Wheel Loaders

L 524 - L 542
2plus1 2plus1

Tipping load, articulated: 7,300 kg – 9,760 kg

LIEBHERR

L 524 2plus1

Tipping load, articulated:	7,300 kg
Bucket capacity:	2.0 m³
Service weight:	10,350 kg
Engine output:	86 kW

L 528 2plus1

Tipping load, articulated:	8,100 kg
Bucket capacity:	2.2 m³
Service weight:	10,780 kg
Engine output:	86 kW

L 538 2plus1

Tipping load, articulated:	9,020 kg
Bucket capacity:	2.5 m³
Service weight:	12,430 kg
Engine output:	105 kW

L 542 2plus1

Tipping load, articulated:	9,760 kg
Bucket capacity:	2.7 m³
Service weight:	13,040 kg
Engine output:	105 kW

Economy

The Liebherr driveline combined with low operating weight and high tipping load results in up to 25 % less fuel consumption compared with conventionally driven wheel loaders. Up to 5 litres of fuel per operating hour can be saved, which means lower operating costs and an active protection of the environment at the same time.

Performance

The Liebherr driveline enables the Liebherr diesel engine to be installed in the ideal position. For this class of wheel loader, it is transversely mounted at the rear. This greatly increases the tipping load and the handling capacity per operating hour at a lower operating weight than conventional wheel loaders.

Reliability

All the materials used have passed long-time tests to ensure that they comply with Liebherr's high quality standards in even the toughest conditions. A sophisticated concept and proven quality mean that Liebherr wheel loaders set the standard when it comes to reliabilty.

Comfort

The ultra-modern cabin design with advanced ergonomics, continuously variable Liebherr driveline without no interruption of tractive force thanks to the "2plus1" gearbox, optimal weight distribution and a transversely-mounted engine for excellent maintenance access lead to unequalled overall comfort.

Lower fuel consumption

- A fuel saving of up to 5 litres per operating hour represents a cost saving of up to 25 %.
- The Liebherr standard test demonstrates the operating efficiency of Liebherr wheel loaders.

Economy

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Low operating costs

Minimum costs, high handling capacity

When it comes to economy, conventional wheel loaders are no match for Liebherr machines, mainly due to the following factors:

- Low fuel consumption as a result of higher efficiency and a lower operating weight. The Liebherr wheel loader's fuel consumption is up to 5 litres per operating hour lower than a conventional wheel loader under the same working conditions.
- Virtually no brake wear, thanks to the hydraulic braking action of the driveline. This means no brake repair costs resulting from wear and tear.
- Continuous traction control for reduced tyre wear. Depending on the working conditions, tyre wear can be up to 25 % lower than with conventional wheel loaders.

Active environmental protection

Economical use of resources

Reduced fuel consumption means lower emissions, which leads to the active and economical use of resources.
During combustion, 1 litre of diesel produces up to 3 kg of CO_2. A saving of 5 litres of fuel per operating hour translates into a 15,000-kilogram reduction in CO_2 emissions over a period of 1,000 operating hours, for example. The result: reduced fuel costs and active protection of the environment.

Low noise emissions

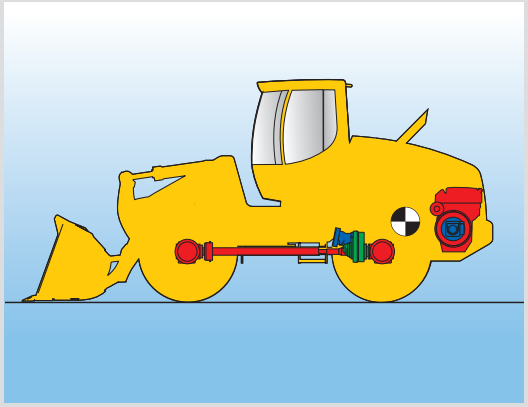
The innovative driveline concept also cuts noise emissions considerably: Liebherr wheel loaders are significantly quieter in operation.

Reduced brake wear

- Even in the toughest working conditions, the Liebherr travel drive is always braked hydraulically. The mechanical service brake is used only as a secondary braking function – as such – the brakes are virtually wear-free.

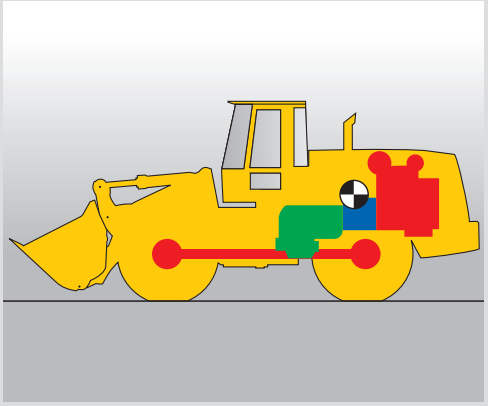
Reduced tyre wear

- The tractive force can be adjusted continuously. This prevents wheelspin and reduces tyre wear by up to 25 %.



Liebherr driveline

- Optimum weight distribution thanks to transverse installation of the Liebherr diesel engine.
- The Liebherr diesel engine is used as a counterweight - so high tipping load at low operating weight.
- Compact design improves visibility in all directions.



Performance

The Liebherr driveline enables the Liebherr diesel engine to be installed in the ideal position. For this class of wheel loader, it is transversely mounted at the rear. This greatly increases the tipping load and the handling capacity per operating hour at a lower operating weight than conventional wheel loaders.

Higher performance, lower weight

Higher productivity, lower operating weight

Liebherr's driveline enables the Liebherr diesel engine to be installed transversely at the rear of the wheel loader. This increases the tipping load while keeping the operating weight low. Productivity is greatly increased because no unnecessary counterweight has to be carried on the machine.

Ultra-modern Liebherr driveline

Innovative technology

Liebherr Allround wheel loaders are equipped with a "2plus1" gearbox. Tractive force and speed are adapted to suit demand – automatically and without gear changes. Even the change from forward to reverse travel is controlled hydraulically, so that no mechanical reverse gear is required.

Flexibility puts them ahead

An all-purpose loader

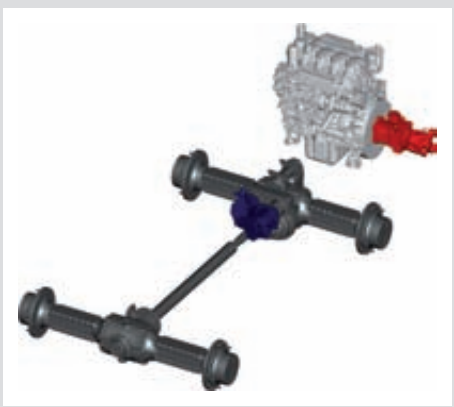
The Allround wheel loader models can be supplied with either a parallel or a Z-pattern linkage. This gives them the ideal equipment for tackling a variety of tasks. Their compact design allows these wheel loaders to manoeuvre quickly and efficiently – an ideal basis for high handling capacity.

Conventional travel gear

- Longitudinally mounted diesel engine moves the centre of gravity to the further forward.
- Much more additional counterweight is needed to maintain stability and to increase the tipping load.
- This leads to high operating weight and bad visibility.

An all-purpose loader

- The choice between parallel (P) and Z-pattern linkage means that the loader can always be configured to suit the customer's specific tasks: P for industrial use, Z for conventional material handling.



Liebherr driveline

- The Liebherr driveline consists of two hydraulic motors, which accelerate the loader continuously from a standstill to maximum speed, either forwards or in reverse – without a manual gear shift and a reversing gear unit.

Reliability

All the materials used have passed long-time tests to ensure that they comply with Liebherr's high quality standards in even the toughest conditions. A sophisticated concept and proven quality mean that Liebherr wheel loaders set the standard when it comes to reliability.

Reliable Liebherr driveline

Fewer components

Liebherr's driveline includes a self-locking hydraulic brake, with the result that the additional wet brake discs are effectively wear-free. A reversing gear unit is not required, thereby reducing the number of components susceptible to wear.

Controlled cooling

The intelligent answer

The cooling fan is not driven directly from the Liebherr diesel engine, and produces only the cooling air output that is needed at any given moment. Heat sensors control its operating speed, and if overheating should occur, the wheel loader shifts down automatically to the lowest travel speed range.

Since less power is then consumed, the Liebherr diesel engine is better protected against overheating. At the same time, the fan speed is increased to the maximum value, for the best possible protection of all components.

Components to the manufacturer's quality standards

Everything from a single source

Important components such as the engine, hydraulic rams and electronics are manufactured by Liebherr itself – which means co-ordinated quality from the manufacturer down to the smallest detail to ensure the highest possible performance and reliability.

Cooling system

- The radiator is installed on the rear section of the vehicle, between the diesel engine and the cabin. Cooling air is drawn in directly behind the cabin and blown out upwards at the rear. The fan speed is varied automatically by heat sensors that determine the amount of cooling needed.
- A reversible fan drive to expel dust from the radiator can be specified as an optional extra.

Liebherr's own components

- Liebherr has many years of experience in the design, development and construction of diesel engines, hydraulic rams and electronic components. They are all matched together down to the smallest detail for use on its wheel loaders.

Liebherr control lever

- The Liebherr control lever is used to manage all the machine's travel and working movements. The operator's left hand can remain on the steering wheel at all times without having to reach for other control levers – a valuable safety feature. The operator controls the following functions with his right hand:

– Raise and lower attachment
– Fill and dump the bucket
– Automatic bucket repositioning
– Change of travel direction with simultaneous travel start
– Controls for additional hydraulic functions

Comfort

The ultra-modern cabin design with advanced ergonomics, continuously variable Liebherr driveline without no interruption of tractive force thanks to the “2plus1” gearbox, optimal weight distribution and a transversely-mounted engine for excellent maintenance access lead to unequalled overall comfort.

Top-class cabin design

Comfort cabin

This ultra-modern, ergonomically planned cabin design is the basis for increased performance and productivity of the operator. The displays, controls and driver’s seat are carefully co-ordinated to form a perfect ergonomic unit.

Liebherr control lever

All working and travel functions are operated precisely and sensitively from a single control lever. This means accurate and safe handling, and the left hand always remains on the steering wheel. This increases the safety at the job site.

Liebherr driveline

Continuously variable transmission

Liebherr’s driveline with a “2plus1” gearbox enables the wheel loader to accelerate smoothly and continuously in all speed ranges, with no discernable gear shifts and no interruptions to tractive force.

Unique oscillation system

The combination of centre pivot and rear swing axle reduces the cab tilt by 50 % and this again makes the working conditions much more pleasant for the operator.

Service accessibility

Straightforward maintenance

The transversely-installed Liebherr diesel engine allows excellent ease of access for maintenance. All maintenance points can be reached easily and safely from ground level when a single engine hood is opened.

Hydrostatic fan drive

The cooling system is located directly behind the cabin. This reduces the accumulation of dust and thus the need for cleaning and maintenance work, which in turn saves both time and money.

Service accessibility

- The transversely installed Liebherr diesel engine enables an easy accessibility for maintenance. Lifting a hinge up cover allows you a safe and convenient access to all maintenance points from ground level.

Unique oscillation system

- The combination of centre pivot and rear swing axle reduces the cab tilt by 50 %. This leads to greater operator comfort based on the reduction of the cab tilt.

– Conventional wheel loader
– Liebherr wheel loader
– Lateral slope angle

Technical Data

Engine

	L 524 2plus1	L 528 2plus1	L 538 2plus1	L 542 2plus1
Liebherr diesel engine	D 504 TI	D 504 TI	D 934 S AG	D 934 S AG
Design	4-cylinder, inline engine, water-cooled, turbo charged, intercooled			
Rated output according to ISO 9249 kW	86	86	105	105
at RPM	2400	2400	2000	2000
Max. torque Nm	430	430	770	770
at RPM	1500	1500	1000 ÷ 1300	1000 ÷ 1300
Displacement Liter	4,5	4,5	6,36	6,36
Bore/Stroke mm	106/127	106/127	122/136	122/136
Air cleaner system	Dry air filter with main and safety element, pre-cleaner, service indicator on LCD display			
Electrical system				
Operating voltage V	24	24	24	24
Battery Ah/V	2 x 135/12	2 x 135/12	2 x 135/12	2 x 135/12
Alternator	Three-phase AC	Three-phase AC	Three-phase AC	Three-phase AC
V/A	24/55	24/55	28/80	28/80
Starter V/kW	24/7	24/7	24/5,4	24/5,4

The exhaust emissions are below the limits in stage IIIA / Tier 3.

Travel Drive

Stepless hydrostatic travel drive

Design "2plus1" — Swash plate type variable flow pump and two variable axial piston motors in closed loop circuit and axle transfer case 2plus1. Direction of travel is reversed by changing the flow-direction of the variable-displacement pump

Filtering system — Suction 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 joystick is used to control forward and reverse travel and select the travel stagesrange

Travel speed range
- Speed range 1 — 0 – 6,0 km/h
- Speed range A1-2 — 0 – 16,0 km/h
- Speed range A1-3 — 0 – 40,0 km/h

The quoted speeds apply with the tyres that are standard equipment on the loader

Axles

Four-wheel drive

Front axle — Fixed

Rear axle — Centre pivot, with 6° oscillating angle to each side. 470 mm in height can be driven over (with all four wheels remain in contact with the ground)

Differentials — Automatic limited-slip differentials with 45 % locking action in both axles

Reduction gear — Planetary final drive in wheel hubs

Track width — 1960 mm with all types of tyres (L 524, L 528)
1900 mm with all types of tyres (L 538, L 542)

Brakes

Wear-free service brake — Self-locking of the hydrostatic travel drive (acting on all four wheels) and additional pump-accumulator brake system with wet multi-disc brakes located in the differential housing (two seperate brake circuits)

Parking brake — Electro-hydraulically actuated spring-loaded disc brake system on the front axle

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

Steering

Design — Hydraulic servo power steering Central oscillating frame articulation with damper element

Articulation angle — 40° (to each side)

Oscillating angle — 6° (to each side)

Max. pressure — 230 bar

Emergency steering — Electro-hydraulic emergency steering system

Attachment Hydraulics

Design — "Load-Sensing" variable axial piston 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 joystick" with hydrostatic servo control

Lift circuit — Lifting, neutral, lowering and float position controlled by Liebherr joystick with detent; automatic lifting-limit circuit optional

Tilt circuit — Tilt back, neutral, dump automatic bucket positioning

	L 524 2plus1	L 528 2plus1	L 538 2plus1	L 542 2plus1
Max. flow l/min.	105	105	140	140
Max. pressure bar	315	315	330	330

Attachment

Geometry can be chosen
- Powerful Z-bar linkage with one tilt cylinder, hydr. quick change coupler – optional equipment
- Parallel linkage with two tilt cylinders, hydr. quick change coupler – standard equipment

Bearings — Sealed

Cycle time at nominal load	L 524 2plus1		L 528 2plus1		L 538 2plus1		L 542 2plus1	
	ZK	PK	ZK	PK	ZK	PK	ZK	PK
Lifting	6,6	6,6	6,6	6,6	5,9	5,9	5,9	5,9
Dumping	1,8	3,5	1,8	3,5	1,6	3,5	1,6	3,5
Lowering (empty)	4,0	4,0	4,0	4,0	4,0	4,0	4,0	4,0

Operator's Cab

Design — On elastic bearing on rear section, soundproof ROPS/FOPS cab. Operator's door with optional sliding window, 180° opening angle, fold-out window on right site with opening angle, front windscreen made of compound safety glass, green tinted as standard, side windows made of single-pane safety glass, grey tinted, continuously adjustable steering column and joystick control as standard, heatable rear window
ROPS roll over protection per DIN/ISO 3471/ EN 474-3
FOPS falling objects protection per DIN/ISO 3449/ EN 474-1

Liebherr Operator's seat — 6 way adjustable seat with lap belt, vibration damping and suspension adjustable for the operator's weight

Cab heating and ventilation — Operator's cab with 4-level air control, cooling water heating, defroster and air conditioning with electronic valve control, as well as electronic fresh/recirculated air control, filter system with pre-filter, fresh air filter and recirculated air filter, easily replaced, air condition optional

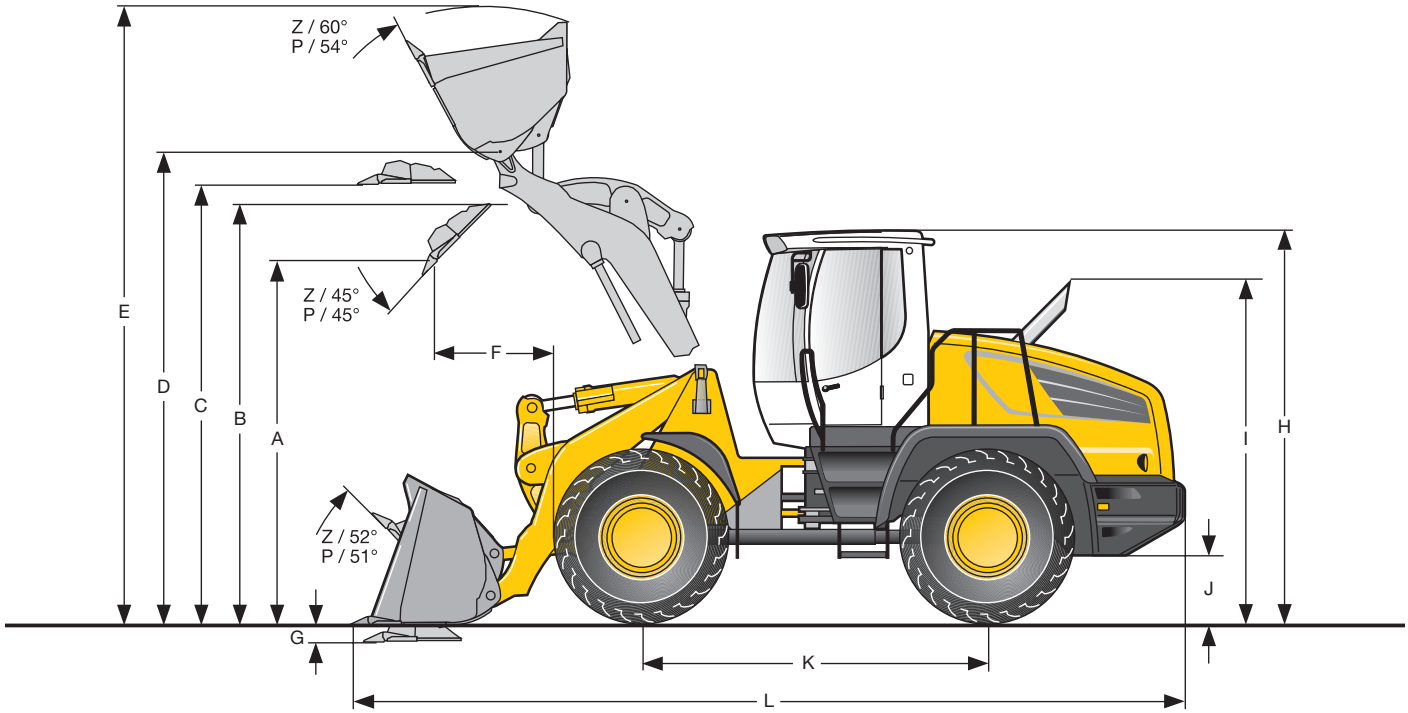
Noise Emission

	L 524 2plus1	L 528 2plus1	L 538 2plus1	L 542 2plus1
ISO 6396				
L_{pA} (inside cab)	69 dB(A)	69 dB(A)	69 dB(A)	69 dB(A)
2000/14/EC				
L_{WA} (surround noise)	101 dB(A)	101 dB(A)	102 dB(A)	102 dB(A)

Capacities

	L 524 2plus1	L 528 2plus1	L 538 2plus1	L 542 2plus1
Fuel tank l	170	170	170	170
Engine oil (inclusive filter change) l	12	12	29	29
Pump distributor gears l	3,8	3,8	3,8	3,8
Front axle/wheel hubs l	16,3/2,6	16,3/2,6	16,3/2,6	16,3/2,6
Rear axle/wheel hubs l	15/2,6	15/2,6	15/2,6	15/2,6
Hydraulic tank l	110	110	110	110
Hydraulic system, total l	170	170	180	180

Dimensions

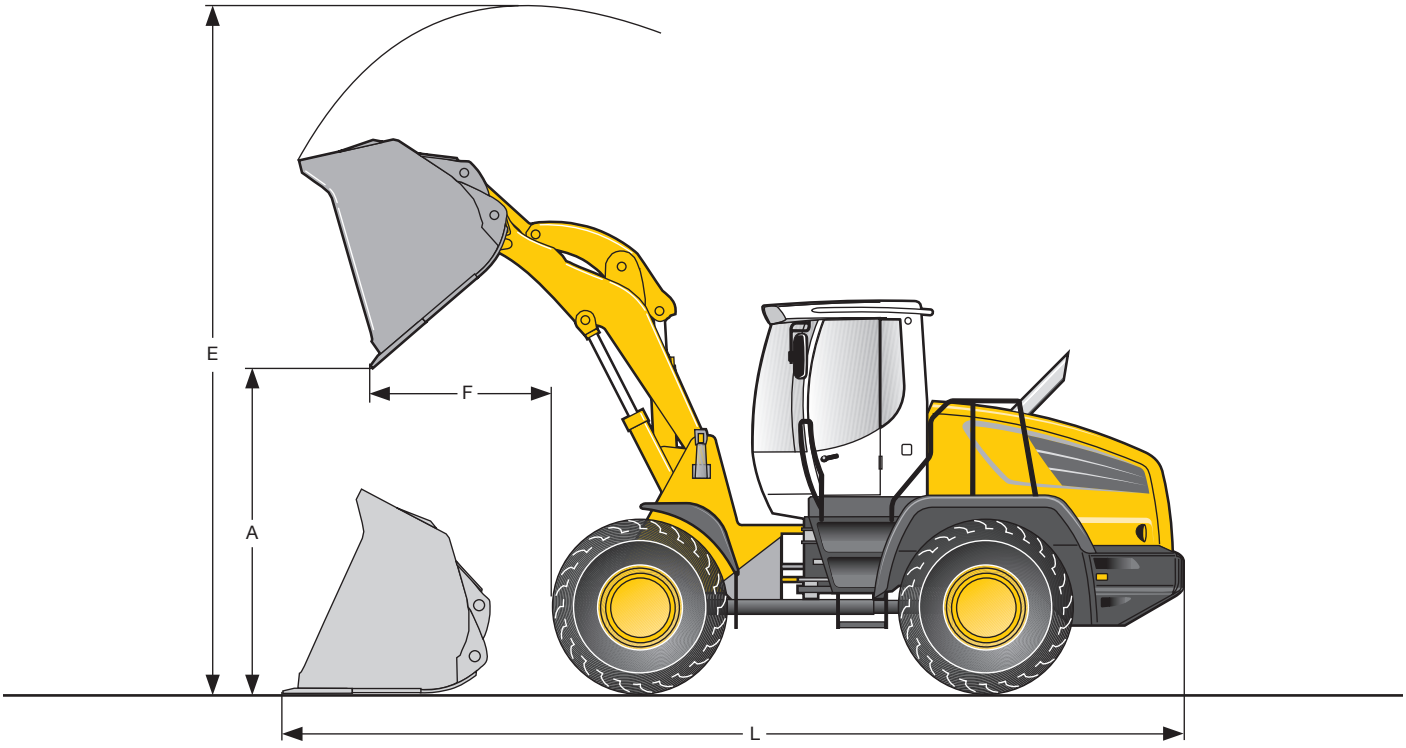


Loading Bucket

			L 524 2plus1		L 528 2plus1		L 538 2plus1		L 542 2plus1	
	Geometry		ZK	PK	ZK	PK	ZK	PK	ZK	PK
	Cutting tools		T	T	T	T	T	T	T	T
	Bucket capacity	m³	2,0	1,7	2,2	2,0	2,5	2,2	2,7	2,4
	Bucket width	mm	2500	2500	2500	2500	2500	2500	2500	2500
	Specific material weight	t/m³	1,8	1,8	1,8	1,8	1,8	1,8	1,8	1,8
A	Dumping height at max. lift height and 45° discharge	mm	2870	2845	2800	2765	2900	2770	2845	2725
B	Dump-over height	mm	3335	3370	3335	3370	3480	3430	3480	3430
C	Max. height of bucket bottom	mm	3530	3590	3530	3590	3680	3640	3680	3640
D	Max. height of bucket pivot point	mm	3775	3830	3775	3830	3930	3890	3930	3890
E	Max. operating height	mm	4860	4980	4960	4985	5170	5190	5260	5255
F	Reach at max. lift height and 45° discharge	mm	850	1010	935	1090	960	1060	1005	1095
G	Digging depth	mm	80	61	80	55	80	55	80	55
H	Height above cab	mm	3200	3200	3200	3200	3250	3250	3250	3250
I	Height above exhaust	mm	2860	2860	2860	2860	2910	2910	2910	2910
J	Ground clearance	mm	460	460	460	460	490	490	490	490
K	Wheelbase	mm	2750	2750	2850	2850	2975	2975	2975	2975
L	Overall length	mm	6720	6965	6930	7170	7150	7315	7225	7350
	Turning circle radius over outside bucket edge	mm	5520	5610	5660	5740	5840	5900	5870	5920
	Lifting force (SAE)	kN	100	71	99	70	145	95	144	94
	Breakout force (SAE)	kN	91	83	80	74	113	107	105	101
	Tipping load, straight*	kg	8310	7150	9180	8070	10210	9300	11040	10120
	Tipping load, articulated at 40°*	kg	7300	6300	8100	7100	9020	8200	9760	8940
	Operating weight*	kg	10600	10825	11100	11350	12755	12710	13320	13300
	Tyre sizes		17.5R25 Good Year GP-2B		17.5R25 Good Year GP-2B		20.5R25 Good Year GP-2B		20.5R25 Good Year GP-2B	

* 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.
ZK = Z-bar linkage
PK = Parallel linkage with hydraulic quick coupler
T = Welded-on tooth holder with add-on teeth

Attachment
Light Material Bucket

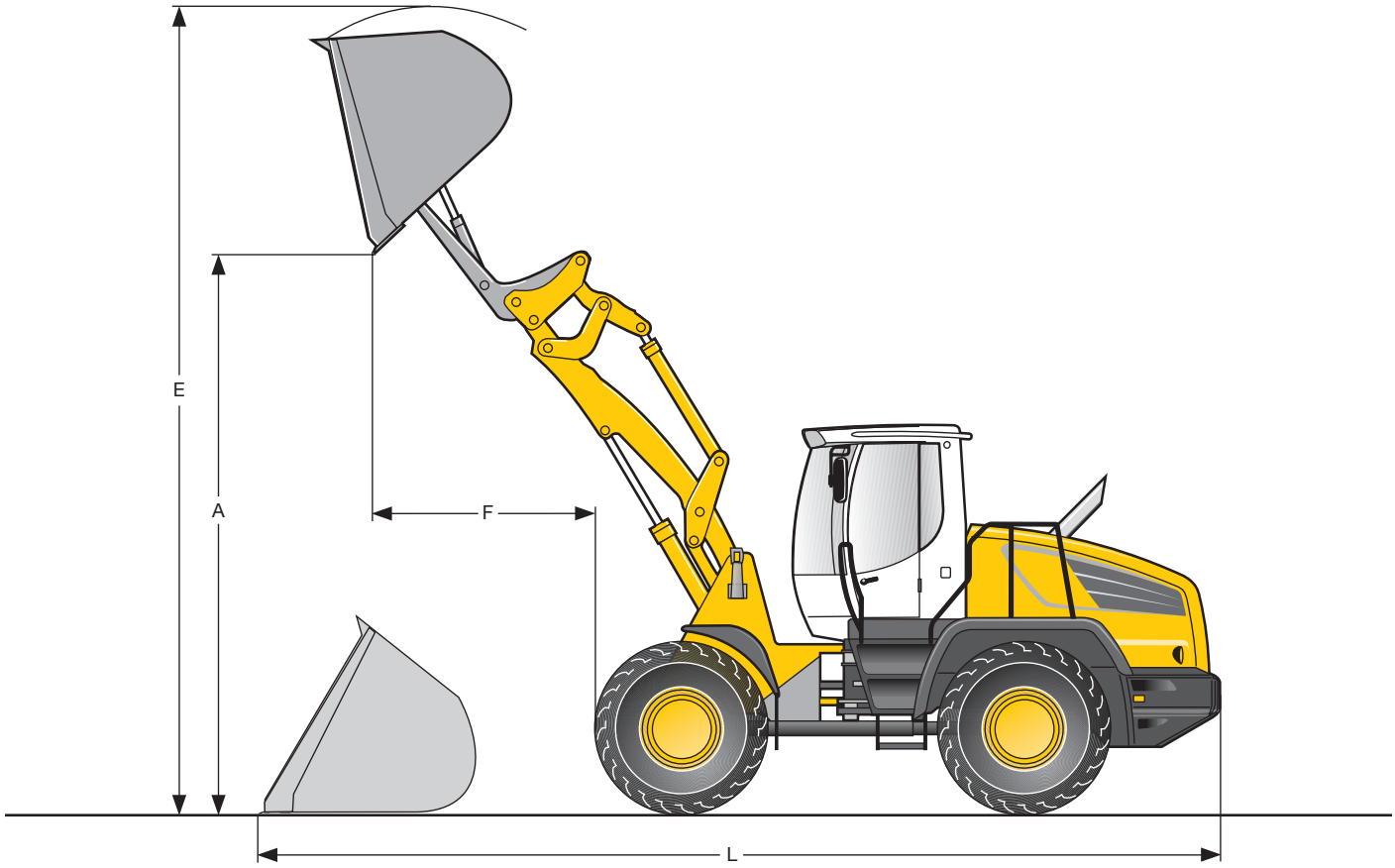


Light Material Bucket with Bolt-On Cutting Edge			L 524 2plus1		L 528 2plus1		L 538 2plus1		L 542 2plus1	
	Geometry		ZK	PK	ZK	PK	ZK	PK	ZK	PK
	Bucket capacity	m^3	3,0	3,0	3,0	3,0	4,0	4,0	4,0	4,0
	Bucket width	mm	2700	2700	2700	2700	2700	2700	2700	2700
	Specific material weight	t/m^3	1,0	0,9	1,2	1,1	1,0	1,0	1,1	1,1
A	Dumping height at max. lift height	mm	2550	2630	2550	2630	2505	2505	2505	2505
E	Max. operating height	mm	5230	5290	5230	5290	5590	5545	5590	5545
F	Reach at maximum lift height	mm	1120	1230	1120	1230	1265	1320	1265	1320
L	Overall length	mm	7140	7275	7240	7375	7700	7730	7700	7730
	Tipping load, straight*	kg	7190	7110	8170	7334	9160	8920	10185	9869
	Tipping load, articulated at 40°*	kg	6320	6250	7210	6476	8080	7865	8980	8705
	Operating weight*	kg	11180	11125	11470	11510	13165	12965	13735	13505
	Tyre sizes		17.5R25 Good Year GP-2B		17.5R25 Good Year GP-2B		20.5R25 Good Year GP-2B		20.5R25 Good Year GP-2B	

* 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.
ZK = Z-bar linkage with hydraulic quick coupler
PK = Parallel linkage with hydraulic quick coupler

Attachment

High-Dump Bucket

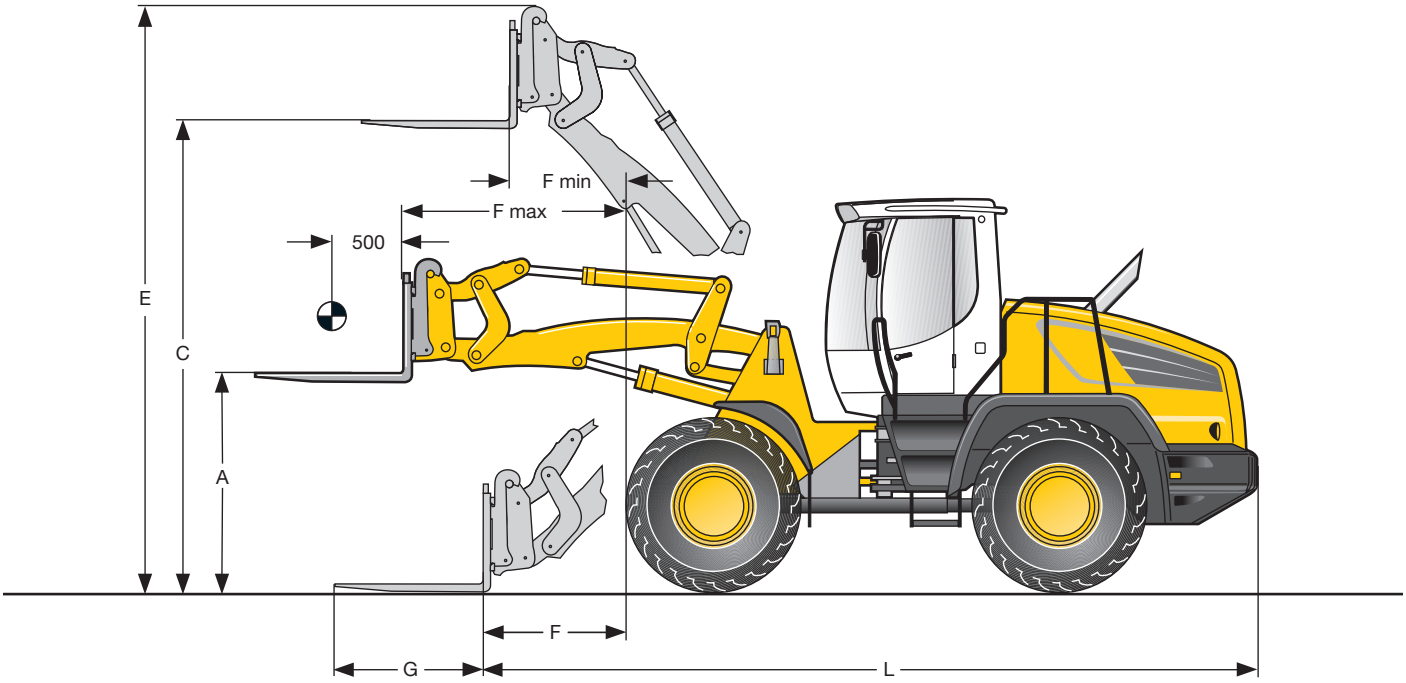


High-Dump Bucket with Bolt-On Cutting Edge			L 524 2plus1	L 528 2plus1	L 538 2plus1	L 542 2plus1
	Geometry		PK	PK	PK	PK
	Bucket capacity	m^3	3,0	3,0	4,0	4,0
	Bucket width	mm	2720	2720	2720	2720
	Specific material weight	t/m^3	0,9	1,0	0,9	1,0
A	Dumping height at max. lift height	mm	4220	4220	4000	4000
E	Max. operating height	mm	6125	6125	6350	6350
F	Reach at maximum lift height	mm	1625	1625	1805	1805
L	Overall length	mm	7410	7510	8025	8025
	Tipping load, straight*	kg	6340	6990	8110	8970
	Tipping load, articulated at 40°*	kg	5570	6140	7170	7930
	Operating weight*	kg	11466	11825	13670	14215
	Tyre sizes		17.5R25 Good Year GP-2B	17.5R25 Good Year GP-2B	20.5R25 Good Year GP-2B	20.5R25 Good Year GP-2B

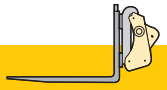
* The figures shown here are valid with tyres above, includes all lubricants, a full fuel tank, the ROPS/FOPS cab and the operator. Different tyres and optional equipment will change the operating weight and tipping load.
PK = Parallel linkage with hydraulic quick coupler

Attachment

Fork Carrier and Fork



FEM III Fork Carrier and Fork with Quick Change Device



			L 524 2plus1		L 528 2plus1		L 538 2plus1		L 542 2plus1	
	Geometry		ZK	PK	ZK	PK	ZK	PK	ZK	PK
A	Lifting height at max. reach	mm	1690	1690	1693	1693	1781	1739	1780	1739
C	Max. lifting height	mm	3580	3645	3592	3650	3738	3697	3740	3699
E	Max. operating height	mm	4510	4560	4513	4565	4662	4612	4664	4613
F	Reach at loading position	mm	975	1110	969	1104	939	975	937	974
F max.	Max. reach	mm	1625	1720	1619	1720	1635	1934	1631	1631
F min.	Reach at max. lifting height	mm	695	780	698	774	694	695	683	684
G	Fork length	mm	1200	1200	1200	1200	1200	1200	1200	1200
L	Length – basic machine without forks	mm	6100	6235	7392	7527	7553	7591	7552	7590
	Tipping load, straight *	kg	5820	5820	6550	6345	7410	7580	8110	8300
	Tipping load, articulated at 40° *	kg	5110	5110	5785	5580	6550	6700	7170	7340
	Recommended payload for uneven ground = 60 % of tipping load (articulated at 40°) [1]	kg	3070	3070	3470	3470	3930	4025	4300	4400
	Recommended payload for smooth surfaces = 80 % of tipping load (articulated at 40°) [1]	kg	4090	4090	4150	4600	5000 [3]	5000 [3]	5000 [3]	5000 [3]
	Operating weight *	kg	10635	10575	10920	10965	12465	12250	13080	12900
	Tyre sizes		17.5R25 Good Year GP-2B		17.5R25 Good Year GP-2B		20.5R25 Good Year GP-2B		20.5R25 Good Year GP-2B	

* 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.

[1] According to EN 473-3 and ISO 8313

[2] Payload on forks is limited by tilt cylinder

[3] Load capacity for the fork carrier and forks is limited to 5000 kg

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 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.

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

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

Bulk Material Densities and Bucket Filling Factors

	t/m³	%
Gravel, moist	1,9	105
dry	1,6	105
wet, 6–50 mm	2,0	105
dry, 6–50 mm	1,7	105
crushed stone	1,5	100
Sand, dry	1,5	110
moist	1,8	115
wet	1,9	110
Gravel and sand,		
dry	1,7	105
wet	2,0	100
Sand and clay	1,6	110

	t/m³	%
Clay, natural	1,6	110
dry	1,4	110
wet	1,65	105
Clay and gravel,		
dry	1,4	110
wet	1,6	100
Earth, dry	1,3	115
wet excavated	1,6	110
Topsoil	1,1	110
Weathered rock		
50 % rock, 50 % earth	1,7	100
Basalt	1,95	100

	t/m³	%
Granite	1,8	95
Limestone,		
hard	1,65	95
soft	1,55	100
Sandstone	1,6	100
Slate	1,75	100
Bauxite	1,4	100
Gypsum, broken	1,8	100
Coke	0,5	110
Slag, broken	1,8	100
Coal	1,1	110

Tyres

	Size and tread code		Change of operating weight kg	Width over tyres mm	Change in vertical dimensions mm	use
L 524 2plus1/L 528 2plus1						
Bridgestone	17.5R25 VMT	L3	+ 100	2450	+ 10	Gravel
Bridgestone	17.5R25 VSDL	L5	+ 588	2450	+ 40	Stone, Recycling
Good Year	17.5R25 RT-3B	L3	+ 184	2470	+ 10	Gravel
Good Year	17.5R25 GP-2B	L2	0	2460	0	Sand, Gravel
Michelin	17.5R25 XTLA	L2	– 64	2470	– 25	Gravel, Earthworks
Michelin	17.5R25 XHA	L3	+ 8	2460	– 15	Gravel
Michelin	17.5R25 XLD D2A	L5	+ 436	2480	+ 25	Stone, Recycling
Michelin	17.5R25 X-MINE D2	L5	+ 624	2480	+ 40	Stone, Recycling
L 538 2plus1/L 542 2plus1						
Bridgestone	20.5R25 VMT	L3	+ 216	2470	– 15	Gravel
Bridgestone	20.5R25 VSDL	L5	+ 700	2470	+ 30	Stone, Scrap
Good Year	20.5R25 GP-2B	L2	0	2480	0	Sand, Gravel
Good Year	20.5R25 RL-5K	L5	+ 660	2490	+ 40	Industry, Stone
Michelin	20.5R25 XHA	L3	+ 16	2480	– 25	Gravel
Michelin	20.5R25 XLD D2	L5	+ 456	2490	+ 25	Stone, Mining spoil, Recycling
Michelin	20.5R25 X-Mine D2	L5	+ 732	2480	+ 40	Stone, Scrap

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

The Liebherr Wheel Loaders

Stereoloader

		L 506 Stereo	L 507 Stereo	L 508 Stereo	L 509 Stereo	L 510 Stereo	L 514 Stereo
Tipping load	kg	3231	3501	3824	4225	4581	5680
Bucket capacity	m^3	0,8	0,9	1,0	1,1	1,2	1,5
Operating weight	kg	5120	5240	5480	6080	6250	8350
Engine output	kW/HP	42/58	46/63	46/63	54/74	58/79	72/98

Wheel Loader

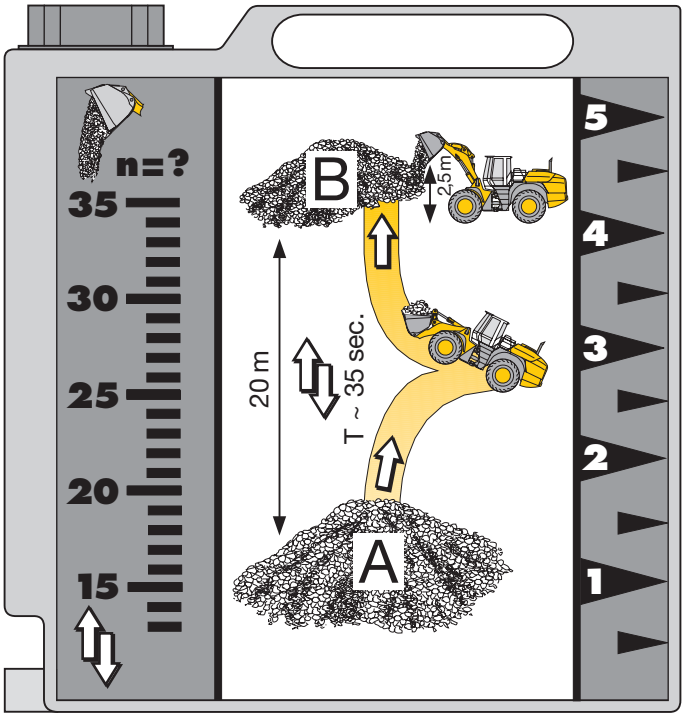
		L 524 2plus1	L 528 2plus1	L 538 2plus1	L 542 2plus1	L 550 2plus2
Tipping load	kg	7300	8100	9020	9760	11650
Bucket capacity	m^3	2,0	2,2	2,5	2,7	3,2
Operating weight	kg	10350	10780	12430	13040	16525
Engine output	kW/HP	86/117	86/117	105/143	105/143	130/177

Wheel Loader

		L 556 2plus2	L 566 2plus2	L 576 2plus2	L 580 2plus2	L 586 2plus2
Tipping load	kg	13140	15550	17200	18000	20430
Bucket capacity	m^3	3,6	4,0	4,5	5,0	5,5
Operating weight	kg	17270	22500	24260	24580	31380
Engine output	kW/HP	140/191	190/259	200/272	200/272	250/340

10.06

Environmental protection can help you earn money!



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

Every Liebherr dealer will provide you with this measuring-tank kit free of charge or, on request, will carry out the standard fuel consumption test on your premises. It's so easy: you simply determine 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:

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

Equipment

Basic Machine

	L 524 2plus1	L 528 2plus1	L 538 2plus1	L 542 2plus1
Liebherr travel gear	•	•	•	•
Ride control	+	+	+	+
Liebherr shock absorbing element	•	•	•	•
Automatic travel mode	•	•	•	•
20 km/h speed limiting	+	+	+	+
Electronical theft protection	+	+	+	+
Combined inching-braking system	•	•	•	•
Multi-disc limited slip differentials in both axles	•	•	•	•
Air cleaner system with pre-filter	•	•	•	•
Particle protection for radiator	+	+	+	+
Reversible fan drive	+	+	+	+
Emergency steering system	•	•	•	•
Liebherr bio degredable hydraulic oil	+	+	+	+
Headlights	•	•	•	•
Two tail lights	•	•	•	•
Two working area lights at rear	+	+	+	+
Battery master switch	•	•	•	•
Pre-heat system for cold starting	•	•	•	•
Towing hitch	•	•	•	•
Lockable doors, service flap and engine hood	•	•	•	•
Toolbox with toolkit	+	+	+	+
Back-up alarm	+	+	+	+
Automatic central lubrication system	+	+	+	+
Fuel particle filter	+	+	+	+

Operator's Cab

	L 524 2plus1	L 528 2plus1	L 538 2plus1	L 542 2plus1
Soundproof ROPS/FOPS cab with tinted safety glass front windscreen, heatable rear window	•	•	•	•
Joystick steering	+	+	+	+
Hot water heater with defroster and recirculated-air system	•	•	•	•
Adjustable steering column	•	•	•	•
Height-adjustable steering column	+	+	+	+
Liebherr-joystick control – adjustable	•	•	•	•
Air conditioning system	+	+	+	+
Air condition automatic controlled	+	+	+	+
Liebherr operator's seat – adjustable in 6 ways	•	•	•	•
Air sprung operator's seat	+	+	+	+
Air sprung operator's seat with seat heating	+	+	+	+
Xenon working lights front	+	+	+	+
Four working area lights at front	•	•	•	•
Two or four working area lights rear	+	+	+	+
Protective screen for windshield	+	+	+	+
Sliding window	+	+	+	+
Floor mat	•	•	•	•
Wash/wipe system for windscreen and rear window	•	•	•	•
Interior rear-view mirror	•	•	•	•
Sun visor	•	•	•	•
Cup holder	•	•	•	•
Clothes hook	•	•	•	•
Storage box	•	•	•	•
Lockable storage compartment	•	•	•	•
Plug 12 V	•	•	•	•
Ashtray	•	•	•	•
Horn	•	•	•	•
Provision for radio including loudspeaker	+	+	+	+
Radio set	+	+	+	+
Operator's package	•	•	•	•
Dust filter system	+	+	+	+
Protective ventilation system	+	+	+	+
Amber beacon	+	+	+	+
Fire extinguisher 2 kg	+	+	+	+

Instruments for:

	L 524 2plus1	L 528 2plus1	L 538 2plus1	L 542 2plus1
Diesel engine pre-heat	•	•	•	•
Engine oil temperature	•	•	•	•
Fuel reserve	•	•	•	•
Timer for hours of operation	•	•	•	•
Travel speed ranges and gear selected	•	•	•	•
Forward – reverse travel	•	•	•	•
Forward travel	•	•	•	•
Reverse travel	•	•	•	•
Speedometer	•	•	•	•
Clock	•	•	•	•
Flashing turn indicators	•	•	•	•
High-beam headlights	•	•	•	•
Diagnosis system	•	•	•	•

Warning Lights for:

	L 524 2plus1	L 528 2plus1	L 538 2plus1	L 542 2plus1
Engine oil pressure	•	•	•	•
Engine overheat	•	•	•	•
Parking brake	•	•	•	•
Hydraulic oil temperature	•	•	•	•
Air cleaner blockage	•	•	•	•
Battery charge	•	•	•	•
Flow through emergency steering system	•	•	•	•

Audible Warnings for:

	L 524 2plus1	L 528 2plus1	L 538 2plus1	L 542 2plus1
Engine oil pressure	•	•	•	•
Engine overheat	•	•	•	•
Overheat of hydraulic fluid	•	•	•	•
Emergency steering system	•	•	•	•

Function Keys for:

	L 524 2plus1	L 528 2plus1	L 538 2plus1	L 542 2plus1
Speed range selection	•	•	•	•
Air conditioning	+	+	+	+
Hazard warning flashers	•	•	•	•
Parking brake	•	•	•	•
Electronic tractive force adaptation	•	•	•	•
Creep speed	•	•	•	•
Ride control	+	+	+	+
Automatic bucket positioner	•	•	•	•
Hoist kick-out	+	+	+	+
Additional hydraulics	•	•	•	•
Float position	•	•	•	•
Headlights	•	•	•	•
Working lights front	•	•	•	•
Working lights rear	•	•	•	•
Road travel	•	•	•	•
Wash/wipe system for rear window	•	•	•	•
Amber beacon	•	•	•	•
Mode switch	•	•	•	•
Blower	•	•	•	•
Heater	•	•	•	•
Fresh air or recirculated air	•	•	•	•

Equipment

	L 524 2plus1	L 528 2plus1	L 538 2plus1	L 542 2plus1
Z-bar linkage	•	•	•	•
Parallel linkage	•	•	•	•
Parallel linkage "High Lift"	+	+	+	+
Hydraulic servo control of working hydraulics	•	•	•	•
Automatic bucket positioner – adjustable	•	•	•	•
Automatic hoist kick out – adjustable	+	+	+	+
Float position	•	•	•	•
Loading buckets with and without teeth, or bolt-on cutting edge	+	+	+	+
High-dump bucket	+	+	+	+
Light material bucket	+	+	+	+
Fork carrier and lift forks	+	+	+	+
Hydraulic quick-change device – Parallel linkage	•	•	•	•
Hydraulic quick-change device – Z-bar linkage	+	+	+	+
3rd hydraulic control circuit	+	+	+	+
3rd and 4th hydraulic control circuits	+	+	+	+
Comfort control	+	+	+	+
Country-specific versions	+	+	+	+

• = Standard, + = Option

All illustrations and data may differ from standard equipment. Subject to change without notice.

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The Liebherr Group of Companies

Wide product range

The Liebherr Group is one of the largest construction equipment manufacturers in the world. Liebherr's high-value products and services enjoy a high reputation in many other fields, too. 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 its technical excellence and acknowledged quality, Liebherr products offer a maximum of customer benefits in practical application.

State-of-the-art technology

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

Worldwide and independent

Hans Liebherr founded the Liebherr family company in 1949. Since that time, the enterprise has steadily grown to a Group of 100 companies with over 26,000 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

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