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# L 580 LogHandler XPower®

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Product information

## LIEBHERR

Wheel loader



Generation  
6

Max. payload  
19,400 - 19,840 lb

Engine  
Tier 4f



# Take it to the next level

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**Max. payload**

19,510 lb

**Log grapple size**

4.4 yd<sup>2</sup>

**Operating weight**

82,675 lb

**Engine**

253 kW / 339 HP

## Performance

- Specially-designed lift arms enable high manipulation heights and long reaches for fast and trouble-free loading / unloading of trucks, loading of facilities, as well as log handling and transportation of high stacks of logs
- Grapple, which can rotated 360° and hydraulically swung forward and backward, ensures optimum material handling
- Additional grapple variants and sizes ensure a variety of possible applications
- Grapple swing damping acts transversely to the travel direction and dampens vibrations, thus ensuring a smooth ride and high uptime
- Lift arm stroke limit damping provides more robustness as well as a lower load on the stroke limits of the working hydraulics
- Reduced machine vibrations allow for comfortable and quiet work

## Reliability

- L 580 LogHandler XPower® delivers maximum performance even under the toughest operating conditions in the lumber industry thanks to a sophisticated engineering concept
- Equipped with numerous protective devices, the LogHandler proves to be an extremely robust, reliable, and powerful machine
- At the same time, the components of the Liebherr-XPower wheel loaders are extremely durable with low wear

## Maintainability

- The most important points of daily maintenance can be seen at a glance on the Liebherr XPower wheel loaders on the left side of the machine
- Simple and safe maintenance ensures less downtime, which saving costs

## Economy

- Liebherr-XPower travel drive accelerates quickly and enables high travel speeds, ensuring faster cycle times
- Significant fuel savings thanks to the innovative travel drive with Liebherr-Power-Efficiency (LPE)
- LPE optimizes the interplay of diesel engine, transmission, and working hydraulics for maximum efficiency and performance
- Minimal tire wear and virtually no brake wear due to the hydraulic-mechanical braking action of the transmission
- Automatic positioning of the lift arms by sophisticated electrohydraulics optimizes work processes and saves time

## Comfort

- Ergonomic cab design and increased operator comfort ensures focused and efficient work – increasing performance and productivity
- Optional joystick steering is integrated into the operator's seat for ergonomic and comfortable operation
- "Joystick steering only" makes it possible to have an operator's cab without a steering column, eliminating the need to reach around to the control panel
- Excellent all-around visibility no matter the position of the lift arms thanks to the special timber linkage, the optimized lighting concept, and the large cab windows
- Additionally, the optionally-available grapple monitoring system and the standard rear view monitoring system ensure perfect visibility all around the wheel loader



# Focus on performance and power

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## Lift arms

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Everything in view and under control – the LogHandler’s visibility-optimized lift arms, specially designed for logging operations, provides an optimal view of the loading/unloading area. An additional grapple camera provides an ideal view from above the logs on the pile. The grapple design ensures better penetration as well as faster filling and maximizes the degree of filling. In addition, the extended grabber width of 1,100 mm ensures stable transportation of logs. The hydraulic stop damping of the grabber compensates for speed changes and unevenness and provides greater comfort. A hydraulically adjustable log pusher with additional deflector plates is also available as an option.



## Safety and assistance systems

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Safe and helpful – numerous assistance systems ensure greater safety and faster work cycles, effectively increasing productivity. Especially for the rear area of the wheel loader, safety is increased with rear area monitoring, active personnel detection, and an acoustic and visual reversing alarm.



## Cab

Comfortable and modern – the sound-insulated ROPS / FOPS cab offers a modern and ergonomic working atmosphere in every respect. The Liebherr control lever is electro-hydraulically pilot-controlled and is conveniently adjustable via the Liebherr display. Optional joystick steering is integrated into the operator's seat for ergonomic and comfortable operation. In addition, the optional "joystick steering only" offers an operator's cab without a steering column, providing numerous advantages such as more space in the cab, improved visibility of the operating area and no need to reach around to the control panel.

## Travel drive and maintenance

Powerful and efficient – the Liebherr XPower travel drive enables continuous acceleration in all speed ranges, without noticeable gear changes. The ride control and the stroke limit damping of the working hydraulics ensure low-vibration working and promote the machine's longevity. All maintenance points are clean and safely, easily, and quickly accessible. Non-slip treads and sturdy handrails ensure maximum safety.

# Technical data



## Diesel engine

<b>Diesel engine</b>		D936 A7
Design		Water-cooled in-line engine with charge-air cooling
Cylinder inline		6
Fuel injection process		Electronic Common Rail high-pressure injection
Output		
to ISO 9249 / ECE-R.24	kW / HP at RPM	250 / 335 1,800
Rated output		
to ISO 14396 / ECE-R.120	kW / HP at RPM	253 / 339 1,800
Nominal speed		1,800
Max. torque		
to ISO 14396 / ECE-R.120	lb ft at RPM	1,452 1,000
Displacement		liters 10.5
Bore / Stroke		in 4.8" / 5.91"
<b>Tier 4f</b>		
Harmful emission values		In accordance with EPA 40 CFR part 1039 and CARB 13 CCR section 2423
Emission control		Liebherr-SCR technology
<b>Air cleaner system</b>		Dry type filter with main and safety element, pre-cleaner, service indicator on the Liebherr display
<b>Electrical system</b>		
Operating voltage	V	24
Battery	Ah	2x 180
Alternator	V / A	28 / 180
Starter	V / HP	24 / 10.5



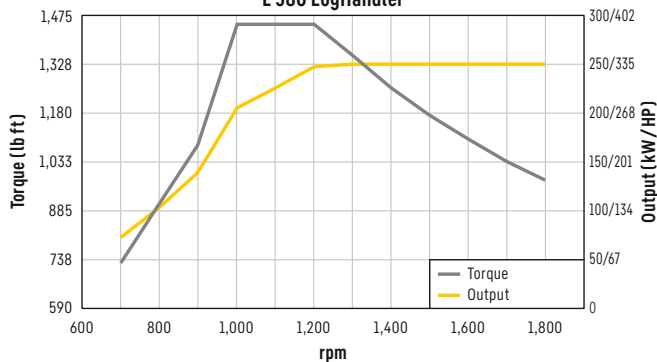
## Driveline

<b>Continuous power split XPower® driveline</b>	
Design	continuously-variable, fully-automatic XPower® driveline. No shifting interruptions across the entire speed range. Hydrostatic power split with two axial piston units. Identical driving performance – forwards and in reverse
Filtration	Filter system for driveline, depend on working hydraulics
Control	Driveline is controlled from travel pedal for tractive force and speed setting with integrated inch function. The Liebherr control switch is used to control forward and reverse travel
<b>Travel speed range</b>	0-24.9 mph forward and reverse, fully-automatic Speed restriction available upon request. Speeds quoted apply with the tires Michelin 800/65R29 XLD65 L3.

## Axles

<b>Four-wheel drive</b>	
<b>Front axle</b>	Fixed
<b>Rear axle</b>	Center pivot, with 10° oscillating angle to each side
Height of obstacles which can be driven over	ft in 1'
	with all four wheels remaining in contact with the ground
<b>Differentials</b>	Automatic limited-slip differentials
<b>Reduction gear</b>	Planetary final drive in wheel hubs
<b>Track width</b>	7'9" with all types of tires

L 580 LogHandler



## Brakes

<b>Wear-free service brake</b>	Self-braking of the XPower® driveline (acting on all four wheels) and additional pump-accumulator brake system with wet multi-disc brakes (two separate brake circuits)
<b>Parking brake</b>	Electro-hydraulically actuated spring-loaded disc brake system on the transmission

The braking system meets the requirements of the ISO 3450.

## Steering

<b>Design</b>	"Load-sensing" swash plate type variable flow pump with pressure cut-off and flow control. Central pivot with two double-acting, damped steering cylinders
<b>Angle of articulation</b>	38° to each side
<b>Emergency steering</b>	Electro-hydraulic emergency steering system

## Tires

All dimensions and weight data are calculated for loaders equipped with Michelin 800/65R29 XLD65 L3 tires.

Change of dimensions and weight when fitted with Goodyear 775/65R29 GP-4D L4 tires are:

<b>Operating weight</b>	lb	- 485
<b>Vertical dimensions</b>	ft in	- 1"

## Attachment hydraulics

<b>Design</b>	"Load-sensing" swash plate type variable flow pump with output and flow control, and pressure cut-off in the control block	
<b>Cooling</b>	Hydraulic oil cooling using thermostatically controlled fan and oil cooler	
<b>Filtration</b>	Return line filter in the hydraulic reservoir	
<b>Control</b>	Liebherr control lever, electro-hydraulically operated	
<b>Lifting function</b>	Lifting, neutral, lowering Lift arm positions programmable	
<b>Turning function</b>	Forwards, neutral, reverse Lift arm positions programmable	
<b>Grapple swing</b>	Forwards, lock, loose, reverse	
<b>Grapple rotation</b>	360°	
<b>Grapple opening / closing</b>		
<b>Max. flow</b>	gpm	111
<b>Max. pressure</b>	psi	5,076

## Attachment

<b>Geometry</b>	Powerful and sturdy LogHandler lift arm for optimal lifting heights. 360° rotating grapple equipment
<b>Bearings</b>	Sealed

## Operator's cab

<b>Design</b>	Hydraulically mounted, noise-proof cab ROPS roll over protection per EN ISO 3471 / EN 474-1 FOPS falling objects protection per EN ISO 3449 / EN 474-1, Cat. II Operator's door with sliding side window, sliding side window on right, front windshield made of laminated safety glass, side panels with single-pane safety glass ESG, heated rear window ESG, all windows are tinted. 3 way continuously adjustable steering column	
<b>Liebherr operator's seat</b>	6 way adjustable, vibration-damped operator's seat "Comfort" with seat, depth and incline adjustment standard (air-cushioned with seat heating adjustable to operator's weight), Liebherr control lever mounted into the operator's seat standard	
<b>Cab heating and ventilation</b>	4-zone air conditioning with new improved cooling output standard, electrically heated rear window, all filters are easy to access and replaceable	
<b>Vibration emissions</b>		
Vibrations in the hand/arm	ft/s <sup>2</sup>	≤ 8.2
Vibrations through the whole body	ft/s <sup>2</sup>	≤ 1.6

## Sound level

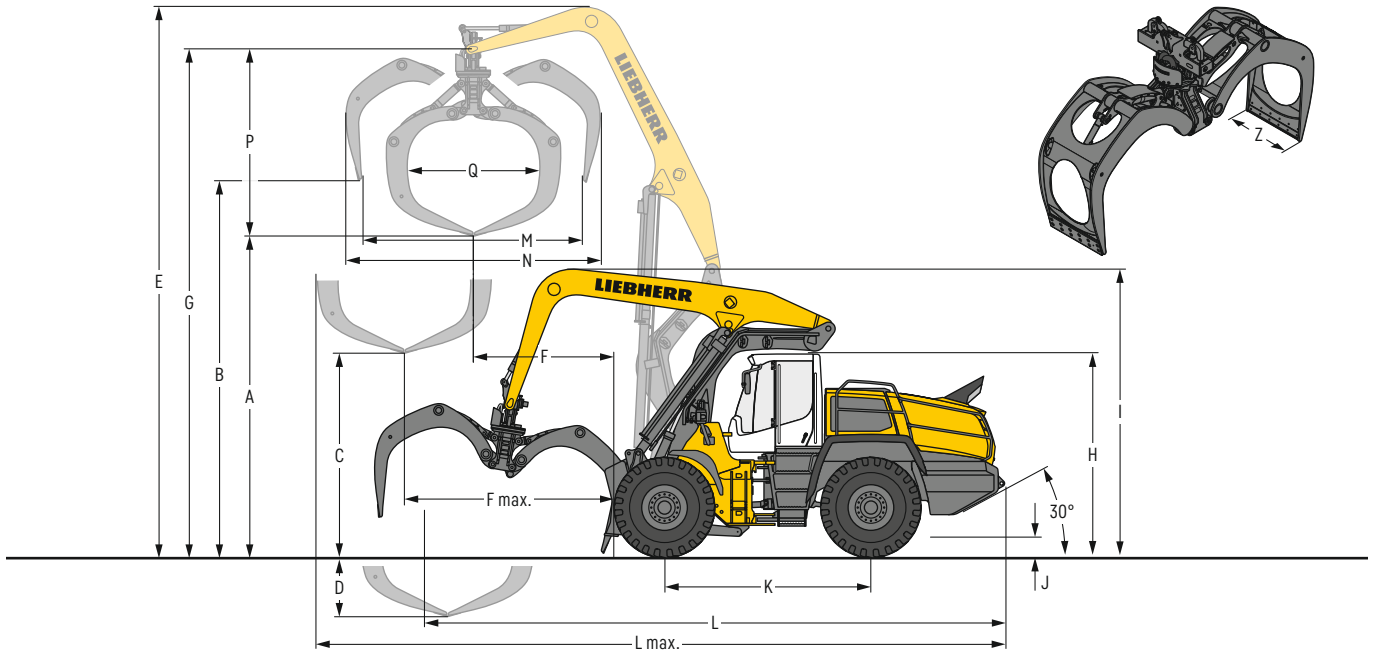
<b>Sound pressure level to ISO 6396</b>		
L <sub>PA</sub> (inside cab)	dB(A)	68
<b>Sound power level to 2000/14/EC</b>		
L <sub>WA</sub> (surround noise)	dB(A)	107

## Capacities

<b>Fuel tank</b>	gal	96
<b>DEF tank</b>	gal	17.8
<b>Engine oil (inclusive filter change)</b>	gal	11.1
<b>Pump distribution gearbox</b>	gal	0.3
<b>XPower® gearbox</b>	gal	14.5
<b>Coolant</b>	gal	19.3
<b>Front axle</b>	gal	15.3
<b>Rear axle</b>	gal	15.3
<b>Hydraulic tank</b>	gal	25.1
<b>Hydraulic system, total</b>	gal	60.8
<b>Air conditioning system R134a</b>	lb	2.8

# Dimensions

## LogHandler XPower®



### Rotating grapple, 360°

		4.0 yd <sup>2</sup>	4.4 yd <sup>2</sup>	4.8 yd <sup>2</sup>
A	Max. manipulation height with grapple closed <sup>1)</sup>	ft in 19'5"	18'11"	18'8"
B	Max. manipulation height with grapple open	ft in 23'1"	22'10"	22'7"
C	Manipulation height at max. reach	ft in 12'11"	12'6"	12'1"
D	Lower manipulation area	ft in 3'2"	3'8"	4'1"
E	Max. height	ft in 32'8"	32'8"	32'8"
F	Reach at max. lifting height	ft in 8'11"	8'11"	8'11"
F max.	Max. reach	ft in 13'	13'	13'
G	Height of grapple link	ft in 30'1"	30'1"	30'1"
H	Height above operator's cab	ft in 11'9"	11'9"	11'9"
I	Height with grapple positioned longitudinally	ft in 17'3"	17'3"	17'3"
	Height when max. reach is attained	ft in 22'10"	22'10"	22'10"
J	Ground clearance incl. log pusher	ft in 1'	1'	1'
K	Wheelbase	ft in 12'2"	12'2"	12'2"
L	Overall length	ft in 34'1"	34'3"	34'3"
L max.	Max. total length at max. reach	ft in 41'4"	41'6"	41'6"
	Width over tires <sup>2)</sup>	ft in 10'7"	10'7"	10'7"
M	Grapple opening	ft in 11'9"	12'6"	13'3"
N	Max. span with grapple open	ft in 14'1"	14'6"	15'3"
P	Height from tip-to-tip	ft in 9'11"	10'4"	10'9"
Q	Grapple diameter	ft in 7'10"	7'10"	7'10"
	Grapple weight (incl. chains) <sup>3)</sup>	lb 9'4"	9'8"	9'10"
Z	Jaw width	ft in 3'7"	3'7"	3'7"
	Turning circle radius over lift arm with grapple positioned longitudinally	ft in 23'9"	23'11"	23'11"
	Turning circle radius over external edge of tires	ft in 23'1"	23'1"	23'1"
	Turning circle radius over inner edge of tires	ft in 12'6"	12'6"	12'6"
	Max. payload at fully articulated angle of articulation*	lb 19.840	19.510	19.400
	Max. payload with reduced reach (750 mm swung back) and max. articulation angle*	lb 24.470	24.140	24.030
	Operating weight*	lb 82.455	82.675	82.785
	Tire size	800/65R29 Michelin XLD65	800/65R29 Michelin XLD65	800/65R29 Michelin XLD65

\* The figures shown include the above tires, all lubricants, a full fuel tank, the ROPS / FOPS cab and the operator. Different tires and optional equipment like hold-down devices will change the operating weight and payload. The log pusher increases the operating weight as 2,425 lb.

<sup>1)</sup> Takes tire deflection into account at maximum payload.

<sup>2)</sup> The provided values include the tire bulge associated with a fully-loaded machine.

<sup>3)</sup> Data applies to grapple with chain and bottom screw blade; with hydraulic hold-down device the weight of the grapple increases by 265 lb.



= Combination grapple; closes tip-to-tip



# Equipment



## Areas of application

		Combination grapple
Hold-down device		Chain / Hydraulic hold-down device
Grapple sizes	yd <sup>2</sup>	4.0 / 4.4 / 4.8
Grapple closes tip-to-tip		•
Vertical parting		-
Mass handling		+++
Sorting		+++
Unloading trucks		+++
Box emptying		+

• = Standard, +++ = excellent, + = satisfactory, - = not available



## Basic wheel loader

Crash protection, rear	+
Automatic central lubrication system	•
Battery main switch (lockable)	•
Refuelling pump with automatic shut-down system	+
Electronic tractive force regulation for difficult ground conditions	•
Travel light LED	•
Travel light with additional headlights LED	+
Ride control	•
Parking brake	•
Fire extinguisher 13 lb	•
Particle protection for radiator	+
Speed limiter 12.4 mph as a factory preset	+
Speed limiter V <sub>max</sub> adjustable key on the control unit	•
Transmission mode in neutral position – self-locking or free rolling (can be selected via the display)	+
DEF tank	•
Turbocharger insulation	+
Pre-heat system for cold starting	•
Combined inching-braking system	•
Fuel pre-filter	•
Fuel pre-filter with pre-heating	+
Large-mesh radiator	+
Cooling water pre-heating 230 V	+
Multi-disc limited slip differentials in both axles	•
Lamp carrier in steel design with guard	•
Lamp carrier in steel design with additional lights and guard	+
Liebherr-SCR technology	•
Reversible fan drive	•
Automatic delayed engine stop	+
Widening for mudguard	+
Ramming guard with guard	+
Headlights LED (double design on engine hood)	•
LogHandler special ballast (no water filling of tires required)	•
Auxiliary heater (Additional heating with engine preheating)	+
Dust protection for alternator	+
Lockable doors and engine hood	•
Air pre-cleaner TOP AIR	+
Toolbox with toolkit	•
Liebherr weighing system with stability indicator	+
Towing hitch	•
Additional handrails left	•
Additional handrails right	•

• = Standard  
+ = Option  
- = not available



## Equipment

Deflector for log pusher	+
Working hydraulics lockout	•
Grapple with hydraulic stop damper	•
Grapple monitoring (with camera on display)	+
Log grapple Liebherr, 360° rotating	+
Log grapple versions incl. modular blade	+
LogHandler lift arm with windshield guard	•
Lift arm positions programmable	•
Hoist cylinder protection	•
Headlights LED on the arm (double design inside and outside; single design on front carriage)	+
Headlights LED inside the arm	•
Smooth Speed Reduction system (SSR-System)	•
Log pusher hydraulically adjusted with automatic lifting in reverse travel	+

# Equipment



## Operator's cab

Adapter plate for additional fastening on the multi-function rail	+
Access assistance to facilitate cleaning windshield	•
Exterior mirror, manual adjustable	•
Operating hour meter (integrated in display unit)	•
Operating hour meter (mechanic)	+
Electronical theft protection with code	+
Electronical theft protection with key with/without driver identification	+
Storage box left	•
Operator's cab without steering wheel/steering column (not available as street legal) – joystick steering only	+
Operator seat "Comfort" – air-suspension with seat heating	•
Operator seat "Premium" – active air-suspension with seat air-condition, seat heating and headrest	+
Particle filter F7	•
Fire extinguisher in cab 4 lb	•
Preparation for radio unit installation	+
Rear window heated electrically	•
Integral tire pressure monitoring system	+
Joystick steering	+
Floor mat	•
Clothes hooks (2 pieces)	•
Air conditioning system	•
Automatic air conditioning system	+
Cool box	+
3 way continuously adjustable steering column (height-adjustable, tilting, folding)	•
LiDAT total use 1 year (for free)	•
Liebherr control lever for LogHandler moving with operator's seat	•
Liebherr key with remote control incl. Coming Home/Leaving Home function	+
Multi-functional rail left	+
Premiumdisplay (Touchscreen), with height adjustment and tilting function	•
Preparation for radio installation	•
Radio Liebherr "Comfort" (USB/AUX/BLUETOOTH/handsfree set)	+
Radio Liebherr "Standard" (USB/AUX)	+

- = Standard
- + = Option
- = not available



## Operator's cab

Interior rear-view mirror	•
Amber beacon (left and right) LED	+
Soundproof ROPS/FOPS cab	•
Wipe and wash system	•
Windshield wiper single-sweep function with button	•
Headlights rear, single design, LED	+
Headlights rear, double design, LED	+
Sliding window left/right	•
Slipcover for operator seat	+
Windscreen guard mounted on lift arm	•
Sunblind rear	+
Sunblind front	•
Power socket 12V	•
Power socket USB	•
First aid kit	+
Preparation for protective ventilation and dust filtrating device	+
Wide angle mirror	+
Cigarette lighter	•



## Safety

Active personnel detection at the rear incl. brake assistant	+
Country-specific versions	+
Emergency steering system	•
Reversing obstruction detector	+
Back-up alarm audible	•
Back-up alarm visual	+
Rear space monitoring with camera (with Liebherr camera via Liebherr display)	•

Further information can be found in the brochure "Assistance systems for wheel loaders" or you can find here:



Download our wheel loader brochures here:



### WARNING

Breathing diesel engine exhaust exposes you to chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

- Always start and operate the engine in a well-ventilated area.
- If in an enclosed area, vent the exhaust to the outside.
- Do not modify or tamper with exhaust system.
- Do not idle the engine except as necessary.

For more information go to [www.P65warnings.ca.gov/diesel](http://www.P65warnings.ca.gov/diesel).

### WARNING

This product can expose you to chemicals including lead and lead compounds, which are known to the State of California to cause cancer and birth defects or other reproductive harm.

For more information go to [www.P65warnings.ca.gov](http://www.P65warnings.ca.gov).

## Liebherr USA, Co.

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