

Machine for Industrial Applications

LH 80 M

Litronic®



Operating Weight:
76,200 – 78,900 kg

Engine:
230 kW / 313 HP
Stage IIIB / Tier 4i

Max. System Performance:
385 kW

LIEBHERR

Technical Data



Engine

| | |
|---------------------------------|---------------------------------------------------------------------------------------|
| Rating per ISO 9249 | 230 kW (313 HP) at 1,700 RPM |
| Model | Liebherr D936 according to stage IIIB/Tier 4i |
| Type | 6 cylinder in-line |
| Bore/Stroke | 122/150 mm |
| Displacement | 10.5 l |
| Engine operation | 4-stroke diesel Common-Rail turbo-charged and after-cooled reduced emissions |
| Harmful emissions values | in accordance with 97/68/EG stage IIIB |
| Emission control | Liebherr particle filter |
| Cooling | water-cooled with integrated motor oil cooler |
| Air cleaner | dry-type air cleaner with pre-cleaner, primary and safety elements |
| Fuel tank | 910 l |
| Engine idling | sensor controlled |
| Electrical system | |
| Voltage | 24 V |
| Batteries | 2 x 170 Ah/12 V |
| Alternator | three phase current 28 V/100 A |



Hydraulic Controls

| | |
|-----------------------------|--------------------------------------------------------------------------------------------------------------|
| Power distribution | via control valves in single block with integrated safety valves |
| Servo circuit | |
| Attachment and swing | with hydraulic pilot control and proportional joystick levers |
| Travel | electroproportional via foot pedal |
| Additional functions | via switch or electroproportional foot pedals |
| Option | proportional control, proportionally acting transmitters on the joysticks for additional hydraulic functions |



Hydraulic System

| | | |
|----------------------------------------------|---------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Hydraulic pump | for attachment and travel drive | two Liebherr variable flow, swashplate pumps (double construction) |
| Max. flow | | 2 x 350 l/min. |
| Max. pressure | | 350 bar |
| Hydraulic pump regulation and control | | electro-hydraulic with electronic engine speed sensing regulation, pressure compensation, flow compensation, automatic oil flow optimizer |
| Hydraulic pump | for swing drive | reversible, variable flow, swashplate pump, closed-loop circuit |
| Max. flow | | 185 l/min. |
| Max. pressure | | 380 bar |
| Hydraulic tank | | 390 l |
| Hydraulic system | | 910 l |
| Hydraulic oil filter | | 2 main return filters with integrated partial micro filtration (5 µm) |
| Hydraulic oil cooler | | cooling system, consisting of a cooling unit for water and charge air and a 2 nd cooler for hydraulic oil, each with an infinitely variable, thermostatically controlled fan drive system |
| MODE selection | | adjustment of engine and hydraulic performance via a mode pre-selector to match application, e.g. for especially economical and environmentally friendly operation or for maximum material handling and heavy-duty jobs |
| S (Sensitive) | | for precision work and lifting through very sensitive movements |
| E (ECO) | | for especially economical and environmentally friendly operation |
| P (Power) | | for maximum digging power and heavy duty jobs |
| Tool Control (Option) | | ten preadjustable pump flows and pressures for add on tools |



Swing Drive

| | |
|---------------------|--------------------------------------------------------------------------|
| Drive | Liebherr swashplate motor in a closed system with integrated brake valve |
| Transmission | Liebherr planetary reduction gear |
| Swing ring | Liebherr, sealed single race ball bearing swing ring, internal teeth |
| Swing speed | 0 – 6.4 RPM stepless |
| Swing torque | 154 kNm |
| Brake | holding brake (spring applied – pressure released) |
| Option | pedal controlled positioning swing brake |

Technical Data



Uppercarriage

| | |
|-------------|----------------------------------------------------------------------------------------------|
| Type | slewing platform made from high-strength steel plate, designed for the toughest requirements |
|-------------|----------------------------------------------------------------------------------------------|



Operator's Cab

| | |
|-----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Cab | safety cab structure with individual windscreens or featuring a slide-in subpart under the ceiling, work headlights integrated in the ceiling, a door with a side window (can be opened on both sides), large stowing and depositing possibilities, shock-absorbing suspension, sounddamping insulating, tinted laminated safety glass, separate shades for the sunroof window and windscreen |
| Operator's seat Standard | air cushioned operator's seat with headrest, lap belt, seat heater, manual weight adjustment, adjustable seat cushion inclination and length and mechanical lumbar vertebrae support |
| Operator's seat Comfort (Option) | in addition to operator's seat standard: lockable horizontal suspension, automatic weight adjustment, adjustable suspension stiffness, pneumatic lumbar vertebrae support and passive seat climatisation with active coal |
| Operator's seat Premium (Option) | in addition to operator's seat comfort: active electronic weight adjustment (automatic readjustment), pneumatic low frequency suspension and active seat climatisation with active coal and ventilator |
| Control system | joysticks with arm consoles and swivel seat |
| Operation and displays | large high-resolution operating unit, selfexplanatory, colour display with touchscreen, video-compatible, numerous setting, control and monitoring options, e.g. air conditioning control, fuel consumption, machine and tool parameters |
| Air-conditioning | automatic air-conditioning, recirculated air function, fast de-icing and demisting at the press of a button, air vents can be operated via a menu; recirculated air and fresh air filters can be easily replaced and are accessible from the outside; heating-cooling unit, designed for extreme outside temperatures, sensors for solar radiation, inside and outside temperatures |
| Noise emission | |
| ISO 6396 | L_{pA} (inside cab) = 71 dB(A) |
| 2000/14/EC | L_{WA} (surround noise) = 105 dB(A) |



Undercarriage

| | |
|--------------------------|----------------------------------------------------------------------------------------------------------------------|
| Type | torsion-resistant box design made from high-strength steel plate, designed for the toughest requirements |
| Drive | variable flow swashplate motor with automatic brake valve |
| Travel speed | 0 – 10 km/h stepless |
| Driving operation | automotive driving using accelerator pedal, cruise control function: storage of variable accelerator pedal positions |
| Axles | 90 t drive axles; manual or automatic hydraulically controlled front axle oscillation lock |
| Service brake | two circuit travel brake system with accumulator; maintenance-free, wet and backlash-free disc brake |
| Holding brake | wet, maintenance-free multi disc brakes |
| Stabilization | 4 point outriggers |



Attachment

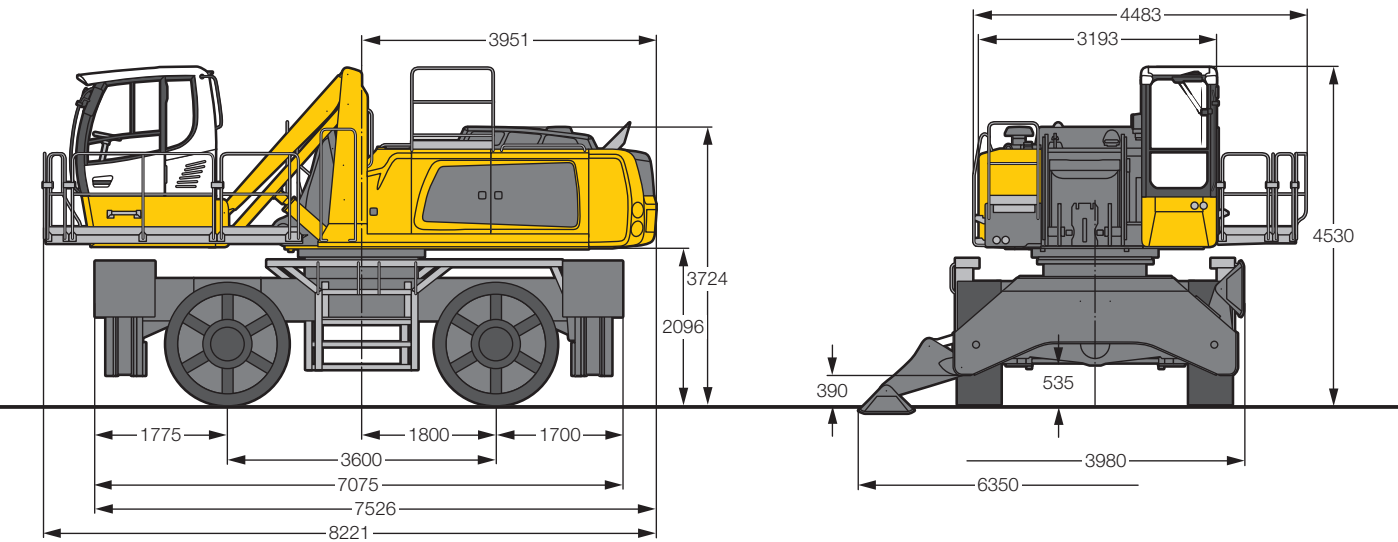
| | |
|-----------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|
| Type | high-strength steel plates at highllystressed points for the toughest requirements. Complex and stable mountings of attachment and cylinders |
| Hydraulic cylinders | Liebherr cylinders with special seal system. Shock absorption |
| Energy recovering cylinder | Liebherr gas cylinder with special sealing and control system |
| Bearings | sealed, low maintenance |



Complete Machine

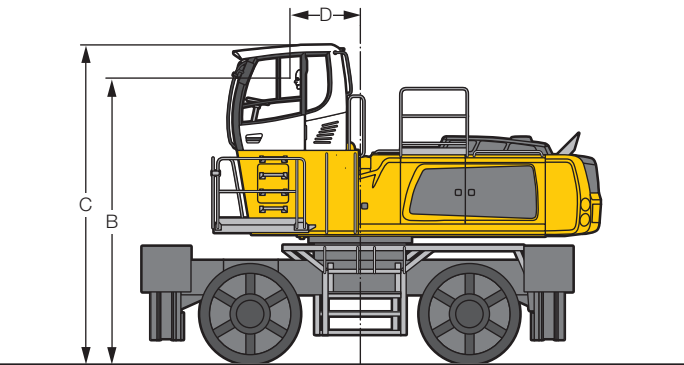
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|--------------------|----------------------------------------------------------------------------|
| Lubrication | central lubrication system for uppercarriage and attachment, automatically |
|--------------------|----------------------------------------------------------------------------|

Dimensions



Choice of Cab Elevation

Cab Elevation LFC (Rigid Elevation)

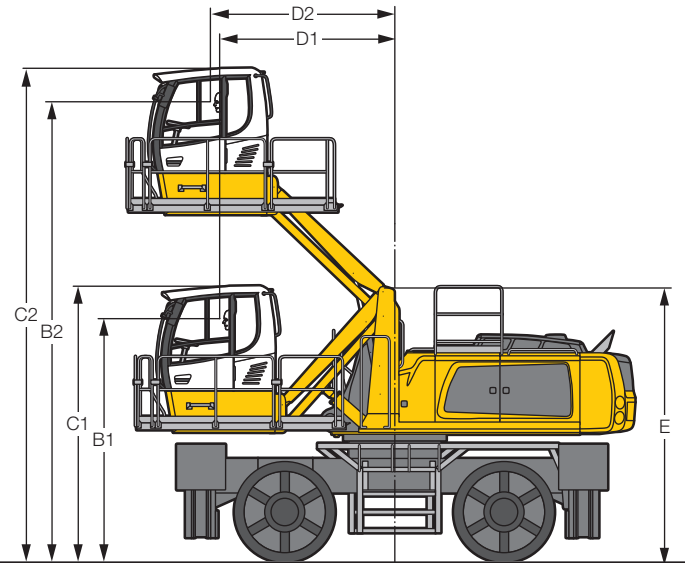


| Increase type | | LFC 120 | LFC 150 | LFC 200 |
|---------------|----|---------|---------|---------|
| Height | mm | 1,200 | 1,500 | 2,000 |
| B | mm | 4,688 | 4,988 | 5,488 |
| C | mm | 5,230 | 5,530 | 6,030 |
| D | mm | 1,156 | 1,156 | 1,156 |

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 4,334 mm.

Tyres 23.5 x 25

Cab Elevation LHC (Hydraulic Elevation)

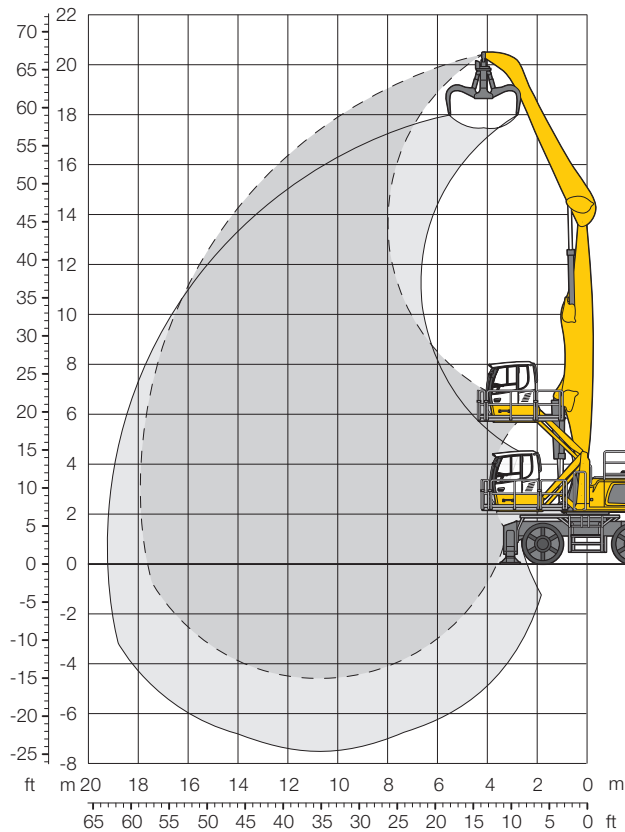


| Increase type | | LHC 255 | LHC 340-35 | LHC 360-50 |
|---------------|----|---------|------------|------------|
| B1 | mm | 3,487 | 3,839 | 3,988 |
| B2 | mm | 6,034 | 7,254 | 7,558 |
| C1 | mm | 4,030 | 4,382 | 4,530 |
| C2 | mm | 6,577 | 7,796 | 8,101 |
| D1 | mm | 1,711 | 2,484 | 2,882 |
| D2 | mm | 1,837 | 2,485 | 3,032 |
| E | mm | 3,971 | 4,361 | 4,511 |

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

Attachment GA18

Kinematic 2A



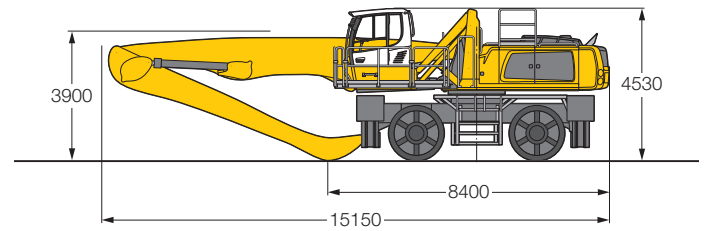
Operating Weight

The operating weight includes basic machine with 4 point outriggers, hydr. cab elevation, 4 solid tyres, industrial-type straight mono boom 10.50 m and industrial-type angled stick 7.80 m.

with grapple model GMM 80-5/1.70 m³ semi-closed tines

76,200 kg

Dimensions



| | | 6.0 m | 7.5 m | 9.0 m | 10.5 m | 12.0 m | 13.5 m | 15.0 m | 16.5 m | 18.0 m | 19.5 m | 21.0 m | | |
|------|-----------------------|-------|-------|-------|--------|--------|--------|--------|--------|--------|--------|--------|-------|------|
| | | | | | | | | | | | | | | |
| m | Undercarriage | 15.0* | 15.0* | | | | | | | | | | | m |
| 19.5 | 4 pt. outriggers down | | | | | | | | | | | | 12.9* | 7.1 |
| 18.0 | 4 pt. outriggers down | | | | | | | | | | | | 10.6* | 9.9 |
| 16.5 | 4 pt. outriggers down | | | | | | | | | | | | 9.5* | 11.9 |
| 15.0 | 4 pt. outriggers down | | | | | | | | | | | | 8.8* | 13.4 |
| 13.5 | 4 pt. outriggers down | | | | | | | | | | | | 8.4* | 14.6 |
| 12.0 | 4 pt. outriggers down | | | | | | | | | | | | 8.1* | 15.6 |
| 10.5 | 4 pt. outriggers down | | | | | | | | | | | | 7.9* | 16.3 |
| 9.0 | 4 pt. outriggers down | | | | | | | | | | | | 7.9* | 16.9 |
| 7.5 | 4 pt. outriggers down | | | | | | | | | | | | 7.9* | 17.4 |
| 6.0 | 4 pt. outriggers down | | | | | | | | | | | | 7.9* | 17.7 |
| 4.5 | 4 pt. outriggers down | | | | | | | | | | | | 8.1* | 17.9 |
| 3.0 | 4 pt. outriggers down | | | | | | | | | | | | 8.1* | 17.9 |
| 1.5 | 4 pt. outriggers down | | | | | | | | | | | | 7.6* | 17.8 |
| 0 | 4 pt. outriggers down | | | | | | | | | | | | 7.0* | 17.6 |
| -1.5 | 4 pt. outriggers down | | | | | | | | | | | | 6.8* | 17.0 |
| -3.0 | 4 pt. outriggers down | | | | | | | | | | | | 7.6* | 15.5 |
| -4.5 | 4 pt. outriggers down | | | | | | | | | | | | 10.1* | 12.0 |

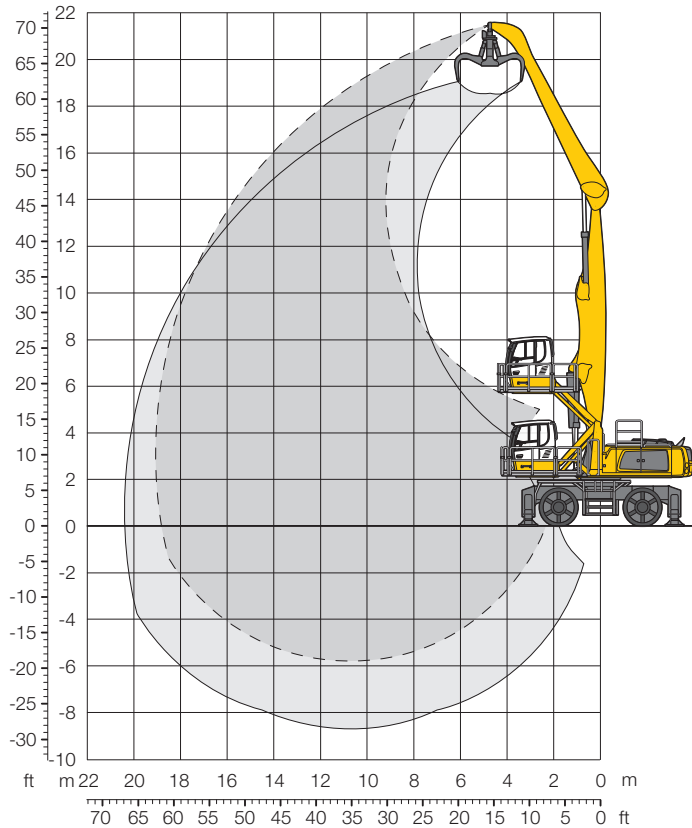
Height **Can be slewed through 360°** **In longitudinal position of undercarriage** **Max. reach** * **Limited by hydr. capacity**

The lift capacities on the stick end without attachment are stated in metric tons (t) and are valid on a firm, level supporting surface with blocked oscillating axle. These capacities can be slewed through 360° with the undercarriage in the transverse position. Capacities in the longitudinal position of the undercarriage (+/- 15°) are specified over the rigid axle with the stabilizers down. Indicated loads comply with 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 working tools (grabs, load hooks, etc.) and load accommodation equipment 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.

In accordance with the harmonised European Standard EN 474-5, hydraulic excavators used for lifting operations must be equipped with pipe fracture safety valves, an overload warning device, a load hook and a lift capacity chart.

Attachment GA19

Kinematic 2A

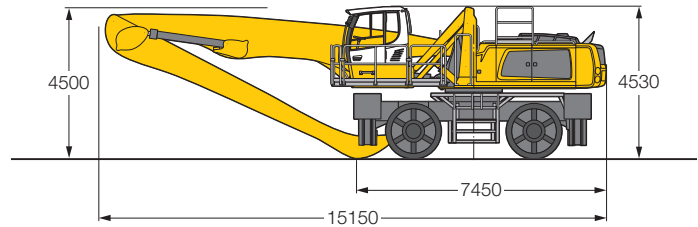


























Operating Weight

The operating weight includes basic machine with 4 point outriggers, hydr. cab elevation, 4 solid tyres, industrial-type straight mono boom 10.50 m and industrial-type angled stick 9.00 m.

with grapple model GMM 80-5/1.70 m³ semi-closed tines **76,600 kg**

Dimensions



| | | 6.0 m | | 7.5 m | | 9.0 m | | 10.5 m | | 12.0 m | | 13.5 m | | 15.0 m | | 16.5 m | | 18.0 m | | 19.5 m | | 21.0 m | |  | | |
|--------------------------------------------------------------------------------------|-----------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|-------|------|
|  m | Undercarriage |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | m | |
| 21.0 | 4 pt. outriggers down | 13.1* | 13.1* | | | | | | | | | | | | | | | | | | | | | 12.4* | 12.4* | 6.4 |
| 19.5 | 4 pt. outriggers down | | | 12.9* | 12.9* | 10.9* | 10.9* | | | | | | | | | | | | | | | | | 9.6* | 9.6* | 9.7 |
| 18.0 | 4 pt. outriggers down | | | | | 12.6* | 12.6* | 10.9* | 10.9* | | | | | | | | | | | | | | | 8.4* | 8.4* | 11.9 |
| 16.5 | 4 pt. outriggers down | | | | | 13.3* | 13.3* | 12.2* | 12.2* | 10.6* | 10.6* | 7.9* | 7.9* | | | | | | | | | | | 7.7* | 7.7* | 13.6 |
| 15.0 | 4 pt. outriggers down | | | | | | | 13.0* | 13.0* | 11.9* | 11.9* | 10.1* | 10.1* | | | | | | | | | | | 7.2* | 7.2* | 14.9 |
| 13.5 | 4 pt. outriggers down | | | | | | | 12.9* | 12.9* | 11.8* | 11.8* | 10.9* | 10.9* | 9.3* | 9.3* | | | | | | | | | 6.9* | 6.9* | 16.0 |
| 12.0 | 4 pt. outriggers down | | | | | | | 12.9* | 12.9* | 11.8* | 11.8* | 10.8* | 10.8* | 10.1* | 10.1* | 7.9* | 7.9* | | | | | | | 6.7* | 6.7* | 16.9 |
| 10.5 | 4 pt. outriggers down | | | | | 14.6* | 14.6* | 13.1* | 13.1* | 11.9* | 11.9* | 10.9* | 10.9* | 10.1* | 10.1* | 9.4* | 9.4* | | | | | | | 6.6* | 6.6* | 17.6 |
| 9.0 | 4 pt. outriggers down | | | | | 15.1* | 15.1* | 13.4* | 13.4* | 12.1* | 12.1* | 11.0* | 11.0* | 10.2* | 10.2* | 9.4* | 9.4* | | | | | | | 6.5* | 6.5* | 18.2 |
| 7.5 | 4 pt. outriggers down | | | 15.8* | 15.8* | 15.7* | 15.7* | 13.8* | 13.8* | 12.4* | 12.4* | 11.2* | 11.2* | 10.3* | 10.3* | 9.4* | 9.4* | 8.4 | 8.5* | | | | | 6.5* | 6.5* | 18.6 |
| 6.0 | 4 pt. outriggers down | 16.6* | 16.6* | 19.3* | 19.3* | 16.4* | 16.4* | 14.3* | 14.3* | 12.7* | 12.7* | 11.4* | 11.4* | 10.4* | 10.4* | 9.5* | 9.5* | 8.3 | 8.6* | | | | | 6.6* | 6.6* | 18.9 |
| 4.5 | 4 pt. outriggers down | 25.5* | 25.5* | 20.5* | 20.5* | 17.2* | 17.2* | 14.8* | 14.8* | 13.0* | 13.0* | 11.6* | 11.6* | 10.5* | 10.5* | 9.5 | 9.5* | 8.2 | 8.5* | | | | | 6.7* | 6.7* | 19.0 |
| 3.0 | 4 pt. outriggers down | 27.4* | 27.4* | 21.6* | 21.6* | 17.9* | 17.9* | 15.3* | 15.3* | 13.3* | 13.3* | 11.8* | 11.8* | 10.6* | 10.6* | 9.3 | 9.5* | 8.0 | 8.4* | | | | | 6.8* | 6.8* | 19.1 |
| 1.5 | 4 pt. outriggers down | 17.8* | 17.8* | 22.4* | 22.4* | 18.4* | 18.4* | 15.6* | 15.6* | 13.5* | 13.5* | 11.9* | 11.9* | 10.5* | 10.5* | 9.1 | 9.3* | 7.9 | 8.1* | | | | | 6.9* | 6.9* | 19.0 |
| 0 | 4 pt. outriggers down | 11.1* | 11.1* | 22.7* | 22.7* | 18.6* | 18.6* | 15.7* | 15.7* | 13.5* | 13.5* | 11.8* | 11.8* | 10.3 | 10.3* | 8.9 | 9.0* | 7.5* | 7.5* | | | | | 6.4* | 6.4* | 18.8 |
| -1.5 | 4 pt. outriggers down | 10.0* | 10.0* | 20.7* | 20.7* | 18.3* | 18.3* | 15.4* | 15.4* | 13.2* | 13.2* | 11.5* | 11.5* | 9.9* | 9.9* | 8.4* | 8.4* | 6.6* | 6.6* | | | | | 5.9* | 5.9* | 18.4 |
| -3.0 | 4 pt. outriggers down | 10.2* | 10.2* | 18.1* | 18.1* | 17.3* | 17.3* | 14.7* | 14.7* | 12.5* | 12.5* | 10.8* | 10.8* | 9.1* | 9.1* | 7.4* | 7.4* | | | | | | | 6.4* | 6.4* | 17.3 |
| -4.5 | 4 pt. outriggers down | | | 17.8* | 17.8* | 15.5* | 15.5* | 13.2* | 13.2* | 11.3* | 11.3* | 9.5* | 9.5* | 7.8* | 7.8* | | | | | | | | | 7.3* | 7.3* | 15.4 |

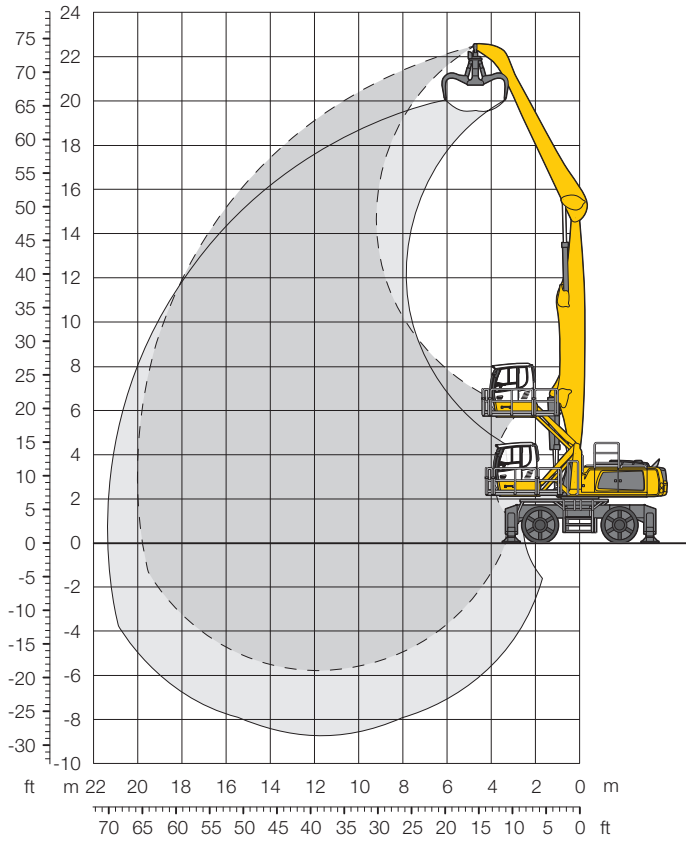
Height **Can be slewed through 360°** **In longitudinal position of undercarriage** **Max. reach** * **Limited by hydr. capacity**

The lift capacities on the stick end without attachment are stated in metric tons (t) and are valid on a firm, level supporting surface with blocked oscillating axle. These capacities can be slewed through 360° with the undercarriage in the transverse position. Capacities in the longitudinal position of the undercarriage (+/- 15°) are specified over the rigid axle with the stabilizers down. Indicated loads comply with 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 working tools (grabs, load hooks, etc.) and load accommodation equipment 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.

In accordance with the harmonised European Standard EN 474-5, hydraulic excavators used for lifting operations must be equipped with pipe fracture safety valves, an overload warning device, a load hook and a lift capacity chart.

Attachment GA20

Kinematic 2A



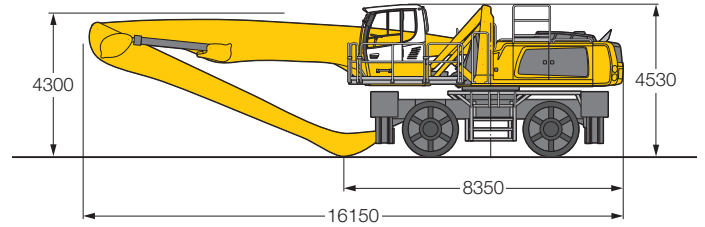
Operating Weight

The operating weight includes basic machine with 4 point outriggers, hydr. cab elevation, 4 solid tyres, industrial-type straight mono boom 11.50 m and industrial-type angled stick 9.00 m.

with grapple model GMM 80-5/1.70 m³ semi-closed tines

77,200 kg

Dimensions



| | | 6.0 m | 7.5 m | 9.0 m | 10.5 m | 12.0 m | 13.5 m | 15.0 m | 16.5 m | 18.0 m | 19.5 m | 21.0 m | | |
|------|-----------------------|-------|-------|-------|--------|--------|--------|--------|--------|--------|--------|--------|-------|-------|
| | | | | | | | | | | | | | | |
| m | Undercarriage | | | | | | | | | | | | m | m |
| 21.0 | 4 pt. outriggers down | | 12.5* | 12.5* | | | | | | | | | 10.3* | 10.3* |
| 19.5 | 4 pt. outriggers down | | | | 12.3* | 12.3* | 10.5* | 10.5* | | | | | 8.8* | 8.8* |
| 18.0 | 4 pt. outriggers down | | | | 13.1* | 13.1* | 12.0* | 12.0* | 10.4* | 10.4* | | | 7.9* | 7.9* |
| 16.5 | 4 pt. outriggers down | | | | | | 12.8* | 12.8* | 11.6* | 11.6* | 10.1* | 10.1* | 7.4* | 7.4* |
| 15.0 | 4 pt. outriggers down | | | | | | 12.7* | 12.7* | 11.5* | 11.5* | 10.5* | 10.5* | 9.5* | 9.5* |
| 13.5 | 4 pt. outriggers down | | | | | | 12.7* | 12.7* | 11.5* | 11.5* | 10.4* | 10.4* | 9.6* | 9.6* |
| 12.0 | 4 pt. outriggers down | | | | | | 14.4* | 14.4* | 12.8* | 12.8* | 11.5* | 11.5* | 10.5* | 10.5* |
| 10.5 | 4 pt. outriggers down | | | | | | 14.8* | 14.8* | 13.0* | 13.0* | 11.7* | 11.7* | 10.6* | 10.6* |
| 9.0 | 4 pt. outriggers down | | | | | | | | 15.1* | 15.1* | 15.2* | 15.2* | 13.3* | 13.3* |
| 7.5 | 4 pt. outriggers down | | | | | | | | | | | | 14.8* | 14.8* |
| 6.0 | 4 pt. outriggers down | | | | | | | | | | | | 15.0* | 15.0* |
| 4.5 | 4 pt. outriggers down | | | | | | | | | | | | 22.3* | 22.3* |
| 3.0 | 4 pt. outriggers down | | | | | | | | | | | | 25.9* | 25.9* |
| 1.5 | 4 pt. outriggers down | | | | | | | | | | | | 21.2* | 21.2* |
| 0 | 4 pt. outriggers down | | | | | | | | | | | | 17.4* | 17.4* |
| -1.5 | 4 pt. outriggers down | | | | | | | | | | | | 14.8* | 14.8* |
| -3.0 | 4 pt. outriggers down | | | | | | | | | | | | 13.0* | 13.0* |
| -4.5 | 4 pt. outriggers down | | | | | | | | | | | | 12.7* | 12.7* |

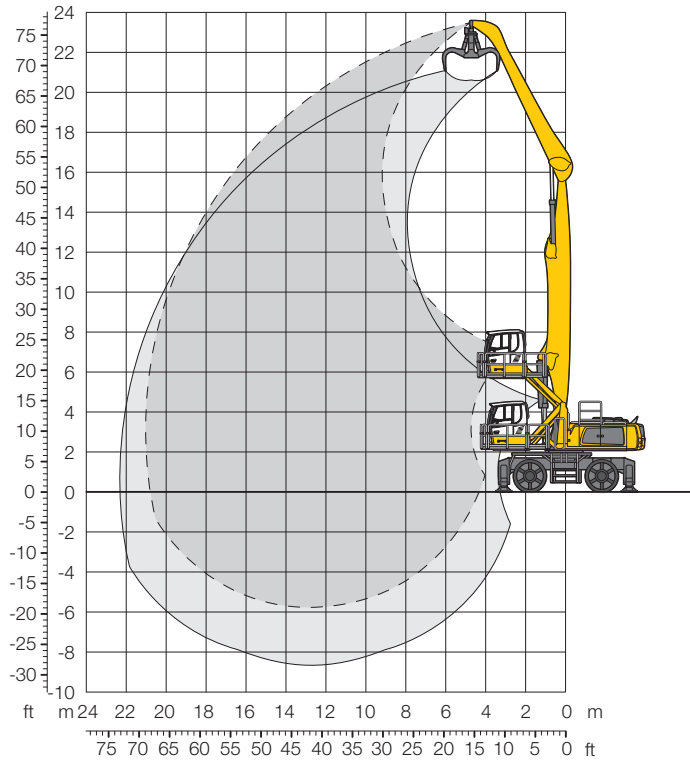
Height Can be slewed through 360° In longitudinal position of undercarriage Max. reach * Limited by hydr. capacity

The lift capacities on the stick end without attachment are stated in metric tons (t) and are valid on a firm, level supporting surface with blocked oscillating axle. These capacities can be slewed through 360° with the undercarriage in the transverse position. Capacities in the longitudinal position of the undercarriage (+/- 15°) are specified over the rigid axle with the stabilizers down. Indicated loads comply with 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 working tools (grabs, load hooks, etc.) and load accommodation equipment 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.

In accordance with the harmonised European Standard EN 474-5, hydraulic excavators used for lifting operations must be equipped with pipe fracture safety valves, an overload warning device, a load hook and a lift capacity chart.

Attachment GA21

Kinematic 2A



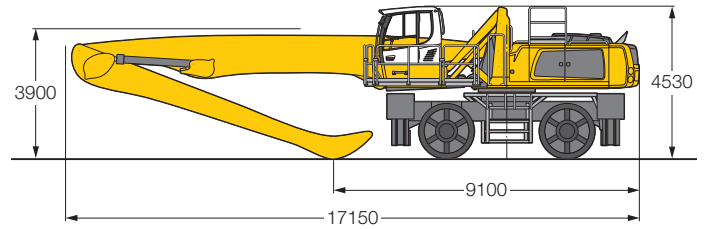
Operating Weight

The operating weight includes basic machine with 4 point outriggers, hydr. cab elevation, 4 solid tyres, industrial-type straight mono boom 12.50 m and industrial-type angled stick 9.00 m.

with grapple model GMM 80-5/1.40 m³ semi-closed tines

77,700 kg

Dimensions



| m | Undercarriage | 6.0 m | 7.5 m | 9.0 m | 10.5 m | 12.0 m | 13.5 m | 15.0 m | 16.5 m | 18.0 m | 19.5 m | 21.0 m | | m |
|------|-----------------------|-------------|-------------|-------------|-------------|-------------|-------------|-----------|-----------|-----------|-----------|-----------|-------------|------|
| 24.0 | 4 pt. outriggers down | | | | | | | | | | | | | |
| 22.5 | 4 pt. outriggers down | | 11.9* 11.9* | | | | | | | | | | 11.2* 11.2* | 7.9 |
| 21.0 | 4 pt. outriggers down | | 13.3* 13.3* | 12.0* 12.0* | 10.0* 10.0* | | | | | | | | 9.2* 9.2* | 11.0 |
| 19.5 | 4 pt. outriggers down | | | 12.9* 12.9* | 11.8* 11.8* | 10.2* 10.2* | | | | | | | 8.2* 8.2* | 13.1 |
| 18.0 | 4 pt. outriggers down | | | 13.4* 13.4* | 12.7* 12.7* | 11.3* 11.3* | 10.0* 10.0* | | | | | | 7.6* 7.6* | 14.8 |
| 16.5 | 4 pt. outriggers down | | | | 12.6* 12.6* | 11.2* 11.2* | 10.1* 10.1* | 9.3* 9.3* | | | | | 7.2* 7.2* | 16.2 |
| 15.0 | 4 pt. outriggers down | | | | 12.6* 12.6* | 11.2* 11.2* | 10.1* 10.1* | 9.2* 9.2* | 8.5* 8.5* | | | | 6.9* 6.9* | 17.3 |
| 13.5 | 4 pt. outriggers down | | | 14.3* 14.3* | 12.6* 12.6* | 11.2* 11.2* | 10.1* 10.1* | 9.2* 9.2* | 8.4* 8.4* | 7.5* 7.5* | | | 6.7* 6.7* | 18.3 |
| 12.0 | 4 pt. outriggers down | | | 14.6* 14.6* | 12.7* 12.7* | 11.3* 11.3* | 10.1* 10.1* | 9.2* 9.2* | 8.4* 8.4* | 7.7* 7.7* | | | 6.6* 6.6* | 19.1 |
| 10.5 | 4 pt. outriggers down | | | 14.9* 14.9* | 12.9* 12.9* | 11.4* 11.4* | 10.2* 10.2* | 9.3* 9.3* | 8.4* 8.4* | 7.7* 7.7* | 6.9 7.0* | | 6.5* 6.5* | 19.7 |
| 9.0 | 4 pt. outriggers down | | 16.3* 16.3* | 15.2* 15.2* | 13.2* 13.2* | 11.6* 11.6* | 10.3* 10.3* | 9.3* 9.3* | 8.5* 8.5* | 7.7* 7.7* | 6.9 7.0* | | 6.4 6.5* | 20.2 |
| 7.5 | 4 pt. outriggers down | 18.2* 18.2* | 18.8* 18.8* | 15.7* 15.7* | 13.4* 13.4* | 11.8* 11.8* | 10.5* 10.5* | 9.4* 9.4* | 8.5* 8.5* | 7.7* 7.7* | 6.8 7.0* | | 6.1 6.4* | 20.6 |
| 6.0 | 4 pt. outriggers down | 24.7* 24.7* | 19.5* 19.5* | 16.1* 16.1* | 13.7* 13.7* | 12.0* 12.0* | 10.6* 10.6* | 9.5* 9.5* | 8.5* 8.5* | 7.7* 7.7* | 6.7 6.9* | | 5.9 6.1* | 20.8 |
| 4.5 | 4 pt. outriggers down | 16.6* 16.6* | 20.1* 20.1* | 16.5* 16.5* | 14.0* 14.0* | 12.1* 12.1* | 10.7* 10.7* | 9.5* 9.5* | 8.5* 8.5* | 7.6 7.7* | 6.6 6.8* | | 5.7 5.8* | 21.0 |
| 3.0 | 4 pt. outriggers down | 5.2* 5.2* | 20.0* 20.0* | 16.8* 16.8* | 14.2* 14.2* | 12.2* 12.2* | 10.7* 10.7* | 9.5* 9.5* | 8.5* 8.5* | 7.4 7.6* | 6.4 6.7* | 5.5* 5.5* | 5.5* 5.5* | 21.0 |
| 1.5 | 4 pt. outriggers down | 3.7* 3.7* | 10.7* 10.7* | 16.8* 16.8* | 14.2* 14.2* | 12.2* 12.2* | 10.7* 10.7* | 9.4* 9.4* | 8.2 8.3* | 7.2 7.4* | 6.3 6.4* | | 5.1* 5.1* | 20.9 |
| 0 | 4 pt. outriggers down | 3.9* 3.9* | 8.6* 8.6* | 16.4* 16.4* | 13.9* 13.9* | 12.0* 12.0* | 10.5* 10.5* | 9.2* 9.2* | 8.0 8.1* | 7.0 7.1* | 6.0* 6.0* | | 4.7* 4.7* | 20.8 |
| -1.5 | 4 pt. outriggers down | 4.6* 4.6* | 8.4* 8.4* | 15.6* 15.6* | 13.3* 13.3* | 11.5* 11.5* | 10.0* 10.0* | 8.8* 8.8* | 7.6* 7.6* | 6.5* 6.5* | 5.3* 5.3* | | 4.2* 4.2* | 20.4 |
| -3.0 | 4 pt. outriggers down | | 8.8* 8.8* | 14.1* 14.1* | 12.3* 12.3* | 10.7* 10.7* | 9.4* 9.4* | 8.1* 8.1* | 7.0* 7.0* | 5.8* 5.8* | | | 4.6* 4.6* | 19.3 |
| -4.5 | 4 pt. outriggers down | | | 12.1* 12.1* | 10.8* 10.8* | 9.5* 9.5* | 8.3* 8.3* | 7.1* 7.1* | 5.9* 5.9* | | | | 5.2* 5.2* | 17.4 |
| -6.0 | 4 pt. outriggers down | | | | | | | | | | | | | |

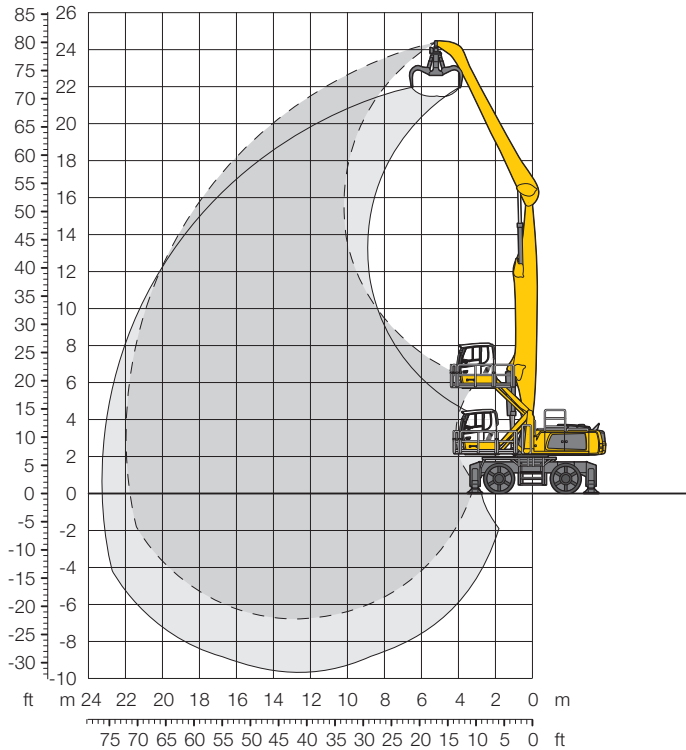
Height **Can be slewed through 360°** **In longitudinal position of undercarriage** **Max. reach** *** Limited by hydr. capacity**

The lift capacities on the stick end without attachment are stated in metric tons (t) and are valid on a firm, level supporting surface with blocked oscillating axle. These capacities can be slewed through 360° with the undercarriage in the transverse position. Capacities in the longitudinal position of the undercarriage (+/- 15°) are specified over the rigid axle with the stabilizers down. Indicated loads comply with 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 working tools (grabs, load hooks, etc.) and load accommodation equipment 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.

In accordance with the harmonised European Standard EN 474-5, hydraulic excavators used for lifting operations must be equipped with pipe fracture safety valves, an overload warning device, a load hook and a lift capacity chart.

Attachment GA22

Kinematic 2A



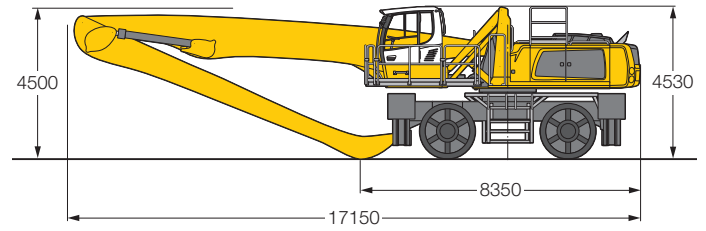
Operating Weight

The operating weight includes basic machine with 4 point outriggers, hydr. cab elevation, 4 solid tyres, industrial-type straight mono boom 12.50 m and industrial-type angled stick 10.00 m.

with grapple model GMM 80-5/1.40 m³ semi-closed tines

78,000 kg

Dimensions



| | | 6.0 m | 7.5 m | 9.0 m | 10.5 m | 12.0 m | 13.5 m | 15.0 m | 16.5 m | 18.0 m | 19.5 m | 21.0 m | | |
|------|-----------------------|-------|-------|-------|--------|--------|--------|--------|--------|--------|--------|--------|-------|------|
| m | Undercarriage | | | | | | | | | | | | | m |
| 24.0 | 4 pt. outriggers down | 12.3* | 12.3* | | | | | | | | | | 11.5* | 6.6 |
| 22.5 | 4 pt. outriggers down | | | 10.5* | 10.5* | | | | | | | | 8.8* | 10.2 |
| 21.0 | 4 pt. outriggers down | | | 11.6* | 11.6* | 10.4* | 10.4* | 8.8* | 8.8* | | | | 7.7* | 12.7 |
| 19.5 | 4 pt. outriggers down | | | | | 11.2* | 11.2* | 10.2* | 10.2* | 8.7* | 8.7* | | 7.0* | 14.6 |
| 18.0 | 4 pt. outriggers down | | | | | 11.7* | 11.7* | 10.9* | 10.9* | 9.9* | 9.9* | | 6.5* | 16.2 |
| 16.5 | 4 pt. outriggers down | | | | | 12.0* | 12.0* | 10.8* | 10.8* | 9.8* | 9.8* | | 6.2* | 17.4 |
| 15.0 | 4 pt. outriggers down | | | | | 12.1* | 12.1* | 10.8* | 10.8* | 9.7* | 9.7* | | 6.0* | 18.5 |
| 13.5 | 4 pt. outriggers down | | | | | 12.2* | 12.2* | 10.8* | 10.8* | 9.7* | 9.7* | | 5.8* | 19.4 |
| 12.0 | 4 pt. outriggers down | | | | | 12.3* | 12.3* | 10.9* | 10.9* | 9.8* | 9.8* | | 5.7* | 20.1 |
| 10.5 | 4 pt. outriggers down | | | | | 12.3* | 12.3* | 10.9* | 10.9* | 9.8* | 9.8* | | 5.6* | 20.7 |
| 9.0 | 4 pt. outriggers down | | | | | 12.3* | 12.3* | 10.9* | 10.9* | 9.8* | 9.8* | | 5.6* | 21.2 |
| 7.5 | 4 pt. outriggers down | 12.4* | 12.4* | 14.9* | 14.9* | 15.1* | 15.1* | 13.0* | 13.0* | 11.4* | 11.4* | 10.1* | 5.6* | 21.5 |
| 6.0 | 4 pt. outriggers down | 18.9* | 18.9* | 18.7* | 18.7* | 15.6* | 15.6* | 13.3* | 13.3* | 11.6* | 11.6* | 10.3* | 5.4* | 21.8 |
| 4.5 | 4 pt. outriggers down | 24.8* | 24.8* | 19.5* | 19.5* | 16.0* | 16.0* | 13.6* | 13.6* | 11.8* | 11.8* | 10.4* | 5.2* | 21.9 |
| 3.0 | 4 pt. outriggers down | 10.6* | 10.6* | 20.0* | 20.0* | 16.4* | 16.4* | 13.8* | 13.8* | 11.9* | 11.9* | 10.5* | 5.1* | 22.0 |
| 1.5 | 4 pt. outriggers down | 5.4* | 5.4* | 15.9* | 15.9* | 16.5* | 16.5* | 13.9* | 13.9* | 12.0* | 12.0* | 10.5* | 4.7* | 21.9 |
| 0 | 4 pt. outriggers down | 4.6* | 4.6* | 10.4* | 10.4* | 16.4* | 16.4* | 13.8* | 13.8* | 11.9* | 11.9* | 10.4* | 4.4* | 21.7 |
| -1.5 | 4 pt. outriggers down | 4.8* | 4.8* | 9.1* | 9.1* | 15.9* | 15.9* | 13.5* | 13.5* | 11.6* | 11.6* | 10.1* | 3.9* | 21.5 |
| -3.0 | 4 pt. outriggers down | 5.5* | 5.5* | 8.9* | 8.9* | 14.9* | 14.9* | 12.8* | 12.8* | 11.0* | 11.0* | 9.6* | 4.0* | 20.6 |
| -4.5 | 4 pt. outriggers down | | | 9.4* | 9.4* | 13.3* | 13.3* | 11.6* | 11.6* | 10.1* | 10.1* | 8.8* | 4.4* | 19.1 |
| -6.0 | 4 pt. outriggers down | | | | | 11.0* | 11.0* | 9.9* | 9.9* | 8.7* | 8.7* | 7.6* | 5.2* | 16.6 |

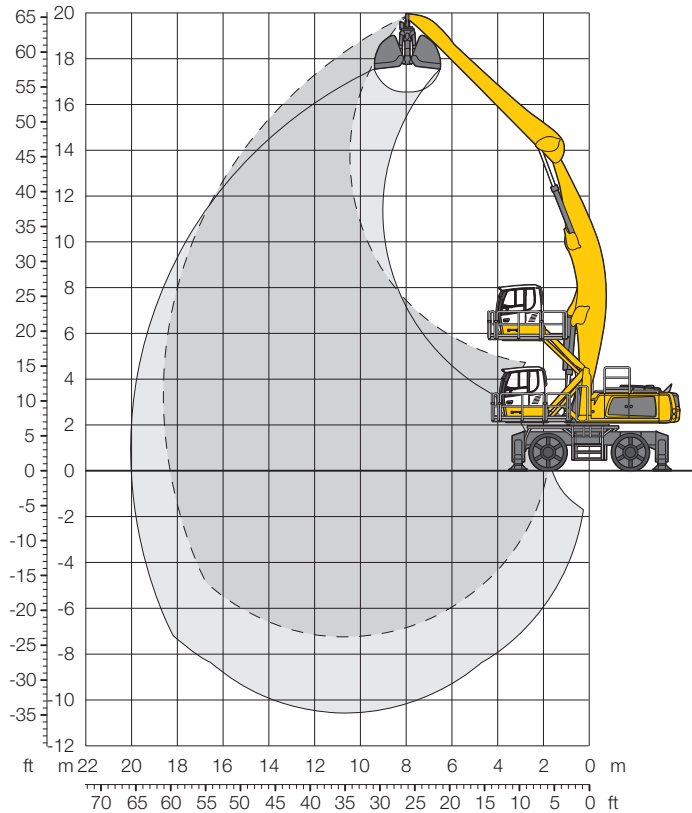
Height Can be slewed through 360° In longitudinal position of undercarriage Max. reach * Limited by hydr. capacity

The lift capacities on the stick end without attachment are stated in metric tons (t) and are valid on a firm, level supporting surface with blocked oscillating axle. These capacities can be slewed through 360° with the undercarriage in the transverse position. Capacities in the longitudinal position of the undercarriage (+/- 15°) are specified over the rigid axle with the stabilizers down. Indicated loads comply with 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 working tools (grabs, load hooks, etc.) and load accommodation equipment 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.

In accordance with the harmonised European Standard EN 474-5, hydraulic excavators used for lifting operations must be equipped with pipe fracture safety valves, an overload warning device, a load hook and a lift capacity chart.

Attachment AG19

Kinematic 2D

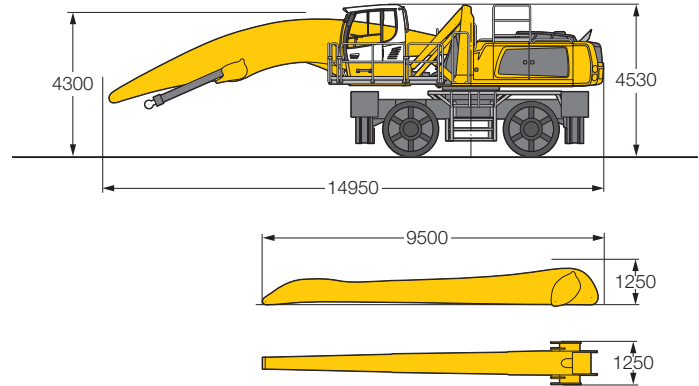
















Operating Weight

The operating weight includes basic machine with 4 point outriggers, hydr. cab elevation, 4 solid tyres, industrial-type angled mono boom 10.50 m and industrial-type straight stick 9.00 m.

with clamshell model GMZ 80/3.00 m³ shells for loose material **77,000 kg**

Dimensions



|  | | 6.0 m | 7.5 m | 9.0 m | 10.5 m | 12.0 m | 13.5 m | 15.0 m | 16.5 m | 18.0 m | 19.5 m | 21.0 m |  | | | | | | |
|------------------------------------------------------------------------------------|-----------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|-------|-------|------|------|------|------|
| m | Undercarriage |  |  |  |  |  |  |  |  |  |  |  |  | m | | | | | |
| 19.5 | 4 pt. outriggers down | | | | | | | | | | | | 9.2* | 9.2* | 8.7 | | | | |
| 18.0 | 4 pt. outriggers down | | | | 9.1* | 9.1* | | | | | | | 8.0* | 8.0* | 11.1 | | | | |
| 16.5 | 4 pt. outriggers down | | | | 10.9* | 10.9* | 9.0* | 9.0* | | | | | 7.4* | 7.4* | 12.9 | | | | |
| 15.0 | 4 pt. outriggers down | | | | 10.8* | 10.8* | 10.0* | 10.0* | 8.6* | 8.6* | | | 7.0* | 7.0* | 14.3 | | | | |
| 13.5 | 4 pt. outriggers down | | | | 10.7* | 10.7* | 9.9* | 9.9* | 9.3* | 9.3* | 7.8* | 7.8* | 6.8* | 6.8* | 15.4 | | | | |
| 12.0 | 4 pt. outriggers down | | | | 10.8* | 10.8* | 10.0* | 10.0* | 9.3* | 9.3* | 8.8* | 8.8* | 6.6* | 6.6* | 16.4 | | | | |
| 10.5 | 4 pt. outriggers down | | | | 11.0* | 11.0* | 10.1* | 10.1* | 9.4* | 9.4* | 8.9* | 8.9* | 6.5* | 6.5* | 17.1 | | | | |
| 9.0 | 4 pt. outriggers down | | | | 11.3* | 11.3* | 10.4* | 10.4* | 9.6* | 9.6* | 9.0* | 9.0* | 6.5* | 6.5* | 17.7 | | | | |
| 7.5 | 4 pt. outriggers down | | | 13.2* | 13.2* | 11.8* | 11.8* | 10.7* | 10.7* | 9.8* | 9.8* | 9.1* | 9.1* | 8.6* | 8.6* | 18.1 | | | |
| 6.0 | 4 pt. outriggers down | | 16.3* | 16.3* | 14.0* | 14.0* | 12.4* | 12.4* | 11.1* | 11.1* | 10.1* | 10.1* | 9.4* | 9.4* | 8.7* | 8.7* | 18.4 | | |
| 4.5 | 4 pt. outriggers down | 21.9* | 21.9* | 17.7* | 17.7* | 15.0* | 15.0* | 13.0* | 13.0* | 11.6* | 11.6* | 10.5* | 10.5* | 9.6* | 9.6* | 8.9* | 8.9* | 18.6 | |
| 3.0 | 4 pt. outriggers down | 24.3* | 24.3* | 19.2* | 19.2* | 15.9* | 15.9* | 13.7* | 13.7* | 12.1* | 12.1* | 10.8* | 10.8* | 9.8* | 9.8* | 9.0* | 9.0* | 18.6 | |
| 1.5 | 4 pt. outriggers down | 22.3* | 22.3* | 20.5* | 20.5* | 16.8* | 16.8* | 14.3* | 14.3* | 12.5* | 12.5* | 11.1* | 11.1* | 10.0* | 10.0* | 9.1* | 9.1* | 18.5 | |
| 0 | 4 pt. outriggers down | 13.6* | 13.6* | 21.5* | 21.5* | 17.6* | 17.6* | 14.8* | 14.8* | 12.9* | 12.9* | 11.4* | 11.4* | 10.2* | 10.2* | 9.0 | 9.2* | 18.3 | |
| -1.5 | 4 pt. outriggers down | 11.6* | 11.6* | 22.0* | 22.0* | 18.0* | 18.0* | 15.2* | 15.2* | 13.1* | 13.1* | 11.5* | 11.5* | 10.2 | 10.2* | 8.8 | 9.1* | 18.0 | |
| -3.0 | 4 pt. outriggers down | 11.4* | 11.4* | 19.3* | 19.3* | 18.0* | 18.0* | 15.2* | 15.2* | 13.1* | 13.1* | 11.5* | 11.5* | 10.0 | 10.1* | 8.7 | 8.8* | 17.5 | |
| -4.5 | 4 pt. outriggers down | 11.7* | 11.7* | 18.4* | 18.4* | 17.5* | 17.5* | 14.9* | 14.9* | 12.8* | 12.8* | 11.1* | 11.1* | 9.6* | 9.6* | 8.0* | 8.0* | 16.9 | |
| -6.0 | 4 pt. outriggers down | | 18.6* | 18.6* | 16.4* | 16.4* | 14.0* | 14.0* | 12.0* | 12.0* | 10.2* | 10.2* | 8.5* | 8.5* | | | 8.3* | 8.3* | 15.2 |
| -7.5 | 4 pt. outriggers down | | | | | | | | | | | | | | | | | | |

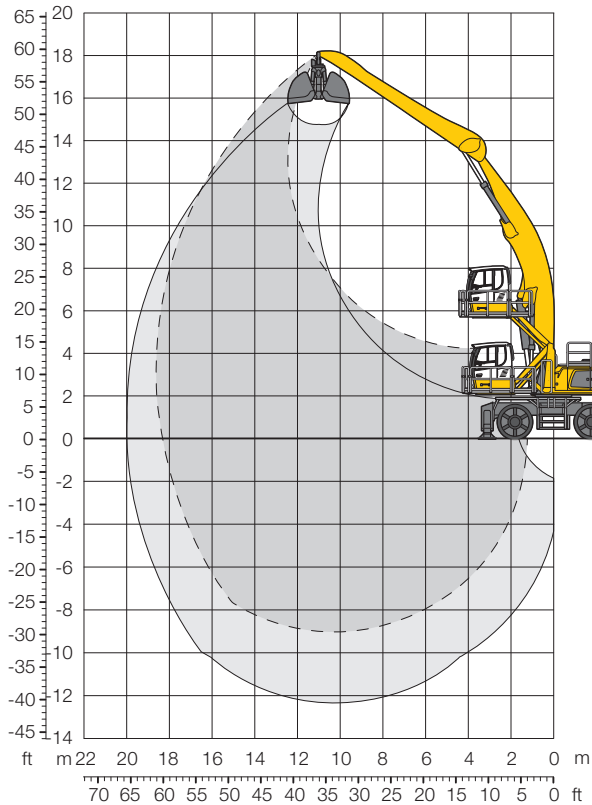
Height **Can be slewed through 360°** **In longitudinal position of undercarriage** **Max. reach** *** Limited by hydr. capacity**

The lift capacities on the stick end without attachment are stated in metric tons (t) and are valid on a firm, level supporting surface with blocked oscillating axle. These capacities can be slewed through 360° with the undercarriage in the transverse position. Capacities in the longitudinal position of the undercarriage (+/- 15°) are specified over the rigid axle with the stabilizers down. Indicated loads comply with 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 working tools (grabs, load hooks, etc.) and load accommodation equipment 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.

In accordance with the harmonised European Standard EN 474-5, hydraulic excavators used for lifting operations must be equipped with pipe fracture safety valves, an overload warning device, a load hook and a lift capacity chart.

Attachment AG19

Kinematic 2C



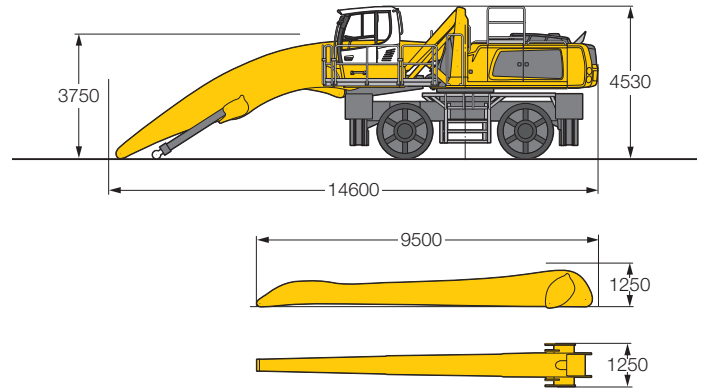
Operating Weight

The operating weight includes basic machine with 4 point outriggers, hydr. cab elevation, 4 solid tyres, industrial-type angled mono boom 10.50 m and industrial-type straight stick 9.00 m.

with clamshell model GMZ 80/3.00 m³ shells for loose material

77,000 kg

Dimensions



| | | 6.0 m | 7.5 m | 9.0 m | 10.5 m | 12.0 m | 13.5 m | 15.0 m | 16.5 m | 18.0 m | 19.5 m | 21.0 m | | |
|------|-----------------------|-------|-------|-------|--------|--------|--------|--------|--------|--------|--------|--------|-------|------|
| m | Undercarriage | | | | | | | | | | | | | m |
| 18.0 | 4 pt. outriggers down | | | | | | | | | | | | 8.0* | 11.1 |
| 16.5 | 4 pt. outriggers down | | | | | 9.0* | 9.0* | | | | | | 7.4* | 12.9 |
| 15.0 | 4 pt. outriggers down | | | | | | 8.6* | 8.6* | | | | | 7.0* | 14.3 |
| 13.5 | 4 pt. outriggers down | | | | | | 8.5* | 8.5* | 7.8* | 7.8* | | | 6.8* | 15.4 |
| 12.0 | 4 pt. outriggers down | | | | | | 8.5* | 8.5* | 8.1* | 8.1* | | | 6.6* | 16.4 |
| 10.5 | 4 pt. outriggers down | | | | | | 8.6* | 8.6* | 8.2* | 8.2* | 7.9* | 7.9* | 6.5* | 17.1 |
| 9.0 | 4 pt. outriggers down | | | | | 9.4* | 9.4* | 8.8* | 8.8* | 8.3* | 8.3* | 7.9* | 6.5* | 17.7 |
| 7.5 | 4 pt. outriggers down | | | | 10.7* | 10.7* | 9.8* | 9.8* | 9.0* | 9.0* | 8.5* | 8.0* | 6.9* | 18.1 |
| 6.0 | 4 pt. outriggers down | | | 12.7* | 12.7* | 11.3* | 11.3* | 10.2* | 10.2* | 9.4* | 9.4* | 8.7* | 8.2* | 18.4 |
| 4.5 | 4 pt. outriggers down | 19.9* | 19.9* | 16.2* | 16.2* | 13.7* | 13.7* | 12.0* | 12.0* | 10.7* | 10.7* | 9.8* | 9.8* | 18.6 |
| 3.0 | 4 pt. outriggers down | 22.5* | 22.5* | 17.8* | 17.8* | 14.8* | 14.8* | 12.7* | 12.7* | 11.3* | 11.3* | 10.2* | 10.2* | 18.6 |
| 1.5 | 4 pt. outriggers down | 22.3* | 22.3* | 19.3* | 19.3* | 15.8* | 15.8* | 13.5* | 13.5* | 11.8* | 11.8* | 10.6* | 10.6* | 18.5 |
| 0 | 4 pt. outriggers down | 13.6* | 13.6* | 20.5* | 20.5* | 16.7* | 16.7* | 14.1* | 14.1* | 12.3* | 12.3* | 10.9* | 10.9* | 18.3 |
| -1.5 | 4 pt. outriggers down | 11.6* | 11.6* | 21.3* | 21.3* | 17.4* | 17.4* | 14.6* | 14.6* | 12.7* | 12.7* | 11.2* | 11.2* | 18.0 |
| -3.0 | 4 pt. outriggers down | 11.4* | 11.4* | 19.3* | 19.3* | 17.6* | 17.6* | 14.9* | 14.9* | 12.8* | 12.8* | 11.3* | 11.3* | 17.5 |
| -4.5 | 4 pt. outriggers down | 11.7* | 11.7* | 18.4* | 18.4* | 17.5* | 17.5* | 14.8* | 14.8* | 12.7* | 12.7* | 11.1* | 11.1* | 16.9 |
| -6.0 | 4 pt. outriggers down | 12.4* | 12.4* | 18.6* | 18.6* | 16.7* | 16.7* | 14.2* | 14.2* | 12.2* | 12.2* | 10.5* | 10.5* | 16.1 |
| -7.5 | 4 pt. outriggers down | 13.4* | 13.4* | 17.8* | 17.8* | 15.1* | 15.1* | 12.9* | 12.9* | 11.0* | 11.0* | 9.2* | 9.2* | 15.2 |
| -9.0 | 4 pt. outriggers down | | | | | 10.7* | 10.7* | | | | | | 9.9* | 11.1 |

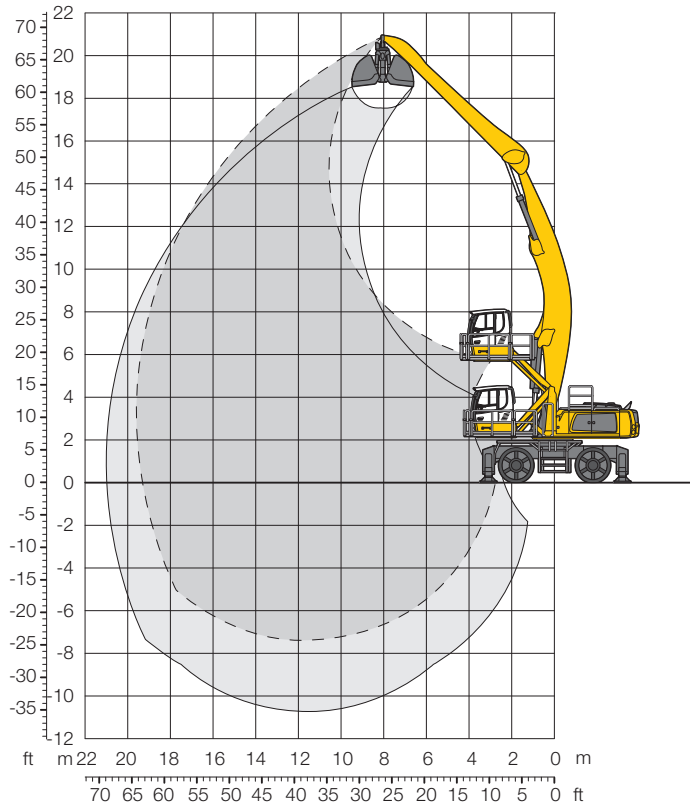
Height **Can be slewed through 360°** **In longitudinal position of undercarriage** **Max. reach** *** Limited by hydr. capacity**

The lift capacities on the stick end without attachment are stated in metric tons (t) and are valid on a firm, level supporting surface with blocked oscillating axle. These capacities can be slewed through 360° with the undercarriage in the transverse position. Capacities in the longitudinal position of the undercarriage (+/- 15°) are specified over the rigid axle with the stabilizers down. Indicated loads comply with 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 working tools (grabs, load hooks, etc.) and load accommodation equipment 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.

In accordance with the harmonised European Standard EN 474-5, hydraulic excavators used for lifting operations must be equipped with pipe fracture safety valves, an overload warning device, a load hook and a lift capacity chart.

Attachment AG20

Kinematic 2D

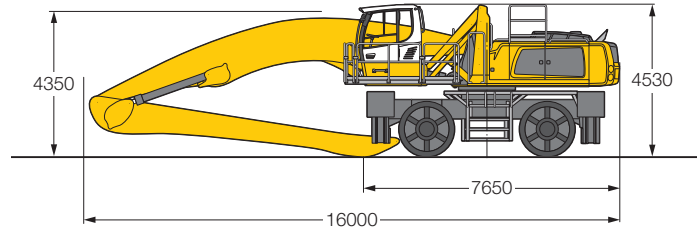

















Operating Weight

The operating weight includes basic machine with 4 point outriggers, hydr. cab elevation, 4 solid tyres, industrial-type angled mono boom 11.50 m and industrial-type straight stick 9.00 m.

with clamshell model GMZ 80/3.00 m³ shells for loose material **77,900 kg**

Dimensions



|  | | 6.0 m | 7.5 m | 9.0 m | 10.5 m | 12.0 m | 13.5 m | 15.0 m | 16.5 m | 18.0 m | 19.5 m | 21.0 m |  | | | | | | | |
|------------------------------------------------------------------------------------|-----------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|------|------|------|------|------|------|
| m | Undercarriage |  |  |  |  |  |  |  |  |  |  |  |  |  | m | | | | | |
| 19.5 | 4 pt. outriggers down | | | | 8.5* | 8.5* | | | | | | | | 8.4* | 8.4* | 10.6 | | | | |
| 18.0 | 4 pt. outriggers down | | | | 10.6* | 10.6* | 8.7* | 8.7* | | | | | | 7.6* | 7.6* | 12.7 | | | | |
| 16.5 | 4 pt. outriggers down | | | | 10.7* | 10.7* | 9.8* | 9.8* | 8.5* | 8.5* | | | | 7.1* | 7.1* | 14.3 | | | | |
| 15.0 | 4 pt. outriggers down | | | | | | 9.7* | 9.7* | 8.9* | 8.9* | 8.0* | 8.0* | | | 6.9* | 6.9* | 15.5 | | | |
| 13.5 | 4 pt. outriggers down | | | | | | 9.6* | 9.6* | 8.9* | 8.9* | 8.3* | 8.3* | 6.9* | 6.9* | | 6.7* | 6.7* | 16.6 | | |
| 12.0 | 4 pt. outriggers down | | | | 10.7* | 10.7* | 9.7* | 9.7* | 9.0* | 9.0* | 8.3* | 8.3* | 7.8* | 7.8* | | 6.6* | 6.6* | 17.4 | | |
| 10.5 | 4 pt. outriggers down | | | | 10.9* | 10.9* | 9.9* | 9.9* | 9.1* | 9.1* | 8.4* | 8.4* | 7.9* | 7.9* | | 6.5* | 6.5* | 18.1 | | |
| 9.0 | 4 pt. outriggers down | | | | | | | | 9.2* | 9.2* | 8.5* | 8.5* | 7.9* | 7.9* | 7.5* | 7.5* | 6.6* | 6.6* | 18.7 | |
| 7.5 | 4 pt. outriggers down | | | 15.6* | 15.6* | 13.3* | 13.3* | 11.7* | 11.7* | 10.4* | 10.4* | 9.5* | 9.5* | 8.7* | 8.7* | 8.0* | 8.0* | 7.5* | 7.5* | 19.1 |
| 6.0 | 4 pt. outriggers down | 20.6* | 20.6* | 16.7* | 16.7* | 14.1* | 14.1* | 12.2* | 12.2* | 10.8* | 10.8* | 9.7* | 9.7* | 8.9* | 8.9* | 8.2* | 8.2* | 7.6* | 7.6* | 19.4 |
| 4.5 | 4 pt. outriggers down | 22.6* | 22.6* | 17.9* | 17.9* | 14.8* | 14.8* | 12.7* | 12.7* | 11.2* | 11.2* | 10.0* | 10.0* | 9.1* | 9.1* | 8.3* | 8.3* | 7.7* | 7.7* | 19.5 |
| 3.0 | 4 pt. outriggers down | 21.1* | 21.1* | 19.0* | 19.0* | 15.6* | 15.6* | 13.3* | 13.3* | 11.6* | 11.6* | 10.3* | 10.3* | 9.3* | 9.3* | 8.4* | 8.4* | 7.7* | 7.7* | 19.6 |
| 1.5 | 4 pt. outriggers down | 10.4* | 10.4* | 20.0* | 20.0* | 16.3* | 16.3* | 13.7* | 13.7* | 11.9* | 11.9* | 10.5* | 10.5* | 9.4* | 9.4* | 8.6* | 8.6* | 7.6* | 7.8* | 19.5 |
| 0 | 4 pt. outriggers down | 8.4* | 8.4* | 17.1* | 17.1* | 16.8* | 16.8* | 14.1* | 14.1* | 12.2* | 12.2* | 10.7* | 10.7* | 9.6* | 9.6* | 8.6* | 8.6* | 7.5* | 7.7* | 19.3 |
| -1.5 | 4 pt. outriggers down | 8.2* | 8.2* | 14.2* | 14.2* | 17.0* | 17.0* | 14.3* | 14.3* | 12.3* | 12.3* | 10.8* | 10.8* | 9.6* | 9.6* | 8.4* | 8.5* | 7.3* | 7.6* | 19.0 |
| -3.0 | 4 pt. outriggers down | 8.6* | 8.6* | 13.4* | 13.4* | 16.8* | 16.8* | 14.2* | 14.2* | 12.3* | 12.3* | 10.7* | 10.7* | 9.4* | 9.4* | 8.2* | 8.3* | 7.2* | 7.2* | 18.5 |
| -4.5 | 4 pt. outriggers down | 9.2* | 9.2* | 13.4* | 13.4* | 16.2* | 16.2* | 13.8* | 13.8* | 11.9* | 11.9* | 10.4* | 10.4* | 9.0* | 9.0* | 7.8* | 7.8* | | | 18.0 |
| -6.0 | 4 pt. outriggers down | | | 14.0* | 14.0* | 15.0* | 15.0* | 12.9* | 12.9* | 11.2* | 11.2* | 9.7* | 9.7* | 8.3* | 8.3* | | | | | 16.5 |
| -7.5 | 4 pt. outriggers down | | | | | | | | | | | | | | | | | | | |

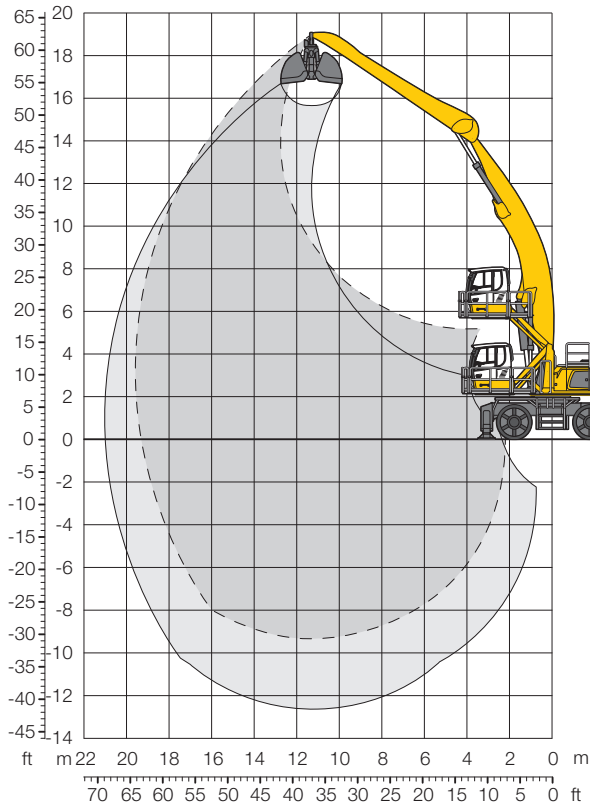
 **Height**  **Can be slewed through 360°**  **In longitudinal position of undercarriage**  **Max. reach** * **Limited by hydr. capacity**

The lift capacities on the stick end without attachment are stated in metric tons (t) and are valid on a firm, level supporting surface with blocked oscillating axle. These capacities can be slewed through 360° with the undercarriage in the transverse position. Capacities in the longitudinal position of the undercarriage (+/- 15°) are specified over the rigid axle with the stabilizers down. Indicated loads comply with 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 working tools (grabs, load hooks, etc.) and load accommodation equipment 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.

In accordance with the harmonised European Standard EN 474-5, hydraulic excavators used for lifting operations must be equipped with pipe fracture safety valves, an overload warning device, a load hook and a lift capacity chart.

Attachment AG20

Kinematic 2C



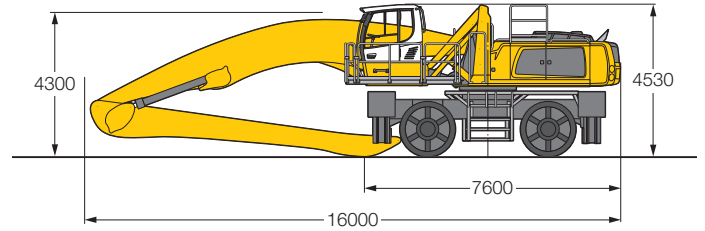
Operating Weight























The operating weight includes basic machine with 4 point outriggers, hydr. cab elevation, 4 solid tyres, industrial-type angled mono boom 11.50 m and industrial-type straight stick 9.00 m.

with clamshell model GMZ 80/3.00 m³ shells for loose material

77,900 kg

Dimensions



|  | | 6.0 m | | 7.5 m | | 9.0 m | | 10.5 m | | 12.0 m | | 13.5 m | | 15.0 m | | 16.5 m | | 18.0 m | | 19.5 m | | 21.0 m | |  | | |
|-------------------------------------------------------------------------------------|-----------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|------|------|
| m | Undercarriage |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | | m | | |
| 18.0 | 4 pt. outriggers down | | | | | | | | | 8.7* | 8.7* | | | | | | | | | | | | | 7.6* | 7.6* | 12.7 |
| 16.5 | 4 pt. outriggers down | | | | | | | | | | | 8.2* | 8.2* | | | | | | | | | | | 7.1* | 7.1* | 14.3 |
| 15.0 | 4 pt. outriggers down | | | | | | | | | | | 8.1* | 8.1* | 7.7* | 7.7* | | | | | | | | | 6.9* | 6.9* | 15.5 |
| 13.5 | 4 pt. outriggers down | | | | | | | | | | | 8.0* | 8.0* | 7.6* | 7.6* | 6.9* | 6.9* | | | | | | | 6.7* | 6.7* | 16.6 |
| 12.0 | 4 pt. outriggers down | | | | | | | | | | | 8.1* | 8.1* | 7.6* | 7.6* | 7.2* | 7.2* | | | | | | | 6.6* | 6.6* | 17.4 |
| 10.5 | 4 pt. outriggers down | | | | | | | | | 8.9* | 8.9* | 8.2* | 8.2* | 7.7* | 7.7* | 7.3* | 7.3* | 6.9* | 6.9* | | | | | 6.5* | 6.5* | 18.1 |
| 9.0 | 4 pt. outriggers down | | | | | | | | | 9.2* | 9.2* | 8.4* | 8.4* | 7.8* | 7.8* | 7.4* | 7.4* | 7.0* | 7.0* | | | | | 6.6* | 6.6* | 18.7 |
| 7.5 | 4 pt. outriggers down | | | | | | | 10.6* | 10.6* | 9.5* | 9.5* | 8.7* | 8.7* | 8.0* | 8.0* | 7.5* | 7.5* | 7.1* | 7.1* | | | | | 6.6* | 6.6* | 19.1 |
| 6.0 | 4 pt. outriggers down | | | | | 12.8* | 12.8* | 11.1* | 11.1* | 9.9* | 9.9* | 9.0* | 9.0* | 8.2* | 8.2* | 7.6* | 7.6* | 7.2* | 7.2* | | | | | 6.7* | 6.7* | 19.4 |
| 4.5 | 4 pt. outriggers down | 20.7* | 20.7* | 16.4* | 16.4* | 13.6* | 13.6* | 11.7* | 11.7* | 10.3* | 10.3* | 9.3* | 9.3* | 8.5* | 8.5* | 7.8* | 7.8* | 7.3* | 7.3* | 6.8* | 6.8* | | | 6.8* | 6.8* | 19.5 |
| 3.0 | 4 pt. outriggers down | 21.1* | 21.1* | 17.7* | 17.7* | 14.5* | 14.5* | 12.4* | 12.4* | 10.8* | 10.8* | 9.6* | 9.6* | 8.7* | 8.7* | 8.0* | 8.0* | 7.4* | 7.4* | 6.8 | 6.9* | | | 6.7 | 6.9* | 19.6 |
| 1.5 | 4 pt. outriggers down | 10.4* | 10.4* | 18.8* | 18.8* | 15.3* | 15.3* | 12.9* | 12.9* | 11.2* | 11.2* | 10.0* | 10.0* | 9.0* | 9.0* | 8.2* | 8.2* | 7.5* | 7.5* | | | | | 6.7 | 6.9* | 19.5 |
| 0 | 4 pt. outriggers down | 8.4* | 8.4* | 17.1* | 17.1* | 16.0* | 16.0* | 13.5* | 13.5* | 11.6* | 11.6* | 10.3* | 10.3* | 9.2* | 9.2* | 8.3* | 8.3* | 7.5* | 7.6* | | | | | 6.7 | 6.9* | 19.3 |
| -1.5 | 4 pt. outriggers down | 8.2* | 8.2* | 14.2* | 14.2* | 16.4* | 16.4* | 13.8* | 13.8* | 11.9* | 11.9* | 10.5* | 10.5* | 9.3* | 9.3* | 8.4* | 8.4* | 7.3 | 7.5* | | | | | 6.8 | 6.9* | 19.0 |
| -3.0 | 4 pt. outriggers down | 8.6* | 8.6* | 13.4* | 13.4* | 16.5* | 16.5* | 13.9* | 13.9* | 12.0* | 12.0* | 10.5* | 10.5* | 9.3* | 9.3* | 8.2 | 8.3* | 7.3* | 7.3* | | | | | 6.8* | 6.8* | 18.5 |
| -4.5 | 4 pt. outriggers down | 9.2* | 9.2* | 13.4* | 13.4* | 16.2* | 16.2* | 13.7* | 13.7* | 11.8* | 11.8* | 10.3* | 10.3* | 9.1* | 9.1* | 7.9* | 7.9* | | | | | | | 6.7* | 6.7* | 18.0 |
| -6.0 | 4 pt. outriggers down | 10.0* | 10.0* | 14.0* | 14.0* | 15.4* | 15.4* | 13.1* | 13.1* | 11.4* | 11.4* | 9.9* | 9.9* | 8.5* | 8.5* | 7.2* | 7.2* | | | | | | | 6.5* | 6.5* | 17.2 |
| -7.5 | 4 pt. outriggers down | 10.9* | 10.9* | 14.9* | 14.9* | 13.9* | 13.9* | 12.0* | 12.0* | 10.4* | 10.4* | 8.9* | 8.9* | 7.5* | 7.5* | | | | | | | | | 6.0* | 6.0* | 16.3 |
| -9.0 | 4 pt. outriggers down | | | | | 11.7* | 11.7* | 10.2* | 10.2* | 8.7* | 8.7* | 7.3* | 7.3* | | | | | | | | | | | 7.1* | 7.1* | 13.7 |

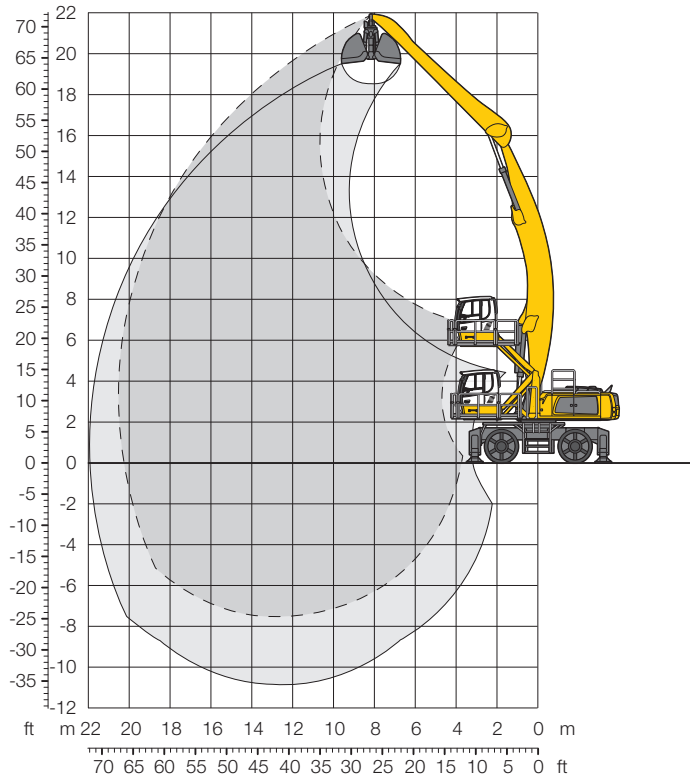
Height **Can be slewed through 360°** **In longitudinal position of undercarriage** **Max. reach** * **Limited by hydr. capacity**

The lift capacities on the stick end without attachment are stated in metric tons (t) and are valid on a firm, level supporting surface with blocked oscillating axle. These capacities can be slewed through 360° with the undercarriage in the transverse position. Capacities in the longitudinal position of the undercarriage (+/- 15°) are specified over the rigid axle with the stabilizers down. Indicated loads comply with 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 working tools (grabs, load hooks, etc.) and load accommodation equipment 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.

In accordance with the harmonised European Standard EN 474-5, hydraulic excavators used for lifting operations must be equipped with pipe fracture safety valves, an overload warning device, a load hook and a lift capacity chart.

Attachment AG21

Kinematic 2D

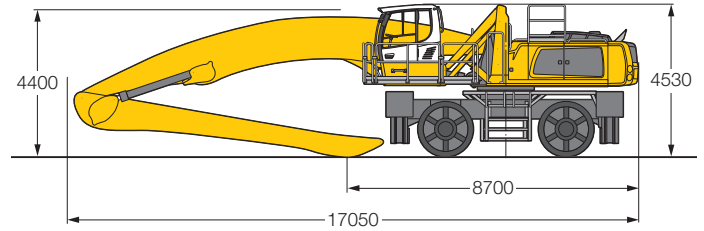


Operating Weight

The operating weight includes basic machine with 4 point outriggers, hydr. cab elevation, 4 solid tyres, industrial-type angled mono boom 12.50 m and industrial-type straight stick 9.00 m.

with clamshell model GMZ 80/3.00 m³ shells for loose material **78,500 kg**

Dimensions



| | | 6.0 m | 7.5 m | 9.0 m | 10.5 m | 12.0 m | 13.5 m | 15.0 m | 16.5 m | 18.0 m | 19.5 m | 21.0 m | | |
|------|-----------------------|-------|-------|-------|--------|--------|--------|--------|--------|--------|--------|--------|------|------|
| m | Undercarriage | | | | | | | | | | | | | m |
| 21.0 | 4 pt. outriggers down | | | 10.0* | 10.0* | | | | | | | | 8.7* | 8.7* |
| 19.5 | 4 pt. outriggers down | | | | 10.2* | 10.2* | 8.3* | 8.3* | | | | | 7.8* | 7.8* |
| 18.0 | 4 pt. outriggers down | | | | 10.6* | 10.6* | 9.5* | 9.5* | 8.3* | 8.3* | | | 7.3* | 7.3* |
| 16.5 | 4 pt. outriggers down | | | | | | 9.4* | 9.4* | 8.6* | 8.6* | 8.0* | 8.0* | 7.0* | 7.0* |
| 15.0 | 4 pt. outriggers down | | | | | | 9.4* | 9.4* | 8.6* | 8.6* | 7.9* | 7.9* | 6.7* | 6.7* |
| 13.5 | 4 pt. outriggers down | | | | 10.5* | 10.5* | 9.4* | 9.4* | 8.6* | 8.6* | 7.9* | 7.9* | 6.6* | 6.6* |
| 12.0 | 4 pt. outriggers down | | | | 10.7* | 10.7* | 9.5* | 9.5* | 8.6* | 8.6* | 7.9* | 7.9* | 6.5* | 6.5* |
| 10.5 | 4 pt. outriggers down | | | | 10.9* | 10.9* | 9.7* | 9.7* | 8.8* | 8.8* | 8.0* | 8.0* | 6.5* | 6.5* |
| 9.0 | 4 pt. outriggers down | | | 12.9* | 12.9* | 11.2* | 11.2* | 9.9* | 9.9* | 8.9* | 8.9* | 8.1* | 6.4* | 6.4* |
| 7.5 | 4 pt. outriggers down | 19.8* | 19.8* | 15.9* | 15.9* | 13.4* | 13.4* | 11.5* | 11.5* | 10.2* | 10.2* | 9.1* | 6.3* | 6.3* |
| 6.0 | 4 pt. outriggers down | 21.2* | 21.2* | 16.8* | 16.8* | 13.9* | 13.9* | 11.9* | 11.9* | 10.5* | 10.5* | 9.3* | 6.2* | 6.2* |
| 4.5 | 4 pt. outriggers down | 22.8* | 22.8* | 17.7* | 17.7* | 14.6* | 14.6* | 12.4* | 12.4* | 10.8* | 10.8* | 9.5* | 6.0* | 6.0* |
| 3.0 | 4 pt. outriggers down | 8.1* | 8.1* | 18.6* | 18.6* | 15.1* | 15.1* | 12.8* | 12.8* | 11.1* | 11.1* | 9.8* | 5.9* | 5.9* |
| 1.5 | 4 pt. outriggers down | 5.8* | 5.8* | 13.3* | 13.3* | 15.6* | 15.6* | 13.1* | 13.1* | 11.3* | 11.3* | 9.9* | 5.8* | 5.8* |
| 0 | 4 pt. outriggers down | 5.5* | 5.5* | 10.5* | 10.5* | 15.9* | 15.9* | 13.3* | 13.3* | 11.5* | 11.5* | 10.1* | 5.8* | 5.8* |
| -1.5 | 4 pt. outriggers down | 6.0* | 6.0* | 9.8* | 9.8* | 15.9* | 15.9* | 13.4* | 13.4* | 11.5* | 11.5* | 10.1* | 5.9* | 5.9* |
| -3.0 | 4 pt. outriggers down | 6.7* | 6.7* | 9.9* | 9.9* | 15.5* | 15.5* | 13.2* | 13.2* | 11.4* | 11.4* | 9.9* | 5.8* | 5.8* |
| -4.5 | 4 pt. outriggers down | 7.5* | 7.5* | 10.4* | 10.4* | 14.7* | 14.7* | 12.7* | 12.7* | 11.0* | 11.0* | 9.6* | 5.5* | 5.5* |
| -6.0 | 4 pt. outriggers down | | | 13.5* | 13.5* | 11.8* | 11.8* | 10.3* | 10.3* | 9.0* | 9.0* | 7.8* | 5.7* | 5.7* |
| -7.5 | 4 pt. outriggers down | | | | | 9.1* | 9.1* | 7.9* | 7.9* | | | | 7.8* | 7.8* |

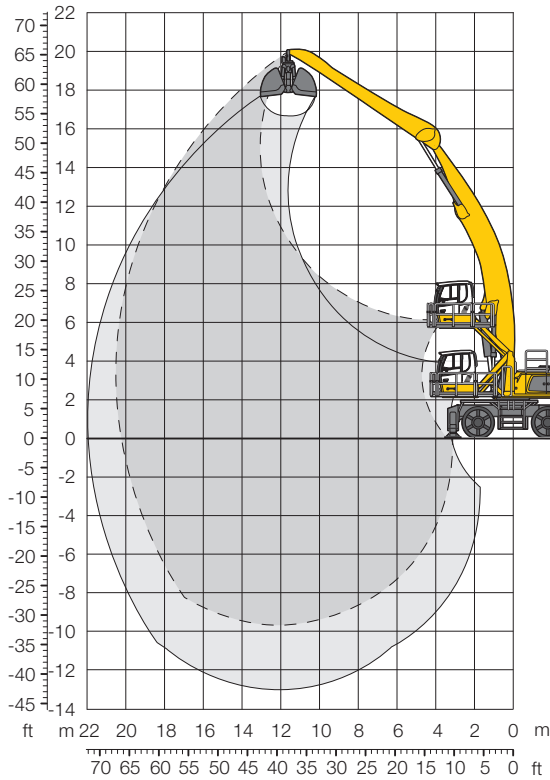
Height **Can be slewed through 360°** **In longitudinal position of undercarriage** **Max. reach** *** Limited by hydr. capacity**

The lift capacities on the stick end without attachment are stated in metric tons (t) and are valid on a firm, level supporting surface with blocked oscillating axle. These capacities can be slewed through 360° with the undercarriage in the transverse position. Capacities in the longitudinal position of the undercarriage (+/- 15°) are specified over the rigid axle with the stabilizers down. Indicated loads comply with 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 working tools (grabs, load hooks, etc.) and load accommodation equipment 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.

In accordance with the harmonised European Standard EN 474-5, hydraulic excavators used for lifting operations must be equipped with pipe fracture safety valves, an overload warning device, a load hook and a lift capacity chart.

Attachment AG21

Kinematic 2C



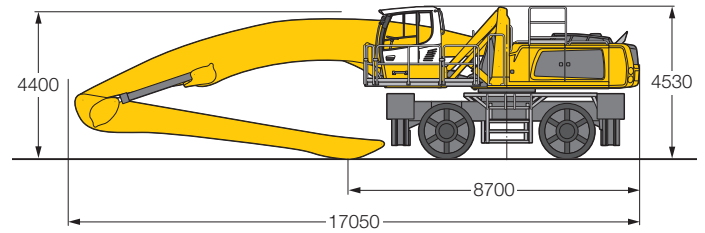
Operating Weight















The operating weight includes basic machine with 4 point outriggers, hydr. cab elevation, 4 solid tyres, industrial-type angled mono boom 12.50 m and industrial-type straight stick 9.00 m.

with clamshell model GMZ 80/3.00 m³ shells for loose material

78,500 kg

Dimensions



|  | | 6.0 m | 7.5 m | 9.0 m | 10.5 m | 12.0 m | 13.5 m | 15.0 m | 16.5 m | 18.0 m | 19.5 m | 21.0 m |  | | | |
|-------------------------------------------------------------------------------------|-----------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|------|------|------|
| m | Undercarriage |  |  |  |  |  |  |  |  |  |  |  |  | m | | |
| 19.5 | 4 pt. outriggers down | | | | | 8.3* | 8.3* | | | | | | 7.8* | 7.8* | 12.3 | |
| 18.0 | 4 pt. outriggers down | | | | | | 7.9* | 7.9* | | | | | 7.3* | 7.3* | 14.1 | |
| 16.5 | 4 pt. outriggers down | | | | | | 7.7* | 7.7* | 7.2* | 7.2* | | | 7.0* | 7.0* | 15.5 | |
| 15.0 | 4 pt. outriggers down | | | | | | 7.7* | 7.7* | 7.2* | 7.2* | 6.8* | 6.8* | | 6.7* | 16.7 | |
| 13.5 | 4 pt. outriggers down | | | | | | 7.7* | 7.7* | 7.2* | 7.2* | 6.7* | 6.7* | | 6.4* | 17.7 | |
| 12.0 | 4 pt. outriggers down | | | | | | 7.8* | 7.8* | 7.2* | 7.2* | 6.7* | 6.7* | 6.4* | 6.4* | 18.5 | |
| 10.5 | 4 pt. outriggers down | | | | | 8.7* | 8.7* | 7.9* | 7.9* | 7.3* | 7.3* | 6.8* | 6.8* | 6.4* | 19.2 | |
| 9.0 | 4 pt. outriggers down | | | | | 9.0* | 9.0* | 8.1* | 8.1* | 7.4* | 7.4* | 6.9* | 6.9* | 6.4* | 19.7 | |
| 7.5 | 4 pt. outriggers down | | | 12.0* | 12.0* | 10.4* | 10.4* | 9.2* | 9.2* | 8.3* | 8.3* | 7.6* | 7.6* | 7.0* | 7.0* | 20.1 |
| 6.0 | 4 pt. outriggers down | 19.2* | 19.2* | 15.3* | 15.3* | 12.7* | 12.7* | 10.9* | 10.9* | 9.6* | 9.6* | 8.6* | 8.6* | 7.8* | 7.8* | 20.3 |
| 4.5 | 4 pt. outriggers down | 21.0* | 21.0* | 16.3* | 16.3* | 13.4* | 13.4* | 11.4* | 11.4* | 9.9* | 9.9* | 8.8* | 8.8* | 8.0* | 8.0* | 20.5 |
| 3.0 | 4 pt. outriggers down | 8.1* | 8.1* | 17.4* | 17.4* | 14.1* | 14.1* | 11.9* | 11.9* | 10.3* | 10.3* | 9.1* | 9.1* | 8.2* | 8.2* | 20.5 |
| 1.5 | 4 pt. outriggers down | 5.8* | 5.8* | 13.3* | 13.3* | 14.7* | 14.7* | 12.4* | 12.4* | 10.7* | 10.7* | 9.4* | 9.4* | 8.4* | 8.4* | 20.4 |
| 0 | 4 pt. outriggers down | 5.5* | 5.5* | 10.5* | 10.5* | 15.2* | 15.2* | 12.7* | 12.7* | 10.9* | 10.9* | 9.6* | 9.6* | 8.6* | 8.6* | 20.3 |
| -1.5 | 4 pt. outriggers down | 6.0* | 6.0* | 9.8* | 9.8* | 15.4* | 15.4* | 12.9* | 12.9* | 11.1* | 11.1* | 9.7* | 9.7* | 8.6* | 8.6* | 20.0 |
| -3.0 | 4 pt. outriggers down | 6.7* | 6.7* | 9.9* | 9.9* | 15.3* | 15.3* | 12.9* | 12.9* | 11.2* | 11.2* | 9.8* | 9.8* | 8.6* | 8.6* | 19.5 |
| -4.5 | 4 pt. outriggers down | 7.5* | 7.5* | 10.4* | 10.4* | 14.9* | 14.9* | 12.7* | 12.7* | 11.0* | 11.0* | 9.6* | 9.6* | 8.4* | 8.4* | 19.0 |
| -6.0 | 4 pt. outriggers down | 8.3* | 8.3* | 11.0* | 11.0* | 14.0* | 14.0* | 12.0* | 12.0* | 10.5* | 10.5* | 9.1* | 9.1* | 8.0* | 8.0* | 18.3 |
| -7.5 | 4 pt. outriggers down | | | 11.9* | 11.9* | 12.6* | 12.6* | 11.0* | 11.0* | 9.6* | 9.6* | 8.4* | 8.4* | 7.2* | 7.2* | 17.5 |
| -9.0 | 4 pt. outriggers down | | | | | 10.5* | 10.5* | 9.4* | 9.4* | 8.2* | 8.2* | 7.1* | 7.1* | 5.9* | 5.9* | 15.5 |

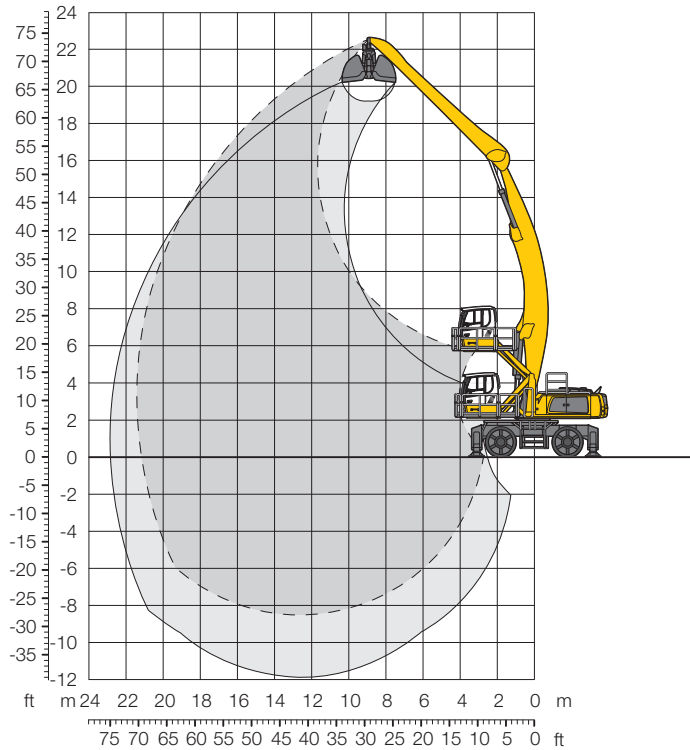
Height **Can be slewed through 360°** **In longitudinal position of undercarriage** **Max. reach** * **Limited by hydr. capacity**

The lift capacities on the stick end without attachment are stated in metric tons (t) and are valid on a firm, level supporting surface with blocked oscillating axle. These capacities can be slewed through 360° with the undercarriage in the transverse position. Capacities in the longitudinal position of the undercarriage (+/- 15°) are specified over the rigid axle with the stabilizers down. Indicated loads comply with 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 working tools (grabs, load hooks, etc.) and load accommodation equipment 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.

In accordance with the harmonised European Standard EN 474-5, hydraulic excavators used for lifting operations must be equipped with pipe fracture safety valves, an overload warning device, a load hook and a lift capacity chart.

Attachment AG22

Kinematic 2D

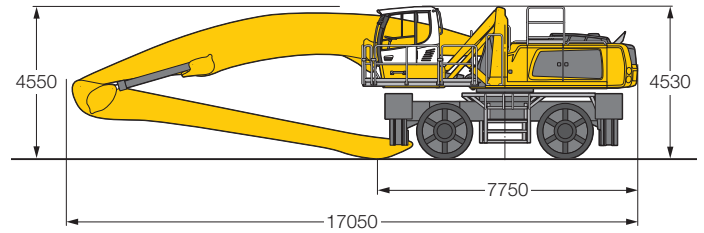


Operating Weight

The operating weight includes basic machine with 4 point outriggers, hydr. cab elevation, 4 solid tyres, industrial-type angled mono boom 12.50 m and industrial-type straight stick 10.00 m.

with clamshell model GMZ 80/3.00 m³ shells for loose material **78,900 kg**

Dimensions



| m | Undercarriage | 6.0 m | 7.5 m | 9.0 m | 10.5 m | 12.0 m | 13.5 m | 15.0 m | 16.5 m | 18.0 m | 19.5 m | 21.0 m | m |
|------|-----------------------|-------------|-------------|-------------|-------------|-------------------------------------------------------------|-----------|-----------|-----------|-----------|-----------|-----------|----------------|
| 22.5 | 4 pt. outriggers down | | | | | | | | | | | | 8.4* 8.4* 9.0 |
| 21.0 | 4 pt. outriggers down | | | | 8.7* 8.7* | | | | | | | | 7.3* 7.3* 11.7 |
| 19.5 | 4 pt. outriggers down | | | | | 8.8* 8.8* 7.0* 7.0* | | | | | | | 6.6* 6.6* 13.8 |
| 18.0 | 4 pt. outriggers down | | | | | 9.1* 9.1* 8.3* 8.3* 6.9* 6.9* | | | | | | | 6.2* 6.2* 15.4 |
| 16.5 | 4 pt. outriggers down | | | | | 9.0* 9.0* 8.2* 8.2* 7.5* 7.5* 6.4* 6.4* | | | | | | | 6.0* 6.0* 16.7 |
| 15.0 | 4 pt. outriggers down | | | | | 9.0* 9.0* 8.1* 8.1* 7.5* 7.5* 7.0* 7.0* | | | | | | | 5.8* 5.8* 17.8 |
| 13.5 | 4 pt. outriggers down | | | | | 9.0* 9.0* 8.2* 8.2* 7.5* 7.5* 6.9* 6.9* 6.5* 6.5* | | | | | | | 5.7* 5.7* 18.8 |
| 12.0 | 4 pt. outriggers down | | | | | 9.1* 9.1* 8.2* 8.2* 7.5* 7.5* 7.0* 7.0* 6.5* 6.5* 5.7* 5.7* | | | | | | | 5.6* 5.6* 19.5 |
| 10.5 | 4 pt. outriggers down | | | | 10.4* 10.4* | 9.3* 9.3* 8.3* 8.3* 7.6* 7.6* 7.0* 7.0* 6.5* 6.5* 6.1* 6.1* | | | | | | | 5.6* 5.6* 20.1 |
| 9.0 | 4 pt. outriggers down | | | | 10.7* 10.7* | 9.4* 9.4* 8.5* 8.5* 7.7* 7.7* 7.1* 7.1* 6.6* 6.6* 6.1* 6.1* | | | | | | | 5.7* 5.7* 20.6 |
| 7.5 | 4 pt. outriggers down | | | 12.7* 12.7* | 11.0* 11.0* | 9.7* 9.7* 8.7* 8.7* 7.9* 7.9* 7.2* 7.2* 6.6* 6.6* 6.2* 6.2* | | | | | | | 5.7* 5.7* 21.0 |
| 6.0 | 4 pt. outriggers down | 19.9* 19.9* | 15.9* 15.9* | 13.3* 13.3* | 11.4* 11.4* | 10.0* 10.0* | 8.9* 8.9* | 8.0* 8.0* | 7.3* 7.3* | 6.7* 6.7* | 6.2* 6.2* | 5.8* 5.8* | 5.7 5.7* 21.2 |
| 4.5 | 4 pt. outriggers down | 21.4* 21.4* | 16.8* 16.8* | 13.8* 13.8* | 11.8* 11.8* | 10.3* 10.3* | 9.1* 9.1* | 8.2* 8.2* | 7.4* 7.4* | 6.8* 6.8* | 6.3* 6.3* | 5.7 5.8* | 5.5 5.7* 21.4 |
| 3.0 | 4 pt. outriggers down | 15.4* 15.4* | 17.7* 17.7* | 14.4* 14.4* | 12.2* 12.2* | 10.6* 10.6* | 9.3* 9.3* | 8.3* 8.3* | 7.5* 7.5* | 6.9* 6.9* | 6.3* 6.3* | 5.6 5.8* | 5.4 5.6* 21.4 |
| 1.5 | 4 pt. outriggers down | 7.9* 7.9* | 18.4* 18.4* | 14.9* 14.9* | 12.6* 12.6* | 10.8* 10.8* | 9.5* 9.5* | 8.5* 8.5* | 7.6* 7.6* | 6.9* 6.9* | 6.3 6.3* | 5.5 5.7* | 5.3 5.6* 21.4 |
| 0 | 4 pt. outriggers down | 6.4* 6.4* | 12.7* 12.7* | 15.3* 15.3* | 12.8* 12.8* | 11.0* 11.0* | 9.7* 9.7* | 8.6* 8.6* | 7.7* 7.7* | 7.0* 7.0* | 6.1 6.3* | 5.4 5.6* | 5.3 5.5* 21.2 |
| -1.5 | 4 pt. outriggers down | 6.3* 6.3* | 10.7* 10.7* | 15.5* 15.5* | 13.0* 13.0* | 11.2* 11.2* | 9.8* 9.8* | 8.6* 8.6* | 7.7* 7.7* | 6.8 6.9* | 6.0 6.2* | | 5.3 5.4* 20.9 |
| -3.0 | 4 pt. outriggers down | 6.6* 6.6* | 10.1* 10.1* | 15.4* 15.4* | 13.0* 13.0* | 11.1* 11.1* | 9.7* 9.7* | 8.6* 8.6* | 7.6 7.6* | 6.6 6.8* | 5.9 5.9* | | 5.3* 5.3* 20.5 |
| -4.5 | 4 pt. outriggers down | 7.2* 7.2* | 10.2* 10.2* | 14.9* 14.9* | 12.7* 12.7* | 10.9* 10.9* | 9.5* 9.5* | 8.4* 8.4* | 7.4* 7.4* | 6.5* 6.5* | 5.5* 5.5* | | 5.1* 5.1* 20.0 |
| -6.0 | 4 pt. outriggers down | 7.8* 7.8* | 10.6* 10.6* | 14.0* 14.0* | 12.0* 12.0* | 10.4* 10.4* | 9.1* 9.1* | 8.0* 8.0* | 6.9* 6.9* | 5.9* 5.9* | | | 4.9* 4.9* 19.3 |
| -7.5 | 4 pt. outriggers down | | | 12.6* 12.6* | 11.0* 11.0* | 9.6* 9.6* | 8.3* 8.3* | 7.2* 7.2* | 6.1* 6.1* | | | | 5.7* 5.7* 17.1 |

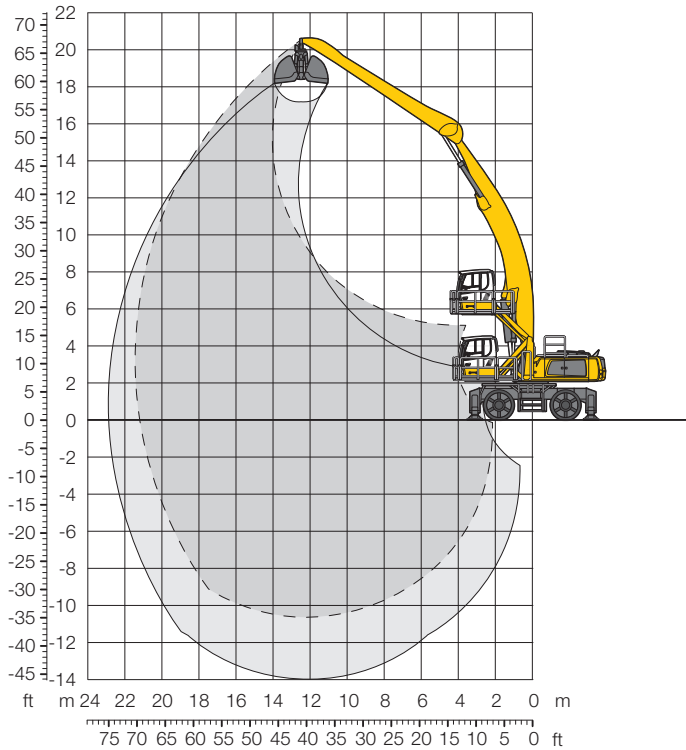
1. Height **Can be slewed through 360°** **In longitudinal position of undercarriage** **Max. reach** *** Limited by hydr. capacity**

The lift capacities on the stick end without attachment are stated in metric tons (t) and are valid on a firm, level supporting surface with blocked oscillating axle. These capacities can be slewed through 360° with the undercarriage in the transverse position. Capacities in the longitudinal position of the undercarriage (+/- 15°) are specified over the rigid axle with the stabilizers down. Indicated loads comply with 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 working tools (grabs, load hooks, etc.) and load accommodation equipment 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.

In accordance with the harmonised European Standard EN 474-5, hydraulic excavators used for lifting operations must be equipped with pipe fracture safety valves, an overload warning device, a load hook and a lift capacity chart.

Attachment AG22

Kinematic 2C



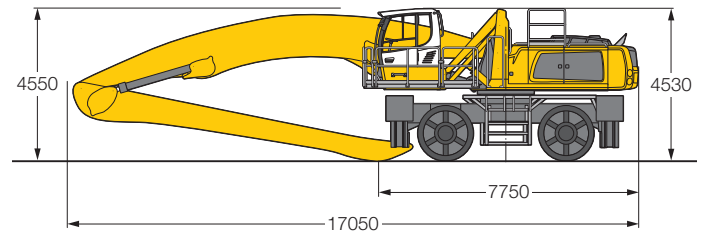
Operating Weight

The operating weight includes basic machine with 4 point outriggers, hydr. cab elevation, 4 solid tyres, industrial-type angled mono boom 12.50 m and industrial-type straight stick 10.00 m.

with clamshell model GMZ 80/3.00 m³ shells for loose material

78,900 kg

Dimensions



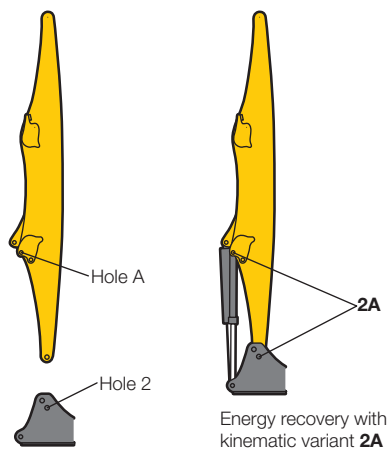
| | | 6.0 m | 7.5 m | 9.0 m | 10.5 m | 12.0 m | 13.5 m | 15.0 m | 16.5 m | 18.0 m | 19.5 m | 21.0 m | | | | | | |
|--------|-----------------------|-------|-------|-------|--------|--------|--------|--------|--------|--------|--------|--------|------|------|------|------|------|------|
| m | Undercarriage | | | | | | | | | | | | | m | | | | |
| 19.5 | 4 pt. outriggers down | | | | | | 7.0* | 7.0* | | | | | 6.6* | 6.6* | 13.8 | | | |
| 18.0 | 4 pt. outriggers down | | | | | | | 6.9* | 6.9* | | | | 6.2* | 6.2* | 15.4 | | | |
| 16.5 | 4 pt. outriggers down | | | | | | | 6.8* | 6.8* | 6.4* | 6.4* | | 6.0* | 6.0* | 16.7 | | | |
| 15.0 | 4 pt. outriggers down | | | | | | | 6.7* | 6.7* | 6.3* | 6.3* | | 5.8* | 5.8* | 17.8 | | | |
| 13.5 | 4 pt. outriggers down | | | | | | | 6.7* | 6.7* | 6.3* | 6.3* | 5.9* | 5.9* | | 5.7* | 18.8 | | |
| 12.0 | 4 pt. outriggers down | | | | | | | 6.8* | 6.8* | 6.3* | 6.3* | 5.9* | 5.9* | 5.6* | 5.6* | 19.5 | | |
| 10.5 | 4 pt. outriggers down | | | | | | 7.5* | 7.5* | 6.9* | 6.9* | 6.4* | 6.4* | 6.0* | 6.0* | 5.7* | 5.7* | 20.1 | |
| 9.0 | 4 pt. outriggers down | | | | | 8.5* | 8.5* | 7.6* | 7.6* | 7.0* | 7.0* | 6.5* | 6.5* | 6.0* | 6.0* | 5.7* | 5.7* | 20.6 |
| 7.5 | 4 pt. outriggers down | | | | | 8.7* | 8.7* | 7.9* | 7.9* | 7.2* | 7.2* | 6.6* | 6.6* | 6.1* | 6.1* | 5.7* | 5.7* | 21.0 |
| 6.0 | 4 pt. outriggers down | | | 11.9* | 11.9* | 10.3* | 10.3* | 9.0* | 9.0* | 8.1* | 8.1* | 7.3* | 7.3* | 6.7* | 6.7* | 6.2* | 6.2* | 21.2 |
| 4.5 | 4 pt. outriggers down | 19.5* | 19.5* | 15.3* | 15.3* | 12.6* | 12.6* | 10.8* | 10.8* | 9.4* | 9.4* | 8.4* | 8.4* | 7.5* | 7.5* | 6.9* | 6.9* | 21.4 |
| 3.0 | 4 pt. outriggers down | 15.4* | 15.4* | 16.3* | 16.3* | 13.3* | 13.3* | 11.2* | 11.2* | 9.8* | 9.8* | 8.6* | 8.6* | 7.8* | 7.8* | 7.1* | 7.1* | 21.4 |
| 1.5 | 4 pt. outriggers down | 7.9* | 7.9* | 17.2* | 17.2* | 13.9* | 13.9* | 11.7* | 11.7* | 10.1* | 10.1* | 8.9* | 8.9* | 8.0* | 8.0* | 7.2* | 7.2* | 21.4 |
| 0 | 4 pt. outriggers down | 6.4* | 6.4* | 12.7* | 12.7* | 14.5* | 14.5* | 12.1* | 12.1* | 10.4* | 10.4* | 9.2* | 9.2* | 8.1* | 8.1* | 7.3* | 7.3* | 21.2 |
| - 1.5 | 4 pt. outriggers down | 6.3* | 6.3* | 10.7* | 10.7* | 14.9* | 14.9* | 12.4* | 12.4* | 10.7* | 10.7* | 9.3* | 9.3* | 8.3* | 8.3* | 7.4* | 7.4* | 20.9 |
| - 3.0 | 4 pt. outriggers down | 6.6* | 6.6* | 10.1* | 10.1* | 15.0* | 15.0* | 12.6* | 12.6* | 10.8* | 10.8* | 9.4* | 9.4* | 8.3* | 8.3* | 7.4* | 7.4* | 20.5 |
| - 4.5 | 4 pt. outriggers down | 7.2* | 7.2* | 10.2* | 10.2* | 14.8* | 14.8* | 12.5* | 12.5* | 10.8* | 10.8* | 9.4* | 9.4* | 8.3* | 8.3* | 7.3* | 7.3* | 20.0 |
| - 6.0 | 4 pt. outriggers down | 7.8* | 7.8* | 10.6* | 10.6* | 14.2* | 14.2* | 12.1* | 12.1* | 10.5* | 10.5* | 9.1* | 9.1* | 8.0* | 8.0* | 7.0* | 7.0* | 19.3 |
| - 7.5 | 4 pt. outriggers down | 8.5* | 8.5* | 11.2* | 11.2* | 13.2* | 13.2* | 11.4* | 11.4* | 9.9* | 9.9* | 8.6* | 8.6* | 7.5* | 7.5* | 6.4* | 6.4* | 18.5 |
| - 9.0 | 4 pt. outriggers down | | | 12.0* | 12.0* | 11.6* | 11.6* | 10.1* | 10.1* | 8.8* | 8.8* | 7.7* | 7.7* | 6.6* | 6.6* | 5.4* | 5.4* | 17.6 |
| - 10.5 | 4 pt. outriggers down | | | | | 8.3* | 8.3* | 7.3* | 7.3* | 6.2* | 6.2* | | | | | | | 13.9 |

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

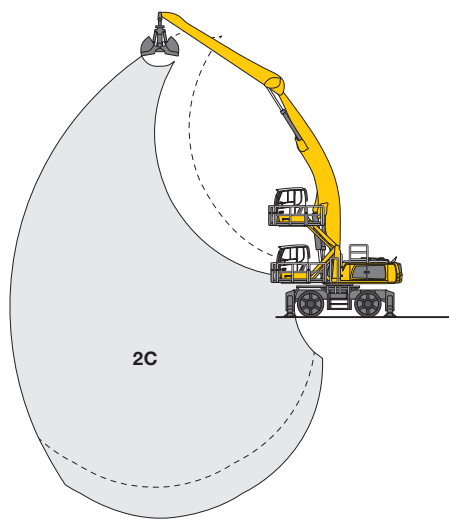
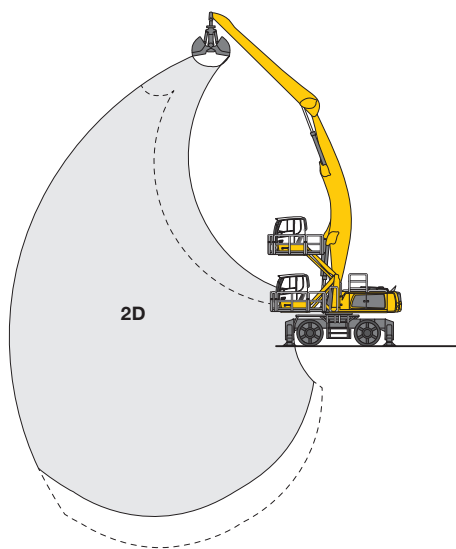
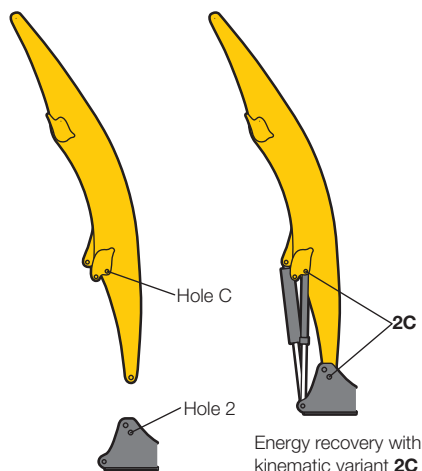
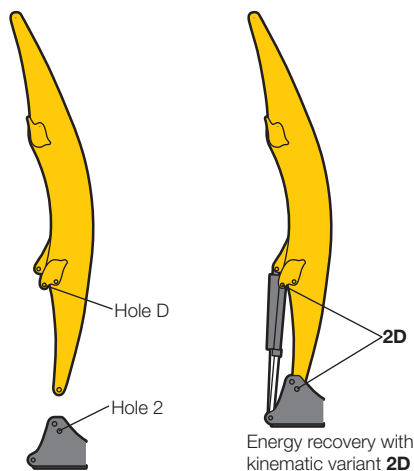
The lift capacities on the stick end without attachment are stated in metric tons (t) and are valid on a firm, level supporting surface with blocked oscillating axle. These capacities can be slewed through 360° with the undercarriage in the transverse position. Capacities in the longitudinal position of the undercarriage (+/- 15°) are specified over the rigid axle with the stabilizers down. Indicated loads comply with 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 working tools (grabs, load hooks, etc.) and load accommodation equipment 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.

In accordance with the harmonised European Standard EN 474-5, hydraulic excavators used for lifting operations must be equipped with pipe fracture safety valves, an overload warning device, a load hook and a lift capacity chart.

Kinematic Variant 2A

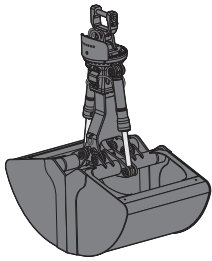


Kinematic Variant 2D/2C



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

Variety of Tools

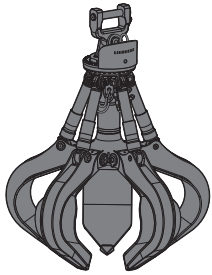


Shells for Loose Material

Shells for loose material with cutting edge (without teeth)

Clamshell model GMZ 80 (direct attached, two-motor, single-piece, protective device mechanic, XHD suspension)

| | | | | | |
|-------------------------------------------|------------------|-------|-------|-------|-------|
| Cutting width of shells | mm | 1,300 | 1,500 | 1,750 | 2,000 |
| Capacity | m ³ | 3.00 | 3.50 | 4.00 | 4.50 |
| For loose material, specific weight up to | t/m ³ | 1.5 | 1.35 | 1.2 | 1.0 |
| Weight | kg | 2,515 | 2,630 | 2,775 | 2,920 |



Multiple Tine Grapples

Grapple model GMM 80-4, 4 tines (direct attached, two-motor, single-piece, XHD suspension)

| | | open | | | semi-closed | | | closed | |
|----------|----------------|-------|-------|-------|-------------|-------|-------|--------|-------|
| Capacity | m ³ | 1.10 | 1.40 | 1.70 | 1.10 | 1.40 | 1.70 | 1.10 | 1.40 |
| Weight | kg | 1,895 | 1,935 | 1,995 | 2,090 | 2,150 | 2,210 | – | 2,430 |

Grapple model GMM 80-5, 5 tines (direct attached, two-motor, single-piece, XHD suspension)

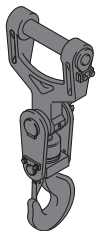
| | | open | | | semi-closed | | | closed | |
|----------|----------------|-------|-------|-------|-------------|-------|-------|--------|-------|
| Capacity | m ³ | 1.10 | 1.40 | 1.70 | 1.10 | 1.40 | 1.70 | 1.10 | 1.40 |
| Weight | kg | 2,170 | 2,220 | 2,290 | 2,390 | 2,465 | 2,540 | 2,440 | 2,580 |



Wood Grapple

Grapple model GMH 80 (direct attached, XHD suspension reinforced, 300 mm, plug-in coupling, two-motor, soft start)

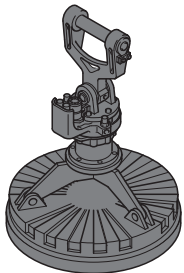
| | | | | |
|---------------------------|----------------|-------|-------|-------|
| Claw width | mm | 870 | 870 | 870 |
| Size | m ² | 1.90 | 2.20 | 2.50 |
| Height of grapple, closed | mm | 3,602 | 3,757 | 3,852 |
| Weight | kg | 2,210 | 2,230 | 2,285 |



Load Lift Hook

Load lift hook for industrial stick (direct attached, XHD suspension)

| | | |
|------------------------|----|-------|
| Max. load | t | 25 |
| Height with suspension | mm | 1,220 |
| Weight | kg | 255 |



Magnet Devices/Lifting Magnets

| | | | |
|---------------------------------------------------------|----|-------|-------|
| Generator | kW | 20 | 30 |
| Electromagnets with suspension (direct attached) | | | |
| Power | kW | 11.7 | 17.8 |
| Diameter of magnet | mm | 1,500 | 1,700 |
| Weight | kg | 2,400 | 3,300 |

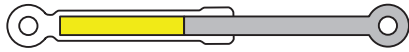
Liebherr ERC-System

Efficiency
as standard



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 saving on fuel – and, at the same time, even greater performance.



1. Attachment fitting raised /
Energy released

B



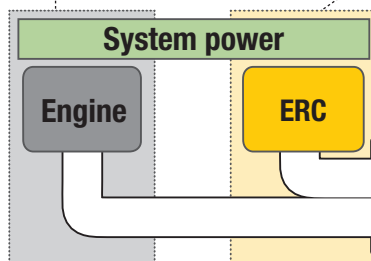
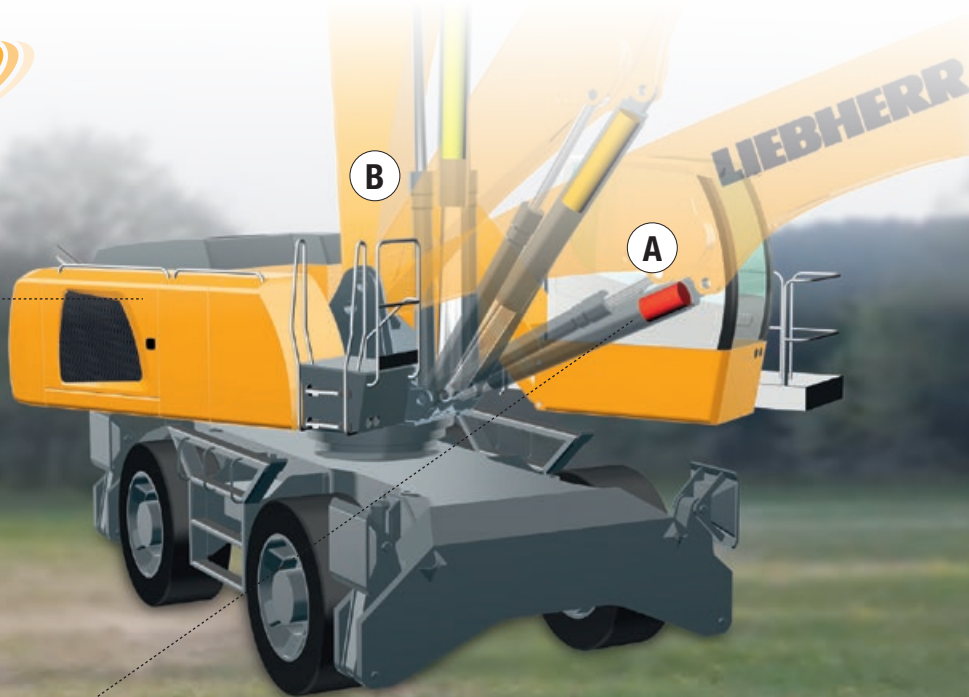
2. Lower attachment fitting / Store energy
4. Raise attachment fitting / Release energy



3. Attachment fitting lowered /
Energy stored

A

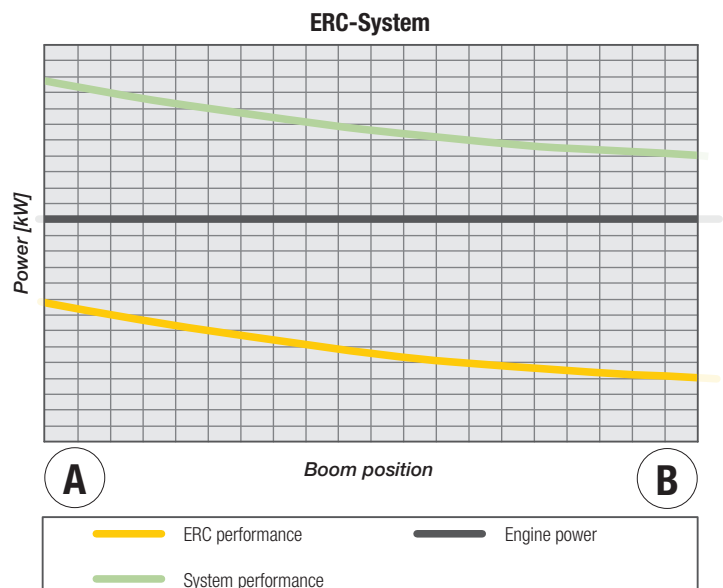
ERC



- increased overall power
- fuel savings of up to 30 %
- lower running costs
- reduced pollutant and noise emissions

System power

The energy recovery cylinder is a storage system which is independent of the 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 diesel engine.



Equipment

Undercarriage

| | |
|----------------------------------------|---|
| Support rocker, variants | + |
| Individual control outriggers | + |
| Shuttle axle lock, automatic | • |
| Outrigger monitoring system | + |
| Tyres, variants | + |
| Protection for piston rods, outriggers | + |
| Tool equipment, extended | • |
| Two lockable storage boxes | • |

Uppercarriage

| | |
|-------------------------------------------|---|
| Refuelling system with filling pump | + |
| Railing on uppercarriage | + |
| Generator | + |
| Main battery switch for electrical system | • |
| Protection for headlights | + |

Hydraulic System

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

Engine

| | |
|-------------------------------------------|---|
| Fuel anti-theft device | + |
| Liebherr particle filter | • |
| Reversible fan drive, fully automatic | + |
| Air pre-filter with dust discharge | + |
| Protective grid in front of cooler intake | • |
| Preheating fuel | + |
| Preheating coolant | + |
| Preheating engine oil | + |

Operator's Cab

| | |
|----------------------------------------------------------------------------------|---|
| Cab lights rear, halogen | + |
| Cab lights rear, LED | + |
| Cab lights front, halogen | • |
| Cab lights front, LED | + |
| Operator's seat Standard | • |
| Operator's seat Comfort | + |
| Operator's seat Premium | + |
| Driving alarm (acoustic signal is emitted during travel, can be switched ON/OFF) | + |
| Fire extinguisher | + |
| Joystick steering | + |
| Cab elevation, hydraulic (LHC) | + |
| Cab elevation, rigid (LFC) | + |

Operator's Cab

| | |
|----------------------------------------------------------------------------------------|---|
| Automatic air conditioning | • |
| Electric cooler | + |
| LiDAT Plus (extended Liebherr data transfer system) * | • |
| Bullet proof glass | + |
| Positioning swing brake | + |
| Proportional control | + |
| Radio Comfort (control via display) | + |
| Preparation for radio installation | • |
| Back-up alarm (acoustic signal is emitted traveling backward, can not be switched off) | + |
| Warning beacon on cab | + |
| Windscreen wiper, roof | + |
| Top guard | + |
| Front guard | + |
| Auxiliary heating, adjustable (week time switch) | + |
| Flashing light (xenon) | + |
| Electronic immobilizer | + |

Attachment

| | |
|--------------------------------------------------------------------|---|
| Boom lights, 2 pieces, halogen | • |
| Boom lights, 2 pieces, LED | + |
| Stick lights, 2 pieces, halogen | • |
| Stick lights, 2 pieces, LED, with protection | + |
| Boom shutoff, ascending | + |
| AutoLift | + |
| ERC system | • |
| Height limitation and stick shutoff, electronically | + |
| Boom cylinder cushioning | + |
| Industrial stick with quick coupling | + |
| Stick camera (with separate monitor), bottom side, with protection | + |
| Liebherr lightweight stick | + |
| Liebherr multi coupling system | + |
| Liebherr quick coupler, hydraulic or mechanical | + |
| Pipe fracture safety valves hoist cylinders | • |
| Pipe fracture safety valve stick cylinder | • |
| Quick coupling system LIKUFIX | + |
| Quick coupling system MH40 | + |
| Protection for piston rod, ERC | + |
| Protection for piston rod, hoist cylinder | + |
| Retract stick without pressure | • |
| Overload warning device | + |
| Protection for stick | + |

Complete Machine

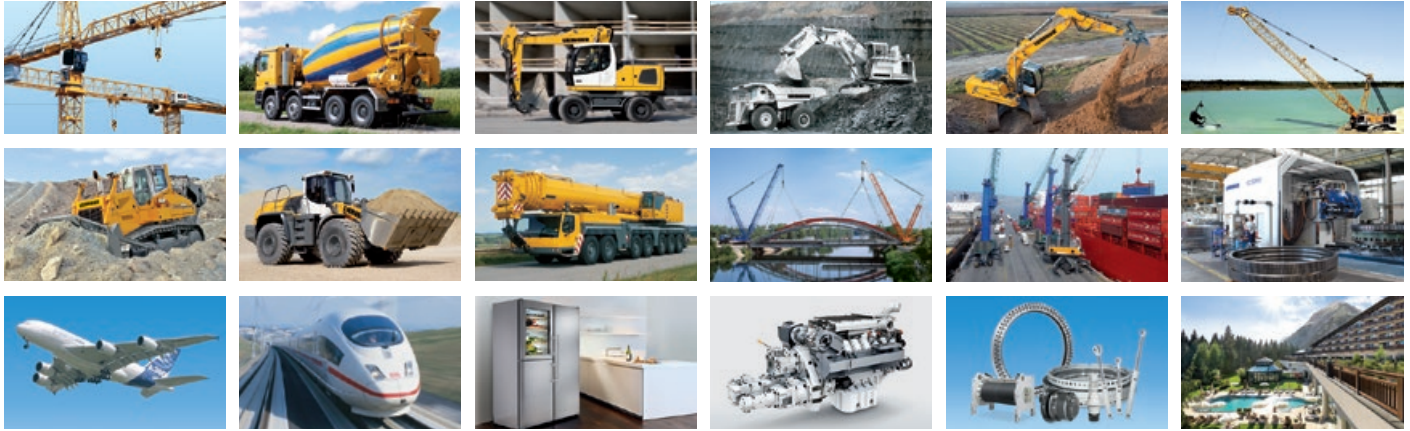
| | |
|----------------------------------------------------------------------------|---|
| Lubrication | |
| Lubrication undercarriage, manually – decentralized (grease points) | • |
| Central lubrication system for uppercarriage and attachment, automatically | • |
| Central lubrication system for undercarriage,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

• = Standard, + = Option

* = optionally extendable after one year

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

The Liebherr Group of Companies



Wide Product Range

The Liebherr Group is one of the largest construction equipment manufacturers in the world. Liebherr's high-value products and services enjoy a high reputation in many other fields. The wide range includes domestic appliances, aerospace and transportation systems, machine tools and maritime cranes.

Exceptional Customer Benefit

Every product line provides a complete range of models in many different versions. With both their technical excellence and acknowledged quality, Liebherr products offer a maximum of customer benefits in practical application.

State-of-the-art Technology

To provide consistent, top quality products, Liebherr attaches great importance to each product area, its components and core technologies. Important modules and components are developed and manufactured in-house, for instance the entire drive and control technology for construction equipment.

Worldwide and Independent

Hans Liebherr founded the Liebherr family company in 1949. Since that time, the enterprise has steadily grown to a group of more than 130 companies with over 39,000 employees located on all continents. The corporate headquarters of the Group is Liebherr-International AG in Bulle, Switzerland. The Liebherr family is the sole owner of the company.

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