Wheel Loaders

L 550 – L 586

Xpower® Xpower®

Generation
6

Tipping load
12,200 – 21,600 kg

Engine
Stage IV / Tier 4f
Stage V / Tier 4f

LIEBHERR

reddot award 2016
winner

Performance
Power for Increased Productivity

Economy
Minimum Costs at High Handling Capacity

L 550 XPower®
Tipping load, articulated 12,200 kg
Bucket capacity 3.2 m³
Operating weight 17,700 kg
Engine output (ISO 14396)
140 kW / 190 HP

L 556 XPower®
Tipping load, articulated 13,700 kg
Bucket capacity 3.6 m³
Operating weight 18,400 kg
Engine output (ISO 14396)
165 kW / 224 HP

L 566 XPower®
Tipping load, articulated 15,900 kg
Bucket capacity 4.2 m³
Operating weight 23,900 kg
Engine output (ISO 14396)
200 kW / 272 HP

L 576 XPower®
Tipping load, articulated 17,600 kg
Bucket capacity 4.7 m³
Operating weight 25,700 kg
Engine output (ISO 14396)
215 kW / 292 HP

L 580 XPower®
Tipping load, articulated 19,200 kg
Bucket capacity 5.2 m³
Operating weight 27,650 kg
Engine output (ISO 14396)
230 kW / 313 HP

L 586 XPower®
Tipping load, articulated 21,600 kg
Bucket capacity 6.0 m³
Operating weight 32,600 kg
Engine output (ISO 14396)
260 kW / 354 HP

Technical Data

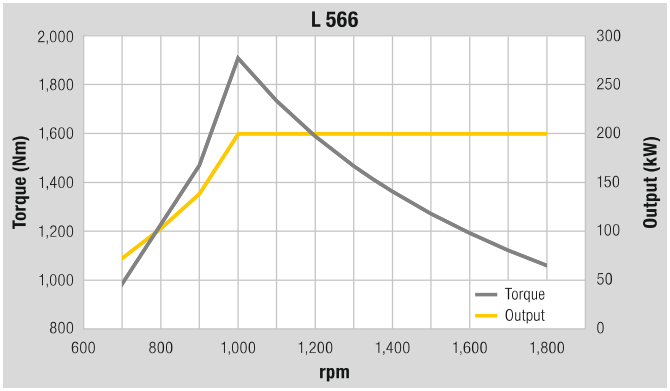
Engine

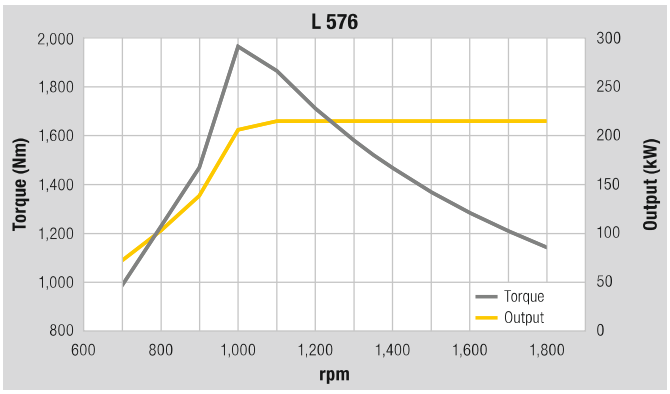
		L 566	L 576	L 580	L 586
Diesel engine		D936 A7	D936 A7	D936 A7	D936 A7
Design		Stage V: Water-cooled in-series engine with charge-air cooling, exhaust gas treatment through Liebherr-SCR technology, closed diesel particle filter system as standard Stage IV: Water-cooled in-series engine with charge-air cooling, exhaust gas treatment through Liebherr-SCR technology			
Cylinder inline		6	6	6	6
Fuel injection process		Electronic Common Rail high-pressure injection			
Max. gross output to ISO 3046 and SAE J1995	kW/HP	203/276	218/296	233/317	263/358
	at RPM	1,000 – 1,800	1,100 – 1,800	1,200 – 1,800	1,300 – 1,800
Max. net output to ISO 9249 and SAE J1349	kW/HP	200/272	215/292	230/313	260/354
	at RPM	1,000 – 1,800	1,100 – 1,800	1,200 – 1,800	1,300 – 1,800
Rated output to ISO 14396	kW/HP	200/272	215/292	230/313	260/354
	at RPM	1,800	1,800	1,800	1,800
Max. net torque to ISO 9249 and SAE J1349	Nm	1,910	1,965	1,965	1,965
	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 with main and safety element, pre-cleaner, service indicator on the Liebherr display			
Electrical system					
Operating voltage	V	24	24	24	24
Capacity	Ah	2 x 180	2 x 180	2 x 180	2 x 180
Alternator	V/A	28/180	28/180	28/180	28/180
Starter	V/kW	24/7.8	24/7.8	24/7.8	24/7.8

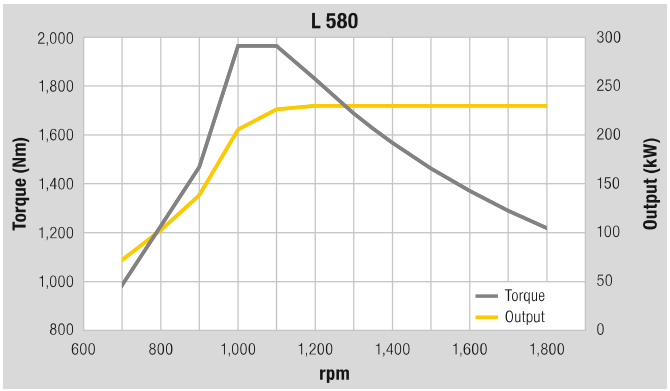
The availability of models with stage V / Tier 4f or stage IV / Tier 4f emission standards is subject to emission regulations in the respective countries.

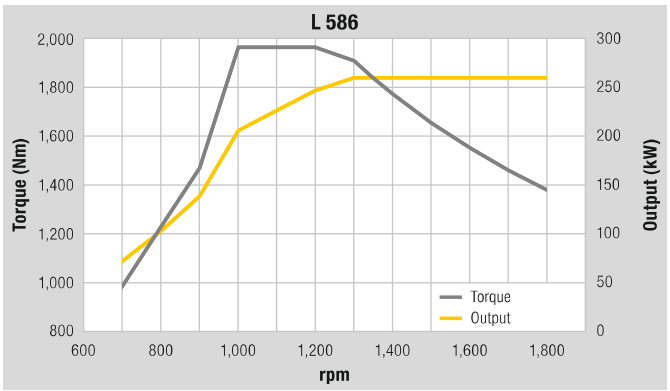
Driveline

Continuous power split XPower® driveline	
Design	Continuous, fully-automatic XPower® driveline. No traction interruptions across the entire speed range. Hydrostatic power split 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.









Axles

		L 566	L 576	L 580	L 586
Four-wheel drive					
Front axle		Fixed			
Rear axle		Centre pivot, with 13° oscillating angle to each side			
Height of obstacles which can be driven over	mm	492	473	473	523
		with all four wheels remaining in contact with the ground			
Differentials		Automatic limited-slip differentials			
Reduction gear		Planetary final drive in wheel hubs			
Track width		2,230 mm with all types of tyres (L 566, L 576, L 580) 2,440 mm with all types of tyres (L 586)			

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 ISO 3450.

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	38° 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
Design		"Load-sensing" swash plate type variable flow pump with output and flow control, and pressure cut-off in the control block			
Cooling		Hydraulic oil cooling using thermostatically controlled fan and oil cooler			
Filtration		Return line filter in the hydraulic reservoir			
Control		Liebherr control lever, electro-hydraulically operated			
Lift circuit		Lifting, neutral, lowering Automatic lift arm position and lowering by Liebherr control lever Float position controlled by Liebherr control lever			
Tilt circuit		Tilt back, neutral, dump Automatic bucket return for tilting back and dumping controlled by Liebherr control lever			
Max. flow	l/min.	290	290	320	410
Max. pressure					
Z-bar linkage	bar	350	380	380	330
Industrial lift arm	bar	380		380	

Attachment

		L 566		L 576	L 580		L 586
Geometry variants							
Optional		Powerful Z-bar linkage with tilt cylinder and cast steel cross-tube					
		Industrial lift arm with tilt cylinder, hydraulic quick hitch as standard (L 566, L 580)					
Bearings		Sealed					
Cycle time at nominal load		ZK	IND	ZK	ZK	IND	ZK
Lifting	s	6.1	6.1	6.1	6.2	6.2	6.4
Dumping	s	1.2	2.0	1.2	1.4	2.2	1.5
Lowering (empty)	s	3.2	3.2	3.2	3.4	3.4	3.6

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, side panels with single-pane safety glass ESG, heated rear window ESG, all windows are tinted. 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, electrically heated rear window, all filters are easy to access and replaceable

Sound Level

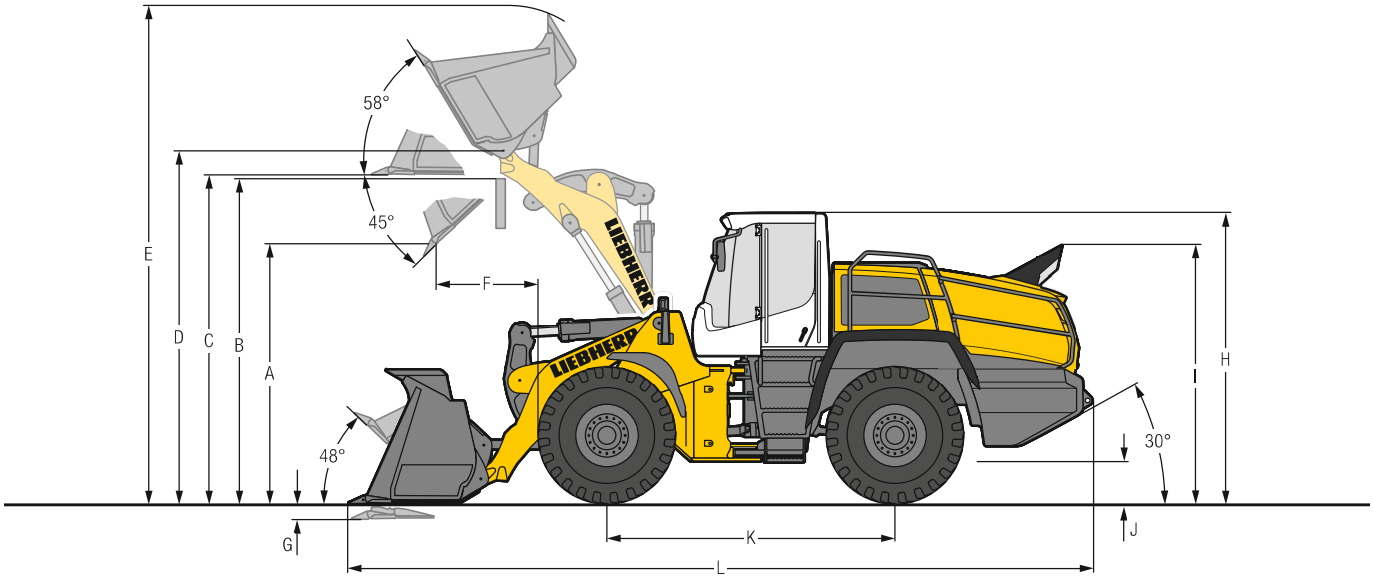
		L 566	L 576	L 580	L 586
Sound pressure level to ISO 6396					
L_{pA} (inside cab)	dB(A)	68	68	68	68
Sound power level to 2000/14/EC					
L_{WA} (surround noise)	dB(A)	105	105	105	107

Capacities

		L 566	L 576	L 580	L 586
Fuel tank	l	365	365	365	500
Engine oil (inclusive filter change)	l	42	42	42	42
DEF tank	l	67.5	67.5	67.5	67.5
Pump distribution gearbox	l	1.2	1.2	1.2	1.2
XPower® gearbox	l	55	55	55	55
Coolant	l	73	73	73	73
Front axle	l	42	58	58	60
Rear axle	l	42	42	58	60
Hydraulic tank	l	105	105	105	95
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

			L 566		L 576		L 580			L 586		
	Geometry		ZK	ZK	ZK	ZK	ZK	ZK	ZK	ZK	ZK	ZK
	Cutting tools		T	T	T	T	T	T	BOCE	T	T	ROB
	Lift arm length	mm	2,920	2,920	3,050	3,050	3,050	3,050	3,050	3,150	3,150	3,150
	Bucket capacity according to ISO 7546**	m³	4.2	4.7	4.7	5.2	5.2	5.7	5.7 [1]	6.0	6.5	5.5
	Specific material density	t/m³	1.8	1.6	1.8	1.6	1.8	1.6	1.7	1.8	1.6	1.8
	Bucket width	mm	3,000	3,000	3,000	3,000	3,000	3,300	3,300	3,430	3,650	3,400
A	**Dumping height at max. lift height and 45° discharge**	mm	3,205	3,130	3,355	3,285	3,285	3,220	3,220	3,260	3,260	3,290
B	**Dump-over height**	mm	3,900	3,900	4,100	4,100	4,100	4,100	4,100	4,150	4,150	4,150
C	**Max. height of bucket bottom**	mm	4,050	4,050	4,270	4,270	4,270	4,270	4,270	4,330	4,330	4,300
D	**Max. height of bucket pivot point**	mm	4,360	4,360	4,580	4,580	4,580	4,580	4,580	4,640	4,640	4,660
E	**Max. operating height**	mm	6,120	6,220	6,440	6,540	6,540	6,500	6,500	6,530	6,530	6,450
F	**Reach at max. lift height and 45° discharge**	mm	1,190	1,270	1,135	1,205	1,205	1,285	1,285	1,430	1,430	1,390
G	**Digging depth**	mm	100	100	100	100	100	100	100	100	100	140
H	**Height above operator's cab**	mm	3,590	3,590	3,590	3,590	3,590	3,590	3,590	3,740	3,740	3,760
I	**Height above exhaust**	mm	3,200	3,200	3,200	3,200	3,200	3,200	3,200	3,300	3,300	3,320
J	**Ground clearance**	mm	535	535	540	540	465	465	465	575	575	595
K	**Wheelbase**	mm	3,560	3,560	3,630	3,630	3,710	3,710	3,710	3,900	3,900	3,900
L	**Overall length**	mm	9,165	9,275	9,445	9,545	9,620	9,720	9,720	9,980	9,980	9,990
	Turning circle radius over outside bucket edge	mm	7,340	7,370	7,500	7,530	7,615	7,780	7,780	8,350	8,400	8,300
	Breakout force (SAE)	kN	200	190	200	190	225	205	200	240	240	245
	Tipping load, straight*	kg	18,150	17,900	20,100	19,900	21,750	21,250	22,200	24,500	23,900	25,600
	Tipping load, fully articulated*	kg	15,900	15,650	17,600	17,400	19,200	18,700	19,500	21,600	21,000	22,500
	Operating weight*	kg	23,900	24,000	25,700	25,800	27,650	27,800	28,800	32,600	33,050	33,700
	Tyre size		26.5R25 L3		26.5R25 L3		26.5R25 L3			29.5R25 L3		29.5R25 L5

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

** Actual bucket capacity may be approx. 10 % larger than the calculation according to ISO 7546 standard. The degree to which the bucket can be filled depends on the material – see pages 34/35.

[1] Toothed buckets, hydraulic quick hitch and additional hydraulic circuits are not approved for rehandling application.

= Excavation bucket with back grading edge for direct mounting

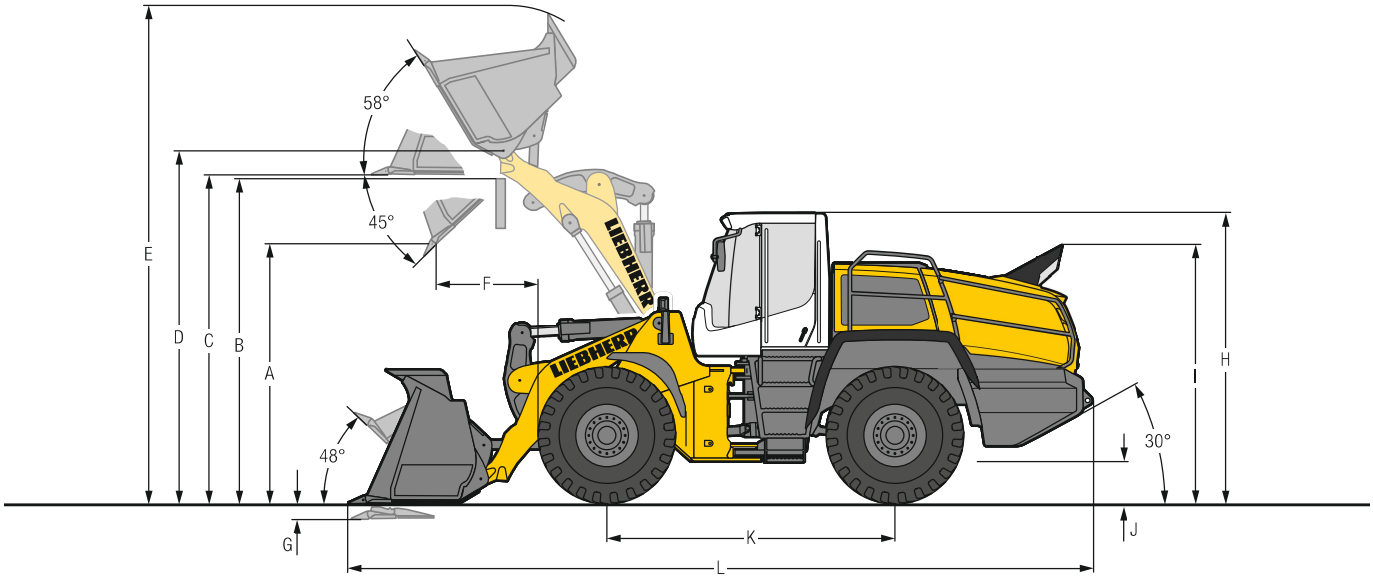
= Rehandling bucket for direct mounting

= 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

Dimensions

Z-bar Linkage High Lift



Loading Bucket

			L 566		L 576		L 580			L 586		
	Geometry		ZK	ZK	ZK	ZK	ZK	ZK	ZK	ZK	ZK	ZK
	Cutting tools		T	T	T	T	T	T	BOCE	T	T	ROB
	Lift arm length	mm	3,250	3,250	3,250	3,250	3,250	3,250	3,250	3,450	3,450	3,450
	Bucket capacity according to ISO 7546**	m³	3.7	4.2	4.2	4.7	4.7	5.2	5.2 [1]	5.5	6.0	5.0
	Specific material density	t/m³	1.8	1.6	1.8	1.6	1.8	1.6	1.7	1.8	1.6	1.8
	Bucket width	mm	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,400	3,400	3,400
A	Dumping height at max. lift height and 45° discharge	mm	3,720	3,650	3,650	3,575	3,560	3,490	3,425	3,725	3,670	3,745
B	Dump-over height	mm	4,300	4,300	4,300	4,300	4,300	4,300	4,300	4,500	4,500	4,500
C	Max. height of bucket bottom	mm	4,470	4,470	4,470	4,470	4,470	4,470	4,470	4,750	4,750	4,770
D	Max. height of bucket pivot point	mm	4,780	4,780	4,780	4,780	4,780	4,780	4,780	5,060	5,060	5,080
E	Max. operating height	mm	6,460	6,555	6,555	6,650	6,650	6,740	6,700	6,950	6,980	6,800
F	Reach at max. lift height and 45° discharge	mm	1,130	1,200	1,130	1,215	1,190	1,265	1,340	1,370	1,410	1,370
G	Digging depth	mm	140	140	140	140	140	140	140	100	100	140
H	Height above operator's cab	mm	3,590	3,590	3,590	3,590	3,590	3,590	3,590	3,740	3,740	3,760
I	Height above exhaust	mm	3,200	3,200	3,200	3,200	3,200	3,200	3,200	3,300	3,300	3,320
J	Ground clearance	mm	535	535	540	540	465	465	465	575	575	575
K	Wheelbase	mm	3,560	3,560	3,630	3,630	3,710	3,710	3,710	3,900	3,900	3,900
L	Overall length	mm	9,500	9,590	9,590	9,700	9,770	9,870	9,970	10,250	10,280	10,300
	Turning circle radius over outside bucket edge	mm	7,480	7,510	7,560	7,590	7,680	7,710	7,740	8,500	8,550	8,450
	Breakout force (SAE)	kN	210	200	210	200	240	225	225	250	240	260
	Tipping load, straight*	kg	15,850	15,650	18,650	18,550	20,200	20,000	20,600	22,400	21,700	22,700
	Tipping load, fully articulated*	kg	13,850	13,650	16,350	16,250	17,800	17,600	18,200	19,700	19,000	20,000
	Operating weight*	kg	24,000	24,100	25,650	25,750	27,650	27,750	28,600	32,600	33,000	33,900
	Tyre size		26.5R25 L3		26.5R25 L3		26.5R25 L3			29.5R25 L3		29.5R25 L5

* 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)

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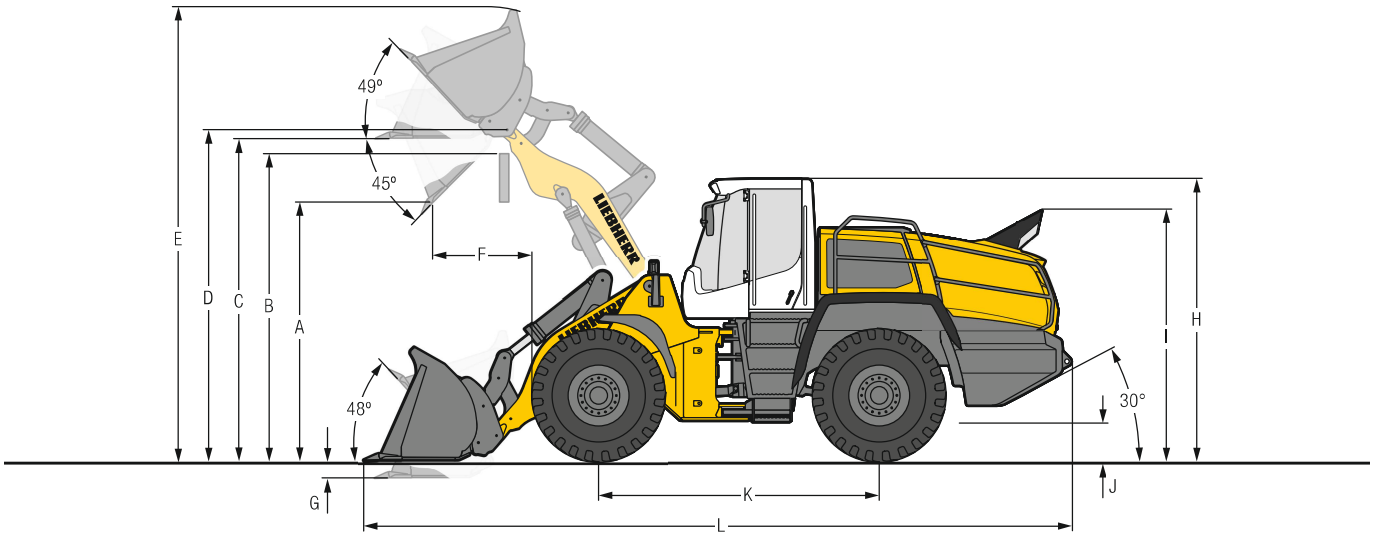
Dimensions

Industrial Lift Arm



Excavation Bucket

			L 566		L 580	
	Geometry		IND-QH	IND-QH	IND-QH	IND-QH
	Cutting tools		T	T	T	T
	Lift arm length	mm	2,900	2,900	2,900	2,900
	Bucket capacity according to ISO 7546**	m³	3.5	4.0	4.5	5.0
	Specific material density	t/m³	1.8	1.6	1.8	1.6
	Bucket width	mm	3,000	3,000	3,000	3,000
A	**Dumping height at max. lift height and 45° discharge**	mm	3,210	3,140	3,070	3,000
B	**Dump-over height**	mm	3,900	3,900	3,900	3,900
C	**Max. height of bucket bottom**	mm	4,145	4,145	4,145	4,145
D	**Max. height of bucket pivot point**	mm	4,490	4,490	4,490	4,490
E	**Max. operating height**	mm	6,045	6,165	6,265	6,330
F	**Reach at max. lift height and 45° discharge**	mm	1,270	1,340	1,290	1,230
G	**Digging depth**	mm	100	100	100	100
H	**Height above operator's cab**	mm	3,590	3,590	3,590	3,590
I	**Height above exhaust**	mm	3,200	3,200	3,200	3,200
J	**Ground clearance**	mm	535	535	465	465
K	**Wheelbase**	mm	3,630	3,630	3,710	3,710
L	**Overall length**	mm	9,270	9,370	9,545	9,650
	Turning circle radius over outside bucket edge	mm	7,410	7,440	7,560	7,590
	Breakout force (SAE)	kN	200	185	200	185
	Tipping load, straight*	kg	17,100	16,650	20,150	19,700
	Tipping load, fully articulated*	kg	15,000	14,550	17,750	17,300
	Operating weight*	kg	24,800	24,950	28,050	28,200
	Tyre size		26.5R25 L3		26.5R25 L3	

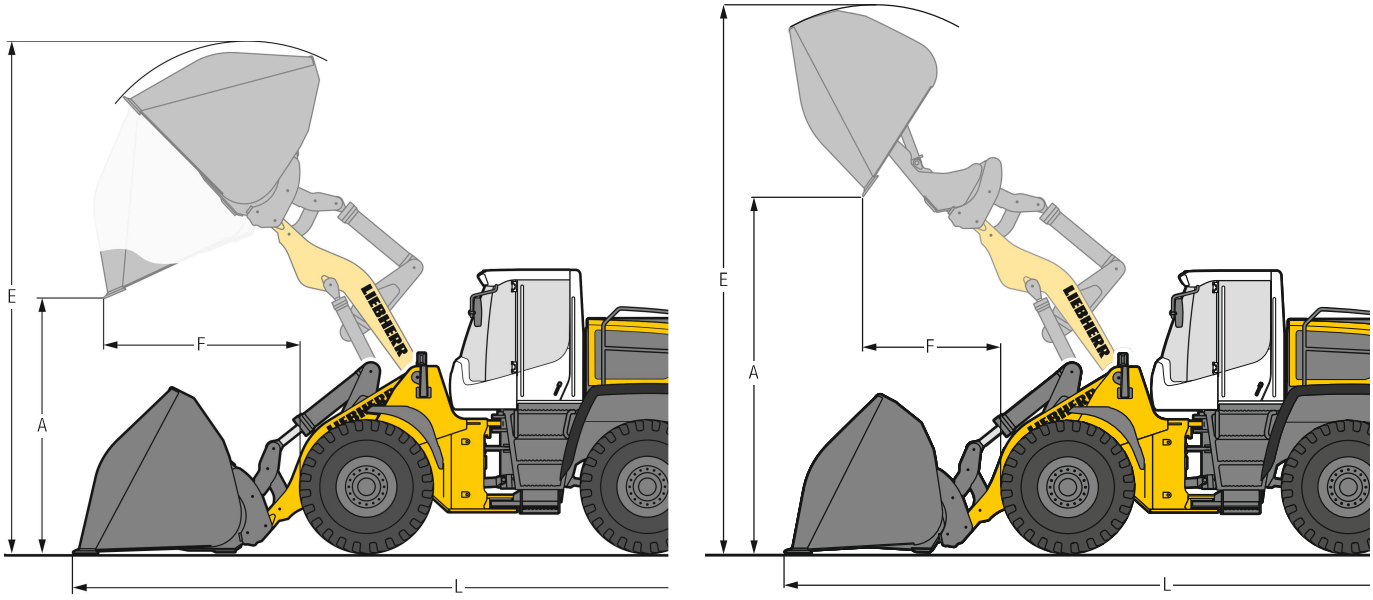
* The figures shown include the above tyres, all lubricants, a full fuel tank, the ROPS/FOPS cab and the operator. Different tyres and optional equipment will change the operating weight and tipping load. (Tipping load, fully articulated according to ISO 14397-1)

** Actual bucket capacity may be approx. 10 % larger than the calculation according to ISO 7546 standard. The degree to which the bucket can be filled depends on the material – see pages 34/35.

IND-QH = Industrial lift arm with parallel guidance incl. quick hitch
T = Welded-on tooth holder with add-on teeth

Attachment

Light Material Bucket and High-Dump Bucket



Light Material Bucket

			L 566		L 580		L 586
	Geometry		IND-QH	IND-QH	IND-QH	IND-QH	ZK
	Cutting tools		BOCE	BOCE	BOCE	BOCE	BOCE
	Bucket capacity	m³	6.5	12.0	7.5	14.0	8.5
	Specific material density	t/m³	1.0	0.45	1.0	0.45	1.1
	Bucket width	mm	3,200	3,700	3,400	4,000	3,500
A	**Dumping height at max. lift height**	mm	2,885	2,620	2,810	2,480	2,940
E	**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		26.5R25 L3		26.5R25 L3		29.5R25 L3

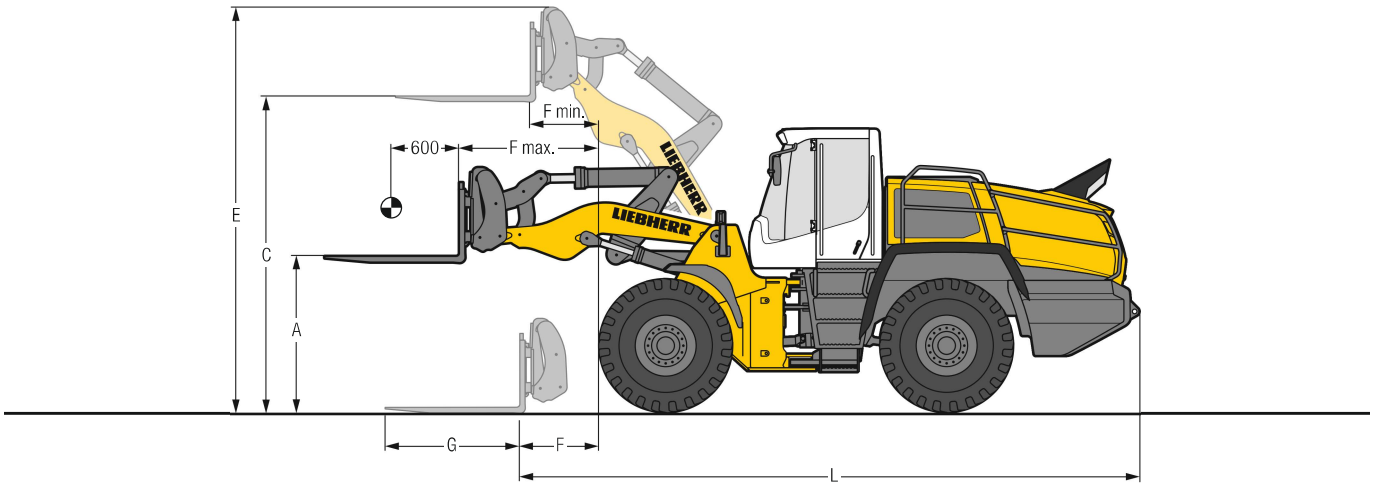
High-Dump Bucket

			L 566		L 580		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
	Specific material density	t/m³	1.0	0.45	1.0	0.45	1.0
	Bucket width	mm	3,200	3,700	3,200	4,000	3,500
A	**Dumping height at max. lift height**	mm	5,130	4,840	4,970	4,780	5,100
E	**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		26.5R25 L3		26.5R25 L3		29.5R25 L3

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

Attachment
Fork Carrier and Fork



FEM IV Fork Carrier and Fork

			L 566	L 580
	Geometry		IND-QH	IND-QH
A	**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	8,640
	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

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

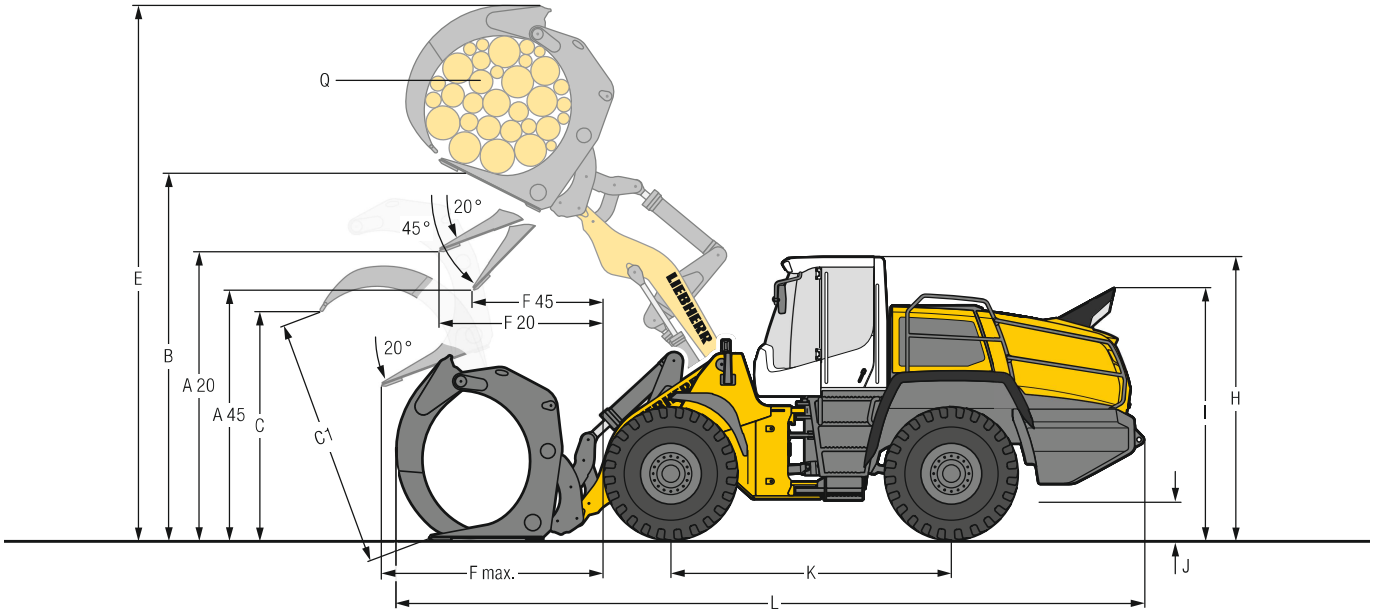
[1] According to EN 474-3

[2] Payload is limited by FEM IV fork carrier and forks

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

Attachment

Log Grapple



Log Grapple

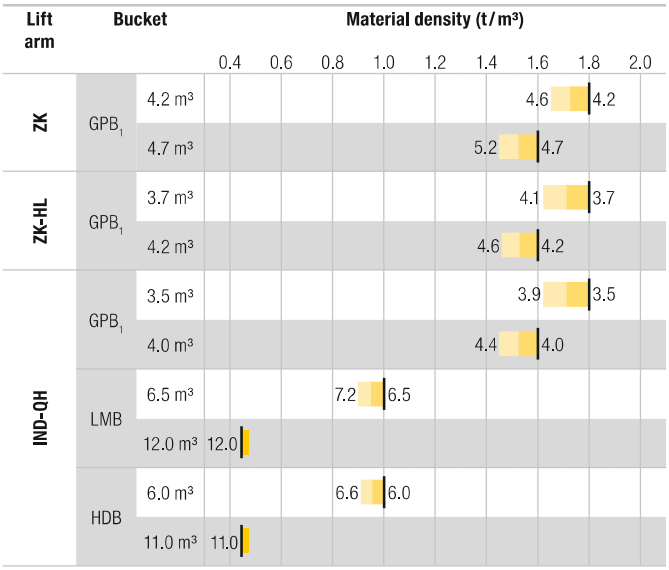
			L 566	L 580
	Geometry		IND-QH	IND-QH
A20	Discharge height at 20°	mm	3,570	3,520
A45	Discharge height at 45°	mm	2,930	2,805
B	Manipulation height	mm	5,125	5,125
C	Max. grapple opening in loading position	mm	2,650	2,930
C1	Max. grapple opening	mm	3,050	3,340
E	Max. height	mm	7,400	7,500
F20	Reach at max. lifting height at 20° discharge	mm	2,165	2,215
F45	Reach at max. lifting height at 45° discharge	mm	1,620	1,625
F max.	Max. reach	mm	3,110	3,160
H	Height above operator's cab	mm	3,615	3,615
I	Height above exhaust	mm	3,225	3,225
J	Ground clearance	mm	555	485
K	Wheelbase	mm	3,630	3,710
L	Overall length	mm	9,810	10,050
	Width over tyres	mm	2,970	2,970
Q	Grapple diameter	m²	3.1	3.5
	Grapple width	mm	1,800	1,800
	Payload*	kg	8,200	9,200
	Operating weight*	kg	26,950	29,850
	Tyre size		26.5R25 L4	26.5R25 L4

* 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.

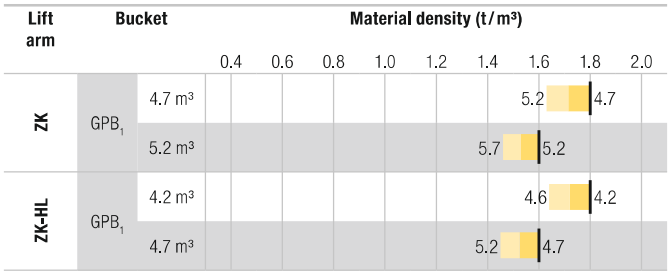
IND-QH = Industrial lift arm with parallel guidance incl. quick hitch

Bucket Selection

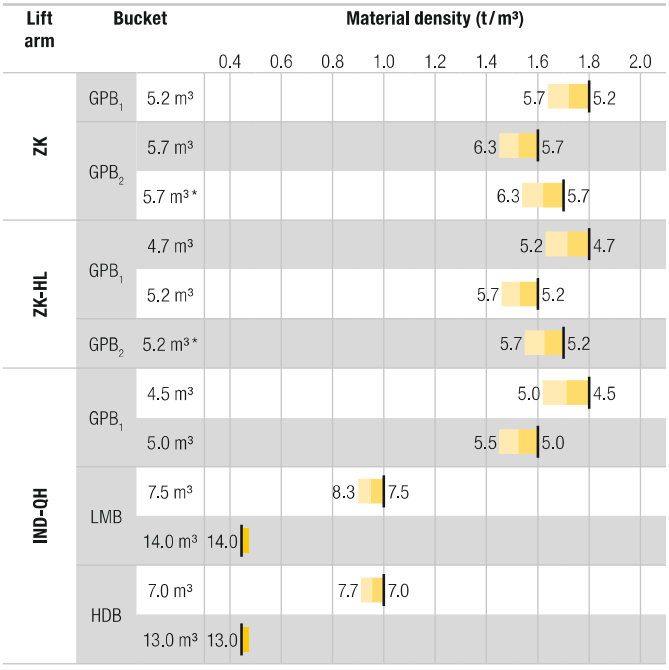
L 566



L 576

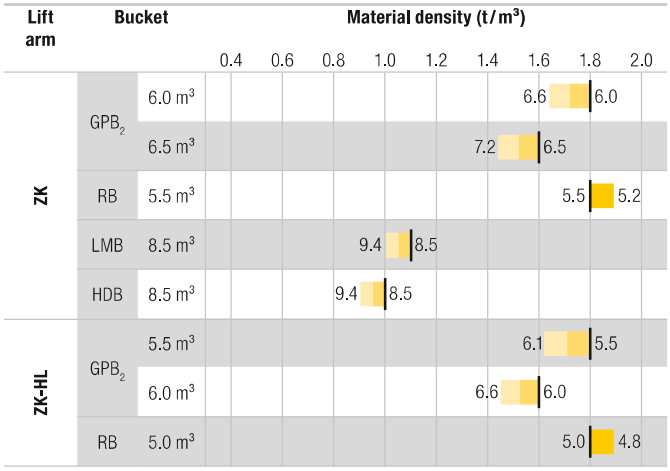


L 580



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

L 586



Bucket Filling Factor

Lift Arm

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

Bucket

GPB$_1$	General purpose bucket (Excavation bucket)
GPB$_2$	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
Gravel and Sand	dry	1.7	105
	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	0.8	105
	wet	1.0	110
Wood chips / 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

ISO 14397-1

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.

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

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

Tyres

Tyre Types

	Size and tread code		Change of operating weight kg	Width over tyres mm	Change in vertical dimensions* mm	Use
L 566 XPower®						
Bridgestone	26.5R25 VJT	L3	160	2,970	14	Bulk material (firm ground conditions)
Bridgestone	26.5R25 VLTS	L4	420	2,970	44	Gravel, Industry (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	26.5R25 VSMS	L5	1,599	2,960	70	Scrap, Recycling, Slag (firm ground conditions)
Bridgestone	26.5R25 VSNT	L4	576	2,960	47	Gravel, Industry, Wood (firm ground conditions)
Bridgestone	750/65R25 VTS	L3	194	3,070	– 39	Gravel, Industry, Wood (all ground conditions)
Continental	26.5R25 EM-Master	L3	8,400	2,980	41	Bulk material (firm ground conditions)
Continental	26.5R25 EM-Master	L4	528	2,930	48	Gravel, Industry, Wood (firm ground conditions)
Goodyear	26.5R25 RT-3B	L3	324	2,980	26	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	L5	1,460	2,990	63	Scrap, Recycling, Slag (firm ground conditions)
Goodyear	26.5R25 RT-5D	L5	1,008	2,990	63	Stone, Mining spoil (firm ground conditions)
Goodyear	750/65R25 TL-3A+	L3	148	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 X MINE PRO	L5	1,188	3,010	58	Stone, Scrap, Recycling (firm ground conditions)
Michelin	26.5R25 XLD D2A	L5	696	2,970	38	Stone, Mining spoil (firm ground conditions)
Michelin	26.5R25 XTXL	L4	488	2,970	23	Gravel, Industry, Wood (firm ground conditions)
Michelin	750/65R25 XLD 65	L3T	– 8	3,060	– 57	Gravel, Industry, Wood (all ground conditions)
L 576 XPower® / L 580 XPower®						
Bridgestone	26.5R25 VJT	L3	0	2,970	0	Bulk material (firm ground conditions)
Bridgestone	26.5R25 VLTS	L4	260	2,970	30	Gravel, Industry (firm ground conditions)
Bridgestone	26.5R25 VSDT	L5	878	2,970	36	Stone, Mining spoil (firm ground conditions)
Bridgestone	26.5R25 VSDL	L5	1,130	2,970	43	Stone, Scrap, Recycling (firm ground conditions)
Bridgestone	26.5R25 VSMS	L5	1,439	2,960	56	Scrap, Recycling, Slag (firm ground conditions)
Bridgestone	26.5R25 VSNT	L4	416	2,960	33	Gravel, Industry, Wood (firm ground conditions)
Bridgestone	750/65R25 VTS	L3	– 74	3,070	– 53	Gravel, Industry, Wood (all ground conditions)
Continental	26.5R25 EM-Master	L3	8,400	2,980	41	Bulk material (firm ground conditions)
Continental	26.5R25 EM-Master	L4	368	2,930	34	Gravel, Industry, Wood (firm ground conditions)
Goodyear	26.5R25 RT-3B	L3	164	2,980	12	Gravel (all ground conditions)
Goodyear	26.5R25 TL-3A+	L3	188	2,980	16	Sand, Gravel, Earthworks, Clay (all ground conditions)
Goodyear	26.5R25 GP-4D	L4	276	2,980	12	Gravel, Industry, Wood (firm ground conditions)
Goodyear	26.5R25 RL-4K	L4	616	2,990	49	Gravel, Industry, Stone (firm ground conditions)
Goodyear	26.5R25 RL-5K	L5	1,084	2,990	49	Stone, Scrap, Recycling (firm ground conditions)
Goodyear	26.5R25 RL-5S	L5	1,300	2,990	49	Scrap, Recycling, Slag (firm ground conditions)
Goodyear	26.5R25 RT-5D	L5	848	2,990	49	Stone, Mining spoil (firm ground conditions)
Goodyear	750/65R25 TL-3A+	L3	– 119	3,100	– 40	Sand, Gravel, Industry, Wood (all ground conditions)
Michelin	26.5R25 XHA2	L3	– 160	2,960	– 14	Sand, Gravel (all ground conditions)
Michelin	26.5R25 X MINE PRO	L5	1,028	3,010	44	Stone, Scrap, Recycling (firm ground conditions)
Michelin	26.5R25 XLD D2A	L5	536	2,970	24	Stone, Mining spoil (firm ground conditions)
Michelin	26.5R25 XTXL	L4	328	2,970	9	Gravel, Industry, Wood (firm ground conditions)
Michelin	750/65R25 XLD 65	L3T	– 275	3,060	– 71	Gravel, Industry, Wood (all ground conditions)
L 586 XPower®						
Bridgestone	29.5R25 VJT	L3	0	3,260	0	Bulk material (firm ground conditions)
Bridgestone	29.5R25 VLTS	L4	260	3,270	25	Gravel, Stone (firm ground conditions)
Bridgestone	29.5R25 VSDT	L5	1,224	3,270	35	Stone, Mining spoil (firm ground conditions)
Bridgestone	29.5R25 VSDL	L5	1,584	3,270	45	Stone, Scrap, Recycling (firm ground conditions)
Bridgestone	29.5R25 VSNT	L4	566	3,270	35	Gravel, Industry, Wood (firm ground conditions)
Continental	29.5R25 EM-Master	L3	144	3,260	20	Bulk material (firm ground conditions)
Continental	29.5R25 EM-Master	L4	358	3,280	25	Gravel, Industry, Wood (firm ground conditions)
Goodyear	29.5R25 TL-3A+	L3	386	3,290	21	Sand, Gravel, Earthworks, Clay (all ground conditions)
Goodyear	29.5R25 GP-4D	L4	358	3,260	9	Gravel, Industry, Wood (firm ground conditions)
Goodyear	29.5R25 RL-4K	L4	978	3,270	29	Gravel, Industry, Stone (firm ground conditions)
Goodyear	29.5R25 RL-5K	L5	1,454	3,310	51	Stone, Scrap, Recycling (firm ground conditions)
Goodyear	29.5R25 RT-5D	L5	1,362	3,300	41	Stone, Mining spoil (firm ground conditions)
Goodyear	29.5R25 RL-5S	L5	1,954	3,270	51	Scrap, Recycling, Slag (firm ground conditions)
Michelin	29.5R25 XHA2	L3	– 146	3,250	– 15	Sand, Gravel (all ground conditions)
Michelin	29.5R25 XLD D2A	L5	790	3,260	11	Stone, Mining spoil (firm ground conditions)
Michelin	29.5R25 XTXL	L4	460	3,280	11	Gravel, Industry, Wood (firm ground conditions)
Michelin	29.5R25 X MINE PRO	L5	1,266	3,310	27	Stone, Scrap, Recycling (firm ground conditions)

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

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

Equipment

Basic Wheel Loader	L 550	L 556	L 566	L 576	L 580	L 586
Crash protection, rear	+	+	+	+	+	+
Automatic central lubrication system	+	+	+	+	+	•
Battery main switch (lockable)	•	•	•	•	•	•
Electronic tractive force regulation for difficult ground conditions	•	•	•	•	•	•
Travel light (with additional headlights) on front section halogen	+	+	+	+	+	+
Travel light (with additional headlights) on front section LED	+	+	+	+	+	+
Ride control	•	•	•	•	•	•
Parking brake	•	•	•	•	•	•
Fire extinguisher 6 kg	+	+	+	+	+	+
Fluff trap for radiator	+	+	+	+	+	+
Speed limitor 20 km/h as a factory preset	+	+	+	+	+	+
Speed limitor V_{max} adjustable key on the control unit	•	•	•	•	•	•
DEF tank	•	•	•	•	•	•
Turbocharger insulation	+	+	+	+	+	+
Pre-heat system for cold starting	•	•	•	•	•	•
Rear license panel light	+	+	+	+	+	+
Combined inching-braking system	•	•	•	•	•	•
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	+	+	+	+	+	+
Reversible fan drive	+	+	+	+	+	+
Automatic delayed engine stop	+	+	+	+	+	+
Widening for mudguard	+	+	+	+	+	+
Ramming guard with guard	+	+	+	+	+	–
Headlights halogen (double design on engine hood)	•	•	•	•	•	•
Headlights LED (double design on engine hood)	+	+	+	+	+	+
Guard for headlights	+	+	+	+	+	+
Auxiliary heater (Additional heating with engine preheating)	+	+	+	+	+	+
Dust protection for alternator	+	+	+	+	+	+
Road travel counterweight	•	•	+	–	–	–
Lockable doors and engine hood	•	•	•	•	•	•
Tunnel package	+	+	+	+	–	–
Chassis protection rear	+	+	+	+	+	+
Chassis protection front	+	+	+	+	+	+
Air pre-cleaner TOP AIR	+	+	+	+	+	+
Toolbox with toolkit	•	•	•	•	•	•
Liebherr weighing system with “Truck Payload Assist” (cannot be calibrated)	+	+	+	+	+	+
Towing hitch	•	•	•	•	•	•
Additional handrails left	•	•	•	•	•	•
Additional handrails right	+	+	+	+	+	+

Equipment	L 550	L 556	L 566	L 576	L 580	L 586
Working hydraulics lockout	•	•	•	•	•	•
Automatic bucket return programmable	•	•	•	•	•	•
Stroke limit damping	+	+	+	+	+	+
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 hitch	+	+	+	+	+	+
Adjustable tipping speed	•	•	•	•	•	•
Tilt cylinder protection	+	+	+	+	+	+
Loading buckets incl. a range of cutting tools	+	+	+	+	+	+
Light material bucket	+	+	+	+	+	+
Load holding valves	+	+	+	+	+	+
Float position	•	•	•	•	•	•
Visualisation of the equipment position	•	•	•	•	•	•
3rd electro-hydraulic, proportional control circuit, adjustable delivery flow	+	+	+	+	+	+
3rd electro-hydraulic control circuit for continuous sweeper and snow blower operation	+	+	+	+	+	+
4th electro-hydraulic, proportional control circuit, adjustable delivery flow	+	+	+	+	+	–
4th electro-hydraulic control circuit for continuous sweeper and snow blower operation	+	+	+	+	+	–

Operator's Cab

Operator's Cab	L 550	L 556	L 566	L 576	L 580	L 586
Adapter plate for additional fastening on the multi-function rail	+	+	+	+	+	+
Adaptive working lighting	+	+	+	+	+	+
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 code	+	+	+	+	+	+
Electronical theft protection with key with/ without driver identification	+	+	+	+	+	+
Storage box left	•	•	•	•	•	•
Operator's cab without steering wheel/steering column (not available as street legal) – joystick steering only	+	+	+	+	+	+
Operator seat "Comfort" – air sprung with seat heating	•	•	•	•	•	•
Operator seat "Premium" – active air-suspension with seat air-condition, seat heating and headrest	+	+	+	+	+	+
Particle filter F7	•	•	•	•	•	•
Fire extinguisher in cab 2 kg	+	+	+	+	+	+
Rear window heated electrically	•	•	•	•	•	•
Audible horn control integrated into Liebherr control lever	+	+	+	+	+	+
Interior mirror right	•	•	•	•	•	•
Interior mirror left and right	+	+	+	+	+	+
Integral tyre pressure monitoring system	+	+	+	+	+	+
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 with remote control incl. Coming Home/ Leaving Home function	+	+	+	+	+	+
Premiumdisplay (Touchscreen), with height adjustment and tilting function	•	•	•	•	•	•
Preparation for radio installation	+	+	+	+	+	+
Radio Liebherr "Comfort" (USB/AUX/BLUETOOTH/ handsfree set)	+	+	+	+	+	+
Radio Liebherr "Standard" (USB/AUX)	+	+	+	+	+	+

Operator's Cab

Operator's Cab	L 550	L 556	L 566	L 576	L 580	L 586
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	+	+	+	+	+	+
Headlights rear, single design, halogen/LED	+	+	+	+	+	+
Headlights rear, double design, LED	+	+	+	+	+	+
Headlights front, double design, halogen	•	•	•	•	•	•
Headlights front, double design, LED	+	+	+	+	+	+
Sliding window left/right	•	•	•	•	•	•
Slipcover for operator seat	+	+	+	+	+	+
Windscreen guard	+	+	+	+	+	+
Sunblind rear	+	+	+	+	+	+
Sunblind front	•	•	•	•	•	•
Power socket 12 V	•	•	•	•	•	•
Power socket USB	•	•	•	•	•	•
First aid kit	+	+	+	+	+	+
Preparation for protective ventilation and dust filtrating device	+	+	+	+	+	+
Wide angle mirror	+	+	+	+	+	+
Cigarette lighter	•	•	•	•	•	•
2-in-1 steering – changeable	+	+	+	+	+	–

Safety

Safety	L 550	L 556	L 566	L 576	L 580	L 586
Active personnel detection at the rear incl. brake assistant	+	+	+	+	+	+
Roof camera for front area monitoring (with Liebherr camera via Liebherr display)	+	+	+	+	+	+
Country-specific versions	+	+	+	+	+	+
Emergency steering system	•	•	•	•	•	•
Reversing obstruction detector	+	+	+	+	+	+
Back-up alarm acoustic/visual	+	+	+	+	+	+
Rear space monitoring with camera (with Liebherr camera via Liebherr display)	•	•	•	•	•	•
Skyview 360°	+	+	+	+	+	+

• = Standard
+ = Option
– = not available

Further information can be found in the brochure "Assistance systems for wheel loaders" or you can find here: