

Wheel Loaders

L 524 - L 542

Tipping load, articulated: 16,535 lb – 22,485 lb



LIEBHERR

L 524

Tipping load, articulated: 16,535 lb
Bucket capacity: 2.7 yd³
Operating weight: 22,930 lb
Engine output: 121 HP(l)/90 kW

L 528

Tipping load, articulated: 18,740 lb
Bucket capacity: 3.0 yd³
Operating weight: 24,030 lb
Engine output: 134 HP(l)/100 kW

L 538

Tipping load, articulated: 20,945 lb
Bucket capacity: 3.4 yd³
Operating weight: 28,220 lb
Engine output: 154 HP(l)/115 kW

L 542

Tipping load, articulated: 22,485 lb
Bucket capacity: 3.7 yd³
Operating weight: 29,540 lb
Engine output: 161 HP(l)/120 kW



Economy

The Liebherr driveline with Liebherr Power Efficiency (LPE) reduces wheel loader fuel consumption by 25% or more when compared to conventional travel gears!

Performance

The Liebherr driveline allows for optimal positioning of the diesel engine. In this wheel loader class the diesel engine is rotated 90° and mounted transverse to the direction of travel. Compared to conventionally driven wheel loaders, the operating weight is much lower, the tipping load is higher, and more material can be moved each operating hour.

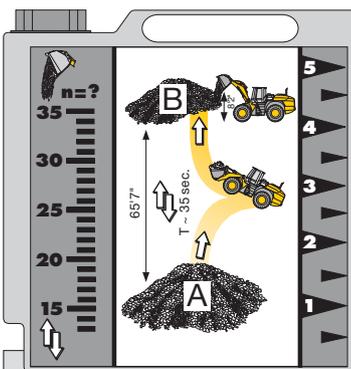
Reliability

All the materials used in the Liebherr wheel loaders have passed extensive tests to ensure that they meet Liebherr's exacting standards even in the toughest conditions. The advanced concept and proven quality make Liebherr wheel loaders the benchmark of reliability.

Comfort

The ultra-modern cab design with advanced ergonomics continuously variable Liebherr driveline for uninterrupted tractive force, optimum weight distribution and easy service access lead to extraordinary overall comfort.

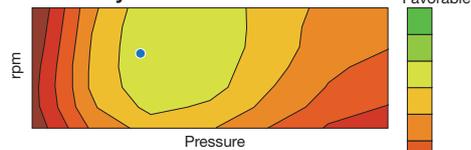




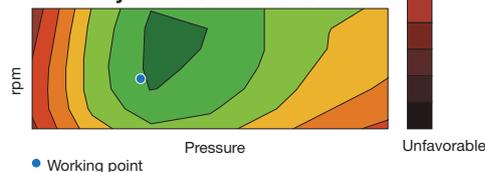
Lower Fuel Consumption

- Up to 25% less fuel consumption when compared to conventionally driven machines.
- The Liebherr wheel loaders demonstrate their fuel efficiency in the Liebherr standard Normtest.

Efficiency behaviour without LPE



Efficiency behaviour with LPE



• Working point

Economy

The Liebherr driveline with Liebherr Power Efficiency (LPE) reduces wheel loader fuel consumption by 25% or more when compared to conventional travel gears!

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 thanks to higher efficiency and low operating weight. Thanks to the newly developed Liebherr Power Efficiency system the generation Tier 4i wheel loaders L 524 – L 542 use up to 8% less fuel compared to their predecessors.
- Practically no brake wear thanks to the hydraulic braking action of the driveline; this ultimately reduces repair costs.
- Reduced tire wear due to continuous traction control. Depending on the working conditions, there is up to 25% less wear.

Active Environmental Protection

Economical Use of Resources

The reduction in fuel lowers emissions, thus actively protecting resources: 0.3 gal of fuel produces up to 7 lb of carbon dioxide (CO₂). By saving up to 1.3 gal per operating hour, up to 33,070 lb less CO₂ is produced in 1,000 operating hours. Not only are operating costs reduced but the environment also benefits from the drastically reduced emissions.

Low Noise Emission

The innovative driveline concept means much lower noise emission – Liebherr wheel loaders are significantly quieter in operation.



Liebherr Power Efficiency (LPE)

- The newly developed system known as Liebherr Power Efficiency (LPE) optimizes the interaction between the drive components. It optimizes the position of the working point in the characteristic map with regard to the degree of efficiency.
- LPE saves up to an additional 8% in fuel compared to wheel loaders where the system is not used.

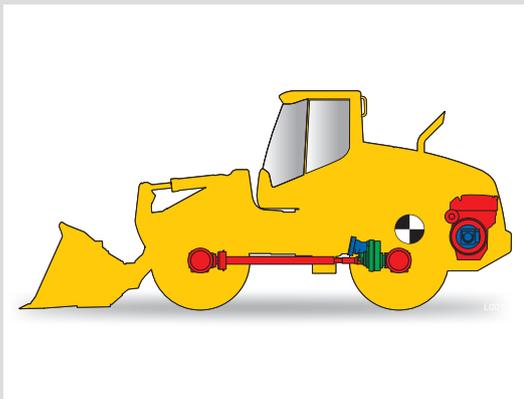


Reduced Tire Wear

- The tractive force is controlled continuously. This stops wheel spins and reduces tire wear by up to 25%.

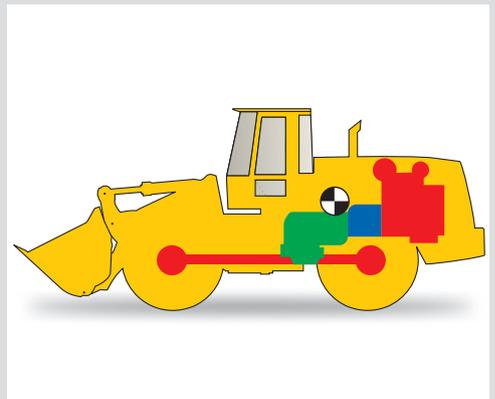
Reduced Brake Wear

- Even under the toughest working conditions, the Liebherr travel drive always brakes hydraulically. The mechanical service brake only acts as a support and is therefore subject to hardly any wear.



Liebherr Driveline

- Optimum weight distribution thanks to transverse installation of the diesel engine.
- The diesel engine as well as the variable displacement pumps mounted on the engine act as counterweight, therefore allowing higher tipping loads at low operating weight.
- Compact design improves visibility in all directions.



Performance

The Liebherr driveline allows for optimal positioning of the diesel engine. In this wheel loader class the diesel engine is rotated 90° and mounted transverse to the direction of travel. Compared to conventionally driven wheel loaders, the operating weight is much lower, the tipping load is higher, and more material can be moved each operating hour.

Higher Performance, Lower Weight

Higher Productivity The combination of the Liebherr driveline and the unique position of the diesel engine allows for higher tipping loads at low operating weight. This leads to significantly higher productivity since there is no need for unnecessary counterweight.

Ultra Modern Liebherr Driveline

Innovative Technology Tractive force and speed are automatically adjusted to the requirements of the operator without shifting. There is no need for a mechanical reverse gear because the travel direction is changed hydraulically.

Flexibility Puts Them Ahead

An All-Purpose Loader The parallel linkage is available as an alternative to the standard Z-bar linkage, at no additional cost. The parallel linkage features a parallel guide arrangement and high torque in the upper lifting range – ideal properties for larger and heavier attachments as well as transporting heavy loads. With its parallel linkage Liebherr offers a continuous and uniform solution for industrial operations over the entire range of all-round loaders. With their compact design, Liebherr wheel loaders can maneuver quickly and efficiently – the best choice for high handling capacities.

Power All-Rounders for Industry

The new generation Tier 4i all-round wheel loader models have been specifically developed for industrial use in terms of their performance and stability and ensure even higher productivity and efficiency. In addition to increasing the engine performance, the tipping loads of the whole range have been increased. Furthermore the steel structure has been reinforced and the hydraulic system's performance enhanced. That, together with the wide range of equipment available makes these all-round loaders the perfect solution for all industrial uses.



Conventional Travel Gear

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



An All-Purpose Loader

- The choice between parallel (P) and Z-bar 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 in the Liebherr wheel loaders have passed extensive tests to ensure that they meet Liebherr's exacting standards even in the toughest conditions. The advanced concept and proven quality make Liebherr wheel loaders the benchmark of reliability.

Reliable Liebherr Driveline

Fewer Components

The Liebherr driveline includes a self-locking hydraulic brake, which means the additional wet brake discs are wear-free since there is no need for a reversing gear unit. There are fewer components needed, which minimizes the number of parts susceptible to wear.

Controlled Cooling

The Intelligent Answer

The cooling fan is driven independently from the diesel engine and produces only the cooling air output which is actually required. Heat sensors ensure reliable control. If overheating should occur, the wheel loader automatically shifts down to first travel speed range. The reduced power consumption protects the engine from overheating. At the same time, the fan speed is increased to maximum output, thus preventing the engine from overheating.

Components Meet Manufacturer's Quality Standards

Everything from a Single Source

Main components such as hydraulic cylinders and electronics are developed and manufactured by Liebherr to ensure the highest quality standards. Liebherr Wheel Loaders are carefully designed down to the smallest detail to provide customers with the perfect machine solution to match the application-specific demands while achieving maximum productivity and longevity.

Optimized Engine Technology

As well as further developments towards greater environmental compatibility, the new generation of diesel engines have been optimized in a number of other respects. In addition to Common Rail technology a diesel particle filter significantly reduces exhaust emissions. With active regeneration, in most operational circumstances this filtration process ensures efficient, uninterrupted work.



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.
- The reversible fan drive is a standard feature.



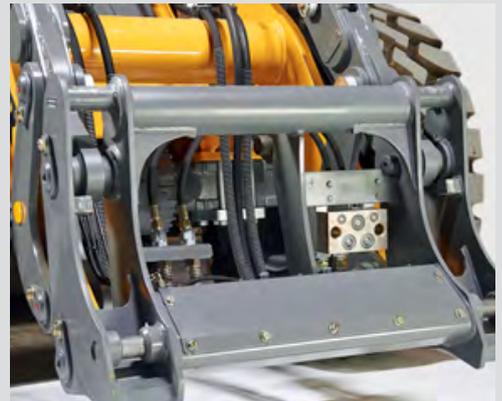
Diesel Engine

- Common Rail technology optimizes the combustion process and reduces emissions.
- Further reduction of particle emissions due to the diesel particle filter with oxidation catalytic converter. Active regeneration ensures efficient, uninterrupted work.
- Proactive intervention of Liebherr Power Efficiency (LPE) in the engine management system increases efficiency.



Liebherr Control Lever

- The Liebherr control lever is used to manage all travel and working movements of the wheel loader. This ensures the operator's left hand always remains on the steering wheel and therefore increases safety. The operator controls the following functions with his right hand:
 - Raise and lower attachment
 - Tilt and crowd
 - Automatic bucket return to dig
 - Change of travel direction with simultaneous travel start
 - Auxiliary control buttons for additional hydraulic functions





Comfort

The ultra modern cab design with advanced ergonomics, continuously variable Liebherr driveline for uninterrupted tractive force, optimum weight distribution and easy service access lead to extraordinary overall comfort.

First-Class Cab Design

Comfort Cab

The spacious and ergonomically designed Liebherr operator's cab provides a wide view to the working area to ensure safety. All tool controls and displays have been carefully arranged for ease of operation and to maintain a comfortable work environment during working shifts.

Liebherr Control Lever

All the working and travel functions are operated precisely from a single control lever. This ensures accurate and safe handling, and the left hand always remains on the steering wheel. Jobsite safety is increased.

Liebherr Driveline

Continuously Variable Transmission

The Liebherr driveline allows continuous adjustment of acceleration in all speed ranges, without noticeable gear shifting or interruption in tractive force.

Liebherr Power Efficiency

Liebherr Power Efficiency (LPE) optimizes the efficiency and effectiveness of the travel drive, which places less stress on the components. The operator actuates the accelerator pedal in the usual way to obtain the full power performance desired. An electrical signal is transmitted from the pedal to the software of the machine which automatically calculates the most efficient driving command. This is possible due to the proactive intervention into the engine management system. The usual high performance as well as the drive behavior of the machine as a whole remain unchanged. If anything, the response is even faster.

LIKUFIX

Time Savings and Productivity

LIKUFIX is quick-change system combined with an automatic hydraulic coupling system developed in-house by Liebherr. This option is available for Liebherr wheel loaders and excavators. LIKUFIX allows the quick exchange between attachments and all hydraulic connections safely from inside the cab with a simple press of a button.

LIKUFIX

- Equipment with hydraulic functions can be changed from the cab in a matter of seconds.
- No need to climb out and connect everything mechanically: both picking up the equipment and connecting the hydraulic hoses is fully automatic – safe and with no oil leaks.
- The convenience and time savings speak for themselves: LIKUFIX increases the capacity of the wheel loader and thus also increases its efficiency.



Powerful Air-Conditioning System

- An air-conditioning system is available as an option for the Allround wheel loaders and provides the greatest operator comfort for higher productivity.
 - The air flow is controlled at 4 different levels – an automatic air-conditioning system is available as an optional extra.
- Air flow in the feet area
 - Defroster
 - Air flow in the head area
 - Air flow in the body area



Service Accessibility

- The transverse engine facilitates maintenance. Opening a single cover allows safe and convenient access to all maintenance points from ground level.

Service/Maintenance

LiDAT

Efficient Management

With LiDAT, Liebherr's own data transmission and positioning system, you can manage, monitor and control your entire fleet efficiently. LiDAT allows you to access machine data records, perform data analysis, and review service records within the fleet management system. All machine data can be accessed at anytime simply, via the internet. The system provides you with comprehensive documentation about operating hours, increased availability through shorter downtimes, and faster support from the manufacturer. There is also faster detection of stress and overloading, which extends the machine's service life to provide more efficient planning for your company. The LiDAT system comes standard on the L 524 – L 542 wheel loaders and it includes a one-year free trial.

Diagnostic and Remote Maintenance

Consistent Monitoring

The electronic system of the all-round loaders has been designed just as the large size class. Due to this fact, the all-round loaders offer an extended range of options such as the convenient touchscreen, the integral rear-view monitoring camera and the newly developed Liebherr weighing device. The new electronic system permits standard diagnostic and remote maintenance over the range of machines providing a clear benefit in their everyday operations.

Service Accessibility

Easy Maintenance

With the unique position of the diesel engine, Liebherr wheel loaders provide outstanding accessibility for maintenance. The positioning of the cooling system directly behind the cab results in less contamination, which in turn reduces maintenance and cleaning; a clear benefit which saves time and money.

All service points can be reached from ground level for routine maintenance. Cleaning of the cooling system is carried out while positioned on the machine, anti-slip step surfaces and strong handrails in the access area ensure high safety standards.



Electronics

- Standard diagnostic and remote maintenance
- Full version of LiDAT including a one-year free trial.
- Optional touchscreen
- Optional Liebherr rear-view monitoring camera and weighing device – integrated in the color touchscreen

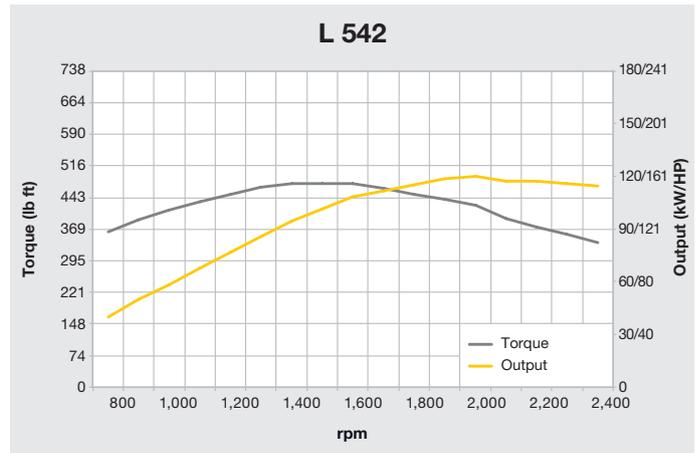
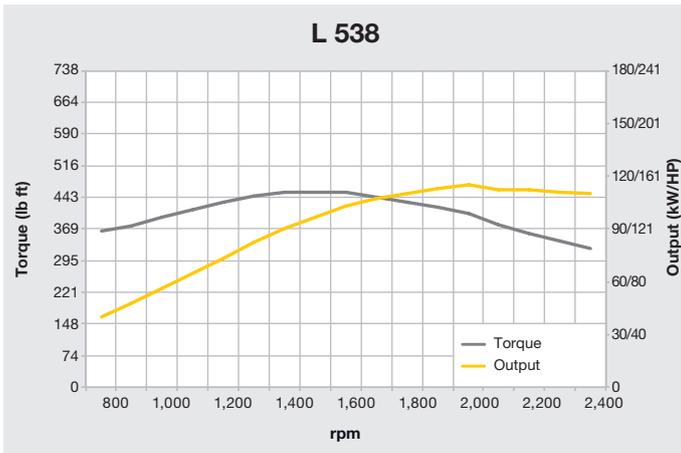
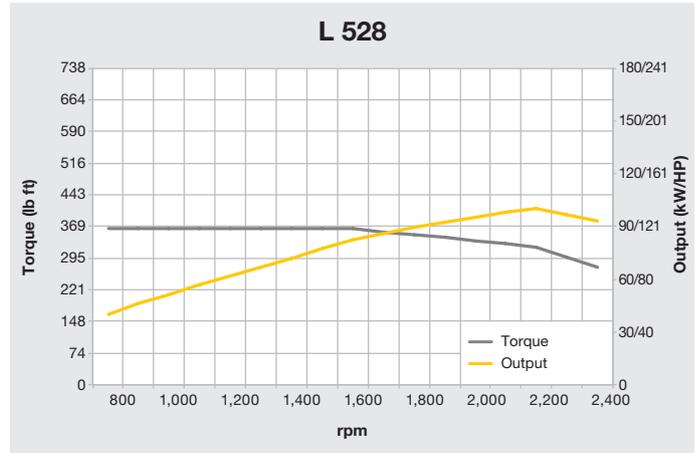
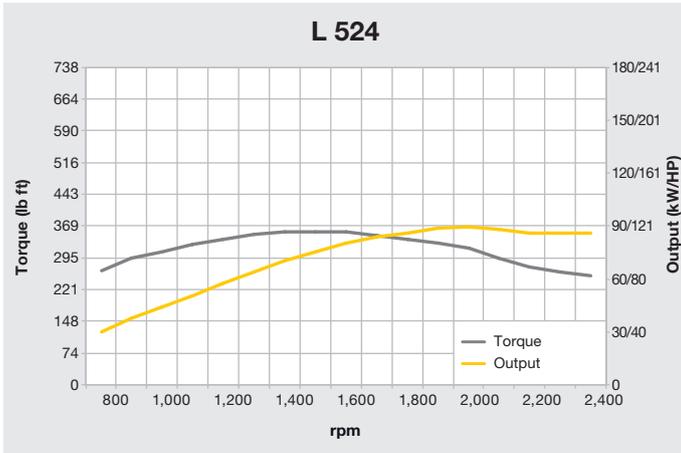
Technical Data



Engine L 524 L 528 L 538 L 542

Diesel engine	4045HFL92 4045HFL93 4045HFL93 4045HFL93			
Design	Water-cooled with exhaust turbo charging, externally cooled exhaust gas recirculation and diesel particulate filter			
Cylinder inline	4	4	4	4
Fuel injection process	Electronic Common Rail high-pressure injection			
Max. output according to SAE J1995	HP(l)/kW 121/90	134/100	154/115	161/120
	at RPM 2,000	2,200	2,000	2,000
Max. torque	lb ft 354	363	454	476
	at RPM 1,600	1,600	1,600	1,600
Displacement	in ³ 275	275	275	275
Bore/Stroke	in 4.2"/5.0"	4.2"/5.0"	4.2"/5.0"	4.2"/5.0"
Air cleaner system	Dry air filter with main and safety element, pre-cleaner, service indicator on the display			
Electrical system				
Operating voltage	V 24	24	24	24
Battery	Ah 2 x 135	2 x 135	2 x 135	2 x 135
Alternator	V/A 24/100	24/100	24/100	24/100
Starter	V/HP(l) 24/10.5	24/10.5	24/10.5	24/10.5

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



Technical Data



Driveline

Stepless hydrostatic travel drive

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

Filtering system _____ 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 joystick is used to control forward and reverse travel

Travel speed range _____ Speed range 1 _____ 0 – 3.7 mph
 Speed range A1-2 _____ 0 – 9.9 mph
 Speed range A1-3 _____ 0 – 24.9 mph
 The quoted speeds apply with the tires that are standard equipment on the loader.



Axles

Four-wheel drive

Front axle _____ Fixed

Rear axle _____ Centre pivot, with 10° oscillating angle to each side. 1'7" 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 _____ 1,960 mm with all types of tires (L 524, L 528)
 1,900 mm with all types of tires (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 separate 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 _____ "Load-sensing" swash plate type variable flow pump with pressure cut-off and flow control. Central pivot with two double-acting steering cylinders

Articulation angle _____ 40° (to each side)

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 hoist kick out as standard

Tilt circuit _____ Tilt back, neutral, dump automatic bucket return to dig

	L 524	L 528	L 538	L 542
Max. flow	gpm 27	36	45	45
Max. pressure	psi 4,569	4,786	5,076	5,076



Attachment

Geometry can be chosen _____ Powerful Z-bar linkage with one tilt cylinder, hydraulic quick coupler – optional equipment;
 _____ Parallel linkage with two tilt cylinders, hydraulic quick coupler – standard equipment

Bearings _____ Sealed

Cycle time at nominal load _____

	L 524		L 528		L 538		L 542	
	ZK	PK	ZK	PK	ZK	PK	ZK	PK
Lifting	6.6 s	6.6 s	5.4 s	5.4 s	5.3 s	5.3 s	5.3 s	5.3 s
Dumping	1.8 s	3.5 s	1.8 s	3.5 s	1.6 s	3.5 s	1.6 s	3.5 s
Lowering (empty)	4.0 s							



Operator's Cab

Design _____ On elastic bearing on rear section, soundproof ROPS/FOPS cab. Operator's door with optional fold-out window, 105° opening angle, ventilation opening on the right side, 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, heated rear window (ESG)

ROPS roll over protection per EN/ISO 3471/EN 474-1

FOPS falling objects protection per EN/ISO 3449/EN 474-1

Liebherr Operator's seat _____ 6 way adjustable seat with lap belt and heating system; adjustable air suspension from soft to hard; automatic weight adjustment

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 as standard/ automatic air conditioning system optional



Noise Emission

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

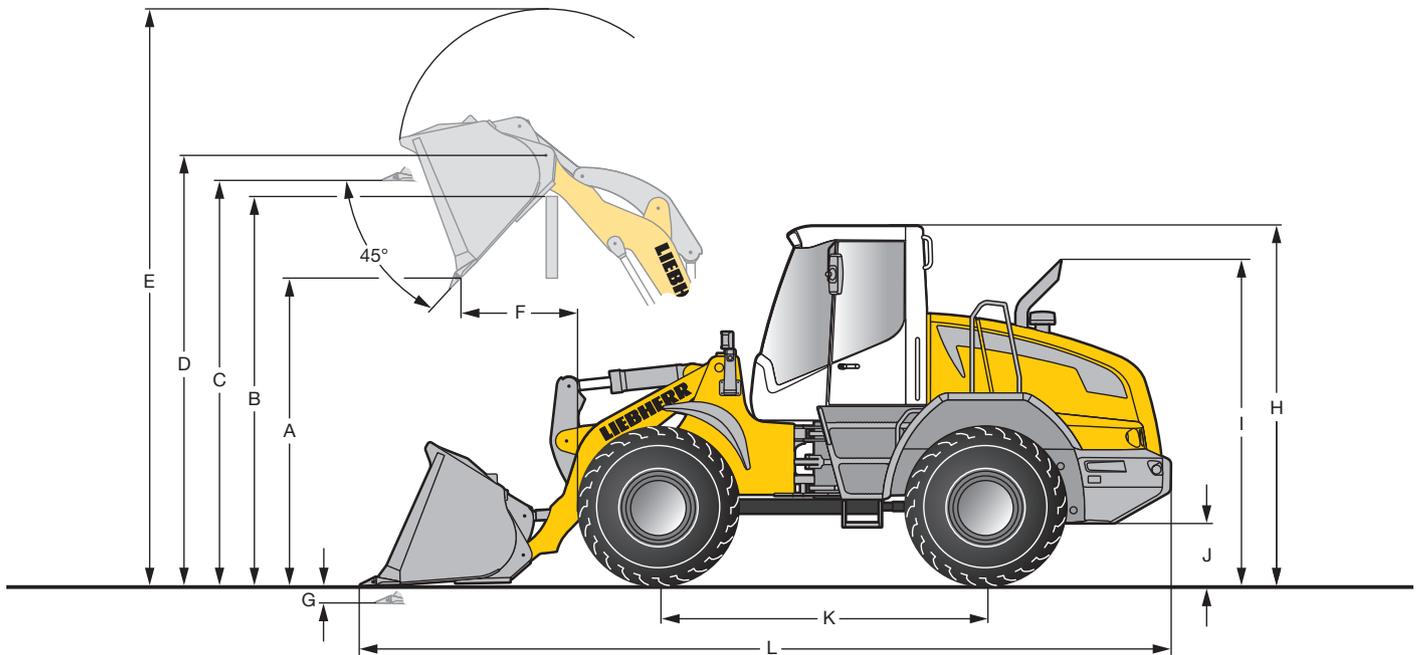


Capacities

	L 524	L 528	L 538	L 542
Fuel tank (plastic design)	gal 54.2	54.2	54.2	54.2
Fuel tank (steel version, optional)	gal 58.1	58.1	58.1	58.1
Engine oil (inclusive filter change)	gal 3.9	5.4	5.4	5.4
Transmission	gal 1	1	1	1
Coolant	gal 10	10	10	10
Front axle/wheel hubs	gal 4.3/0.7	4.3/0.7	4.3/0.7	4.3/0.7
Rear axle/wheel hubs	gal 4/0.7	4/0.7	4/0.7	4/0.7
Hydraulic tank	gal 29	29	29	29
Hydraulic system, total	gal 44.9	44.9	47.6	47.6

Dimensions

Z-bar Linkage



Loading Bucket



		L 524			L 528			L 538			L 542			
		ZK	ZK-QC	ZK-QC	ZK	ZK-QC	ZK-QC	ZK	ZK-QC	ZK-QC	ZK	ZK-QC	ZK-QC	
	Geometry	GPB	GPB	LMB	GPB	GPB	LMB	GPB	GPB	LMB	GPB	GPB	LMB	
	Bucket type	T	T	BOCE	T	T	BOCE	T	T	BOCE	T	T	BOCE	
	Cutting tools													
	Lift arm length	ft in	7'10"	7'10"	7'10"	7'10"	7'10"	7'10"	8'2"	8'2"	8'2"	8'2"	8'2"	
	Bucket capacity according to ISO 7546**	yd ³	2.7	2.4	3.1	3.0	2.7	3.9	3.4	3.0	4.6	3.7	3.3	5.2
	Bucket width	ft in	8'2"	8'2"	8'2"	8'2"	8'2"	8'10"	8'2"	8'2"	8'10"	8'2"	8'2"	8'10"
A	Dumping height at max. lift height	ft in	9'4"	8'11"	8'9"	9'1"	8'10"	8'4"	9'4"	9'	8'7"	9'3"	8'11"	8'3"
B	Dump-over height	ft in	10'11"	10'11"	10'11"	10'11"	10'11"	10'11"	11'5"	11'5"	11'5"	11'5"	11'5"	11'5"
C	Max. height of bucket bottom	ft in	11'7"	11'7"	11'7"	11'7"	11'7"	11'7"	12'1"	12'1"	12'1"	12'1"	12'1"	12'1"
D	Max. height of bucket pivot point	ft in	12'5"	12'5"	12'5"	12'5"	12'5"	12'5"	12'11"	12'11"	12'11"	12'11"	12'11"	12'11"
E	Max. operating height	ft in	16'2"	16'3"	16'11"	16'4"	16'6"	17'2"	17'2"	17'6"	18'2"	17'3"	17'8"	18'4"
F	Reach at max. lift height	ft in	2'10"	3'1"	3'6"	3'2"	3'3"	3'8"	3'4"	3'5"	3'10"	3'4"	3'7"	4'2"
G	Digging depth	ft in	3"	3"	3"	3"	3"	3"	3"	3"	3"	3"	3"	3"
H	Height above cab	ft in	10'6"	10'6"	10'6"	10'6"	10'6"	10'6"	10'8"	10'8"	10'8"	10'8"	10'8"	10'8"
I	Height above exhaust	ft in	9'5"	9'5"	9'5"	9'5"	9'5"	9'5"	9'7"	9'7"	9'7"	9'7"	9'7"	9'7"
J	Ground clearance	ft in	1'6"	1'6"	1'6"	1'6"	1'6"	1'6"	1'7"	1'7"	1'7"	1'7"	1'7"	1'7"
K	Wheelbase	ft in	9'4"	9'4"	9'4"	9'4"	9'4"	9'4"	9'9"	9'9"	9'9"	9'9"	9'9"	9'9"
L	Overall length	ft in	22'5"	22'9"	24'1"	22'9"	23'1"	23'9"	23'5"	23'11"	24'11"	23'8"	24'1"	25'3"
	Turning circle radius													
	over outside bucket edge	ft in	18'8"	18'9"	18'11"	19'	19'1"	19'2"	19'11"	20'	20'1"	19'11"	20'2"	20'4"
	Breakout force (SAE)	lbf	20,460	18,435	15,285	20,010	18,210	15,285	26,305	24,505	22,705	25,630	23,155	19,110
	Tipping load, straight *	lb	18,740	17,415	16,380	21,075	19,070	18,715	23,590	22,485	21,100	25,575	23,600	22,930
	Tipping load, articulated at 40° *	lb	16,535	15,430	14,420	18,740	17,020	16,555	20,945	19,840	18,565	22,485	20,945	20,060
	Operating weight *	lb	22,930	23,810	24,470	24,030	24,910	25,355	28,220	29,100	29,540	29,540	30,425	30,865
	Tire sizes		17.5R25 L3			17.5R25 L3			20.5R25 L3			20.5R25 L3		

* The figures shown here are valid with tires above and include all lubricants, a full fuel tank, the ROPS/FOPS cab and the operator. Different tires and optional equipment will change the operating weight and tipping load. (Tipping load, articulated at 40° 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 21.

ZK = Z-bar linkage

GPB = General purpose bucket (Rehandling bucket)

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

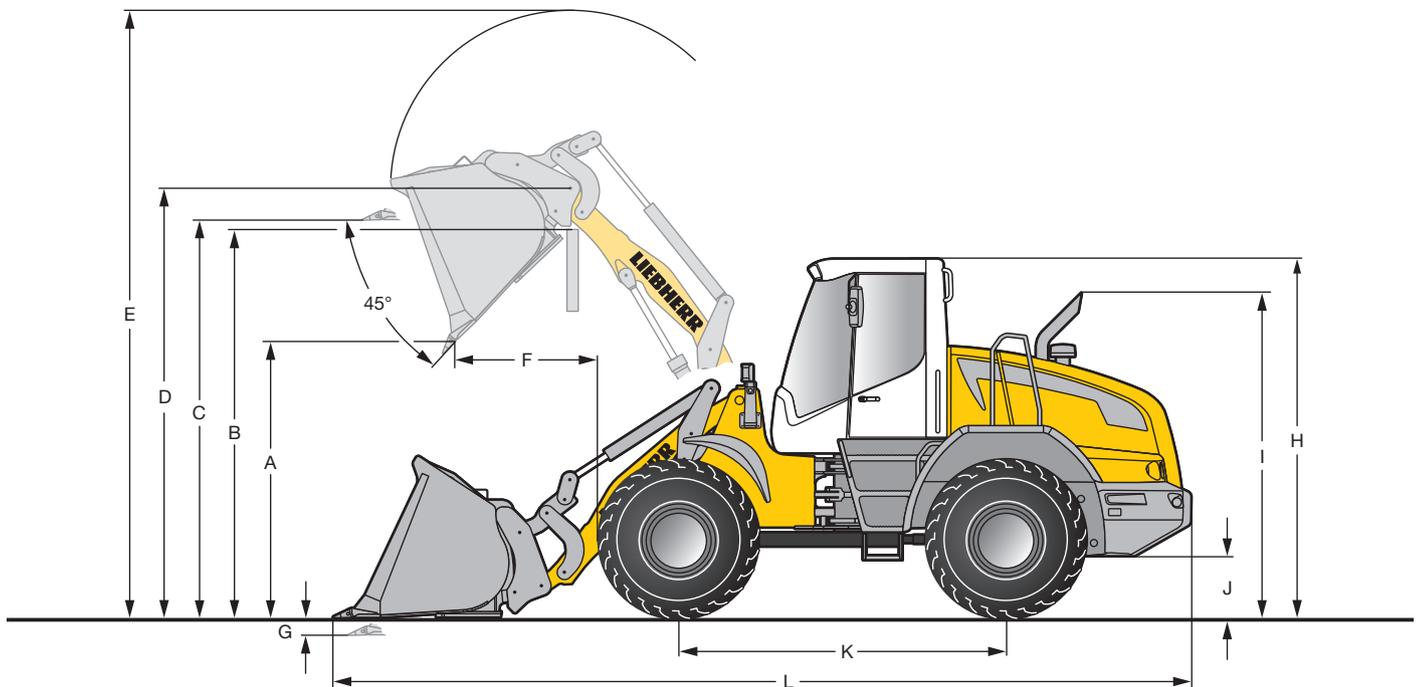
ZK-QC = Z-bar linkage including hydraulic quick coupler

LMB = Light Material Bucket

BOCE = Bolt-on cutting edge

Dimensions

Parallel Linkage



Loading Bucket	L 524		L 528		L 538		L 542		
	STD	HL	STD	HL	STD	HL	STD	HL	
Geometry	PK-QC	PK-QC	PK-QC	PK-QC	PK-QC	PK-QC	PK-QC	PK-QC	
Cutting tools	T	T	T	T	T	T	T	T	
Lift arm length	ft in	8'2"	9'10"	8'2"	9'10"	8'2"	9'10"	8'2"	9'10"
Bucket capacity according to ISO 7546 ** yd ³		2.4	2.4	2.7	2.7	3.0	3.0	3.3	3.3
Bucket width	ft in	8'2"	8'2"	8'2"	8'2"	8'2"	8'2"	8'2"	8'2"
A Dumping height at max. lift height	ft in	9'2"	11'2"	9'1"	11'1"	9'	11'	8'10"	10'10"
B Dump-over height	ft in	11'1"	13'1"	11'1"	13'1"	11'3"	13'3"	11'3"	13'3"
C Max. height of bucket bottom	ft in	11'9"	13'9"	11'9"	13'9"	11'11"	14'	11'11"	14'
D Max. height of bucket pivot point	ft in	12'7"	14'7"	12'7"	14'7"	12'9"	14'10"	12'9"	14'10"
E Max. operating height	ft in	16'6"	18'6"	16'4"	18'9"	17'4"	19'4"	17'6"	19'7"
F Reach at max. lift height	ft in	3'5"	3'4"	3'7"	3'5"	3'7"	3'5"	3'8"	3'7"
G Digging depth	ft in	2"	3"	2"	3"	2"	1"	2"	1"
H Height above cab	ft in	10'6"	10'6"	10'6"	10'6"	10'8"	10'8"	10'8"	10'8"
I Height above exhaust	ft in	9'5"	9'5"	9'5"	9'5"	9'7"	9'7"	9'7"	9'7"
J Ground clearance	ft in	1'6"	1'6"	1'6"	1'6"	1'7"	1'7"	1'7"	1'7"
K Wheelbase	ft in	9'4"	9'4"	9'4"	9'4"	9'9"	9'9"	9'9"	9'9"
L Overall length	ft in	23'5"	25'6"	23'6"	25'7"	24'	26'3"	24'1"	26'5"
Turning circle radius over outside bucket edge	ft in	19'	19'11"	19'3"	19'10"	20'1"	21'	20'2"	21'1"
Breakout force (SAE)	lbf	18,210	18,435	17,985	17,985	25,180	25,405	24,055	24,280
Tipping load, straight *	lb	18,300	14,000	20,505	15,765	22,705	17,815	24,075	19,070
Tipping load, articulated at 40° *	lb	16,205	12,345	18,080	13,890	20,060	15,740	21,495	16,800
Operating weight *	lb	25,355	26,235	27,115	27,975	29,500	30,315	30,425	31,215
Tire sizes		17.5R25 L3		17.5R25 L3		20.5R25 L3		20.5R25 L3	

* The figures shown here are valid with tires above and include all lubricants, a full fuel tank, the ROPS/FOPS cab and the operator. Different tires and optional equipment will change the operating weight and tipping load. (Tipping load, articulated at 40° 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 21.

 = Rehandling bucket with hydraulic quick coupler

STD = Standard lift arm length

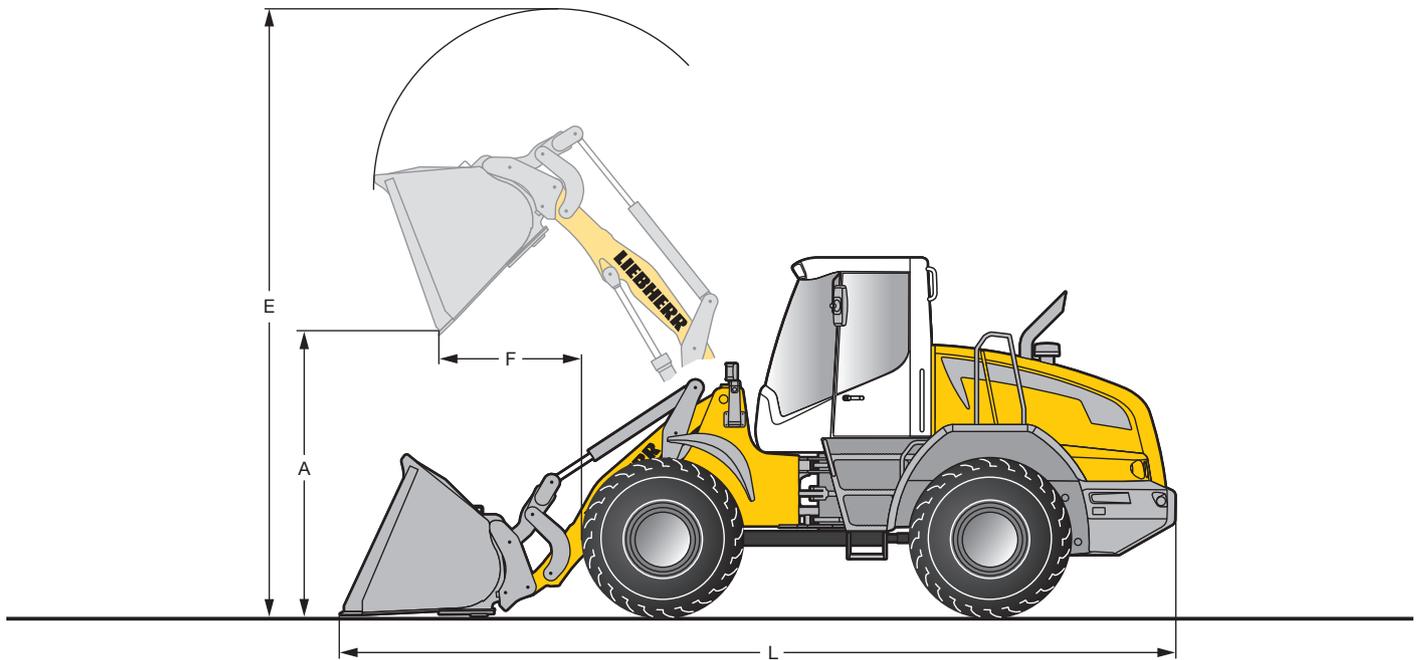
HL = High Lift

PK-QC = Parallel linkage including hydraulic quick coupler

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

Attachment

Light Material Bucket



Heavy Material Density		L 524		L 528		L 538		L 542	
		STD	HL	STD	HL	STD	HL	STD	HL
	Geometry	PK-QC	PK-QC	PK-QC	PK-QC	PK-QC	PK-QC	PK-QC	PK-QC
	Cutting tools	BOCE	BOCE	BOCE	BOCE	BOCE	BOCE	BOCE	BOCE
	Bucket capacity	yd ³	3.9	3.3	4.6	3.9	5.2	4.6	5.9
	Bucket width	ft in	8'10"	8'2"	8'10"	8'10"	8'10"	8'10"	9'
A	Dumping height at max. lift height	ft in	8'8"	10'8"	8'4"	10'7"	8'3"	10'5"	8'
E	Max. operating height	ft in	17'4"	19'2"	17'10"	19'4"	17'11"	20'2"	18'3"
F	Reach at max. lift height	ft in	4'	3'11"	4'3"	3'11"	4'3"	4'	4'6"
L	Overall length	ft in	24'2"	26'3"	24'6"	26'4"	25'6"	27'5"	25'10"
	Tipping load, straight *	lb	17,460	13,005	19,775	15,100	21,825	17,040	25,440
	Tipping load, articulated at 40° *	lb	15,390	11,465	17,460	13,340	19,245	15,035	20,480
	Operating weight *	lb	26,015	27,050	27,560	28,470	29,985	30,955	31,175
	Tire sizes	17.5R25 L3		17.5R25 L3		20.5R25 L3		20.5R25 L3	

Light Material Density		L 524		L 528		L 538		L 542	
		STD	HL	STD	HL	STD	HL	STD	HL
	Geometry	PK-QC	PK-QC	PK-QC	PK-QC	PK-QC	PK-QC	PK-QC	PK-QC
	Cutting tools	BOCE	BOCE	BOCE	BOCE	BOCE	BOCE	BOCE	BOCE
	Bucket capacity	yd ³	7.2	5.2	7.8	5.9	8.5	6.5	9.2
	Bucket width	ft in	9'	9'	9'	9'	9'	9'	9'
A	Dumping height at max. lift height	ft in	7'4"	10'	7'2"	9'9"	7'2"	9'9"	7'
E	Max. operating height	ft in	18'7"	19'6"	17'11"	19'10"	19'5"	20'2"	19'7"
F	Reach at max. lift height	ft in	5'4"	4'5"	5'6"	4'8"	5'5"	4'7"	5'7"
L	Overall length	ft in	26'	27'1"	26'3"	27'5"	27'1"	28'4"	27'4"
	Tipping load, straight *	lb	16,160	12,700	18,385	14,570	20,725	16,755	22,180
	Tipping load, articulated at 40° *	lb	14,265	11,220	16,250	12,875	18,300	14,770	19,555
	Operating weight *	lb	26,895	27,335	28,440	28,880	30,755	31,195	31,790
	Tire sizes	17.5R25 L3		17.5R25 L3		20.5R25 L3		20.5R25 L3	

* The figures shown here are valid with tires above and include all lubricants, a full fuel tank, the ROPS/FOPS cab and the operator. Different tires and optional equipment will change the operating weight and tipping load. (Tipping load, articulated at 40° according to ISO 14397-1)

STD = Standard lift arm length

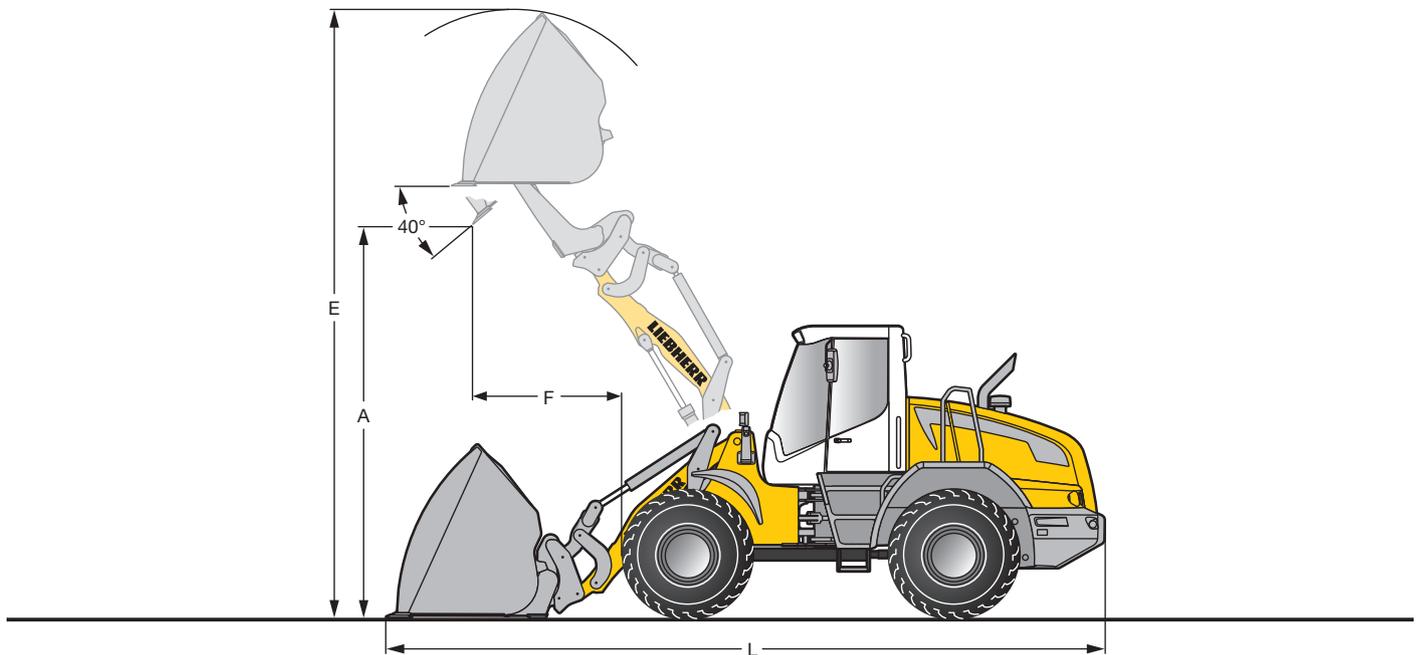
HL = High Lift

PK-QC = Parallel linkage including hydraulic quick coupler

BOCE = Bolt-on cutting edge

Attachment

High-Dump Bucket



Heavy Material Density		L 524		L 528		L 538		L 542	
		STD	HL	STD	HL	STD	HL	STD	HL
Geometry		PK-QC	PK-QC	PK-QC	PK-QC	PK-QC	PK-QC	PK-QC	PK-QC
Cutting tools		BOCE	BOCE	BOCE	BOCE	BOCE	BOCE	BOCE	BOCE
Bucket capacity	yd ³	3.9	2.9	4.6	3.3	5.2	3.9	5.9	4.6
Bucket width	ft in	8'2"	8'2"	8'2"	8'2"	8'10"	8'2"	8'10"	8'2"
A Dumping height at max. lift height	ft in	14'9"	16'10"	14'6"	16'8"	14'7"	17'4"	14'4"	17'1"
E Max. operating height	ft in	20'5"	21'9"	20'8"	21'11"	20'11"	22'11"	21'1"	23'2"
F Reach at max. lift height	ft in	4'11"	4'5"	5'2"	4'7"	5'	4'5"	5'4"	4'8"
L Overall length	ft in	25'3"	26'8"	25'7"	26'10"	26'3"	27'8"	26'7"	28'
Tipping load, straight *	lb	14,925	11,685	16,955	13,535	19,025	15,280	20,215	16,290
Tipping load, articulated at 40° *	lb	13,160	10,340	14,970	11,970	16,775	13,470	17,835	14,375
Operating weight *	lb	27,810	27,865	29,430	29,540	31,910	32,255	32,980	33,355
Tire sizes		17.5R25 L3		17.5R25 L3		20.5R25 L3		20.5R25 L3	

Light Material Density		L 524		L 528		L 538		L 542	
		STD	HL	STD	HL	STD	HL	STD	HL
Geometry		PK-QC	PK-QC	PK-QC	PK-QC	PK-QC	PK-QC	PK-QC	PK-QC
Cutting tools		BOCE	BOCE	BOCE	BOCE	BOCE	BOCE	BOCE	BOCE
Bucket capacity	yd ³	6.5	4.6	7.2	5.2	7.8	5.9	8.8	6.5
Bucket width	ft in	8'10"	8'2"	8'10"	8'10"	8'10"	8'10"	9'8"	8'10"
A Dumping height at max. lift height	ft in	14'8"	17'3"	14'7"	17'3"	14'8"	17'3"	14'6"	17'3"
E Max. operating height	ft in	21'4"	22'8"	21'9"	22'11"	22'2"	23'3"	22'5"	23'6"
F Reach at max. lift height	ft in	5'5"	4'10"	5'6"	4'10"	5'4"	4'9"	5'3"	4'10"
L Overall length	ft in	25'9"	27'5"	25'10"	27'5"	26'7"	28'3"	26'11"	28'5"
Tipping load, straight *	lb	15,090	11,420	17,705	13,340	20,415	15,540	21,605	16,800
Tipping load, articulated at 40° *	lb	13,315	10,075	15,630	11,775	17,990	13,715	19,050	14,815
Operating weight *	lb	27,890	28,220	29,385	29,740	31,570	32,055	32,915	33,180
Tire sizes		17.5R25 L3		17.5R25 L3		20.5R25 L3		20.5R25 L3	

* The figures shown here are valid with tires above and include all lubricants, a full fuel tank, the ROPS/FOPS cab and the operator. Different tires and optional equipment will change the operating weight and tipping load. (Tipping load, articulated at 40° according to ISO 14397-1)

STD = Standard lift arm length

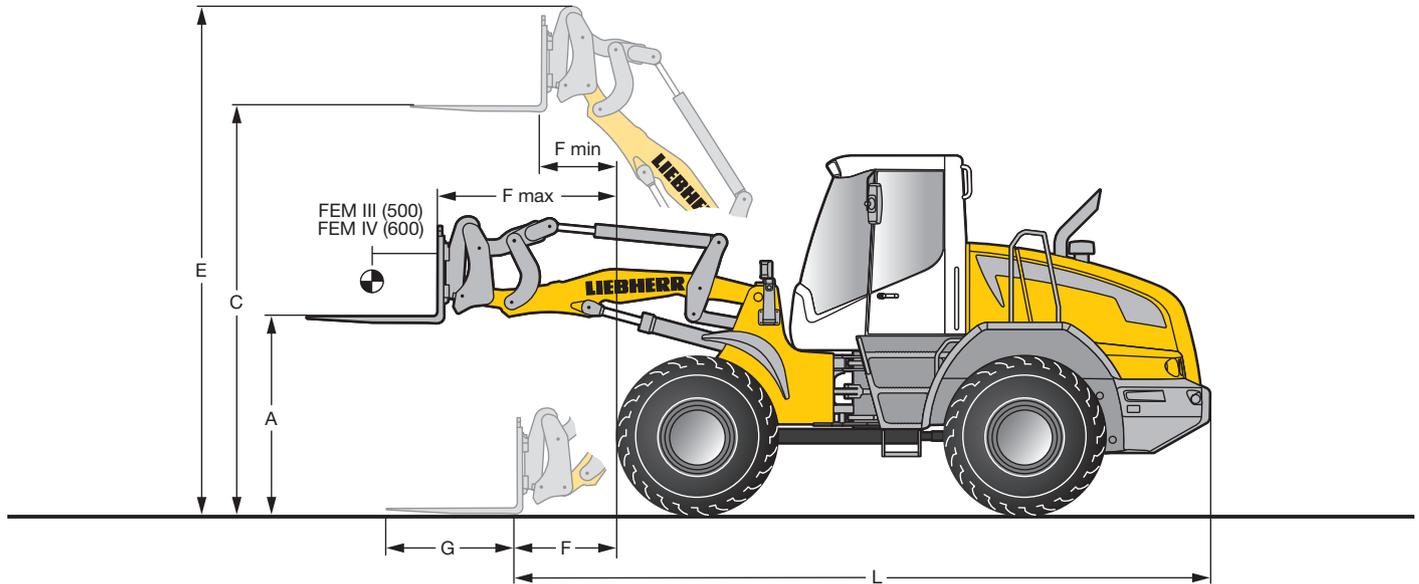
HL = High Lift

PK-QC = Parallel linkage including hydraulic quick coupler

BOCE = Bolt-on cutting edge

Attachment

Fork Carrier and Fork



Fork Carrier and Fork		L 524		L 528		L 538		L 542		L 538		L 542	
				FEM III				FEM IV					
Fork		ZK-QC	PK-QC	ZK-QC	PK-QC	ZK-QC	PK-QC	ZK-QC	PK-QC	ZK-QC	PK-QC	ZK-QC	PK-QC
Geometry													
Lift arm length		ft in	7'10" 8'2"	7'10" 8'2"	8'2" 8'2"	8'2" 8'2"	8'2" 8'2"	8'2" 8'2"	8'2" 8'2"	8'2" 8'2"	8'2" 8'2"	8'2" 8'2"	8'2" 8'2"
A	Lifting height at max. reach	ft in	5'7" 5'7"	5'7" 5'7"	5'10" 5'8"	5'10" 5'8"	5'10" 5'8"	5'10" 5'8"	5'9" 5'8"	5'9" 5'8"	5'9" 5'8"	5'9" 5'8"	5'8" 5'8"
C	Max. lifting height	ft in	11'9" 12'	11'9" 12'	12'3" 12'2"	12'3" 12'2"	12'3" 12'2"	12'3" 12'2"	12'2" 12'	12'2" 12'	12'2" 12'	12'2" 12'	12' 12'
E	Max. operating height	ft in	14'10" 15'	14'10" 15'	15'4" 15'2"	15'4" 15'2"	15'4" 15'2"	15'4" 15'2"	15'5" 15'1"	15'5" 15'1"	15'5" 15'1"	15'5" 15'1"	15'1" 15'1"
F	Reach at loading position	ft in	3'2" 3'8"	3'2" 3'7"	3'1" 3'2"	3'1" 3'2"	3'1" 3'2"	3'1" 3'2"	3'2" 3'3"	3'2" 3'3"	3'2" 3'3"	3'2" 3'3"	3'3" 3'3"
F max.	Max. reach	ft in	5'4" 5'8"	5'4" 5'8"	5'4" 5'4"	5'4" 5'4"	5'4" 5'4"	5'4" 5'4"	5'4" 5'3"	5'4" 5'3"	5'4" 5'3"	5'4" 5'3"	5'3" 5'3"
F min.	Reach at max. lifting height	ft in	2'3" 2'7"	2'3" 2'6"	2'3" 2'3"	2'3" 2'3"	2'3" 2'3"	2'3" 2'3"	2'3" 3'2"	2'3" 3'2"	2'3" 3'2"	2'3" 3'2"	3'2" 3'2"
G	Fork length	ft in	3'11" 3'11"	3'11" 3'11"	3'11" 3'11"	3'11" 3'11"	3'11" 3'11"	3'11" 3'11"	3'11" 3'11"	3'11" 3'11"	3'11" 3'11"	3'11" 3'11"	3'11" 3'11"
L	Length – basic machine without forks	ft in	20'4" 20'9"	20'4" 20'9"	20'10" 21'	20'10" 21'	20'10" 21'	20'10" 21'	20'9" 20'11"	20'9" 20'11"	20'9" 20'11"	20'9" 20'11"	20'11" 20'11"
Tipping load, straight *		lb	13,230 14,285	14,860 16,225	17,370 17,965	18,630 19,290	17,220 17,815	18,475 19,070					
Tipping load, articulated at 40° *		lb	11,685 12,565	13,050 14,350	15,300 15,875	16,425 16,995	15,125 15,695	16,315 16,865					
Recommended payload for uneven ground = 60% of tipping load, articulated ¹⁾		lb	7,010 7,540	7,890 8,600	9,150 9,525	9,835 10,185	8,975 9,415	9,745 10,030					
Recommended payload for smooth surfaces = 80% of tipping load, articulated ¹⁾		lb	8,840 ²⁾ 10,095	9,260 ²⁾ 11,025 ³⁾	11,025 ³⁾ 11,025 ³⁾	11,025 ³⁾ 11,025 ³⁾	11,575 12,565	11,905 ²⁾ 13,230					
Operating weight *		lb	23,370 24,825	24,825 26,235	28,000 28,440	29,055 29,365	28,660 28,990	29,540 29,870					
Tire sizes			17.5R25 L3	17.5R25 L3	20.5R25 L3	20.5R25 L3	20.5R25 L3	20.5R25 L3					

* The figures shown here are valid with tires above and include all lubricants, a full fuel tank, the ROPS/FOPS cab and the operator. Different tires and optional equipment will change the operating weight and tipping load. (Tipping load, articulated at 40° according to ISO 14397-1)

¹⁾ According to EN 474-3

²⁾ Payload on forks is limited by tilt cylinder

³⁾ Load capacity for the fork carrier and forks is limited to 11,025 lb

ZK-QC = Z-bar linkage including hydraulic quick coupler

PK-QC = Parallel linkage including hydraulic quick coupler

Bucket Selection

L 524

Lift arm	Bucket	Material density (lb/yd³)											
		674	1,011	1,348	1,686	2,023	2,360	2,697	3,034	3,371			
ZK	GPB 2.7 yd³									3.0		2.7	
ZK-OC	GPB 2.4 yd³									2.6		2.4	
	LMB 3.1 yd³				3.4		3.1						
PK-OC	GPB 2.4 yd³									2.6		2.4	
	LMB 3.9 yd³				4.3		3.9						
	LMB 7.2 yd³	7.2											
	HDB 3.9 yd³				4.3		3.9						
PK-OC-HL	GPB 2.4 yd³									2.6		2.4	
	LMB 3.3 yd³				3.7		3.3						
	LMB 5.2 yd³	5.2											
	HDB 2.9 yd³				3.1		2.9						
	HDB 4.6 yd³	4.6											

L 528

Lift arm	Bucket	Material density (lb/yd³)												
		674	1,011	1,348	1,686	2,023	2,360	2,697	3,034	3,371				
ZK	GPB 3.0 yd³											3.3		3.0
ZK-OC	GPB 2.7 yd³											3.0		2.7
	LMB 3.9 yd³				4.3		3.9							
PK-OC	STD 2.7 yd³											3.0		2.7
	LMB 4.6 yd³				5.1		4.6							
	LMB 7.8 yd³	7.8												
	HDB 4.6 yd³				5.1		4.6							
PK-OC-HL	GPB 2.7 yd³											3.0		2.7
	LMB 3.9 yd³				4.3		3.9							
	LMB 5.9 yd³	5.9												
	HDB 3.3 yd³				3.7		3.3							
	HDB 5.2 yd³	5.2												

L 538

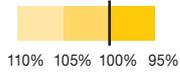
Lift arm	Bucket	Material density (lb/yd³)												
		674	1,011	1,348	1,686	2,023	2,360	2,697	3,034	3,371				
ZK	GPB 3.4 yd³											3.8		3.4
ZK-OC	GPB 3.0 yd³											3.3		3.0
	LMB 4.6 yd³				5.1		4.6							
PK-OC	GPB 3.0 yd³											3.3		3.0
	LMB 5.2 yd³				5.8		5.2							
	LMB 8.5 yd³	8.5												
	HDB 5.2 yd³				5.8		5.2							
PK-OC-HL	HDB 7.8 yd³	7.8												
	GPB 3.0 yd³											3.3		3.0
	LMB 4.6 yd³				5.1		4.6							
	LMB 6.5 yd³	6.5												
	HDB 3.9 yd³				4.3		3.9							
	HDB 5.9 yd³	5.9												

L 542

Lift arm	Bucket	Material density (lb/yd³)												
		674	1,011	1,348	1,686	2,023	2,360	2,697	3,034	3,371				
ZK	GPB 3.7 yd³											4.1		3.7
ZK-OC	GPB 3.3 yd³											3.7		3.3
	LMB 5.2 yd³				5.8		5.2							
PK-OC	GPB 3.3 yd³											3.7		3.3
	LMB 5.9 yd³				6.5		5.9							
	LMB 9.2 yd³	9.2												
	HDB 5.9 yd³				6.5		5.9							
PK-OC-HL	HDB 8.8 yd³	8.8												
	GPB 3.3 yd³											3.7		3.3
	LMB 5.2 yd³				5.8		5.2							
	LMB 7.2 yd³	7.2												
	HDB 4.6 yd³				5.1		4.6							
	HDB 6.5 yd³	6.5												

Bucket Selection

Bucket Filling Factor



Lift Arm

ZK	Z-bar linkage, standard lift arm length
ZK-QC	Z-bar linkage including hydraulic quick coupler, standard lift arm length
PK-QC	Parallel linkage including hydraulic quick coupler, standard lift arm length
PK-QC-HL	Parallel linkage including hydraulic quick coupler, High Lift

Bucket

GPB	General purpose bucket (Rehandling bucket)
LMB	Light material bucket
HDB	High-dump bucket

Bulk Material Densities and Bucket Filling Factors

		lb/yd ³	%			lb/yd ³	%		lb/yd ³	%	
Gravel,	moist	3,203	105	Earth,	dry	2,191	115	Glass waste,	broken	2,360	100
	dry	2,697	105		wet excavated	2,697	110		solid	1,686	100
	crushed stone	2,528	100	Topsoil		1,854	110	Compost,	dry	1,348	105
Sand,	dry	2,528	105	Basalt		3,287	100		wet	1,686	110
	wet	3,203	110	Granite		3,034	95	Wood chips /	saw dust	843	110
Gravel and sand,	dry	2,865	105	Sandstone		2,697	100	Paper,	shredded / loose	1,011	110
	wet	3,371	100	Slate		2,950	100		recovered paper / cardboard	1,686	110
Sand / clay		2,697	110	Bauxite		2,360	100	Coal,	heavy material density	2,023	110
Clay,	natural	2,697	110	Limestone		2,697	100		light material density	1,517	110
	dry	2,360	110	Gypsum,	broken	3,034	100	Waste,	domestic waste	843	100
Clay / gravel,	dry	2,360	110	Coke		843	110		bulky waste	1,686	100
	wet	2,697	100	Slag,	broken	3,034	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.

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

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

The Liebherr Wheel Loaders

Wheel Loader



		L 524	L 528	L 538	L 542	L 550
Tipping load	lb	16,535	18,740	20,945	22,485	26,785
Bucket capacity	yd ³	2.7	3.0	3.4	3.7	4.2
Operating weight	lb	22,930	24,030	28,220	29,540	38,140
Engine output	kW/HP(I)	90/121	100/134	115/154	120/161	129/173

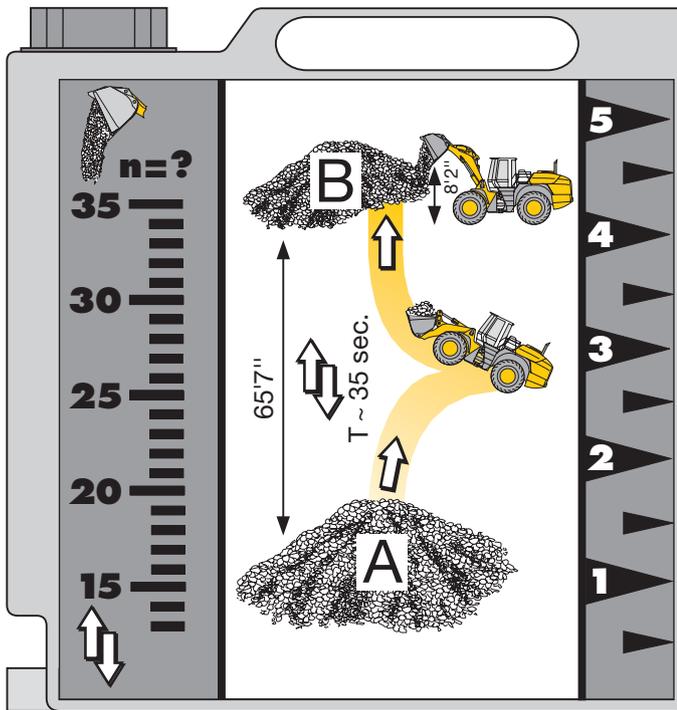
Wheel Loader



		L 556	L 566	L 580	L 586
Tipping load	lb	29,870	34,720	40,785	45,040
Bucket capacity	yd ³	4.7	5.2	6.5	7.2
Operating weight	lb	39,460	51,035	55,510	69,180
Engine output	kW/HP(I)	140/188	190/255	215/288	250/335

04.13

Environmental Protection Can Help You Earn Money!



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

The test consists on determining the number of loading cycles that can be carried out with 1.3 gal of diesel. The material is taken from pile A and carried over a distance of 65'7" 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 8'2". The working cycles continue until the 1.3 gal 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	Gallons/100 US tons	Gallons/hour	Ø Gallons/hour**
L 524: 2.7 yd ³	n = 47	0.82	2.25	1.88
L 528: 3.0 yd ³	n = 46	0.76	2.30	1.90
L 538: 3.4 yd ³	n = 39	0.79	2.72	2.25
L 542: 3.7 yd ³	n = 38	0.76	2.77	2.30
L 550: 4.2 yd ³	n = 31	0.82	3.41	2.88
L 556: 4.7 yd ³	n = 27	0.84	3.83	3.20
L 566: 5.2 yd ³	n = 22	0.93	4.81	3.99
L 580: 6.5 yd ³	n = 20	0.82	5.28	4.28
L 586: 7.2 yd ³	n = 14	1.05	7.53*	5.42

* Equipped with L5 tires and 7.2 yd³ HD bucket

** Wheel loader in practical customer applications (with individual machine configurations).

Tires



	Size and tread code		Change of operating weight lb	Width over tires ft in	Change in vertical dimensions ft in	Use
L 524/L 528						
Bridgestone	17.5R25 VUT	L2	- 104	8'	+ 0.16"	Gravel, Earthworks, Clay (all ground conditions)
Bridgestone	17.5R25 VJT	L3	+ 201	8'	+ 0.71"	Bulk material (firm ground conditions)
Bridgestone	17.5R25 VSDL	L5	+ 1,407	8'	+ 2.24"	Stone, Scrap, Recycling (firm ground conditions)
Bridgestone	20.5R25 VJT	L3	+ 1,182	8'	+ 2.76"	Bulk material (firm ground conditions)
Bridgestone	20.5R25 VSDL	L5	+ 2,643	8'	+ 4.80"	Stone, Scrap, Recycling (firm ground conditions)
Bridgestone	550/65R25 VTS	L3	+ 853	8'1"	+ 0.47"	Gravel (all ground conditions)
Goodyear	17.5R25 RT-3B	L3	+ 364	8'1"	+ 0.83"	Gravel (all ground conditions)
Goodyear	17.5R25 TL-3A+	L3	+ 514	8'1"	+ 0.91"	Sand, Gravel, Earthworks, Clay (all ground conditions)
Goodyear	17.5R25 RL-4K	L4	+ 1,224	8'1"	+ 1.65"	Gravel, Industry, Stone (firm ground conditions)
Goodyear	17.5R25 RL-5K	L5	+ 1,497	8'1"	+ 1.65"	Stone, Scrap, Recycling (firm ground conditions)
Goodyear	20.5R25 RT-3B	L3	+ 1,168	8'	+ 3.07"	Gravel (all ground conditions)
Goodyear	20.5R25 TL-3A+	L3	+ 1,488	8'1"	+ 2.87"	Sand, Gravel, Earthworks, Clay (all ground conditions)
Goodyear	20.5R25 GP-4D	L4	+ 1,867	8'	+ 3.23"	Gravel, Industry, Wood (firm ground conditions)
Goodyear	20.5R25 RL-4K	L4	+ 2,440	8'1"	+ 3.82"	Gravel, Industry, Stone (firm ground conditions)
Goodyear	20.5R25 RL-5K	L5	+ 2,802	8'1"	+ 4.37"	Stone, Scrap, Recycling (firm ground conditions)
Michelin	17.5R25 XTLA	L2	- 154	8'1"	+ 0.71"	Gravel, Earthworks, Clay (all ground conditions)
Michelin	17.5R25 XHA	L3	0	8'	0	Sand, Gravel (all ground conditions)
Michelin	17.5R25 XLD D2A	L5	+ 802	8'1"	+ 1.46"	Stone, Mining spoil (firm ground conditions)
Michelin	17.5R25 X MINE	L5	+ 1,208	8'2"	+ 2.32"	Stone, Scrap, Recycling (firm ground conditions)
Michelin	20.5R25 XTLA	L2	+ 877	8'	+ 2.17"	Gravel, Earthworks, Clay (all ground conditions)
Michelin	20.5R25 XHA2	L3	+ 1,144	8'	+ 2.44"	Sand, Gravel (all ground conditions)
Michelin	20.5R25 XLD D2A	L5	+ 2,094	8'	+ 3.62"	Stone, Mining spoil (firm ground conditions)
Michelin	20.5R25 X MINE	L5	+ 2,685	8'	+ 4.21"	Stone, Scrap, Recycling (firm ground conditions)
Michelin	550/65R25 XLD65	L3	+ 963	8'1"	+ 0.71"	Gravel (all ground conditions)
L 538/L 542						
Bridgestone	20.5R25 VJT	L3	+ 37	8'2"	+ 0.31"	Bulk material (firm ground conditions)
Bridgestone	20.5R25 VSDL	L5	+ 1,477	8'2"	+ 2.36"	Stone, Scrap, Recycling (firm ground conditions)
Bridgestone	550/65R25 VTS	L3	- 97	8'2"	- 1.97"	Gravel (all ground conditions)
Bridgestone	650/65R25 VTS	L3	+ 1,312	8'8"	+ 0.63"	Gravel (all ground conditions)
Goodyear	20.5R25 RT-3B	L3	+ 24	8'2"	+ 0.63"	Gravel (all ground conditions)
Goodyear	20.5R25 TL-3A+	L3	+ 344	8'2"	+ 0.43"	Sand, Gravel, Earthworks, Clay (all ground conditions)
Goodyear	20.5R25 GP-4D	L4	+ 723	8'1"	+ 0.79"	Gravel, Industry, Wood (firm ground conditions)
Goodyear	20.5R25 RL-4K	L4	+ 1,296	8'2"	+ 1.38"	Gravel, Industry, Stone (firm ground conditions)
Goodyear	20.5R25 RL-5K	L5	+ 1,658	8'2"	+ 1.93"	Stone, Scrap, Recycling (firm ground conditions)
Michelin	20.5R25 XTLA	L2	- 267	8'3"	- 0.28"	Gravel, Earthworks, Clay (all ground conditions)
Michelin	20.5R25 XHA2	L3	0	8'2"	0	Sand, Gravel (all ground conditions)
Michelin	20.5R25 XLD D2A	L5	+ 950	8'2"	+ 1.18"	Stone, Mining spoil (firm ground conditions)
Michelin	20.5R25 X MINE	L5	+ 1,541	8'1"	+ 1.77"	Stone, Scrap, Recycling (firm ground conditions)
Michelin	550/65R25 XLD65	L3	- 181	8'2"	- 1.73"	Gravel (all ground conditions)
Michelin	650/65R25 XLD65	L3	+ 1,054	8'8"	- 0.28"	Gravel (all ground conditions)

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

Equipment



Basic Wheel Loader

	524	528	538	542
Crash protection, rear	•	•	•	•
Access to facilitate windscreen cleaning	•	•	•	•
Exhaust pipe – stainless steel	+	+	+	+
Automatic central lubrication system	+	+	+	+
Battery master switch	•	•	•	•
Diesel particle filter	•	•	•	•
Electronical theft protection	+	+	+	+
Electronic tractive force regulation for difficult ground conditions	•	•	•	•
Automatic travel mode	•	•	•	•
Speed range selection	•	•	•	•
Driver identification (in conjunction with electronic theft lock)	+	+	+	+
Ride control	•	•	•	•
Parking brake	•	•	•	•
Particle protection for radiator	+	+	+	+
Speed limitation, 12.4 mph	+	+	+	+
Speed limitation V _{max}	•	•	•	•
Large-mesh radiator	•	•	•	•
Pre-heat system for cold starting	•	•	•	•
Combined inching-braking system	•	•	•	•
Fuel tank steel version	+	+	+	+
Multi-disc limited slip differentials in both axles	•	•	•	•
LIDAT (Liebherr Data Transfer System) – one year free of charge	•	•	•	•
Liebherr biodegradable hydraulic oil	+	+	+	+
Reversible fan drive	•	•	•	•
Air cleaner system with pre-filter	•	•	•	•
Emergency steering system	•	•	•	•
Reversing obstruction detector	+	+	+	+
Back-up alarm audible	•	•	•	•
Back-up alarm visual	+	+	+	+
Tail lights, single version	•	•	•	•
Rear-view monitoring camera (integrated in display unit)	+	+	+	+
Headlights front, single version (on front-chassis) – halogen	•	•	•	•
Lockable doors, service flap and engine hood	•	•	•	•
Widening for fender and rear mudguard (steel design)	+	+	+	+
Rubber widening for rear mudguards	+	+	+	+
Air pre-cleaner Top-Air	+	+	+	+
Hazard warning lights	•	•	•	•
Toolbox with toolkit	+	+	+	+
Weighing device for approved or non-approved weighing (integrated in display unit)	+	+	+	+
Towing hitch	•	•	•	•



Operator's Cab

	524	528	538	542
Storage box	•	•	•	•
Armrest, adjustable	•	•	•	•
Exterior mirror, tiltabel	•	•	•	•
Exterior mirror, heated	+	+	+	+
Fold-out window (operator's door)	+	+	+	+
Operator's package	•	•	•	•
Operator's seat (mechanically sprung)	+	+	+	+
Operator's seat – air sprung with seat heating	•	•	•	•
Operator's seat – air sprung without seat heating	+	+	+	+
Fire extinguisher 4 lb	•	•	•	•
Cup holder	•	•	•	•
Rear window heater	•	•	•	•
Horn	•	•	•	•
Joystick steering	+	+	+	+
Floor mat	•	•	•	•
Clothes hook	•	•	•	•
Air conditioning system (manual)	•	•	•	•
Automatic air conditioning system	+	+	+	+
Storage box with cooling function	+	+	+	+
Steering column, height-adjustable	+	+	+	+
Steering column, adjustable	•	•	•	•
Liebherr joystick control – adjustable	•	•	•	•
Premium Display, Touchscreen (display unit)	+	+	+	+
Radio set	+	+	+	+
Provision for radio including loudspeaker	•	•	•	•
Interior rear-view mirror	•	•	•	•
Amber beacon	+	+	+	+
Soundproof ROPS/FOPS cab	•	•	•	•
Wash/wipe system for windscreen and rear window	•	•	•	•
Headlights rear, single or double version – halogen/LED	+	+	+	+
Headlights front, double version – halogen	•	•	•	•
Headlights front, double version – LED	+	+	+	+
Headlights front, single version – XENON	+	+	+	+
Protective ventilation system	+	+	+	+
Windscreen guard	+	+	+	+
Sun visor	•	•	•	•
Sunblind front/rear	+	+	+	+
Dust filter system	+	+	+	+
12 V Outlet	•	•	•	•
First aid kit	+	+	+	+
Hot water heater with defroster and recirculated-air system	•	•	•	•
Wide angle mirror	+	+	+	+



Audible Warnings for

	524	528	538	542
Quick coupler, opened	•	•	•	•
Coolant level	•	•	•	•
Charge air/fuel temperature too high	•	•	•	•
Steering system / braking system	•	•	•	•
Engine oil pressure	•	•	•	•
Reversing obstruction detector	+	+	+	+
Back-up alarm	•	•	•	•
Service codes	•	•	•	•
Overheating of coolant, fuel, hydraulic oil	•	•	•	•



Display Unit

	524	528	538	542
Working hydraulics lockout	•	•	•	•
Automatic central lubrication system	+	+	+	+
Battery charge	•	•	•	•
Operating voltage	+	+	+	+
Timer for hours of operation	•	•	•	•
Indicator light / Hazard warning lights / High beam	•	•	•	•
Brake accumulator pressure	•	•	•	•
Date/outside temperature	+	+	+	+
Diesel particle filter	•	•	•	•
Rev. Counter	•	•	•	•
Speed range indicator	•	•	•	•
Driver identification	+	+	+	+
Travel speed	•	•	•	•
Travel direction	•	•	•	•
Parking brake	•	•	•	•
Gear level	•	•	•	•
Heater / Air conditioning	+	+	+	+
Hydraulic oil temperature	•	•	•	•
Joystick steering	+	+	+	+
Fuel level	•	•	•	•
Fuel consumption	+	+	+	+
Coolant temperature	•	•	•	•
Reversible fan drive	•	•	•	•
Engine oil pressure	+	+	+	+
Emergency steering system	•	•	•	•
Service codes	•	•	•	•
System and function settings	+	+	+	+
Time	•	•	•	•
Weighing device	+	+	+	+



Warning Symbols for

	524	528	538	542
Battery charge	•	•	•	•
Brake accumulator pressure	•	•	•	•
Diesel particle filter	•	•	•	•
Air cleaner blockage	•	•	•	•
Engine oil pressure	•	•	•	•
Emergency steering system	•	•	•	•
Reversing obstruction detector	+	+	+	+
Engine overspeed	•	•	•	•



Equipment

	524	528	538	542
Working hydraulics lockout	•	•	•	•
Automatic hoist kick out – adjustable	•	•	•	•
Automatic bucket return to dig – adjustable	•	•	•	•
Fork carrier and lift forks	+	+	+	+
High-dump bucket	+	+	+	+
Log Grapple	+	+	+	+
Hydraulic quick coupler – Z-bar linkage	+	+	+	+
Hydraulic servo control of working hydraulics	•	•	•	•
Tilt cylinder protection	+	+	+	+
Loading buckets with and without teeth, or bolt-on cutting edge	+	+	+	+
Country-specific versions	+	+	+	+
Light material bucket	+	+	+	+
LIKUFIX	+	+	+	+
Parallel linkage including quick coupler	+	+	+	+
Parallel linkage including quick coupler – High Lift version	+	+	+	+
Load holding valves	+	+	+	+
Float position	•	•	•	•
Z-bar linkage	•	•	•	•
3rd hydraulic control circuit	+	+	+	+
3rd and 4th hydraulic control circuits	+	+	+	+

• = 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 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 and mining trucks.

Worldwide and Independent

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

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