Product Information Log Loader

# LH 35 M Timber

Litronic®


**Operating Weight**
29,600 – 31,600 kg

**Engine**
150 kW / 204 HP
Stage IV
Stage IIIA

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**

- 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 true running.

**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 depth 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 strained heavily. The optional available 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 timberyards, where space is tight, precision and fine control are especially important. The 4-way mini-joystick with its proportional control make efficient use of the machine easier. 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 lapsed and the uppercarriage 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 safer 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.

**Integral Maintenance Benefits**
Completing maintenance work helps keep the machine fully functional. Maintenance work does, however, mean machine down times which must be minimised. Automatic central lubrication systems for attachment and the uppercarriage as well as optional systems for the undercarriage, quick coupling system and working tools not only make it easier to observe the recommended lubrication intervals and ensure a long service life for the components, but also increase the productivity of the Liebherr log loader LH 35 M Timber.

# 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<br>Common-Rail<br>turbo-charged and after-cooled<br>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 IV** | |
| Harmful emissions values | in accordance with 97/68/EG stage IV |
| Emission control | Liebherr-SCR technology |
| Fuel tank | 330 l |
| Urea tank | 46 l |
| **Stage IIIA** | |
| Harmful emissions values | in accordance with 97/68/EG stage IIIA |
| Fuel tank | 330 l |

## Cooling System

| | |
|---|---|
| **Diesel engine** | water-cooled<br>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 attach-ment. Swing drive in separate closed circuit |
| **Servo circuit** | |
| Attachment 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 attachment 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: ten preadjustable pump flows and pressures for add on tools |

## 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) |

## 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 arm consoles and swivel seat, folding left arm 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 tool 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 |

## 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<br>(creeper speed + transmission stage 1)<br>0 – 7.0 km/h stepless<br>(transmission stage 1)<br>0 – 13.0 km/h stepless<br>(creeper speed + transmission stage 2)<br>0 – 20.0 km/h stepless<br>(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<br>stabilizer blade rear + 2 point outriggers front |

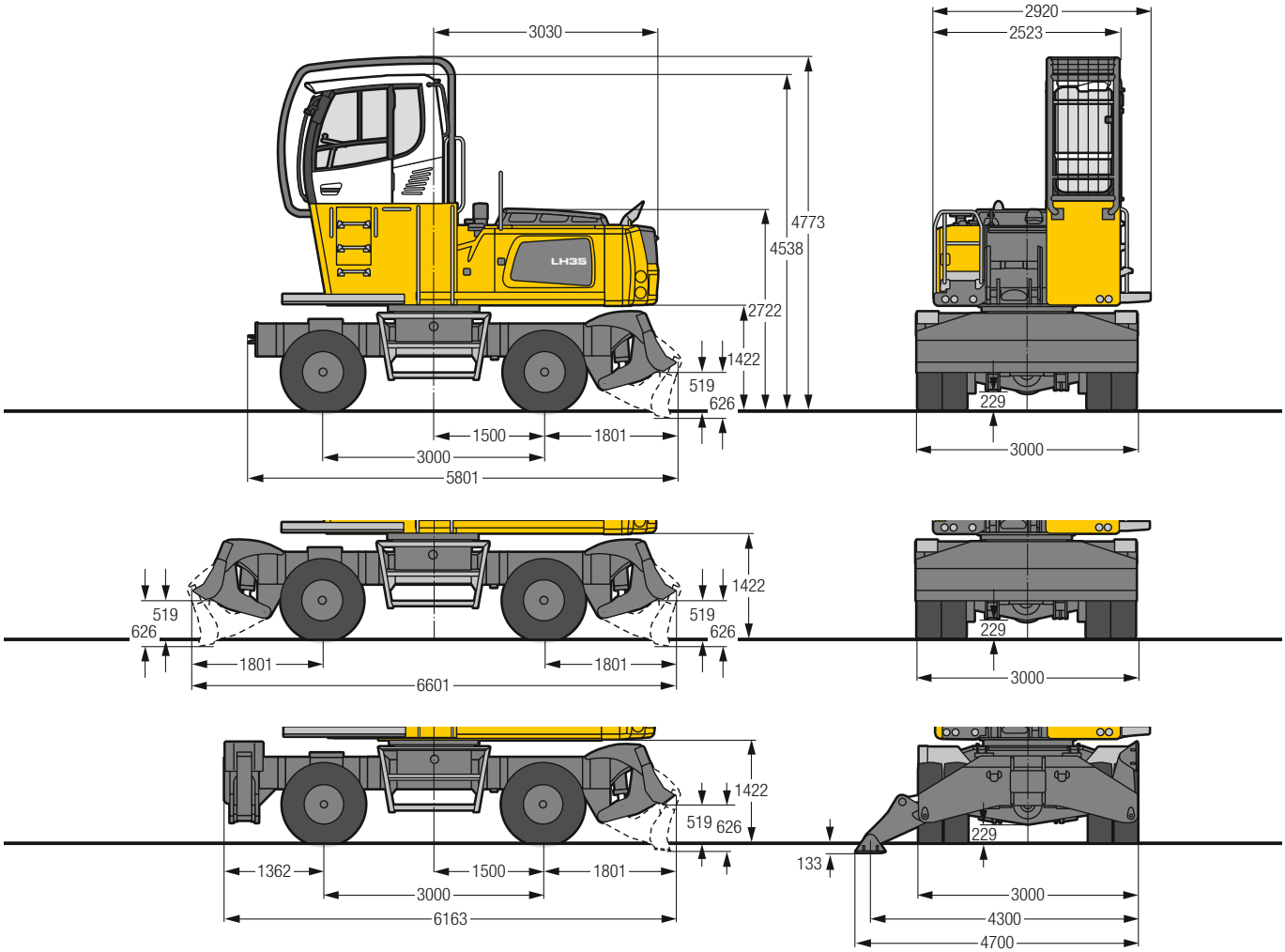
## Attachment

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

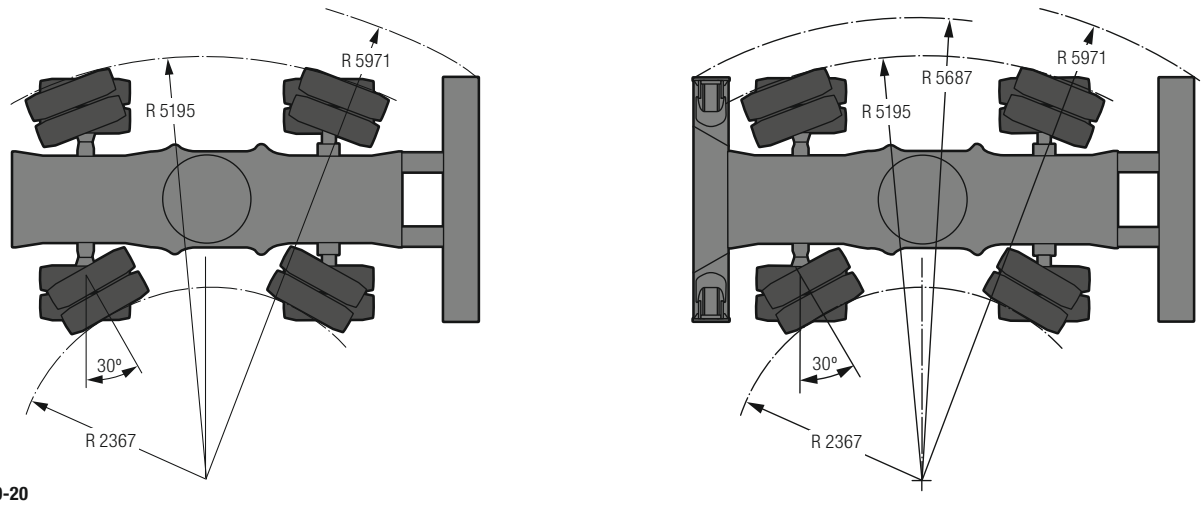
## Complete Machine

| | |
|---|---|
| **Lubrication** | Liebherr central lubrication system for uppercarriage and attachment, automatically |
| Option | Liebherr central lubrication system for undercarriage, automatically |
| **Steps system** | safe and durable access system with anti-slip steps<br>main components hot-galvanised |
| **Noise emission** | |
| ISO 6396 | $L_{pA}$ (inside cab) = 71 dB(A) |
| 2000/14/EC | $L_{WA}$ (surround noise) = 103 dB(A) |

# Dimensions



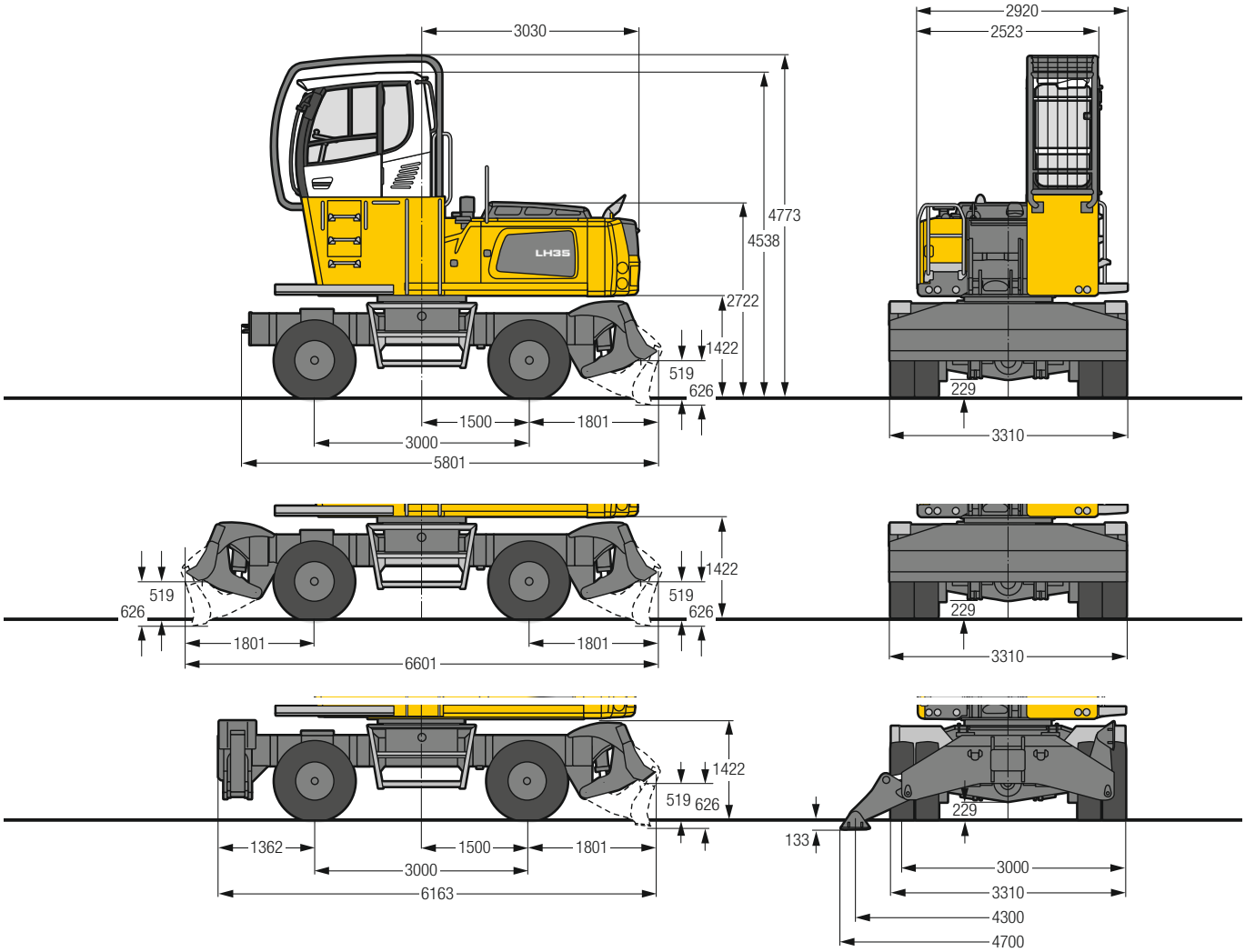

# Turning Radiuses



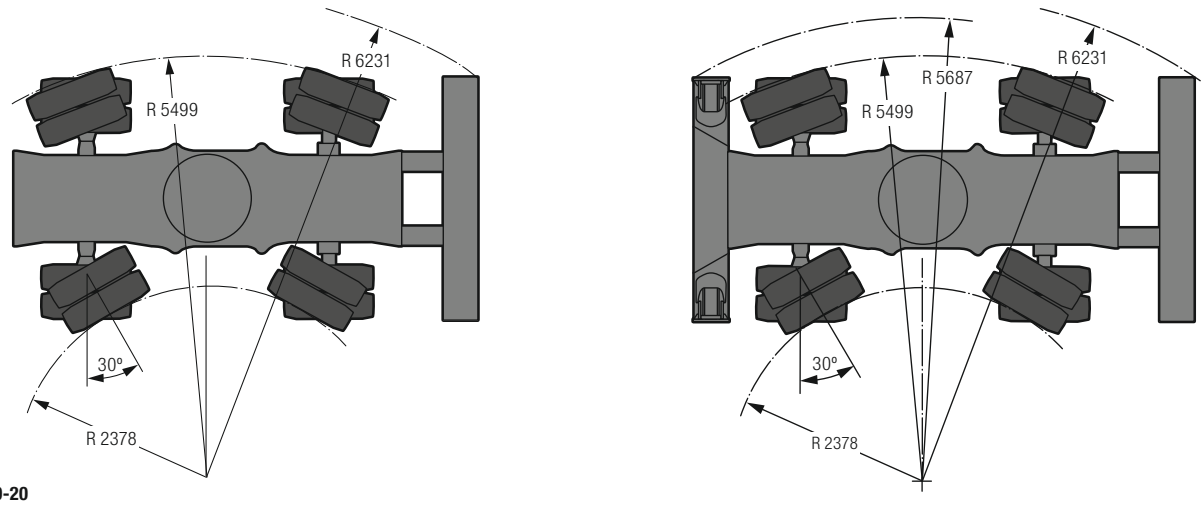

**Tyres 12.00-20**

# Dimensions

**EW-Undercarriage**

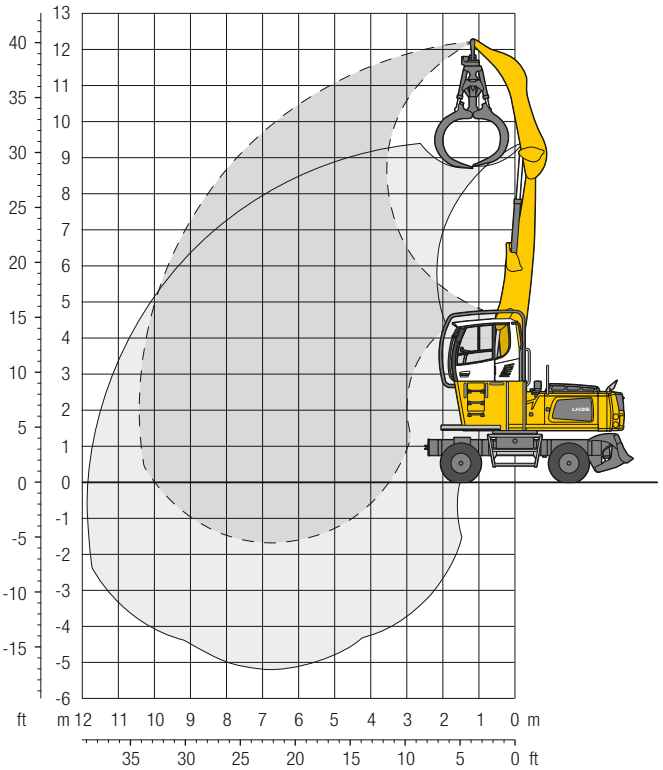



# Turning Radiuses




**Tyres 12.00-20**

# Attachment GA10

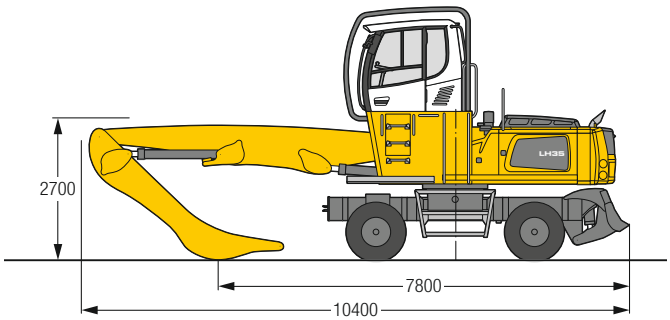



## Operating Weight

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



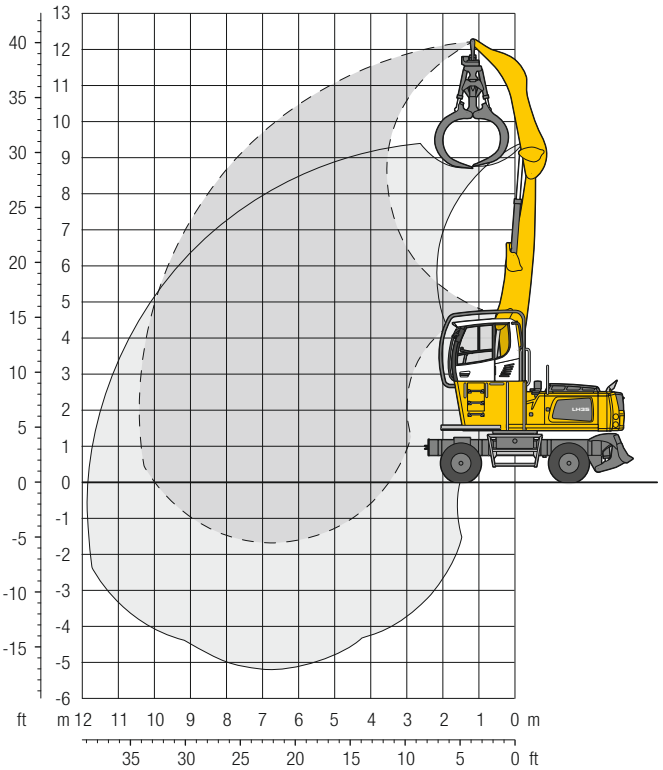

| m | Undercarriage | 3.0 m | | 4.5 m | | 6.0 m | | 7.5 m | | 9.0 m | | | | m |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | |
| 12.0 | Stabilizers raised (drive operation) | | | | | | | | | | | 10.7* | 10.7* | |
| | Stabilizers raised | | | | | | | | | | | 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.

# Attachment GA10

**EW-Undercarriage**

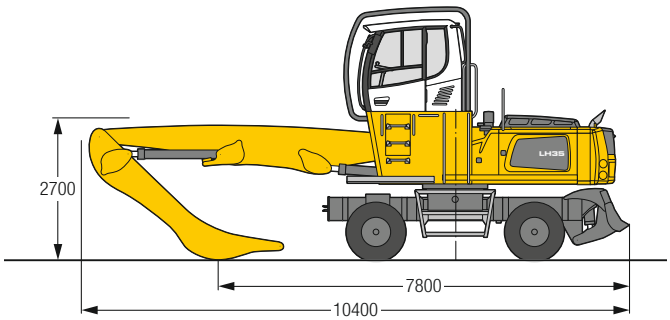



## Operating Weight

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




| m | Undercarriage | 3.0 m | | 4.5 m | | 6.0 m | | 7.5 m | | 9.0 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) | | | 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* | |

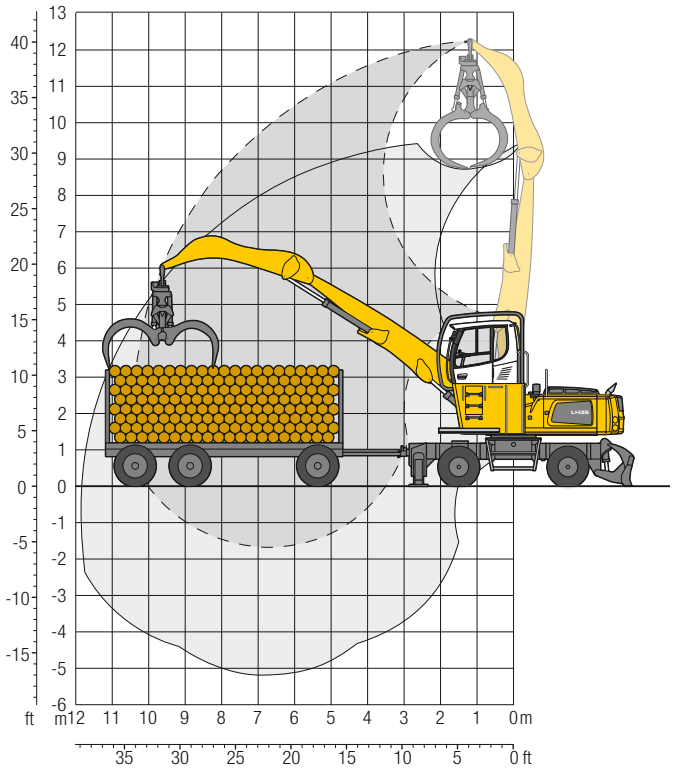
**Height** **Can be slewed through 360°** **In longitudinal position of undercarriage** **Max. reach** *** Limited by hydr. capacity**

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.

# Attachment GA10

**EW-Undercarriage**

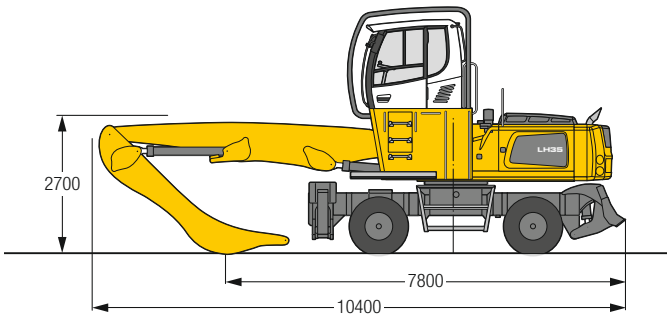



## Operating Weight

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 4.00 m and wood grab GM 20B/1.70 m².

| | |
|---|---|
| Weight | 31,600 kg |

## Dimensions




| m | Undercarriage | 3.0 m | | 4.5 m | | 6.0 m | | 7.5 m | | 9.0 m | | | | m |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 12.0 | Stabilizers raised (drive operation) | | | | | | | | | | | 10.7* | 10.7* | |
| | Stabilizers raised | | | | | | | | | | | 10.7* | 10.7* | 2.5 |
| | 2 pt. outriggers + blade down | | | | | | | | | | | 10.7* | 10.7* | |
| 10.5 | Stabilizers raised (drive operation) | | | 10.0* | 10.0* | | | | | | | 6.7 | 6.9* | |
| | Stabilizers raised | | | 10.0* | 10.0* | | | | | | | 6.9* | 6.9* | 6.0 |
| | 2 pt. outriggers + blade down | | | 10.0* | 10.0* | | | | | | | 6.9* | 6.9* | |
| 9.0 | Stabilizers raised (drive operation) | | | 10.2* | 10.2* | 6.8 | 7.6 | 4.8 | 5.3 | | | 4.6 | 5.0 | |
| | Stabilizers raised | | | 10.2* | 10.2* | 8.3* | 8.3* | 6.0 | 6.6 | | | 5.7 | 6.0* | 7.7 |
| | 2 pt. outriggers + blade down | | | 10.2* | 10.2* | 8.3* | 8.3* | 6.8* | 6.8* | | | 6.0* | 6.0* | |
| 7.5 | Stabilizers raised (drive operation) | | | 10.3* | 10.3* | 6.8 | 7.6 | 4.8 | 5.3 | | | 3.7 | 4.0 | |
| | Stabilizers raised | | | 10.3* | 10.3* | 8.3* | 8.3* | 6.0 | 6.6 | | | 4.6 | 5.0 | 8.9 |
| | 2 pt. outriggers + blade down | | | 10.3* | 10.3* | 8.3* | 8.3* | 7.0* | 7.0* | | | 5.5* | 5.5* | |
| 6.0 | Stabilizers raised (drive operation) | 12.3* | 12.3* | 10.4 | 10.8* | 6.7 | 7.4 | 4.7 | 5.2 | 3.6 | 3.9 | 3.2 | 3.5 | |
| | Stabilizers raised | 12.3* | 12.3* | 10.8* | 10.8* | 8.3 | 8.5* | 5.9 | 6.5 | 4.5 | 4.9 | 4.0 | 4.4 | 9.6 |
| | 2 pt. outriggers + blade down | 12.3* | 12.3* | 10.8* | 10.8* | 8.5* | 8.5* | 7.0* | 7.0* | 5.9* | 5.9* | 5.3* | 5.3* | |
| 4.5 | Stabilizers raised (drive operation) | 17.5* | 17.5* | 9.8 | 11.1 | 6.4 | 7.1 | 4.6 | 5.1 | 3.5 | 3.9 | 2.9 | 3.2 | |
| | Stabilizers raised | 17.5* | 17.5* | 11.7* | 11.7* | 8.0 | 8.9 | 5.7 | 6.3 | 4.4 | 4.8 | 3.6 | 4.0 | 10.1 |
| | 2 pt. outriggers + blade down | 17.5* | 17.5* | 11.7* | 11.7* | 8.9* | 8.9* | 7.1* | 7.1* | 5.8* | 5.8* | 4.8* | 4.8* | |
| 3.0 | Stabilizers raised (drive operation) | 2.8* | 2.8* | 9.1 | 10.3 | 6.0 | 6.8 | 4.4 | 4.9 | 3.4 | 3.8 | 2.8 | 3.1 | |
| | Stabilizers raised | 2.8* | 2.8* | 11.4 | 12.4* | 7.6 | 8.4 | 5.5 | 6.1 | 4.3 | 4.7 | 3.5 | 3.8 | 10.4 |
| | 2 pt. outriggers + blade down | 2.8* | 2.8* | 12.4* | 12.4* | 9.1* | 9.1* | 7.1* | 7.1* | 5.7* | 5.7* | 4.3* | 4.3* | |
| 1.5 | Stabilizers raised (drive operation) | 1.1* | 1.1* | 8.5 | 9.7 | 5.8 | 6.4 | 4.3 | 4.7 | 3.3 | 3.7 | 2.7 | 3.0 | |
| | Stabilizers raised | 1.1* | 1.1* | 10.7 | 11.9* | 7.2 | 8.1 | 5.3 | 5.9 | 4.2 | 4.6 | 3.4 | 3.7* | 10.4 |
| | 2 pt. outriggers + blade down | 1.1* | 1.1* | 11.9* | 11.9* | 8.8* | 8.8* | 6.8* | 6.8* | 5.3* | 5.3* | 3.7* | 3.7* | |
| 0 | Stabilizers raised (drive operation) | | | 8.3 | 9.5 | 5.6 | 6.3 | 4.2 | 4.6 | 3.3 | 3.6 | 2.9 | 3.2 | |
| | Stabilizers raised | | | 9.6* | 9.6* | 7.0 | 7.8 | 5.2 | 5.8 | 4.1 | 4.5 | 3.4* | 3.4* | 10.0 |
| | 2 pt. outriggers + blade down | | | 9.6* | 9.6* | 7.8* | 7.8* | 6.1* | 6.1* | 4.6* | 4.6* | 3.4* | 3.4* | |
| –1.5 | Stabilizers raised (drive operation) | | | | | 5.5 | 6.1* | 4.1 | 4.6 | | | 3.8 | 4.3 | |
| | Stabilizers raised | | | | | 6.1* | 6.1* | 4.8* | 4.8* | | | 4.4* | 4.4* | 7.9 |
| | 2 pt. outriggers + blade down | | | | | 6.1* | 6.1* | 4.8* | 4.8* | | | 4.4* | 4.4* | |

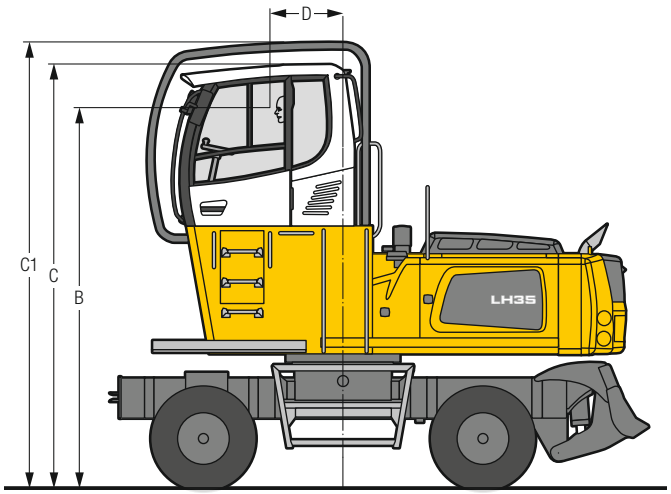
**Height** **Can be slewed through 360°** **In longitudinal position of undercarriage** **Max. reach** *** Limited by hydr. capacity**

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.

# Choice of Cab Elevation

## Cab Elevation LFC (Rigid Elevation)

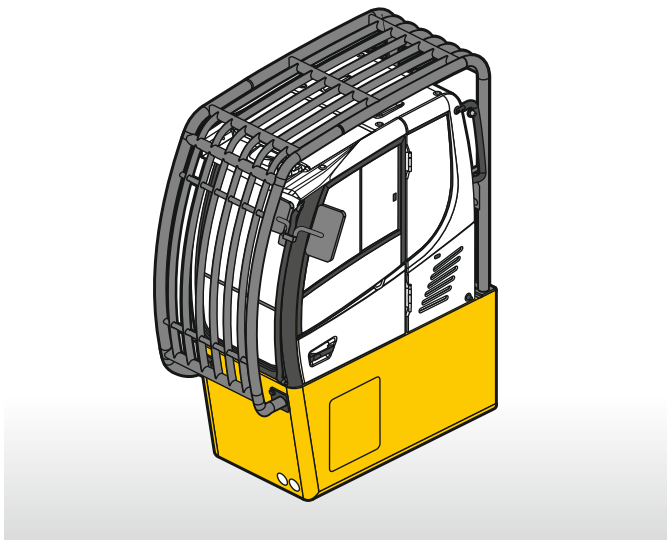



| Increase type | LFC 120 |
|---|---|
| Height | 1,200 mm |
| B | 4,074 mm |
| C | 4,538 mm |
| C1 | 4,773 mm |
| D | 788 mm |

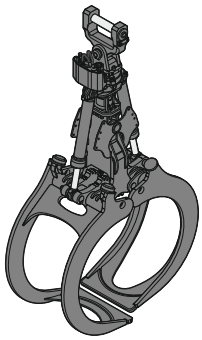
A rigid cab elevation has a fixed eye level height. For a lower transport height, the shell of the cab can be removed and replaced by a transport device. On this machine dimension C is 3,642 mm.

# Cab Protection

## Integral Guard



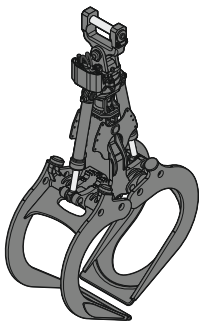
# Working Tools



## Wood Grab

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

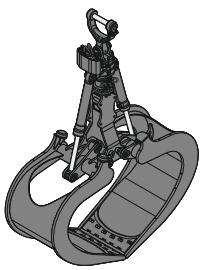
| Size | $m^2$ | 1.00 | 1.30 | 1.50 | 1.70 | 1.90 |
|---|---|---|---|---|---|---|
| Cutting width | mm | 810 | 810 | 810 | 810 | 810 |
| Height of grab, closed | mm | 2,572 | 2,675 | 2,720 | 2,812 | 2,897 |
| Weight | kg | 1,545 | 1,575 | 1,595 | 1,625 | 1,760 |



## 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 | + |
| Shuttle axle lock, automatic | • |
| Outriggers front, stabilizer and dozer blade, rear | + |
| Tyres, variants | + |
| Protection for travel drive | + |
| Protection for oscillating axle cylinders | + |
| Undercarriage, variants | + |
| Two lockable storage boxes | • |

## Uppercarriage

| | |
|---|---|
| Uppercarriage right side light, 1 piece, LED | • |
| Railing on uppercarriage | + |
| Main battery switch for electrical system | • |
| Warning beacon on uppercarriage, LED | + |
| 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, 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 | + |
| Left arm console, folding | • |
| 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 | • |
| Warning beacon on cab, LED | + |
| Windows made from impact-resistant laminated safety glass | + |
| Windscreen wiper, roof | + |
| Windshield wiper, entire windscreen | • |
| Integral guard | • |
| Sun visor | + |
| Flashing light (xenon) | + |

## Attachment

| | |
|---|---|
| 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 working tool | + |
| 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 attachment, automatically | • |
| Central lubrication system for undercarriage, automatically | + |
| Central lubrication system, extension for tool attachment | + |
| **Special coating, variants** | + |
| **Monitoring** | |
| Rear view monitoring with camera | • |
| Side view monitoring with camera | • |

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

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

# 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 applications.

**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.

**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.

**www.liebherr.com**

Printed in Germany by Schirmer RG-BK LHB/VF-11828914-1-09.17_enGB
All illustrations and data may differ from standard equipment. Subject to change without notice.

**Liebherr-Hydraulikbagger GmbH**
Liebherrstraße 12, D-88457 Kirchdorf/Iller
☎ +49 7354 80-0, Fax +49 7354 80-7294
www.liebherr.com, E-Mail: info.lhb@liebherr.com
www.facebook.com/LiebherrConstruction