



# L 524 – L 580

## LIEBHERR

Wheel Loaders

### Generation

5

### Tipping Load

7,500 kg – 18,950 kg

### Diesel Engine

Stage II

Stage IIIA (compliant)

Bharat stage IV (India),

China NR-IV

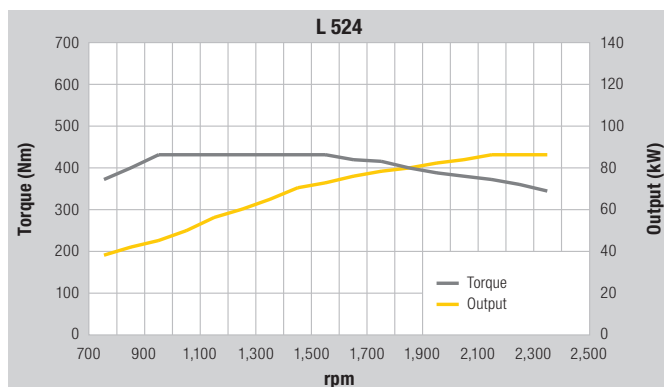
# Technical Data

L 524 / L 538



## Diesel engine

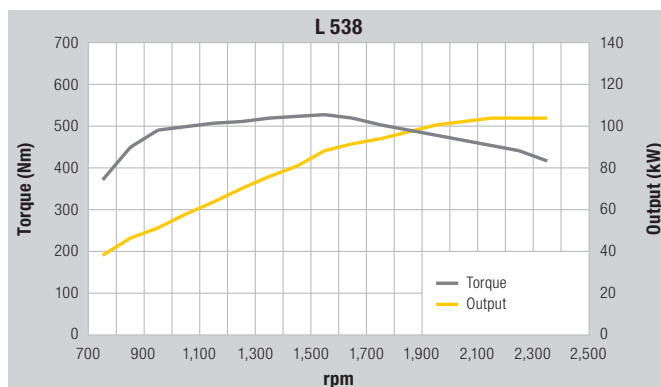
	L 524	L 538
<b>Diesel engine</b>	4045HF286	4045HF286
Design	Water-cooled, turbo charged, intercooled	
Cylinder inline	4	4
Fuel injection process	Electronic Common Rail high-pressure injection	
Max. gross output to ISO 3046	kW/HP 86/117	104/141
and SAE J1995 at RPM	2,200	2,200
Max. net output to ISO 9249	kW/HP 85/116	102/139
and SAE J1349 at RPM	2,200	2,200
Rated output to ISO 14396	kW/HP 86/117	104/141
at RPM	2,400	2,400
Max. net torque to ISO 9249	Nm 416	508
and SAE J1349 at RPM	1,400	1,400
Displacement	litres 4.5	4.5
Bore/Stroke	mm 106/127	106/127
<b>Stage IIIA (compliant)</b>		
Harmful emissions values	According to regulation ECE-R.96 Power Band H	
<b>Air cleaner system</b>	Dry air filter with main and safety element, pre-cleaner, service indicator	
<b>Electrical system</b>		
Operating voltage	V 24	24
Battery	Ah 2 x 135	2 x 135
Alternator	V/A 28/100	28/100
Starter	V/kW 24/7	24/7



## Driveline

### Continuous hydrostatic driveline

Design	Swash plate type variable flow pump and two variable axial piston motors in closed loop circuit and axle transfer case. Direction of travel is reversed by changing the flow-direction of the variable-displacement pump
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 at full engine speed. The Liebherr control lever is used to control forward and reverse travel
<b>Travel speed range</b>	Speed range 1 _____ 0 – 4 km/h Speed range A1 – 2 _____ 0 – 15 km/h Speed range A1 – 3 _____ 0 – 40 km/h forward and reverse Speeds quoted apply with the tyres indicated as standard on loader model.





## Axles

	L 524	L 538
<b>Four-wheel drive</b>		
<b>Front axle</b>	Fixed	
<b>Rear axle</b>	Centre pivot, with 10° oscillating angle to each side	
Height of obstacles which can be driven over	mm 470	470
	with all four wheels remaining in contact with the ground	
<b>Differentials</b>	Automatic limited-slip differentials	
<b>Reduction gear</b>	Planetary final drive in wheel hubs	
<b>Track width</b>	1,960 mm with all types of tyres (L 524) 1,900 mm with all types of tyres (L 538)	

## Brakes

<b>Wear-free service brake</b>	Self-locking of the hydrostatic driveline (acting on all four wheels) and additional pump-accumulator brake system with wet multi-disc brakes located in the differential housing (two separate brake circuits)
<b>Parking brake</b>	Electro-hydraulically actuated spring-loaded disc brake system on the front axle

The braking system meets the requirements of the ISO 3450.

## Tyres

<b>Standard size L 524</b>	17.5R25 L3
<b>Standard size L 538</b>	20.5R25 L3
<b>Special tyres</b>	By arrangement with the manufacturer

## Steering

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

## Attachment Hydraulics

	L 524	L 538
<b>Design</b>	"Load-sensing" swash plate type variable flow pump with output and flow control, and pressure cut-off in the control block	
<b>Cooling</b>	Hydraulic oil cooling using thermostatically controlled fan and oil cooler	
<b>Filtration</b>	Return line filter in the hydraulic reservoir	
<b>Control</b>	Liebherr control lever with hydraulic servo control	
<b>Lifting function</b>	Lifting, neutral, lowering Float position controlled by Liebherr control lever with detent	
<b>Tilt function</b>	Tilt back, neutral, dump Automatic bucket return to dig as standard	
<b>Max. flow</b>	l/min. 102	170
<b>Max. pressure</b>	bar 315	350

## Attachment

	L 524		L 538	
<b>Geometry variants</b>				
Optional	Powerfull Z-bar linkage with tilt cylinder and steel cross-tube			
	Parallel linkage with two tilt cylinders and steel cross-tube			
<b>Bearings</b>	Sealed			
<b>Cycle time at nominal load</b>	ZK	PK	ZK	PK
Lifting	s 6.6	6.6	5.3	5.3
Dumping	s 1.8	3.5	1.6	3.5
Lowering (empty)	s 4.0	4.0	4.0	4.0

## Operator's Cab

<b>Design</b>	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 105° opening angle, ventilation opening on the right hand side, front windscreen made of laminated safety glass, green tinted as standard, side panels with single-pane safety glass, grey tinted, heated rear window. Continuously adjustable steering column and joystick control as standard
<b>Liebherr operator's seat</b>	6 way adjustable, vibration-damped operator's seat "Standard" (mechanically sprung, adjustable to operator's weight)
<b>Cab heating and ventilation</b>	4-level air control, cooling water heating, mechanical controlled heating and air conditioning system as standard

## Sound Level

	L 524	L 538
<b>Sound pressure level to ISO 6396</b>		
L <sub>pA</sub> (inside cab)	dB(A) 69	69
<b>Sound power level to 2000/14/EC</b>		
L <sub>WA</sub> (surround noise)	dB(A) 102	103

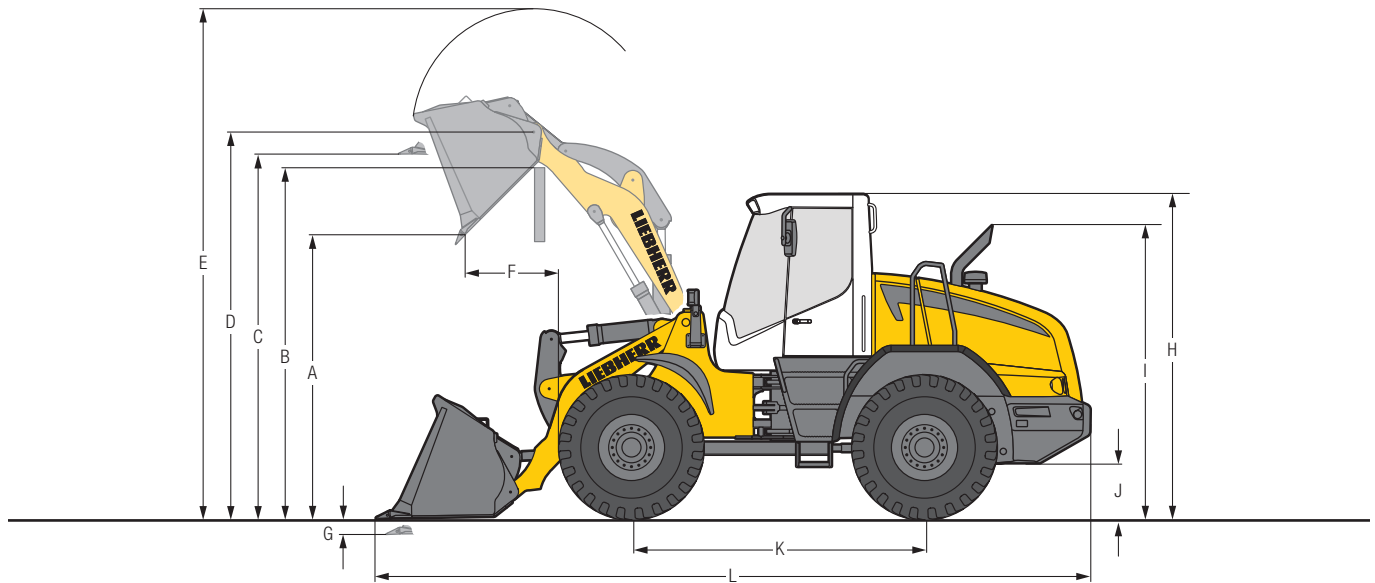
## Capacities

	L 524	L 538
<b>Fuel tank</b>	l 225	225
<b>Engine oil (inclusive filter change)</b>	l 14.7	14.7
<b>Transmission</b>	l 3.8	3.8
<b>Coolant</b>	l 36	36
<b>Front axle</b>	l 16.3/2.6	16.3/2.6
<b>Rear axle</b>	l 15/2.6	15/2.6
<b>Hydraulic tank</b>	l 110	110
<b>Hydraulic system, total</b>	l 170	180

# Dimensions

## Z-bar Linkage

L 524 / L 538



### Excavation Bucket

		L 524		L 538	
		ZK	ZK-QC	ZK	ZK-QC
Geometry		T	T	T	T
Cutting tools		T	T	T	T
Lift arm length	mm	2,400	2,400	2,500	2,500
Bucket capacity according to ISO 7546 **	m <sup>3</sup>	2.0	1.7	2.5	2.2
Specific material density	t/m <sup>3</sup>	1.8	1.8	1.8	1.8
Bucket width	mm	2,500	2,500	2,500	2,500
A Dumping height at max. lift height and 45° discharge	mm	2,870	2,765	2,900	2,845
B Dump-over height	mm	3,335	3,320	3,480	3,475
C Max. height of bucket bottom	mm	3,530	3,530	3,680	3,680
D Max. height of bucket pivot point	mm	3,775	3,775	3,930	3,930
E Max. operating height	mm	4,860	4,915	5,170	5,260
F Reach at max. lift height and 45° discharge	mm	850	900	960	1,005
G Digging depth	mm	80	80	80	80
H Height above operator's cab	mm	3,200	3,200	3,250	3,250
I Height above exhaust	mm	2,860	2,860	2,910	2,910
J Ground clearance	mm	460	460	490	490
K Wheelbase	mm	2,850	2,850	2,975	2,975
L Overall length	mm	6,820	6,935	7,150	7,225
Turning circle radius over tyres	mm	5,170	5,170	5,350	5,350
Turning circle radius over outside bucket edge	mm	5,690	5,720	5,840	5,880
Width over tyres	mm	2,460	2,460	2,470	2,470
Breakout force (SAE)	kN	91	85	117	114
Tipping load, straight *	kg	8,500	7,900	10,700	10,500
Tipping load, fully articulated *	kg	7,500	7,000	9,500	9,300
Operating weight *	kg	10,400	10,800	12,800	13,000
Tyre size		17.5R25 L3		20.5R25 L3	

\* The figures shown here are valid with tyres above (optional tyres will change the vertical dimensions), includes 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 8.

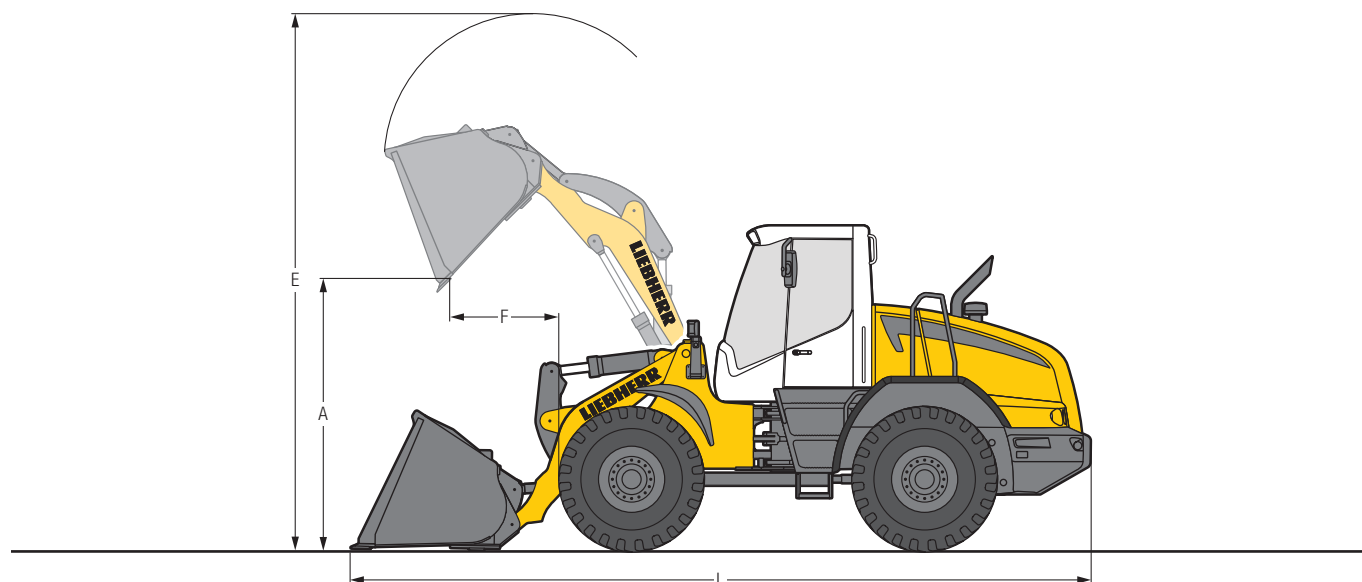
ZK = Z-bar linkage

ZK-QC = Z-bar linkage incl. quick coupler

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

# Attachment

## Light Material Bucket



L 524/L 538

### Light Material Bucket

		L 524				L 538	
		ZK	ZK	ZK	ZK-QC	ZK	ZK
		BOCE	BOCE	BOCE	BOCE	BOCE	BOCE
Bucket capacity	m³	2.4	3.0	4.0	4.0	3.5	4.0
Specific material density	t/m³	1.0	0.8	0.5	0.5	1.0	0.8
Bucket width	mm	2,500	2,500	2,700	2,700	2,700	2,700
A Dumping height at max. lift height	mm	2,755	2,640	2,490	2,370	2,730	2,715
E Max. operating height	mm	5,025	5,160	5,300	5,430	5,360	5,440
F Reach at maximum lift height	mm	990	1,110	1,260	1,300	1,140	1,300
L Overall length	mm	7,345	7,130	7,340	7,410	7,360	7,695
Tipping load, straight*	kg	8,450	8,260	7,970	7,370	10,420	10,190
Tipping load, fully articulated*	kg	7,450	7,290	7,040	6,510	9,190	9,000
Operating weight*	kg	10,850	10,980	11,105	11,290	13,180	13,300
Tyre size		17.5R25 L3				20.5R25 L3	

\* The figures shown here are valid with tyres above (optional tyres will change the vertical dimensions), includes 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 = Z-bar linkage

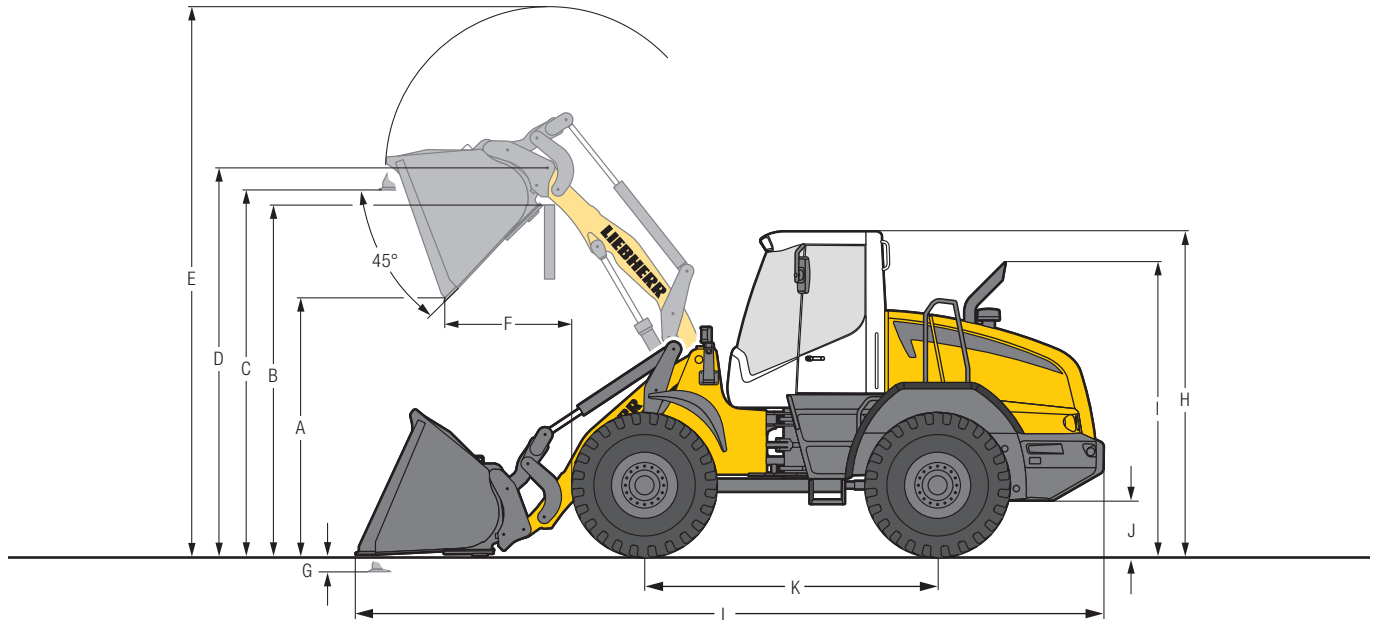
ZK-QC = Z-bar linkage incl. quick coupler

BOCE = Bolt-on cutting edge

# Dimensions

## Parallel Linkage

L 524 / L 538



### Light Material Bucket

		L 524		L 538	
		PK-QC	PK-QC	PK-QC	PK-QC
Geometry		BOCE	BOCE	BOCE	BOCE
Cutting tools		BOCE	BOCE	BOCE	BOCE
Lift arm length	mm	2,500	2,500	2,500	2,500
Bucket capacity according to ISO 7546**	m <sup>3</sup>	3.0	5.5	4.0	6.5
Specific material density	t/m <sup>3</sup>	1.0	0.5	1.0	0.5
Bucket width	mm	2,750	2,750	2,750	2,700
A Dumping height at max. lift height and 45° discharge	mm	2,630	2,230	2,520	2,185
B Dump-over height	mm	3,380	3,380	3,430	3,430
C Max. height of bucket bottom	mm	3,595	3,595	3,645	3,645
D Max. height of bucket pivot point	mm	3,835	3,835	3,890	3,890
E Max. operating height	mm	5,290	5,670	5,460	5,925
F Reach at max. lift height and 45° discharge	mm	1,220	1,630	1,300	1,650
G Digging depth	mm	55	55	35	35
H Height above operator's cab	mm	3,200	3,200	3,250	3,250
I Height above exhaust	mm	2,860	2,860	2,910	2,910
J Ground clearance	mm	460	460	490	490
K Wheelbase	mm	2,850	2,850	2,975	2,975
L Overall length	mm	7,355	7,930	7,765	8,250
Turning circle radius over tyres	mm	5,170	5,170	5,350	5,350
Turning circle radius over outside bucket edge	mm	5,765	5,930	6,070	6,240
Width over tyres	mm	2,460	2,460	2,470	2,470
Breakout force (SAE)	kN	63		87	
Tipping load, straight*	kg	7,920	7,330	9,900	9,400
Tipping load, fully articulated*	kg	6,980	6,470	8,730	8,300
Operating weight*	kg	11,800	12,200	13,600	13,950
Tyre sizes		17.5R25 L3		20.5R25 L3	

\* The figures shown here are valid with tyres above (optional tyres will change the vertical dimensions), includes 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)

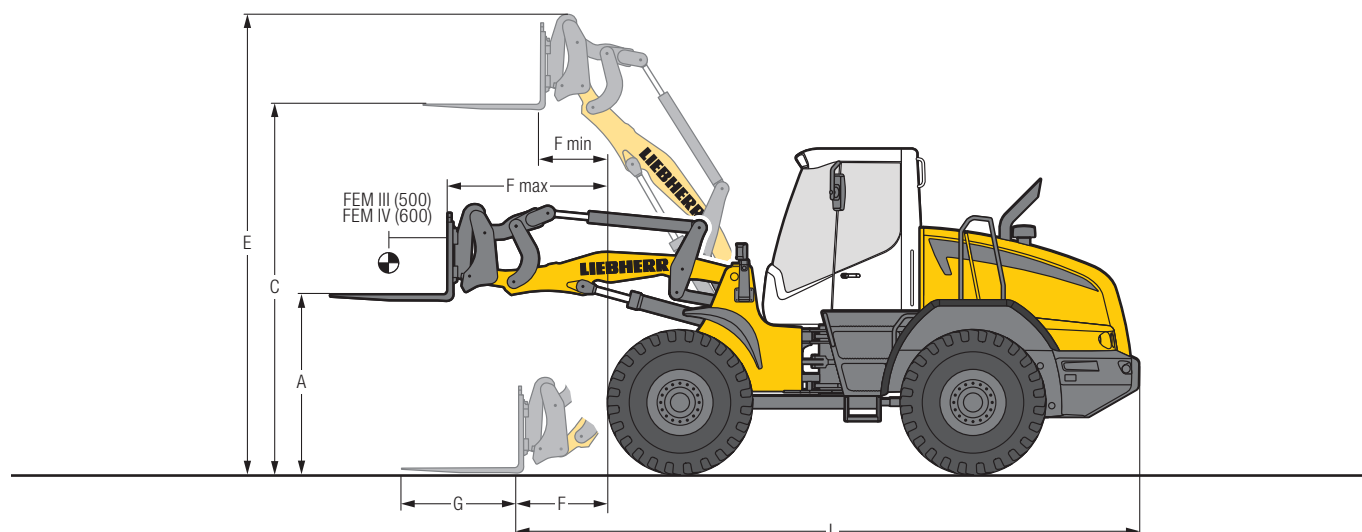
\*\* Actual bucket capacity may be approx. 10% larger than the calculation according to ISO 7546 standard. The degree to which the bucket can be filled depends on the material – see page 8.

PK-QC = Parallel linkage incl. quick coupler

BOCE = Bolt-on cutting edge

# Attachment

## Fork Carrier and Fork



### FEM III Fork Carrier and Fork



		L 524		L 538		
	Geometry	ZK-QC	PK-QC	ZK-QC	PK-QC	
A	Lifting height at max. reach	mm	1,690	1,690	1,781	1,739
C	Max. lifting height	mm	3,580	3,645	3,738	3,697
E	Max. operating height	mm	4,510	4,560	4,662	4,612
F	Reach at loading position	mm	975	1,110	939	975
F max.	Max. reach	mm	1,625	1,720	1,635	1,635
F min.	Reach at max. lifting height	mm	695	780	694	695
G	Fork length	mm	1,200	1,200	1,200	1,200
L	Length – basic machine	mm	6,190	6,325	6,350	6,390
	Tipping load, straight *	kg	6,000	6,480	7,880	8,150
	Tipping load, fully articulated *	kg	5,300	5,700	6,940	7,200
	Recommended payload for uneven ground = 60 % of tipping load, articulated <sup>1)</sup>	kg	3,180	3,420	4,150	4,320
	Recommended payload for smooth surfaces = 80 % of tipping load, articulated <sup>1)</sup>	kg	4,010 <sup>3)</sup>	4,580	5,000 <sup>2)</sup>	5,000 <sup>3)</sup>
	Operating weight*	kg	10,600	11,260	12,700	12,900
	Tyre size	17.5R25 L3		20.5R25 L3		

\* The figures shown here are valid with tyres above (optional tyres will change the vertical dimensions), includes 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>1)</sup> According to EN 474-3

<sup>2)</sup> Load capacity for the fork carrier and forks is limited to 5,000 kg

<sup>3)</sup> Payload on forks is limited by tilt cylinder

ZK-QC = Z-bar linkage incl. quick coupler

PK-QC = Parallel linkage incl. quick coupler

# Bucket Selection

L 524 / L 538

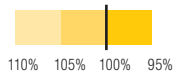
## L 524

Lift arm	Bucket	Material density (t/m³)										
			0.4	0.6	0.8	1.0	1.2	1.4	1.6	1.8	2.0	
ZK	GPB 2.0 m³								2.2	2.0		
	2.4 m³				2.6	2.4						
	LMB 3.0 m³			3.3	3.0							
	4.0 m³	4.0										
ZK-QC	GPB 1.7 m³								1.9	1.7		
	LMB 4.0 m³	4.0										
PK-QC	LMB 3.0 m³				3.3	3.0						
	5.5 m³	5.5										

## L 538

Lift arm	Bucket	Material density (t/m³)										
			0.4	0.6	0.8	1.0	1.2	1.4	1.6	1.8	2.0	
ZK	GPB 2.5 m³								2.8	2.5		
	2.7 m³								2.7			
	LMB 3.5 m³				3.9	3.5						
	4.0 m³			4.4	4.0							
ZK-QC	GPB 2.2 m³								2.4	2.2		
	LMB 4.0 m³			4.4	4.0							
PK-QC	LMB 4.0 m³				4.4	4.0						
	6.5 m³	6.5										

## Bucket Filling Factor



## Lift Arm

<b>ZK</b>	Z-bar linkage, standard lift arm length
<b>ZK-QC</b>	Z-bar linkage, with quick coupler, standard lift arm length
<b>PK-QC</b>	Parallel linkage with quick coupler, standard lift arm length

## Bucket


<b>GPB</b>	General purpose bucket (Excavation bucket)
<b>LMB</b>	Light material bucket


## Bulk Material Densities and Bucket Filling Factors

		t/m³	%			t/m³	%			t/m³	%
<b>Gravel</b>	moist	1.9	105	<b>Earth</b>	dry	1.3	115	<b>Glass waste</b>	broken	1.4	100
	dry	1.6	105		wet excavated	1.6	110		solid	1.0	100
	crushed stone	1.5	100	<b>Topsoil</b>		1.1	110	<b>Compost</b>	dry	0.8	105
<b>Sand</b>	dry	1.5	105	<b>Basalt</b>		1.95	100		wet	1.0	110
	wet	1.9	110	<b>Granite</b>		1.8	95	<b>Wood chips / Saw dust</b>		0.5	110
<b>Gravel and Sand</b>	dry	1.7	105	<b>Sandstone</b>		1.6	100	<b>Paper</b>	shredded / loose	0.6	110
	wet	2.0	100	<b>Slate</b>		1.75	100		recovered paper / cardboard	1.0	110
<b>Sand / Clay</b>		1.6	110	<b>Bauxite</b>		1.4	100	<b>Coal</b>	heavy material density	1.2	110
<b>Clay</b>	natural	1.6	110	<b>Limestone</b>		1.6	100		light material density	0.9	110
	dry	1.4	110	<b>Gypsum</b>	broken	1.8	100	<b>Waste</b>	domestic waste	0.5	100
<b>Clay / Gravel</b>	dry	1.4	110	<b>Coke</b>		0.5	110		bulky waste	1.0	100
	wet	1.6	100	<b>Slag</b>	broken	1.8	100				



# Equipment

 <b>Basic Wheel Loader</b>	L 524	L 538
Crash protection, rear	+	+
Automatic central lubrication system	+	+
Battery main switch (lockable)	•	•
Ride control	+	+
Parking brake	•	•
Fluff trap for radiator	+	+
Speed limiter V <sub>MAX</sub> adjustable key on the control unit	•	•
Pre-heat system for cold starting	•	•
Rear license panel light	+	+
Combined inching-braking system	•	•
Steel mudguard	•	•
Steel fuel tank	•	•
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	•	•
Reversible fan drive	+	+
Headlights rear, single design (on tail flap), halogen	•	•
Auxiliary heater (Additional heating with engine preheating)	+	+
Lockable doors and engine hood	•	•
Chassis protection rear	+	+
Chassis protection front	+	+
Chock	+	+
Air pre-cleaner TOP SPIN	+	+
Toolbox with toolkit	•	•
Towing hitch	•	•

 <b>Equipment</b>	L 524	L 538
Working hydraulics lockout	•	•
Automatic hoist kick-out – adjustable	–	–
Automatic bucket return – adjustable	•	•
Fork carrier and pallet forks	+	+
High-dump bucket	+	+
Log grapple	+	+
High Lift arms	–	–
Industrial lift arm	–	–
Lift arm parallel linkage	+	+
Lift arm Z-bar linkage	•	•
Hydraulic quick coupler	+	+
Tilt cylinder protection	+	+
Loading buckets incl. a range of cutting tools	+	+
Light material bucket	+	+
Pipe break protection	+	+
Float position	•	•
1st additional hydraulic function	+	+

# Equipment

L 524 / L 538



## Operator's Cab

	L 524	L 538
Exterior mirror, tiltable and adjustable	•	•
Operating hour meter (integrated in display unit)	•	•
Storage box	•	•
Operator's seat – air sprung	+	+
Operator seat "Comfort" – pneumatic suspension with seat heating	+	+
Operator seat "Standard" – mechanically sprung	•	•
Heater	•	•
Floor mat	•	•
Clothes hook	•	•
Air conditioning system	•	•
Headrest	+	+
Steering column adjustable	•	•
Liebherr control lever – adjustable	•	•
Radio Liebherr "Standard" (USB/AUX)	•	•
Interior rear-view mirror	•	•
Amber beacon swiveling / fixed	+	+
Soundproof ROPS/FOPS cab	•	•
Wipe and wash system	•	•
Headlights rear, single design, halogen	•	•
Headlights rear, double design, halogen	+	+
Headlights rear, double design, LED	–	–
Headlights front, double design, halogen	•	•
Windscreen guard	+	+
Sun visor front	•	•
Power socket 12 V	•	•
Preparation for LiDAT	+	+
Cigarette lighter	•	•



## Safety

	L 524	L 538
Country-specific versions	+	+
Emergency steering system	+	+
Back-up alarm acoustic	•	•
Rear space monitoring with camera	+	+

• = Standard  
 + = Option  
 – = not available

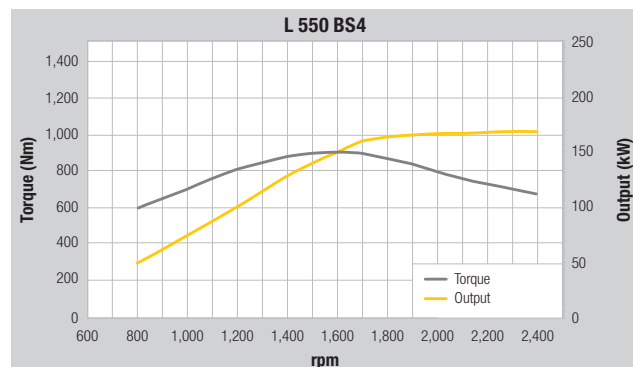
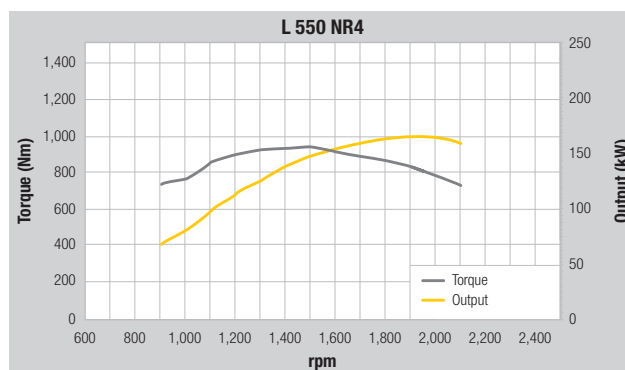
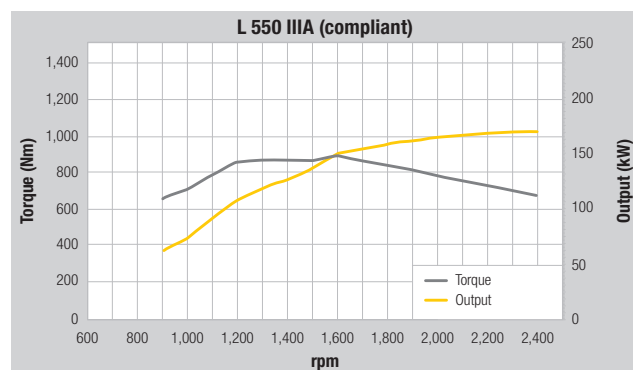
# Technical Data



## Diesel engine

L 550				
Diesel engine – available only in select markets	Stage IIIA (compliant) 6068HB330		Bharat stage IV (India) BS4: 6068HB450	China NR-IV NR4: 6068HB430
	Design Cylinder inline Fuel injection process			
Water-cooled, turbo charged, intercooled		6		
Electronic Common Rail high-pressure injection				
Output to ISO 9249 ~ SAE J1349	kW/HP 161 / 219 at RPM 2,400	161 / 219 2,400	155 / 211 2,100	
Rated output to ISO 14396 / ECE-R.120	kW/HP 168 / 228 at RPM 2,400	168 / 228 2,400	161 / 219 2,100	
Nominal speed	2,400			
Max. torque to ISO 14396	Nm 890 at RPM 1,600	900 1,600	941 1,500	
Displacement	litres 6,8			
Bore/Stroke	mm 106 / 127			
Harmful emission values	According to regulation ECE-R.96 Power Band H			
Emission control	SCR technology and closed diesel particle filter system		Closed diesel particle filter system	
Air cleaner system	Dry air filter with main and safety element, pre-cleaner, service indicator			
Electrical system				
Operating voltage	V 24			
Battery	Ah 2 x 135			
Alternator	V/A 24 / 100			
Starter	V/kW 24 / 7.8			

The availability of the models depends on the emission regulations of the respective countries.

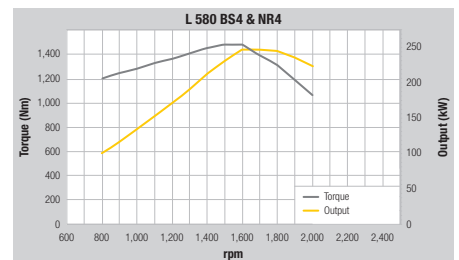
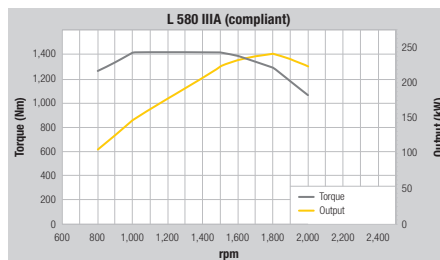
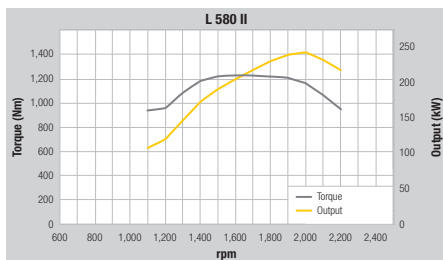
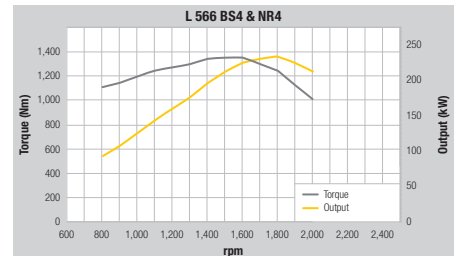
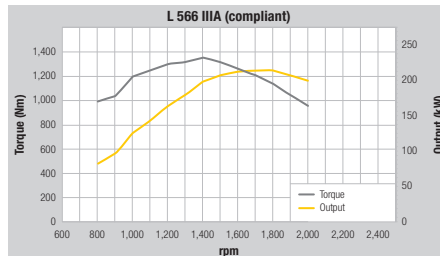
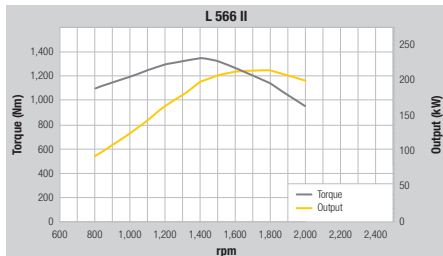




## Diesel engine

	L 566				L 580			
Diesel engine – available only in select markets	Stage II	Stage IIIA (compliant)	Bharat stage IV (India)	China NR-IV	Stage II	Stage IIIA (compliant)	Bharat stage IV (India)	China NR-IV
	6090HFL75	6090HFL85	BS4: 6090CB450	NR4: 6090CB451	6090HFL75	6090HFL85	BS4: 6090CB450	NR4: 6090CB451
Design	Water-cooled, turbo charged, intercooled							
Cylinder inline	6				6			
Fuel injection process	Electronic Common Rail high-pressure injection							
Output to ISO 9249 ~ SAE J1349								
kW/HP at RPM	211 / 1,800	211 / 1,800	231 / 1,800	231 / 1,800	214 / 1,700	239 / 1,800	243 / 1,600	243 / 1,600
Rated output to ISO 14396 / ECE-R.120								
kW/HP at RPM	200 / 272	200/ 272	212 / 288	212 / 288	219 / 298	224/ 305	224 / 305	224 / 305
Nominal speed	2,000				2,000			
at RPM	2,000	2,000	2,000	2,000	2,200	2,000	2,000	2,000
Max. torque to ISO 14396								
Nm at RPM	1,353 / 1,400	1,320 / 1,500	1,358 / 1,500	1,358 / 1,500	1,228 / 1,600	1,421 / 1,500	1,477 / 1,600	1,477 / 1,600
Displacement	9.0				9.0			
litres								
Bore/Stroke	118.4 / 136				118.4 / 136			
mm								
Harmful emission values	According to regulation ECE-R.96 Power Band H							
Emission control	SCR technology and closed diesel particle filter system				SCR technology and closed diesel particle filter system			
Air cleaner system	Dry air filter with main and safety element, pre-cleaner, service indicator							
Electrical system								
Operating voltage	V				24			
Battery	Ah				180			
Alternator	V/A				24 / 100			
Starter	V/kW				24 / 7.8			

The availability of the models depends on the emission regulations of the respective countries.



## Driveline

### Continuous hydrostatic driveline

Design	Swash plate type variable flow pump and two variable axial piston motors in closed loop circuit and axle transfer case. Direction of travel is reversed by changing the flow-direction of the variable-displacement pump
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 at full engine speed. The Liebherr control lever is used to control forward and reverse travel

### Travel speed range

#### L 550:

Speed range 1	0 – 4 km/h
Speed range A1 – 2	0 – 15 km/h
Speed range A1 – 3	0 – 40 km/h
forward and reverse	

#### L 566 / L 580:

Speed range 1	0 – 10 km/h
Speed range 2 and A2	0 – 20 km/h
Speed range A3	0 – 40 km/h
forward and reverse	
Speeds quoted apply with the tyres indicated as standard on loader model.	

## Axles

	L 550	L 566	L 580
<b>Four-wheel drive</b>			
<b>Front axle</b>	Fixed		
<b>Rear axle</b>	Centre pivot, with 13° oscillating angle to each side		
Height of obstacles which can be driven over	mm 460	490	490
	with all four wheels remaining in contact with the ground		
<b>Differentials</b>	Automatic limited-slip differentials		
<b>Reduction gear</b>	Planetary final drive in wheel hubs		
<b>Track width</b>	2,000 mm with all types of tyres (L 550) 2,230 mm with all types of tyres (L 566, L 580)		

## Brakes

<b>Wear-free service brake</b>	Self-locking of the hydrostatic driveline (acting on all four wheels) and additional pump-accumulator brake system with wet multi-disc brakes (two separate brake circuits)
<b>Parking brake</b>	Electro-hydraulically actuated spring-loaded disc brake system on the transmission

The braking system meets the requirements of the ISO 3450.

## Tyres

	L 550	L 566	L 580
<b>Standard size</b>	23.5R25 L3	26.5R25 L3	26.5R25 L3
<b>Special tyres</b>	By arrangement with the manufacturer		

## Steering

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

## Attachment Hydraulics

	L 550	L 566	L 580
<b>Design</b>	"Load-sensing" swash plate type variable flow pump with output and flow control, and pressure cut-off in the control block		
<b>Cooling</b>	Hydraulic oil cooling using thermostatically controlled fan and oil cooler		
<b>Filtration</b>	Return line filter in the hydraulic reservoir		
<b>Control</b>	Liebherr control lever with hydraulic servo control		
<b>Lifting function</b>	Lifting, neutral, lowering Float position controlled by Liebherr control lever with detent		
<b>Tilt function</b>	Tilt back, neutral, dump Automatic bucket return to dig as standard		
<b>Max. flow</b>	l/min. 234	290	290
<b>Max. pressure</b>			
Z-bar linkage	bar 360	380	380
Industrial lift arm	bar 380	380	380





## Attachment

	L 550		L 566		L 580	
<b>Geometry variants</b>						
Optional	Powerfull Z-bar linkage with tilt cylinder and steel cross-tube					
	Industrial lift arm with tilt cylinder, hydraulic quick coupler as standard					
<b>Bearings</b>	Sealed					
<b>Cycle time at nominal load</b>	ZK	IND	ZK	IND	ZK	IND
Lifting	s 5.4	5.4	6.1	6.1	6.2	6.2
Dumping	s 1.0	2.2	1.2	2.0	1.4	2.2
Lowering (empty)	s 2.9	2.9	3.2	3.2	3.4	3.4



## Operator's Cab

<b>Design</b>	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 90° opening angle with rigid window, right side sliding side window, front windscreen made of laminated safety glass, green tinted as standard, side panels with single-pane safety glass ESG, green tinted, heated rear window ESG. Continuously adjustable steering column
<b>Liebherr Operator's seat</b>	6 way adjustable, vibration-damped operator's seat "Standard" (mechanically sprung, adjustable to operator's weight), Liebherr control lever mounted into the operator's seat as standard
<b>Cab heating and ventilation</b>	2-level air control, cooling water heating, defroster and air conditioning via manual nozzle position or electronic valve control for head and front area, as well as electronic fresh/recirculated air control, electrically heated rear window, filter system with pre-filter, fresh air filter and recirculated air filter, easily replaced, air conditioning system with new improved cooling output as standard



## Sound Level

	L 550	L 566	L 580
<b>Sound pressure level to ISO 6396</b>			
L <sub>pA</sub> (inside cab)	dB(A) 73	73	75
<b>Sound power level to 2000/14/EC</b>			
L <sub>WA</sub> (surround noise)	dB(A) 105	106	106



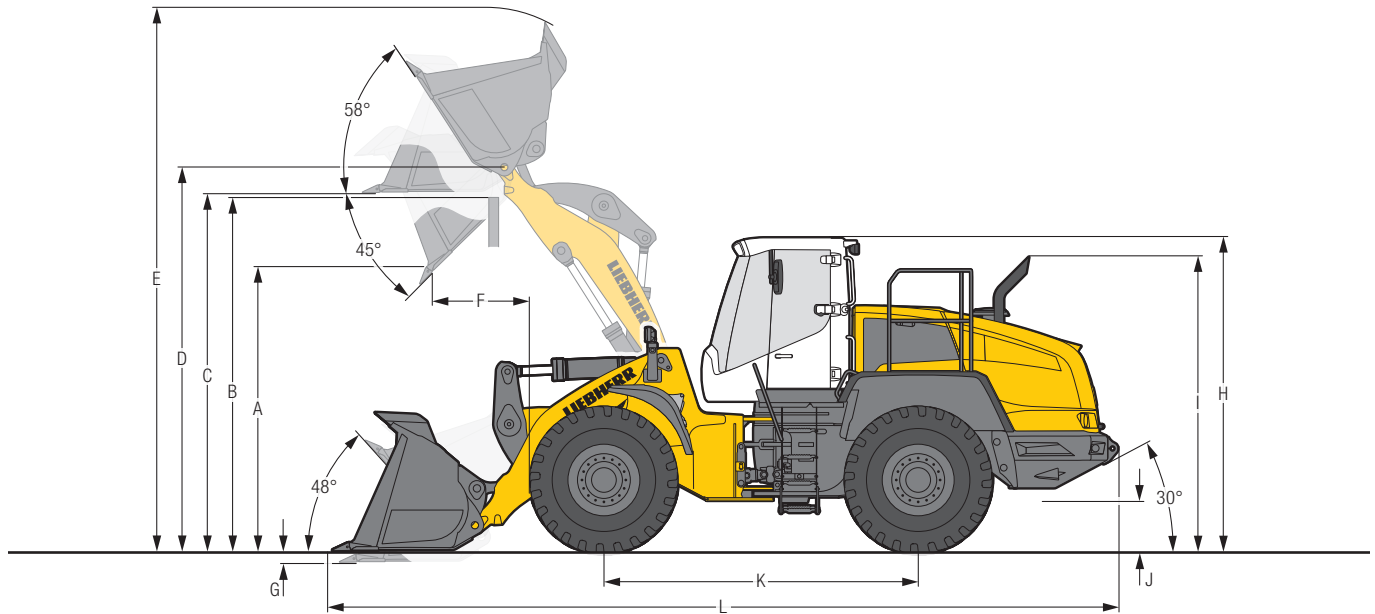
## Capacities

	L 550	L 566	L 580
<b>Fuel tank</b>	l 300	450	450
<b>DEF tank*</b>	l 20	20	20
<b>Engine oil (inclusive filter change)</b>	l 20	34	34
<b>Pump distribution gearbox</b>	l –	3.5	3.5
<b>Transmission</b>	l 4.1	12.5	12.5
<b>Coolant</b>	l 34	55	55
<b>Front axle</b>	l 35	42	58
<b>Rear axle</b>	l 35	42	58
<b>Hydraulic tank</b>	l 135	160	160
<b>Hydraulic system, total</b>	l 224	280	280

\*Not required for emission stage II and IIIA (compliant).

# Dimensions

## Z-bar Linkage



L 550 / L 566 / L 580

### Rehandling Bucket

		L 550			L 566				L 580			
Geometry		ZK	ZK	ZK-QC	ZK	ZK	ZK-QC	ZK	ZK	ZK	ZK-QC	ZK
Cutting tools		T	T	T	T	T	BOCE	ROB	T	T	BOCE	ROB
Lift arm length	mm	2,700	2,700	2,700	2,920	2,920	2,920	2,920	3,050	3,050	3,050	3,050
Bucket capacity according to ISO 7546 **	m³	3.4	3.7	3.1	4.2	4.7	3.5	3.7	5.2	5.7	4.5	4.5
Specific material density	t/m³	1.8	1.6	1.8	1.8	1.6	1.8	1.8	1.8	1.6	1.8	1.8
Bucket width	mm	2,880	2,880	2,880	3,000	3,000	3,000	3,230	3,300	3,300	3,000	3,230
A Dumping height at max. lift height and 45° discharge	mm	3,020	2,970	2,930	3,090	3,050	3,085	3,130	3,300	3,220	3,160	3,320
B Dump-over height	mm	3,700	3,700	3,700	3,900	3,900	3,900	3,900	4,100	4,100	4,100	4,100
C Max. height of bucket bottom	mm	3,875	3,875	3,875	4,050	4,050	4,050	4,050	4,270	4,270	4,270	4,270
D Max. height of bucket pivot point	mm	4,150	4,150	4,150	4,360	4,360	4,360	4,360	4,580	4,580	4,580	4,360
E Max. operating height	mm	5,785	5,855	5,830	6,045	6,150	6,200	6,070	6,380	6,500	6,590	6,170
F Reach at max. lift height and 45° discharge	mm	1,025	1,075	1,140	1,305	1,375	1,360	1,270	1,330	1,285	1,460	1,350
G Digging depth	mm	80	80	110	100	100	100	100	100	100	100	100
H Height above operator's cab	mm	3,360	3,360	3,360	3,590	3,590	3,590	3,590	3,590	3,590	3,590	3,590
I Height above exhaust	mm	3,015	3,015	3,015	3,315	3,315	3,315	3,315	3,315	3,315	3,315	3,315
J Ground clearance	mm	490	490	490	535	535	535	535	465	465	465	465
K Wheelbase	mm	3,410	3,410	3,410	3,820	3,820	3,820	3,820	3,970	3,970	3,970	3,970
L Overall length	mm	8,525	8,595	8,665	9,200	9,300	9,240	9,150	9,545	9,625	9,720	9,575
Turning circle radius over tyres	mm	6,300	6,300	6,300	7,110	7,110	7,110	7,110	7,300	7,300	7,300	7,300
Turning circle radius over outside bucket edge	mm	6,910	6,930	6,950	7,690	7,720	7,700	7,780	8,075	8,095	7,980	8,030
Width over tyres	mm	2,650	2,650	2,650	2,960	2,960	2,960	2,960	2,960	2,960	2,960	2,960
Breakout force (SAE)	kN	165	155	145	190	180	190	185	220	205	205	215
Tipping load, straight *	kg	14,120	14,000	13,240	18,150	17,900	17,450	18,700	21,650	21,500	20,800	22,000
Tipping load, fully articulated *	kg	12,430	12,300	11,100	15,900	15,650	15,100	16,100	18,950	18,800	18,100	19,150
Operating weight *	kg	17,750	17,810	18,180	23,450	23,550	24,330	25,250	26,950	27,100	27,730	28,580
Tyre sizes		23.5R25 L3			26.5R25 L3				26.5R25 L5			

\* The figures shown here are valid with tyres above (optional tyres will change the vertical dimensions), includes 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 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 12.

= Rehandling bucket for direct mounting = Rehandling bucket for quick coupler = Rock bucket with oblique base for quarrying applications for direct mounting

ZK = Z-bar linkage

ZK-QC = Z-bar linkage incl. quick coupler

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

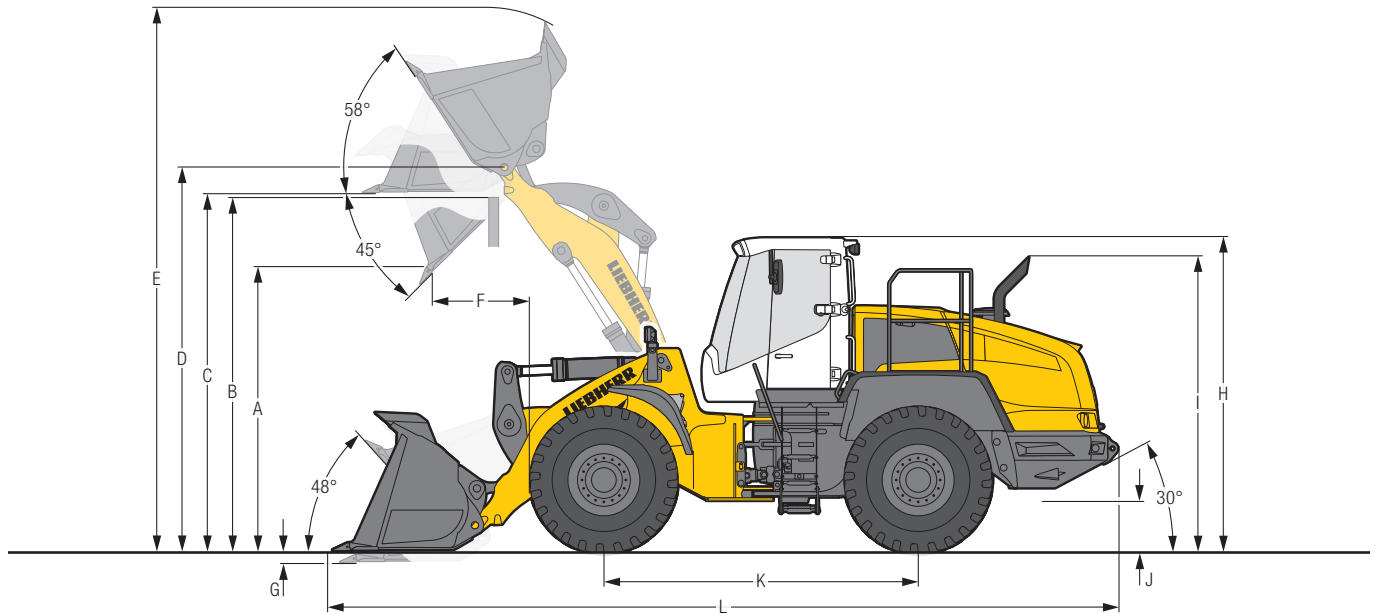
BOCE = Bolt-on cutting edge

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

# Dimensions

## Z-bar Linkage High Lift

L 550 / L 566 / L 580



### Rehandling Bucket



		L 550	L 566	L 580
<b>Geometry</b>		ZK	ZK	ZK
<b>Cutting tools</b>		T	T	T
<b>Lift arm length</b>	mm	3,100	3,250	3,250
<b>Bucket capacity according to ISO 7546 **</b>	m³	3.1	4.2	5.2
<b>Specific material density</b>	t/m³	1.6	1.6	1.6
<b>Bucket width</b>	mm	2,880	3,000	3,300
<b>A Dumping height at max. lift height and 45° discharge</b>	mm	3,670	3,650	3,490
<b>B Dump-over height</b>	mm	4,200	4,300	4,300
<b>C Max. height of bucket bottom</b>	mm	4,430	4,470	4,470
<b>D Max. height of bucket pivot point</b>	mm	4,700	4,780	4,780
<b>E Max. operating height</b>	mm	6,255	6,555	6,740
<b>F Reach at max. lift height and 45° discharge</b>	mm	890	1,200	1,265
<b>G Digging depth</b>	mm	95	140	140
<b>H Height above operator's cab</b>	mm	3,360	3,590	3,590
<b>I Height above exhaust</b>	mm	3,015	3,315	3,315
<b>J Ground clearance</b>	mm	490	535	465
<b>K Wheelbase</b>	mm	3,410	3,820	3,970
<b>L Overall length</b>	mm	8,960	9,615	9,795
<b>Turning circle radius over tyres</b>	mm	6,300	7,110	7,300
<b>Turning circle radius over outside bucket edge</b>	mm	7,110	7,850	8,175
<b>Width over tyres</b>	mm	2,650	2,960	2,960
<b>Breakout force (SAE)</b>	kN	165	200	225
<b>Tipping load, straight *</b>	kg	11,600	15,850	20,030
<b>Tipping load, fully articulated *</b>	kg	10,150	13,700	17,450
<b>Operating weight *</b>	kg	17,990	24,000	27,100
<b>Tyre sizes</b>		23.5R25 L3	26.5R25 L3	26.5R25 L3

\* The figures shown here are valid with tyres above (optional tyres will change the vertical dimensions), includes 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 to ISO 14397-1)

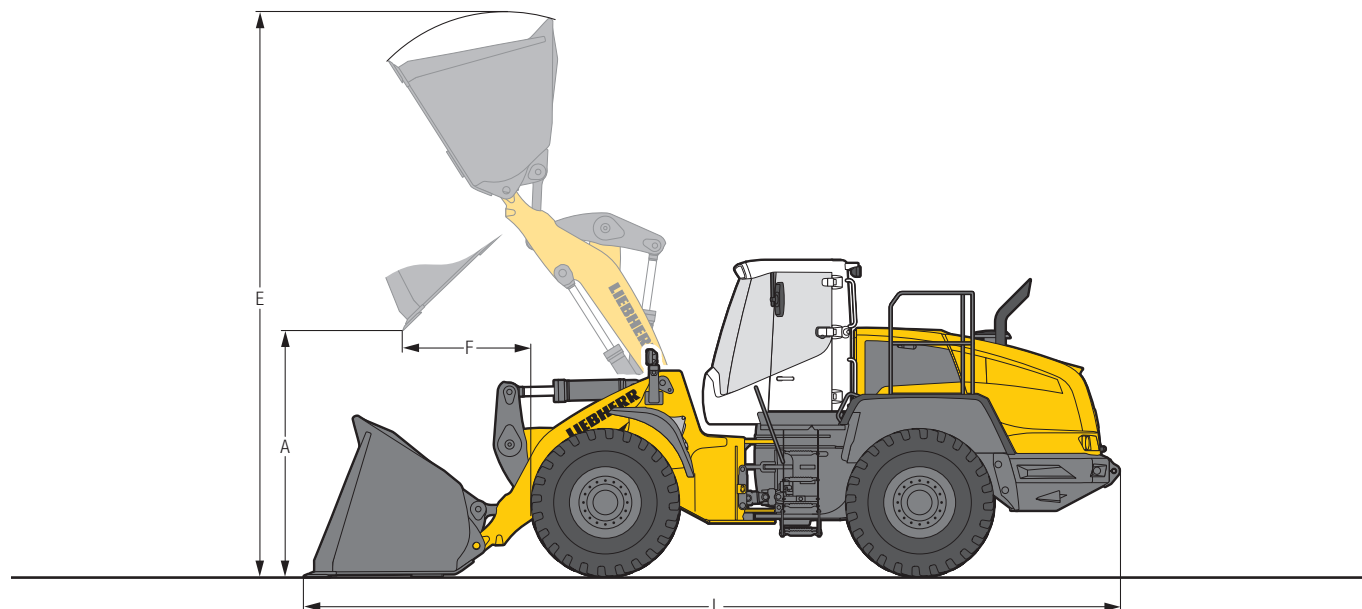
\*\* Actual bucket capacity may be approx. 10 % larger than the calculation according to ISO 7546 standard. The degree to which the bucket can be filled depends on the material – see page 12.

ZK = Z-bar linkage

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

# Attachment

## Light Material Bucket



L 550 / L 566 / L 580

### Light Material Bucket



		L 550		L 566		L 580	
Geometry		ZK	ZK	ZK	ZK	ZK	ZK
Cutting tools		BOCE	BOCE	BOCE	BOCE	BOCE	BOCE
Bucket capacity	m <sup>3</sup>	5.5	7.0	5.7	7.0	7.0	8.5
Specific material density	t/m <sup>3</sup>	1.0	0.75	1.2	1.0	1.2	1.0
Bucket width	mm	2,950	3,200	3,300	3,200	3,200	3,500
A Dumping height at max. lift height	mm	2,715	2,680	2,990	2,920	3,230	3,150
E Max. operating height	mm	5,970	6,020	6,280	6,330	6,640	6,635
F Reach at maximum lift height	mm	1,385	1,425	1,445	1,330	1,430	1,510
L Overall length	mm	8,775	8,830	9,380	9,440	9,880	10,030
Tipping load, straight*	kg	13,050	12,600	17,250	17,500	21,400	20,750
Tipping load, fully articulated*	kg	11,420	11,000	14,900	15,100	18,500	18,050
Operating weight*	kg	18,320	18,600	24,280	24,150	27,400	27,390
Tyre size		23.5R25 L3		26.5R25 L3		26.5R25 L3	

\* The figures shown here are valid with tyres above (optional tyres will change the vertical dimensions), includes 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)

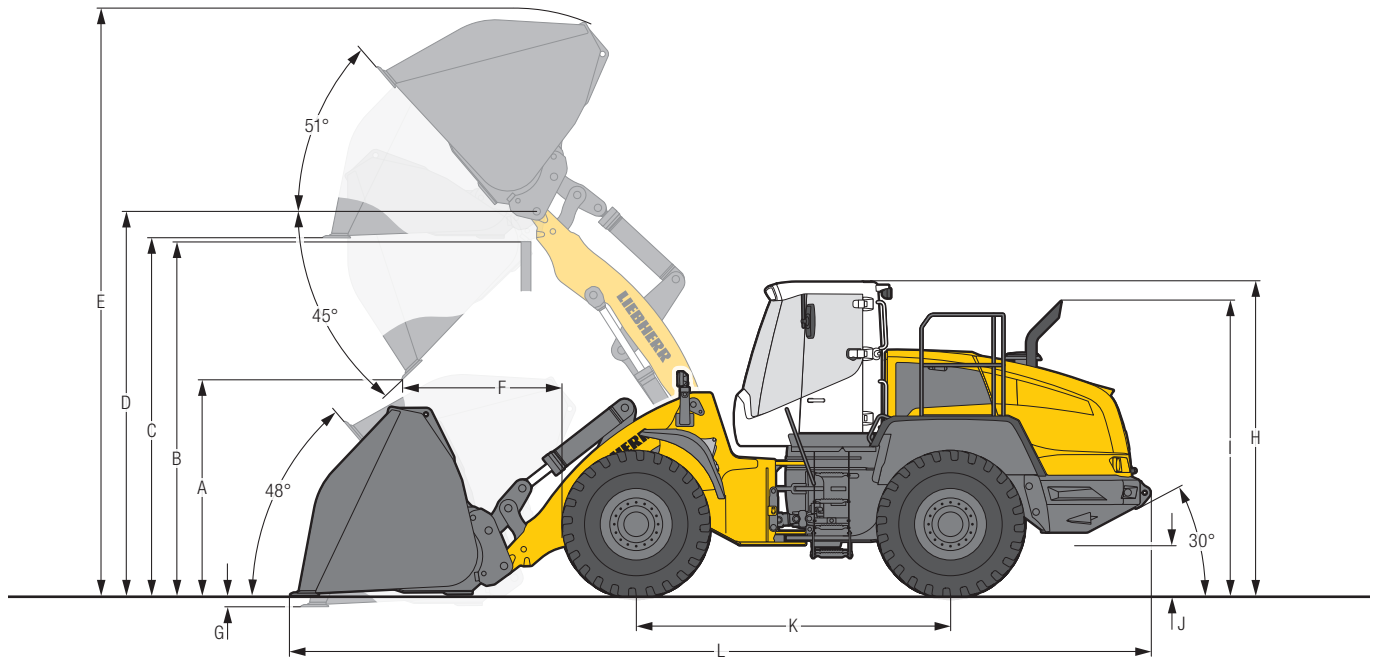
ZK = Z-bar linkage

BOCE = Bolt-on cutting edge

# Dimensions

## Industrial Lift Arm

L 550 / L 566 / L 580



### Light Material Bucket



		L 550	L 566	L 580
Geometry		IND-QC	IND-QC	IND-QC
Cutting tools		BOCE	BOCE	BOCE
Lift arm length	mm	2,700	2,900	2,900
Bucket capacity according to ISO 7546**	m <sup>3</sup>	9.5	12.0	14.0
Specific material density	t/m <sup>3</sup>	0.5	0.45	0.45
Bucket width	mm	3,400	3,700	4,000
A Dumping height at max. lift height and 45° discharge	mm	2,320	2,885	2,480
B Dump-over height	mm	3,700	3,900	3,900
C Max. height of bucket bottom	mm	3,865	4,145	4,145
D Max. height of bucket pivot point	mm	4,145	4,490	4,490
E Max. operating height	mm	6,270	6,470	6,800
F Reach at max. lift height and 45° discharge	mm	1,740	1,485	1,950
G Digging depth	mm	100	100	100
H Height above operator's cab	mm	3,360	3,590	3,590
I Height above exhaust	mm	3,015	3,315	3,315
J Ground clearance	mm	490	535	465
K Wheelbase	mm	3,410	3,890	3,970
L Overall length	mm	9,220	10,185	10,300
Turning circle radius over tyres	mm	6,300	7,200	7,300
Turning circle radius over outside bucket edge	mm	7,430	8,275	8,585
Width over tyres	mm	2,650	2,960	2,960
Breakout force (SAE)	kN	85	110	125
Tipping load, straight *	kg	11,890	15,350	18,500
Tipping load, fully articulated *	kg	10,300	13,150	15,900
Operating weight *	kg	19,120	25,950	28,900
Tyre sizes		23.5R25 L3	26.5R25 L3	26.5R25 L3

\* The figures shown here are valid with tyres above (optional tyres will change the vertical dimensions), includes 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 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 12.

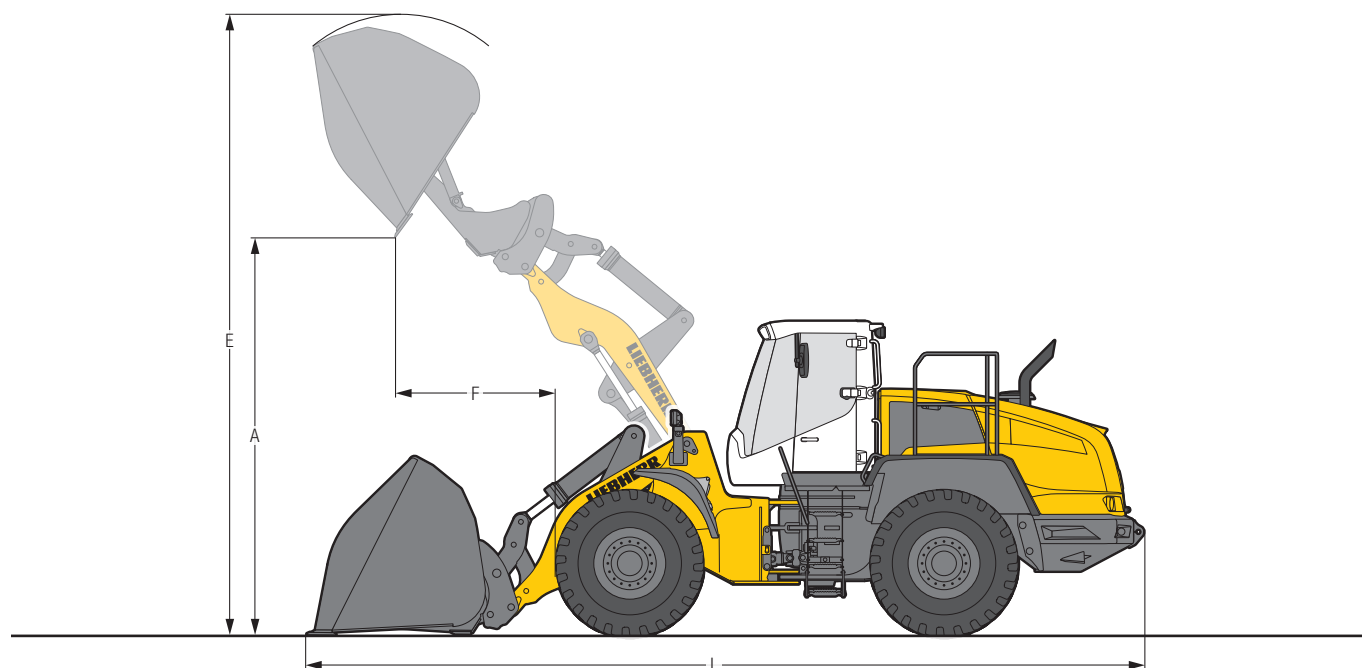
IND-QC = Industrial lift arm with parallel guidance incl. quick coupler

BOCE = Bolt-on cutting edge



# Attachment

## High-Dump Bucket



L 550 / L 566 / L 580

### High-Dump Bucket



		L 550		L 566	
		IND-QC	IND-QC	IND-QC	IND-QC
Geometry		IND-QC	IND-QC	IND-QC	IND-QC
Cutting tools		BOCE	BOCE	BOCE	BOCE
Bucket capacity	m³	4.5	5.5	9.0	11.0
Specific material density	t/m³	1.0	0.8	0.5	0.45
Bucket width	mm	2,700	2,700	3,400	3,700
A Dumping height at max. lift height	mm	4,645	4,420	4,335	4,840
E Max. operating height	mm	6,865	7,110	7,090	7,490
F Reach at maximum lift height	mm	1,685	1,840	1,720	2,140
L Overall length	mm	8,950	9,250	9,240	10,185
Tipping load, straight*	kg	12,000	10,750	11,500	15,100
Tipping load, fully articulated*	kg	10,400	9,300	9,900	12,900
Operating weight*	kg	18,900	19,400	19,550	26,450
Tyre size		23.5R25 L3	23.5R25 L4	23.5R25 L5	26.5R25 L3

\* The figures shown here are valid with tyres above (optional tyres will change the vertical dimensions), includes 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)

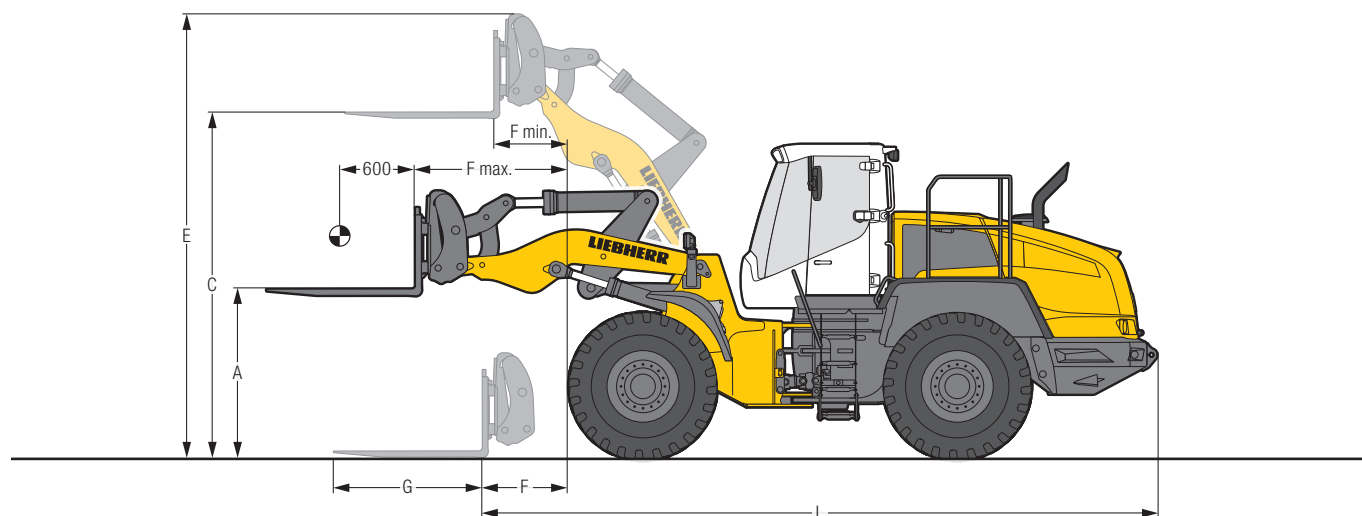
IND-QC = Industrial lift arm with parallel guidance incl. quick coupler

BOCE = Bolt-on cutting edge

# Attachment

## Fork Carrier and Fork

L 550 / L 566 / L 580



### FEM IV Fork Carrier and Fork



			L 550	L 566	L 580
	Geometry		IND-QC	IND-QC	IND-QC
A	Lifting height at max. reach	mm	1,805	2,075	2,075
C	Max. lifting height	mm	3,905	4,220	4,220
E	Max. operating height	mm	4,895	5,200	5,200
F	Reach at loading position	mm	1,080	1,145	1,025
F max.	Max. reach	mm	1,710	1,925	1,805
F min.	Reach at max. lifting height	mm	715	980	860
G	Fork length	mm	1,500	1,800	1,800
L	Length – basic machine	mm	7,450	8,280	8,280
	Tipping load, straight*	kg	10,840	13,500	16,300
	Tipping load, fully articulated*	kg	9,560	11,900	14,400
	Recommended payload for uneven ground = 60% of tipping load, articulated <sup>1)</sup>	kg	5,740	7,140	8,640
	Recommended payload for smooth surfaces = 80% of tipping load, articulated <sup>1)</sup>	kg	7,650	9,520	10,000
	Operating weight*	kg	17,560	23,650	26,350
	Tyre size		23.5R25 L3	26.5R25 L3	26.5R25 L3

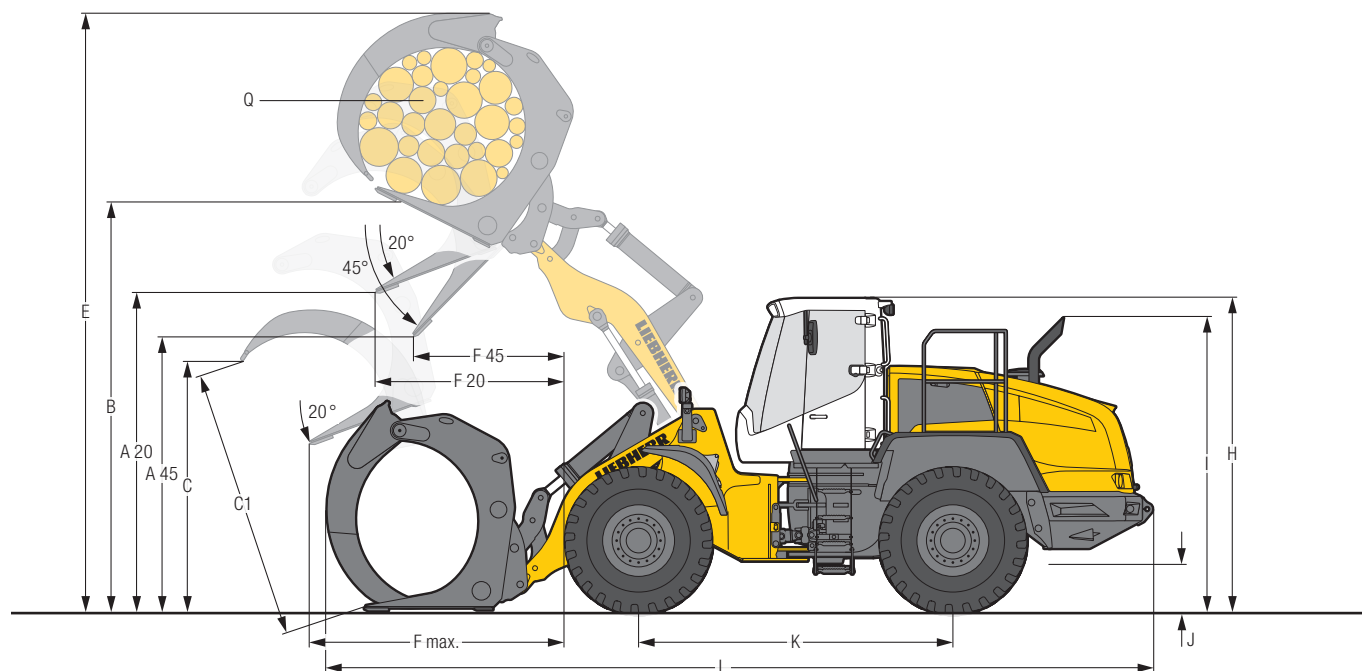
\* The figures shown here are valid with tyres above (optional tyres will change the vertical dimensions), includes all lubricants, a full fuel tank, the ROPS/FOPS cab and the operator.  
Different tyres and optional equipment will change the operating weight and tipping load. (Tipping load, fully articulated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

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

IND-QC = Industrial lift arm with parallel guidance incl. quick coupler

# Attachment

## Log Grapple



L 550 / L 566 / L 580

### Log Grapple



		L 550		L 566	L 580
Geometry		IND-QC	IND-QC	IND-QC	IND-QC
A20	Discharge height at 20°	mm	3,420	3,350	3,520
A45	Discharge height at 45°	mm	2,940	2,770	2,805
B	Manipulation height	mm	4,550	4,655	5,125
C	Max. grapple opening in loading position	mm	2,395	2,740	2,930
C1	Max. grapple opening	mm	2,590	2,990	3,050
E	Max. height	mm	6,230	6,650	7,400
F20	Reach at max. lifting height at 20° discharge	mm	1,590	1,810	2,165
F45	Reach at max. lifting height at 45° discharge	mm	1,160	1,330	1,620
F max.	Max. reach	mm	2,590	2,810	3,110
H	Height above operator's cab	mm	3,360	3,360	3,590
I	Height above exhaust	mm	3,015	3,015	3,315
J	Ground clearance	mm	490	490	535
K	Wheelbase	mm	3,410	3,410	3,890
L	Overall length	mm	8,705	8,985	9,960
	Width over tyres	mm	2,650	2,650	2,970
Q	Grapple diameter	m²	1.8	2.4	3.1
	Grapple width	mm	1,600	1,600	1,800
	Payload*	kg	6,300	6,000	7,800
	Operating weight*	kg	18,980	19,130	25,850
	Tyre size	23.5R25 L3		26.5R25 L3	26.5R25 L3

\* The figures shown here are valid with tyres above (optional tyres will change the vertical dimensions), includes 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-QC = Industrial lift arm with parallel guidance incl. quick coupler

# Bucket Selection

## L 550

Lift arm	Bucket	Material density (t/m³)									
			0.4	0.6	0.8	1.0	1.2	1.4	1.6	1.8	2.0
ZK	GPB	3.4 m³							3.7		3.4
		3.7 m³						4.1		3.7	
	LMB	5.5 m³			6.1		5.5				
		7.0 m³		7.7		7.0					
ZK-QC	GPB	3.1 m³							3.4		3.1
ZK-HL	GPB	3.1 m³						3.4			3.1
IND-QC	LMB	9.5 m³	9.5								
		4.5 m³			5.0		4.5				
	HDB	5.5 m³		6.1		5.5					
		9.0 m³	9.0								

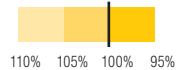
## L 566

Lift arm	Bucket	Material density (t/m³)									
			0.4	0.6	0.8	1.0	1.2	1.4	1.6	1.8	2.0
ZK	GPB	4.2 m³							4.6		4.2
		4.7 m³						5.2		4.7	
	RB	3.7 m³								3.7	
		5.7 m³					6.3		5.7		
ZK-QC	LMB	7.0 m³			7.7		7.0				
		3.5 m³							3.9		3.5
ZK-HL	GPB	4.2 m³						4.6			4.2
IND-QC	LMB	12.0 m³	12.0								
	HDB	11.0 m³	11.0								

## L 580

Lift arm	Bucket	Material density (t/m³)									
			0.4	0.6	0.8	1.0	1.2	1.4	1.6	1.8	2.0
ZK	GPB	5.2 m³							5.7		5.2
		5.7 m³						6.3		5.7	
	RB	4.5 m³								4.5	
		7.0 m³				7.7		7.0			
ZK-QC	LMB	8.5 m³			9.4		8.5				
		4.5 m³							5.0		4.5
ZK-HL	GPB	5.2 m³						5.7			5.2
IND-QC	LMB	14.0 m³	14.0								

## Bucket Filling Factor



## Lift Arm

<b>ZK</b>	Z-bar linkage, standard lift arm length
<b>ZK-QC</b>	Z-bar linkage with quick coupler, standard lift arm length
<b>ZK-HL</b>	Z-bar linkage, High Lift
<b>IND-QC</b>	Industrial lift arm with quick coupler, standard lift arm length

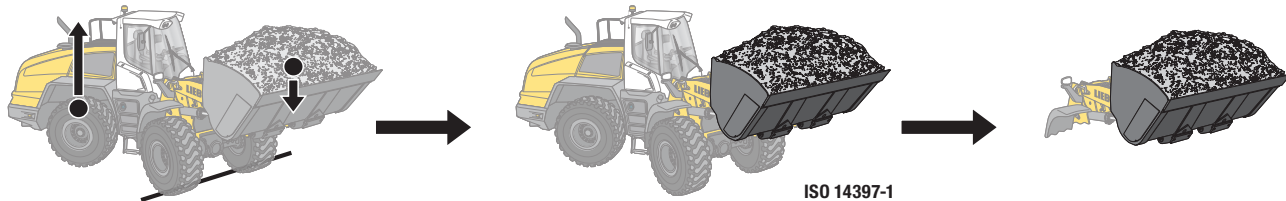
## Bucket

<b>GPB</b>	General purpose bucket (Rehandling bucket)
<b>LMB</b>	Light material bucket
<b>HDB</b>	High-dump bucket
<b>RB</b>	Rock bucket

## Bulk Material Densities and Bucket Filling Factors

		t/m³	%			t/m³	%			t/m³	%
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	<b>Topsoil</b>		1.1	110	<b>Compost</b>	dry	0.8	105
Sand	dry	1.5	105	<b>Basalt</b>		1.95	100		wet	1.0	110
	wet	1.9	110	<b>Granite</b>		1.8	95	<b>Wood chips/Saw dust</b>		0.5	110
Gravel and Sand	dry	1.7	105	<b>Sandstone</b>		1.6	100	<b>Paper</b>	shredded/loose	0.6	110
	wet	2.0	100	<b>Slate</b>		1.75	100		recovered paper/cardboard	1.0	110
Sand/Clay		1.6	110	<b>Bauxite</b>		1.4	100	<b>Coal</b>	heavy material density	1.2	110
	natural	1.6	110	<b>Limestone</b>		1.6	100		light material density	0.9	110
Clay	dry	1.4	110	<b>Gypsum</b>	broken	1.8	100	<b>Waste</b>	domestic waste	0.5	100
	dry	1.4	110	<b>Coke</b>		0.5	110		bulky waste	1.0	100
Clay/Gravel	dry	1.4	110	<b>Slag</b>	broken	1.8	100				
	wet	1.6	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.

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

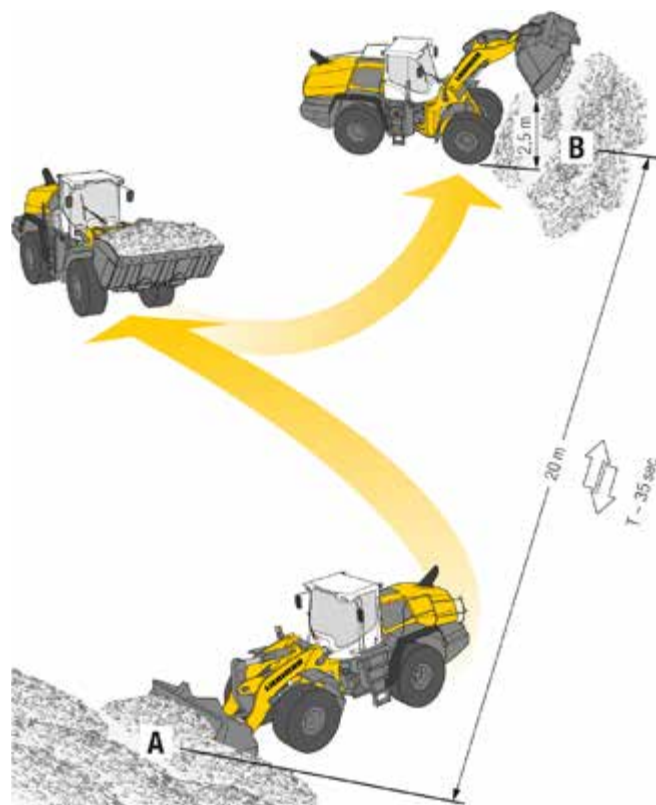
$$\text{Bucket capacity} = \frac{\text{Pay load (t)}}{\text{Specific bulk weight of material (t/m}^3\text{)}}$$

# The Liebherr Wheel Loaders

Wheel Loader						
Tipping load	kg	7,500	9,500	12,430	15,900	18,950
Bucket capacity	m <sup>3</sup>	2.0	2.5	3.4	4.2	5.2
Operating weight	kg	10,400	12,800	17,750	23,450	26,950
Engine output Stage II	kW/HP	—	—	—	200/272	219/298
Engine output Stage IIIA (compliant)	kW/HP	86/117	104/141	168/228	—	—
Engine output BS4	kW/HP	—	—	168/228	212/288	224/305
Engine output NR-IV	kW/HP	—	—	161/219	212/288	224/305

09.21

## Environmental Protection Can Help You Earn Money!



## The Liebherr Standard Consumption Test – easy to reproduce and practical.


The Liebherr Standard Consumption Test determines the number of loading cycles that can be carried out with 5 litres of diesel. The material is taken from pile A and carried over a distance of 20 metres to point B. The time needed for each working cycle should be 35 seconds. Discharge at point B should take place from a height of 2.5 m. The working cycles continue until the 5 litres of diesel in the external measuring tank have been used up. The loader's fuel consumption per operating hour is calculated as follows:


$$\frac{400}{\text{Number of loading cycles}} = \text{Consumption per hour}$$

Values for the Liebherr Wheel Loaders			
	Numbers of working cycles	Litres/100 tons	Litres/hour
L 524: 2.0 m <sup>3</sup>	n = 47	2.9	8.5
L 538: 2.5 m <sup>3</sup>	n = 39	2.9	10.3
L 550: 3.4 m <sup>3</sup>	n = 30	2.9	13.5
L 566: 4.2 m <sup>3</sup>	n = 23	3.0	17.3
L 580: 5.2 m <sup>3</sup>	n = 21	2.6	19.1





# Equipment

 <b>Basic Wheel Loader</b>	L 550	L 566	L 580
Crash protection, rear	+	+	+
Engine shut-down (5 min < 1,000 rpm)	+	+	+
Automatic central lubrication system	+	+	+
Battery main switch (lockable)	•	+	+
Ride control	+	+	+
Parking brake	•	•	•
Fluff trap for radiator	+	+	+
Pre-heat system for cold starting	+	+	+
Rear license panel light	+	+	+
Combined inching-braking system	•	•	•
Mudguard in plastic design	•	•	•
Fuel tank in plastic design	•	•	•
Fuel tank in steel design (with guard)	+	+	+
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	•	•	•
Light carrier in plastic design	+	–	–
Light carrier in steel design (with guard for LED)	+	+	+
Reversible fan drive	+	+	+
Headlights LED (double design on engine hood)	–	•	•
Auxiliary heater (Additional heating with engine preheating)	+	+	+
Dust protection for alternator	+	+	+
Lockable doors and engine hood	•	•	•
Carrying case with tool kit	•	•	•
Chassis protection rear/front	+	+	+
Chock	+	+	+
Air pre-cleaner oil bath filter	+	+	+
Air pre-cleaner standard	•	•	•
Air pre-cleaner TOP SPIN	+	+	+
Liebherr weighing system with "Truck Payload Assist" (cannot be calibrated)	+	+	+
Towing hitch	•	•	•

 <b>Equipment</b>	L 550	L 566	L 580
Working hydraulics lockout	•	•	•
Fork carrier and pallet forks	+	+	+
High-dump bucket	+	+	+
Log grapple	+	+	+
Automatic lift arm position and lowering programmable	+	+	+
High Lift arms	+	+	+
Industrial lift arm	+	+	+
Lift arm Z-bar linkage	•	•	•
Hydraulic quick coupler	+	+	+
Tilt cylinder protection	+	+	+
Loading buckets incl. a range of cutting tools	+	+	+
Light material bucket	+	+	+
Option package „comfort operation“:			
– Automatic lift kick-out			
– Automatic bucket return programmable			
– Reduction valve for bucket discharge speed	+	+	+
Pipe break protection	+	+	+
Float position	•	•	•
1st additional hydraulic function	+	+	+
1st additional hydraulic function for continuous mode	+	+	+
1st and 2nd additional hydraulic function	+	+	+

# Equipment

 <b>Operator's Cab</b>	L 550	L 566	L 580
Armrest left	+	+	+
Exterior mirror, electrical adjustable with heating	+	+	+
Exterior mirror, tilttable	•	•	•
Operating hour meter (integrated in display unit)	•	•	•
Storage box	•	•	•
Operator seat "Comfort" – pneumatic suspension with seat heating	+	+	+
Operator seat "Standard" – mechanically sprung	•	•	•
Heater	•	•	•
Horn operation with right button	+	+	+
Interior mirror right	•	•	•
Floor mat	•	•	•
Clothes hook	•	•	•
Air conditioning system	•	•	•
Headrest	+	+	+
Steering column adjustable	•	•	•
Liebherr control lever – adjustable	•	•	•
Liebherr control lever with mini-joystick	+	+	+
Emergency steering pump	+	+	+
Radio Liebherr "Standard" (USB/AUX)	•	•	•
Amber beacon swivelling, LED	+	+	+
Activation of amber beacon during back-up	+	+	+
Soundproof ROPS/FOPS cab	•	•	•
Wipe and wash system	•	•	•
Headlights rear, single design, halogen	•	•	•
Headlights rear, single design, LED	+	+	+
Headlights rear, double design, halogen	+	+	+
Headlights rear, double design, LED	+	+	+
Headlights rear, triple design, LED	+	+	+
Headlights front, double design, halogen	•	•	•
Headlights front, double design, LED	+	+	+
Sliding window right	•	•	•
Windscreen guard	+	+	+
Sunblind rear / front	+	+	+
Power socket 12 V	•	•	•
Preperation for LiDAT	+	+	+
Cigarette lighter	•	•	•

 <b>Safety</b>	L 550	L 566	L 580
CE safety package	+	+	+
Country-specific versions	+	+	+
Emergency steering system	+	+	+
Back-up alarm acoustic	•	•	•
Rear space monitoring with camera	+	+	+

• = Standard  
 + = Option  
 – = not available

# 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 applications.

## 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 then, the family business has steadily grown to a group of more than 140 companies with nearly 48,000 employees located on all continents. The corporate headquarters of the Group is Liebherr-International AG in Bulle, Switzerland. The Liebherr family is the sole owner of the company.

**[www.liebherr.com](http://www.liebherr.com)**

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