

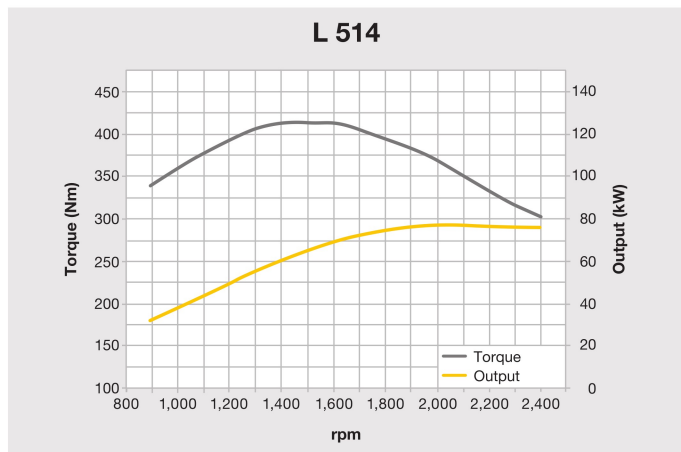
Technical Data



Engine

Diesel engine	4045 HFL 92B	
Design	4-cylinder inline engine, water-cooled with exhaust turbocharger, intercooler and diesel particle filter	
Fuel injection process	electronic Common Rail high-pressure injection	
Max. output according to DIN/ISO 3046	77/105 kW/HP	at 2,000 RPM
Max. torque	413 Nm	at 1,400 RPM
Displacement	4.5 litres	
Bore/Stroke	106/127 mm	
Air cleaner	Dry air filter with main and safety element	
Electrical system		
Operating voltage	12 V	
Battery	2 x 100 Ah/12 V	
Alternator	12 V/90 A	
Starter motor	4.8 kW	

The exhaust emissions are below the limits in stage IIIB/Tier 4i.



Driveline

Stepless hydrostatic driveline		
Design	Swash plate type variable flow pump and a variable axial piston motor in a closed loop circuit	
Filtering system	Suction return line filter for closed circuit	
Control	Control of driveline with travel and combined inching pedal. The inching pedal permits continuously variable adjustment of crowding and tractive force to match ground and operating conditions. The Liebherr control lever is used to control forward and reverse travel	
Travel speeds	Speed range 1	0 – 8 km/h
	Speed range 2	0 – 30 km/h
	Forward and reverse with tyre size 17.5R25	



Axles

Four-wheel drive	Fixed	
Front axle	Centre pivot, with 5° oscillating angle to each side	
Steered rear axle	Automatic limited-slip differentials with 45% locking action in both axles	
Differentials	Planetary final drive in the wheel hubs	
Final drive	1,920 mm	
Track width		



Brakes

Service brake	Dual-circuit brake system, drum brake and wet multi-disc brake on front axle
Parking brake	"Negative brake system" on front axle acting on the wet multi-disc brakes

The braking system meets the requirements of the EC guidelines 71/320.



Steering

Design	"Stereo" steering system, hydraulic servo power steering. Central oscillating frame articulation in combination with rear-axle pivot steering, and damper element
Angle of articulation	30° to each side
Angle of oscillation – centre-pivot steering	5° to each side
Max. pressure	180 bar



Attachment Hydraulics

Design	Gear pump to supply the hydraulic and steering systems (via priority valve)
Max. flow	115 l/min.
Max. pressure	230 bar
Cooling	Hydraulic oil cooling by thermostatically controlled fan and oil cooler
Filtering	Return-line filter in the hydraulic reservoir
Control	Single-lever control with Liebherr control lever, hydraulically actuated, with load-dependent delivery rate distribution
Lift circuit	Lifting, neutral, lowering and float positions controlled by Liebherr control lever with detent; automatic lifting-limit circuit
Tilt circuit	Tilt back, neutral, dump automatic bucket positioning



Attachment

Geometry can be chosen	Powerful Z-pattern linkage with one tilt cylinder, hydraulic quick hitch as option	
	Parallel linkage with two tilt cylinders, hydraulic quick hitch as standard	
Bearings	Sealed	
Cycle time at nominal load	ZK	PK
Lifting	6.0 s	7.3 s
Dumping	2.3 s	4.2 s
Lowering (empty)	4.2 s	4.1 s



Operator's Cab

Design	The cab is resiliently mounted on the rear section, with built in ROPS/FOPS structure, tinted safety glass window, right-hand door with gap opener arrangement. Adjustable steering column available as optional extra
	ROPS roll over protection per EN/ISO 3471/EN 474-1
	FOPS falling objects protection per EN/ISO 3449/EN 474-1
Operator's seat	6 way adjustable seat with seat belt, adjustable for operator's weight (mechanically sprung)
Cab heating and ventilation	With defrosting, fresh-air filter, airrecirculated-air mode and heater supplied from engine's cooling system. Air conditioning is optional equipment



Sound Level

Sound pressure level		
ISO 6396	L_{pA} (inside cab)	= 70 dB(A)
Sound power level		
2000/14/EC	L_{WA} (surround noise)	= 100 dB(A)



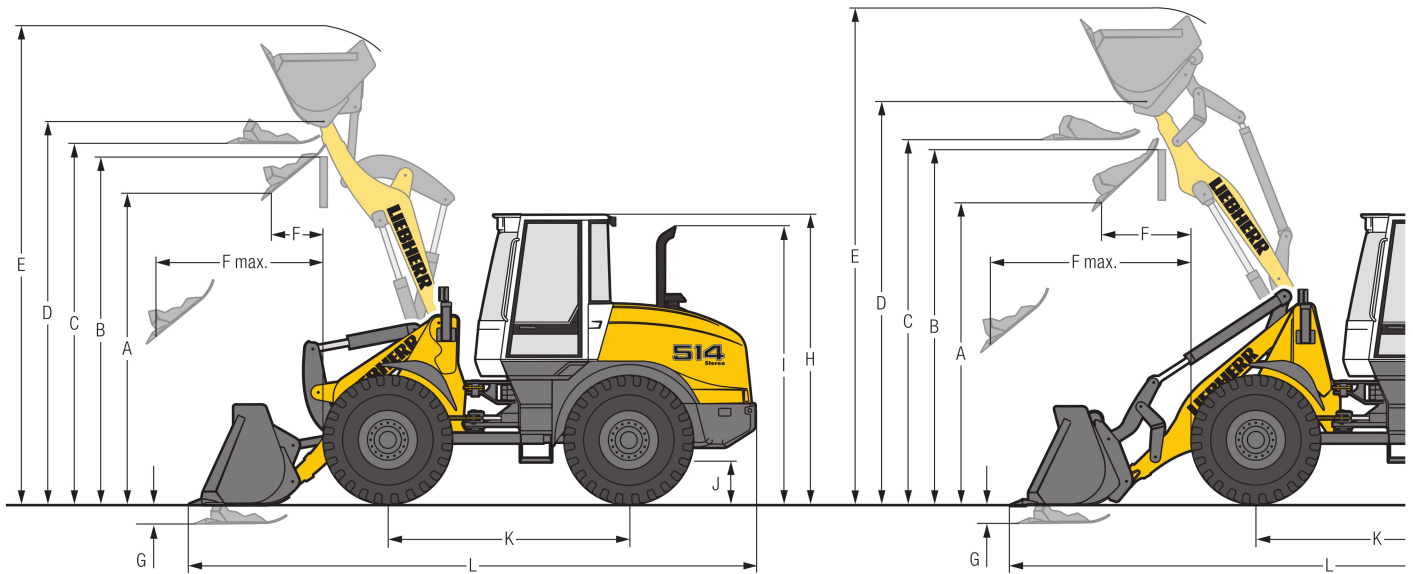
Capacities

Fuel tank	160 l
Engine oil (inclusive filter change)	13 l
Travel gear and rear axle differential	2 l
Front axle/differential	8.9 l
Rear axle/differential	8.7 l
Hydraulic tank	95 l
Hydraulic system total	125 l

L 514

Dimensions

L 514





Loading Bucket

		ZK	ZK	ZK-QH	PK-QH
	Geometry				
	Cutting tools	T	T	T	T
	Lift arm length	2,350	2,350	2,350	2,400
	Bucket capacity according to ISO 7546 **	1.5	1.7	1.5	1.4
	Bucket width	2,400/620	2,400/655	2,400/570	2,400/590
A	Dumping height at max. lift height and 44° discharge	2,855	2,710	2,775	2,985
B	Dump-over height	3,260	3,260	3,260	3,430
C	Max. height of bucket bottom	3,440	3,440	3,440	3,610
D	Max. height of bucket pivot point	3,675	3,675	3,675	3,860
E	Max. operating height	4,550	4,725	4,680	4,840
F	Reach at max. lift height and 44° max. discharge	830	955	915	785
F max.	Max. outreach at 44° discharge	1,500	1,560	1,608	1,703
G	Digging depth	53	53	53	35
H	Height above cab	3,070	3,070	3,070	3,070
I	Height above exhaust	2,890	2,890	2,890	2,890
J	Ground clearance	385	385	385	385
K	Wheelbase	2,600	2,600	2,600	2,600
L	Overall length	6,135	6,340	6,395	6,330
	Turning circle radius over outside bucket edge (carry position)	4,510	4,610	4,565	4,610
	Breakout force (SAE)	77	72	72	77
	Tipping load, straight*	6,200	6,100	5,745	5,385
	Tipping load, articulated at 30°*	5,680	5,590	5,260	4,920
	Operating weight*	8,350	8,390	8,510	8,520
	Tyre sizes	17.5R25 L3	17.5R25 L3	17.5R25 L3	17.5R25 L3

* The figures shown here are valid with tyres above, 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, articulated 30° 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 25.

 = Excavation bucket with back grading edge for direct mounting

 = Excavation bucket with back grading edge for quick hitch

ZK = Z-bar linkage

ZK-QH = Z-bar linkage with hydraulic quick hitch

PK-QH = Parallel linkage with hydraulic quick hitch

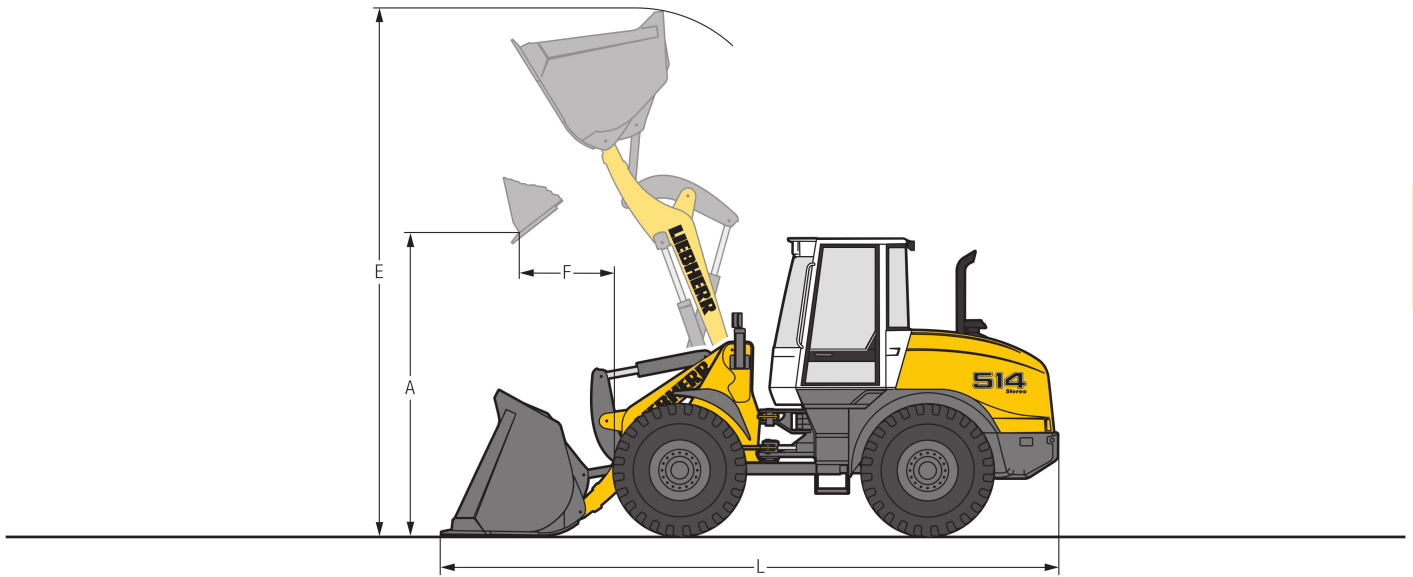
T = Welded-on tooth holder with add-on teeth

Notice: Quick hitch compatibility between L 514Stereo up to L 526 – L 538.

Attachment

Light Material Bucket

L 514



Light Material Bucket

	Geometry		ZK-QH	PK-QH
	Cutting tools		BOCE	BOCE
	Bucket capacity	m ³	2.0	2.0
	Bucket width	mm	2,500	2,500
A	Dumping height at max. lift height	mm	2,757	2,870
E	Max. operating height	mm	4,845	5,075
F	Reach at maximum lift height	mm	930	940
L	Overall length	mm	6,290	6,535
	Tipping load, straight *	kg	5,600	5,155
	Tipping load, articulated 30° *	kg	5,450	4,720
	Operating weight *	kg	8,500	8,683
	Tyre sizes		17.5R25 L3	17.5R25 L3

* The figures shown here are valid with tyres above, 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, articulated 30° according to ISO 14397-1)

ZK-QH = Z-bar linkage with hydraulic quick hitch

PK-QH = Parallel linkage with hydraulic quick hitch

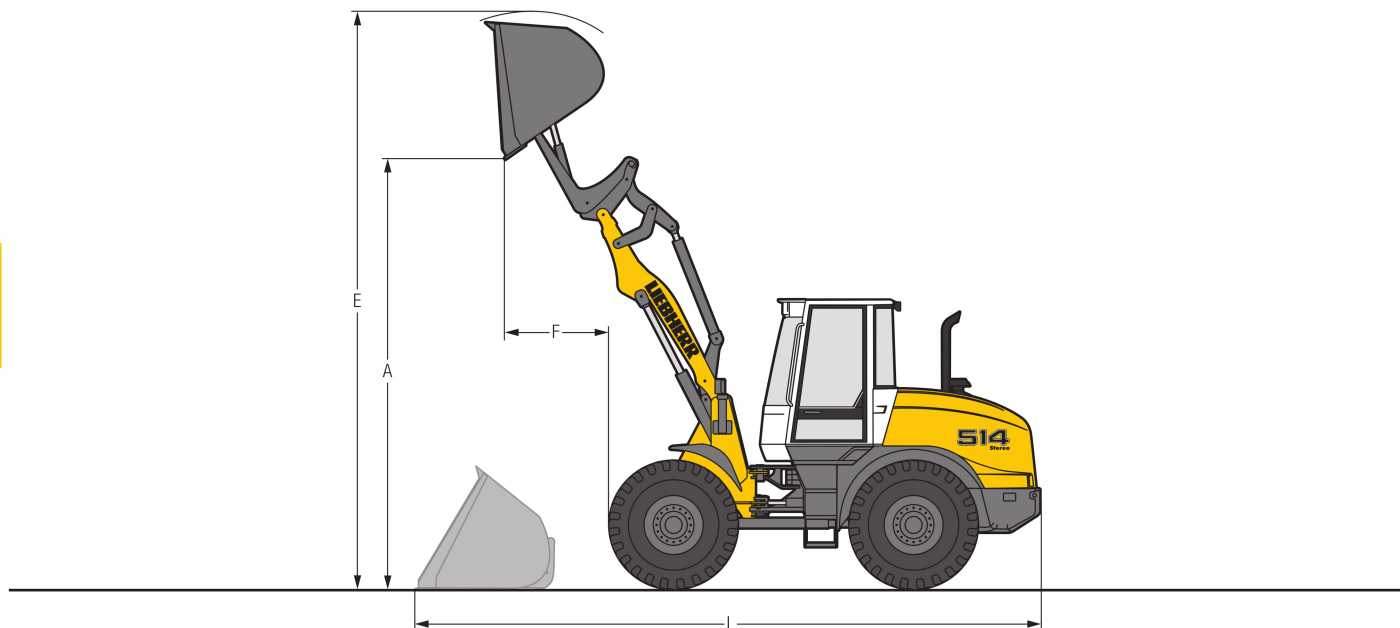
BOCE = Bolt-on cutting edge

Notice: Quick hitch compatibility between L 514Stereo up to L 526 – L 538.

Attachment

High-Dump Bucket

L 514



Heavy Material Density

		ZK-QH	PK-QH
Geometry		ZK-QH	PK-QH
Cutting tools		BOCE	BOCE
Discharge angle		34° ¹⁾	37° ¹⁾
Bucket capacity	m ³	2.5	2.5
Bucket width	mm	2,500	2,500
A Dumping height at max. lift height	mm	4,260	4,360
E Max. operating height	mm	5,865	5,980
F Reach at maximum lift height	mm	1,330	1,325
L Overall length	mm	6,955	7,100
Tipping load, straight *	kg	5,070	4,400
Tipping load, articulated 30° *	kg	4,640	4,040
Operating weight *	kg	9,660	9,700
Tyre sizes		17.5R25 L3	17.5R25 L3

Light Material Density

		ZK-QH	PK-QH
Geometry		ZK-QH	PK-QH
Cutting tools		BOCE	BOCE
Discharge angle		34° ¹⁾	37° ¹⁾
Bucket capacity	m ³	2.5	2.5
Bucket width	mm	2,500	2,500
A Dumping height at max. lift height	mm	4,165	4,265
E Max. operating height	mm	5,735	5,855
F Reach at maximum lift height	mm	1,345	1,325
L Overall length	mm	6,900	7,045
Tipping load, straight *	kg	5,230	4,600
Tipping load, articulated 30° *	kg	4,780	4,200
Operating weight *	kg	9,380	9,420
Tyre sizes		17.5R25 L3	17.5R25 L3

* The figures shown here are valid with tyres above, 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, articulated 30° according to ISO 14397-1)

¹⁾ Actuation of the function: "Discharge high-dump bucket"

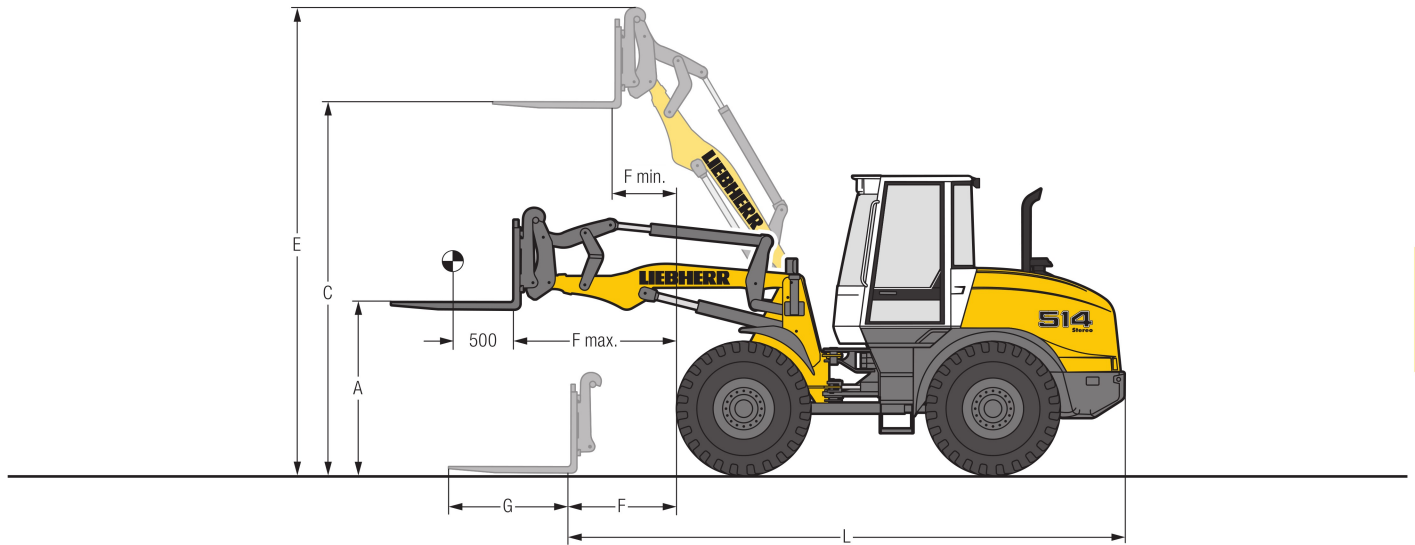
ZK-QH = Z-bar linkage with hydraulic quick hitch
 PK-QH = Parallel linkage with hydraulic quick hitch
 BOCE = Bolt-on cutting edge

Notice: Quick hitch compatibility between L 514Stereo up to L 526 – L 538.

Attachment

Fork Carrier and Fork

L 514



FEM III Fork Carrier and Fork

Geometry		ZK-QH	PK-QH	
A	Lifting height at max. reach	mm	1,715	1,700
C	Max. lifting height	mm	3,497	3,655
E	Max. operating height	mm	4,420	4,580
F	Reach at loading position	mm	815	965
F max.	Max. reach	mm	1,500	1,615
F min.	Reach at max. lifting height	mm	678	605
G	Fork length	mm	1,200	1,200
L	Length – basic machine	mm	5,610	5,640
	Tipping load, straight *	kg	4,400	4,230
	Tipping load, articulated 30° *	kg	4,030	3,870
	Recommended payload for uneven ground = 60 % of tipping load (full articulated) ***	kg	2,410	2,320
	Recommended payload for smooth surfaces = 80 % of tipping load (full articulated) ***	kg	2,840	3,095
	Operating weight *	kg	8,370	8,365
	Tyre sizes		17.5R25 L3	17.5R25 L3

* The figures shown here are valid with tyres above, 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, articulated 30° according to ISO 14397-1).

*** According to EN 474-3

ZK-QH = Z-bar linkage with hydraulic quick hitch

PK-QH = Parallel linkage with hydraulic quick hitch

Notice: Quick hitch compatibility between L 514Stereo up to L 526 – L 538.