Product Information Log Loader

LH 35 M Timber

Litronic®

Generation
6

Operating Weight
28,000 – 30,200 kg*

Engine
150 kW/204 HP
Stage V
Stage IIIA (compliant)

* Without attachment

LIEBHERR

Performance
Power Plus Speed –
Redefined Performance

Economy
Good Investment –
Savings for Long-Term

Reliability
Durability and Sustainability –
Quality Down to the Last Detail

Comfort
Perfection at a Glance –
When Technology is Comfortable

Maintainability
Efficiency Bonus –
Even with Maintenance and Service

Well Thought Out to the Last Detail

Optimised Travel Motor

- Better performance with lower fuel consumption even on uphill grades
- Powerful, robust, reliable and quiet

Rigid Cab Elevation LFC 120

- New, clever, space-saving access system with integrated treads and 10° inclination for easy access and more safety

Height-Adjustable Trailer Coupling at 2-point / Blade Support

- The height of the coupling jaw can be set and adjusted in increments of 60 mm in a range between approx. 760 and 1,060 mm
- Simple and fast adjustment of coupling jaw height to the drawbar height

Convincing in Operation

Performance

Increased Engine Output
Engine output has been increased from 140 kW to 150 kW compared to the predecessor models, giving the system more torque for more powerful movement. Furthermore, load peaks are compensated cleverly, meaning maximum torque is available at all times for maximum handling capacity.

Captivating Dynamics
The combination of 150 kW of engine output and an increased pump delivery volume guarantees maximum acceleration and speed of working motions.

4-Wheel Steering
The standard 4-wheel steering provides great agility and manoeuvrability of the log loader, even in the tight space of a timber yard. Furthermore, the 4-wheel steering increases driving stability and improves the driving in one lane.

Optimised Undercarriage Concept for Trailer Operation
The combination of a log loader and trailer is the optimal choice for longer distances. Thanks to the new undercarriage concept with 2-point/blade support, the material handling capacity is increased significantly in trailer operation. The 2-point outrigger guarantees maximum stability and high lift capacities during loading and unloading of the trailer across the entire slewing range. As a result, more logs can be handled per work cycle and productivity is increased. The blade can also be used for clearing and thus increases safety in the timber yard.

Economy

Closed Hydraulic Circuit for the Swing Mechanism
The closed slewing circuit feeds the braking energy back into the system when the uppercarriage is braked. Here, new standards are set in terms of efficiency and economy. Simple yet effective.

Liebherr-Power Efficiency (LPE)
LPE optimises the interaction of the drive components in terms of efficiency and enables machine operation in the area of the lowest specific fuel use for less consumption and greater efficiency with the same performance.

Efficient Drive Operation
The electric swivel angle adjustment in the drive motor provides for more torque, maximum acceleration and higher traction. That allows a constantly high performance to be called up even on uphill gradients. Optimal adjustment of speed and delivery volume ensures impressive fuel efficiency even at maximum speed.

Convincing in Operation

Reliability

Quality and Competence
Our experience, understanding of customer needs and the technical implementation of these findings guarantee the success of the product. For decades, Liebherr has been inspirational with its knowledge of production and system solutions. Key components such as the diesel engine, electronic components, slewing ring, swivelling drive and hydraulic cylinders are developed and produced by Liebherr itself. The great depth of in-house manufacturing guarantees maximum quality and ensures that components are optimally configured to each other.

Protective Devices
Especially in tough timber application the material handlers are used heavily. The optional protective devices extend the component service life and guarantee high machine availability with maximum safety for people and machine.

Intelligent Self Diagnostics
The clever control electronics permanently monitor the vital functions of the machine to guarantee a high level of machine availability. Components which are critical for safety are designed with redundancy to guarantee maximum safety.

Comfort

Proportional Control
In timber yards, where space is tight, precision and fine control are especially important. The 4-way mini-joystick with its proportional control make for efficient use of the machine. The streamlined design and ergonomic form of the joystick further increase functionality directly in the hands of the operator for simple and efficient control.

Slewing Gear Brake Comfort
The standard slewing gear brake comfort control allows the selection between the mode manual, semiautomatic and automatic.
This standard slewing gear brake in the manual mode can be opened and closed with the button on the joystick.
In the semiautomatic mode the slewing gear brake can also be closed manually but automatically opened again when the uppercarriage is moved via the joystick control.
The automatic mode allows the slewing gear brake to be closed automatically when the predefined time, set by the operator, has passed and the uppercarriage has stopped moving. It will open automatically as soon as the uppercarriage is moved via the joystick control.
By opening and closing the slewing gear brake automatically the operator can work faster and more safely with less effort.

Maintainability

Service-Based Machine Design
The service-based machine design guarantees short servicing times, thus minimising maintenance costs due to the time it saves. All the maintenance points are easily accessible from the ground and easy to reach due to the large, wide-opening service doors. The enhanced service concept places the maintenance points close to each other and reduces their number to a minimum. This means that service work can be completed even more quickly and efficiently.

SCRFilter for Stage V
The SCR filter system includes a DOC catalyst, an SCR catalyst and an SCR-coated particulate filter. The DOC catalyst requires no maintenance and the coated particulate filter is regenerated passively ensuring that the system is reliable and easy to use. The maintenance intervals can be extended to more than 4,500 operating hours.

Technical Data

Diesel Engine

Rating per ISO 9249	150 kW (204 HP) at 1,700 RPM
Model	Liebherr D934
Type	4 cylinder in-line
Bore/Stroke	122/150 mm
Displacement	7.0 l
Engine operation	4-stroke diesel Common-Rail turbo-charged and after-cooled reduced emissions
Air cleaner	dry-type air cleaner with pre-cleaner, primary and safety elements
Engine idling	sensor controlled
Electrical system	
Voltage	24 V
Batteries	2 x 135 Ah/12 V
Alternator	three-phase current 28 V/140 A
Stage V	
Harmful emissions values	according to regulation (EU) 2016/1628
Emission control	Liebherr-SCRFilter technology
Fuel tank	330 l
Urea tank	46 l
Stage IIIA (compliant)	
Harmful emissions values	in accordance with ECE-R.96 Power Band H
Fuel tank	330 l

Cooling System

Diesel engine	water-cooled compact cooling system consisting cooling unit for water, hydraulic oil and charge air with step-less thermostatically controlled fan

Hydraulic Controls

Power distribution	via control valves with integrated safety valves, simultaneous actuation of chassis and equip-ment. Swing drive in separate closed circuit
Servo circuit	
Equipment and swing	with hydraulic pilot control and proportional joystick levers
Chassis	electroproportional via foot pedal
Additional functions	via switch or electroproportional foot pedals
Proportional control	proportionally acting transmitters on the joy-sticks for additional hydraulic functions

Hydraulic System

Hydraulic pump	
for equipment and travel drive	2 Liebherr axial piston variable displacement pumps (double construction)
Max. flow	2 x 231 l/min.
Max. pressure	350 bar
for swing drive	reversible axial piston variable displacement pump, closed-loop circuit
Max. flow	140 l/min.
Max. pressure	420 bar
Hydraulic pump regulation and control	Liebherr-Synchron-Comfort-system (LSC) with electronic engine speed sensing regulation, pressure and flow compensation
Hydraulic tank	175 l
Hydraulic system	430 l
Hydraulic oil filter	1 main return filter with integrated partial micro filtration (5 µm)
MODE selection	adjustment of engine and hydraulic performance via a mode pre-selector to match application, e.g. for especially economical and environmen-tally friendly operation or for maximum material handling and heavy-duty jobs
S (Sensitive)	mode for precision work and lifting through very sensitive movements
E (Eco)	mode for especially economical and environ-mentally friendly operation
P (Power)	mode for high performance with low fuel con-sumption
P+ (Power-Plus)	mode for highest performance and for very heavy duty applications, suitable for continuous operation
Engine speed and performance setting	stepless alignment of engine output and hydraulic power via engine speed
Option	Tool Control: 20 preadjustable pump flows and pressures for add-on attachments

Swing Drive

Drive	Liebherr axial piston motor in a closed system, Liebherr planetary reduction gear
Swing ring	Liebherr, sealed race ball bearing swing ring, internal teeth
Swing speed	0 – 9.5 RPM stepless
Swing torque	76 kNm
Holding brake	wet multi-disc (spring applied, pressure released)
Operation holding brake	slewing gear brake Comfort

Operator's Cab

Cab	TOPS safety cab structure (tip-over protection) with individual windscreens or featuring a slide-in subpart under the ceiling, work headlights integrated in the ceiling, a door with a sliding window (can be opened on both sides), large stowing and depositing possibilities, shock-absorbing suspension, sounddamping insulating, tinted laminated safety glass, separate shades for the sunroof window and windscreen
Operator's seat Comfort	air cushioned operator's seat with 3D-adjustable armrests, headrest, lap belt, seat heater, adjustable seat cushion inclination and length, lockable horizontal suspension, automatic weight adjustment, adjustable suspension stiffness, pneumatic lumbar vertebrae support and passive seat climatisation with active coal
Operator's seat Premium (Option)	in addition to operator's seat comfort: active electronic weight adjustment (automatic re-adjustment), pneumatic low frequency suspension and active seat climatisation with active coal and ventilator
Control system	joysticks with control consoles and swivel seat, folding left control console
Operation and displays	large high-resolution operating unit, selfexplanatory, colour display with touchscreen, video-compatible, numerous setting, control and monitoring options, e.g. air conditioning control, fuel consumption, machine and attachment parameters
Air-conditioning	automatic air-conditioning, recirculated air function, fast de-icing and demisting at the press of a button, air vents can be operated via a menu; recirculated air and fresh air filters can be easily replaced and are accessible from the outside; heating-cooling unit, designed for extreme outside temperatures, sensors for solar radiation, inside and outside temperatures
Refrigerant	R134a
Global warming potential	1,430
Quantity at 25 °C*	1,400 – 1,500 g
CO_2 equivalent*	2.002 – 2.145 t
Vibration emission**	
Hand/arm vibrations	< 2.5 m/s²
Whole-body vibrations	< 0.5 m/s²
Measuring inaccuracy	according with standard EN 12096:1997

Undercarriage

Drive	oversized two speed power shift transmission with additional creeper speed, Liebherr axial piston motor with functional brake valve on both sides
Travel speed	
Joystick and wheel steering	0 – 3.5 km/h stepless (creeper speed + transmission stage 1) 0 – 7.0 km/h stepless (transmission stage 1) 0 – 13.0 km/h stepless (creeper speed + transmission stage 2) 0 – 20.0 km/h stepless (transmission stage 2)
Driving operation	automotive driving using accelerator pedal, cruise control function: storage of variable accelerator pedal positions
Axles	60 t drive axles; manual or automatic hydraulically controlled front axle oscillation lock
Four wheel steering	standard
Steering reversal control	standard
Service brake	two circuit travel brake system with accumulator; wet and backlash-free disc brake
Holding brake	wet multi-disc (spring applied, pressure released)
Stabilization	stabilizer blade rear
Option	stabilizer blade rear and front stabilizer blade rear + 2 point outriggers front

Equipment

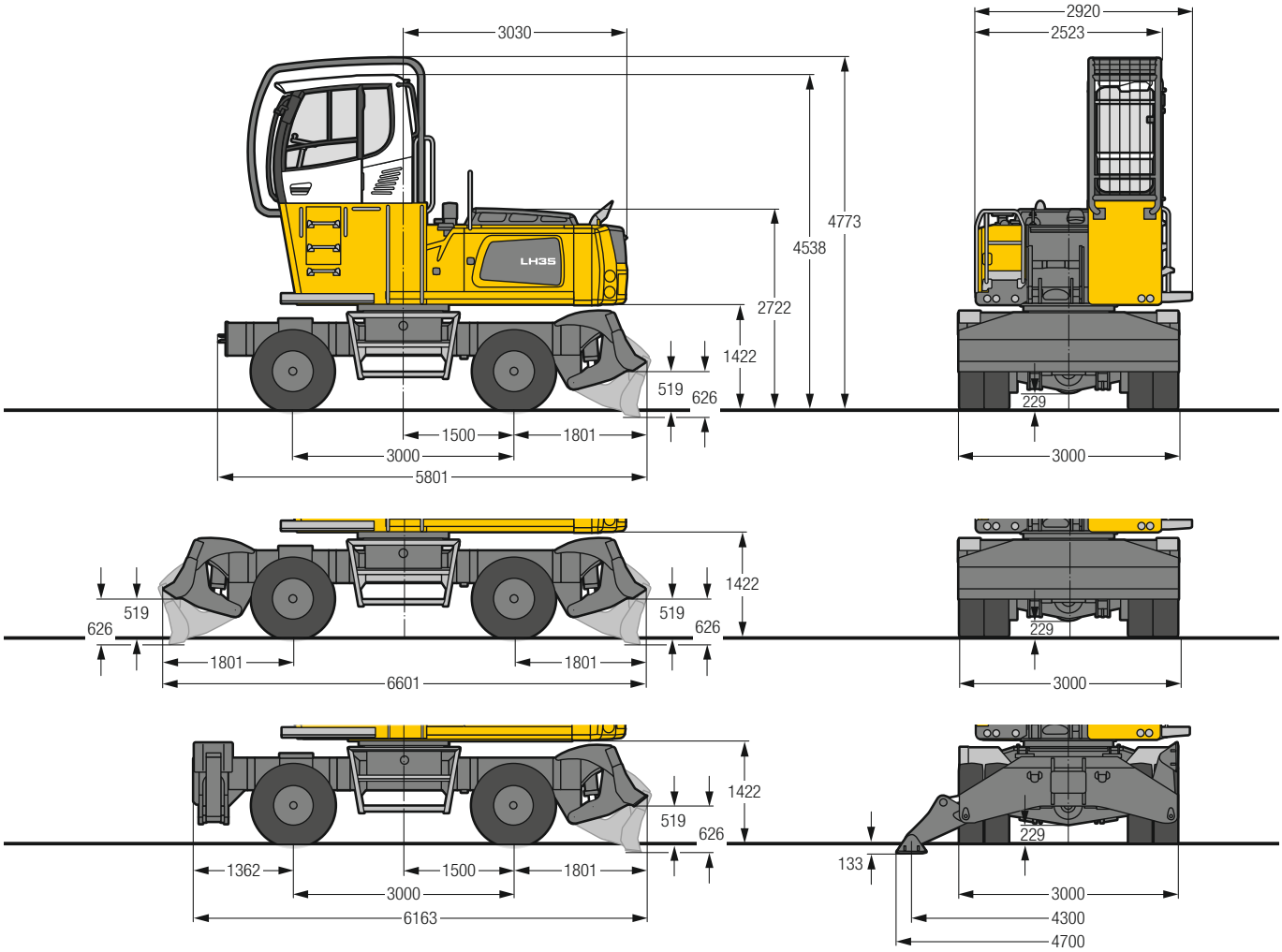
Type	high-strength steel plates at highlystressed points for the toughest requirements. Complex and stable mountings of equipment and cylinders
Hydraulic cylinders	Liebherr cylinders with special seal system as well as shock absorption
Bearings	sealed, low maintenance

Complete Machine

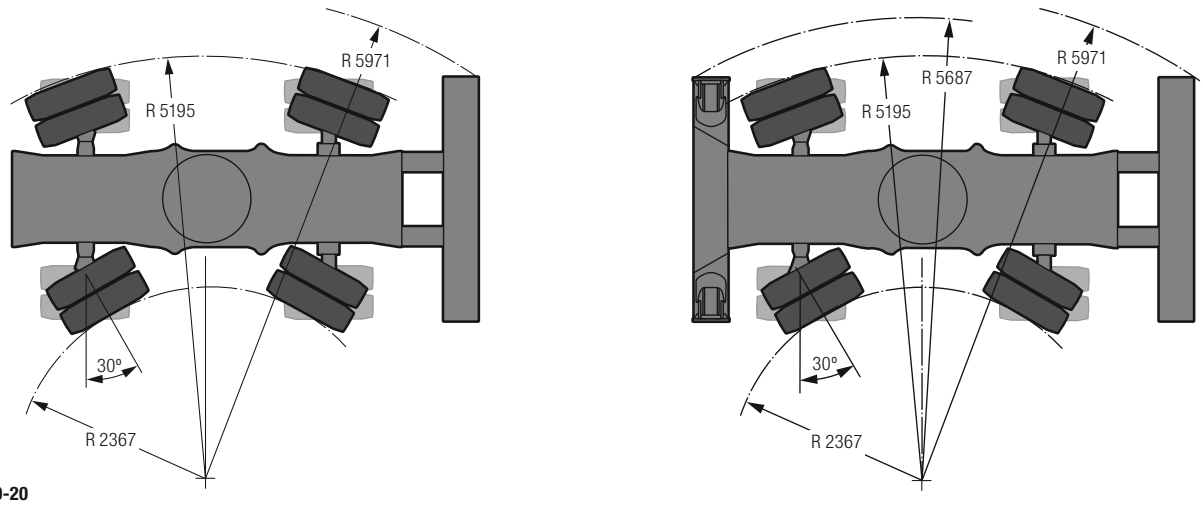
Lubrication	Liebherr central lubrication system for uppercarriage and equipment, automatically
Option	Liebherr central lubrication system for undercarriage, automatically
Steps system	safe and durable access system with anti-slip steps main components hot-galvanised
Noise emission	
ISO 6396	L_{pA} (inside cab) = 70 dB(A) (Stage V)
2000/14/EC	L_{WA} (surround noise) = 103 dB(A) (Stage V)
ISO 6396	L_{pA} (inside cab) = 71 dB(A) (Stage IIIA compliant)
2000/14/EC	L_{WA} (surround noise) = 103 dB(A) (Stage IIIA compliant)

* depending on configuration
** for risk assessment according to 2002/44/EC see ISO/TR 25398:2006

Dimensions



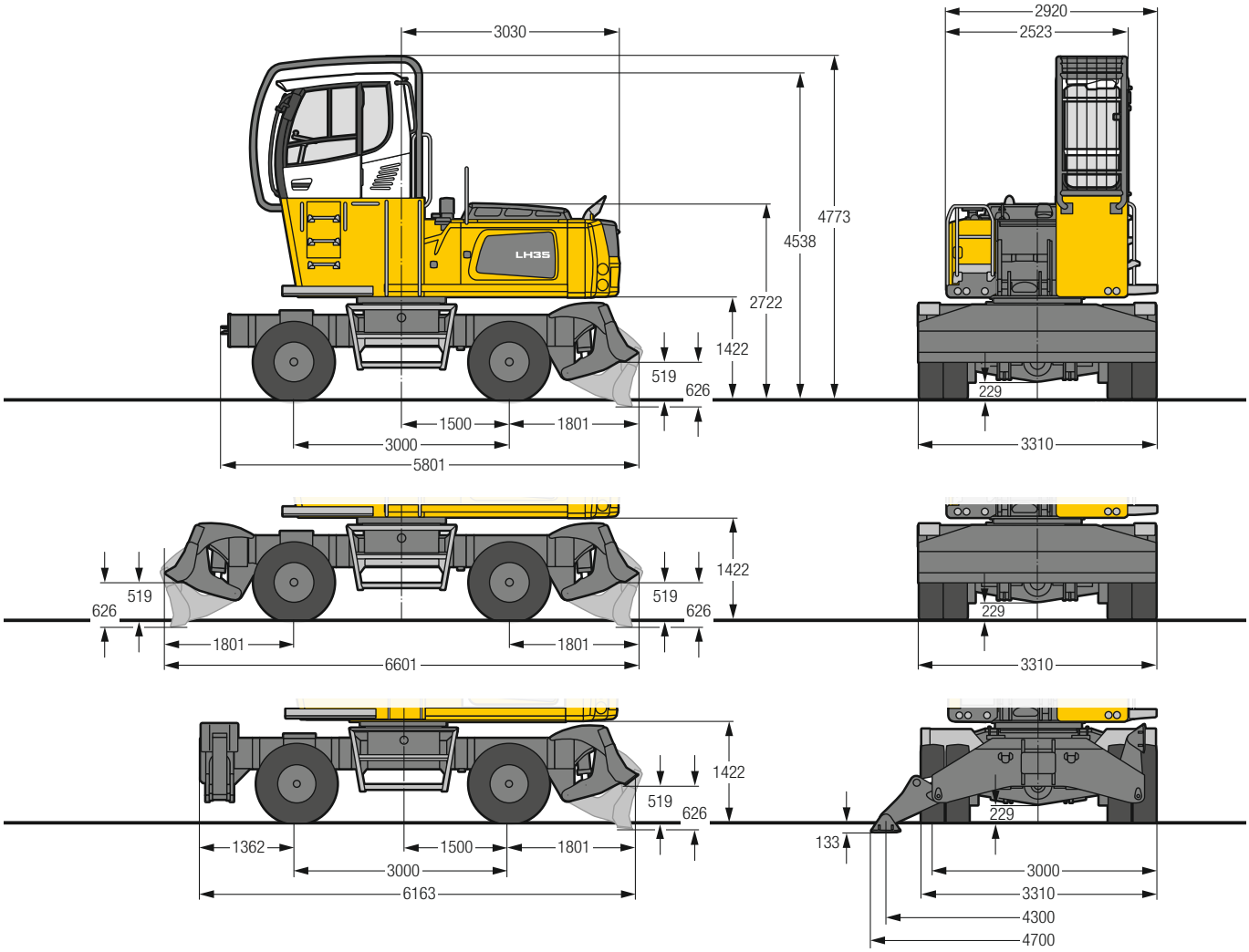
Turning Radiuses



Tyres 12.00-20

Dimensions

EW-Undercarriage



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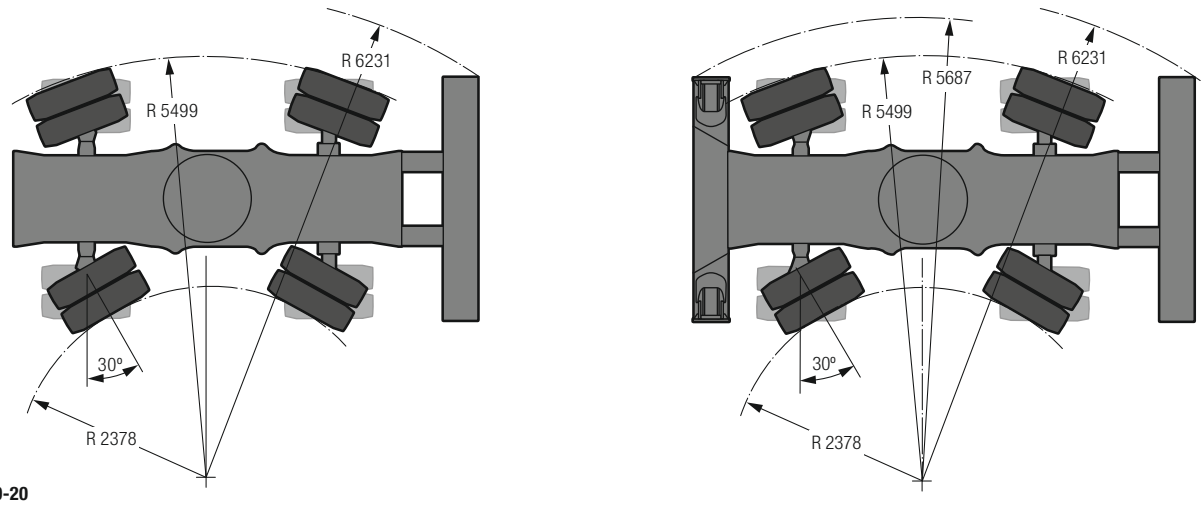
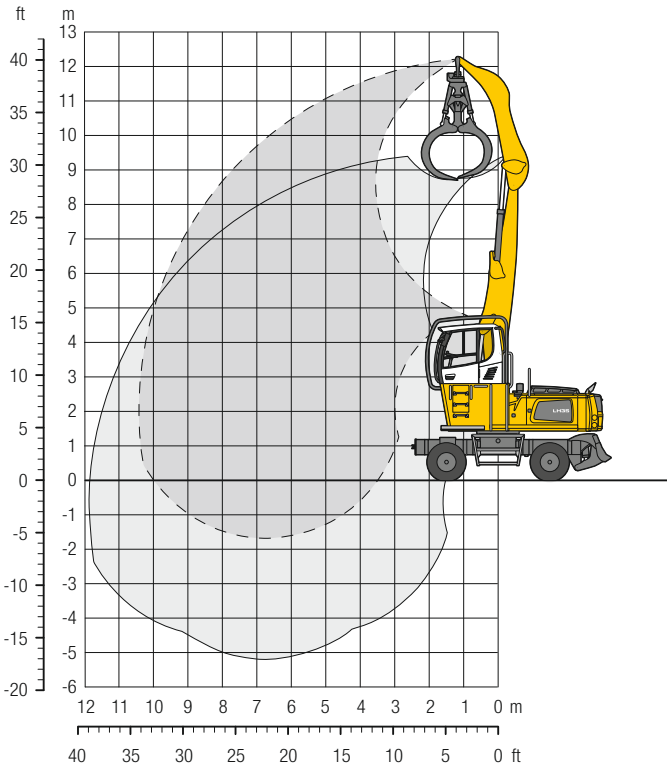


Tyres 12.00-20

Equipment GA10

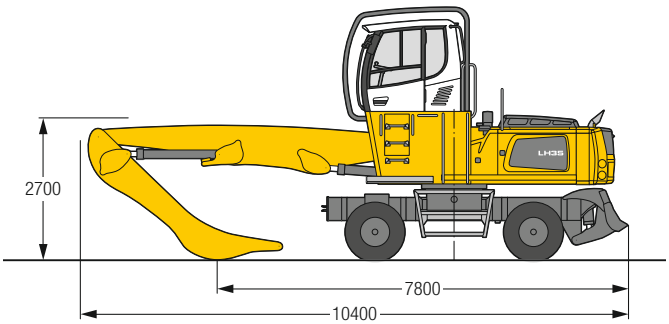


Operating Weight

The operating weight includes the basic machine with stabilizer blade, rigid cab elevation, 8 pneumatic tyres, straight boom 6.50 m, angled stick 4.00 m and wood grab GM 20B/ 1.70 m².

Weight	29,600 kg

Dimensions



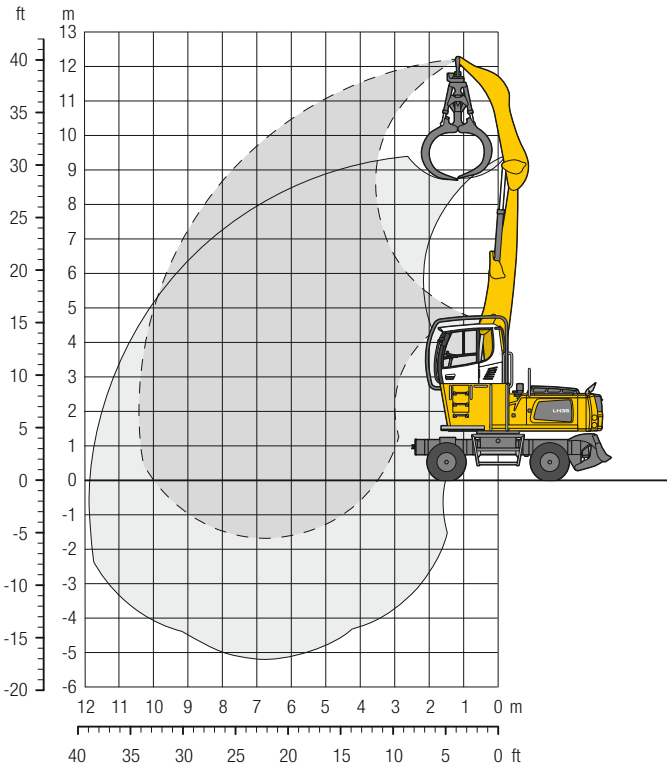
m	Undercarriage	3.0 m		4.5 m		6.0 m		7.5 m		9.0 m		10.5 m				m
12.0	Stabilizers raised (drive operation)													10.7*	10.7*	
	Stabilizers raised													10.7*	10.7*	2.5
	Stabilizer blade down													10.7*	10.7*	
10.5	Stabilizers raised (drive operation)			8.9	10.0*									5.6	6.9*	
	Stabilizers raised			10.0*	10.0*									6.9*	6.9*	6.0
	Stabilizer blade down			10.0*	10.0*									6.9*	6.9*	
9.0	Stabilizers raised (drive operation)			9.0	10.2*	5.7	7.6	4.0	5.3					3.8	5.0	
	Stabilizers raised			10.2*	10.2*	7.2	8.3*	5.0	6.6					4.7	6.0*	7.7
	Stabilizer blade down			10.2*	10.2*	7.6	8.3*	5.3	6.8*					5.0	6.0*	
7.5	Stabilizers raised (drive operation)			8.9	10.3*	5.7	7.5	4.0	5.3					3.0	4.0	
	Stabilizers raised			10.3*	10.3*	7.1	8.3*	5.0	6.6					3.8	5.0	8.9
	Stabilizer blade down			10.3*	10.3*	7.6	8.3*	5.3	7.0*					4.0	5.5*	
6.0	Stabilizers raised (drive operation)	12.3*	12.3*	8.6	10.8*	5.6	7.4	3.9	5.2	2.9	3.9			2.6	3.5	
	Stabilizers raised	12.3*	12.3*	10.8	10.8*	6.9	8.5*	4.9	6.5	3.7	4.9			3.3	4.4	9.6
	Stabilizer blade down	12.3*	12.3*	10.8*	10.8*	7.4	8.5*	5.2	7.0*	3.9	5.9*			3.5	5.3*	
4.5	Stabilizers raised (drive operation)	15.4	17.5*	8.1	11.1	5.3	7.1	3.8	5.1	2.9	3.9			2.4	3.2	
	Stabilizers raised	17.5*	17.5*	10.1	11.7*	6.6	8.9	4.8	6.3	3.6	4.8			3.0	4.0	10.1
	Stabilizer blade down	17.5*	17.5*	10.8	11.7*	7.0	8.9*	5.1	7.1*	3.8	5.8*			3.2	4.8*	
3.0	Stabilizers raised (drive operation)	2.8*	2.8*	7.4	10.3	5.0	6.7	3.6	4.9	2.8	3.8			2.3	3.1	
	Stabilizers raised	2.8*	2.8*	9.2	12.4*	6.2	8.4	4.5	6.1	3.5	4.7			2.8	3.8	10.4
	Stabilizer blade down	2.8*	2.8*	9.9	12.4*	6.6	9.1*	4.9	7.1*	3.7	5.7*			3.0	4.3*	
1.5	Stabilizers raised (drive operation)	1.1*	1.1*	6.8	9.7	4.7	6.4	3.5	4.7	2.7	3.7			2.2	3.0	
	Stabilizers raised	1.1*	1.1*	8.5	11.9*	5.9	8.0	4.4	5.9	3.4	4.6			2.8	3.7*	10.4
	Stabilizer blade down	1.1*	1.1*	9.2	11.9*	6.3	8.8*	4.7	6.8*	3.6	5.3*			3.0	3.7*	
0	Stabilizers raised (drive operation)			6.6	9.4	4.5	6.2	3.4	4.6	2.7	3.6			2.3	3.2	
	Stabilizers raised			8.2	9.6*	5.6	7.8	4.2	5.8	3.3	4.5			2.9	3.4*	10.0
	Stabilizer blade down			8.9	9.6*	6.0	7.8*	4.5	6.1*	3.6	4.6*			3.1	3.4*	
–1.5	Stabilizers raised (drive operation)					4.4	6.1*	3.3	4.6					3.1	4.2	
	Stabilizers raised					5.6	6.1*	4.2	4.8*					3.9	4.4*	7.9
	Stabilizer blade down					6.0	6.1*	4.5	4.8*					4.2	4.4*	

Height **Can be slewed through 360°** **In longitudinal position of undercarriage** **Max. reach** *** Limited by hydr. capacity**

The lift capacities on the stick end without attachment are stated in metric tons (t) and are valid on a firm, level supporting surface with blocked oscillating axle. These capacities can be slewed through 360° with the undercarriage in the transverse position. Capacities in the longitudinal position of the undercarriage (+/– 15°) are specified over the steering axle with the stabilizers raised and over the rigid axle with the stabilizers down. Indicated loads based on the ISO 10567 standard and do not exceed 75 % (according to EN 474-5 in drive operation only 60 %) of tipping or 87 % of hydraulic capacity. The lift capacity of the unit is limited by its stability, the lifting capability of the hydraulic elements, or the maximum permissible lifting capacity of the load hook.
In accordance with the harmonised European Standard EN 474-5, hydraulic excavators used for lifting operations must be equipped with pipe fracture safety valves, an overload warning device, a load hook and a lift capacity chart.

Equipment GA10

EW-Undercarriage

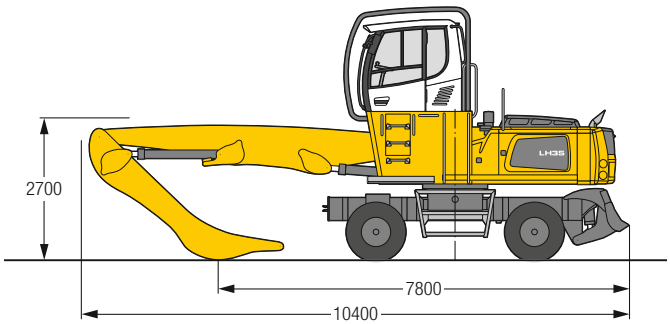


Operating Weight

The operating weight includes the basic machine with stabilizer blade, rigid cab elevation, 8 pneumatic tyres, straight boom 6.50 m, angled stick 4.00 m and wood grab GM 20B/ 1.70 m².

Weight	29,900 kg

Dimensions



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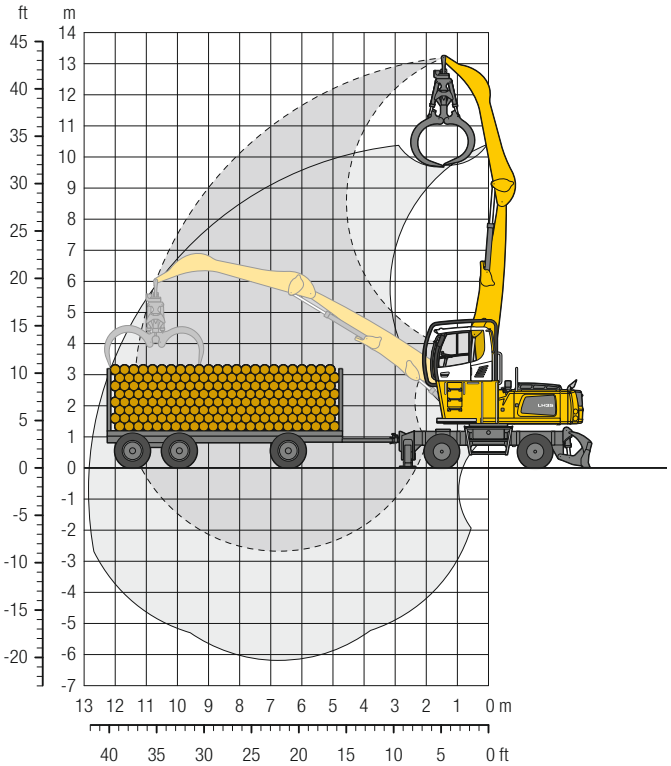
12.0	Stabilizers raised (drive operation)													10.7*	10.7*	
	Stabilizers raised													10.7*	10.7*	2.5
	Stabilizer blade down													10.7*	10.7*	
10.5	Stabilizers raised (drive operation)			10.0*	10.0*									6.4	6.9*	
	Stabilizers raised			10.0*	10.0*									6.9*	6.9*	6.0
	Stabilizer blade down			10.0*	10.0*									6.9*	6.9*	
9.0	Stabilizers raised (drive operation)			10.2*	10.2*	6.6	7.7	4.5	5.4					4.3	5.1	
	Stabilizers raised			10.2*	10.2*	8.2	8.3*	5.7	6.7					5.4	6.0*	7.7
	Stabilizer blade down			10.2*	10.2*	8.3*	8.3*	6.0	6.8*					5.8	6.0*	
7.5	Stabilizers raised (drive operation)			10.3*	10.3*	6.5	7.7	4.6	5.4					3.5	4.1	
	Stabilizers raised			10.3*	10.3*	8.2	8.3*	5.7	6.8					4.3	5.2	8.9
	Stabilizer blade down			10.3*	10.3*	8.3*	8.3*	6.1	7.0*					4.6	5.5*	
6.0	Stabilizers raised (drive operation)	12.3*	12.3*	10.0	10.8*	6.4	7.5	4.5	5.3	3.4	4.0			3.0	3.6	
	Stabilizers raised	12.3*	12.3*	10.8*	10.8*	8.0	8.5*	5.6	6.7	4.2	5.0			3.8	4.5	9.6
	Stabilizer blade down	12.3*	12.3*	10.8*	10.8*	8.5	8.5*	6.0	7.0*	4.5	5.9*			4.0	5.3*	
4.5	Stabilizers raised (drive operation)	17.5*	17.5*	9.4	11.3	6.1	7.2	4.4	5.2	3.3	4.0			2.8	3.3	
	Stabilizers raised	17.5*	17.5*	11.7*	11.7*	7.6	8.9*	5.5	6.5	4.2	4.9			3.5	4.1	10.1
	Stabilizer blade down	17.5*	17.5*	11.7*	11.7*	8.1	8.9*	5.8	7.1*	4.4	5.8*			3.7	4.8*	
3.0	Stabilizers raised (drive operation)	2.8*	2.8*	8.7	10.6	5.8	6.9	4.2	5.0	3.2	3.9			2.6	3.1	
	Stabilizers raised	2.8*	2.8*	10.8	12.4*	7.2	8.6	5.3	6.3	4.0	4.8			3.3	3.9	10.4
	Stabilizer blade down	2.8*	2.8*	11.7	12.4*	7.7	9.1*	5.6	7.1*	4.3	5.7*			3.5	4.3*	
1.5	Stabilizers raised (drive operation)	1.1*	1.1*	8.1	10.0	5.5	6.6	4.0	4.9	3.2	3.8			2.6	3.1	
	Stabilizers raised	1.1*	1.1*	10.1	11.9*	6.8	8.2	5.1	6.1	3.9	4.7			3.2	3.7*	10.4
	Stabilizer blade down	1.1*	1.1*	10.9	11.9*	7.3	8.8*	5.4	6.8*	4.2	5.3*			3.5	3.7*	
0	Stabilizers raised (drive operation)			7.8	9.6*	5.3	6.4	3.9	4.7	3.1	3.7			2.7	3.3	
	Stabilizers raised			9.6*	9.6*	6.6	7.8*	4.9	5.9	3.9	4.6*			3.4	3.4*	10.0
	Stabilizer blade down			9.6*	9.6*	7.1	7.8*	5.3	6.1*	4.1	4.6*			3.4*	3.4*	
–1.5	Stabilizers raised (drive operation)					5.2	6.1*	3.9	4.7					3.6	4.4	
	Stabilizers raised					6.1*	6.1*	4.8*	4.8*					4.4*	4.4*	7.9
	Stabilizer blade down					6.1*	6.1*	4.8*	4.8*					4.4*	4.4*	

Height **Can be slewed through 360°** **In longitudinal position of undercarriage** **Max. reach** *** Limited by hydr. capacity**

The lift capacities on the stick end without attachment are stated in metric tons (t) and are valid on a firm, level supporting surface with blocked oscillating axle. These capacities can be slewed through 360° with the undercarriage in the transverse position. Capacities in the longitudinal position of the undercarriage (+/– 15°) are specified over the steering axle with the stabilizers raised and over the rigid axle with the stabilizers down. Indicated loads based on the ISO 10567 standard and do not exceed 75 % (according to EN 474-5 in drive operation only 60 %) of tipping or 87 % of hydraulic capacity. The lift capacity of the unit is limited by its stability, the lifting capability of the hydraulic elements, or the maximum permissible lifting capacity of the load hook.
In accordance with the harmonised European Standard EN 474-5, hydraulic excavators used for lifting operations must be equipped with pipe fracture safety valves, an overload warning device, a load hook and a lift capacity chart.

Equipment GA11
EW-Undercarriage

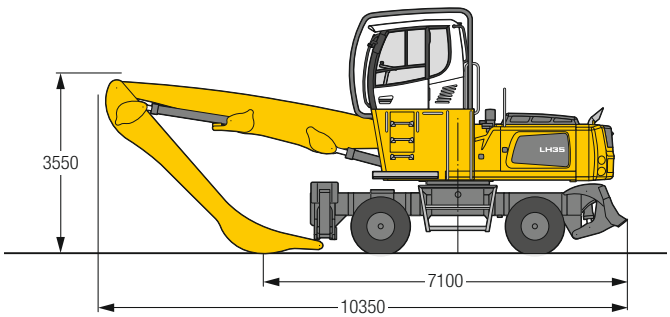


Operating Weight

The operating weight includes the basic machine with 2 point/stabilizer blade, rigid cab elevation, 8 pneumatic tyres, straight boom 6.50 m, angled stick 5.00 m and wood grab GM 20B/1.70 m².

Weight	31,700 kg

Dimensions



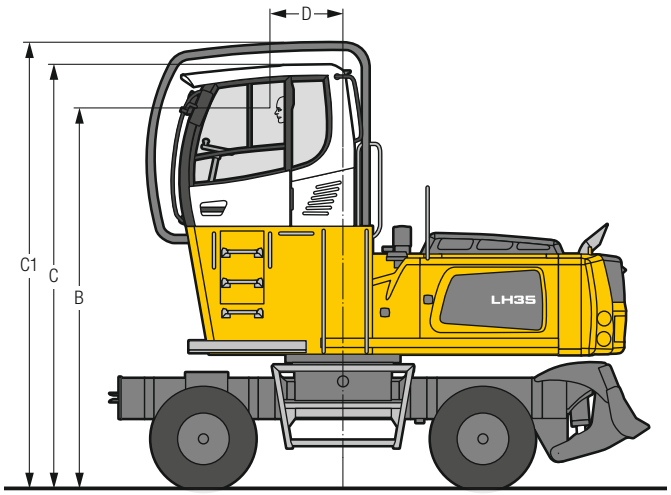
m	Undercarriage	3.0 m		4.5 m		6.0 m		7.5 m		9.0 m		10.5 m				m
12.0	Stabilizers raised (drive operation)			8.0*	8.0*									6.4*	6.4*	
	Stabilizers raised			8.0*	8.0*									6.4*	6.4*	5.4
	2 pt. outriggers + blade down			8.0*	8.0*									6.4*	6.4*	
10.5	Stabilizers raised (drive operation)			9.0*	9.0*	7.0	7.8	4.8	5.3					4.7	5.1*	
	Stabilizers raised			9.0*	9.0*	7.8*	7.8*	5.4*	5.4*					5.1*	5.1*	7.6
	2 pt. outriggers + blade down			9.0*	9.0*	7.8*	7.8*	5.4*	5.4*					5.1*	5.1*	
9.0	Stabilizers raised (drive operation)					7.1	7.7*	5.0	5.5	3.6	4.0			3.6	4.0	
	Stabilizers raised					7.7*	7.7*	6.2	6.6*	4.5	4.6*			4.5	4.6*	9.0
	2 pt. outriggers + blade down					7.7*	7.7*	6.6*	6.6*	4.6*	4.6*			4.6*	4.6*	
7.5	Stabilizers raised (drive operation)			9.3*	9.3*	7.1	7.7*	5.0	5.5	3.7	4.1			3.1	3.4	
	Stabilizers raised			9.3*	9.3*	7.7*	7.7*	6.2	6.6*	4.6	5.1			3.8	4.2	10.0
	2 pt. outriggers + blade down			9.3*	9.3*	7.7*	7.7*	6.6*	6.6*	5.7*	5.7*			4.3*	4.3*	
6.0	Stabilizers raised (drive operation)			9.7*	9.7*	6.9	7.6	4.9	5.4	3.6	4.0	2.8	3.1	2.7	3.0	
	Stabilizers raised			9.7*	9.7*	8.0*	8.0*	6.1	6.7	4.6	5.0	3.5	3.9	3.4	3.8	10.7
	2 pt. outriggers + blade down			9.7*	9.7*	8.0*	8.0*	6.7*	6.7*	5.7*	5.7*	4.8*	4.8*	4.2*	4.2*	
4.5	Stabilizers raised (drive operation)	9.1*	9.1*	10.3	10.8*	6.6	7.3	4.7	5.2	3.6	3.9	2.8	3.1	2.5	2.8	
	Stabilizers raised	9.1*	9.1*	10.8*	10.8*	8.2	8.4*	5.9	6.5	4.4	4.9	3.5	3.8	3.2	3.5	11.1
	2 pt. outriggers + blade down	9.1*	9.1*	10.8*	10.8*	8.4*	8.4*	6.9*	6.9*	5.8*	5.8*	4.8*	4.8*	4.2*	4.2*	
3.0	Stabilizers raised (drive operation)	18.3*	18.3*	9.5	10.8	6.2	6.9	4.5	5.0	3.4	3.8	2.7	3.0	2.4	2.7	
	Stabilizers raised	18.3*	18.3*	11.9*	11.9*	7.8	8.7	5.6	6.2	4.3	4.8	3.4	3.8	3.0	3.3	11.4
	2 pt. outriggers + blade down	18.3*	18.3*	11.9*	11.9*	8.8*	8.8*	7.0*	7.0*	5.7*	5.7*	4.6*	4.6*	3.8*	3.8*	
1.5	Stabilizers raised (drive operation)	3.5*	3.5*	8.8	10.0	5.8	6.5	4.3	4.8	3.3	3.7	2.7	3.0	2.4	2.6	
	Stabilizers raised	3.5*	3.5*	10.9	12.2*	7.3	8.2	5.4	6.0	4.2	4.6	3.3	3.7	3.0	3.3	11.4
	2 pt. outriggers + blade down	3.5*	3.5*	12.2*	12.2*	8.9*	8.9*	6.9*	6.9*	5.5*	5.5*	4.3*	4.3*	3.4*	3.4*	
0	Stabilizers raised (drive operation)	3.5*	3.5*	8.3	9.5	5.6	6.3	4.1	4.6	3.2	3.6	2.6	2.9	2.4	2.7	
	Stabilizers raised	3.5*	3.5*	10.3	11.3*	7.0	7.8	5.2	5.8	4.0	4.5	3.3	3.6	2.9*	2.9*	11.2
	2 pt. outriggers + blade down	3.5*	3.5*	11.3*	11.3*	8.4*	8.4*	6.5*	6.5*	5.1*	5.1*	3.7*	3.7*	2.9*	2.9*	
–1.5	Stabilizers raised (drive operation)			8.1	9.2*	5.4	6.1	4.0	4.5	3.2	3.5			2.8	3.1	
	Stabilizers raised			9.2*	9.2*	6.8	7.2*	5.0	5.6*	4.0	4.2*			3.3*	3.3*	10.0
	2 pt. outriggers + blade down			9.2*	9.2*	7.2*	7.2*	5.6*	5.6*	4.2*	4.2*			3.3*	3.3*	

Height **Can be slewed through 360°** **In longitudinal position of undercarriage** **Max. reach** *** Limited by hydr. capacity**

The lift capacities on the stick end without attachment are stated in metric tons (t) and are valid on a firm, level supporting surface with blocked oscillating axle. These capacities can be slewed through 360° with the undercarriage in the transverse position. Capacities in the longitudinal position of the undercarriage (+/– 15°) are specified over the steering axle with the stabilizers raised and over the rigid axle with the stabilizers down. Indicated loads based on the ISO 10567 standard and do not exceed 75 % (according to EN 474-5 in drive operation only 60 %) of tipping or 87 % of hydraulic capacity. The lift capacity of the unit is limited by its stability, the lifting capability of the hydraulic elements, or the maximum permissible lifting capacity of the load hook.
In accordance with the harmonised European Standard EN 474-5, hydraulic excavators used for lifting operations must be equipped with pipe fracture safety valves, an overload warning device, a load hook and a lift capacity chart.

Choice of Cab Elevation

Cab Elevation LFC (Rigid Elevation)

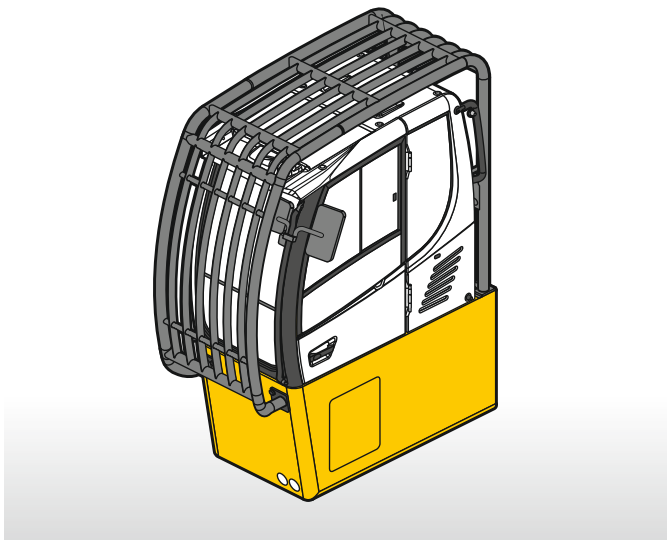


Increase type	LFC 120
Height	1,200 mm
B	4,074 mm
C	4,538 mm
C1	4,773 mm
D	788 mm

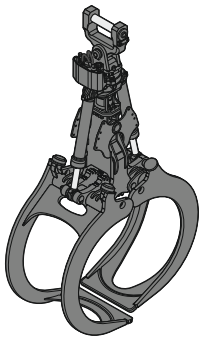
A rigid cab elevation has a fixed eye level height. For a lower transport height, the shell of the cab can be removed and replaced by a transport device. On this machine dimension C is 3,642 mm.

Cab Protection

Integral Guard



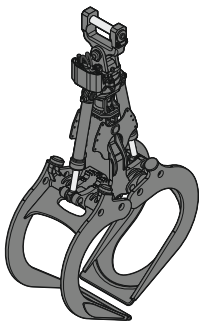
Attachments



Wood Grab

Grab model GM 20B round-shaped (complete overlapping, vertical cylinders)

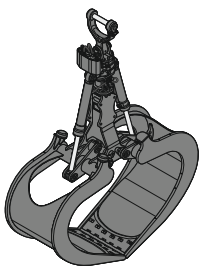
Size	m^2	1.00	1.30	1.50	1.70	1.90
Cutting width	mm	810	810	810	810	810
Height of grab, closed	mm	2,572	2,675	2,720	2,812	2,897
Weight	kg	1,545	1,575	1,595	1,625	1,760



Wood Grab

Grab model GM 20B round-shaped (complete overlapping, straight design, vertical cylinders)

Size	m^2	1.00	1.30	1.50	1.70
Cutting width	mm	810	810	810	810
Height of grab, closed	mm	2,551	2,638	2,729	2,786
Weight	kg	1,565	1,595	1,660	1,705



Wood Grab

Grab model GM 20C heart-shaped (tip-to-tip closing, straight design, vertical cylinders)

Size	m^2	1.60	1.90
Cutting width	mm	870	870
Height of grab, closed	mm	2,903	3,052
Weight	kg	1,890	1,925

Equipment

Undercarriage

Stabilizer and dozer blade, rear	•
Stabilizer and dozer blade, rear and front	+
4-wheel steering	•
Trailer coupling	+
Mudguards (rear and front)	+
Shuttle axle lock, automatic	•
Outriggers front, stabilizer and dozer blade, rear	+
Tyres, variants	+
Protection for travel drive	+
Protection for oscillating axle cylinders	+
Two lockable storage compartments	•
Undercarriage, variants	+

Uppercarriage

Uppercarriage right side light, 1 piece, LED	•
Railing on uppercarriage	+
Main battery switch for electrical system	•
Amber beacon, at uppercarriage, LED double flash	+
Protection for counterweight (both sides)	+
Protection for headlights	+
Protection for uppercarriage (both sides)	+
Protection for rear lights	+
Tool equipment, extended	+

Hydraulic System

Electronic pump regulation	•
Liebherr hydraulic oil from –20 °C to +40 °C	•
Liebherr hydraulic oil, biologically degradable	+
Magnetic rod in hydraulic tank	•
Bypass filter	+
Preheating hydraulic oil	+

Engine

Fuel anti-theft device	+
Air pre-filter with dust discharge	+
Automatic engine shut-down (time adjustable)	+
Preheating fuel	+
Preheating coolant	+
Preheating engine oil *	+

Cooling System

Radiator, large-mesh, for dust-intensive operation	•
Reversible fan drive, fully automatic	+
Protective grid in front of cooler intake	•

Operator's Cab

Stabilizer, control lever, left console	+
Stabilizer, proportional control on left joystick	•
Front headlights integral protective grid, left side, halogen	+
Front headlights integral protective grid, left side, LED	+
Cab lights rear, halogen	+
Cab lights rear, LED	+
Cab lights front, halogen	•
Cab lights front, LED	+
Armrest adjustable	•
Slewing gear brake Comfort, button on the left or right joystick	•
Operator's seat Comfort	•
Operator's seat Premium	+
Driving alarm (acoustic signal is emitted during travel, can be switched ON/OFF)	+
Fire extinguisher	+
Horn, button on left joystick	•
Joystick and wheel steering (slim version)	•
Cab elevation, rigid (LFC)	•
Automatic air conditioning	•
LiDAT, vehicle fleet management	•
Proportional control	•
Radio Comfort, control via display with handsfree set	+
Preparation for radio installation	•
Amber beacon, on cabin, LED double flash	+
Windows made from impact-resistant laminated safety glass	+
Windscreen wiper, roof	+
Windshield wiper, entire windscreen	•
Integral guard	•
Sun visor	+
Left control console, folding	•

Equipment

Boom lights, 2 pieces, halogen	•
Boom lights, 2 pieces, LED	+
Stick lights, 2 pieces, halogen	•
Stick lights, 2 pieces, LED	+
Boom shutoff (extend)	•
Filter system for attachment	+
Height limitation and stick shutoff, electronically	+
Boom cylinder cushioning	•
Stick camera (with separate monitor), bottom side, with protection	+
Liebherr multi coupling system	+
Pipe fracture safety valves hoist cylinders	•
Pipe fracture safety valves stick cylinders	•
Protection for piston rods, hoist cylinder	+
Protection for piston rods, stick cylinder	+
Overload warning device	+

Complete Machine

Lubrication	
Lubrication undercarriage, manually – decentralised (grease points)	•
Central lubrication system for uppercarriage and equipment, automatically	•
Central lubrication system for undercarriage, automatically	+
Central lubrication system, extension for attachment	+
Special coating	
Special coating, variants	+
Monitoring	
Rear view monitoring with camera	•
Side view monitoring with camera	•

• = Standard, + = Option
* = country-dependent

Options and/or special equipments, supplied by vendors other than Liebherr, are only to be installed with the knowledge and approval of Liebherr in order to retain warranty.

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