydraulic rese Liebherr control lever, electro-hydrau Lifting, neutral, lowering Automatic hoist kick-out and lowerin Liebherr control lever Float position controlled by Liebherr Tilt back, neutral, dump Automatic bucket return for tilting ba controlled by Liebherr control lever I/min. 290 290 320  bar 350 380 380 380	

## **5** Attachment

	L 566		L 576	L 580		L 586
Geometry variants						
Optional	Power cross-		linkage w	ith tilt cy	linder and	d cast stee
	Indust	rial lift ar	m with tilt	cylinder	, hydrauli	c quick
	hitch a	as standa	rd (L 566	L 580)		
Bearings	Sealed	t		,		
Cycle time at nominal load	ZK	IND	ZK	ZK	IND	ZK
Lifting	s 5.5	5.5	5.5	6.1	6.1	6.5
Dumping	s 2.0	3.0	2.0	2.0	3.2	3.0
Lowering (empty)	s 3.5	3.5	3.5	3.5	3.5	4.0

• Operator s	Cab
Design	Hydraulically 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 sliding side window, sliding side window on right, front windscreen made of compound safety glass, green tinted as standard, side panels with single-pane safety glass ESG, heated rear window ESG. 3 way continuous adjustable steering column
Liebherr operator's seat	6 way adjustable, vibration-damped operator's seat "Comfort" with seat, depth and incline adjustment as standard (air-cushioned with seat heating adjustable to operator's weight), Liebherr control lever mounted into the operator's seat as standard
Cab heating and ventilation	4-zone air conditioning with new improved cooling output as standard, all filters are easy to access and replaceable



## Noise Emission

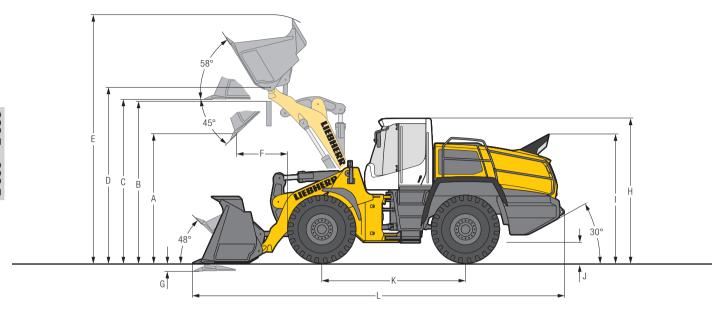
	L 566	L 576	L 580	L 586
ISO 6396				
L <sub>pA</sub> (inside cab)	68 dB(A)	68 dB(A)	68 dB(A)	68 dB(A)
2000/14/EG				
L <sub>WA</sub> (surround noise)	105 dB(A)	105 dB(A)	105 dB(A)	107 dB(A)

## **Capacities**

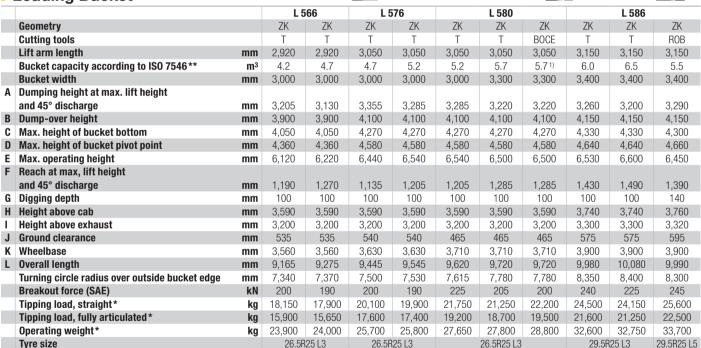
	L 566	L 576	L 580	L 586
Fuel tank	I 400	400	400	500
Engine oil				
(inclusive filter change)	I 40	40	40	40
Carbamide box	I 67.5	67.5	67.5	67.5
Pump distribution gearbox	I 1.2	1.2	1.2	1.2
Transmission	I 70	70	70	70
Coolant	I 70	70	70	77
Front axel	I 48	56	56	56
Rear axel	I 48	48	56	56
Hydraulic tank	I 91	91	91	71
Hydraulic system, total	l 190	190	190	210
Air conditioning system				
R134a	g 1,250	1,250	1,250	1,250

## **Dimensions**

#### Z-bar Linkage



#### **Loading Bucket**



<sup>\*</sup> 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) Toothed buckets, hydraulic quick hitch and additional hydraulic circuits are not approved for rehandling application.

=E

= Excavation bucket with back grading edge for direct mounting

= R

= Rehandling bucket for direct mounting

- herialiding bucket for direct mounting

= Rock bucket with oblique base for quarrying applications for direct mounting

ZK = Z-bar linkage

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

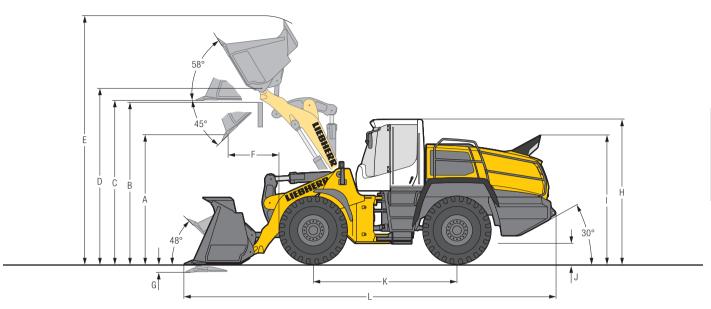
BOCE = Bolt-on cutting edge

B = Rock bucket with delta cutting edge, welded-on tooth holder with add-on teeth and bolted intermediate sections

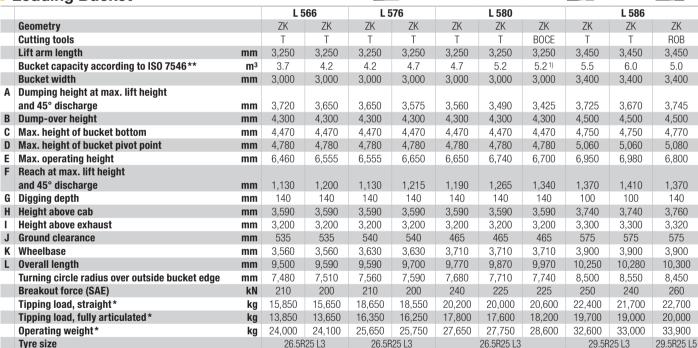
<sup>\*\*</sup> Actual bucket capacity may be approx. 10% larger than the calculation according to ISO 7546 standard. The degree to which the bucket can be filled depends on the material – see pages 35/36.

## **Dimensions**

#### Z-bar Linkage High Lift



#### **Loading Bucket**



<sup>\*</sup> 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)

Excavation bucket with back grading edge for direct mounting
 Rehandling bucket for direct mounting

= Rock bucket with oblique base for quarrying applications for direct mounting

ZK = Z-bar linkage

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

BOCE = Bolt-on cutting edge

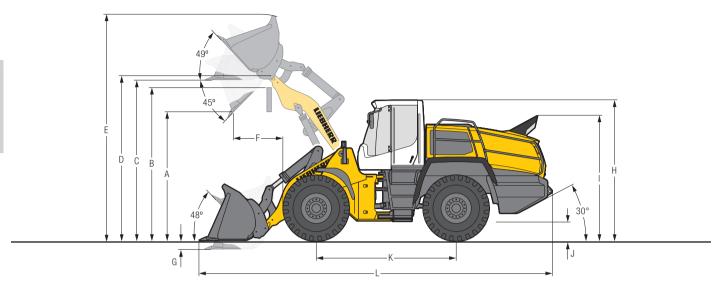
ROB = Rock bucket with delta cutting edge, welded-on tooth holder with add-on teeth and bolted intermediate sections

<sup>\*\*</sup> 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 pages 35/36.

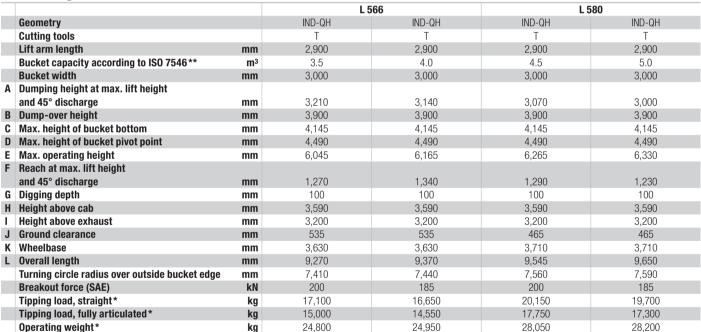
<sup>1)</sup> Toothed buckets, hydraulic quick hitch and additional hydraulic circuits are not approved for rehandling application.

## imensions

Industrial Lift Arm



#### **Loading Bucket**



26.5R25 L3

28,050

26.5R25 L3

kg

The degree to which the bucket can be filled depends on the material – see pages 35/36.

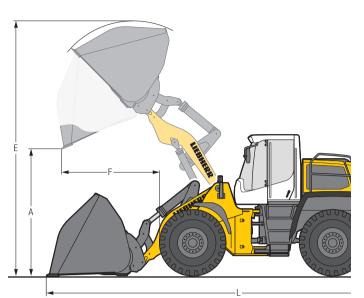
Excavation bucket with back grading edge for quick hitch IND-QH = Industrial lift arm with parallel guidance incl. guick hitch

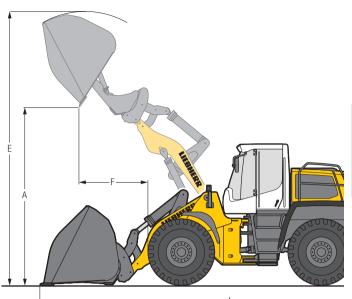
= Welded-on tooth holder with add-on teeth

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)

<sup>\*\*</sup> Actual bucket capacity may be approx. 10% larger than the calculation according to ISO 7546 standard.

Light Material Bucket and High-Dump Bucket





## Light Material Bucket





			1.5	66	L 580		L 586
			Li	100	L	300	L 300
	Geometry		IND-QH	IND-QH	IND-QH	IND-QH	ZK
	Cutting tools		BOCE	BOCE	BOCE	BOCE	BOCE
	Bucket capacity	m <sup>3</sup>	6.5	12.0	7.5	14.0	8.5
	Bucket width	mm	3,200	3,700	3,400	4,000	3,500
Α	Dumping height at max. lift height	mm	2,885	2,620	2,810	2,480	2,940
Ε	Max. operating height	mm	6,470	6,700	6,580	6,800	6,835
F	Reach at maximum lift height	mm	1,485	1,860	1,550	1,950	1,770
L	Overall length	mm	9,545	10,025	9,715	10,200	10,200
	Tipping load, straight*	kg	15,700	14,600	19,300	17,900	24,000
	Tipping load, fully articulated*	kg	13,700	12,600	16,900	15,500	21,000
	Operating weight*	kg	25,350	26,300	28,650	29,600	32,800
	Tyre size		26.5F	25 L3	26.5	R25 L3	29.5R25 L3

## High-Dump Bucket





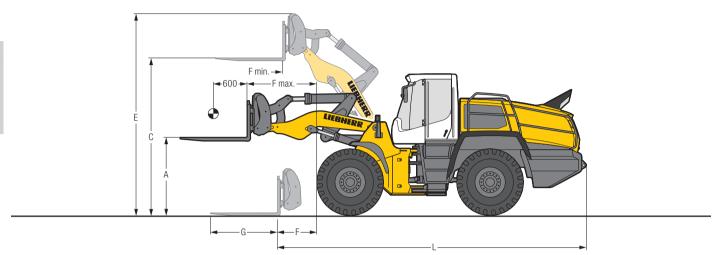
	-		L 5	666	L 5	80	L 586
	Geometry		IND-QH	IND-QH	IND-QH	IND-QH	ZK
	Cutting tools		BOCE	BOCE	BOCE	BOCE	BOCE
	Bucket capacity	m³	6.0	11.0	7.0	13.0	8.5
	Bucket width	mm	3,200	3,700	3,200	4,000	3,500
Α	Dumping height at max. lift height	mm	5,130	4,840	4,970	4,780	5,100
Ε	Max. operating height	mm	7,215	7,490	7,420	7,650	7,700
F	Reach at maximum lift height	mm	1,780	2,140	2,040	2,060	2,000
L	Overall length	mm	9,815	10,125	10,060	10,300	10,500
	Tipping load, straight*	kg	14,700	14,100	17,800	17,100	23,200
	Tipping load, fully articulated*	kg	12,700	12,100	15,500	14,800	20,300
	Operating weight*	kg	26,000	26,900	29,100	30,100	33,500
	Tyre size		26.5R	25 L3	26.5R	25 L3	29.5R25 L3

<sup>\*</sup> 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)

 $\label{eq:inductive} \mbox{IND-QH} = \mbox{Industrial lift arm with parallel guidance incl. quick hitch}$ 

= Z-bar linkage BOCE = Bolt-on cutting edge

#### Fork Carrier and Fork



## FEM IV Fork Carrier and Fork



			L 566	L 580
	Geometry		IND-QH	IND-QH
Α	Lifting height at max. reach	mm	2,075	2,075
C	Max. lifting height	mm	4,220	4,220
E	Max. operating height	mm	5,200	5,200
F	Reach at loading position	mm	1,145	1,025
F max.	Max. reach	mm	1,925	1,805
F min.	Reach at max. lifting height	mm	980	860
G	Fork length	mm	1,800	1,800
L	Length – basic machine	mm	8,100	8,170
	Tipping load, straight*	kg	13,500	16,300
	Tipping load, fully articulated *	kg	11,900	14,400
	Recommended payload for uneven ground			
	= 60% of tipping load, articulated 1)	kg	7,140	9,780
	Recommended payload for smooth surfaces			
	= 80% of tipping load, articulated 1)	kg	9,520	10,000 2)
	Operating weight*	kg	23,950	26,900
	Tyre size		26.5R25 L3	26.5R25 L3

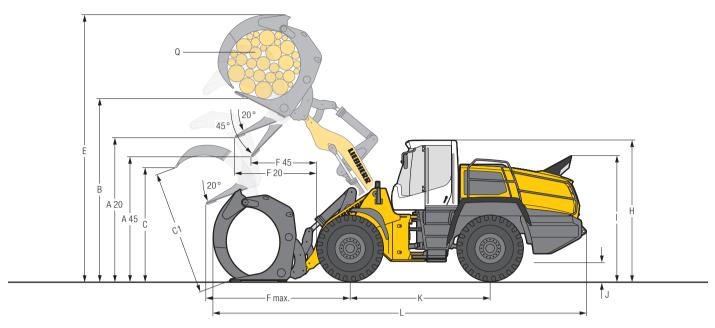
 $<sup>^{\</sup>star}$  The figures shown include the above tyres, all lubricants, a full fuel tank, the ROPS/FOPS cab and the operator. Different tyres and optional equipment will change the operating weight and tipping load. (Tipping load, fully articulated according to ISO 14397-1)

IND-QH = Industrial lift arm with parallel guidance incl. quick hitch

<sup>1)</sup> According to EN 474-3

<sup>2)</sup> Payload is limited by FEM IV fork carrier and forks

Log Grapple

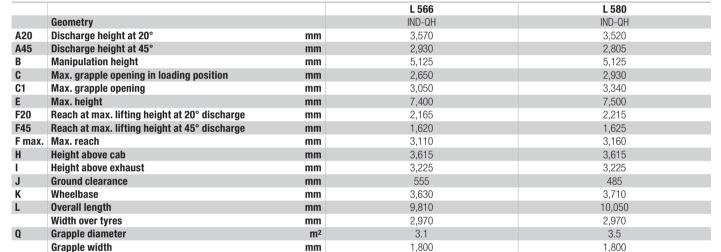


#### Log Grapple

Payload\*

Tyre size

Operating weight\*



kg

kg

8,200

26,950

26.5R25 L4

IND-QH = Industrial lift arm with parallel guidance incl. quick hitch

9,200

29,850

26.5R25 L4

<sup>\*</sup> 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 payload.

## **Tyres**

## Tyre Types

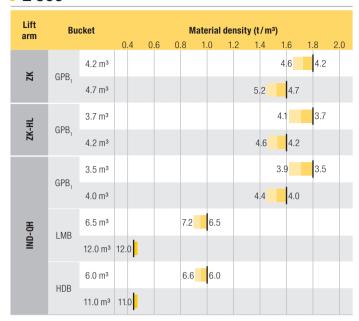
	Size and tread code	е	Change of operating weight	Width over tyres	Change in vertical dimensions	Use
			kg	mm	mm	
L 566 XPow	er®/L 576 XPower®	/L 580	) XPower®			
Bridgestone	26.5R25 VJT	L3	160	2,970	14	Bulk material (firm ground conditions)
Bridgestone	26.5R25 VSDT	L5	1,038	2,970	50	Stone, Mining spoil (firm ground conditions)
Bridgestone	26.5R25 VSDL	L5	1,290	2,970	57	Stone, Scrap, Recycling (firm ground conditions)
Bridgestone	750/65R25 VTS	L3	134	3,070	- 39	Gravel, Industry, Wood (all ground conditions)
Goodyear	26.5R25 RT-3B	L3	328	2,970	25	Gravel (all ground conditions)
Goodyear	26.5R25 TL-3A+	L3+	348	2,980	30	Sand, Gravel, Earthworks, Clay (all ground conditions)
Goodyear	26.5R25 GP-4D	L4	436	2,980	26	Gravel, Industry, Wood (firm ground conditions)
Goodyear	26.5R25 RL-4K	L4	776	2,990	63	Gravel, Industry, Stone (firm ground conditions)
Goodyear	26.5R25 RL-5K	L5	1,244	2,990	63	Stone, Scrap, Recycling (firm ground conditions)
Goodyear	26.5R25 RL-5S	L5S	1,460	2,990	63	Scrap, Recycling, Slag (firm ground conditions)
Goodyear	26.5R25 RT-5D	L5	1,008	2,970	63	Stone, Mining spoil (firm ground conditions)
Goodyear	750/65R25 TL-3A+	L3+	88	3,100	- 26	Sand, Gravel, Industry, Wood (all ground conditions)
Michelin	26.5R25 XHA2	L3	0	2,960	0	Sand, Gravel (all ground conditions)
Michelin	26.5R25 XMINE	L5	1,060	3,000	11	Stone, Scrap, Recycling (firm ground conditions)
Michelin	26.5R25 XLD D2A	L5	696	2,970	38	Stone, Mining spoil (firm ground conditions)
Michelin	750/65R25 XLD 65	L3	- 68	3,060	<b>–</b> 57	Gravel, Industry, Wood (all ground conditions)

L 586 XPow	ver®					
Bridgestone	29.5R25 VJT	L3	146	3,260	15	Bulk material (firm ground conditions)
Bridgestone	29.5R25 VSDT	L5	1,370	3,270	50	Stone, Mining spoil (firm ground conditions)
Bridgestone	29.5R25 VSDL	L5	1,730	3,270	60	Stone, Scrap, Recycling (firm ground conditions)
Goodyear	29.5R25 TL-3A+	L3+	532	3,290	36	Sand, Gravel, Earthworks, Clay (all ground conditions)
Goodyear	29.5R25 GP-4D	L4	504	3,260	24	Gravel, Industry, Wood (firm ground conditions)
Goodyear	29.5R25 RL-4K	L4	1,124	3,270	44	Gravel, Industry, Stone (firm ground conditions)
Goodyear	29.5R25 RL-5K	L5	1,600	3,310	66	Stone, Scrap, Recycling (firm ground conditions)
Goodyear	29.5R25 RT-5D	L5	1,508	3,300	56	Stone, Mining spoil (firm ground conditions)
Goodyear	29.5R25 RL-5S	L5S	2,100	3,270	66	Scrap, Recycling, Slag (firm ground conditions)
Michelin	29.5R25 XHA2	L3	0	3,250	0	Sand, Gravel (all ground conditions)
Michelin	29.5R25 XLD D2A	L5	936	3,260	26	Stone, Mining spoil (firm ground conditions)
Michelin	29.5R25 XMINE	L5	1,316	3,300	55	Stone, Scrap, Recycling (firm ground conditions)

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

## **Bucket Selection**

## L 566



## L 576

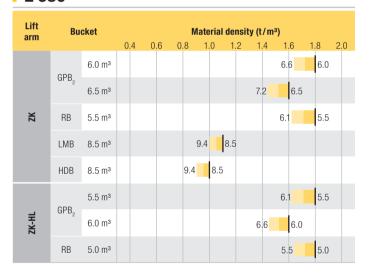
Lift arm	Bu	cket			N	<b>Naterial</b>	densit	ty (t/m	<sup>3</sup> )		
a			0.4	0.6	0.8	1.0	1.2	1.4	1.6	1.8	2.0
ZK	CDP	4.7 m <sup>3</sup>							5.2	4.7	
Z	GPB <sub>1</sub>	5.2 m <sup>3</sup>						5.7	5.2		
ZK-HL	CDD	4.2 m <sup>3</sup>							4.6	4.2	
ZK	GPB <sub>1</sub>	4.7 m³						5.2	4.7		

#### L 580

Lift arm	Bu	0.4	0	0 0			lensity			1.0	0.0	
	GPB <sub>1</sub>	5.2 m <sup>3</sup>	0.4	U	.6 (	).8	1.0	1.2	1.4	1.6 5.7	5.2	2.0
ZK	CDD	5.7 m³							6.3	5.7		
	GPB <sub>2</sub>	5.7 m <sup>3</sup> *							6.	3	5.7	
	GPB,	4.7 m³								5.2	4.7	
ZK-HL	ui b <sub>1</sub>	5.2 m <sup>3</sup>							5.7	5.2		
	GPB <sub>2</sub>	5.2 m <sup>3</sup> *							5	.7	5.2	
	GPB <sub>1</sub>	4.5 m³								5.0	4.5	
	ar D <sub>1</sub>	5.0 m <sup>3</sup>							5.5	5.0		
IND-0H	LMB	7.5 m³				8.3	7.5					
Ĭ		14.0 m <sup>3</sup>	14.0									
	HDB	7.0 m <sup>3</sup>				7.7	7.0					
* Toothed hu		13.0 m³										

#### \* Toothed buckets, hydraulic quick hitch and additional hydraulic circuits are not approved for rehandling application.

#### L 586



## **Bucket Selection**

#### Bucket Filling Factor



#### Lift Arm

ZK	Z-bar linkage, standard lift arm length
IND-QH	Industrial lift arm with quich hitch, standard lift arm length
ZK-HL	Z-bar linkage, High Lift

#### **Bucket**

GPB <sub>1</sub>	General purpose bucket (Excavation bucket)
GPB <sub>2</sub>	General purpose bucket (Rehandling bucket)
RB	Rock bucket
LMB	Light material bucket
HDB	High-dump bucket

#### Bulk Material Densities and Bucket Filling Factors

		t/m³	%
Gravel	moist	1.9	105
	dry	1.6	105
	crushed stone	1.5	100
Sand	dry	1.5	105
	wet	1.9	110
<b>Gravel and</b>	dry	1.7	105
Sand	wet	2.0	100
Sand/Clay		1.6	110
Clay	natural	1.6	110
	dry	1.4	110
Clay/Gravel	dry	1.4	110
	wet	1.6	100

		t/m³	%
Earth	dry	1.3	115
	wet excavated	1.6	110
Topsoil		1.1	110
Basalt		1.95	100
Granite		1.8	95
Sandstone		1.6	100
Slate		1.75	100
Bauxite		1.4	100
Limestone		1.6	100
Gypsum	broken	1.8	100
Coke		0.5	110
Slag	broken	1.8	100

		t/m³	%
Glass waste	broken	1.4	100
	solid	1.0	100
Compost	dry	8.0	105
	wet	1.0	110
Wood chips/s	Saw dust	0.5	110
Paper	shredded/loose	0.6	110
	recovered paper/cardboard	1.0	110
Coal	heavy material density	1.2	110
	light material density	0.9	110
Waste	domestic waste	0.5	100
	bulky waste	1.0	100

## **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.

Tipping load, articulated Pay load =

Pay load (t) Bucket capacity = Specific bulk weight of material (t/m³)

## **The Liebherr Wheel Loaders**

Wheel Loader						
		L 506 Compact	L 507Stereo	L 508 Compact	L 509 Stereo	L 514 Stereo
Tipping load	kg	3,450	3,712	3,850	4,430	5,680
Bucket capacity	m³	0.8	0.9	1.0	1.2	1.5
Operating weight	kg	5,180	5,470	5,600	6,390	8,350
Engine output	kW/HP	46/63	50/68	50/68	54/73	77/105
Wheel Loader						
		L 524	L 528	L 538	L 542	L 550 XPower®
Tipping load	kg	7,500	8,500	9,500	10,200	12,200
Bucket capacity	m³	2.1	2.3	2.6	2.8	3.2
Operating weight	kg	10,400	10,900	12,800	13,400	17,700
Engine output	kW/HP	90/122	100/136	115/156	120/163	140/191
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	m³	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	165/224	200/272	215/292	230/313	260/354

## **Equipment**

Basic Wheel Loader	550	556	566	226	580	586
Crash protection, rear	+	+	+	+	+	+
Automatic central lubrication system	+	+	+	+	+	•
Battery main switch (lockable)	•	•	•	•	•	•
Diesel particle filter	+	+	+	+	+	+
Electronic tractive force regulation for difficult ground	•	•	•	•	•	•
Ride control	•	•	•	•	•	•
Parking brake	•	•	•	•	•	•
Fire extinguisher 6 kg	+	+	+	+	+	4
Fluff trap for radiator	+	+	+	+	+	4
Speed limitor 20 km/h as a factory preset	+	+	+	+	+	4
Speed limitor V <sub>max</sub> adjustable key on the control unit	•	•	•	•	•	٠
Carbamide box	•	•	•	•	•	•
Low temperature package	+	+	+	+	+	4
Pre-heat system for cold starting	•	•	•	•	•	•
Rear license panel light	+	+	+	+	+	4
Combined inching-braking system	•	•	•	•	•	•
Corrosion protection package for salt and						
fertilizer handling	+	+	+	+	+	
Mudguard extension	+	+	+	+	+	Н
Fuel pre-filter	•	•	•	•	•	•
Fuel pre-filter with pre-heating	+	+	+	+	+	-
Large-mesh radiator	+	+	+	+	+	-
Cooling water pre-heating 230 V	+	+	+	+	+	-
Multi-disc limited slip differentials in both axles	•	•	•	•	•	•
Liebherr biodegredable hydraulic oil	+	+	+	+	+	Н
Reversible fan drive	+	+	+	+	+	+
Widening for mudguard	+	+	+	+	+	Н
Widening for mudguard rear (in steel design)						
and bigger front mudguards	_	_	_	_	_	-
Headlights halogen (double design on engine hood)	•	•	•	•	•	•
Headlights LED (double design on engine hood)	+	+	+	+	+	+
Guard for headlights	+	+	+	+	+	+
Road travel counterweight	•	•	+	_	_	_
Lockable doors and engine hood	•	•	•	•	•	•
Tunnel package	+	+	+	+	_	-
Chassis protection rear	+	+	+	+	+	Н
Chassis protection front	+	+	+	+	+	+
Air pre-cleaner TOP AIR	+	+	+	+	+	+
Toolbox with toolkit	•	•	•	•	•	•
Weigher unit Liebherr (integrated in display unit)	+	+	+	+	+	+
Towing hitch	•	•	•	•	•	•
Additional handrails left	•	•	•	•	•	•
Additional handrails right	+	+	+	+	+	-
Additional heating	+	+	+	+	+	4

<b>F</b> Equipment	550	226	299	929	280	286
Working hydraulics lockout	•	•	•	•	•	•
Automatic hoist kick-out and lowering shut-down programmable	•	•	•	•	•	•
Automatic bucket return programmable	•	•	•	•	•	•
Fork carrier and pallet forks	+	+	+	+	+	+
High-dump bucket	+	+	+	+	+	+
Log grapple	+	+	+	+	+	+
High Lift arms	+	+	+	+	+	+
Industrial lift arm	+	+	+	+	+	+
Lift arm Z-bar linkage	•	•	•	•	•	•
Hydraulic quick hitch	+	+	+	+	+	+
Adjustable tipping speed	•	•	•	•	•	•
Tilt cylinder protection	+	+	+	+	+	+
Loading buckets incl. a range of cutting tools	+	+	+	+	+	+
Light material bucket	+	+	+	+	+	+
Load holding valves	+	+	+	+	+	+
Float position	•	•	•	•	•	•
Pre-fitted for use with work cage	+	+	+	+	+	+
3rd and 4th electro-hydraulic, proportional control circuit, adjustable delivery flow	+	+	+	+	+	+
3rd and 4th electro-hydraulic control circuit for continuous sweeper and snow blower operation	+	+	+	+	+	+

Operator's Cab	220	256	266	276	280	586
Access assistance to facilitate cleaning windscreen	•	•	•	•	•	•
Exterior mirror, electrical adjustable, with heating	+	+	+	+	+	+
Exterior mirror, tiltable and adjustable	•	•	•	•	•	•
Operating hour meter (integrated in display unit)	•	•	•	•	•	•
Operating hour meter (mechanic)	+	+	+	+	+	+
Electronical theft protection with/withoug driver						
identification	+	+	+	+	+	+
Storage box left	•	•	•	•	•	•
Operator seat "Comfort" - air sprung with seat heating	•	•	•	•	•	•
Operator seat "Premium" – active air-suspension						
with seat air-condition and seat heating	+	+	+	+	+	+
Particle filter F7	•	•	•	•	•	•
Fire extinguisher in cab 2 kg	+	+	+	+	+	+
Audible horn control integrated into Liebherr control lever	+	+	+	+	+	+
Joystick steering	+	+	+	+	+	+
Floor mat	•	•	•	•	•	•
Clothes hooks (2 pieces)	•	•	•	•	•	•
Air conditioning system	•	•	•	•	•	•
Automatic air conditioning system	+	+	+	+	+	+
Cool box	+	+	+	+	+	+
3 way continuously adjustable steering column						
(height-adjustable, tilting, folding)	•	•	•	•	•	•
Steering stabilisation	•	•	•	•	•	•
LiDAT total use 1 year (for free)	•	•	•	•	•	•
Liebherr control lever with mini-joystick for 3rd and 4th						
electro-hydraulic proportional control circuit moving						
with operator's seat	+	+	+	+	+	+
Liebherr control lever moving with operator's seat						
(incl. kick down, travel direction)	•	•	•	•	•	•
Liebherr multi-lever control system moving with						
operator's seat (incl. kick down, travel direction)	+	+	+	+	+	+
Liebherr key (Remote Key)	+	+	+	+	+	+
Premiumdisplay (Touchscreen), with height adjustment						
and tilting function	•	•	•	•	•	•
Preparation for radio installation	+	+	+	+	+	+
Radio Liebherr "Comfort" (SD/USB/AUX/BLUET00TH/						
handsfree set)	+	+	+	+	+	+
Radio Liebherr "Standard" (SD/USB/AUX)	+	+	+	+	+	+

<i>I</i>				· (C		-
Operator's Cab	220	556	566	576	580	586
Interior rear-view mirror	•	•	•	•	•	•
Amber beacon swiveling/fixed	+	+	+	+	+	+
Soundproof ROPS/FOPS cab	•	•	•	•	•	•
Bucket return with button integrated into Liebherr						
control lever	+	+	+	+	+	+
Wipe and wash system	•	•	•	•	•	•
Windscreen wiper single-sweep function with button						
integrated into the Liebherr control lever	+	+	+	+	+	+
Headlights rear, single design, halogen/LED	+	+	+	+	+	+
Headlights rear, double design, halogen/LED	+	+	+	+	+	+
Headlights front, double design, halogen	•	•	•	•	•	•
Headlights front, double design, LED	+	+	+	+	+	+
Sliding window left/right	•	•	•	•	•	•
Windscreen guard	+	+	+	+	+	+
Sunblind rear	+	+	+	+	+	+
Sunblind front	•	•	•	•	•	•
Power socket 12 V	•	•	•	•	•	•
First aid kit	+	+	+	+	+	+
Preparation for protective ventilation and dust filtrating						
device	+	+	+	+	+	+
Wide angle mirror left	+	+	+	+	+	+
Wide angle mirror right	•	•	•	•	•	•
Cigarette lighter	•	•	•	•	•	•
2-in-1 steering – changeable	+	+	+	+	+	-

Safety	550	556	266	929	580	586
Country-specific versions	+	+	+	+	+	+
Emergency steering system	•	•	•	•	•	•
Reversing obstruction detector	+	+	+	+	+	+
Back-up alarm acoustic/visual	+	+	+	+	+	+
Rear space monitoring with camera (integrated in display unit)	•	•	•	•	•	•

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## The Liebherr Group of Companies



#### **Wide Product Range**

The Liebherr Group is one of the largest construction equipment manufacturers in the world. Liebherr's high-value products and services enjoy a high reputation in many other fields. The wide range includes domestic appliances, aerospace and transportation systems, machine tools and maritime cranes.

#### **Exceptional Customer Benefit**

Every product line provides a complete range of models in many different versions. With both their technical excellence and acknowledged quality, Liebherr products offer a maximum of customer benefits in practical application.

#### State-of-the-art Technology

To provide consistent, top quality products, Liebherr attaches great importance to each product area, its components and core technologies. Important modules and components are developed and manufactured in-house, for instance the entire drive and control technology for construction equipment.

#### Worldwide and Independent

Hans Liebherr founded the Liebherr family company in 1949. Since that time, the enterprise has steadily grown to a group of more than 130 companies with over 41,000 employees located on all continents. The corporate headquarters of the Group is Liebherr-International AG in Bulle, Switzerland. The Liebherr family is the sole owner of the company.

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