Technical Description
Wheel Loader

L 574
2plus2

Tipping Load	**16690 kg**
Bucket Capacity	**4,5 – 8,5 m³**
Operating Weight	**24,2 t**
Engine Output	**195 kW (265 HP)**

Liebherr Norm Test
2,7 l/100 t
17,4 l/h

LIEBHERR

Technical Data

Engine

Liebherr diesel engine	D 926 TI-E A2 6-cylinder, inline engine, water-cooled exhaust-turbo charged with intercooler	
Power output according to ISO 9249	195 kW (265 HP)	at 2000 RPM
Max. torque	1170 Nm	at 1200 RPM
Displacement	9,96 litres	
Bore/Stroke	122/142 mm	
Air cleaner	Dry type with main and safety element, pre-cleaner, service indicator on LCD display	
Electrical system		
Operating voltage	24 V	
Battery	2 x 143 Ah/12 V	
Alternator	Three-phase AC, 28 V/55 A	
Starter motor	24 V/5,4 kW	

Travel Gear

Stepless hydrostatic travel drive

Type “2plus2”	Variable-pitch swashplate pump and two axial piston motors in closed circuit with one axle transfer case	
Filtering system	Suction-side filter for the 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 speeds	Stage 1	0 – 10,0 km/h
	Stage 2 and A2	0 – 20,0 km/h
	Stage A3	0 – 40,0 km/h
	Forwards and in reverse with tyre size 26.5R25	

Axles

All-wheel drive

Front axle	Fixed
Rear axle	Centre pivot, with 13° oscillating angle to each side. Obstacles up to 560 mm in height can be driven over (with all four wheels remaining in contact with the ground)
Differentials	Automatic limited-slip differentials with 45 % lokking action in both axles
Final drive	Planetary final drive in the wheel hubs
Track width	2230 mm with all types of tyres

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 wheel hubs. Two separate brake circuits
Parking brake	Electro-hydraulically actuated spring-loaded brake system on the transmission

Braking system complies with German road-vehicle construction and use regulations.

Tyres

Available sizes	26.5R25 Tubeless radial or cross-ply tyres on well-base rims
Special tyres	By arrangement with the manufacturer

Steering

Design	“Load-sensing” variable axial piston pump. 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” variable axial piston pump with output control and pressure cutoff
Max. flow	290 l/min.
Max. operating pressure	350 bar
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; automatic lifting-limit circuit
Tilt circuit	Tilt back, neutral, dump automatic bucket positioning

Attachments

Geometry	Powerful Z-pattern linkage with tilt cylinder and cast steel crosstube	
Bearings	Sealed	
Cycle time at nominal load	Lifting	5,6 sec.
	Dumping	2,0 sec.
	Lowering (empty)	3,5 sec.

Operator’s Cab

Design	ROPS/FOPS cab resiliently mounted on rear section of vehicle and noise-damped; lockable door with sliding window and 180° opening angle; emergency exit; toughened safety glass windows, tinted; adjustable steering column and joystick bracket as standard equipment; ROPS roll-over protection according to DIN/ISO 3471/EN 474-3 and FOPS falling objects protection according to DIN/ISO 3449/EN 474-1
Operator’s seat	6 way adjustable seat with seat belt, adjustable for operator’s weight
Cab heating and ventilation	With defrosting, fresh-air filter, air-recirculated-air mode and heater supplied from engine’s cooling system. Air conditioning is standard equipment

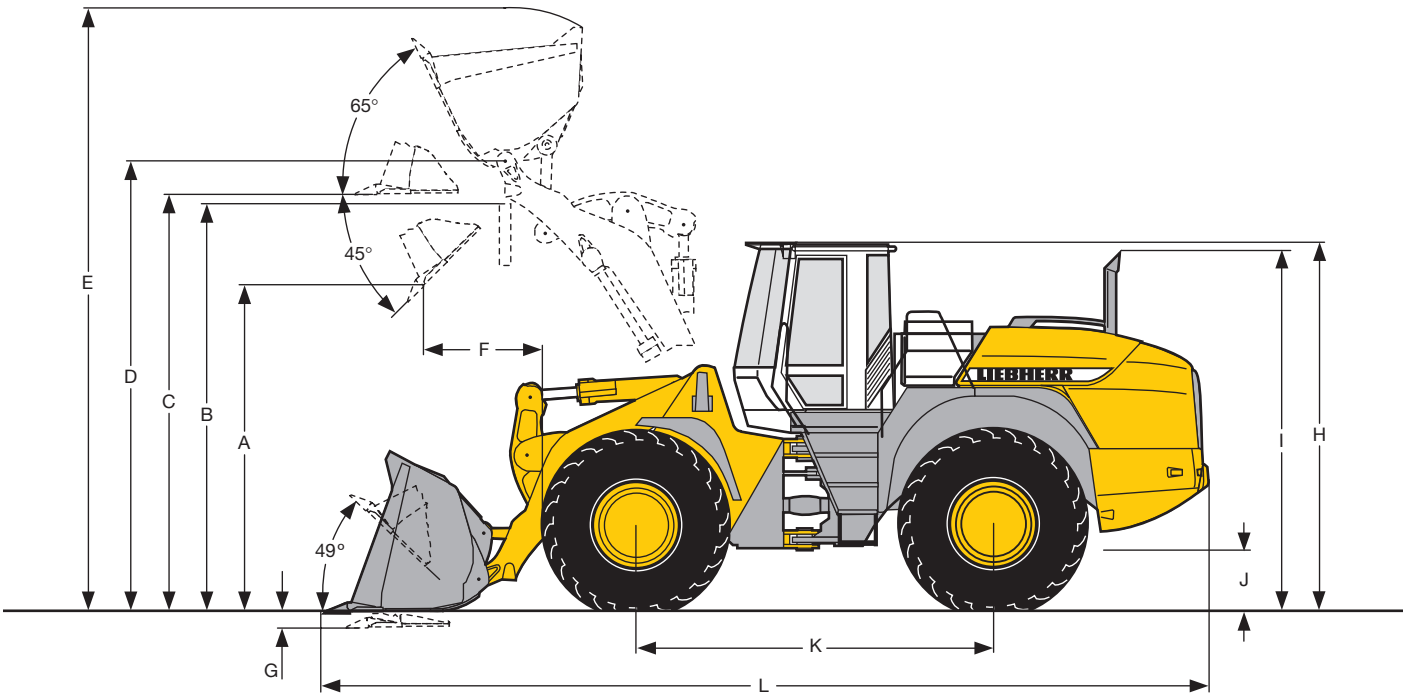
Noise Emission

	In the operator’s cab	
	Without blower	69 dB(A)
ISO 6396	Max. blower output	71 dB(A)
2000/14/EC	Outside cab	106 dB(A)

Capacities

Fuel tank	330 l
Engine oil (including filter change)	18 l
Pump distributor gears	2,5 l
Transmission “2plus2”	11,5 l
Front axle/wheel hubs	51 l
Rear axle/wheel hubs	51 l
Hydraulic tank	120 l
Hydraulic system, total	240 l
Air condition system (R134a)	1800 g

Dimensions



Bucket Type			L 574 Loading Bucket					Rock Bucket		L 574 S Loading Bucket		
	Cutting tools		T	T	E	T	E	T	T-Delta	T	T	T
	Bucket capacity	m^3	4,5	4,5	4,5	5,0	5,0	4,0	4,0	4,5	4,5	5,0
	Bucket width	mm	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000
	Specific material weight	t/m^3	1,8	1,8	1,8	1,6	1,6	2,0	2,0	1,8	1,9	1,7
A	Dumping height at max. lift height and 45° discharge	mm	3300	3385	3375	3300	3295	3440	3310	3080	3160	3080
B	Dump-over height	mm	4100	4100	4100	4100	4100	4100	4100	3900	3900	3900
C	Max. height of bucket bottom	mm	4255	4255	4255	4255	4255	4255	4255	4025	4025	4025
D	Max. height of bucket pivot point	mm	4565	4565	4565	4565	4565	4565	4565	4355	4355	4355
E	Max. operating height	mm	6320	6165	6165	6245	6245	6075	6075	6110	5945	6025
F	Reach at max. lift height and 45° discharge	mm	1270	1185	1190	1270	1280	1125	1260	1325	1240	1325
G	Digging depth	mm	110	110	110	110	110	110	110	100	100	100
H	Height above cab	mm	3540	3540	3540	3540	3540	3540	3540	3540	3540	3540
I	Height above exhaust	mm	3450	3450	3450	3450	3450	3450	3450	3450	3450	3450
J	Ground clearance	mm	550	550	550	550	550	550	550	550	550	550
K	Wheelbase	mm	3450	3450	3450	3450	3450	3450	3450	3450	3450	3450
L	Overall length	mm	8980	8875	8695	8995	8815	8795	8980	8830	8710	8830
	Turning circle radius over outside bucket edge	mm	7090	7020	6980	7050	7010	6995	6995	6990	6955	6990
	Lifting force (SAE)	kN	250	250	250	250	250	250	250	245	250	245
	Breakout force (SAE)	kN	175	190	190	175	175	203	175	175	190	175
	Tipping load, straight*	kg	18350	19010	18810	18910	18710	19130	19080	19300	19890	19150
	Tipping load, articulated at 37°*	kg	16400	16900	16710	16800	16620	16950	16890	17280	17800	17150
	Tipping load, articulated at 40°*	kg	16100	16690	16510	16600	16425	16795	16750	16950	17460	16820
	Operating weight*	kg	24250	24220	24420	24320	24520	24100	24150	24080	24060	24160

* The figures shown here are valid with Michelin XHA 26.5R25 tyres and include all lubricants, a full fuel tank, the ROPS/FOPS cab and the operator.
Different tyres and optional equipment will change the operating weight and overturning loads.

= Rehandling bucket

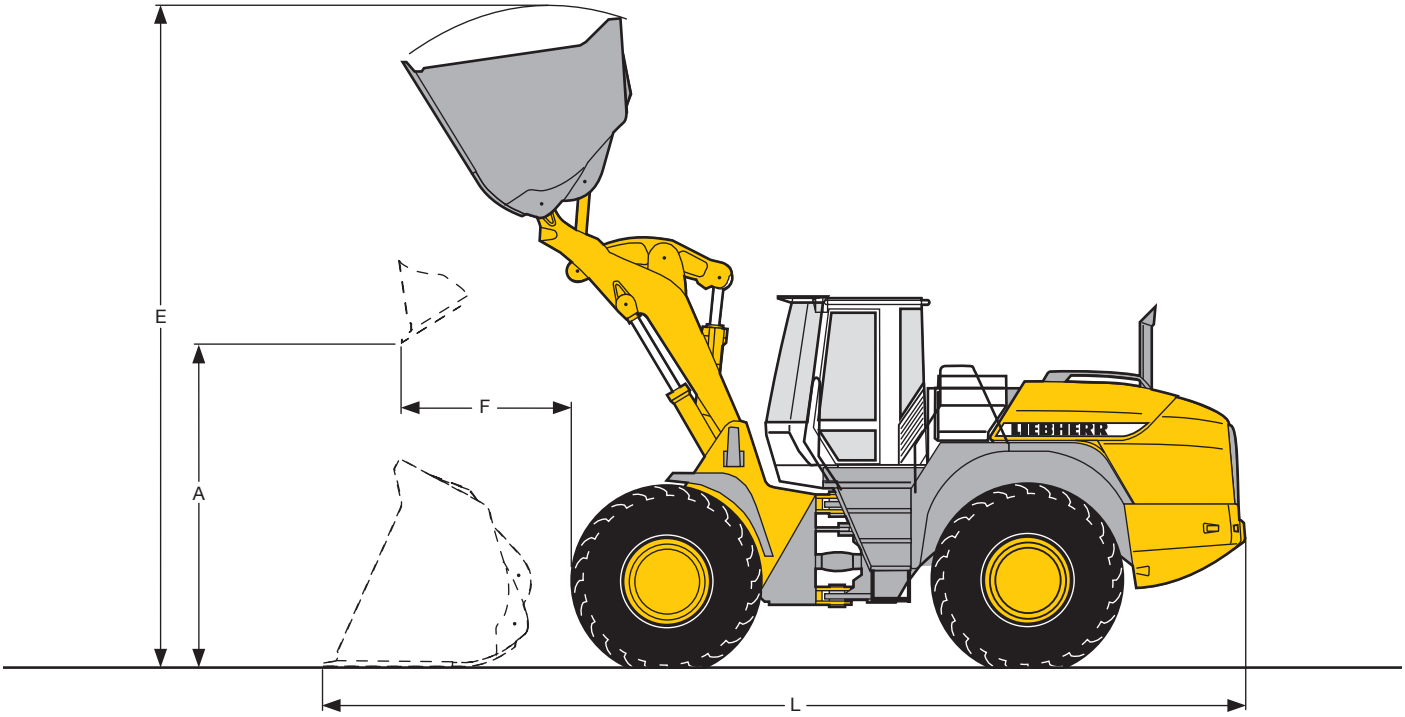
= Loading bucket with back grading edge

T = Welded-on tooth holder with add-on teeth
T-Delta = Welded-on tooth holder on Delta cutting edge with add-on teeth
E = Four-piece, bolt-on reversible cutting edge

The attachments are secured directly to the lifting arms.

Attachments

Light Material Bucket



Light Material Bucket
with Bolt-On Cutting Edge

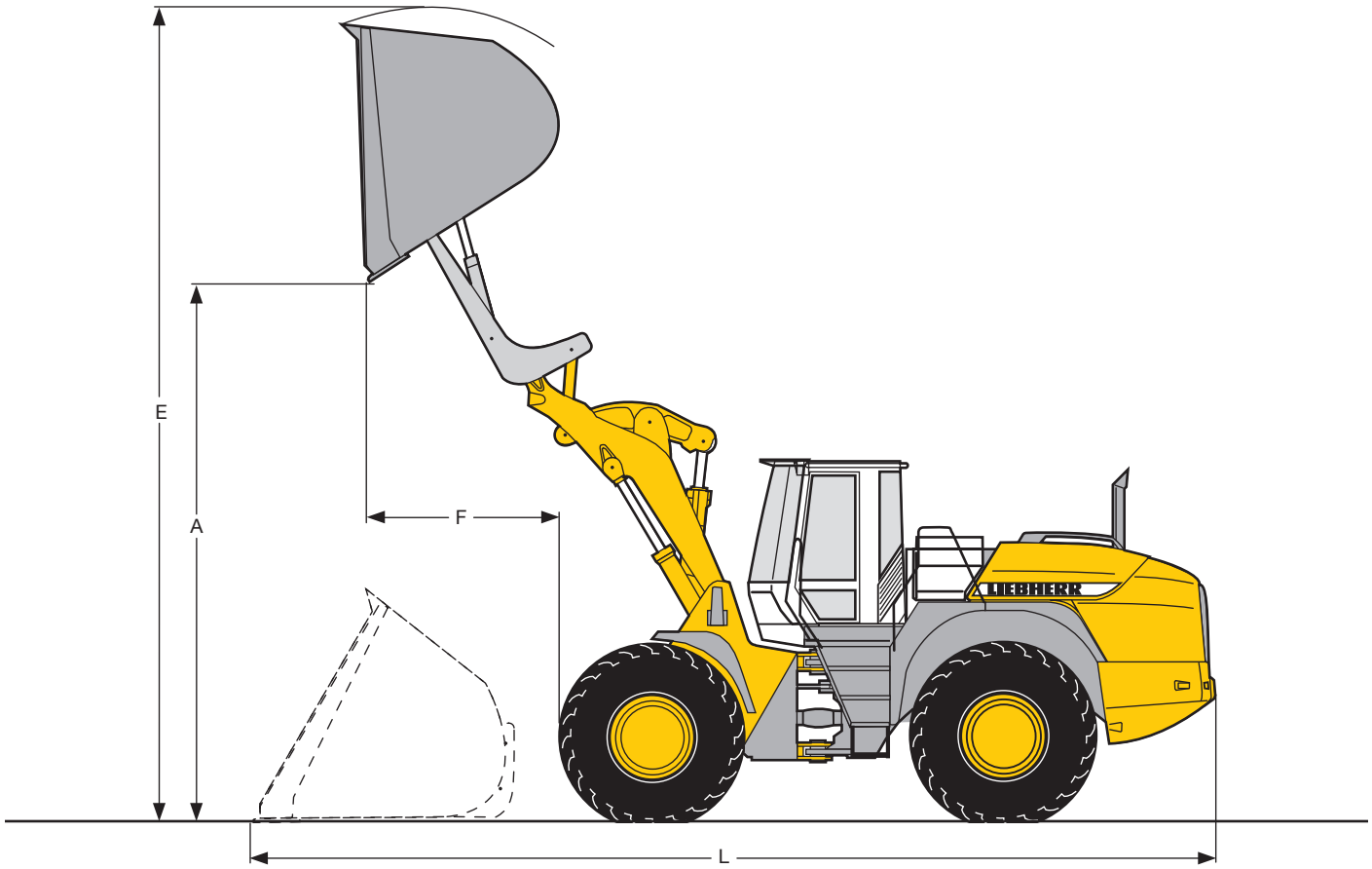
	Bucket capacity	m^3	6,5	8,5
	Bucket width	mm	3200	3500
	Specific material weight	t/m^3	1,2	1,0
A	Dumping height at max. lift height	mm	3170	3030
E	Max. operating height	mm	6430	6630
F	Reach at maximum lift height	mm	1330	1470
L	Overall length	mm	9000	9230
	Tipping load, straight*	kg	17430	17020
	Tipping load, articulated at 40°*	kg	15310	14950
	Operating weight*	kg	24620	24920

* The figures shown here are valid with Michelin XHA 26.5R25 tyres and include all lubricants, a full fuel tank, the ROPS/FOPS cab and the operator.
Different tyres and optional equipment will change the operating weight and overturning loads.

The attachments are secured directly to the lifting arms.

Attachments

High-Dump Bucket



High-Dump Bucket
with Bolt-On Cutting Edge

	Bucket capacity	m^3	6,5
	Bucket width	mm	3200
	Specific material weight	t/m^3	1,0
A	Dumping height at max. lift height	mm	5480
E	Max. operating height	mm	7800
F	Reach at maximum lift height	mm	1750
L	Overall length	mm	9350
	Tipping load, straight*	kg	16700
	Tipping load, articulated at 40°*	kg	14500
	Operating weight*	kg	25350

* The figures shown here are valid with Michelin XHA 26.5R25 tyres and include all lubricants, a full fuel tank, the ROPS/FOPS cab and the operator.
Different tyres and optional equipment will change the operating weight and overturning load.

The attachments are secured directly to the lifting arms.a

Tipping Load

What is tipping load?
Load at centre of gravity of working equipment, so that the wheel loader just begins to tip over the front axle.
This the most unfavourable static-load position for the wheel loader.
Liftings arms horizontal, wheel loader fully articulated at centre pivot.

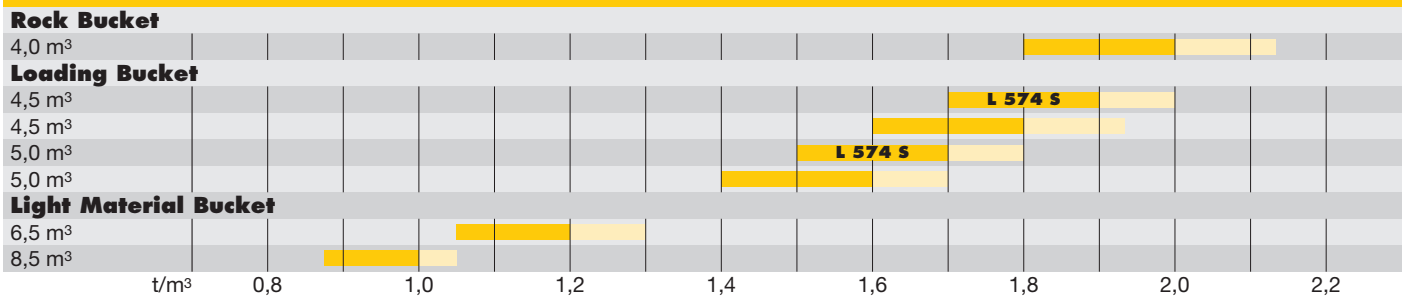
Pay load.
The pay load must not exceed 50 % of the tipping load when articuladed.
This is equivalent to a static stability-margin factor of 2,0.

Bucket capacity.
The bucket volume is determined from the pay load.

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

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

Selection of Buckets



Bulk Material Densities and Bucket Filling Factors

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

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

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

Tyre Sizes

		Width over tyres mm	Change in vertical dimensions mm	Use
26.5R25 Dunlop SP T7 LD	L3	2910	+ 35	Gravel
26.5R25 Michelin XHA	L3	2930	+ 0	Gravel
26.5R25 Michelin X-MINE D2	L5	2950	+ 80	Scap material/Waste
26.5R25 Michelin XLD D2	L5	2920	+ 40	Stone/Mining spoil
705/70R25 Michelin XLD	L3	2940	– 70	Gravel
26.5R25 Good Year GP2B	L2	2920	+ 25	Sand/Gravel
26.5R25 Good Year RL2+	L2	2930	+ 35	Gravel

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

Equipment

Basic Machine

	s	o
Liebherr-2plus2-travelgear	•	
Ride control	•	
Liebherr shock absorbing element		x
Automatic travel mode	•	
Kick-Down	•	
20 km/h speed limiting		•
Electronical theft protection		•
Creep speed/Cruise control	•	
Electronic crowding force control	•	
Combined inching-braking system	•	
Multi-disc limited slip differentials in both axles	•	
Air cleaner system with pre-filter	•	
Particle protection for radiator		•
Emergency steering system	•	
Bio degredable hydraulic oil		•
Headlights	•	
Tail lights	•	
Working area lights at front	•	
Working area lights at rear	•	
Battery master switch	•	
Pre-heat system for cold starting	•	
Towing hitch	•	
Lockable doors, service flap an engine hood	•	
Toolbox with toolkit	•	
Dust filter system		•
Protective ventilation system		•
Amber beacon		•
Acustical warning device for travel in reverse		•
Exhaust pipe – special steel	•	
Noise suppression package “101”		•
Automatic central lubrication system		•
Road ballast		•

Operator’s Cab

	s	o
Driver’s cab with reduced overall heat – 90 mm		•
Noise-damped ROPS/FOPS cab with tinted safety glass	•	
Joystick steering		•
2in1 steering system – changeable		•
Hot-water heater with defroster and recirculated-air system	•	
Adjustable steering column	•	
Liebherr joystick control – adjustable	•	
Air conditioning system	•	
Liebherr operator’s seat – adjustable in 6 ways	•	
Air sprung operator’s seat with seat belt		•
Sliding window	•	
Emergency exit	•	
Floor mat	•	
Wash/wipe system for windscreen and rear window	•	
Interior rear-view mirror	•	
Sun visor	•	
Bottle holder	•	
Clothes hook	•	
Storage box with cooling funktion	•	
Storage compartment	•	
Plug	•	
Ashtray	•	
Horn	•	
Provision for radio including loudspeaker		•
Radio set		•
Tool kit	•	
Operator’s package	•	

Instruments for:

	s	o
Diesel engine pre-heat	•	
Engine oil temperature	•	
Fuel reserve	•	
Timer for hours of operation	•	
Travel speed ranges and gear selected	•	
Forward – reverse Travel	•	
Forward travel	•	
Reverse travel	•	
Speedometer	•	
Rev. counter	•	
Clock	•	
Safety belt		x
Flashing turn indicators	•	
High-beam headlights	•	
Diagnosis system	•	

Warning Lights for:

	s	o
Engine oil pressure	•	
Engine overheat	•	
Parking brake	•	
Hydraulic oil temperature	•	
Air cleaner blockage	•	
Battery charge	•	
Flow through emergency steering system	•	
Road travel		x

Audible Warnings for:

	s	o
Engine oil pressure	•	
Engine overheat	•	
Overheat of hydraulic fluid	•	
Emergency steering system		x

Function Keys for:

	s	o
Speed range selection	•	
Air conditioning	•	
Hazard warning flashers	•	
Parking brake	•	
Electronic tractive force adaptation	•	
Creep speed	•	
Ride control	•	
Automatic bucket positioner	•	
Hoist kick-out	•	
Additional hydraulics	•	
Float position	•	
Headlights	•	
Working lights front	•	
Working lights rear	•	
Road travel	•	
Wash/wipe system for rear window	•	
Amber beacon	•	
Mode switch	•	
Blower	•	
Heater	•	
Adjusting the crowding force counter	•	

Equipment

	s	o
Z-bar linkage	•	
Z-bar linkage “High Lift”		x
Industrial Z-bar linkage		•
Parallel linkage		x
Hydraulic servo control of working hydraulics	•	
Automatic bucket positioner – adjustable	•	
Automatic hoist kick out – adjustable	•	
Float position	•	
Loading buckets with and without teeth, or bolt-on cutting edge		•
High-dump bucket		•
Light material bucket		•
Fork carrier and lift forks		•
Hydraulic quick-change device		•
3rd hydraulic control circuit		•
3rd and 4th hydraulic control circuits		•
Comfort control		•
Country-specific versions		•

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S = Standard, O = Option, X = not available

The Liebherr Wheel Loaders

Stereoloader






		L 506	L 507	L 508	L 509	L 512	L 514
Tipping load	kg	3215	3465	3895	4440	4615	5305
Bucket capacity	m³	0,8	0,9	1,0	1,1	1,3	1,5
Operating weight	kg	4810	4930	5310	5740	7000	7700
Engine output	kW/HP	44/60	46/63	49/67	52/71	59/80	72/98

Wheel Loader




		L 524	L 534	L 538	L 544 2plus2
Tipping load	kg	7005	8625	9000	10600
Bucket capacity	m³	2,0	2,4	2,5	3,0
Operating weight	kg	10100	12100	12380	15300
Engine output	kW/HP	81/110	100/136	100/136	121/165




		L 554 2plus2	L 564 2plus2	L 574 2plus2	L 580 2plus2
Tipping load	kg	12270	15285	16690	17850
Bucket capacity	m³	3,5	4,0	4,5	5,0
Operating weight	kg	17300	22450	24220	24740
Engine output	kW/HP	145/198	183/249	195/265	195/265

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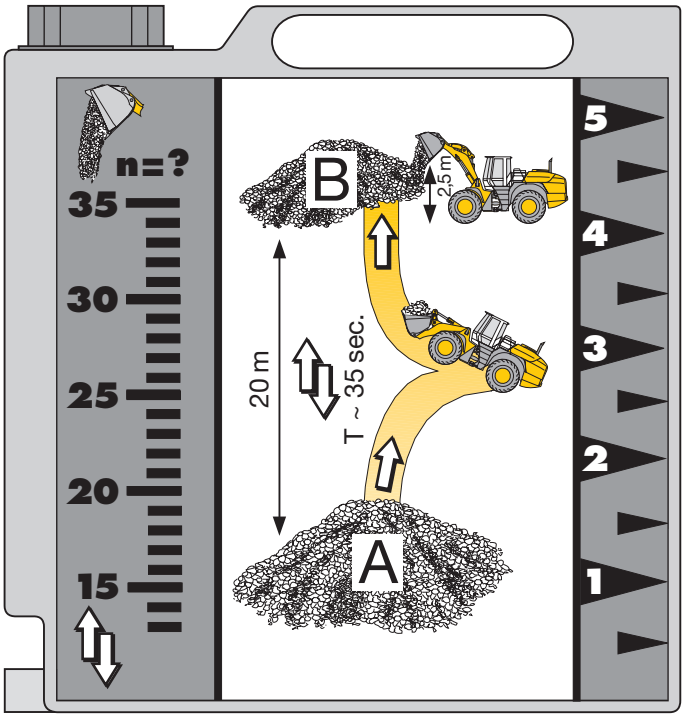
Environmental protection can help you earn money!



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

Every Liebherr dealer will provide you with this measuring-tank kit free of charge or, on request, will carry out the standard fuel consumption test on your premises. It's so easy: you simply determine the number of loading cycles that can be carried out with 5 litres of diesel. The material is taken from pile A and carried over a distance of 20 metres to point B. The time needed for each working cycle should be 35 seconds. Discharge at point B should take place from a height of 2,5 m. The working cycles continue until the 5 litres of diesel in the external measuring tank have been used up. The loader's fuel consumption per operating hour is calculated as follows:

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

Values for the Liebherr Wheel Loaders

	Numbers of working cycles	Litres/ 100 tons	Litres/ hour
L 524: 2,0 m³	n = 48	2,9	8,3
L 534: 2,4 m³	n = 40	2,8	10,0
L 538: 2,5 m³	n = 40	2,8	10,0
L 544: 3,0 m³	n = 35	2,6	11,4
L 554: 3,5 m³	n = 33	2,4	12,1
L 564: 4,0 m³	n = 24	2,9	16,7
L 574: 4,5 m³	n = 23	2,7	17,4
L 580: 5,0 m³	n = 22	2,7	18,2

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