# LH 60 Industry Litronic

# LIEBHERR

**Material handling machine** 

LHGO

Generation 6

A STATE

**Operating weight** 114,600–176,000 lb\*

\* Without attachment

Engine 255 HP / 190 kW Stage V Stage IIIA (compliant) Tier 4 Final Electric

System performance 334 kW

# 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



# LH 60 M Industry Litronic

### **Operating weight**

121,300-143,300 lb\* **Engine** 255 HP / 190 kW Stage V Stage IIIA (compliant) Tier 4 Final Electric **System performance** 334 kW

\* Without attachment



# LH 60 C Industry Litronic

#### Operating weight

114,600-145,500 lb\* Engine 255 HP / 190 kW Stage V Stage IIIA (compliant) Tier 4 Final Electric System performance 334 kW

# LH 60 M High Rise Industry Litronic

#### Operating weight

148,400–168,900 lb\* **Engine** 255 HP / 190 kW Stage V Stage IIIA (compliant) Tier 4 Final Electric **System performance** 334 kW

# LH 60 C High Rise Industry Litronic

# Operating weight

150,800–176,000 lb\* **Engine** 255 HP / 190 kW Stage V Stage IIIA (compliant) Tier 4 Final Electric **System performance** 334 kW

# Performance



# Power plus speed – Redefined performance

Liebherr has been designing and manufacturing successful machines for material handling for over 60 years. With the different versions of the LH 60 Industry machine model of the generation of Liebherr handlers, high performance and yet economical machines specially designed for use in scrap recycling, timber yards and for handling of bulk materials.

# Maximum handling capacity

### Powerful drive unit

The LH 60 Industry material handling machine is equipped with a powerful Liebherr 4-cylinder in-line engine with 2.1 gal displacement or optionally with a 190 kW electric motor with a frequency converter. This ensures the machine's high performance while further reducing fuel and energy consumption.

### High swing torque

The separate hydraulic pump in the closed slewing circuit only supplies hydraulic fluid to the swing mechanism. The maximum delivery volume is thus available at any time for turning the uppercarriage for fast and dynamic rotational movements.

### Energy recovery system ERC

Lowering the equipment in the ERC system provides the machine with additional stored energy. This results in increased system performance, which in turn enables more powerful, faster and more homogeneous work cycles and increases handling performance.

# **Precision operation**

### LSC Hydraulic system with electrical pilot control

The 2-circuit Liebherr-Synchron-Comfort-system (LSC) with LUDV technology (flow distribution independent of load pressure) ensures faster working movements with up to 20% less energy consumption.

All work functions of the machine are controlled electrically, whereby the signals of the transmitters are only converted directly at the control block by hydraulic means. This technology enables end position damping of the equipment in order to protect the components and thus extend their service life. Simple, individual setting and adjustment of the working speed of boom, stick and slewing mechanism allow the driver to adjust the machine to each application and fully utilize the machine's capacity.

### Firm and stable positioning

An essential prerequisite for precise working and maximum handling capacity is the firm and stable positioning of the machine. The design of the Liebherr undercarriage optimizes the way forces are induced on components and minimized stress. Together with the elaborate support geometry, maximum stability and durability are guaranteed.



### Liebherr diesel engine compliant with Tier 4 Final

- Powerful, robust and reliable
- Maximum torque even at low speeds to ensure fast movements with low fuel consumption
- Common-Rail injection system for maximum efficiency
- Emissions treatment with Liebherr SCRFilter technology at stage V



### **Closed slewing circuit**

- High torque for maximum acceleration and fast rotary movements
- Integrated speed sensor for controlling and monitoring braking movement for greater safety
- Greater fuel efficiency thanks to intelligent energy management in the closed system



### Electrical pilot control

- Precision control irrespective of the ambient temperature for maximum precision
- Simpler and faster fault diagnostics for optimal availability
- Up to 5 individual driver profiles can be saved





# Good investment – Savings for long-term

Liebherr material handling machines combine high productivity with excellent economy – all as standard. Liebherr manages to achieve this difficult goal through sophisticated engine technology from its own production and improved demand-controlled hydraulics.

# **Increased productivity**

### Engine idling and engine shut-down

The standard automatic idling function reduces the engine speed to idle as soon as the operator takes his hand from the joystick so that no hydraulic function is activated. Proximity sensors in the joystick levers restore the original engine speed as soon as the operator's hand is moved towards the lever again. This ensures that the set engine speed is available immediately. The result is a combination of energy saving and reduced noise levels. Operating costs can be reduced even further with the optional automatic engine shut-down function.

#### 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.

### Attachments and quick coupling systems

Liebherr offers a wide selection of attachments for every application to increase the productivity of its material handling machines. In addition the material handlers can be fitted with a Liebherr quick coupling system which increase the productivity of the machine by up to 30%. The matching attachment and quick coupling system combined with the outstanding dynamics of a Liebherr handler ensures highest handling capacity and maximum productivity.

# **Electrical efficiency**

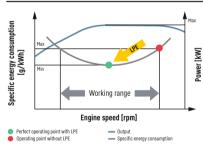
### Electric drive concept

The electric drives offer an economical and sustainable solution in the field of material handling. The drive motors operate in an environmentally friendly and emission-free manner, which makes them independent of any exhaust emission standards. A significant reduction in operating and service costs is achieved due to the elimination of maintenance work such as oil changes and fuelling breaks, as well as longer service intervals compared to diesel models. This increase in efficiency results in optimal working times and increased productivity in the field. In addition, the low-vibration and low-noise operation ensures improved working comfort.

### Sustainable profitability with electric machines

An investment in an electric material handling machine pays off in the long term. These advanced drives offer numerous advantages that enable fast amortisation of the machine and significant cost savings compared to conventional diesel engines. Given the growing importance of environmental criteria and emissions, electric drives are an economical alternative that ensures both sustainable profitability and environmentally friendly operation.

#### Liebherr Power Efficiency (LPE) System



# Low energy consumption thanks to intelligent machine control

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



### Liebherr-attachments

- Robust and service-friendly slewing drive, can be turned 360°
- Optimum filling and clamping performance for effective material handling
- Finite element method (FEM) optimized for a perfect relationship between grapple weight, volume and a very long service life



### **Frequency converters**

- Individual adjustment of the speed
- Smooth start-up to avoid inrush current peaks and high energy savings due to effective start-up current limitation
- Simple adjustment to all conventional power supply networks





# Durability and sustainability – Quality down to the last detail

Every day Liebherr material handlers show their qualities in a very wide range of industrial applications all over the world. Years of experience, continuous development and the latest technologies provide maximum safety in use. Their robust design and the use of components produced in-house ensure that the material handling machine LH 60 is designed for a long service life.

# More safety

### Pipe fracture safety valves

The standard pipe fracture safety valves on the stick and hoist cylinders prevents the equipment from dropping in an unregulated way and ensure maximum safety during every operation.

### Working range limiters

For operations in which the working range should be limited, the material handling machines can be equipped optional with a working range limitation feature. Collisions and resulting component damage can thus be avoided.

### Overload warning device and load torque limitation

The acoustic and visual overload warning system continuously tells the operator about the current load situation of the machine. Furthermore, load torque limitation automatically regulates the speed of the working hydraulics to allow the maximum load bearing capacity to be approached safely. In the event of an overload, the functions which could cause the machine to topple are disabled. Only movements back to the safe working range are then possible.

# High machine availability

### **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.

### **Robust design**

All steel components are designed and manufactured by Liebherr itself. High-strength steel plates configured for the toughest of requirements result in high torsional stiffness and optimum absorption of forces induced for a longer service life.

### 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 reliability.



### QPDM – Quality and process data management

- QPDM allows production data to be logged, documented and evaluated
- Automation of documentation and test specifications
- Ability to handle large quantities with maintain uniform high quality



### **Piston rod protection**

- Maximum protection of piston rod
- Robust construction of hot-dip galvanized steel for a long service life in tough applications
- Available for outriggers, hoist cylinders, ERC cylinder and tip cylinder as an option



### Equipment

- Components enhanced using FEM for maximum service life even if subjected to heavy lateral stresses during demanding tasks
- Cables routed internally to protect them from damage
- High load capacities with long reaches
- Reaches over 66 ft

# Comfort



# Perfection at a glance – When technology is comfortable

The Liebherr deluxe cab is spacious, has an ergonomic design and is very quiet. This ensures that the operator remains intent and fully concentrated throughout the working day and enables him to deliver a constantly high performance.

# Deluxe cab

### Ergonomic design

The modern cab design provides excellent conditions for healthy, concentrated and productive work in maximum comfort. The color touchscreen display, the controls and operator's seat Comfort are all coordinated to form a perfect ergonomic unit. In addition the ergonomic joysticks allow the machine operation to be both pleasant and precise.

### **Excellent all-round vision**

The large areas of glass, different versions of cab elevations and the rear and side area monitoring systems provide the operator with an excellent view of his working area and the zone around the machine. This perfect view enhances the operator's safety and ensures that he can handle the machine safely at all times.

### Low noise levels

The use of viscoelastic mounts, good insulation and low-noise diesel engines from Liebherr minimizes noise emissions and vibrations. Both electric and diesel-powered machines produce extremely low sound levels, which means they are classed as low-noise machines that are not harmful to people and the environment.

# **Comfortable operation**

### **Proportional control**

Precision and fine control of the material handling machine are especially important in applications such as scrap recycling or when handling bulk material. Thanks to the standard proportional control, even such demanding operations can be mastered in style.

#### Steering and stabilizer on joystick

The standard joystick steering gives the operator an additional comfort boost. The steering movement can be conveniently executed using the joystick, eliminating the need to reposition during the work cycle. Abandoning the steering wheel in favour of joystick steering provides additional legroom and a clear view of the working area. A standard feature is the control of the outriggers with the joystick for more comfort and an increased productivity of the machine.

### Color touchscreen display and operation unit

The 9" color touchscreen display is intuitive in its operation and provides continuous information about all important operating data. The shortcut keys can be individually assigned and are selected quickly and easily with the menu strip.





#### Safe access

- Foldable left arm console, as well as wide, non-slip steps, catwalks and platforms, and ergonomically positioned handles for an easy and safe access
- All access systems are designed to national guidelines and statutory regulations
- Sliding door for comfortable entry with narrow platforms is available as an option



# Operator's seat comfort with adjustable armrests

- Greater seating comfort due to variable damper hardness, lockable horizontal suspension, pneumatic lumbar support, seat heating and passive seat air conditioning for concentrated working
- Individual adjustment options for armrests, seat cushion depth, seat angle and head restraint for healthful working



#### Joystick with proportional control

- Good functionality with streamlined, ergonomic design
- 4-way mini-joystick enables versatile possibilities of control without having to encompass, for example steering, outriggers, cab elevation or attachments
- Joysticks each with two buttons and a rocker switch – increase the number of functions available

# Maintainability



# Efficiency bonus – Even with maintenance and service

The Liebherr material handling machine LH 60 is powerful, robust, precise and efficient. It also features integral maintenance benefits as a result of their service-based machine design. The maintenance work for the Liebherr material handler can be carried out quickly, easily and safely. This minimizes the material handling machine's maintenance costs and down times.

# Elaborate maintenance concept

### 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 on catwalks and platforms, 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 minimized. With change intervals of up to 2,000 hours for engine oil and up to 8,000 hours for hydraulic oil Liebherr reduce the amount of maintenance significantly and increase the productivity of the material handlers. In addition, central lubrication systems assist to optimize the daily amount of maintenance. Above all, electric material handling machines are characterized by their low maintenance requirements.

# Your competent service partner

### Remanufacturing

The Liebherr remanufacturing program offers cost-effective reconditioning of components to the highest quality standards. Various reconditioning levels are available: Replacement components, general overhaul or repair. The customer receives components with original part quality at a reduced cost.

### Competent advice and service

Competent advice is a given at Liebherr. Experienced specialists provide decision guidance for your specific requirements: application-oriented sales support, service agreements, valuepriced repair alternatives, original parts management, as well as remote data transmission for machine planning and fleet management.



### Lubrication as it works

- Fully automatic central lubrication system for uppercarriage and equipment
- Fully automatic central lubrication system for the undercarriage and attachments available as an option
- Lubricates without interrupting work to ensure better productivity and a long component service life



# Servicing advantages for electrical machines

- Low operating and maintenance costs
- Significantly longer maintenance intervals compared to diesel engines due to a lower number of wear parts
- Cost savings on servicing
- Maximum productivity due to permanent readiness of the machine



#### Rapid spare parts service

- 24-hour delivery: Spare parts service is available for our dealers around the clock
- Electronic spare parts catalogue: Fast and reliable selection and ordering via the Liebherr online portal
- With online tracking, the current processing status of your order can be viewed at any time

# **Material handling machines overview**

# Equipment

- High load capacities and long reaches thanks to optimized kinematic properties and robust construction for greater handling performance
- Energy recovery cylinder filled with nitrogen for maximum efficiency through less energy consumption at more handling capacity
- Pipe fracture safety valves on hoist and stick cylinders and retract stick shut-off for maximum safety during every application
- Electro-hydraulic end position control extends the service life of the components
- Quick coupling systems and attachments made by Liebherr for maximum machine capacity utilisation and greater handling performance

# **Operator's cab**

- Joystick steering without steering column as standard for convenient operation, greater legroom and clear view of the working area
- Less strain on the operator, workers and reduced environmental pollution due to lower noise emissions
- Optimum visibility thanks to large glass surfaces and standard rear and side area monitoring with camera
- Proportional control as standard with 4-way minijoystick for greater precision, highprecision control and functions



# Uppercarriage

- 2-circuit Liebherr-Synchron-Comfort-system (LSC) with LUDV technology for faster working speed at up to 20% less energy consumption
- 190 kW engine output and greater pump flow for fast work cycles, convincing dynamics and maximum handling performance
- Electrical pilot control enables individual settings for the operator and new options such as load torque limitation
- Reduction in operating costs thanks to built-in maintenance advantages and optimum service accessibility
- Frequency converter provides the direct energy supply and control for the electric motor\*

# Undercarriage

- Optimized hydraulics with closed slewing mechanism circuit for greater energy efficiency and faster work cycles
- Central lubrication system (manual / full automatic) for more productive working time (optional available)
- Load-holding valves fitted as standard on all support cylinders for maximum stability in every application
- Low service costs thanks to travel drive without gearbox and cardan shafts
- Different cable variants for flexible applications and high mobility\*

\* only with electric

# The perfect solution for every application





Shells for loose material



Multi-tine grab



Wood grab

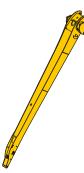


Load hook

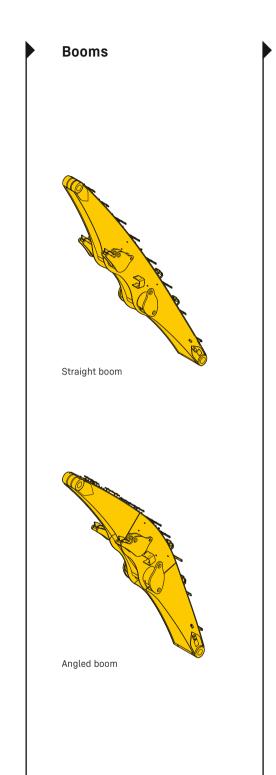


Magnet devices





Straight stick



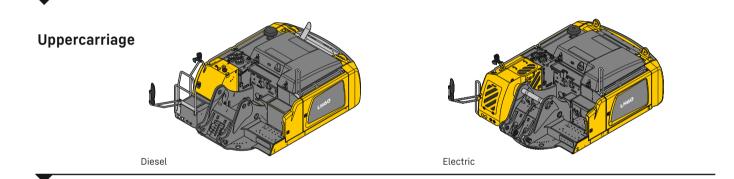
# **Cab elevations**



Hydraulic cab elevation



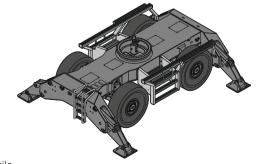
Rigid cab elevation

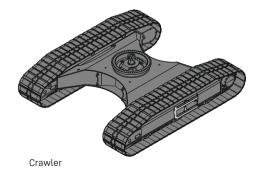


## **Turret elevations**



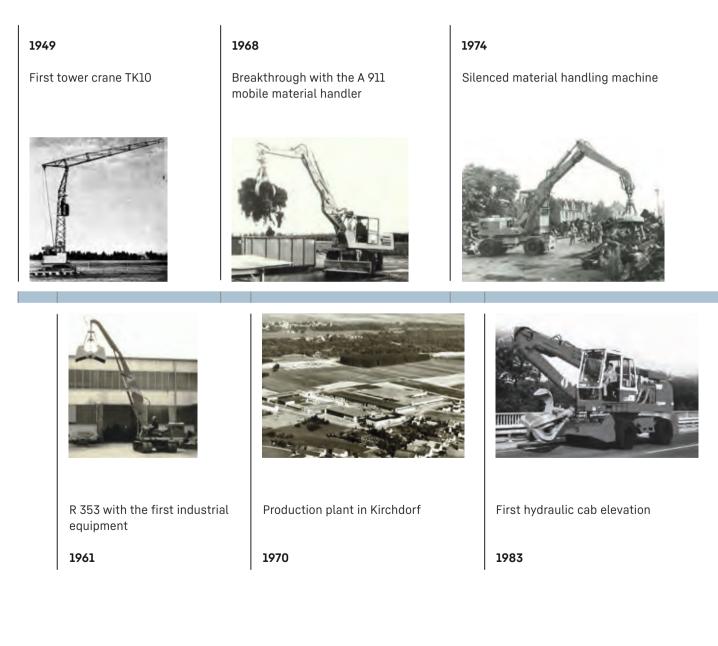
Undercarriage





# **Experience the progress**

The invention of the mobile tower crane in 1949 also marked the birth of the Liebherr company. During its first decade the small construction company developed into an established manufacturer of construction machines and other technically advanced products. The R 353 and its first industrial equipment were launched in 1951 to lay the foundations for the production of today's material handling machines. The A 911 mobile material handling machine a few years later enabled the company to make the breakthrough into material handling. Over the years the machines have been developed continually and today they are designed uncompromising for the industrial use.



Liebherr has now been developing and manufacturing material handling machines for a very wide range of applications in the scrap, port and timber handling sectors and for the waste and recycling industry for over 60 years. In the development of its machines, Liebherr chooses quality, durability and reliability from the very outset, together with performance and economy. Years of experience in design

and construction are not only reflected in the end product but also in the components which are developed, designed and manufactured by Liebherr itself. This multiple sector expertise is used in product design from the early phase of the development process and thus allows high level technical innovations to be made.

### 2007

Opening of the assembly building for material handling machines





Launch of the new LH series



Launch of the new Port Material Handling Machines









Awarded the Bauma Design Awarded the Bauma Innova-Prize for the LH 120

tion Prize for the ERC cylinder

Awarded the IF Award for the material handling machine LH 60

2014

# **Technical data**

## 🗒 Diesel engine

Rating per SAE J1349 per ISO 9249 Model Type Bore / Stroke Displacement Engine operation

#### Air cleaner

Engine idling Electrical system Voltage Batteries Alternator Stage V Harmful emissions values Emission control Fuel tank Urea tank Stage IIIA (compliant) Harmful emissions values Fuel tank **Tier 4 Final** Harmful emissions values Emission control Fuel tank Urea tank

## Electric motor

Rating 180 kW at 1,800 rpm Three-phase squirrel cage motor Туре Electric motor auxiliary equipment (air-conditioning Secondary electric motor compressor, alternator 24V) 15 kW Electrical system energy supply Frequency converter fed drive system Heavy-duty version Supply voltage 380 V, 400 V Low voltage Frequency 50/60Hz Engine idling Sensor controlled Battery-assisted **Electrical system** Control system, lighting, diagnostics system Voltage 24 V Batteries 2 x 135 Ah / 12 V Three-phase current 28V/140A Alternator

255 HP (190 kW) at 1,800 rpm

258 HP (190 kW) at 1,800 rpm

Turbo-charged and after-cooled Reduced emissions

Three-phase current 28V/140A

Liebherr-SCRFilter technology

Liebherr-SCR technology

According to regulation (EU) 2016/1628

In accordance with ECE-R.96 Power Band H

In accordance with 40CFR1039 (EPA) / 13CCR (CARB)

Dry-type air cleaner with pre-cleaner, primary and safety

Liebherr D944

5.1/5.9 in

elements

24 V

138 gal

17 gal

138 gal

138 gal

17 gal

Sensor controlled

2 x 180 Ah/12 V

488 in<sup>3</sup>

4 cylinder in-line

4-stroke diesel Common-Rail

Deviating parameters of the power supply system must always be clarified with Liebherr-Hydraulikbagger GmbH.

# $\approx$ Cooling system

Water-cooled
Compact cooling system consisting cooling unit for water, hydraulic oil and charge air with stepless thermo- statically controlled fan
Air-cooled
Cooling system for hydraulic oil with an infinitely vari- able, thermostatically controlled fan drive system

# Hydraulic controls

Power distribution	Via control valves with integrated safety valves, simulta- neous actuation of chassis and equipment. Swing drive in separate closed circuit
Servo circuit	
Equipment and swing	With electro-hydraulic pilot control and proportional joystick levers
Chassis mobile	Electro-proportional via foot pedal
Chassis crawler	With electric proportionally functioning foot pedals or adjusted with plugable levers
Additional functions	Via switch or electro-proportional foot pedals
Proportional control	Proportionally acting transmitters on the joysticks 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 80gpm
Max. pressure	5,076 psi
For swing drive	Reversible axial piston variable displacement pump, closed-loop circuit
Max. flow	53 gal
Max. pressure	5,366 psi
Hydraulic pump regulation and control	2 circuit Liebherr-Synchron-Comfort-system (LSC) with electronic engine speed sensing regulation, pressure and flow compensation, automatic oil flow optimizer
Hydraulic tank	70gal
Hydraulic system	240 gal
Filtration	2 main return filters with integrated partial micro filtration (5 $\mu\text{m})$
MODE selection	Adjustment of engine and hydraulic performance via a mode pre-selector to match application, e.g. for espe- cially economical and environmentally friendly operation or for maximum material handling and heavy-duty jobs
S (Sensitive)	Mode for precision work and lifting through very sensi- tive movements
E (Eco)	Mode for especially economical and environmentally friendly operation
P (Power)	Mode for high performance with low fuel consumption
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 pre-adjustable pump flows and pres- sures for add-on attachments



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	0-8.0 rpm stepless 0-6.5 rpm stepless (High Rise)
Swing torque	87,032 lbf ft
Holding brake	Wet multi-disc (spring applied, pressure released)
Option	Slewing gear brake Comfort

# 🖓 Cab

Cab	Safety cab structure with individual windscreens or featuring a slide-in subpart under the ceiling, work head- lights integrated in the ceiling, a door with a sliding win- dow (can be opened on both sides), large stowing and depositing possibilities, shock-absorbing suspension, sound damping insulating, tinted laminated safety glass, separate shades for the sunroof window and windscreen
High Rise	Deviating from standard: safety cab structure with fixed built-in front and roof window made from impact-resis- tant laminated safety glass
Operator's seat Comfort	Air cushioned operator's seat with 3D-adjustable arm- rests, headrest, lap belt, seat heater, adjustable seat cushion inclination and length, lockable horizontal sus- pension, automatic weight adjustment, adjustable sus- pension stiffness, pneumatic lumbar vertebrae support and passive seat climatization with active coal
Operator's seat Premium (Option)	In addition to operator's seat comfort: active electronic weight adjustment (automatic readjustment), pneumatic low frequency suspension and active seat climatization with active coal and ventilator
Arm consoles	Joysticks with control consoles and swivel seat, folding left control console
Operation and displays	Large high-resolution operating unit, self-explanatory, color display with touchscreen, video-compatible, numerous setting, control and monitoring options, e.g. air conditioning control, fuel consumption respec- tively energy consumption, machine and attachment parameters
Air-conditioning	
Diesel engine	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
Electric motor	In addition to diesel engine: stationary air conditioning function with external climate condenser – controlled by a weekly timer
	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 In addition to diesel engine: stationary air conditioning function with external climate condenser – controlled by

# Equipment

Туре	High-strength steel plates at highly-stressed points for the toughest requirements. Complex and stable mount- ings of equipment and cylinders
Hydraulic cylinders	Liebherr cylinders with special sealing and guide system and, depending on cylinder type, shock absorption
Energy recovering cylinder	Liebherr gas cylinder with special sealing and control system
Bearings	Sealed, low maintenance

## 📼 📼 Undercarriage

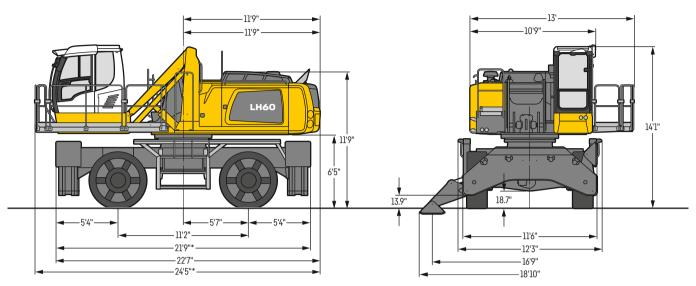
VersionsStandard, High RiseDriveOne axle drive per drive axle with Liebherr axial piston motor and functional brake valve on both sidesTravel speed0-7.5 mph stepless (creeper speed) (Diesel) 0-2.5 mph stepless (creeper speed) (Electric) 0-6.2 mph stepless (creeper speed) (High Rise) 0-2.2 mph stepless (Creeper speed) (High Rise)Driving operationAutomotive driving using accelerator pedal, cruise control function: storage of variable accelerator pedal positionsAxles154,300 lb / 198,400 lb drive axles (LH 60 M / LH 60 M High Rise); manual or automatic hydraulically controlled front axle oscillation lockService brakeTwo circuit travel brake system with accumulator; disc brakeHolding brakeWet mutti-disc (spring applied, pressure released)VersionsEW, SW, High RiseDrive0-2.5 mph steplessIbeherr compact planetary reduction gear with Liebherr axial piston motor per side of undercarriageTravel speed0-2.5 mph stepless 0-1.7 mph stepless (creeper speed) 0-2.5 mph stepless (High Rise)Drive0-2.5 mph stepless 0-1.6 mph stepless 0-1.6 mph stepless (LH 60 M High Rise)BrakeHouting brakeHolding brakeWet mutti-disc (spring applied, pressure released)Travel speed0-2.5 mph stepless 0-1.7 mph stepless (creeper speed) 0-2.5 mph steplessDrive0-2.5 mph stepless 0-1.6 mph stepless (creeper speed) 0-2.5 mph stepless (LH 60 M 0-2.5 mph stepless (LH 60 M 0-2.5 mph stepless (Dreeper speed) 0-2.5 mph stepless (LH 60 M 0-2.5 mph stepless (LH 60 M	Mobile	
Image: constraint of the second sec	Versions	Standard, High Rise
Joystick steering0-2.5 mph stepless (creeper speed) (Diesel) 0-2.3 mph stepless (creeper speed) (Electric) 0-6.2 mph stepless (High Rise) 0-2.2 mph stepless (High Rise) 0-2.2 mph stepless (Creeper speed) (High Rise)Driving operationAutomotive driving using accelerator pedal, cruise control function: storage of variable accelerator pedal positionsAxles154,3001b / 198,4001b drive axles (LH 60 M / LH 60 M High Rise); manual or automatic hydraulically controlled front axle oscillation lockService brakeTwo circuit travel brake system with accumulator; disc brakeHolding brakeWet multi-disc (spring applied, pressure released)VersionsEW, SW, High RiseDriveLiebherr compact planetary reduction gear with Liebherr axial piston motor per side of undercarriageTravel speed0-2.5 mph stepless (creeper speed) (High Rise) 0-1.5 mph stepless (Creeper speed) (High Rise)BrakeFunctional brake valves on both sidesHolding brakeWet multi-disc (spring applied, pressure released)Track padsTriple grouser, flat		
0-2.3 mph stepless (creeper speed) (Electric) 0-6.2 mph stepless (High Rise) 0-2.2 mph stepless (Creeper speed) (High Rise)Driving operationAutomotive driving using accelerator pedal, cruise control function: storage of variable accelerator pedal positionsAxles154,300 lb / 198,400 lb drive axles (LH 60 M / LH 60 M High Rise); manual or automatic hydraulically controlled front axle oscillation lockService brakeTwo circuit travel brake system with accumulator; disc brakeHolding brakeWet multi-disc (spring applied, pressure released)Stabilization4 point outriggersCrawlerEW, SW, High RiseDriveLiebherr compact planetary reduction gear with Liebherr axial piston motor per side of undercarriageTravel speed0-2.5 mph stepless (Creeper speed) 0-2.5 mph stepless (High Rise) 0-1.6 mph stepless (LHigh Rise) 0-1.6 mph stepless (Desper speed) 0-2.5 mph stepless (Didp Rise)BrakeFunctional brake valves on both sidesHolding brakeWet multi-disc (spring applied, pressure released)Track padsTriple grouser, flat	•	The second se
Control function: storage of variable accelerator pedal positionsAxles154,3001b / 198,4001b drive axles (LH 60 M / LH 60 M High Rise); manual or automatic hydraulically controlled front axle oscillation lockService brakeTwo circuit travel brake system with accumulator; disc brakeHolding brakeWet multi-disc (spring applied, pressure released)Stabilization4 point outriggersCrawlerUersionsVersionsEW, SW, High RiseDriveLiebherr compact planetary reduction gear with Liebherr axial piston motor per side of undercarriageTravel speed0-2.5 mph stepless 0-1.7 mph stepless (creeper speed) 0-2.5 mph stepless (creeper speed) 0-2.5 mph stepless (brigh Rise) 0-1.6 mph stepless (creeper speed) 0-2.5 mph stepless (creeper speed) (High Rise)BrakeFunctional brake valves on both sidesHolding brakeWet multi-disc (spring applied, pressure released)Track padsTriple grouser, flat	Joystick steering	0-2.3 mph stepless (creeper speed) (Electric) 0-6.2 mph stepless (High Rise)
High Rise); manual or automatic hydraulically controlled front axle oscillation lockService brakeTwo circuit travel brake system with accumulator; disc brakeHolding brakeWet multi-disc (spring applied, pressure released)Stabilization4 point outriggersCrawlerEW, SW, High RiseDriveEuberer compact planetary reduction gear with Liebherr axial piston motor per side of undercarriageTravel speed0-2.5 mph stepless 	Driving operation	control function: storage of variable accelerator pedal
brake   brake     Holding brake   Wet multi-disc (spring applied, pressure released)     Stabilization   4 point outriggers     Crawler   Versions     Drive   Liebherr compact planetary reduction gear with Liebherr axial piston motor per side of undercarriage     Travel speed   0-2.5 mph stepless     0-1.7 mph stepless (creeper speed)   0-2.5 mph stepless (ligh Rise)     0-1.6 mph stepless (creeper speed) (High Rise)   0-1.6 mph stepless (oregen speed) (High Rise)     Brake   Functional brake valves on both sides     Holding brake   Wet multi-disc (spring applied, pressure released)     Track pads   Triple grouser, flat	Axles	High Rise); manual or automatic hydraulically controlled
Stabilization 4 point outriggers   Crawler EW, SW, High Rise   Drive Liebherr compact planetary reduction gear with Liebherr axial piston motor per side of undercarriage   Travel speed 0-2.5 mph stepless 0-1.7 mph stepless (Creeper speed) 0-2.5 mph stepless (High Rise) 0-1.6 mph stepless (Creeper speed) (High Rise)   Brake Functional brake valves on both sides   Holding brake Wet multi-disc (spring applied, pressure released)   Track pads Triple grouser, flat	Service brake	, , , , , , , , , , , , , , , , , , , ,
Crawler   Processing of the second	Holding brake	Wet multi-disc (spring applied, pressure released)
Versions EW, SW, High Rise   Drive Liebherr compact planetary reduction gear with Liebherr axial piston motor per side of undercarriage   Travel speed 0-2.5 mph stepless 0-1.7 mph stepless (creeper speed) 0-2.5 mph stepless (ligh Rise) 0-1.6 mph stepless (creeper speed) (High Rise)   Brake Functional brake valves on both sides   Holding brake Wet multi-disc (spring applied, pressure released)   Track pads Triple grouser, flat		4 point outriggers
Drive Liebherr compact planetary reduction gear with Liebherr axial piston motor per side of undercarriage   Travel speed 0-2.5 mph stepless 0-1.7 mph stepless (creeper speed) 0-2.5 mph stepless (ligh Rise) 0-1.6 mph stepless (creeper speed) (High Rise)   Brake Functional brake valves on both sides   Holding brake Wet multi-disc (spring applied, pressure released)   Track pads Triple grouser, flat	Crawler	
axial piston motor per side of undercarriage   Travel speed 0-2.5 mph stepless   0-1.7 mph stepless (creeper speed) 0-2.5 mph stepless (treeper speed)   0-2.5 mph stepless (Ligh Rise) 0-1.6 mph stepless (creeper speed) (High Rise)   0-1.6 mph stepless (creeper speed) (High Rise) 0-1.6 mph stepless (creeper speed) (High Rise)   Brake Functional brake valves on both sides   Holding brake Wet multi-disc (spring applied, pressure released)   Track pads Triple grouser, flat	Versions	
0-1.7 mph stepless (creeper speed)   0-2.5 mph stepless (High Rise)   0-1.6 mph stepless (creeper speed) (High Rise)   Brake Functional brake valves on both sides   Holding brake Wet multi-disc (spring applied, pressure released)   Track pads Triple grouser, flat	Drive	
Holding brake     Wet multi-disc (spring applied, pressure released)       Track pads     Triple grouser, flat	Travel speed	0-1.7 mph stepless (creeper speed) 0-2.5 mph stepless (High Rise)
Track pads Triple grouser, flat	Brake	Functional brake valves on both sides
	Holding brake	Wet multi-disc (spring applied, pressure released)
Tracks Sealed and greased	Track pads	Triple grouser, flat
	Tracks	Sealed and greased

# Complete machine

Lubrication	Liebherr central lubrication system for uppercarriage and equipment, automatically
Mobile (Option)	Liebherr central lubrication system for undercarriage, automatically
Steps system	Safe and durable access system with anti-slip steps; main components hot-galvanized
Noise emission	
ISO 6396 (Stage V)	70 dB(A) = L <sub>pA</sub> (inside cab)
2000/14/EC (Stage V)	103 dB(A) = L <sub>WA</sub> (surround noise)
ISO 6396 (Stage IIIA compliant)	not specified
2000/14/EC (Stage IIIA compliant)	not specified
ISO 6396 (Tier 4 Final)	$70  dB(A) = L_{pA}$ (inside cab)
2000/14/EC (Tier 4 Final)	103 dB(A) = L <sub>WA</sub> (surround noise)
ISO 6396 (Electric)	70 dB(A) = L <sub>pA</sub> (inside cab)
2000/14/EC (Electric)	103 dB(A) = L <sub>WA</sub> (surround noise)

# LH 60 M – Dimensions

Industry

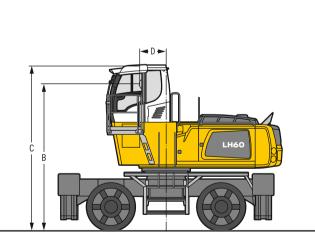


\* For electric machines, the length of the machine is increased accordingly by the trailing cable / cable reel system. Detailed dimensions are available on request.

# LH 60 M – Choice of cab elevation

Cab elevation LFC (rigid elevation)

## Cab elevation LHC (hydraulic elevation)



Increase type	LFC 120
Height	3'11"
B	14'11"
C	16' 8"
D	2' 8"

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. The dimension C is in this machine design for all rigid cab elevations 12'4".

# 

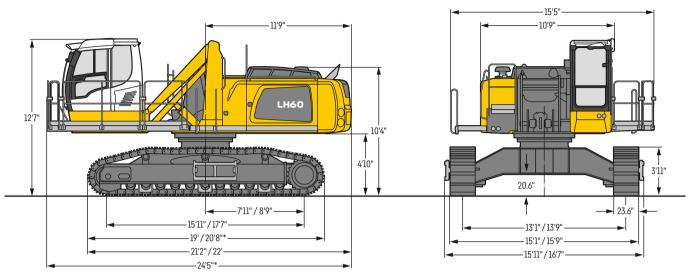
Increase type	LHC 255	LHC 340-35
B1	11'	12' 2"
B2	19' 4"	23' 4"
C1	12' 9"	13'11"
C2	21' 2"	25' 1"
D1	4' 5"	8' 2"
D2	4'10"	8' 2"
E	12' 7"	13'10"

The hydraulically adjustable cab allows the driver, that he can choose his field of view freely and at any time within the stroke.

#### Tires 18.00-25

# LH 60 C EW / SW – Dimensions

Industry

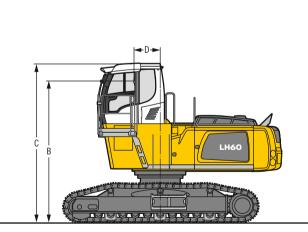


\* For electric machines, the length of the machine is increased accordingly by the trailing cable/cable reel system. Detailed dimensions are available on request.

# LH 60 C EW / SW - Choice of cab elevation

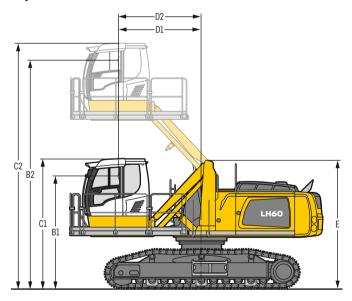
Cab elevation LFC (rigid elevation)

# Cab elevation LHC (hydraulic elevation)



Increase type	LFC 120
Height	3'11"
Height B	13' 8"
C	15' 3"
D	2' 6"

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. The dimension C is in this machine design for all rigid cab elevations 12'4".

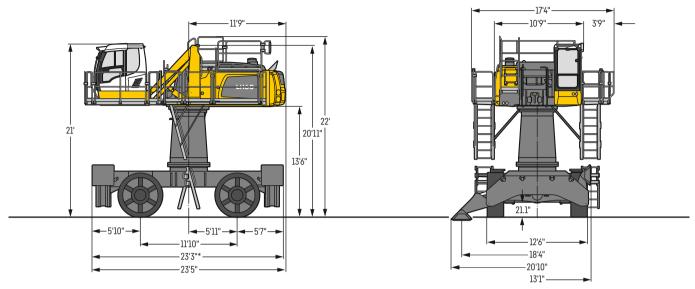


Increase type	LHC 340-35
B1	10'11"
B2	22' 2"
C1	12' 6"
C2	23' 8"
D1	8'
D2	8'
E	12' 5"

The hydraulically adjustable cab allows the driver, that he can choose his field of view freely and at any time within the stroke.

# LH 60 M HR – Dimensions

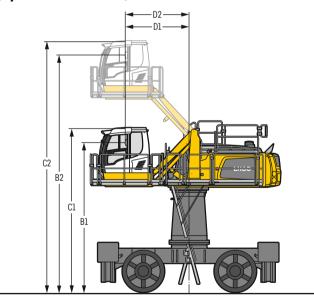
Industry



\* For electric machines, the length of the machine is increased accordingly by the trailing cable / cable reel system. Detailed dimensions are available on request.

# LH 60 M HR – Cab elevation

## Cab elevation LHC (hydraulic elevation)



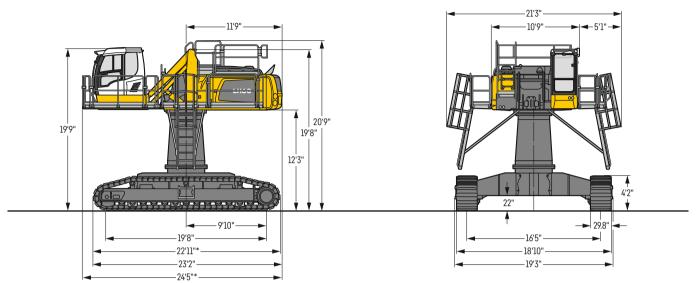
Increase type	LHC 340-35
B1	19'2"
B2	30'5"
C1	21'
C2	32'2"
D1	8'2"
D2	8'2"

The hydraulically adjustable cab allows the driver, that he can choose his field of view freely and at any time within the stroke.

#### Tires 23.5-25

# LH 60 C HR – Dimensions

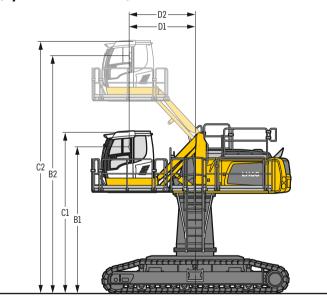
Industry



\* For electric machines, the length of the machine is increased accordingly by the trailing cable / cable reel system. Detailed dimensions are available on request.

# LH 60 C HR – Cab elevation

Cab elevation LHC (hydraulic elevation)

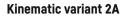


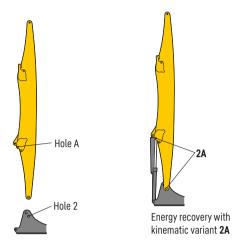
Increase type	LHC 340-35
B1	18'
B2	29'2"
C1	19'9"
C2	31'
D1	8'2"
D2	8'2"

The hydraulically adjustable cab allows the driver, that he can choose his field of view freely and at any time within the stroke.

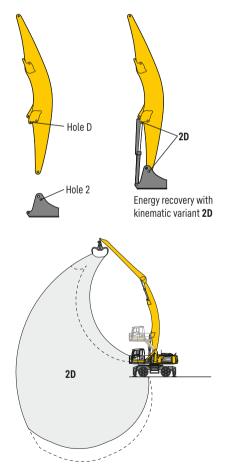
26 LH 60 Industry Litronic

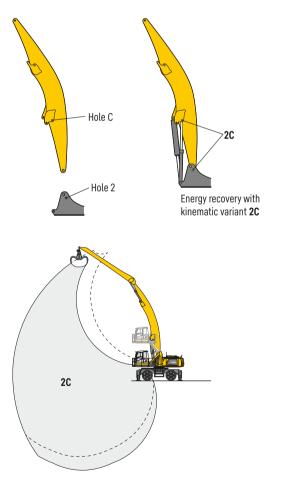
# Kinematic variants





Kinematic variant 2D / 2C

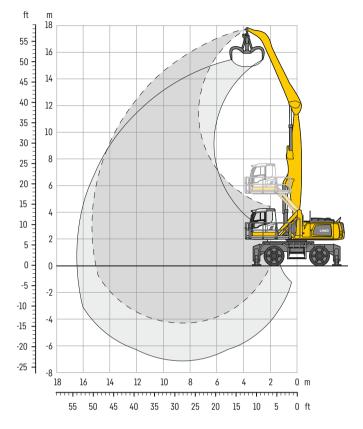




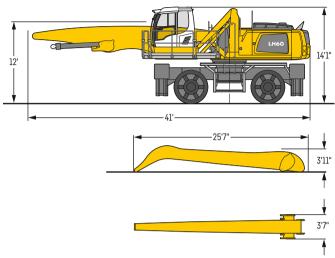
Altered range curve with additional reach depth, e.g. for unloading from ships



Industry – Kinematic 2A



Dimensions



#### **Operating weight**

The operating weight includes the basic machine with 4 point outriggers, hydr. cab elevation, 4 solid tires, straight boom 27'11", angled stick 23'11" and multi-tine grab GMM 80-5/1.44 yd<sup>3</sup> semiclosed tines.

Weight

130,300 lb

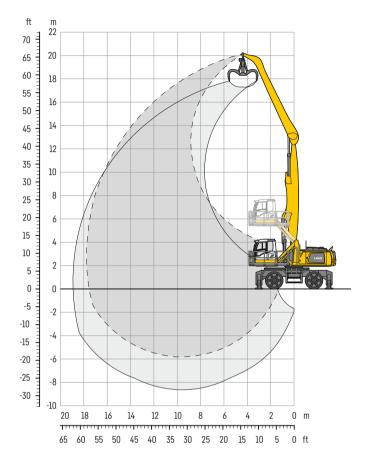
t		20	ft	25	ift	30	Oft	35	ift	40	)ft	45	ift	50	)ft	551	ft	60	ft	65	ft	-	~q	
16/			P		P		P		P		P		P		P		P		P		P		٩Ĭ	•
ft	Undercarriage		Ľ		Ľ				Ľ		Ľ		만		Ľ		Ľ		Ľ		Ľ		Ľ	ft in
55	4 pt. outriggers down	24,7*	24,7*																			22,1*	22,1*	21'11"
50	4 pt. outriggers down			24,6*	24,6*	18,5*	18,5*															18,1*	18,1*	30' 2"
45	4 pt. outriggers down			27,1*	27,1*	23,9*	23,9*	18,0*	18,0*													16,2*	16,2*	35'11"
40	4 pt. outriggers down			27,6*	27,6*	25,0*	25,0*	22,8*	22,8*	15,7*	15,7*											15,2*	15,2*	40' 4"
35	4 pt. outriggers down			27,6*	27,6*	24,9*	24,9*	22,9*	22,9*	20,9*	20,9*											14,5*	14,5*	43' 7"
30	4 pt. outriggers down			28,2*	28,2*	25,3*	25,3*	23,1*	23,1*	21,3*	21,3*	16,8*	16,8*									14,1*	14,1*	46' 1"
25	4 pt. outriggers down			29,3*	29,3*	26,1*	26,1*	23,5*	23,5*	21,5*	21,5*	19,7*	19,7*									14,0*	14,0*	48'
20	4 pt. outriggers down	35,1*	35,1*	31,1*	31,1*	27,1*	27,1*	24,2*	24,2*	21,8*	21,8*	19,8*	19,8*									14,0*	14,0*	49' 4"
15	4 pt. outriggers down	40,2*	40,2*	33,2*	33,2*	28,4*	28,4*	24,9*	24,9*	22,2*	22,2*	19,9*	19,9*	14,5*	14,5*							14,2*	14,2*	50' 1"
10	4 pt. outriggers down	43,8*									22,5*											14,6*	1.	
5	4 pt. outriggers down	46,5*	46,5*	36,8*	36,8*		30,5*			22,6*	22,6*	19,5*	19,5*	15,5*	15,5*							15,1*	15,1*	50' 1"
0	4 pt. outriggers down	47,3*	,	,	37,3*		30,7*			22,1*		18,5*	,									14,5*		
- 5	4 pt. outriggers down										20,7*	16,5*	16,5*									14,4*		
-10	4 pt. outriggers down	40,4*	40,4*	33,0*	33,0*	27,2*	27,2*	22,4*	22,4*	18,0*	18,0*											16,5*	16,5*	41' 6"
$\sim$					Q							_												

🕼 Height 🛯 📹 Can be slewed through 360° 🖞 In longitudinal position of undercarriage

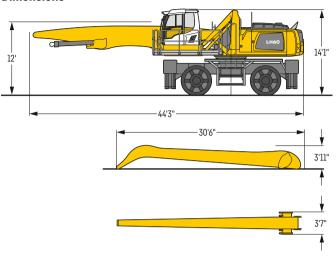
Max. reach \* Limited by hydr. capacity

The lift capacities on the stick end without attachment are stated in lb x 1,000 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 rigid axle with the stabilizers down. Indicated loads based on the ISO 10567 standard and do not exceed 75% of tipping or 87% of hydraulic capacity. The lift capacity values indicated are attained at the corresponding operating temperature. This operating temperature is ensured by continuous movement of the boom. Weights of fitted attachments (grabs, load hooks, etc.) and load accommodation attachment are to be deducted from the lift capacity values. 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.

# Industry – Kinematic 2A



#### Dimensions



#### **Operating weight**

The operating weight includes the basic machine with 4 point outriggers, hydr. cab elevation, 4 solid tires, straight boom 31'2'', angled stick 28'10'' and multi-tine grab GMM 80-5/1.44 yd<sup>3</sup> semiclosed tines.

Weight

131,600lb

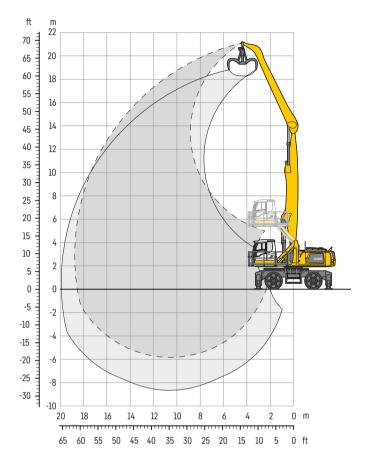
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↓.⁄/ ft	Undercarriage		ப்		Ŀ		Ŀ		ப்		Ŀ		Ŀ		Ľ		Ŀ		Ľ		Ľ		Ľ	ft in
65	4 pt. outriggers down																					21,9*	21,9*	18' 5"
60	4 pt. outriggers down			20,8*	20,8*																	16,5*	16,5*	29' 6"
55	4 pt. outriggers down					20,3*	20,3*	16,4*	16,4*													14,2*	14,2*	36'10"
50	4 pt. outriggers down					22,0*	22,0*	19,6*	19,6*	15,8*	15,8*											12,9*	12,9*	42' 2"
45	4 pt. outriggers down					22,4*	22,4*	20,5*	20,5*	18,8*	18,8*	14,3*	14,3*									12,1*	12,1*	46' 6"
40	4 pt. outriggers down					22,3*	22,3*	20,3*	20,3*	18,8*	18,8*	17,5*	17,5*									11,6*	11,6*	49'11"
35	4 pt. outriggers down					22,5*	22,5*	20,4*	20,4*	18,8*	18,8*	17,4*	17,4*	15,3*	15,3*							11,3*	11,3*	52' 7"
30	4 pt. outriggers down					23,0*	23,0*	20,8*	20,8*	19,0*	19,0*	17,5*	17,5*	16,3*	16,3*							11,1*	11,1*	54' 8"
25	4 pt. outriggers down			25,3*	25,3*	23,8*	23,8*	21,3*	21,3*	19,4*	19,4*	17,7*	17,7*	16,3*	16,3*	13,6*	13,6*					11,0*	11,0*	56' 4"
20	4 pt. outriggers down	24,5*		28,6*	28,6*	24,9*	24,9*			19,8*	19,8*	18,0*	18,0*	16,5*	16,5*	14,8	14,9*					11,1*	11,1*	57' 6"
15	4 pt. outriggers down	33,2*	33,2*	30,6*	30,6*	26,1*	26,1*	22,9*	22,9*	20,3*	20,3*	18,3*	18,3*	16,6*	16,6*	14,6	14,9*					11,2*	11,2*	58'1"
10	4 pt. outriggers down	40,6*	40,6*	32,6*	32,6*	27,4*	27,4*	23,7*	23,7*	20,8*	20,8*	18,6*	18,6*	16,6*	16,6*	14,4	14,7*					11,5*	11,5*	58' 4"
5	4 pt. outriggers down	43,4*	43,4*	34,3*	34,3*					21,2*	21,2*	18,7*	18,7*	16,4	16,5*	14,2	14,2*					11,8*	11,8*	58'1"
0	4 pt. outriggers down	44,8*	44,8*	35,3*	35,3*	29,0*	29,0*	24,6*	24,6*	21,2*	21,2*	18,5*	18,5*	16,0*	16,0*	13,4*	13,4*					11,5*	11,5*	57' 6"
- 5	4 pt. outriggers down	36,5*	36,5*	35,0*	35,0*	28,8*	28,8*	24,3*	24,3*	20,8*	20,8*	17,8*	17,8*	15,1*	15,1*	11,8*	11,8*					10,6*	10,6*	56' 2"
-10	4 pt. outriggers down	32,9*	32,9*	33,3*	33,3*	27,6*	27,6*	23,2*	23,2*	19,6*	19,6*	16,5*	16,5*	13,3*	13,3*							11,5*	11,5*	52' 5"
-15	4 pt. outriggers down	33,2*	33,2*	29,8*	29,8*	24,9*	24,9*	20,9*	20,9*	17,4*	17,4*	14,1*	14,1*									13,3*	13,3*	46' 1"

🕼 Height 🛯 🛥 Can be slewed through 360° 🖞 In longitudinal position of undercarriage

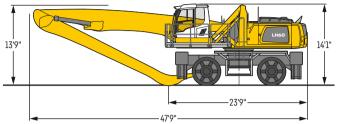
Max. reach \* Limited by hydr. capacity

The lift capacities on the stick end without attachment are stated in lb x 1,000 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 rigid axle with the stabilizers down. Indicated loads based on the ISO 10567 standard and do not exceed 75% of tipping or 87% of hydraulic capacity. The lift capacity values indicated are attained at the corresponding operating temperature. This operating temperature is ensured by continuous movement of the boom. Weights of fitted attachments (grabs, load hooks, etc.) and load accommodation attachment are to be deducted from the lift capacity values. 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.

# Industry – Kinematic 2A



#### Dimensions



### **Operating weight**

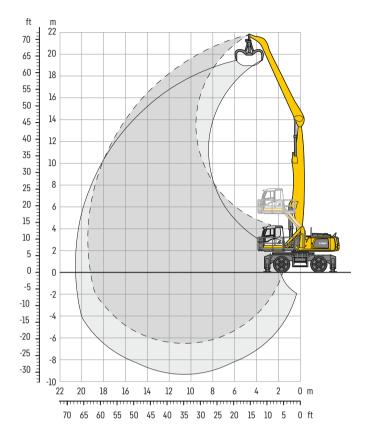
The operating weight includes the basic machine with 4 point outriggers, hydr. cab elevation, 4 solid tires, straight boom 34'5", angled stick 28'10" and multi-tine grab GMM 80-5/1.44 yd<sup>3</sup> semiclosed tines. Weight

132,700lb

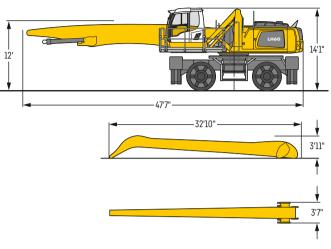
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1/			, 								, n.	, T.			, nc		, nc		, n	0011	_		뉵
ft	Undercarriage		Ľ		Ľ		Ľ		Ĕ		Ľ		Ľ		Ľ		Ĕ		Ľ		Ů	a ď	ft in
65	4 pt. outriggers down			19,6*	19,6*																17,	8* 17,8	* 26'11"
60	4 pt. outriggers down			22,4*	22,4*	19,7*	19,7*	15,5*	15,5*												14,	9* 14,9	* 35' 5"
55	4 pt. outriggers down					21,6*	21,6*	19,3*	19,3*	15,4*	15,4*										13,	4* 13,4	* 41' 8"
50	4 pt. outriggers down					22,4*	22,4*	20,1*	20,1*	18,4*	18,4*	14,5*	14,5*								12,	5* 12,5	* 46' 6"
45	4 pt. outriggers down					22,2*	22,2*	19,9*	19,9*	18,2*	18,2*	16,8*	16,8*	12,6*	12,6*						11,	9* 11,9	* 50' 5"
40	4 pt. outriggers down					22,3*	22,3*	20,0*	20,0*	18,1*	18,1*	16,7*	16,7*	15,4*	15,4*						11,	5* 11,5	* 53' 7"
35	4 pt. outriggers down					22,6*	22,6*	20,2*	20,2*	18,3*	18,3*	16,7*	16,7*	15,4*	15,4*	13,1*	13,1*				11,	2* 11,2	* 56' 1"
30	4 pt. outriggers down					23,1*	23,1*	20,5*	20,5*	18,5*	18,5*	16,9*	16,9*	15,5*	15,5*	14,2*	14,2*				11,	1* 11,1	* 58' 1"
25	4 pt. outriggers down			27,0*	27,0*	23,9*	23,9*	21,1*	21,1*	18,9*	18,9*	17,1*	17,1*	15,6*	15,6*	14,2*	14,2*				11,	)* 11,0	* 59' 7"
20	4 pt. outriggers down	28,5*	28,5*	29,2*	29,2*	24,9*	24,9*	21,7*	21,7*	19,3*	19,3*	17,3*	17,3*	15,7*	15,7*	14,2*	14,2*	12,3	12,5*		11,	1* 11,1	* 60' 7"
15	4 pt. outriggers down	38,3*	38,3*	30,9*	30,9*	25,9*	25,9*	22,4*	22,4*	19,7*	19,7*	17,6*	17,6*	15,8*	15,8*	14,2	14,2*	12,2	12,5*		11,	3* 11,3	* 61' 4"
10	4 pt. outriggers down	41,0*	41,0*	32,4*	32,4*	26,9*	26,9*	23,0*	23,0*	20,1*	20,1*	17,7*	17,7*	15,8*	15,8*	13,9	14,1*	12,0	12,2*		11,	4* 11,4	* 61' 6"
5	4 pt. outriggers down	42,6*	42,6*	33,5*	33,5*	27,6*	27,6*	23,4*	23,4*	20,3*	20,3*	17,8*	17,8*	15,7*	15,7*	13,6	13,8*	11,5*	11,5*		10,	7* 10,7	* 61' 4"
0	4 pt. outriggers down	25,9*	25,9*	33,8*	33,8*	27,7*	27,7*	23,4*	23,4*	20,2*	20,2*	17,6*	17,6*	15,3*	15,3*	13,2*	13,2*	10,5*	10,5*		9,	9* 9,9	* 60' 8"
- 5	4 pt. outriggers down	22,6*	22,6*	32,9*	32,9*	27,2*	27,2*	23,0*	23,0*	19,7*	19,7*	17,0*	17,0*	14,6*	14,6*	12,1*	12,1*				9,	l* 9,1	* 59' 6"
-10	4 pt. outriggers down	22,8*	22,8*	30,6*	30,6*	25,6*	25,6*	21,7*	21,7*	18,5*	18,5*	15,8*	15,8*	13,2*	13,2*	10,3*	10,3*				9,	3* 9,8	* 55' 8"
- 15	4 pt. outriggers down			26,8*	26,8*	22,9*	22,9*	19,5*	19,5*	16,5*	16,5*	13,8*	13,8*								11,	3* 11,3	* 49' 5"
1/	Height 📑 🛱 Can be sl	ewed th	nrough 3	360°	n lo	ngitudiı	nal posi	tion of	underc	arriage	6	°∰	Max. rea	ach *	Limite	l by hyd	ir. capa	city					

The lift capacities on the stick end without attachment are stated in lb x 1,000 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 rigid axle with the stabilizers down. Indicated loads based on the ISO 10567 standard and do not exceed 75% of tipping or 87% of hydraulic capacity. The lift capacity values indicated are attained at the corresponding operating temperature. This operating temperature is ensured by continuous movement of the boom. Weights of fitted attachments (grabs, load hooks, etc.) and load accommodation attachment are to be deducted from the lift capacity values. 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.

## Industry – Kinematic 2A



#### Dimensions



#### **Operating weight**

The operating weight includes the basic machine with 4 point outriggers, hydr. cab elevation, 4 solid tires, straight boom 34'5", angled stick 31'2" and multi-tine grab GMM 80-5/1.44 yd<sup>3</sup> semiclosed tines.

133,400lb

Weight

t/		20	Oft	25	öft	30	)ft	35	ōft	40	)ft	45	ft	50	Oft	55	öft	60	)ft	65	ft	e		Ē
16			ľ.		j,	_ ~	, L	_ @4	j,		j,	_ ~	, L	_ ~	j,		n L	_ ~	j,	_ @	Ľ	_ ~	Ĩ	
ft	Undercarriage		Ľ				5		Ľ						比		Ę,		Ę.,					ft in
70	4 pt. outriggers down	20,2*	20,2*																			19,7*	19,7*	20' 7"
65	4 pt. outriggers down			20,1*	20,1*	16,7*	16,7*															15,1*	15,1*	31' 8"
60	4 pt. outriggers down					19,5*	19,5*	16,8*	16,8*													13,0*	13,0*	39' 2"
55	4 pt. outriggers down					20,6*	20,6*	18,9*	18,9*	16,3*	16,3*											11,9*	11,9*	44'11"
50	4 pt. outriggers down							19,3*	19,3*	17,6*	17,6*	15,5*	15,5*									11,1*	11,1*	49' 6"
45	4 pt. outriggers down							19,1*	19,1*	17,4*	17,4*	16,0*	16,0*	14,2*	14,2*							10,6*	10,6*	53' 2"
40	4 pt. outriggers down							19,2*	19,2*	17,4*	17,4*	16,0*	16,0*	14,8*	14,8*	11,9*	11,9*					10,2*	10,2*	56' 2"
35	4 pt. outriggers down					21,6*	21,6*	19,4*	19,4*	17,5*	17,5*	16,0*	16,0*	14,8*	14,8*	13,7*	13,7*					10,0*	10,0*	58' 7"
30	4 pt. outriggers down					22,2*	22,2*	19,7*	19,7*	17,8*	17,8*	16,2*	16,2*	14,9*	14,9*	13,7*	13,7*	10,7*	10,7*			9,9*	9,9*	60' 6"
25	4 pt. outriggers down			22,8*	22,8*	22,9*	22,9*	20,3*	20,3*	18,1*	18,1*	16,4*	16,4*	15,0*	15,0*	13,7*	13,7*	12,4	12,5*			9,9*	9,9*	61'11"
20	4 pt. outriggers down	22,0*	22,0*	26,4*	26,4*	23,9*	23,9*	20,9*	20,9*	18,6*	18,6*	16,7*	16,7*	15,1*	15,1*	13,8*	13,8*	12,3	12,4*			9,9*	9,9*	63'
15	4 pt. outriggers down	32,1*	32,1*	29,6*	29,6*	24,9*	24,9*	21,6*	21,6*	19,0*	19,0*	17,0*	17,0*	15,3*	15,3*	13,8*	13,8*	12,1	12,3*			10,0*	10,0*	63' 7"
10	4 pt. outriggers down	39,3*	39,3*	31,2*	31,2*	26,0*	26,0*	22,2*	22,2*	19,4*	19,4*	17,2*	17,2*	15,4*	15,4*	13,8*	13,8*	11,9	12,1*			10,2*	10,2*	63'10"
5	4 pt. outriggers down	41,3*	41,3*	32,5*	32,5*	26,8*	26,8*	22,7*	22,7*	19,7*	19,7*	17,3*	17,3*	15,3*	15,3*	13,5	13,6*	11,7	11,7*			9,9*	9,9*	63' 7"
0	4 pt. outriggers down	31,6*	31,6*	33,1*	33,1*	27,2*	27,2*	22,9*	22,9*	19,8*	19,8*	17,2*	17,2*	15,1*	15,1*	13,2*	13,2*	11,0*	11,0*			9,2*	9,2*	63'
- 5	4 pt. outriggers down	24,3*	24,3*	32,7*	32,7*	26,9*	26,9*	22,7*	22,7*	19,5*	19,5*	16,8*	16,8*	14,6*	14,6*	12,4*	12,4*	9,8*	9,8*			8,3*	8,3*	62'
-10	4 pt. outriggers down	23,0*	23,0*	31,2*	31,2*	25,8*	25,8*	21,8*	21,8*	18,6*	18,6*	16,0*	16,0*	13,5*	13,5*	11,1*	11,1*					8,8*	8,8*	58'10"
-15	4 pt. outriggers down	23,8*	23,8*	28,1*	28,1*	23,7*	23,7*	20,1*	20,1*	17,0*	17,0*	14,4*	14,4*	11,8*	11,8*							9,8*	9,8*	53' 6"
- 20	4 pt. outriggers down					20,2*	20,2*	17,2*	17,2*	14,5*	14,5*											12,6*	12,6*	43' 7"
~					0																			

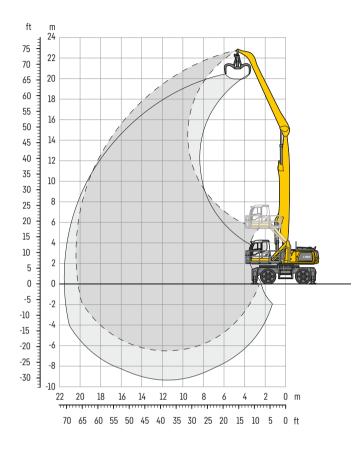


🕼 Height 🛯 🛋 Can be slewed through 360° 🖞 In longitudinal position of undercarriage

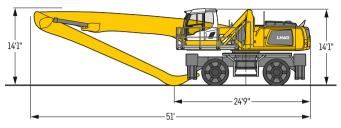
Max. reach \* Limited by hydr. capacity

The lift capacities on the stick end without attachment are stated in lb x 1,000 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 rigid axle with the stabilizers down. Indicated loads based on the ISO 10567 standard and do not exceed 75% of tipping or 87% of hydraulic capacity. The lift capacity values indicated are attained at the corresponding operating temperature. This operating temperature is ensured by continuous movement of the boom. Weights of fitted attachments (grabs, load hooks, etc.) and load accommodation attachment are to be deducted from the lift capacity values. 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.

# Industry – Kinematic 2A



#### Dimensions



#### **Operating weight**

The operating weight includes the basic machine with 4 point outriggers, hydr. cab elevation, 4 solid tires, straight boom 37'9", angled stick 31'2" and multi-tine grab GMM 80-5/1.18 yd<sup>3</sup> semiclosed tines. Weigh

134,100lb

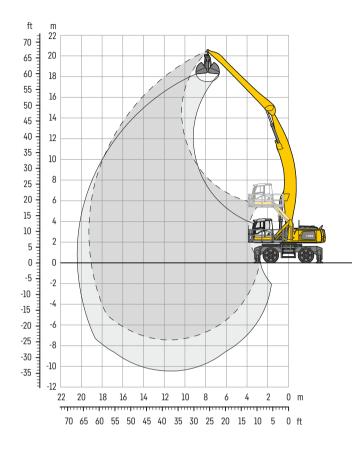
tÆ		20	Oft	25	ōft	30	Oft	35	ift	40	ft	45	ft	50	)ft	55	öft	60	ft	65	ft	-	~g	
↓6⁄ ft	Undercarriage		Ľ		Ŀ		Ľ		Ľ		Ŀ		Ŀ		Ŀ		Ľ		Ŀ		Ŀ	-5	B	ft in
70	4 pt. outriggers down			19,3*	19,3*																	16,2*	16,2*	29' 1"
65	4 pt. outriggers down					19,0*	19,0*	16,1*	16,1*													13,7*	13,7*	37'10"
60	4 pt. outriggers down					20,3*	20,3*	18,5*	18,5*	15,9*	15,9*											12,3*	12,3*	44' 2"
55	4 pt. outriggers down							19,1*	19,1*	17,2*	17,2*	15,4*	15,4*									11,4*	11,4*	49' 5"
50	4 pt. outriggers down							18,9*	18,9*	17,0*	17,0*		15,4*		14,2*							10,8*	10,8*	53' 6"
45	4 pt. outriggers down							18,9*	,	,	16,9*	,	15,4*		,	12,8*	12,8*						10,4*	56'11"
40	4 pt. outriggers down							19,0*	19,0*		17,0*	,	15,4*		14,0*	,	12,9*					10,1*	10,1*	59'10"
35	4 pt. outriggers down					21,9*	,		/				15,5*			,	12,9*					10,0*	10,0*	62'
30	4 pt. outriggers down					22,4*	,	19,6*	,	17,4*	,		15,6*		14,1*	12,9*	12,9*		11,8*			9,9*	9,9*	63'10"
25	4 pt. outriggers down			24,6*	24,6*	23,0*	'	20,0*	,	17,7*	,	15,8*			,	12,9*	12,9*		11,7*	10,2	10,3*	9,9*	9,9*	65' 2"
20	4 pt. outriggers down	26,5*	,	28,3*	28,3*	23,8*	,	20,5*	20,5*		18,0*		16,0*		14,4*	13,0*	13,0*		11,7*	10,1	10,4*	9,8	9,9*	66' 2"
15	4 pt. outriggers down	1 1	. /	29,6*	29,6*	24,5*			21,0*	18,3*	18,3*	16,2*			14,5*	13,0*	13,0*		11,6*	10,0	10,2*	9,5	9,5*	66'10"
10	4 pt. outriggers down	38,9*	,	30,6*	30,6*	25,2*	,		21,4*		18,5*		16,3*		,	12,9*	12,9*	,	11,5*	9,8	9,9*	9,0*	9,0*	67'
5	4 pt. outriggers down	24,9*	24,9*	31,3*	31,3*	25,6*	25,6*	21,6*	21,6*	18,7*	18,7*	,	16,3*	14,4*	14,4*	12,7*	12,7*	11,1	11,2*	9,4*	9,4*	8,5*	8,5*	66'10"
0	4 pt. outriggers down	17,0*		31,2*	31,2*	25,6*					18,5*	16,1*			,		12,4*		10,6*	8,5*	8,5*	7,8*	/ -	66' 2"
- 5	4 pt. outriggers down	15,8*	15,8*	30,2*	30,2*	25,0*	25,0*	21,1*	21,1*	18,1*	18,1*	15,7*	15,7*	13,6*	13,6*	11,7*	11,7*	9,8*	9,8*	7,2*	7,2*	6,9*	6,9*	65' 4"
- 10	4 pt. outriggers down	1 .	,	28,0*	28,0*		23,5*				17,2*		,		12,7*	10,7*	10,7*	8,4*	8,4*			7,3*	7,3*	62'
-15	4 pt. outriggers down	18,1*	18,1*	24,6*	24,6*		21,2*		18,2*		15,6*	13,3*		11,2*	11,2*	9,0*	9,0*					8,2*	8,2*	56'10"
-20	4 pt. outriggers down					17,7*	17,7*	15,4*	15,4*	13,2*	13,2*	11,1*	11,1*									10,3*	10,3*	46'11"
. 6					<b>P</b>						~	_												

🕼 Height 🛯 🛋 Can be slewed through 360° 🖞 In longitudinal position of undercarriage

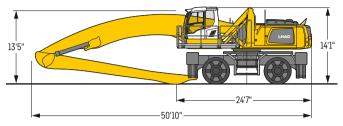
Max. reach \* Limited by hydr. capacity

The lift capacities on the stick end without attachment are stated in lb x 1,000 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 rigid axle with the stabilizers down. Indicated loads based on the ISO 10567 standard and do not exceed 75% of tipping or 87% of hydraulic capacity. The lift capacity values indicated are attained at the corresponding operating temperature. This operating temperature is ensured by continuous movement of the boom. Weights of fitted attachments (grabs, load hooks, etc.) and load accommodation attachment are to be deducted from the lift capacity values. 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.

# Industry – Kinematic 2D



#### Dimensions



### **Operating weight**

The operating weight includes the basic machine with 4 point outriggers, hydr. cab elevation, 4 solid tires, angled boom 37'9", straight stick 28'10" and grab for loose material GMZ 80/2.62 yd<sup>3</sup>. Weight 134,000 lb

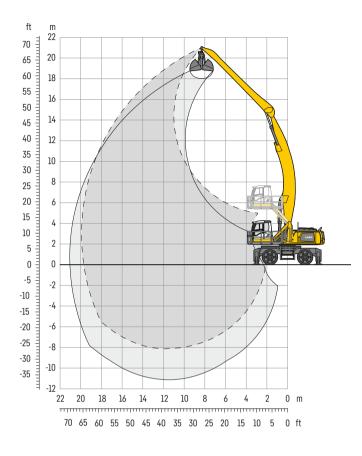
tE		20	)ft	25	öft	30	)ft	35	ift	40	ft	45	ft	50	) ft	55	ift	60	ft	65	ft	-		
↓⊿∕ ft	Undercarriage		Ľ		Ŀ		Ŀ		Ľ		Ŀ		Ŀ		Ľ		Ŀ		Ŀ		Ľ		Ľ	ft in
65	4 pt. outriggers down					15,6*	15,6*															15,0*	15,0*	30' 8"
60	4 pt. outriggers down							16,1*	16,1*													13,3*	13,3*	38' 5"
55	4 pt. outriggers down							17,1*	17,1*	15,5*	15,5*											12,4*	12,4*	44' 2"
50	4 pt. outriggers down							16,9*	16,9*	15,3*	15,3*	14,1*	14,1*									11,8*	11,8*	48'10"
45	4 pt. outriggers down							16,8*				14,0*											11,4*	52' 7"
40	4 pt. outriggers down							,	,	,	,	14,0*	,	,								11,2*	,	55' 7"
35	4 pt. outriggers down							,	,			14,1*	14,1*		13,0*	12,1*	12,1*					11,1*		58'
30	4 pt. outriggers down					20,0*	20,0*						14,3*		13,2*	12,2*	12,2*						11,1*	60'
25	4 pt. outriggers down			,	24,4*	,	20,8*		,			14,6*			13,3*		12,3*		11,4*			11,1*	11,1*	61' 5"
20	4 pt. outriggers down		31,8*	25,8*	25,8*	· ·	'		,	,	,	,	14,9*	,	13,5*	,	12,4*	,	11,4*			10,9*	10,9*	62' 6"
15	4 pt. outriggers down	34,4*	,	27,3*	27,3*		,		,				15,2*		13,8*		12,5*		11,4*			10,8	10,8*	63' 1"
10	4 pt. outriggers down	36,6*	36,6*	28,7*	28,7*		23,6*				17,5*		15,5*			12,6*	12,6*	,	11,4*			10,5	10,6*	63' 4"
5	4 pt. outriggers down		,			24,4*		20,6*									12,7*	11,3	11,4*			10,4	10,5*	63' 1"
0	4 pt. outriggers down	18,8*	18,8*	,	,		,			18,1*			15,9*		14,1*	12,6*	12,6*	11,1	11,1*			10,3*	10,3*	62' 6"
- 5	4 pt. outriggers down		,	,	,	24,9*		21,0*		18,1*				14,0*			12,3*	10,6*	10,6*			10,1*	10,1*	61' 6"
-10	4 pt. outriggers down		18,8*	,	29,2*	· ·	'		,		17,8*		15,5*		13,5*		11,7*	9,7*	9,7*			9,7*	9,7*	60'1"
-15	4 pt. outriggers down	20,2*	20,2*				23,1*					14,7*				10,7*	10,7*					9,2*	9,2*	58' 1"
- 20	4 pt. outriggers down			24,4*	24,4*	21,0*	21,0*	18,1*	18,1*	15,6*	15,6*	13,4*	13,4*	11,3*	11,3*							10,0*	10,0*	52'10"
- 25	4 pt. outriggers down																							
6					ç							_												

#### 🕼 Height 🛯 🛋 Can be slewed through 360° 🖞 In longitudinal position of undercarriage

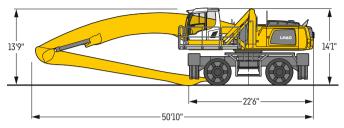
Max. reach \* Limited by hydr. capacity

The lift capacities on the stick end without attachment are stated in lb x 1,000 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 rigid axle with the stabilizers down. Indicated loads based on the ISO 10567 standard and do not exceed 75% of tipping or 87% of hydraulic capacity. The lift capacity values indicated are attained at the corresponding operating temperature. This operating temperature is ensured by continuous movement of the boom. Weights of fitted attachments (grabs, load hooks, etc.) and load accommodation attachment are to be deducted from the lift capacity values. 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.

# Industry – Kinematic 2D



#### Dimensions



### **Operating weight**

The operating weight includes the basic machine with 4 point outriggers, hydr. cab elevation, 4 solid tires, angled boom 37'9", straight stick 31'2" and grab for loose material GMZ 80 / 2.62 yd<sup>3</sup>. Weight 134,700 lb

tE		20	)ft	25	öft	30	)ft	35	ift	40	)ft	45	ift	50	)ft	55	öft	60	ft	65	ift	6		
↓.// ft	Undercarriage	-5)	Ľ		Ph	-50	ŀ		Ľ		Ph	-50	Ph		Ľ		Ľ		P	57	Ŀ		Ň	ft in
65	4 pt. outriggers down	dad	bud	-dod	peed		bad	-dad	bed	dad	(tend	dad	bed	-dad	bed	-dad	bed	dod	bed		bed	13.0*	13,0*	34'11"
60	4 pt. outriggers down							16,3*	16,3*	13.3*	13,3*												11,8*	41'10"
55	4 pt. outriggers down							20,0	10,0		14,8*	13.0*	13.0*										11.0*	47' 2"
50	4 pt. outriggers down										14,6*	,	'	12.1*	12.1*									51' 7"
45	4 pt. outriggers down									14.6*	14,6*					10.3*	10.3*					10,2*	10,2*	55' 1"
40	4 pt. outriggers down									14,7*	14,7*						11,5*					10,0*	10.0*	58'
35	4 pt. outriggers down							16,5*	16,5*	14,9*	14,9*					11,5*	11,5*	10,4*	10,4*			9,9*	9,9*	60' 5"
30	4 pt. outriggers down							16,9*	16,9*	15,1*	15,1*	13,7*	13,7*		12,6*	11.6*	11,6*	10,8*	10,8*			9,9*	9,9*	62' 2"
25	4 pt. outriggers down					19,9*	19,9*	17,4*	17,4*	15,5*	15,5*	14,0*	14,0*	12,7*	12,7*	11,7*	11,7*	10,8*	10,8*			10,0*	10,0*	63' 7"
20	4 pt. outriggers down	30,2*	30,2*	24,6*	24,6*	20,8*	20,8*	18,0*	18,0*	15,9*	15,9*	14,3*	14,3*	12,9*	12,9*	11,8*	11,8*	10,9*	10,9*			10,1*	10,1*	64' 7"
15	4 pt. outriggers down	32,7*	32,7*	26,1*	26,1*	21,8*	21,8*	18,7*	18,7*	16,4*	16,4*	14,6*	14,6*	13,2*	13,2*	12,0*	12,0*	11,0*	11,0*	10,0*	10,0*	9,9*	9,9*	65' 2"
10	4 pt. outriggers down	35,0*	35,0*	27,5*	27,5*	22,7*	22,7*	19,3*	19,3*	16,8*	16,8*	14,9*	14,9*	13,4*	13,4*	12,1*	12,1*	11,0*	11,0*	9,9	9,9*	9,7	9,8*	65' 5"
5	4 pt. outriggers down	32,4*	32,4*	28,7*	28,7*	23,5*	23,5*	19,9*	19,9*	17,2*	17,2*	15,2*	15,2*	13,5*	13,5*	12,2*	12,2*	11,0*	11,0*	9,7	9,8*	9,6	9,7*	65' 2"
0	4 pt. outriggers down	21,4*	21,4*	29,4*	29,4*	24,1*	24,1*	20,3*	20,3*	17,5*	17,5*	15,4*	15,4*	13,6*	13,6*	12,2*	12,2*	10,9*	10,9*			9,5*	9,5*	64' 7"
- 5	4 pt. outriggers down	19,0*	19,0*	29,6*	29,6*	24,3*	24,3*	20,4*	20,4*	17,6*	17,6*	15,4*	15,4*	13,6*	13,6*	12,0*	12,0*	10,5*	10,5*			9,3*	9,3*	63' 8"
-10	4 pt. outriggers down	18,9*	18,9*	29,0*	29,0*	24,0*	24,0*	20,3*	20,3*	17,4*	17,4*	15,2*	15,2*	13,3*	13,3*	11,6*	11,6*	9,9*	9,9*			9,0*	9,0*	62' 4"
- 15	4 pt. outriggers down	19,8*	19,8*	27,6*	27,6*	23,1*	23,1*	19,6*	19,6*	16,9*	16,9*	14,6*	14,6*	12,7*	12,7*	10,9*	10,9*	8,8*	8,8*			8,6*	8,6*	60' 6"
- 20	4 pt. outriggers down	21,1*	21,1*	25,2*	25,2*						15,8*			11,6*	11,6*	9,5*	9,5*					8,7*	8,7*	56'10"
- 25	4 pt. outriggers down					18,8*	18,8*	16,2*	16,2*	13,9*	13,9*	11,8*	11,8*									10,8*	10,8*	47' 5"
6					ç						_													

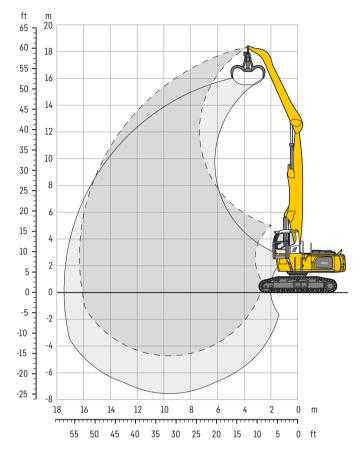
I// Height ⊶□ Can be slewed through 360° 🖞 In longitudinal position of undercarriage

Max. reach \* Limited by hydr. capacity

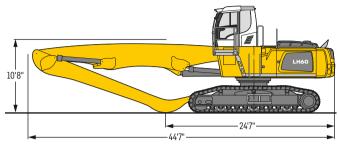
The lift capacities on the stick end without attachment are stated in lb x 1,000 and are valid on a firm, level supporting surface with blocked oscillating axle. These capacities can be slewed through 360° with the undercarriage in the transverse position. Capacities in the longitudinal position of the undercarriage (±15°) are specified over the rigid axle with the stabilizers down. Indicated loads based on the ISO 10567 standard and do not exceed 75% of tipping or 87% of hydraulic capacity. The lift capacity values indicated are attained at the corresponding operating temperature. This operating temperature is ensured by continuous movement of the boom. Weights of fitted attachments (grabs, load hooks, etc.) and load accommodation attachment are to be deducted from the lift capacity values. 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.

# LH 60 C EW – Equipment GA16

# Industry – Kinematic 2A



#### Dimensions



#### Operating weight and ground pressure

The operating weight includes the basic machine with rigid cab elevation, straight boom 31'2", angled stick 23'11" and multi-tine grab GMM 80-5/1.18 yd<sup>3</sup> semi-closed tines.

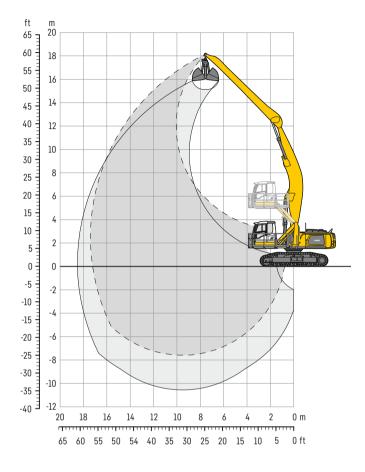
Weight	120,900 lb
Pad width	24"
Ground pressure	on request

tE		20	)ft	25	öft	30	ft	35	ft	40	ft	45	ft	50	)ft	551	it	60	ft	65	ft	-	~	<b>占</b>
$\downarrow \nu$			ſ		L		_I		ſ		ľ		ľ		j.		Ľ.		L		ľ		_1_	
ft	Undercarriage		Ľ		Ľ		Ľ		Ľ		Ľ		Ľ		Ľ		Ľ		Ľ		Ľ		Ľ	ft in
60	EW																					28,9*	28,9*	13' 4"
55	EW	26,7*	26,7*	21,7*	21,7*																	20,3*	20,3*	26'
50	EW			25,4*	25,4*	22,1*	22,1*															17,4*	17,4*	33' 6"
45	EW			24,6*	24,6*	21,8*	21,8*	19,7*	19,7*													15,9*	15,9*	38'11"
40	EW			24,3*	24,3*	21,5*	21,5*	19,4*	19,4*	17,8*	17,8*											15,0*	15,0*	43' 1"
35	EW			24,5*	24,5*	21,5*	21,5*	19,4*	19,4*	17,7*	17,7*	15,7	16,3*									14,4*	14,4*	46' 5"
30	EW			25,0*	25,0*	21,9*	21,9*	19,5*	19,5*	17,7*	17,7*	15,7	16,2*									13,3	14,1*	48'11"
25	EW	30,7*	30,7*	25,9*	25,9*	22,5*	22,5*	19,9*	19,9*	17,9*	17,9*	15,5	16,3*	12,7	14,8*							12,3	14,0*	50'11"
20	EW	32,8*	32,8*	27,2*	27,2*	23,3*	23,3*	20,4*	20,4*	18,2*	18,2*	15,2	16,4*	12,6	14,8*							11,6	13,8	52' 4"
15	EW	35,4*	35,4*	28,6*	28,6*	24,2*	24,2*	21,0*	21,0*	17,9	18,5*	14,8	16,6*	12,4	14,7							11,2	13,3	53' 1"
10	EW	37,9*	37,9*	30,1*	30,1*	25,1*	25,1*	21,2	21,5*	17,3	18,8*	14,4	16,6*	12,2	14,5							10,9	12,9*	53' 6"
5	EW	39,6*	39,6*	31,2*	31,2*	25,5	25,7*	20,4	21,8*	16,7	18,9*	14,0	16,5*	12,0	14,2*							10,8	12,1*	53' 5"
0	EW	37,0*	37,0*	31,4*	31,4*	24,4	25,8*	19,6	21,8*	16,2	18,7*	13,7	16,0*	11,8	13,3*							10,9	11,2*	52'11"
- 5	EW	31,6*	31,6*	30,3*	30,3*	23,6			21,1*	15,9	17,9*	13,5	15,0*	11,7	11,7*							10,5*	10,5*	51' 4"
-10	EW	31,8*	31,8*	27,7*	27,7*		23,2*		19,4*	15,7	16,2*	13,0*	13,0*									11,7*	11,7*	46'10"
-15	EW					19,7*	19,7*	16,5*	16,5*													15,5*	15,5*	36' 7"
6					ç						_	_												
1/	Height 🛁 Can be slo	ewed th	rough	360°	🖞 In lo	ngitudiı	nal posi	tion of	underca	arriage		<del>الل</del> ام الل	1ax. rea	ach *	Limited	l by hydr	. capa	city						

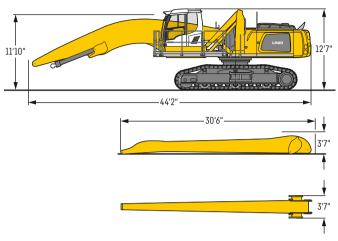
The lift capacities on the stick end without attachment are stated in lb x 1,000 and can be slewed through 360° on a firm, level supporting surface. Capacities are valid for 24" wide triple grouser pads (resp. flat pads). Indicated loads based on the ISO 10567 standard and do not exceed 75% of tipping or 87% of hydraulic capacity. The lift capacity values indicated are attained at the corresponding operating temperature. This operating temperature is ensured by continuous movement of the boom. Weights of fitted attachments (grabs, load hooks, etc.) and load accommodation attachment are to be deducted from the lift capacity values. 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.

# LH 60 C EW – Equipment AG17

# Industry – Kinematic 2D



#### Dimensions



#### **Operating weight and ground pressure**

The operating weight includes the basic machine with hydr. cab elevation, angled boom 31'2", straight stick 28'10" and grab for loose material GMZ 80/2.62 yd<sup>3</sup>.

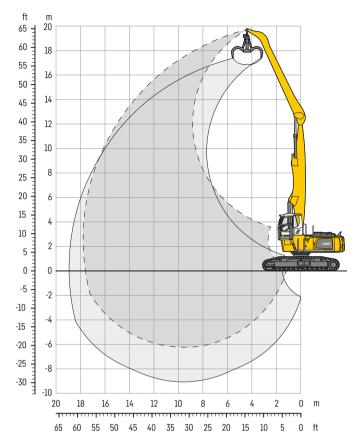
Weight	124,100 lb
Pad width	24"
Ground pressure	on request

55   EW   16,6*   16,6*   16,0*   16,0*   16,0*   16,0*   16,0*   12,8*   12,8*   12,8*   12,8*   12,8*   12,8*   12,8*   12,8*   12,0*	tE		20	) ft	25	ōft	30	) ft	35	ft	40	ft	45	ft	50	Oft	55	öft	60	ft	65	ft	4	~0	<sup>1</sup>
55   EW   16,6*   16,6*   16,0*   16,0*   16,0*   16,0*   16,0*   12,8*   12,8*   12,8*   12,8*   12,8*   12,8*   12,8*   12,8*   12,0*   11,0*   11,0*   11,0*   11,0*   11,0*   11,0*   11,0*   11,1*   11,1*   11,1*   11,1*   11,1*   11,1*   11,1*   11,1*   11,1*   11,1*   11,1*   11,1*   11,1*   11,1*   11,1*   11,1*   11,1*	Ţ.			L.	_	L.	_	, L		n,	_	J,	-	L.	_	L.		Ĩ.	_	j,	_	Т	_	L I	
50   EW   EW   Image: Constraint of the constraint		Undercarriage		Ę.						Ę		Ę,		5		5.		Ę,				Ę,	ᅄ	2	ft in
45   EW   15,5*   15,5*   14,5*   14,5*   14,5*   14,5*   14,5*   14,5*   14,5*   14,5*   14,5*   14,5*   14,5*   14,5*   14,5*   14,5*   14,5*   14,5*   14,5*   14,5*   15,5*   14,5*   15,5*   14,5*   15,5*   15,5*   14,5*   15,7*   15,7*	55	EW					16,6*	16,6*															14,1*	14,1*	32' 7"
40   EW   EW   Image: Constraint of the temperature of temperatemperate of temperature of temperature of temperature	50	EW							16,0*	16,0*													12,8*	12,8*	38'10"
35   EW   EW   15.4*   15.4*   14.3*   14.3*   13.4*   11.8*   11.8*   11.2*   12.3*   12.3* <th>45</th> <th>EW</th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th>15,5*</th> <th>15,5*</th> <th>14,5*</th> <th>14,5*</th> <th></th> <th>12,0*</th> <th>12,0*</th> <th>43' 7"</th>	45	EW							15,5*	15,5*	14,5*	14,5*											12,0*	12,0*	43' 7"
35   EW   EW   15.4*   15.4*   14.3*   14.3*   13.4*   11.8*   11.8*   11.2*   12.3*   12.3* <th>40</th> <th>EW</th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th>15.3*</th> <th>15,3*</th> <th>14,3*</th> <th>14.3*</th> <th>13,5*</th> <th>13,5*</th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th>11.5*</th> <th>11,5*</th> <th>47' 5"</th>	40	EW							15.3*	15,3*	14,3*	14.3*	13,5*	13,5*									11.5*	11,5*	47' 5"
25   EW   Image: Set of the set	35	EW							15,4*	15,4*	14,3*	14,3*	13,4*	13,4*	11,8*	11,8*							11,2*	11,2*	50' 5"
20   EW   18,7*   18,7*   16,7*   15,7*   15,2*   14,0*   14,0*   13,0*   13,0*   10,9   12,1*   10,6   11,2*   10     15   EW   27,5*   27,5*   23,0*   23,0*   19,8*   19,8*   17,5*   15,7*   15,7*   14,3*   12,9   13,2*   10,7   12,2*   10,1   11,4*   10   11,4*   10   11,1**   10   10,1   11,4*   10   10,1*   10,1*   10,1*   10,1*   10,1*   10,1*   10,1**   10,1*   11,1*   10,1*	30	EW							15,6*	15,6*	14,4*	14,4*	13,5*	13,5*	12,7*	12,7*							11,1*	11,1*	52' 8"
15   EW   27,5*   27,5*   23,0*   23,0*   19,8*   19,8*   17,5*   15,7*   15,7*   14,3*   12,9   13,2*   10,7   12,2*     10   EW   30,6*   30,6*   24,8*   24,8*   21,0*   21,0*   16,3*   16,3*   16,3*   14,3*   12,9   13,2*   10,7   12,2*   9,8   11,1**   9,8   11,1**   9,8   11,1**   9,8   11,1**   9,8   11,1**   9,8   11,1**   9,8   11,2*   10,7   12,2*   10,7   12,2*   10,7   12,2*   9,8   11,8*   9,8   11,8*   9,8   11,8*   9,8   11,8*   9,8   11,8*   9,8   11,6*   10,7*   13,7*   10,7*   13,7*   10,3   12,3   9,6   11,6   9,6   11,6   9,6   11,6   9,6   11,6*   9,6   11,6   9,6   11,6   9,6   11,6   9,6   11,6   9,6   11,6   9,6   11,6   9,6   11,6   9,6   11,6   9,6   11,6   9,8   11,6   9,8   1	25	EW					17,8*	17,8*	16,1*	16,1*	14,7*	14,7*	13,7*	13,7*	12,8*	12,8*							11,1*	11,1*	54' 6"
10   EW   30,6* 30,6* 24,8* 24,8* 21,0* 21,0* 18,3* 18,3* 16,3* 16,3* 16,7* 14,7* 12,5 13,4* 10,5 12,3*   9,8 11,8* 9     5   EW   33,7* 33,7* 26,7* 26,7* 22,3* 22,3* 19,2* 19,2* 16,9* 16,9* 14,4 15,1* 12,1 13,7* 10,3 12,3   9,6 11,6 9     0   EW   36,1* 36,1* 28,3* 28,3* 23,3* 23,3* 19,9* 19,9* 19,9* 16,6* 14,4 15,1* 12,1 13,7* 10,0 12,1   9,6 11,6 9     - 5   EW   37,7* 37,7* 29,4* 29,4* 24,1* 24,1* 19,4 20,4* 16,0 17,4* 13,7* 15,5* 11,4 13,7* 9,9 11,8*   9,8 11,6* 9     - 10   EW   36,4* 36,4* 29,6* 29,6* 23,1 24,3* 18,6 20,5* 15,4 17,6* 13,1 15,3* 11,2 13,2*   10,1 11,3* 12,1*     - 15   EW   36,4* 36,4* 28,9* 28,9* 22,5 23,8* 18,2 20,1* 15,1* 17,1* 12,8 14,6* 11,1 12,1*   10,6 10,9* 9	20	EW					18,7*	18,7*	16,7*	16,7*	15,2*	15,2*	14,0*	14,0*	13,0*	13,0*	10,9	12,1*					10,6	11,2*	55'10"
5   EW   33,7*   33,7*   26,7*   26,7*   22,3*   22,3*   19,2*   19,2*   16,9*   16,9*   14,4   15,1*   12,1   13,7*   10,3   12,3     0   EW   36,1*   36,1*   28,3*   28,3*   23,3*   23,3*   19,9*   19,9*   16,6   17,4*   13,9   15,4*   11,7   13,8*   10,0   12,1   9,6   11,6   9     - 5   EW   37,5*   37,5*   29,4*   24,1*   24,1*   19,4   20,4*   16,0   17,7*   13,4   15,5*   11,4   13,7*   9,9   11,8*   9,8   11,6*   9   11,6*   9,6   11,6   9   11,6*   9   11,6*   9   11,6*   10,0   12,1   10,0   12,1   9,6   11,6   9   11,6*   9   11,6*   9   11,6*   9   11,6*   9   11,6*   9   11,6*   9   11,6*   10,1   11,3*   10,1   11,1*   10,1   11,1*   10,1   11,1*   10,6   10,9*   10,6   1	15	EW	27,5*	27,5*	23,0*	23,0*	19,8*	19,8*	17,5*	17,5*	15,7*	15,7*	14,3*	14,3*	12,9	13,2*	10,7	12,2*					10,1	11,4*	56' 7"
0     EW     36,1*     36,1*     28,3*     28,3*     23,3*     23,3*     19,9*     19,9*     19,9*     15,6*     11,7     13,8*     10,0     12,1     9,6     11,6     9       - 5     EW     37,5*     37,5*     29,4*     24,1*     24,1*     19,4     20,4*     16,0     17,7*     13,4     15,5*     11,4     13,7*     9,9     11,8*     9,8     11,6*     9     11,6*     10,1     11,3*     10,1     11,3*     10,1     11,3*     10,1     11,3*     10,6	10	EW	30,6*	30,6*	24,8*	24,8*	21,0*	21,0*	18,3*	18,3*	16,3*	16,3*	14,7*	14,7*	12,5	13,4*	10,5	12,3*					9,8	11,8*	57'
- 5   EW   37,5*   37,5*   29,4*   24,1*   19,4   20,4*   16,0   17,7*   13,4   15,5*   11,4   13,7*   9,9   11,8*   9,8   11,6*   10,1   11,3*   10,6   10,1   11,3* <th>5</th> <th>EW</th> <th>33,7*</th> <th>33,7*</th> <th>26,7*</th> <th>26,7*</th> <th>22,3*</th> <th>22,3*</th> <th>19,2*</th> <th>19,2*</th> <th>16,9*</th> <th>16,9*</th> <th>14,4</th> <th>15,1*</th> <th>12,1</th> <th>13,7*</th> <th>10,3</th> <th>12,3</th> <th></th> <th></th> <th></th> <th></th> <th>9,6</th> <th>11,6</th> <th>56'11"</th>	5	EW	33,7*	33,7*	26,7*	26,7*	22,3*	22,3*	19,2*	19,2*	16,9*	16,9*	14,4	15,1*	12,1	13,7*	10,3	12,3					9,6	11,6	56'11"
-10   EW   36,4*   36,4*   29,6*   23,1   24,3*   18,6   20,5*   15,4   17,6*   13,1   15,3*   11,2   13,2*     -15   EW   34,6*   34,6*   28,9*   28,9*   22,5   23,4*   18,2   20,1*   15,1   17,1*   12,8   14,6*   11,1   12,1*   10,6   10,9*   10,6	0	EW	36,1*	36,1*	28,3*	28,3*	23,3*	23,3*	19,9*	19,9*	16,6	17,4*	13,9	15,4*	11,7	13,8*	10,0	12,1					9,6	11,6	56' 5"
-15 EW 34,6* 34,6* 28,9* 28,9* 22,5 23,8* 18,2 20,1* 15,1 17,1* 12,8 14,6* 11,1 12,1* 10,6 10,9* 5	- 5	EW	37,5*	37,5*	29,4*	29,4*	24,1*	24,1*	19,4	20,4*	16,0	17,7*	13,4	15,5*	11,4	13,7*	9,9	11,8*					9,8	11,6*	55' 5"
	-10	EW	36,4*	36,4*	29,6*	29,6*	23,1	24,3*	18,6	20,5*	15,4	17,6*	13,1	15,3*	11,2	13,2*							10,1	11,3*	54'
-20 EW 33,0* 33,0* 26,9* 26,9* 22,2 22,3* 17,9 18,8* 15,0 15,8* 12,8 13,0* 11,7* 11,7* 4	-15	EW	34,6*	34,6*	28,9*	28,9*	22,5	23,8*	18,2	20,1*	15,1	17,1*	12,8	14,6*	11,1	12,1*							10,6	10,9*	52'
	-20	EW	33,0*	33,0*	26,9*	26,9*	22,2	22,3*	17,9	18,8*	15,0	15,8*	12,8	13,0*									11,7*	11,7*	47' 2"
Height 🖆 Can be slewed through 360° 🖞 In longitudinal position of undercarriage 💦 🖓 Max, reach 🔹 Limited by hydr, canacity	t					<b>.</b>				_		6	-10-					_							

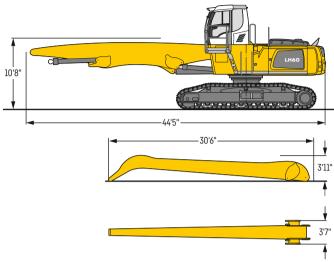
The lift capacities on the stick end without attachment are stated in lb x 1,000 and can be slewed through 360° on a firm, level supporting surface. Capacities are valid for 24" wide triple grouser pads (resp. flat pads). Indicated loads based on the ISO 10567 standard and do not exceed 75% of tipping or 87% of hydraulic capacity. The lift capacity values indicated are attained at the corresponding operating temperature. This operating temperature is ensured by continuous movement of the boom. Weights of fitted attachments (grabs, load hooks, etc.) and load accommodation attachment are to be deducted from the lift capacity values. 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.

# LH 60 C SW – Equipment GA18

# Industry – Kinematic 2A



Dimensions



#### Operating weight and ground pressure

The operating weight includes the basic machine with rigid cab elevation, straight boom 31'2", angled stick 28'10" and multi-tine grab GMM 80-5/1.18 yd3 semi-closed tines.

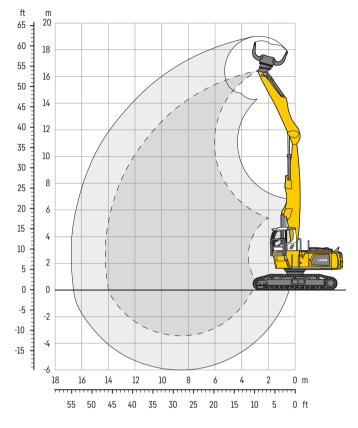
Weight	125,500 lb
Pad width	24"
Ground pressure	on request

tE		20	ft	25	ift	30	)ft	35	ift	40	)ft	45	ift	50	Oft	55	öft	60	ft	65	ft	6		占
14		_	, L	_	, L	_		_	n,	_	j,		J,		, L		, L	_	, L	_	, L	_	_۲	 
ft	Undercarriage		Ľ		Ľ,		Ľ		比		Ľ		5		比		凸		Ľ		Ľ		Ľ.	ft in
60	SW			19,5*	19,5*																	17,5*	17,5*	26'10"
55	SW			22,5*	22,5*	19,5*	19,5*															14,7*	14,7*	34'11"
50	SW					21,6*	21,6*	18,9*	18,9*	14,3*	14,3*											13,3*	13,3*	40'10"
45	SW					22,5*	22,5*	20,6*	20,6*	18,1*	18,1*	12,9*	12,9*									12,3*	12,3*	45' 4"
40	SW					22,3*	22,3*	20,3*	20,3*	18,8*	18,8*	16,8*	16,8*									11.8*	11,8*	49'
35	SW					22,4*	22,4*	20,4*	20,4*	18,8*		17,4*	17,4*	14,3*	14,3*								11,4*	51'11"
30	SW						22,8*	20,7*	20,7*	18,9*	18,9*	17.5*	17,5*	14,6	16,3*								11,1*	54' 2"
25	SW									19,2*	19,2*		17,7*	14,5	16,3*	12,0	12,8*						11,0*	55'11"
20	SW			27,4*	27,4*	24,5*			21,8*	19,7*		17,2	17,9*	14,3	16,4*	11.9	14,9*					11,1*	11,1*	57' 2"
15	SW	29,5*	29,5*	30,0*	30,0*	25,8*	25,8*	22,6*	22,6*	20,2*	20,2*	16,7	18,2*	13,9	16,5*	11.8	14,9*					10,7	11,2*	58'
10	SW	,	39,6*	32,1*	32,1*	27,0*	27,0*	23,4*	23,4*	19,5	20,7*		18,5*	13,6	16,6*	11.6	14,7					10,5	11,4*	58' 4"
5	SW		42,7*	33,9*	33,9*	28,2*	28,2*	23,0	24,1*	18,8	21,1*		18,6*	13,3	16,5*	11,4	14,4*						11,7*	58' 2"
0	SW		44,6*	35,1*	35,1*	27,6	28,9*	22,0	24,5*	18,1		15,2	18,6*	13,0	16,2*	11,2	13,7*					10,4	11,7*	57' 8"
- 5	SW			34,3	35,2*	26,4	29,0*	21,2	24,4*	17,6	21,0*	14,8	18,1*	12,7	15,4*	11,1	12,3*					10,6	10,7*	56'10"
-10	SW			33,2	34.0*	25,6	28,1*		23,6*	17,1	20,1*		17.0*	12,6	14,0*	11,1	12,0						11,1*	53' 8"
-15	SW		32,9*	31,1*	31,1*	25,0		20,0	21,7*	16,9	18,2*	14,5	14,9*	12,0	14,0							12,6*	12,6*	48' 5"
-20		52,7	52,7	51,1	51,1	22,0*	22,0*		18,4*	10,7	10,2	14,4	14,7										17,3*	36' 7"
-20	300					22,0	22,0	10,4	10,4													17,5	17,5	30 /
·C					P						Æ	<u>-</u>												
	Height 🛛 🗝 🛱 Can be sle	ewed th	rough 3	360°	🛱 In loi	ngitudi	nal posi	tion of	underca	arriage		39	Max. rea	ach *	Limited	l by hyd	lr. capa	city						

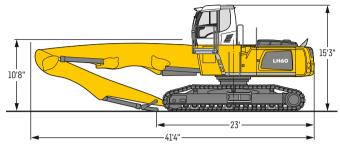
The lift capacities on the stick end without attachment are stated in lb x 1,000 and can be slewed through 360° on a firm, level supporting surface. Capacities are valid for 24" wide triple grouser pads (resp. flat pads). Indicated loads based on the ISO 10567 standard and do not exceed 75% of tipping or 87% of hydraulic capacity. The lift capacity values indicated are attained at the corresponding operating temperature. This operating temperature is ensured by continuous movement of the boom. Weights of fitted attachments (grabs, load hooks, etc.) and load accommodation attachment are to be deducted from the lift capacity values. 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.

# LH 60 C SW – Equipment GK14

# Industry – Kinematic 2A



#### Dimensions



#### Operating weight and ground pressure

The operating weight includes the basic machine with rigid cab elevation, straight boom 27'11", stick with tipping kinematics 19'8" and sorting grab SG 40/2.09 yd<sup>3</sup> perforated shells.

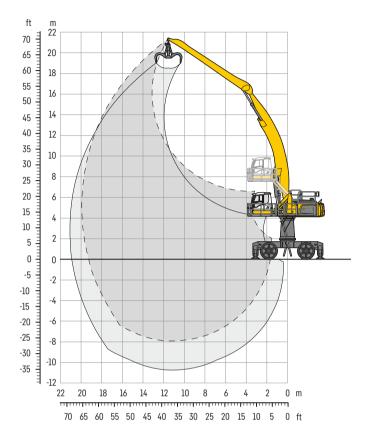
Weight	126,500 lb
Pad width	24"
Ground pressure	on request

tC		20	Oft	25	ōft	30	)ft	35	ft	40	)ft	45	ft	50	ft	55	ft	60	ft	65	ft	•		þ
12/			j,	_	1	-	"L		"L		JL.		J.		"L	_	1	_	J.		1	_	1	
ft	Undercarriage		Ľ		Ľ		比		Ľ		Ľ	-5	Ľ		볞		Ľ		比		Ľ		Ľ	ft in
60	SW																							
55	SW																							
50	SW	27,8*	27,8*																			26,3*	26,3*	20' 8"
45	SW	32,9*	32,9*	28,2*	28,2*																	21,3*	21,3*	28' 8"
40	SW	33,7*	33,7*	29,2*	29,2*	26,2*	26,2*															18,9*	18,9*	34' 2"
35	SW	33,4*	33,4*	28,9*	28,9*	25,7*	25,7*	23,4*	23,4*													17,6*	17,6*	38' 4"
30	SW	34,1*	34,1*	29,3*	29,3*	25,9*	25,9*	23,3*	23,3*	19,3	21,2*											16,9*	16,9*	41' 4"
25	SW	35,7*	35,7*	30,3*	30,3*	26,4*	26,4*	23,6*	23,6*	19,3	21,3*											16,4	16,5*	43' 7"
20	SW	38,3*	38,3*	31,8*	31,8*	27,3*	27,3*	23,8	24,0*	19,0	21,4*	15,4	17,2*									15,3	16,4*	45' 2"
15	SW	41,5*	41,5*	33,6*	33,6*	28,4*	28,4*	23,2	24,6*	18,6	21,6*	15,3	18,7*									14,6	16,5*	46' 2"
10	SW	44,5*	44,5*	35,3*	35,3*	28,5	29,3*	22,5	25,0*	18,2	21,6*	15,1	18,3*									14,2	16,8*	46' 7"
5	SW	46,2*	46,2*	36,1	36,3*	27,5	29,8*	21,8	25,0*	17,8	21,2*	14,9	17,3*									14,2	15,6*	46' 6"
0	SW	45,5*	45,5*	34,9	35,9*	26,7	29,3*	21,3	24,4*	17,5	20,2*	14,8	15,3*									14,0*	14,0*	45'11"
- 5	SW	41,7*	41,7*	33,7*	33,7*	26,2	27,6*	21,0	22,6*	17,4	17,9*											15,0*	15,0*	42' 7"
-10	SW			29,0*	29,0*				19,0*													18,8*	18,8*	35' 2"
-15	SW																							
- 20	SW																							
6					0																			
1/	Height 🛁 🛱 Can be sl	wod th	rough 7	7400	Plunia	naitudi		tion of	undoro	orriogo	6	٦ <u>ل</u>	day ra	noh *	Limito	d by hyd		oitu						

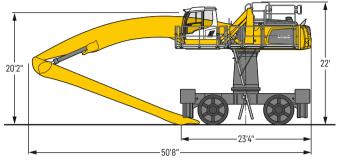
The lift capacities on the stick end without attachment are stated in lb x 1,000 and can be slewed through 360° on a firm, level supporting surface. Capacities are valid for 24" wide triple grouser pads (resp. flat pads). Indicated loads based on the ISO 10567 standard and do not exceed 75% of tipping or 87% of hydraulic capacity. The lift capacity values indicated are attained at the corresponding operating temperature. This operating temperature is ensured by continuous movement of the boom. Weights of fitted attachments (grabs, load hooks, etc.) and load accommodation attachment are to be deducted from the lift capacity values. 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.

# LH 60 M HR – Equipment AG20

# Industry – Kinematic 2C



#### Dimensions



#### **Operating weight**

The operating weight includes the basic machine with 4 point outriggers, turret 67", hydr. cab elevation, 4 solid tires, angled boom 37'9", straight stick 31'2" and multi-tine grab GMM 80-5/1.44 yd<sup>3</sup> semi-closed tines.

Weight

159,200lb

tE		20	)ft	25	öft	30	)ft	35	ift	40	ft	45	ift	50	)ft	55	ift	60	)ft	65	ft	6		
↓.⁄/ ft	Undercarriage		Ľ		Ŀ		Ŀ		Ľ		Ŀ		Ľ		Ŀ		Ľ		Ŀ		Ŀ		Ŀ	ft in
70	4 pt. outriggers down																					12,5*	12,5*	37'10"
65	4 pt. outriggers down																					11,4*	11,4*	44' 1"
60	4 pt. outriggers down											12,1*	12.1*										10,8*	49'
55	4 pt. outriggers down												12,0*	11,3*	11,3*							10,4*	10,4*	53'
50	4 pt. outriggers down											11,9*	11,9*	11,2*	11,2*	10,6*	10,6*					10,1*	10,1*	56' 4"
45	4 pt. outriggers down											12,0*			11,2*	10,5*	10,5*					10,0*	10,0*	59'
40	4 pt. outriggers down											12,2*	12,2*		11,3*	10,6*	10,6*	10,0*	10,0*			9,9*	9,9*	61' 1"
35	4 pt. outriggers down									13,7*	13,7*	12,5*	12,5*	11,5*	11,5*	10,7*	10,7*	10,1*	10,1*			9,8*	9,8*	62'10"
30	4 pt. outriggers down							15,8*	15,8*	14,1*	14,1*	12,8*	12,8*	11,7*	11,7*	10,9*	10,9*	10,2*	10,2*			9,7*	9,7*	64' 1"
25	4 pt. outriggers down					19,0*	19,0*	16,5*	16,5*	14,6*	14,6*	13,2*	13,2*	12,0*	12,0*	11,1*	11,1*	10,3*	10,3*			9,6*	9,6*	64'11"
20	4 pt. outriggers down	30,5*	30,5*	24,2*	24,2*	20,2*	20,2*	17,3*	17,3*	15,2*	15,2*	13,6*	13,6*	12,3*	12,3*	11,3*	11,3*	10,4*	10,4*	9,7*	9,7*	9,6*	9,6*	65' 4"
15	4 pt. outriggers down	33,1*	33,1*	25,9*	25,9*	21,3*	21,3*	18,1*	18,1*	15,8*	15,8*	14,0*	14,0*	12,6*	12,6*	11,5*	11,5*	10,6*	10,6*	9,7*	9,7*	9,6*	9,6*	65' 5"
10	4 pt. outriggers down	26,1*	26,1*	27,3*	27,3*	22,3*	22,3*	18,8*	18,8*	16,3*	16,3*	14,4*	14,4*	12,9*	12,9*	11,7*	11,7*	10,6*	10,6*	9,6*	9,6*	9,6*	9,6*	65'
5	4 pt. outriggers down	20,0*	20,0*	28,3*	28,3*	23,1*	23,1*	19,4*	19,4*	16,8*	16,8*	14,7*	14,7*	13,1*	13,1*	11,8*	11,8*	10,6*	10,6*			9,6*	9,6*	64' 4"
0	4 pt. outriggers down	18,8*	18,8*	28,8*	28,8*	23,5*	23,5*	19,8*	19,8*	17,0*	17,0*	14,9*	14,9*	13,2*	13,2*	11,8*	11,8*	10,4*	10,4*			9,5*	9,5*	63' 2"
- 5	4 pt. outriggers down	19,2*	19,2*	28,5*	28,5*	23,5*	23,5*	19,8*	19,8*	17,0*	17,0*	14,9*	14,9*	13,1*	13,1*	11,5*	11,5*	9,9*	9,9*			9,3*	9,3*	61' 7"
-10	4 pt. outriggers down	20,3*	20,3*	27,4*	27,4*	22,8*	22,8*	19,4*	19,4*	16,7*	16,7*	14,5*	14,5*	12,6*	12,6*	10,9*	10,9*					9,1*	9,1*	59' 7"
-15	4 pt. outriggers down	21,7*	21,7*	25,4*	25,4*	21,5*	21,5*	18,3*	18,3*	15,8*	15,8*	13,6*	13,6*	11,6*	11,6*	9,6*	9,6*					8,6*	8,6*	57'1"
- 20	4 pt. outriggers down	23,5*	23,5*	22,3*	22,3*	19,2*	19,2*	16,5*	16,5*	14,1*	14,1*	12,0*	12,0*	9,8*	9,8*							7,8*	7,8*	54'
- 25	4 pt. outriggers down					15,7*	15,7*	13,5*	13,5*	11,5*	11,5*											9,7*	9,7*	44' 1"
· C												-7-												

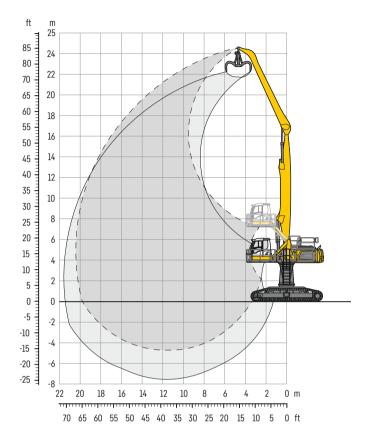
IV Height 🛥 Can be slewed through 360° 🖞 In longitudinal position of undercarriage

Max. reach \* Limited by hydr. capacity

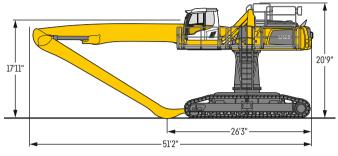
The lift capacities on the stick end without attachment are stated in lb x 1,000 and are valid on a firm, level supporting surface with blocked oscillating axle. These capacities can be slewed through 360° with the undercarriage in the transverse position. Capacities in the longitudinal position of the undercarriage (±15°) are specified over the rigid axle with the stabilizers down. Indicated loads based on the ISO 10567 standard and do not exceed 75% of tipping or 87% of hydraulic capacity. The lift capacity values indicated are attained at the corresponding operating temperature. This operating temperature is ensured by continuous movement of the boom. Weights of fitted attachments (grabs, load hooks, etc.) and load accommodation attachment are to be deducted from the lift capacity values. 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.

# LH 60 C HR – Equipment GA21

## Industry – Kinematic 2A



#### Dimensions



### Operating weight and ground pressure

The operating weight includes the basic machine with turret 67", hydr. cab elevation, straight boom 37'9", angled stick 31'2" and multi-tine grab GMM 80-5/1.44 yd<sup>3</sup> semi-closed tines.

Weight	160,900 lb
Pad width	30"
Ground pressure	on request

t		20	Oft	25	ift	30	Dft	35	ft	40	ft	45	ft	50	Oft	55	öft	60	ft	65	ft	-	~0	1
14			ľ		ſ		ľ		ſ		ľ		ľ		ľ		ľ		ľ		ľ		_1 _	_
ft	Undercarriage	-43	Ľ		Ľ		Ľ		ピ		Ľ		Ľ		Ľ		Ľ		Ľ		Ľ		Ľ	ft in
80	SW																					21,9*	21,9*	17'
75	SW			19,7*	19,7*	16,1*	16,1*															15,8*	15,8*	30' 4"
70	SW					19,2*																	13,5*	38' 7"
65	SW					20,4*	20,4*			,	16,3*												12,2*	44'11"
60	SW							,			17,1*	15,6*											11,3*	49'11"
55	SW							18,9*	18,9*		17,0*		15,4*	14,1*									10,7*	54'
50	SW							18,9*					15,4*	14,1*			12,9*					10,4*	10,4*	57' 4"
45	SW							19,0*	19,0*	17,0*	17,0*		15,4*	14,0*	14,0*	12,9*	12,9*		10,2*			10,1*	10,1*	60'1"
40	SW					21,9*	,				17,2*		15,5*		14,1*	12,9*	12,9*	11,8*	11,8*			9,9*	9,9*	62' 4"
35	SW			05.34	05.34		22,4*			17,4*		15,6*					12,9*		11,8*	10 54	10 54	9,9*	9,9*	64'
		07.0+	07.0+													,			,	,	,	,		65' 5"
	25     SW     27,9*     27,9*     28,5*     28,5*     23,9*     20,5*     18,0*     18,0*     16,0*     16,0*     14,4*     14,4*     13,0*     13,0*     11,7*     11,7*     10,3*     10,3*     9,9* <th>66' 4"</th>															66' 4"								
																1 1			'					66'10"
15	SW	39,1*	39,1*	'	30,7*	25,3*	25,3*		21,4*	18,6*	18,6*		16,3*	14,5*	14,5*	12,9*	12,9*		11,4*	9,8*	9,8*	9,0*	9,0*	67'
10 5	SW SW		,	31,3* 31,1*	31,3* 31,1*	25,6*			21,6* 21,5*		18,7* 18,5*		16,3* 16,1*		14,4* 14,1*	12,7*	12,7* 12,3*	11,1* 10,6*	11,1* 10.6*	9,3*	9,3* 8,4*	8,4* 7,7*	8,4* 7,7*	66'8" 66'1"
0	SW			30,0*	30.0*	25,6*	25,6				18,0*		15,6*			12,3* 11,6*	12,5	9,7*	9,7*	8,4* 6,9*	0,4 6,9*	6,9*	6,9*	65' 1"
- 5	SW		16,7*	27,7*	27,7*	23,3*		19,8*	19,8*		17,0*		14,6*		12,5*	10.5*	10,5*	8,2*	8.2*	0,7	0,7	7,4*	7,4*	61' 6"
-10	SW	10,7	10,7	24,1*	24,1*	20,8*				15,4*		13,1*		11,0*		8.8*	8,8*	0,2	0,2			8,3*	8,3*	56'
-15				27,1	27,1	20,0	20,0				12,9*	10,1	10,1	11,0	11,0	0,0	0,0					11,0*		44' 5"
15	1.011	I		I	_	I		10,0	10,0	1 - 2, /	12,7					1		I		I		11,0	11,0	
t	<u>m</u>				ĥ							The												
↓6⁄	Height 🛛 🗝 🛱 Can be sl	ewed th	irough	360°	🖵 In lo	ngitudi	nal posi	tion of	underc	arriage			Max. rea	ach *	Limite	d by hyc	ir. capa	city						

The lift capacities on the stick end without attachment are stated in lb x 1,000 and can be slewed through 360° on a firm, level supporting surface. Capacities are valid for 30" wide flat pads. Indicated loads based on the ISO 10567 standard and do not exceed 75% of tipping or 87% of hydraulic capacity. The lift capacity values indicated are attained at the corresponding operating temperature. This operating temperature is ensured by continuous movement of the boom. Weights of fitted attachments (grabs, load hooks, etc.) and load accommodation attachment are to be deducted from the lift capacity values. 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.

# Liebherr ERC-System

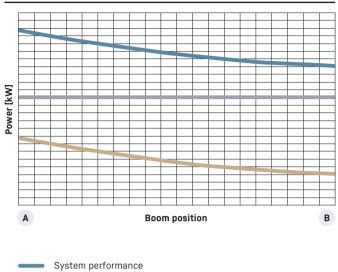
#### More performance, less consumption

Lowering the equipment stores energy in the ERC-System. This stored energy is then made available to the machine to provide additional engine power. When the equipment is raised the stored energy is released and is reflected in powerful, homogeneous operating cycles. The result is a clear energy saving – and, at the same time, even greater performance.

#### System performance

The energy recovery cylinder is a storage system which is independent of the electric motor or diesel engine. The system performance of material handling machines fitted with the ERC-System is composed of the installed engine power and the energy recovery cylinder. When the equipment is raised, energy from the ERC-System is supplied in addition to the power from the engine.

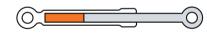
#### **ERC-System**



- Engine power
- ERC performance



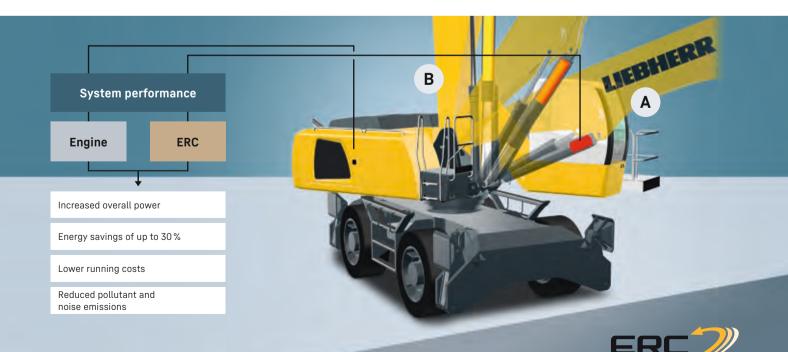




Lower equipment fitting / store energy
Raise equipment fitting / release energy



 A 3. Equipment fitting lowered / energy stored



# Attachments



Grab for loose mater	rial								Shells for	loose ma	aterial wit	h cutting	edge (with	hout teeth)
Grab model GMZ 50														
Width of shells	ft in	4'7"	5'3"	5'11"										
Capacity	yd3	4.58	5.23	5.88										
Weight	lb	5,765	6,065	6,230										
Grab model GMZ 80														
Shell specification		Standa	ď							Wide				
Width of shells	ft in	4'3"	4'11"	5'9"	6'7"	7'3"	8'6"	9'10"	11'2"	4'3"	4'11"	5'7"	6'7"	7'3"
Capacity	yd3	3.92	4.58	5.23	5.88	6.54	7.85	9.15	10.46	2.62	3.01	3.53	3.92	4.45
Weight	lb	5,535	5,785	6,120	6,435	7,175	7,695	8,200	8,720	5,095	5,290	5,590	5,885	6,380



Multi-tine grab or	open		semi-close	ed			closed, he	art-shaped		
Grab model GMM 80-4 (4 tines)										
Capacity yd <sup>3</sup>   1.	L.44 1.83	2.22	1.44	1.83	2.22		1.83	2.22		
Weight lb 4,	4,190 4,275	4,410	4,620	4,740	4,870		5,300	5,645		
Grab model GMM 80-5 (5 tines)										
Capacity yd <sup>3</sup>   1.	L.44 1.83	2.22	1.18	1.44	1.83	2.22	1.18	1.44	1.83	2.22
Weight lb 4,	4,785 4,895	5,050	4,995	5,270	5,435	5,590	5,235	5,380	5,690	6,020



Wood grab								
Grab model GMH 50 - round	overlapping (h	orizontal cy	linders)					
Size	yd2	2.63	2.99	2.99	3.35	3.83	4.31	
Cutting width	ft in	3'3"	2'10"	3'3"	3'3"	3'3"	3'3"	
Height of grab, closed	ft in	7'7"	7'11"	7'11"	8'3"	8'8"	9'3"	
Weight	lb	4,705	4,640	4,805	4,980	5,115	5,235	
Grab model GMH 80 – round	overlapping (v	ertical cylin	ders)					
Size	yd <sup>2</sup>	1.55	1.91	2.27	2.63	2.99		
Cutting width	ft in	2'10"	2'10"	2'10"	2'10"	2'10"		
Height of grab, closed	ft in	9'2"	9'6"	9'9"	10'1"	10'4"		
Weight	lb	4,750	4,885	4,980	5,060	5,150		



Load hook		Load hook		Double load hook	
Max. load	lb	27,560	55,115	27,560	55,115
Height with suspension	ft in	3'1"	3'1"	3'1"	3'10"
Weight	lb	300	302	304	485*
*					

\* with XHD suspension



## Magnet devices / lifting magnets

kW	12.8/17.8
ft in	5'7"
lb	7,230*
	ft in

\* only magnet plate

# Equipment

🗝 🥌 Undercarriage	W 09	60 C	60 M HR	60 C HR
Track pads, variants		+		+
Individual control outriggers	+		٠	
Three-piece chain guide				•
Shuttle axle lock, automatic	•		٠	
Outrigger monitoring system	+		+	
Tires, variants	+		+	
Trailing cable <sup>2)</sup>	•	٠	٠	•
Protection for piston rods, outriggers	+		+	
Two storage compartments <sup>1)</sup>	•			
One storage compartment <sup>2)</sup>	•			
Undercarriage, variants		+		
Cable reel system <sup>2)</sup>	+	+3)	+	+

🕮 Uppercarriage	W 09	60 C	60 M HR	60 C HR
Uppercarriage right side light, 1 piece, LED	•	٠	٠	•
Uppercarriage rear light, 2 pieces, LED	+	+		
Uppercarriage underneath rear light, 1 piece, LED			+	+
Refuelling system with filling pump <sup>1)</sup>	+	+	+	+
Railing on uppercarriage	+	+	٠	•
Generator	+	+	+	+
Main battery switch for electrical system	•	•	٠	•
Amber beacon, at uppercarriage, LED double flash	+	+	+	+
Protection for headlights	+	+		
Protection for rear lights	+	+		
Tool equipment, extended	•	•	•	•

d Hydraulic system	W 09	60 C	60 M HR	60 C HR
Electronic pump regulation	•	•	٠	•
Liebherr hydraulic oil from – 4°F to +104°F	•	•	•	•
Liebherr hydraulic oil, biologically degradable	+	+	+	+
Liebherr hydraulic oil, specially for warm or cold regions	+	+	+	+
Magnetic rod in hydraulic tank	•	•	•	•
Bypass filter	+	+	+	+
Preheating hydraulic oil	+	+	+	+

📛 Engine	W 09	60 C	60 M HR	60 C HR
Fuel anti-theft device <sup>1)</sup>	+	+	+	+
Air pre-filter with dust discharge <sup>1)</sup>	+	+	+	+
Automatic engine shut-down (time adjustable)	+	+	+	+
Preheating fuel <sup>1)</sup>	+	+	+	+
Preheating coolant <sup>1)</sup>	+	+	+	+
Preheating engine oil*1)	+	+	+	+
0-	I	I	£	₩

≈J E Cooling system	M 09	90 C	4 M 09	60 C H	
Reversible fan drive	+	+	+	+	
Protective grid in front of cooler intake	•	٠	٠	•	

			¥	~
Cab Cab	Σ	ပ	Σ	C HR
	60	60	60	60
Stabilizer, control lever, left console	+		+	
Stabilizer, proportional control on left joystick	•		•	
Cab lights rear, halogen	+	+	+	+
Cab lights rear, LED	+	+	+	+
Cab lights front, halogen	+	+	+	+
Cab lights front, halogen (under rain cover)	•	٠	٠	٠
Cab lights front, LED	+	+	+	+
Cab lights front, LED (under rain cover)	+	+	+	+
Armrest adjustable	•	٠	٠	٠
Circular bubble level	+	+	٠	٠
Slewing gear brake Comfort, button on the left or right joystick	+	+	+	+
Driver profile, personalized (max. 5 drivers)	+	+	+	+
Operator's seat Comfort	•	٠	٠	٠
Operator's seat Premium	+	+	+	+
Driving alarm				
(acoustic signal is emitted during travel, can be switched ON/OFF)	+	+	+	+
Fire extinguisher	+	+	+	+
Footrest	+	+	+	+
Horn, button on left joystick	•	٠	٠	٠
Joystick steering	•		٠	
Joystick and wheel steering (slim version)	+		+	
Cab elevation, hydraulic (LHC)	•	٠	٠	•
Cab elevation, hydraulic with double parallelogram (LHC-D)			+	+
Cab elevation, rigid (LFC)	+	+		
Automatic air conditioning	•	٠	•	•
Wheel steering (slim version)	+		+	
LiDAT, vehicle fleet management	•	٠	٠	٠
Engine shut-down (emergency stop) cab <sup>2)</sup>	•	٠	•	•
Proportional control	•	٠	•	•
Radio Comfort, control via display with handsfree set	+	+	+	+
Preparation for radio installation	•	•	٠	٠
Back-up alarm				
(acoustic signal is emitted traveling backward, can not be switched off)	+		+	
Amber beacon, on cab, LED double flash	+	+	+	+
Windows made from impact-resistant laminated safety glass	+	+	٠	•
Windscreen wiper, roof	+	+	+	+
Windshield wiper, entire windshield	٠	٠	•	•
FOPS top guard	+	+	+	+
FGPS front guard, tiltable	+	+	+	+
Sun visor	+	+	+	+
Stationary air-conditioning <sup>2)</sup>	•	•	٠	٠
Left control console, folding	•	٠	•	•

<b>Equipment</b>	W 09	60 C	60 M HR	60 C HR
Boom lights, 2 pieces, halogen	•	٠	٠	•
Boom lights, 2 pieces, LED	+	+	+	+
Stick lights, 2 pieces, halogen	•	٠	•	•
Stick lights, 2 pieces, LED	+	+	+	+
Boom shutoff (retract / extend), electronically	+	+	•	•
Equipment with electro-hydraulic end position control	•	٠	•	•
AutoLift	+	+	+	+
Pressure warning mechanism hoist cylinder	•	٠	٠	•
ERC system	•	٠	•	•
ilter system for attachment	+	+	+	+
Height limitation and stick shutoff, electronically	+			
Electronic lift limitation		+	+	+
Boom cylinder cushioning	+	٠	٠	•
Stick camera (with separate monitor), bottom side, with protection	+	+	+	+
.oad torque limitation	+	+	+	+
iebherr multi coupling system	+	+	+	+
iebherr quick coupler, hydraulic	+			
Pipe fracture safety valves hoist cylinders	•	٠	٠	٠
Pipe fracture safety valves stick cylinders	•	٠	٠	•
Quick coupling system MH 110B	+	+	+	+
Protection for piston rod, energy recovering cylinder	+	+	+	+
Protection for piston rods, hoist cylinder	+	+	+	+
Stick shutoff (retract), electronically	•	٠		
Stick shutoff (retract / extend), electronically	+	+	٠	•
Retract stick without pressure	•	٠	٠	٠
Sticks with quick coupling	+	+	+	+
Dverload warning device	+	+	+	+

Le Complete machine	60 M	60 C	60 M HR	60 C HR
Lubrication				
Lubrication undercarriage, manually – decentralized (grease points)	•			
Lubrication undercarriage, manually – centralized (one grease point)	+		•	
Central lubrication system for uppercarriage and equipment, automatically	•	•	•	•
Central lubrication system for undercarriage, automatically	+		+	
Centralized lubrication extended for attachment	+			
Special coating				
Special coating, variants	+	+	+	+
Monitoring				
Rear view monitoring with camera	•	•	•	•
Side view monitoring with camera	•	٠	•	•

• = Standard, + = Option, +3) = on request \* = country-dependent, <sup>1)</sup> not with electric drive, <sup>2)</sup> only with electric drive

Options and / or special equipment, 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**



#### Global and independent: more than 70 years of success

Liebherr was founded in 1949. With the development of the world's first mobile tower crane, Hans Liebherr laid the foundations of a successful family business which today comprises more than 140 companies on all continent and employs nearly 51,000 people. The parent company of the Group is Liebherr-International AG in Bulle (Switzerland), whose associates are exclusively members of the Liebherr family.

#### Technology leadership and pioneering spirit

Liebherr regards itself as a pioneer. This spirit has enabled the company to make a decisive contribution to the technological history of many industries. Today, employees around the world still share the courage of the company founder to take new paths. They are all united by a passion for technology and fascinating products and the determination to perform outstanding work for their customers.

#### Widely diversified product portfolio

Not only is Liebherr one of the biggest construction equipment manufacturers in the world, it also provides high-quality, user-oriented products and services in a wide range of other areas. The product portfolio includes the segments earthmoving, material handling technology, deep foundation machines, mining, mobile and crawler cranes, tower cranes, concrete technology, maritime cranes, aerospace and transportation systems, gear technology and automation systems, refrigeration and freezing, components and hotels.

#### Customized solutions and maximum customer benefit

Liebherr solutions are characterized by maximum precision, outstanding implementation and exceptional longevity. Its mastery of key technologies enables the company to offer its customers customized solutions. For Liebherr, customer focus does not end with the product; it also encompasses a wide range of services that make a real difference.

### www.liebherr.us

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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.



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.

#### Liebherr USA, Co.

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