

Wheel Loaders

L 550 - L 580

Tipping Load, articulated: 26,785 lb – 40,785 lb



LIEBHERR

L 550

Tipping Load, articulated: 26,785 lb
Bucket Capacity: 4.2 yd³
Operating Weight: 38,140 lb
Engine Output: 173 HP(l)/129 kW

L 556

Tipping Load, articulated: 29,870 lb
Bucket Capacity: 4.7 yd³
Operating Weight: 39,460 lb
Engine Output: 188 HP(l)/140 kW

L 566

Tipping Load, articulated: 34,720 lb
Bucket Capacity: 5.2 yd³
Operating Weight: 51,035 lb
Engine Output: 255 HP(l)/190 kW

L 580

Tipping Load, articulated: 40,785 lb
Bucket Capacity: 6.5 yd³
Operating Weight: 55,510 lb
Engine Output: 288 HP(l)/215 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 Liebherr diesel engine. In the wheel loaders L 550 – L 556 the diesel engine is rotated 90° and mounted transverse to the direction of travel. In the L 566 – L 580 it is mounted lengthways in the rear, with the output shaft facing backwards. 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.

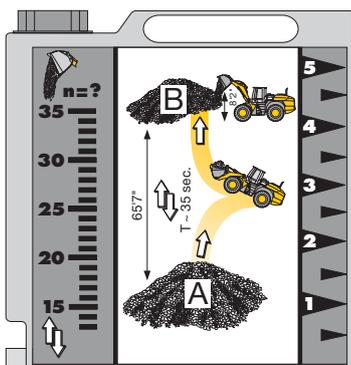
Reliability

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, standard Liebherr ride control, optimum weight distribution and easy service access lead to extraordinary overall comfort.

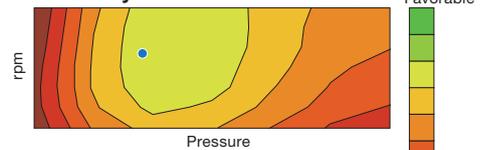




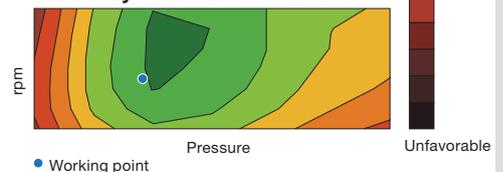
Lower Fuel Consumption

- Up to 25% less fuel consumption when compared to conventionally driven machines.
- The Liebherr wheel loaders demonstrate their fuel economy 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

Liebherr wheel loaders are unbeatable for economy compared to conventionally driven wheel loaders. This is 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 large wheel loaders use the same amount of fuel compared to their predecessors in the Tier 3 generation.
- 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.
- Thanks to this technology it was possible to prevent an increase of fuel consumption from Tier 3 to Tier 4i. LPE also saves up to an additional 8% in fuel compared to wheel loaders where the system is not used.



Reduced Tire Wear

- The tractive force can be adjusted continuously. This stops wheel spins and reduces tire wear by up to 25%.

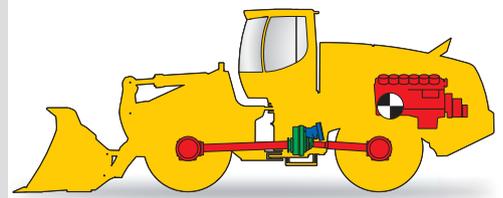
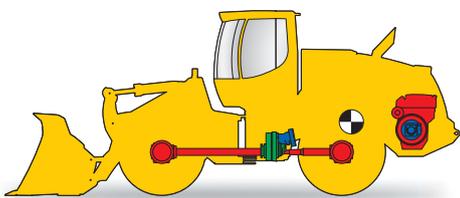
Reduced Brake Wear

- 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 L 550 – L 556

- 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 Liebherr diesel engine. In the wheel loaders L 550 – L 556 the diesel engine is rotated 90° and mounted transverse to the direction of travel. In the L 566 – L 580 it is mounted lengthways in the rear, with the output shaft facing backwards. 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 Liebherr 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

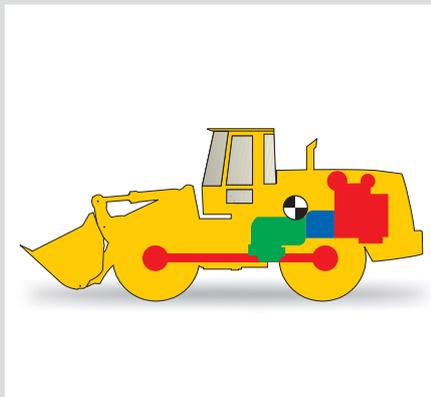
An All-Purpose Loader

The industrial lift arm is available as an alternative to the standard Z-bar linkage, at no additional cost. The industrial lift arm 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 industrial lift arm Liebherr can now offer a continuous and uniform solution for industrial operations over the entire range of large machines. With their compact design, Liebherr wheel loaders can maneuver quickly and efficiently – the best choice for high handling capacities.



Liebherr Driveline L 566 – L 580

- Optimum weight distribution due to the Liebherr diesel engine installed lengthways and the output shaft facing the rear of the machine.
- 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.



Conventional Travel Gear

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



Cooling System

- The cooling system is mounted between the diesel engine and the cab on the rear chassis, where it can draw in clean air. The speed of the fan is dependent on the cooling capacity, with thermosensors ensuring optimum fan speed.
- To improve visibility, the cooling system has been mounted lengthways and the unit has been redesigned to make cleaning and maintenance even easier.
- The cooling system has been adjusted to meet the demands of the new engine technology.
- The reversible fan drive is a standard feature, a particle protection for the radiator and a large-mesh radiator are also available as options to prevent contamination in especially dusty atmospheres and to make cleaning easier. Minimum cleaning effort translates into more efficient work.

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 Liebherr 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 the diesel engine, 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.

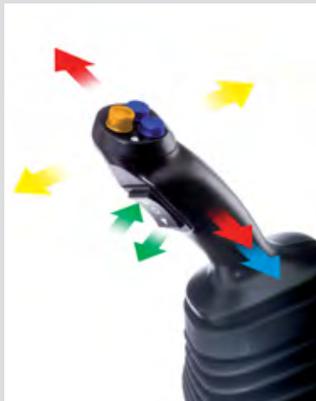


Liebherr's Own Components

- Liebherr has many years of experience in design, development and construction of diesel engines, hydraulic cylinders and electronic components. They are matched together down to the smallest detail to guarantee optimum interaction and performance.

Liebherr Diesel Engine

- Common Rail technology optimizes the combustion process and thus 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 multi-function 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 overall safety. The operator controls the following functions with his right hand:

- Raise and lower attachment
- Fill and dump the bucket
- Automatic bucket return to dig
- Kick down and Gear Hold function
- Auxiliary control buttons for additional hydraulic functions
- Change of travel direction with simultaneous travel start





Comfort

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

First-Class Cab Design

Comfort Cab

The operator's cab has been designed to ensure maximum comfort, enhance productivity, and ergonomics. Tool controls and displays are strategically arranged for ease of operation. The newly developed mounting system substantially reduces noise and vibration in the cab's interior.

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.

LPE Accelerator Pedal

- The operator actuates the accelerator pedal in the usual way. The machine software calculates the most efficient way of putting the drive command into practice.
- The effectiveness and efficiency of the Liebherr travel drive are further optimized by LPE – the familiar, comfortable driving behavior of the wheel loader remains unchanged, while agility and response are improved.



Powerful Air-Conditioning System

- The air-conditioning system comes standard on large wheel loaders providing the greatest operator comfort for increased productivity.
- The air flow is controlled at 4 different levels – an automatic air-conditioning system is available as an option.
 - Air flow in the foot area
 - Defroster
 - Air flow in the head area
 - Air flow in the body area



Service Accessibility L 550 – L 556



Opening stage 2

Opening stage 1



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 550 – L 580 wheel loaders and it includes a one-year free trial.

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.

L 550 – L 556

All service points can be reached from ground level for routine maintenance. The engine cover can be opened in two stages. 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.

L 566 – L 580

By opening a single engine compartment hood, the hydraulic pumps, hydraulic tank cut-off valve, air filter, and battery main switch can be reached easily from ground level. As usual, work on the cooling system, diesel engine, and pump distributor gear is carried out while positioned on the machine. Great care has been taken to ensure maximum safety in these areas as well.



Service Accessibility L 566 – L 580



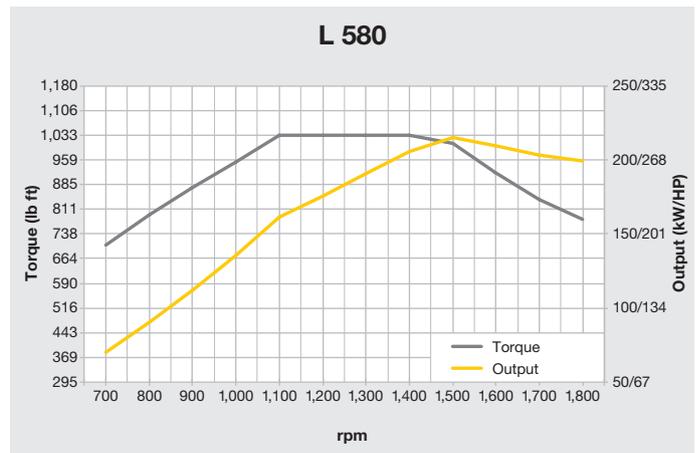
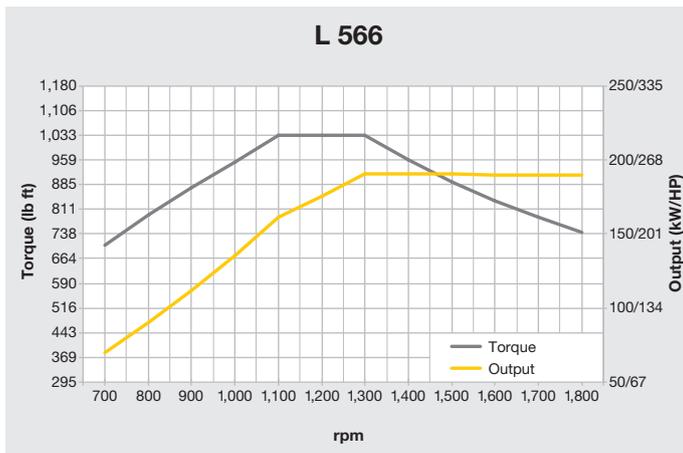
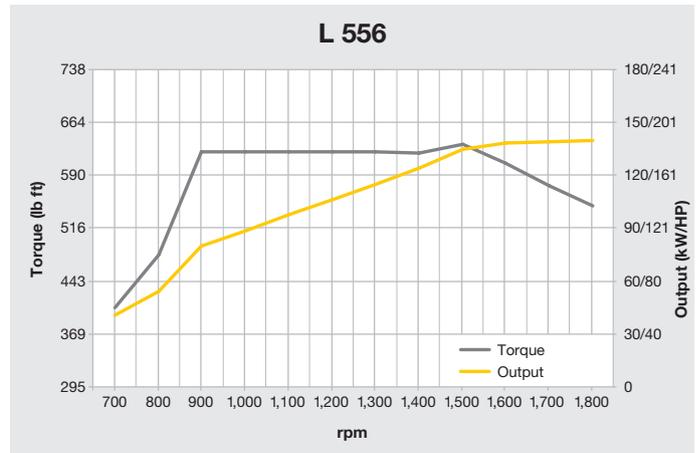
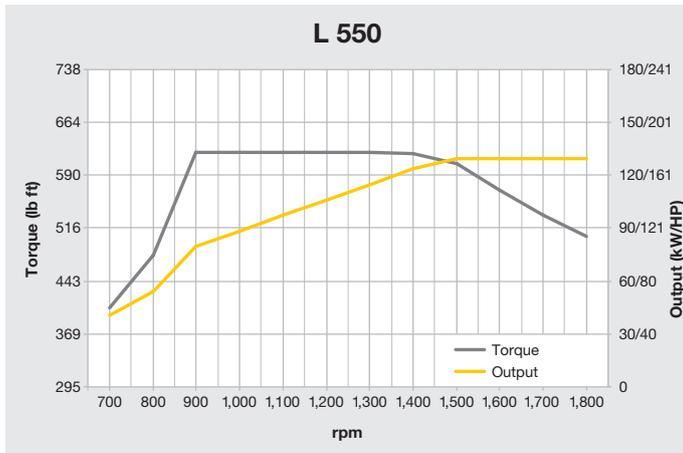
Technical Data



Engine L 550 L 556 L 566 L 580

Liebherr diesel engine	D934 A7	D934 A7	D936 A7	D936 A7
Design	Water-cooled with 2-stage turbo charging, externally cooled exhaust gas recirculation and diesel particle filter			
Cylinder inline	4	4	6	6
Fuel injection process	Electronic Common Rail high-pressure injection			
Max. output to SAE J1349	HP(l)/kW 173/129	188/140	255/190	288/215
at rpm 1,500		1,500	1,300	1,500
Max. torque	lb ft 622	632	1,033	1,033
at rpm 1,300		1,500	1,300	1,100
Displacement	in ³ 428	428	642	642
Bore/Stroke	in 4.8"/5.91"	4.8"/5.91"	4.8"/5.91"	4.8"/5.91"
Air cleaner	Dry type 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 140	2 x 140	2 x 180	2 x 180
Alternator	V/A 28/100	28/100	28/100	28/100
Starter motor	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 with one axle transfer case. Direction of travel in 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 directional forces steplessly at full engine speed. The Liebherr joystick is used to control forward and reverse travel

Travel speed range _____

Speed range 1	0 – 6.2 mph
Speed range 2 and A2	0 – 12.4 mph
Speed range A3	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 13° oscillating angle to each side

L 550	L 556	L 566	L 580
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Height of obstacles which can be driven over _____

1'6.1"	1'6.1"	1'7.3"	1'7.3"
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With all four wheels remaining in contact with the ground

Differentials _____ Automatic limited-slip differentials

Reduction gear _____ Planetary final drive in wheel hubs

Track width _____ 6'7" with all types of tires (L 550, L 556)
7'4" with all types of tires (L 566, L 580)



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 (two separate brake circuits)

Parking brake _____ Electro-hydraulically actuated spring-loaded disc brake system on the transmission

The braking system meets the requirements of the 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, damped steering cylinders

Angle of articulation _____ 40° (to each side)

Emergency steering _____ Electro-hydraulic emergency steering system



Attachment Hydraulics

Design _____ "Load-sensing" swash plate type variable flow pump with output and flow control, and pressure cut-off in the control block

Cooling _____ Hydraulic oil cooling using thermostatically controlled fan and oil cooler

Filtering _____ Return line filter in the hydraulic reservoir

Control _____ "Liebherr-Joystick" with hydraulic servo control

Lift circuit _____ Lifting, neutral, lowering and float positions controlled by Liebherr joystick with detent

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

L 550	L 556	L 566	L 580
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Max. flow _____ gpm 62 | 62 | 77 | 77

Max. pressure _____

Z-bar linkage	psi 4,786	5,221	5,076	5,511
Industrial lift arm	psi 5,076	5,511	5,511	5,511



Attachment

Geometry _____ Powerful Z-bar linkage with tilt cylinder and cast steel cross-tube

Bearings _____ Sealed

Cycle time at nominal load _____

L 550	L 556	L 566	L 580
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Z-bar linkage

Lifting	5.5 s	5.5 s	5.5 s	5.5 s
Dumping	2.3 s	2.3 s	2.0 s	2.0 s
Lowering (empty)	2.7 s	2.7 s	3.5 s	3.5 s

Industrial lift arm

Lifting	5.5 s	5.5 s	5.5 s	5.5 s
Dumping	3.5 s	3.5 s	3.0 s	3.2 s
Lowering (empty)	2.7 s	2.7 s	3.5 s	3.5 s



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 side 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, heated rear window

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 belt, passive climate system and heating system; air suspension with 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 conditioning as standard



Noise Emission

ISO 6396	L 550	L 556	L 566	L 580
L_{pA} (inside cab)	68 dB(A)	68 dB(A)	68 dB(A)	68 dB(A)
2000/14/EC				
L_{WA} (surround noise)	104 dB(A)	104 dB(A)	105 dB(A)	105 dB(A)

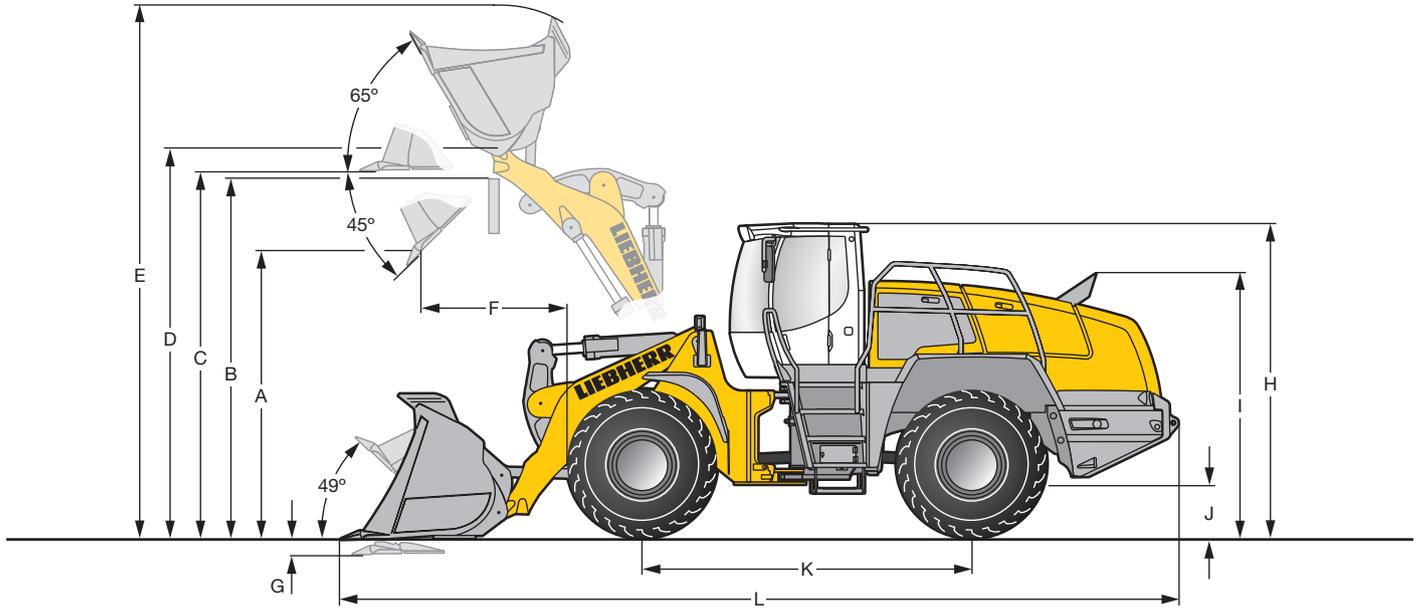


Capacities

Fuel tank	gal 79	79	106	106
Engine oil (including filter change)	gal 10.6	10.6	11.6	11.6
Pump distribution gearbox	gal 0.7	0.7	0.7	0.7
Transmission	gal 3.0	3.0	3.0	3.0
Coolant	gal 11.1	11.1	13.7	13.7
Front axle	gal 9.2	9.2	11.1	11.1
Rear axle	gal 9.2	9.2	10.6	11.1
Hydraulic tank	gal 35.7	35.7	35.7	35.7
Hydraulic system, total	gal 64.7	64.7	70.0	70.0
Air condition system R134a	lb 2.8	2.8	2.8	2.8

Dimensions

Z-bar Linkage



Loading Bucket

		L 550		L 556		L 566		L 580	
		ZK	T	ZK	T	ZK	T	ZK	T
Geometry									
Cutting tools									
Lift arm length	ft in	8'6"	8'6"	8'6"	8'6"	9'7"	9'7"	10'	10'
Bucket capacity according to ISO 7546 **	yd ³	4.2	4.7	4.7	5.2	5.2	5.9	6.5	7.2
Bucket width	ft in	8'10"	8'10"	8'10"	8'10"	9'10"	9'10"	10'10"	10'10"
A Dumping height at max. lift height and 45° discharge	ft in	9'5"	9'2"	9'4"	9'1"	10'8"	10'5"	10'11"	10'8"
B Dump-over height	ft in	11'6"	11'6"	11'6"	11'6"	12'10"	12'10"	13'5"	13'5"
C Max. height of bucket bottom	ft in	12'	12'	12'	12'	13'3"	13'3"	14'	14'
D Max. height of bucket pivot point	ft in	12'10"	12'10"	12'10"	12'10"	14'4"	14'4"	15'	15'
E Max. operating height	ft in	17'8"	17'9"	17'11"	18'	19'3"	19'7"	20'10"	21'1"
F Reach at max. lift height and 45° discharge	ft in	3'7"	4'	3'10"	4'	3'10"	4'1"	3'9"	4'
G Digging depth	ft in	3"	3"	3"	3"	4"	4"	4"	4"
H Height above cab	ft in	11'	11'	11'	11'	11'9"	11'9"	11'9"	11'9"
I Height above exhaust	ft in	9'11"	9'11"	9'11"	9'11"	9'10"	9'10"	9'10"	9'10"
J Ground clearance	ft in	1'7"	1'7"	1'7"	1'7"	1'9"	1'9"	1'9"	1'9"
K Wheelbase	ft in	10'10"	10'10"	10'10"	10'10"	12'5"	12'5"	12'10"	12'10"
L Overall length	ft in	27'2"	27'2"	27'2"	27'7"	30'5"	30'8"	31'8"	32'
Turning circle radius over outside bucket edge	ft in	21'2"	21'3"	21'3"	21'4"	24'10"	24'11"	25'11"	26'1"
Breakout force (SAE)	lbf	31,475	29,225	33,720	31,475	44,960	42,715	42,715	39,340
Tipping load, straight *	lb	30,390	29,805	33,885	33,235	40,115	39,200	46,795	46,275
Tipping load, articulated at 37° *	lb	27,140	26,785	30,300	29,870	35,495	34,745	41,555	41,140
Tipping load, articulated at 40° *	lb	26,785	26,300	29,870	29,320	34,725	34,015	40,785	40,345
Operating weight *	lb	38,140	38,370	39,460	39,725	51,035	51,255	55,510	55,845
Tire sizes		23.5R25 L3		23.5R25 L3		26.5R25 L3		26.5R25 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 pages 24.

 = Excavation bucket with back grading edge for direct mounting

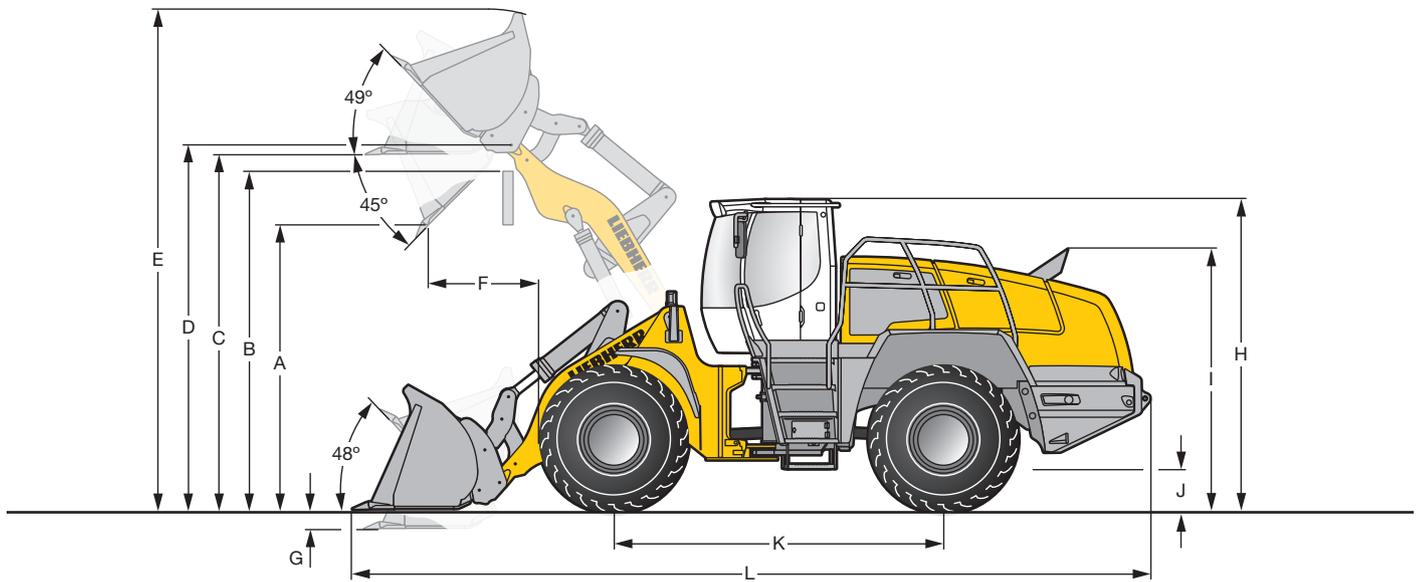
 = Rehandling bucket for direct mounting

ZK = Z-bar linkage

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

Dimensions

Industrial Lift Arm



Loading Bucket		L 550	L 556	L 566	L 580
Geometry		IND-QC	IND-QC	IND-QC	IND-QC
Cutting tools		T	T	T	T
Lift arm length	ft in	8'6"	8'6"	9'6"	9'6"
Bucket capacity according to ISO 7546 **	yd ³	3.9	4.3	4.6	5.9
Bucket width	ft in	8'10"	8'10"	9'10"	9'10"
A Dumping height at max. lift height and 45° discharge	ft in	9'5"	9'4"	10'6"	10'1"
B Dump-over height	ft in	11'6"	11'6"	12'10"	12'10"
C Max. height of bucket bottom	ft in	12'5"	12'5"	13'7"	13'7"
D Max. height of bucket pivot point	ft in	13'4"	13'4"	14'9"	14'9"
E Max. operating height	ft in	18'4"	18'5"	19'10"	20'7"
F Reach at max. lift height and 45° discharge	ft in	3'9"	3'10"	4'2"	4'3"
G Digging depth	ft in	3"	3"	4"	4"
H Height above cab	ft in	11'	11'	11'9"	11'9"
I Height above exhaust	ft in	9'11"	9'11"	9'10"	9'10"
J Ground clearance	ft in	1'7"	1'7"	1'9"	1'9"
K Wheelbase	ft in	10'10"	10'10"	12'5"	12'10"
L Overall length	ft in	27'5"	27'7"	30'8"	31'4"
Turning circle radius over outside bucket edge	ft in	21'4"	21'5"	24'10"	25'4"
Breakout force (SAE)	lbf	28,100	29,225	44,960	44,960
Tipping load, straight *	lb	27,140	29,640	34,985	44,555
Tipping load, articulated at 37° *	lb	24,360	26,610	30,755	39,685
Tipping load, articulated at 40° *	lb	23,920	26,125	29,985	38,910
Operating weight *	lb	39,350	40,895	53,240	57,450
Tire sizes		23.5R25 L3	23.5R25 L3	26.5R25 L3	26.5R25 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 pages 24.



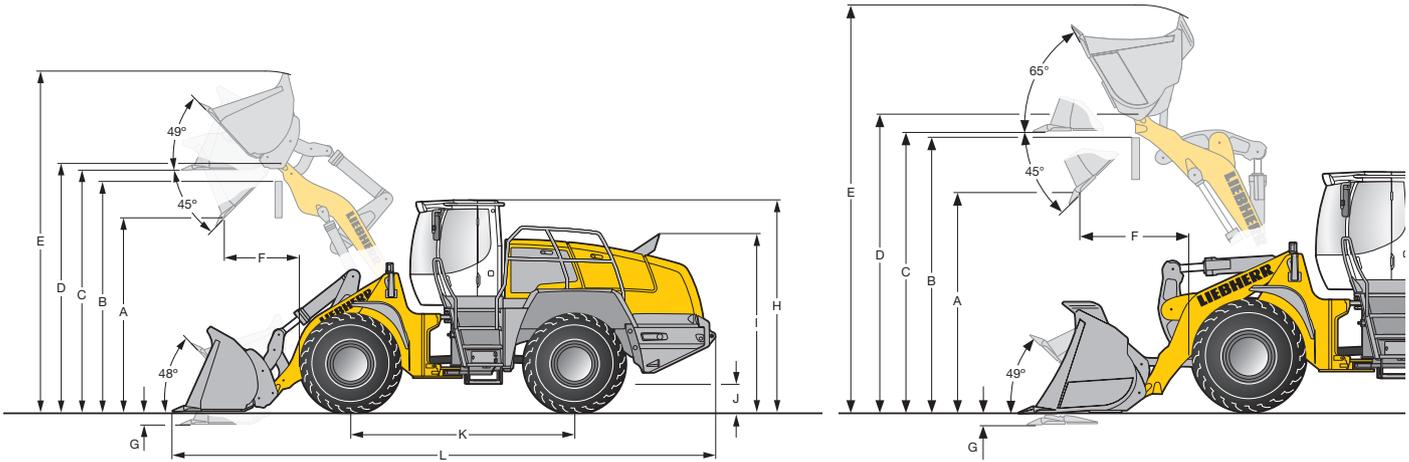
= Excavation bucket with back grading edge for hydraulic quick coupler

IND-QC = Industrial lift arm with parallel guidance including hydraulic quick coupler

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

Dimensions

High Lift



Loading Bucket

		L 550		L 556		L 566		L 580	
		IND-QC	IND-QC	IND-QC	IND-QC	ZK	ZK	ZK	ZK
Geometry		T	T	T	T	T	T	T	T
Cutting tools									
Lift arm length	ft in	9'10"	9'10"	9'10"	9'10"	10'8"	10'8"	10'8"	10'8"
Bucket capacity according to ISO 7546 **	yd ³	3.4	3.7	3.7	3.9	4.6	5.2	5.9	6.5
Bucket width	ft in	8'10"	8'10"	8'10"	8'10"	9'10"	9'10"	9'10"	10'10"
A Dumping height at max. lift height and 45° discharge	ft in	11'8"	11'7"	11'7"	11'4"	12'3"	12'	11'7"	11'7"
B Dump-over height	ft in	13'5"	13'5"	13'5"	13'5"	14'1"	14'1"	14'1"	14'1"
C Max. height of bucket bottom	ft in	14'4"	14'4"	14'4"	14'4"	14'8"	14'8"	14'8"	14'8"
D Max. height of bucket pivot point	ft in	15'3"	15'3"	15'3"	15'3"	15'8"	15'8"	15'8"	15'8"
E Max. operating height	ft in	20'	20'1"	20'1"	20'3"	20'3"	20'7"	21'5"	21'5"
F Reach at max. lift height and 45° discharge	ft in	3'1"	3'2"	3'2"	3'4"	3'3"	3'6"	4'	4'
G Digging depth	ft in	3"	3"	3"	3"	6"	6"	6"	6"
H Height above cab	ft in	11'	11'	11'	11'	11'9"	11'9"	11'9"	11'9"
I Height above exhaust	ft in	9'11"	9'11"	9'11"	9'11"	9'10"	9'10"	9'10"	9'10"
J Ground clearance	ft in	1'7"	1'7"	1'7"	1'7"	1'9"	1'9"	1'9"	1'9"
K Wheelbase	ft in	10'10"	10'10"	10'10"	10'10"	12'5"	12'5"	12'10"	12'10"
L Overall length	ft in	28'9"	28'10"	28'10"	29'1"	31'6"	31'10"	32'6"	32'6"
Turning circle radius over outside bucket edge	ft in	22'	22'1"	22'1"	22'2"	25'4"	25'6"	25'11"	26'4"
Breakout force (SAE)	lbf	25,855	24,730	26,975	25,855	42,715	39,340	39,340	39,340
Tipping load, straight *	lb	22,930	22,595	25,355	24,955	33,665	33,100	42,625	41,930
Tipping load, articulated at 40° *	lb	20,205	19,930	22,345	22,080	29,695	29,200	37,755	37,135
Operating weight *	lb	39,970	40,125	41,535	41,710	51,820	52,075	55,975	56,305
Tire sizes		23.5R25 L3		23.5R25 L3		26.5R25 L3		26.5R25 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 pages 24.

  = Excavation bucket with back grading edge for hydraulic quick coupler/for direct mounting

 = Rehandling bucket for direct mounting

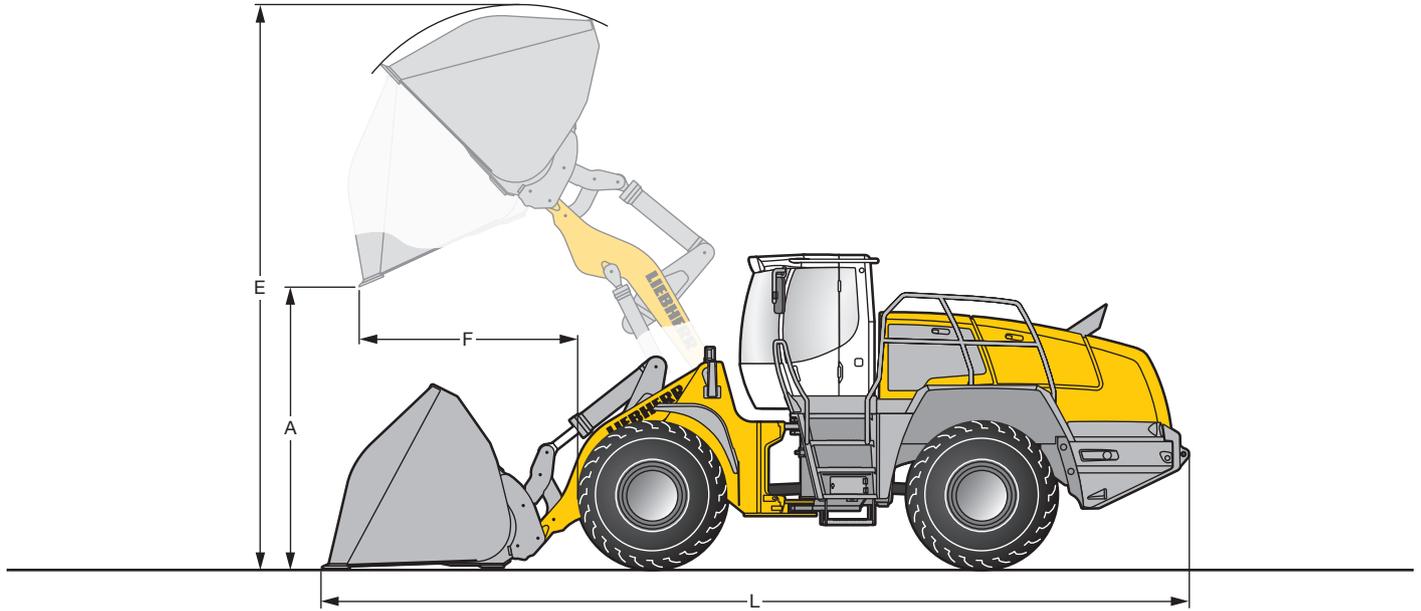
IND-QC= Industrial lift arm with parallel guidance including hydraulic quick coupler

ZK = Z-bar linkage

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

Attachment

Light Material Bucket



	L 550		L 556		L 566	L 580	
	STD	HL	STD	HL	STD	STD	
Geometry	IND-QC	IND-QC	IND-QC	IND-QC	IND-QC	IND-QC	
Cutting tools	BOCE	BOCE	BOCE	BOCE	BOCE	BOCE	
Bucket capacity	yd ³	6.5	5.9	7.2	6.5	8.5	
Bucket width	ft in	9'8"	9'8"	9'8"	9'8"	10'6"	
A Dumping height at max. lift height	ft in	8'4"	10'7"	8'	10'3"	9'6"	
E Max. operating height	ft in	19'4"	20'9"	19'11"	21'3"	21'3"	
F Reach at maximum lift height	ft in	4'9"	4'1"	5'1"	4'4"	4'10"	
L Overall length	ft in	28'3"	29'6"	28'8"	29'11"	31'7"	
Tipping load, straight *	lb	25,200	20,545	27,470	23,325	33,045	
Tipping load, articulated at 40° *	lb	22,210	18,110	24,205	20,560	29,155	
Operating weight *	lb	40,375	41,070	42,285	42,625	54,410	
Tire sizes		23.5R25 L3		23.5R25 L3		26.5R25 L3	26.5R25 L3

	L 550		L 556		L 566	L 580	
	STD	HL	STD	HL	STD	STD	
Geometry	IND-QC	IND-QC	IND-QC	IND-QC	IND-QC	IND-QC	
Cutting tools	BOCE	BOCE	BOCE	BOCE	BOCE	BOCE	
Bucket capacity	yd ³	11.8	10.5	13.1	11.8	15.7	
Bucket width	ft in	11'2"	11'2"	11'2"	11'2"	12'2"	
A Dumping height at max. lift height	ft in	7'8"	9'7"	7'5"	9'4"	8'7"	
E Max. operating height	ft in	20'1"	21'3"	20'6"	21'8"	22'	
F Reach at maximum lift height	ft in	5'7"	5'	5'10"	5'3"	6'1"	
L Overall length	ft in	29'5"	30'10"	29'9"	31'3"	33'2"	
Tipping load, straight *	lb	23,415	19,600	25,420	22,355	30,765	
Tipping load, articulated at 40° *	lb	20,645	17,350	22,400	19,730	27,140	
Operating weight *	lb	41,600	42,175	43,145	43,850	56,835	
Tire sizes		23.5R25 L3		23.5R25 L3		26.5R25 L3	26.5R25 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

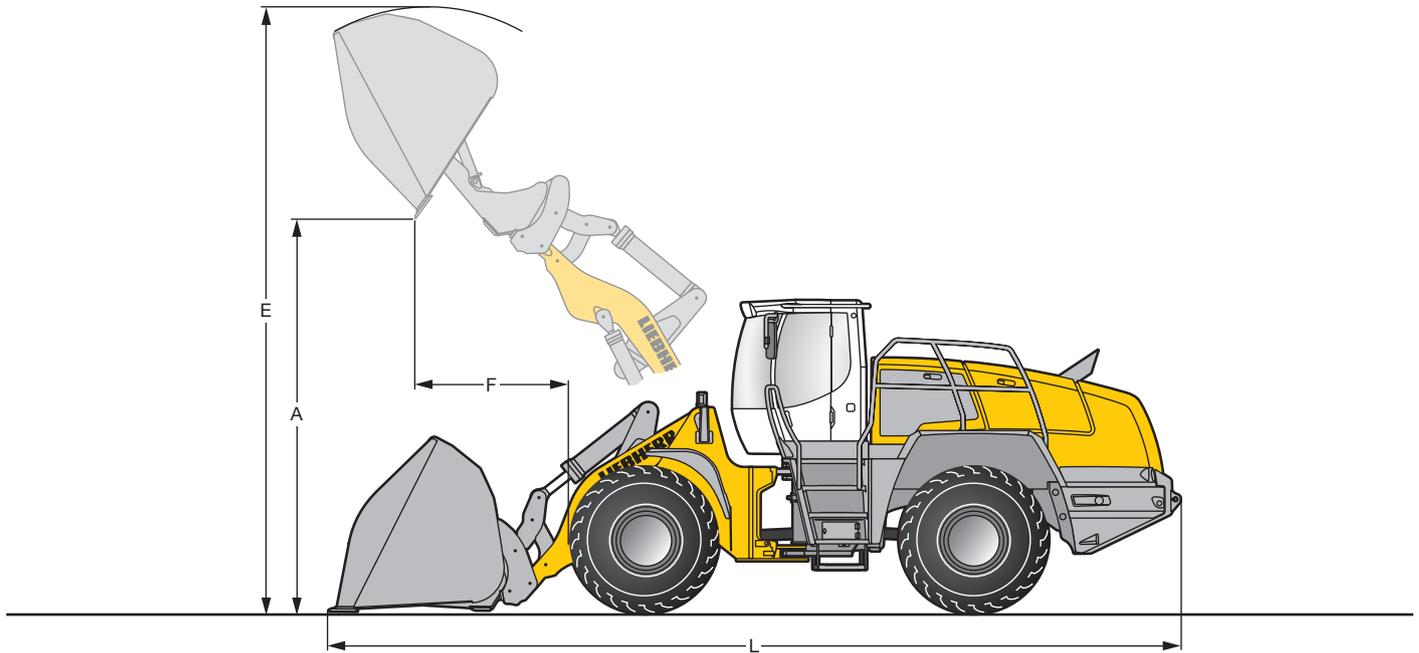
HL = High Lift

IND-QC = Industrial lift arm with parallel guidance including hydraulic quick coupler

BOCE = Bolt-on cutting edge

Attachment

High-Dump Bucket



Heavy Material Density

		L 550		L 556		L 566	L 580
		STD	HL	STD	HL	STD	STD
Geometry		IND-QC	IND-QC	IND-QC	IND-QC	IND-QC	IND-QC
Cutting tools		BOCE	BOCE	BOCE	BOCE	BOCE	BOCE
Bucket capacity		yd ³	5.9	5.2	6.5	5.9	7.8
Bucket width		ft in	8'10"	8'10"	8'10"	8'10"	10'6"
A	Dumping height at max. lift height	ft in	14'11"	16'6"	15'1"	16'11"	16'10"
E	Max. operating height	ft in	21'11"	23'4"	22'6"	23'11"	23'8"
F	Reach at maximum lift height	ft in	5'10"	5'1"	6'	5'5"	5'10"
L	Overall length	ft in	29'2"	30'6"	29'6"	30'10"	32'5"
Tipping load, straight *		lb	22,575	19,510	24,385	20,990	30,125
Tipping load, articulated at 40° *		lb	19,895	17,205	21,495	20,935	26,565
Operating weight *		lb	41,710	41,855	43,805	43,925	56,835
Tire sizes		23.5R25 L3		23.5R25 L3		26.5R25 L3	26.5R25 L3

Light Material Density

		L 550		L 556		L 566	L 580
		STD	HL	STD	HL	STD	STD
Geometry		IND-QC	IND-QC	IND-QC	IND-QC	IND-QC	IND-QC
Cutting tools		BOCE	BOCE	BOCE	BOCE	BOCE	BOCE
Bucket capacity		yd ³	11.1	9.8	12.4	11.1	14.4
Bucket width		ft in	11'2"	11'2"	11'2"	11'2"	12'2"
A	Dumping height at max. lift height	ft in	14'7"	15'9"	15'1"	16'3"	15'11"
E	Max. operating height	ft in	22'8"	23'7"	23'5"	24'7"	24'7"
F	Reach at maximum lift height	ft in	5'11"	5'2"	6'1"	5'5"	7'
L	Overall length	ft in	29'6"	30'10"	29'10"	31'4"	33'6"
Tipping load, straight *		lb	21,780	17,525	23,400	20,655	27,560
Tipping load, articulated at 40° *		lb	19,200	15,455	20,625	18,210	24,295
Operating weight *		lb	42,485	43,055	44,050	44,180	57,495
Tire sizes		23.5R25 L3		23.5R25 L3		26.5R25 L3	26.5R25 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

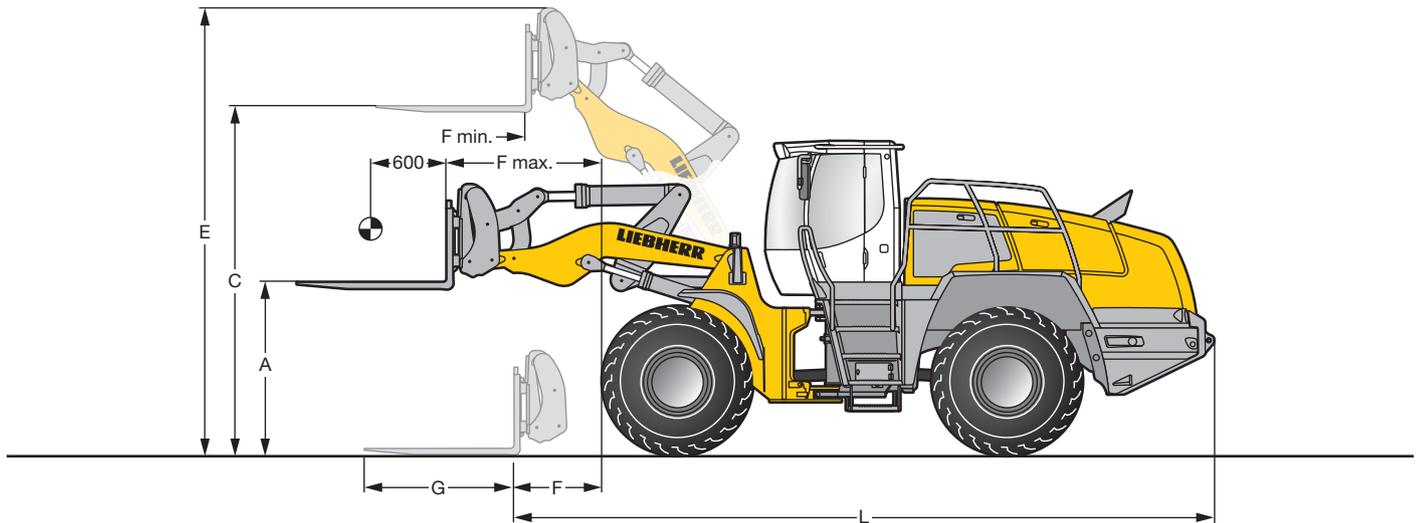
IND-QC = Industrial lift arm with parallel guidance including hydraulic quick coupler

HL = High Lift

BOCE = Bolt-on cutting edge

Attachment

Fork Carrier and Fork



FEM IV Fork Carrier and Fork			L 550	L 556	L 566	L 580
	Geometry		IND-QC	IND-QC	IND-QC	IND-QC
A	Lifting height at max. reach	ft in	6'	6'	6'10"	6'10"
C	Max. lifting height	ft in	12'7"	12'7"	13'10"	13'10"
E	Max. operating height	ft in	15'10"	15'10"	17'1"	17'1"
F	Reach at loading position	ft in	3'3"	3'3"	3'9"	3'4"
F max.	Max. reach	ft in	5'6"	5'6"	6'4"	5'11"
F min.	Reach at max. lifting height	ft in	2'6"	2'6"	3'3"	2'10"
G	Fork length	ft in	4'11"	4'11"	5'11"	5'11"
L	Length – basic machine	ft in	23'8"	23'8"	26'10"	26'10"
	Tipping load, straight *	lb	20,260	22,620	26,850	34,360
	Tipping load, articulated at 40° *	lb	17,855	19,950	23,690	30,435
	Recommended payload for uneven ground = 60% of tipping load, articulated ¹⁾	lb	10,715	11,970	14,210	18,265
	Recommended payload for smooth surfaces = 80% of tipping load, articulated ¹⁾	lb	14,285	15,960	18,950	22,045
	Operating weight *	lb	38,380	39,770	51,665	55,425 ²⁾
	Tire sizes		23.5R25 L3	23.5R25 L3	26.5R25 L3	26.5R25 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)

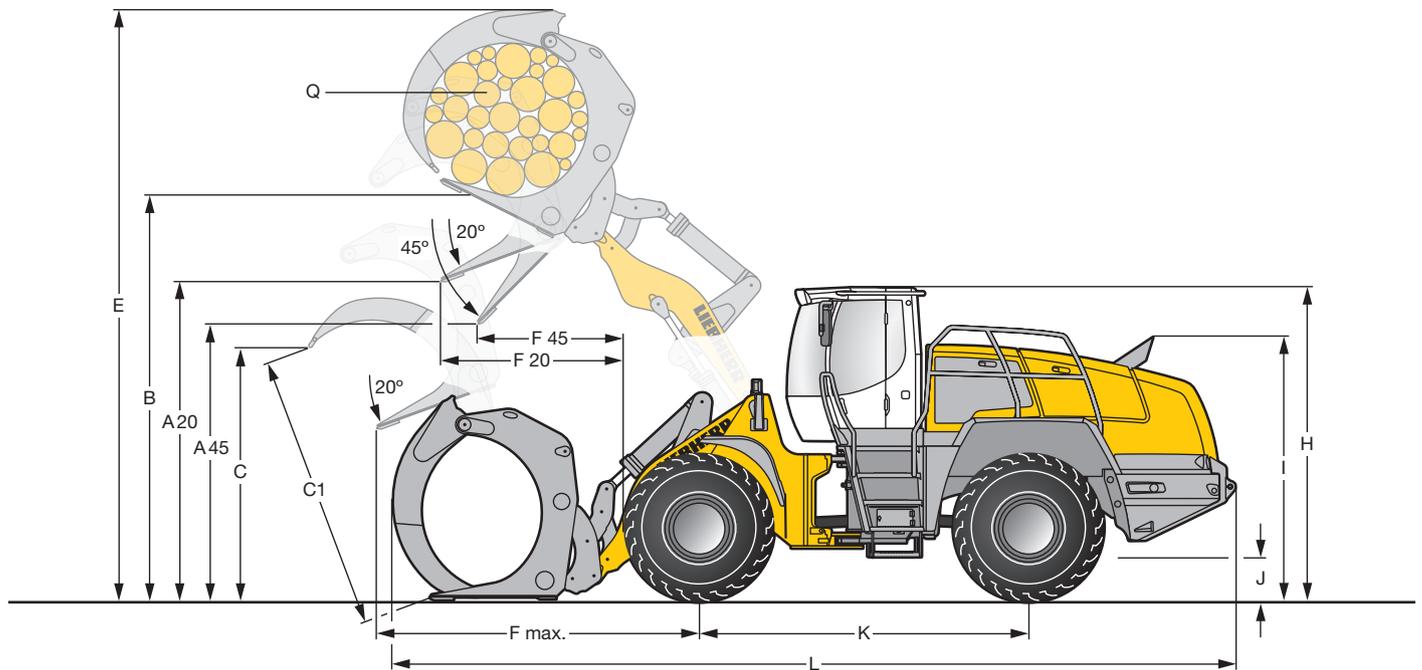
¹⁾ According to EN 474-3

²⁾ Payload is limited by FEM IV fork carrier and forks

IND-QC = Industrial lift arm with parallel guidance including hydraulic quick coupler

Attachment

Log Grapple



Log Grapple			L 550	L 556	L 566	L 580
	Geometry		IND-QC	IND-QC	IND-QC	IND-QC
A20	Discharge height at 20°	ft in	11'9"	11'9"	11'9"	11'7"
A45	Discharge height at 45°	ft in	9'11"	9'8"	9'7"	9'2"
B	Manipulation height	ft in	14'10"	14'10"	16'10"	16'10"
C	Max. grapple opening in loading position	ft in	7'10"	9'	8'8"	9'7"
C1	Max. grapple opening	ft in	8'6"	9'10"	10'	10'11"
E	Max height	ft in	20'9"	21'3"	24'3"	24'7"
F20	Reach at max. lifting height at 20° discharge	ft in	5'9"	6'2"	7'1"	7'3"
F45	Reach at max. lifting height at 45° discharge	ft in	4'8"	5'	5'4"	5'4"
F max.	Max. reach	ft in	8'9"	9'3"	10'2"	10'4"
H	Height above cab	ft in	11'	11'	11'9"	11'9"
I	Height above exhaust	ft in	9'11"	9'11"	9'10"	9'10"
J	Ground clearance	ft in	1'7"	1'7"	1'9"	1'9"
K	Wheelbase	ft in	10'10"	10'10"	12'5"	12'10"
L	Overall length	ft in	28'1"	28'7"	32'5"	33'
	Width over tires	ft in	8'8"	8'8"	9'9"	9'9"
Q	Grapple diameter	in ²	2,790	3,720	4,805	5,425
	Grapple width	ft in	5'3"	5'3"	5'11"	5'11"
	Payload *	lb	13,890	14,110	18,080	20,280
	Operating weight *	lb	40,765	42,660	56,525	61,000
	Tire sizes		23.5R25 L3	23.5R25 L3	26.5R25 L3	26.5R25 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 payload. (Tipping load, articulated at 40° according to ISO 14397-1)

IND-QC = Industrial lift arm with parallel guidance including hydraulic quick coupler

Tires



	Size and tread code		Change of operating weight lb	Width over tires ft in	Change in vertical dimensions in	Use
L 550						
Bridgestone	20.5R25 VJT	L3	- 1,259	8'9"	- 1.50"	Bulk material (firm ground conditions)
Bridgestone	20.5R25 VSDL	L5	+ 176	8'9"	+ 0.55"	Stone, Scrap, Recycling (firm ground conditions)
Goodyear	20.5R25 RT-3B	L3	- 891	8'9"	- 1.18"	Gravel (all ground conditions)
Goodyear	20.5R25 TL-3A+	L3	- 952	8'10"	- 1.38"	Sand, Gravel, Earthworks, Clay (all ground conditions)
Goodyear	20.5R25 GP-4D	L4	- 573	8'8"	- 1.02"	Gravel, Industry, Wood (firm ground conditions)
Goodyear	20.5R25 RL-4K	L4	0	8'10"	- 0.43"	Gravel, Industry, Stone (firm ground conditions)
Goodyear	20.5R25 RL-5K	L5	+ 362	8'10"	+ 0.12"	Stone, Scrap, Recycling (firm ground conditions)
Michelin	20.5R25 XHA2	L3	- 1,296	8'9"	- 1.81"	Sand, Gravel (all ground conditions)
Michelin	20.5R25 XLD D2A	L5	- 344	8'9"	- 0.63"	Stone, Mining spoil (firm ground conditions)
Michelin	20.5R25 XMINE	L5	+ 247	8'9"	+ 0.43"	Stone, Scrap, Recycling (firm ground conditions)
L 550/L 556						
Bridgestone	23.5R25 VJT	L3	+ 304	8'9"	+ 0.24"	Bulk material (firm ground conditions)
Bridgestone	23.5R25 VSDL	L5	+ 1,980	8'9"	+ 2.56"	Stone, Scrap, Recycling (firm ground conditions)
Bridgestone	23.5R25 VSDT	L5	+ 1,876	8'9"	+ 2.17"	Stone, Scrap, Recycling (firm ground conditions)
Bridgestone	650/65R25 VTS	L3	+ 9	8'10"	- 1.18"	Gravel (all ground conditions)
Bridgestone	750/65R25 VTS	L3	+ 1,746	9'5"	+ 0.43"	Gravel, Industry, Wood (all ground conditions)
Goodyear	23.5R25 RT-3B	L3	+ 414	8'9"	+ 0.79"	Gravel (all ground conditions)
Goodyear	23.5R25 TL-3A+	L3	+ 626	8'9"	+ 1.42"	Sand, Gravel, Earthworks, Clay (all ground conditions)
Goodyear	23.5R25 GP-4D	L4	+ 723	8'10"	+ 0.98"	Gravel, Industry, Wood (firm ground conditions)
Goodyear	23.5R25 RL-4K	L4	+ 1,102	8'10"	+ 1.54"	Gravel, Industry, Stone (firm ground conditions)
Goodyear	23.5R25 RL-5K	L5	+ 2,046	8'10"	+ 2.24"	Stone, Scrap, Recycling (firm ground conditions)
Goodyear	23.5R25 RT-5C	L5	+ 1,367	8'9"	+ 2.17"	Stone, Mining spoil (firm ground conditions)
Goodyear	750/65R25 TL-3A+	L3	+ 1,640	9'7"	+ 0.94"	Sand, Gravel, Industry, Wood (all ground conditions)
Michelin	23.5R25 XHA2	L3	0	8'8"	0	Sand, Gravel (all ground conditions)
Michelin	23.5R25 XTLA	L2	- 132	8'8"	- 0.16"	Gravel, Earthworks, Clay (all ground conditions)
Michelin	23.5R25 XLD D2A	L5	+ 1,349	8'9"	+ 1.02"	Stone, Mining spoil (firm ground conditions)
Michelin	23.5R25 XMINE	L5	+ 1,675	8'10"	+ 2.40"	Stone, Scrap, Recycling (firm ground conditions)
Michelin	650/65R25 XLD65	L3	- 247	8'10"	- 2.09"	Gravel (all ground conditions)
Michelin	750/65R25 XLD65	L3	+ 1,296	9'5"	- 0.28"	Gravel, Industry, Wood (all ground conditions)
L 566						
Bridgestone	23.5R25 VJT	L3	- 1,010	9'9"	- 1.73"	Bulk material (firm ground conditions)
Bridgestone	23.5R25 VSDL	L5	+ 666	9'9"	+ 0.59"	Stone, Scrap, Recycling (firm ground conditions)
Bridgestone	23.5R25 VSDT	L5	+ 562	9'10"	+ 0.20"	Stone, Scrap, Recycling (firm ground conditions)
Goodyear	23.5R25 RT-3B	L3	- 899	9'9"	- 1.18"	Gravel (all ground conditions)
Goodyear	23.5R25 GP-4D	L4	- 591	9'10"	- 0.98"	Gravel, Industry, Wood (firm ground conditions)
Goodyear	23.5R25 RL-4K	L4	- 212	9'10"	- 0.43"	Gravel, Industry, Stone (firm ground conditions)
Goodyear	23.5R25 RL-5K	L5	+ 732	9'10"	+ 0.28"	Stone, Scrap, Recycling (firm ground conditions)
Michelin	23.5R25 XHA2	L3	- 1,314	9'9"	- 1.97"	Sand, Gravel (all ground conditions)
Michelin	23.5R25 XLD D2A	L5	+ 26	9'9"	- 0.94"	Stone, Mining spoil (firm ground conditions)
Michelin	23.5R25 XMINE	L5	+ 362	9'10"	- 0.43"	Stone, Scrap, Recycling (firm ground conditions)
L 566/L 580						
Bridgestone	26.5R25 VJT	L3	+ 353	9'9"	+ 0.55"	Bulk material (firm ground conditions)
Bridgestone	26.5R25 VSDL	L5	+ 2,844	9'9"	+ 2.24"	Stone, Scrap, Recycling (firm ground conditions)
Bridgestone	26.5R25 VSDT	L5	+ 2,288	9'9"	+ 1.97"	Stone, Mining spoil (firm ground conditions)
Bridgestone	750/65R25 VTS	L3	+ 428	10'1"	- 1.54"	Gravel, Industry, Wood (all ground conditions)
Goodyear	26.5R25 RT-3B	L3	+ 723	9'9"	+ 0.98"	Gravel (all ground conditions)
Goodyear	26.5R25 GP-4D	L4	+ 961	9'9"	+ 1.02"	Gravel, Industry, Wood (firm ground conditions)
Goodyear	26.5R25 TL-3A+	L3	+ 767	9'9"	+ 1.18"	Sand, Gravel, Earthworks, Clay (all ground conditions)
Goodyear	26.5R25 RL-4K	L4	+ 1,711	9'10"	+ 2.48"	Gravel, Industry, Stone (firm ground conditions)
Goodyear	26.5R25 RL-5K	L5	+ 2,743	9'10"	+ 2.48"	Stone, Scrap, Recycling (firm ground conditions)
Goodyear	26.5R25 RT-5C	L5	+ 2,116	9'9"	+ 2.32"	Stone, Mining spoil (firm ground conditions)
Goodyear	750/65R25 TL-3A+	L3	+ 326	10'2"	- 1.02"	Sand, Gravel, Industry, Wood (all ground conditions)
Michelin	26.5R25 XHA2	L3	0	9'9"	0	Sand, Gravel (all ground conditions)
Michelin	26.5R25 XLD D2A	L5	+ 1,534	9'9"	+ 1.50"	Stone, Mining spoil (firm ground conditions)
Michelin	26.5R25 XMINE	L5	+ 2,337	9'10"	+ 0.43"	Stone, Scrap, Recycling (firm ground conditions)
Michelin	750/65R25 XLD65	L3	- 18	10'	- 2.24"	Gravel, Industry, Wood (all ground conditions)

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

Bucket Selection

L 550

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 ₁	4.2 yd³							4.7	4.2
		4.7 yd³						5.2	4.7	
IND-OC	GPB ₁	3.9 yd³							4.3	3.9
		6.5 yd³			7.2					
	LMB	11.8 yd³	11.8							
		HDB	5.9 yd³			6.5				5.9
	11.1 yd³		11.1							
IND-OC-HL	GPB ₁	3.4 yd³						3.7	3.4	
		3.7 yd³						3.9	3.7	
	LMB	5.9 yd³			6.5				5.9	
		10.5 yd³	10.5							
	HDB	5.2 yd³			5.9				5.2	
		9.8 yd³	9.8							

L 556

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 ₁	4.7 yd³								5.2	4.7
		5.2 yd³							5.9	5.2	
IND-OC	GPB ₁	4.3 yd³							4.7	4.3	
		LMB	7.2 yd³			7.8					
	13.1 yd³		13.1								
	HDB	6.5 yd³			7.2				6.5		
12.4 yd³		12.4									
IND-OC-HL	GPB ₁	3.7 yd³							3.9	3.7	
		3.9 yd³							4.3	3.9	
	LMB	6.5 yd³			7.2				6.5		
		11.8 yd³	11.8								
	HDB	5.9 yd³			6.5				5.9		
		11.1 yd³	11.1								

L 566

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 ₁	5.2 yd³							5.9	5.2	
		5.9 yd³						6.5	5.9		
ZK-HL	GPB ₁	4.6 yd³						5.2	4.6		
		5.2 yd³						5.9	5.2		
IND-OC	GPB ₁	4.6 yd³						5.2	4.6		
		LMB	8.5 yd³			9.4				8.5	
	15.7 yd³		15.7								
	HDB	7.8 yd³			8.6				7.8		
		14.4 yd³	14.4								

L 580

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	6.5 yd³							7.2	6.5	
		7.2 yd³						7.8	7.2		
ZK-HL	GPB ₂	5.9 yd³						6.5	5.9		
		6.5 yd³						7.2	6.5		
IND-OC	GPB ₁	5.9 yd³						6.5	5.9		
		LMB	9.8 yd³			10.9				9.8	
	18.3 yd³		18.3								
	HDB	9.2 yd³			10.1				9.2		
		17.0 yd³	17.0								

Bucket Selection

Bucket Filling Factor



110% 105% 100% 95%

Lift Arm

ZK	Z-bar linkage, standard lift arm length
IND-QC	Industrial lift arm including quick coupler, standard lift arm length
ZK-HL	Z-bar linkage, High Lift
IND-QC-HL	Industrial lift arm including quick coupler, High Lift

Bucket

GPB ₁	General purpose bucket (Excavation bucket)
GPB ₂	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(l)	90/121	100/134	115/154	120/161	129/173

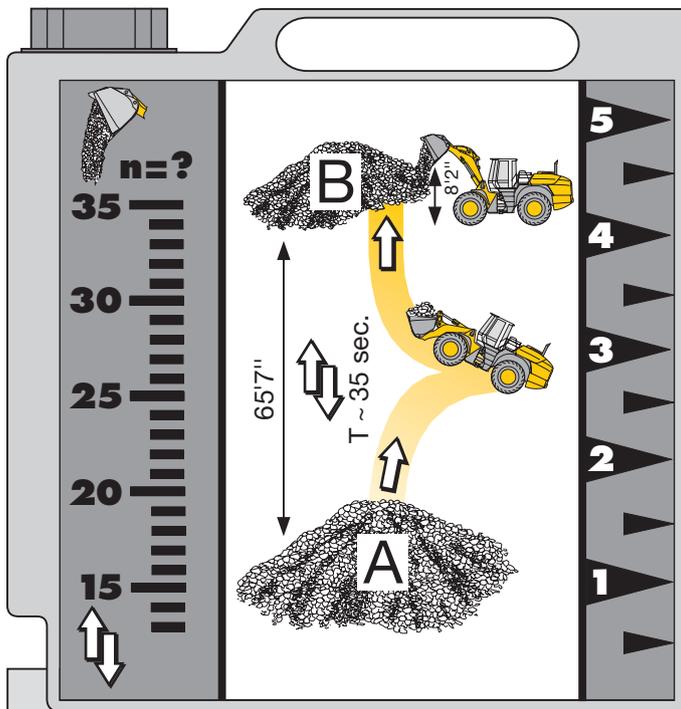
Wheel Loader



		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(l)	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 m 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).

Equipment



Basic Wheel Loader

	550	556	566	580
Crash protection, rear	+	+	+	+
Access to facilitate windshield cleaning	+	+	+	+
Exhaust pipe – stainless steel	•	•	•	•
Automatic central lubrication system	+	+	+	+
Battery master switch	•	•	•	•
Diesel particle filter	•	•	•	•
Electronic tractive force regulation for difficult ground conditions	•	•	•	•
Electronical theft protection	+	+	+	+
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 Vmax	•	•	•	•
Large-mesh radiator	+	+	+	+
Pre-heat system for cold starting	•	•	•	•
Combined inching-braking system	•	•	•	•
Mudguard extension	+	+	+	+
Multi-disc limited slip differentials in both axles	•	•	•	•
Noise suppression package	+	+	+	+
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 rear, single version (on tail flap) – halogen	•	•	•	•
Headlights rear, single version (on tail flap) – LED	+	+	+	+
Headlights front, single version (on front-chassis) – halogen	•	•	•	•
Lockable doors, service flap and engine hood	•	•	•	•
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	•	•	•	•



Display Unit

	550	556	566	580
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	•	•	•	•
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/date/outside temperature	•	•	•	•
Weighing device	+	+	+	+
Tractive force regulation	•	•	•	•



Warning Symbols for

	550	556	566	580
Battery charge	•	•	•	•
Brake accumulator pressure	•	•	•	•
Diesel particle filter	•	•	•	•
Air cleaner blockage	•	•	•	•
Engine oil pressure	•	•	•	•
Emergency steering system	•	•	•	•
Reversing obstruction detector	+	+	+	+
Engine overspeed	•	•	•	•



Operator's Cab

	550	556	566	580
Storage box	•	•	•	•
Ashtray	•	•	•	•
Exterior mirror, tiltable and heatable	•	•	•	•
Operator's package	•	•	•	•
Operator's seat – mechanically sprung	+	+	+	+
Operator's seat with active suspension, with seat climate control and seat heating	+	+	+	+
Operator's seat – heated and air suspended	•	•	•	•
Operator's seat – horizontal side-to-side suspension with control console moving as one	+	+	+	+
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	•	•	•	•
Multi-lever control system	+	+	+	+
Premium Display, Touchscreen (display unit)	•	•	•	•
Preparation for radio installation	•	•	•	•
Radio Liebherr "Comfort" (SD/USB/AUS/BLUETOOTH/handsfree set)	+	+	+	+
Radio Liebherr "Standard" (SD/USB/AUX)	+	+	+	+
Interior rear-view mirror	•	•	•	•
Amber beacon	+	+	+	+
Soundproof ROPS/FOPS cab	•	•	•	•
Wash/wipe system for windshield and rear window	•	•	•	•
Headlights rear, double version – LED	+	+	+	+
Headlights rear, single version – halogen/LED	+	+	+	+
Headlights front, double version – LED	+	+	+	+
Headlights front, double version – halogen	•	•	•	•
Headlights front, single version – XENON	+	+	+	+
Sliding window	+	+	+	+
Protective ventilation system	+	+	+	+
Windscreen guard	+	+	+	+
Sun visor	•	•	•	•
Dust filter system	•	•	•	•
12 V Outlet	•	•	•	•
First aid kit	+	+	+	+
Wide angle mirror	+	+	+	+
2in1 steering system – changeable	+	+	+	+



Audible Warnings for

	550	556	566	580
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 or gearbox oil	•	•	•	•



Equipment

	550	556	566	580
Working hydraulics lockout	•	•	•	•
Automatic hoist kick out – adjustable	•	•	•	•
Automatic bucket return to dig – adjustable	•	•	•	•
Fork carrier and lift forks	+	+	+	+
High Lift arms	+	+	+	+
High-dump bucket	+	+	+	+
Log Grapple	+	+	+	+
Hydraulic quick coupler	+	+	+	+
Industrial lift arm including quick coupler	+	+	+	+
Tilt cylinder protection	+	+	+	+
Loading buckets with and without teeth, or bolt-on cutting edge	+	+	+	+
Country-specific versions	+	+	+	+
Light material bucket	+	+	+	+
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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