

Crawler Excavator

R 954 C
Litronic®

| | |
|---|----------------------------|
| Operating Weight with Backhoe Attachment: | 49,300 - 60,400 kg |
| Operating Weight with Shovel Attachment: | 54,000 - 62,100 kg |
| Engine Output: | 240 kW / 326 HP |
| Bucket Capacity: | 1.65 - 3.50 m ³ |
| Shovel Capacity: | 2.50 - 3.50 m ³ |



LIEBHERR

Courtesy of Machine.Market

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Performance

Liebherr crawler excavators feature state-of-the-art technology and high-quality workmanship. The most important components of the drive system are all produced by Liebherr and are perfectly coordinated with one another. The engine generation, as further developed for the "C-series", assures an effective power delivery, a high degree of efficiency, long life expectancy and complies with the emission standard IIIA / Tier 3.

Reliability

High demand for performance and quality is consequently converted into landmark solutions to achieve the highest level of dependability and reliability. Liebherr has over 50 years experience in the production of hydraulic excavators and has an unparalleled competence in design and know-how.

Comfort

In the operator's station, the operator can look forward to a comfortable workstation that is designed according to the most up-to-date ergonomically know-how. The standard automatic climate control provides a pleasant working environment in all weather conditions.

Liebherr crawler excavators are particularly service-friendly: Maintenance work is simply and quickly accomplished due to well accessible service points.

Economy

Liebherr crawler excavators stand for maximum productivity. The sensitive excavator controls assure optimal efficiency in the interaction of excavator hydraulics and electronics. A wide selection of attachments, accessory tools and undercarriages with various dimensions provide the correct choice for every application.





Liebherr Diesel Engine

- Specifically designed for construction equipment
- Long life expectancy
- Incline lubrication capability for an up to 100% grade
- LIDEC-Engine Control – Liebherr Diesel Engine Control
- State-of-the-art technology with common rail injection system
- Complies with emission standard IIIA / Tier 3



Performance

Liebherr crawler excavators feature state-of-the-art technology and high-quality workmanship. The most important components of the drive system are all produced by Liebherr factories and are perfectly coordinated to each other. The engine generation, as further developed for the “C-series”, assures an effective power delivery, a high degree of efficiency, long life expectancy and complies with the emission standard IIIA / Tier 3.

High Productivity

High digging and break-out forces

The R 954 C features high digging and break-out forces due to optimal attachment geometry. The remarkable forces are especially accomplished with the utilization of large-size stick and bucket cylinders.

Regeneration Plus

The “Regeneration Plus” function guarantees faster lowering speed, less pressure loss and more safety. A high productivity is achieved with the optimisation and interaction of the functions “pressure less lowering”, “regeneration” and “load holding” in combination with a high hydraulic performance.

Liebherr Engine Technology

Liebherr Diesel Power

The 6-cylinder in-line engine, developed for the R 954 C with the new common rail injection assures an effective power output, a high efficiency and a long life expectancy.

Already at a low speed range the engine develops a high output and contributes substantially to the economical operation of the entire machine.

Emission reduces combustion

The new engine generation with optimal performance density assures for a more environmentally-friendly fuel combustion. Higher ignition pressures and the newly designed injection technology guarantee the compliance with the emission standard IIIA / Tier 3.

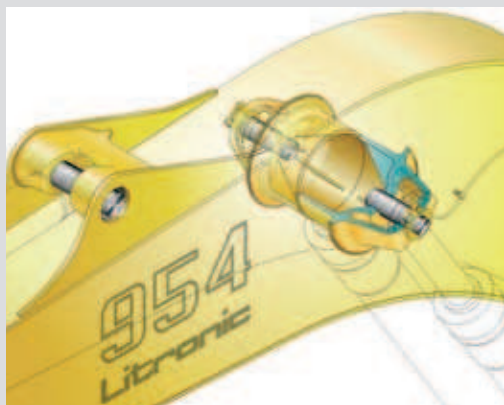
Heavy-duty undercarriage

- The combination of high-tensile strength steel plates and steel castings minimize tension
- Undercarriage sizes for every application are available



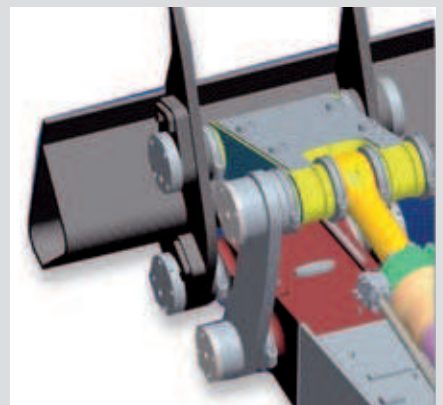
Multi-function tool carrier

- The correct digging tool for every material and application
- A modular quick coupler system designed and manufactured by Liebherr allows for the change-over of mechanical and hydraulic tools in a matter of seconds
- With Likufix, the change-over of all hydraulic and mechanical tools can be completed from the operator's station



Dependable design

- Designed with casted bell-housings
- Features two separate pins
- Maximum strength even at high forces
- Long term advantages due to optimal stress-flow design



Reliability

The high demand for performance and quality is consequently converted into landmark solutions to achieve the highest level of dependability and availability. Liebherr has 50 years experience in the production of hydraulic excavators and has an unparalleled competence in design and know-how.

Technology with a vision

Optimized hydraulics

External bypass lines at the control valve apply the oil flow to the appropriate attachment functions. The optimal hose routing from the control valve to the attachment substantially increases the dependability of the hydraulic system.

Power pack

The individual components of the drive unit (i.e. construction equipment engine, travel and swing gearboxes, main pumps and hydraulic cylinders), produced by sister companies of Liebherr are co-ordinated to fit each other perfectly. They guarantee maximum dependability as an integral part of the total system which is designed for long life expectancy.

Quality to the last detail

The clearly laid out routing of the hydraulic, lubrication and electrical lines assures the highest reliability and performance of the machine. Optimal corrosion protection is achieved with pre-painted and surface-treated parts.

Heavy-duty attachments with long-term advantage

Robust attachment concept

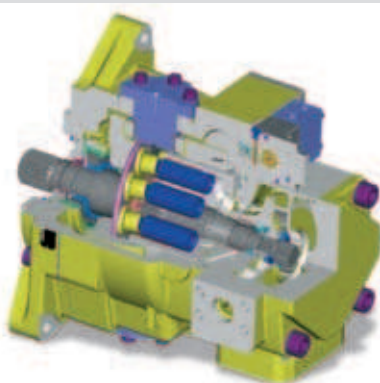
With the utilization of steel castings at every pivot point, the attachment is consistently able to withstand the most server demands.

Optimized stress flow

The swing ring tower is made from one piece, which transfers the forces – following the principal of “stress flow design” - into the undercarriage. For lasting protection against dirt and damage, Liebherr swing rings are sealed and have internal teeth.

Bucket linkage

- Optional sealed linkage bearings
- Optimal protection for under-water work
- Increased life expectancy of the attachment



Key components made by Liebherr

- Decades of experience with the development, design and manufacturing of components
- Engines, hydraulic pumps and motors, swing and travel gearboxes as well as electronic elements from in-house production
- Manufacturing centers for components in Germany and Switzerland produce according to the latest production methods



Hydraulic reservoir stop valve

- Easy and quick interruption of the oil circuit between hydraulic reservoir and hydraulic system
- No drainage of fluid necessary for service or repair work on the hydraulic system



Comfort

In the operator station, the operator can look forward to a comfortably appointed workstation that is designed according to the most up-to-date ergonomically know-how. The standard automatic climate control provides a pleasant working environment at any weather condition.

Liebherr crawler excavators are particularly service-friendly: maintenance work is simply and quickly accomplished due to well accessible service points.

Standard maintenance advantage

Easy accessibility

All service points are easily accessible and the R 954 C features a central lubrication point as a standard feature. Daily preventive maintenance can be completed in a short period of time.

Maintenance friendly track components

Top rollers, track rollers and track link pins are lubricated for the life of the excavator. The grease cylinder of the idler tensioner is sealed against dirt.

Work place with feel-well character

Optimal visibility

The operator station's generously-sized windows provide outstanding visibility of the work and surrounding area.

Well thought-out arrangement

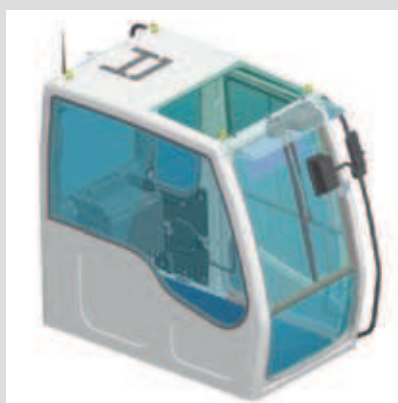
Design and arrangement of the seat, controls and displays are perfectly tuned to each other in an ergonomically-integrated concept. The operator's seat has shock-absorbing suspension and is adjustable to the individual preference of each operator.

Easy operation

The control consoles and information display are arranged within clear view of the operator and are easy to reach. New joysticks, with reduced operating force, are ergonomically shaped and allow pleasant and fatigue-free work.

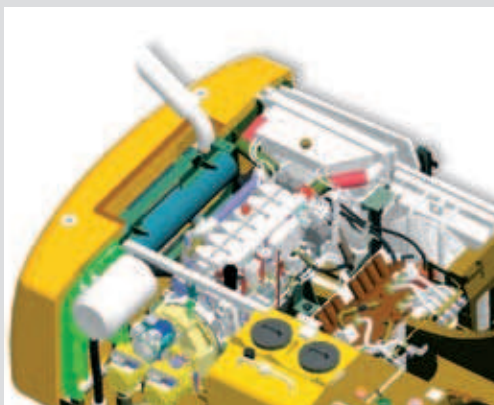
Easy access

- Comfortably positioned ascents on both sides provide good accessibility to all service points
- Ergonomically positioned hand rails ensure secure ascent and descent
- Additional hand rails guarantee maximum safety



Liebherr Operator's station

- Generously-sized windows allow for optimal visibility
- Operator's seat is individually adjustable and includes a shock-absorbing cushion
- Standard automatic climate control
- Right-side window without vertical center post
- Lockable storage behind seat



Hydrostatic fan drive

- The new cooling system consists of two hydrostatically driven fans
- The fan speed is thermostatically-controlled by the temperature of hydraulic fluid, charging air and radiator fluid
- Accelerated warm-up period
- Fan uses only the needed power, reducing fuel consumption



Economy

Liebherr crawler excavators stand for a maximum of productivity. The sensitive excavator controls assure an optimal efficiency in the interaction of excavator hydraulics and –electronics. A wide selection of attachments, accessory tools and varied dimensioned undercarriages provide the correct choice for each application.

Top technology for maximum profitability

Electronic engine speed sensing control

This regulating system causes an efficient conversion of the engine output in hydraulic performance – which results in better utilization of the available engine power. The result: higher digging forces, shorter cycle times and lower fuel consumption.

Liebherr Tool Control

Immediately after the exchange of a hydraulic tool, the required pressure and oil flow settings are available with the push of a button. Up to 10 combinations with the designated names of the tools can be programmed. No tool changeover system is as simple or time-saving.

Outstanding parts availability

Quick spare parts supply

80,000 line items are always in stock for the global part requirements. Emergency part orders are shippable within 24 hours.

Professional help on-call

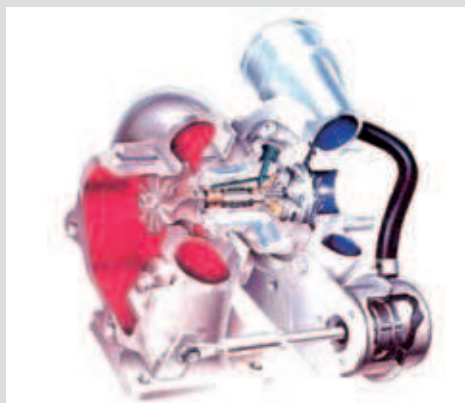
Liebherr's customer service is accessible on a 24/7 basis. Qualified professionals are available around the clock to respond to all questions from part supplies to repair advice.

Extensive service packages

Custom-tailored service packages guarantee service with individually-focused technical and logistical attention. Liebherr provides solutions with components from remanufactured repair or rebuild programs for every requirement – manufactured to maintain genuine quality.

New bucket shape

- The new L-shape features a longer bottom and a strongly waved side cutters
- Particularly suitable for applications in rocky conditions as well as for loading hard and coarse material
- Ideal for placing rip-rap on embankments



Turbo charger with waste-gate

- Optimized turbo charger technology
- Full utilization of the performance potential for power development in lower speed ranges
- Less wear on the turbine components

Technical Data



Engine

| | |
|---------------------|--|
| Rating per ISO 9249 | 240 kW (326 HP) at 1,800 RPM |
| Model | Liebherr D 936 L |
| Type | 6 cylinder in-line |
| Bore/Stroke | 122/150 mm |
| Displacement | 10.5 l |
| Engine operation | 4-stroke diesel unit pump system turbo-charged and after-cooled reduced emissions |
| Cooling | water-cooled and integrated motor oil cooler |
| Air cleaner | dry-type air cleaner with pre-cleaner, primary and safety elements, automatic dust discharge |
| Fuel tank | 700 l |
| Standard | sensor controlled engine idling |
| Electrical system | |
| Voltage | 24 V |
| Batteries | 2 x 170 Ah/12 V |
| Starter | 24 V/7.8 kW |
| Alternator | three phase current 28 V/80 A |



Hydraulic System

| | |
|---------------------------------|--|
| Hydraulic pump | |
| for attachment and travel drive | two Liebherr variable flow, swash plate pumps |
| Max. flow | 2 x 350 l/min. |
| Max. pressure | 350 bar |
| Pump regulation | electro-hydraulic with electronic engine speed sensing regulation, pressure compensation, flow compensation, automatic oil flow optimizer |
| Hydraulic pump | |
| for swing drive | reversible, variable flow, swash plate pump, closed-loop circuit |
| Max. flow | 211 l/min. |
| Max. pressure | 384 bar |
| Hydraulic tank | 440 l |
| Hydraulic system | 790 l |
| Hydraulic oil filter | 2 full flow filters in return line with integrated fine filter area (5 µm) |
| Hydraulic oil cooler | cooler unit, consisting of radiator for engine coolant with after-cooler core, sandwiched with cooler for hydraulic fluid and fuel with hydro-statically controlled fan drives |
| MODE selection | adjustment of machine performance and the hydraulics via a mode selector to match application |
| ECO | for especially economical and environmentally friendly operation |
| POWER | for maximum digging power and heavy duty jobs |
| LIFT | for lifting |
| FINE | for precision work and lifting through very sensitive movements |
| RPM adjustment | stepless adjustment of engine output via the rpm at each selected mode |
| Liebherr Tool Control | ten preadjustable pump flows and pressures for add on tools |



Hydraulic Controls

| | |
|----------------------|--|
| Power distribution | via control valves in single block with integrated safety valves |
| Flow summation | to boom and stick |
| Closed-loop circuit | for uppercarriage swing drive |
| Servo circuit | |
| Attachment and swing | – proportional via joystick levers |
| Travel | – proportional via foot pedals or removable hand levers – speed pre-selection |
| Additional functions | via foot pedals or joystick toggle switch |



Swing Drive

| | |
|---------------|--|
| Drive by | Liebherr swash plate motor with integrated brake valves |
| Transmission | Liebherr compact planetary reduction gear |
| Swing ring | Liebherr, sealed single race ball bearing swing ring, internal teeth |
| Swing speed | 0 – 5.6 RPM stepless |
| Swing torque | 165 kNm |
| Holding brake | wet multi-disc (spring applied, pressure released) |
| Option | pedal controlled positioning brake |



Operator's Cab

| | |
|------------------|--|
| Cab | resiliently mounted, sound insulated, tinted windows, front window stores overhead, door with sliding window |
| Operator's seat | fully adjustable, shockabsorbing suspension, adjustable to operator's weight and size, 6-way adjustable Liebherr seat |
| Joysticks | integrated into adjustable consoles |
| Monitoring | menu driven query of current operating conditions via the LCD display. Automatic monitoring, display, warning (acoustical and optical signal) and saving machine data, for example, engine overheating, low engine oil pressure or low hydraulic oil level |
| Air conditioning | standard air conditioning, combined cooler/heater, additional dust filter in fresh air/recirculated |
| Noise emission | |
| ISO 6396 | L _{DA} (inside cab) = 77 dB(A) |
| 2000/14/EC | L _{WA} (surround noise) = 105 dB(A) |



Undercarriage

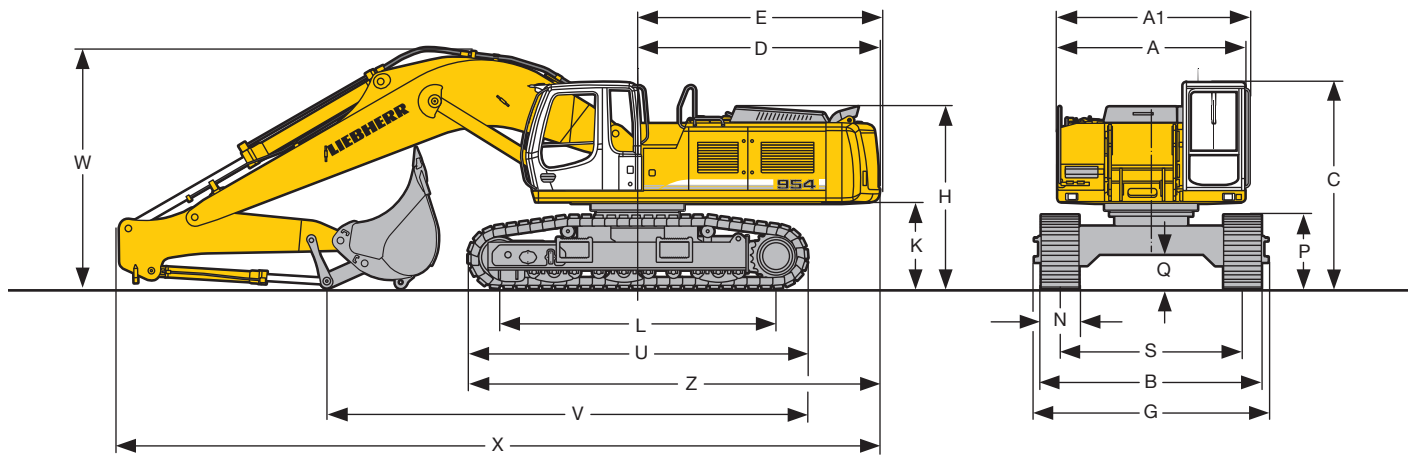
| | |
|-------------------------------|--|
| Version | |
| HD | heavy duty |
| S-HD | super-HD-undercarriage for extreme and very tough applications, e.g. inquiries |
| Drive | Liebherr swash plate motors with integrated brake valves on both sides |
| Transmission | Liebherr planetary reduction gears |
| Travel speed | HD: low range – 3.3 km/h high range – 4.8 km/h S-HD: low range – 2.6 km/h high range – 3.6 km/h |
| Drawbar pull max. | HD: 429 kN S-HD: 553 kN |
| Track components | HD: D 7 G, maintenance-free S-HD: D 8 K, maintenance-free |
| Track rollers/Carrier rollers | HD: 10/2 S-HD: 8/3 |
| Tracks | sealed and greased |
| Track pads | HD: triple grouser S-HD: double grouser |
| Digging locks | wet multi-discs (spring applied, pressure released) |



Attachment

| | |
|-----------------------|---|
| Type | combination of resistant steel plates and cast steel components |
| Hydraulic cylinders | Liebherr cylinders with special seal-system, shock absorbed |
| Pivots | sealed, low maintenance |
| Lubrication | semi-automatic central lubrication system (except link and tilt geometry) |
| Hydraulic connections | pipes and hoses equipped with SAE split-flange connections |
| Bucket | standard equipped with Liebherr tooth system |

Dimensions



| | HD | | | mm | S-HD | | | mm |
|----|-------|-------|-------|-------|-------|-------|-------|-------|
| A | | | | 2,980 | | | | 2,980 |
| A1 | | | | 3,060 | | | | 3,060 |
| C | | | | 3,285 | | | | 3,395 |
| D | | | | 3,850 | | | | 3,850 |
| E | | | | 3,850 | | | | 3,850 |
| H | | | | 2,900 | | | | 3,010 |
| K | | | | 1,350 | | | | 1,460 |
| L | | | | 4,400 | | | | 4,280 |
| P | | | | 1,170 | | | | 1,290 |
| Q | | | | 543 | | | | 605 |
| S | | | | 2,900 | | | | 2,900 |
| U | | | | 5,378 | | | | 5,345 |
| Z | | | | 6,600 | | | | 6,495 |
| N | 500 | 600 | 750 | | 500 | 600 | 750 | |
| B | 3,524 | 3,524 | 3,650 | | 3,626 | 3,626 | 3,650 | |
| G | 3,720 | 3,720 | 3,720 | | 3,820 | 3,820 | 3,820 | |

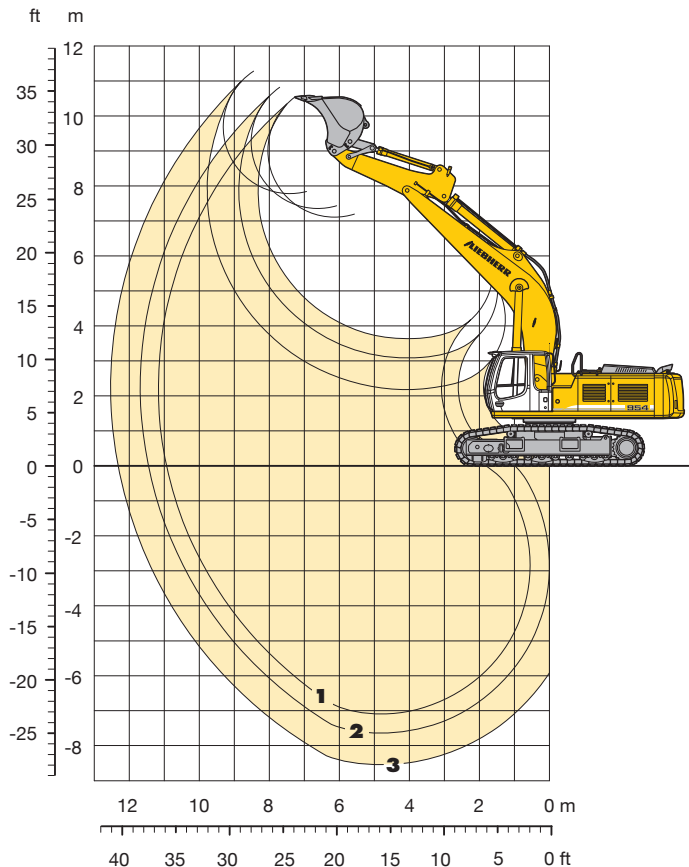
| HD-Undercarriage | | | | | |
|------------------|--------------|------------------------|------------------------|------------------------|------------------------|
| | Stick Length | Goose-neck Boom 6.70 m | Goose-neck Boom 7.60 m | Goose-neck Boom 8.00 m | Goose-neck Boom 9.20 m |
| | m | mm | mm | mm | mm |
| V | 2.35 | 7,650 | 7,700 | 8,500 | — |
| | 2.90 | 7,050 | 7,100 | 8,000 | 8,750 |
| | 3.80 | 5,900 | 7,300 | 7,000 | 9,000 |
| | 5.00* | — | — | — | 7,750 |
| W | 2.35 | 3,800 | 3,950 | 3,550 | — |
| | 2.90 | 3,800 | 3,950 | 3,650 | 4,200 |
| | 3.80 | 3,800 | 4,000 | 3,800 | 4,300 |
| | 5.00* | — | — | — | 4,400 |
| X | 2.35 | 12,200 | 13,300 | 13,750 | — |
| | 2.90 | 12,200 | 13,200 | 13,750 | 14,800 |
| | 3.80 | 12,200 | 13,250 | 13,650 | 14,800 |
| | 5.00* | — | — | — | 14,800 |

* without bucket

| S-HD-Undercarriage | | |
|--------------------|--------------|------------------------|
| | Stick Length | Goose-neck Boom 6.70 m |
| | m | mm |
| V | 2.80 SME | 6,100 |
| W | 2.80 SME | 4,200 |
| X | 2.80 SME | 12,350 |

Backhoe Attachment

with Gooseneck Boom 6.70 m



Digging Envelope

| | | 1 | 2 | 3 |
|----------------------------|----|-------|-------|-------|
| Stick lengths | m | 2.35 | 2.90 | 3.80 |
| Max. digging depth | m | 7.10 | 7.65 | 8.55 |
| Max. reach at ground level | m | 10.90 | 11.45 | 12.30 |
| Max. dump height | m | 7.10 | 7.35 | 7.75 |
| Max. teeth height | m | 10.50 | 10.80 | 11.25 |
| Digging force ISO | kN | 248 | 217 | 181 |
| | t | 25.8 | 22.1 | 18.6 |
| Breakout force ISO | kN | 313 | 313 | 313 |
| | t | 31.9 | 31.9 | 31.9 |

Breakout force max. ISO

345 kN/35.2 t

Operating Weight and Ground Pressure

Operating weight includes basic machine with gooseneck boom 6.70 m, stick 2.35 m and bucket 2.35 m³.

| Undercarriage | | HD | | |
|-----------------|--------------------|--------|--------|--------|
| Pad width | mm | 500 | 600 | 750 |
| Weight | kg | 49,300 | 49,800 | 51,100 |
| Ground pressure | kg/cm ² | 1.04 | 0.87 | 0.72 |

Optional: heavy counterweight

(Heavy counterweight increases the operating weight by 2,000 kg and ground pressure by 0.04 kg/cm²)

Buckets

| | | | | | | | | |
|--|------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| Cutting width | mm | 1,500 ¹⁾ | 1,550 ²⁾ | 1,700 ¹⁾ | 1,750 ²⁾ | 1,900 ¹⁾ | 1,900 ¹⁾ | 1,950 ²⁾ |
| Capacity ISO 7451 | m ³ | 2.00 | 2.00 | 2.35 | 2.35 | 2.70 | 3.00 | 2.70 |
| Weight | kg | 2,250 | 2,800 | 2,500 | 3,050 | 2,650 | 2,750 | 3,300 |
| Suitable for material up to a specific weight of | | | | | | | | |
| with stick 2.35 m | t/m ³ | 2.20 | 2.20 | 2.20 | 2.20 | 1.80 | 1.80 | 1.50 |
| with stick 2.90 m | t/m ³ | 2.20 | 2.20 | 1.80 | 1.80 | 1.50 | 1.50 | 1.50 |
| with stick 3.80 m | t/m ³ | 1.80 | 1.80 | 1.50 | 1.50 | 1.20 | – | – |

¹⁾ Medium-duty bucket with Liebherr teeth size 25 (appropriate for materials up to classification 5, according to VOB, Section C, DIN 18300)

²⁾ Heavy-duty rock bucket with Esco teeth size 61 (appropriate for materials above classification 6, according to VOB, Section C, DIN 18300)

Lift Capacities

with Gooseneck Boom 6.70 m

Stick 2.35 m

| Height (m) | Under- carriage | Radius of load from centerline of machine (m) | | | | | | | |
|---------------|--------------------|---|---------------|---------------|--------------|------------|------|------|------|
| | | 3.0 | 4.5 | 6.0 | 7.5 | 9.0 | 10.5 | 12.0 | 13.5 |
| 12.0 | HD | | | | | | | | |
| 10.5 | HD | | | | | | | | |
| 9.0 | HD | | | | | | | | |
| 7.5 | HD | | | | 8.1# (8.1#) | | | | |
| 6.0 | HD | | | | 8.6# (8.6#) | | | | |
| 4.5 | HD | | 15.6# (15.6#) | 11.5# (11.5#) | 9.0 (9.6#) | 6.4 (8.6#) | | | |
| 3.0 | HD | | 18.6 (20.4#) | 12.1 (13.7#) | 8.4 (10.8#) | 6.1 (9.2#) | | | |
| 1.5 | HD | | 17.0 (19.4#) | 11.1 (15.5#) | 7.9 (11.8#) | 5.8 (9.7#) | | | |
| 0 | HD | | 16.6 (22.0#) | 10.5 (16.5#) | 7.5 (12.5#) | 5.6 (9.5) | | | |
| - 1.5 | HD | 17.2# (17.2#) | 16.6 (22.7#) | 10.4 (16.5#) | 7.3 (12.6) | | | | |
| - 3.0 | HD | 24.6# (24.6#) | 16.9 (20.9#) | 10.5 (15.6#) | 7.4 (11.9#) | | | | |
| - 4.5 | HD | 24.2# (24.2#) | 17.6 (17.7#) | 10.9 (13.2#) | | | | | |
| - 6.0 | HD | | 11.5# (11.5#) | | | | | | |
| - 7.5 | HD | | | | | | | | |
| - 9.0 | HD | | | | | | | | |
| - 10.5 | HD | | | | | | | | |

Stick 2.90 m

| Height (m) | Under- carriage | Radius of load from centerline of machine (m) | | | | | | | |
|---------------|--------------------|---|---------------|---------------|--------------|-------------|------|------|------|
| | | 3.0 | 4.5 | 6.0 | 7.5 | 9.0 | 10.5 | 12.0 | 13.5 |
| 12.0 | HD | | | | | | | | |
| 10.5 | HD | | | | | | | | |
| 9.0 | HD | | | | | | | | |
| 7.5 | HD | | | | | | | | |
| 6.0 | HD | | | | 7.8# (7.8#) | 6.4# (6.4#) | | | |
| 4.5 | HD | | | 10.4# (10.4#) | 8.8# (8.8#) | 6.4 (7.9#) | | | |
| 3.0 | HD | | 18.5# (18.5#) | 12.3 (12.8#) | 8.5 (10.1#) | 6.1 (8.6#) | | | |
| 1.5 | HD | | 17.5 (22.1#) | 11.3 (14.8#) | 7.9 (11.3#) | 5.8 (9.3#) | | | |
| 0 | HD | 9.4# (9.4#) | 16.7 (22.0#) | 10.6 (16.1#) | 7.5 (12.2#) | 5.5 (9.4) | | | |
| - 1.5 | HD | 15.0# (15.0#) | 16.5 (23.2#) | 10.3 (16.5#) | 7.2 (12.5) | 5.4 (9.3) | | | |
| - 3.0 | HD | 21.1# (21.1#) | 16.7 (21.6#) | 10.3 (15.9#) | 7.2 (12.1#) | | | | |
| - 4.5 | HD | 27.5# (27.5#) | 17.2 (19.2#) | 10.6 (14.2#) | 7.5 (10.5#) | | | | |
| - 6.0 | HD | 19.9# (19.9#) | 14.3# (14.3#) | | | | | | |
| - 7.5 | HD | | | | | | | | |
| - 9.0 | HD | | | | | | | | |
| - 10.5 | HD | | | | | | | | |

Stick 3.80 m

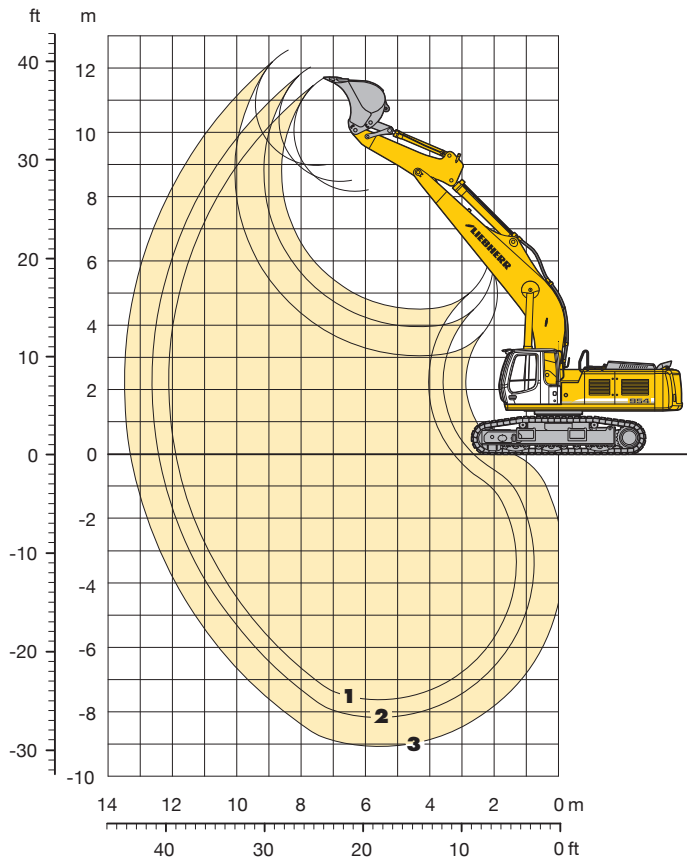
| Height (m) | Under- carriage | Radius of load from centerline of machine (m) | | | | | | | |
|---------------|--------------------|---|---------------|---------------|--------------|-------------|-------------|------|------|
| | | 3.0 | 4.5 | 6.0 | 7.5 | 9.0 | 10.5 | 12.0 | 13.5 |
| 12.0 | HD | | | | | | | | |
| 10.5 | HD | | | | | | | | |
| 9.0 | HD | | | | | | | | |
| 7.5 | HD | | | | | 4.8# (4.8#) | | | |
| 6.0 | HD | | | | | 6.2# (6.2#) | 2.1# (2.1#) | | |
| 4.5 | HD | | | | 7.5# (7.5#) | 6.6 (6.9#) | 4.2# (4.2#) | | |
| 3.0 | HD | 18.6# (18.6#) | 15.3# (15.3#) | 11.0# (11.0#) | 8.7 (8.9#) | 6.2 (7.7#) | 4.5 (5.6#) | | |
| 1.5 | HD | 7.5# (7.5#) | 18.5 (19.9#) | 11.7 (13.4#) | 8.1 (10.3#) | 5.8 (8.5#) | 4.2 (6.4#) | | |
| 0 | HD | 9.3# (9.3#) | 17.1 (22.5#) | 10.8 (15.2#) | 7.5 (11.5#) | 5.5 (9.2#) | 4.0 (6.2#) | | |
| - 1.5 | HD | 12.9# (12.9#) | 16.5 (23.3#) | 10.3 (16.2#) | 7.2 (12.2#) | 5.2 (9.2) | 3.6# (3.6#) | | |
| - 3.0 | HD | 17.2# (17.2#) | 16.4 (22.8#) | 10.1 (16.2#) | 7.0 (12.2#) | 5.1 (9.1) | | | |
| - 4.5 | HD | 22.7# (22.7#) | 16.7 (21.1#) | 10.2 (15.2#) | 7.1 (11.5#) | | | | |
| - 6.0 | HD | 25.9# (25.9#) | 17.3 (17.6#) | 10.6 (12.8#) | | | | | |
| - 7.5 | HD | | 10.8# (10.8#) | | | | | | |
| - 9.0 | HD | | | | | | | | |
| - 10.5 | HD | | | | | | | | |

The load values are quoted in tons (t) on the backhoe bucket's load hook, and may be swung 360° on firm and even ground. Values quoted in brackets apply to the undercarriage when in longitudinal position. Capacities are valid for 600 mm wide triple grouser pads. Indicated loads are based on ISO 10567 standard and do not exceed 75 % of tipping or 87 % of hydraulic capacity (indicated via #). Maximum load for the backhoe bucket's lifting eye is 27 t. Without bucket (2.35 m³), the lift capacities will increase by 2,500 kg, without bucket cylinder, link and lever they increase by an additional 750 kg. Lifting capacity of the excavator is limited by machine stability, hydraulic capacity and maximum permissible load of the load hook.

According to European Standard, EN 474-5: In the European Union excavators have to be equipped with an overload warning device, a load diagram and automatic check valves on the hoist cylinders, when they are used for lifting operations which require the use of lifting accessories.

Backhoe Attachment

with Gooseneck Boom 7.60 m



Digging Envelope

| | | 1 | 2 | 3 |
|----------------------------|----|-------|-------|-------|
| Stick lengths | m | 2.35 | 2.90 | 3.80 |
| Max. digging depth | m | 7.60 | 8.15 | 9.05 |
| Max. reach at ground level | m | 11.90 | 12.40 | 13.30 |
| Max. dump height | m | 8.15 | 8.45 | 8.95 |
| Max. teeth height | m | 11.70 | 12.00 | 12.55 |
| Digging force ISO | kN | 248 | 217 | 181 |
| | t | 25.8 | 22.1 | 18.6 |
| Breakout force ISO | kN | 313 | 313 | 313 |
| | t | 31.9 | 31.9 | 31.9 |

Breakout force max. ISO

345 kN/35.2 t

Operating Weight and Ground Pressure

Operating weight includes basic machine with gooseneck boom 7.60 m, stick 2.90 m and bucket 2.00 m³.

| Undercarriage | | HD | | |
|-----------------|--------------------|--------|--------|--------|
| Pad width | mm | 500 | 600 | 750 |
| Weight | kg | 49,600 | 50,100 | 51,400 |
| Ground pressure | kg/cm ² | 1.05 | 0.88 | 0.72 |

Optional: heavy counterweight

(Heavy counterweight increases the operating weight by 2,000 kg and ground pressure by 0.04 kg/cm²)

Buckets

| | | | | | | | | | |
|--|------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| Cutting width | mm | 1,300 ¹⁾ | 1,350 ²⁾ | 1,500 ¹⁾ | 1,550 ²⁾ | 1,700 ¹⁾ | 1,750 ²⁾ | 1,900 ¹⁾ | 1,900 ¹⁾ |
| Capacity ISO 7451 | m ³ | 1.65 | 1.65 | 2.00 | 2.00 | 2.35 | 2.35 | 2.70 | 3.00 |
| Weight | kg | 2,100 | 2,500 | 2,250 | 2,800 | 2,500 | 3,050 | 2,650 | 2,750 |
| Suitable for material up to a specific weight of | | | | | | | | | |
| with stick 2.35 m | t/m ³ | – | – | 2.20 | 1.80 | 1.80 | 1.80 | 1.50 | 1.20 |
| with stick 2.90 m | t/m ³ | 2.20 | 2.20 | 1.80 | 1.80 | 1.50 | 1.50 | 1.20 | – |
| with stick 3.80 m | t/m ³ | 1.80 | 1.80 | 1.50 | 1.50 | 1.20 | – | – | – |

¹⁾ Medium-duty bucket with Liebherr teeth size 25 (appropriate for materials up to classification 5, according to VOB, Section C, DIN 18300)

²⁾ Heavy-duty rock bucket with Esco teeth size 61 (appropriate for materials above classification 6, according to VOB, Section C, DIN 18300)

Lift Capacities

with Gooseneck Boom 7.60 m

Stick 2.35 m

| Height (m) | Under- carriage | Radius of load from centerline of machine (m) | | | | | | | |
|---------------|--------------------|---|---------------|---------------|--------------|-------------|------------|------|------|
| | | 3.0 | 4.5 | 6.0 | 7.5 | 9.0 | 10.5 | 12.0 | 13.5 |
| 12.0 | HD | | | | | | | | |
| 10.5 | HD | | | | | | | | |
| 9.0 | HD | | | | | | | | |
| 7.5 | HD | | | | 7.9# (7.9#) | 6.6# (6.6#) | | | |
| 6.0 | HD | | | | 8.6# (8.6#) | 6.6 (7.7#) | | | |
| 4.5 | HD | | 18.4# (18.4#) | 12.3# (12.3#) | 8.6 (9.7#) | 6.2 (8.2#) | | | |
| 3.0 | HD | | | 11.0 (14.3#) | 7.9 (10.8#) | 5.8 (8.8#) | 4.3 (7.3#) | | |
| 1.5 | HD | | | 10.1 (15.5#) | 7.3 (11.6#) | 5.5 (9.4#) | 4.1 (7.3) | | |
| 0 | HD | | 10.9# (10.9#) | 9.7 (15.9#) | 6.9 (12.1#) | 5.2 (8.1) | | | |
| - 1.5 | HD | 11.5# (11.5#) | 15.8 (18.2#) | 9.6 (15.6#) | 6.8 (12.0) | 5.1 (9.0) | | | |
| - 3.0 | HD | 18.7# (18.7#) | 16.1 (18.7#) | 9.8 (14.6#) | 6.9 (11.4#) | 5.2 (8.9#) | | | |
| - 4.5 | HD | 20.4# (20.4#) | 16.2# (16.2#) | 10.2 (12.7#) | 7.2 (9.9#) | | | | |
| - 6.0 | HD | | 12.0# (12.0#) | 9.3# (9.3#) | | | | | |
| - 7.5 | HD | | | | | | | | |
| - 9.0 | HD | | | | | | | | |
| - 10.5 | HD | | | | | | | | |

Stick 2.90 m

| Height (m) | Under- carriage | Radius of load from centerline of machine (m) | | | | | | | |
|---------------|--------------------|---|---------------|---------------|--------------|-------------|-------------|------|------|
| | | 3.0 | 4.5 | 6.0 | 7.5 | 9.0 | 10.5 | 12.0 | 13.5 |
| 12.0 | HD | | | | | | | | |
| 10.5 | HD | | | | | | | | |
| 9.0 | HD | | | | | | | | |
| 7.5 | HD | | | | | 6.7# (6.7#) | | | |
| 6.0 | HD | | | | 7.9# (7.9#) | 6.6 (7.1#) | 4.3# (4.3#) | | |
| 4.5 | HD | | 16.1# (16.1#) | 11.3# (11.3#) | 8.7 (9.0#) | 6.3 (7.7#) | 4.5 (6.9#) | | |
| 3.0 | HD | | 11.2# (11.2#) | 11.3 (13.4#) | 8.0 (10.2#) | 5.8 (8.4#) | 4.3 (7.3#) | | |
| 1.5 | HD | | 8.4# (8.4#) | 10.3 (15.0#) | 7.3 (11.2#) | 5.4 (9.0#) | 4.1 (7.2) | | |
| 0 | HD | | 11.8# (11.8#) | 9.7 (15.7#) | 6.9 (11.8#) | 5.1 (9.1) | 3.9 (7.0) | | |
| - 1.5 | HD | 10.3# (10.3#) | 15.5 (16.6#) | 9.5 (15.7#) | 6.7 (11.9) | 5.0 (8.9) | 3.9 (7.0) | | |
| - 3.0 | HD | 15.9# (15.9#) | 15.8 (19.9#) | 9.6 (15.0#) | 6.7 (11.6#) | 5.0 (8.9) | | | |
| - 4.5 | HD | 21.9# (21.9#) | 16.3 (17.6#) | 9.9 (13.5#) | 6.9 (10.4#) | | | | |
| - 6.0 | HD | 18.2# (18.2#) | 13.9# (13.9#) | 10.5 (10.7#) | | | | | |
| - 7.5 | HD | | | | | | | | |
| - 9.0 | HD | | | | | | | | |
| - 10.5 | HD | | | | | | | | |

Stick 3.80 m

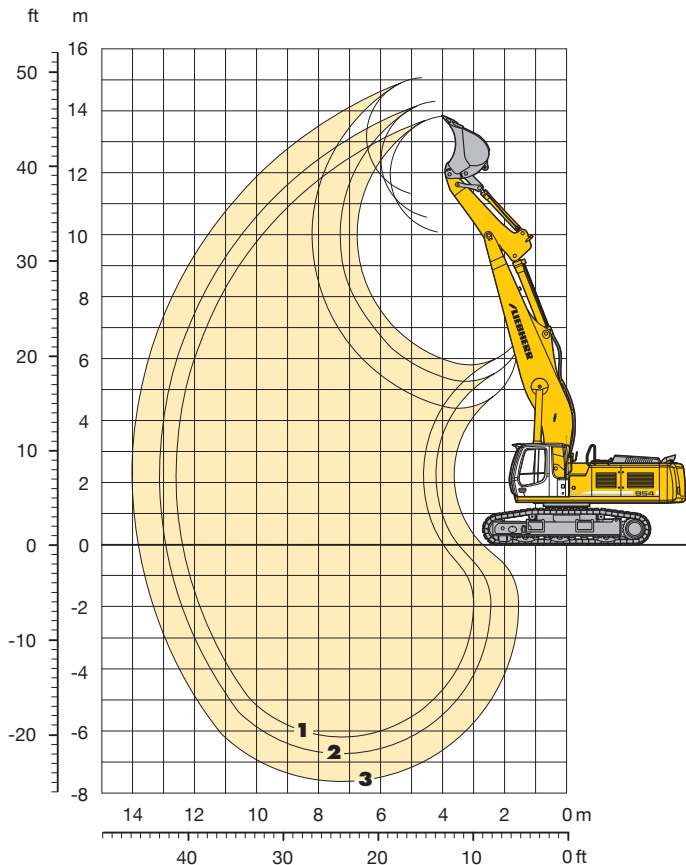
| Height (m) | Under- carriage | Radius of load from centerline of machine (m) | | | | | | | |
|---------------|--------------------|---|---------------|---------------|--------------|-------------|-------------|------------|------|
| | | 3.0 | 4.5 | 6.0 | 7.5 | 9.0 | 10.5 | 12.0 | 13.5 |
| 12.0 | HD | | | | | | | | |
| 10.5 | HD | | | | | | | | |
| 9.0 | HD | | | | | | | | |
| 7.5 | HD | | | | | 5.7# (5.7#) | 4.0# (4.0#) | | |
| 6.0 | HD | | | | | 6.2# (6.2#) | 4.8 (5.8#) | | |
| 4.5 | HD | | | | 7.9# (7.9#) | 6.4 (6.8#) | 4.6 (6.2#) | | |
| 3.0 | HD | | 17.7# (17.7#) | 11.9# (11.9#) | 8.3 (9.2#) | 5.9 (7.6#) | 4.3 (6.6#) | 3.1 (3.3#) | |
| 1.5 | HD | | 13.0# (13.0#) | 10.7 (13.9#) | 7.5 (10.4#) | 5.5 (8.4#) | 4.1 (7.1#) | 3.0 (3.6#) | |
| 0 | HD | 4.9# (4.9#) | 12.6# (12.6#) | 9.9 (15.2#) | 7.0 (11.3#) | 5.1 (9.0#) | 3.8 (7.0) | | |
| - 1.5 | HD | 8.8# (8.8#) | 15.3# (15.3#) | 9.5 (15.6#) | 6.6 (11.8#) | 4.9 (8.8) | 3.7 (6.8) | | |
| - 3.0 | HD | 12.8# (12.8#) | 15.4 (19.5#) | 9.4 (15.4#) | 6.5 (11.7#) | 4.8 (8.7) | 3.7 (6.8) | | |
| - 4.5 | HD | 17.4# (17.4#) | 15.7 (19.4#) | 9.5 (14.4#) | 6.6 (11.1#) | 4.9 (8.6#) | | | |
| - 6.0 | HD | 23.1# (23.1#) | 16.3 (16.6#) | 9.9 (12.5#) | 6.9 (9.5#) | | | | |
| - 7.5 | HD | | 11.9# (11.9#) | 8.8# (8.8#) | | | | | |
| - 9.0 | HD | | | | | | | | |
| - 10.5 | HD | | | | | | | | |

The load values are quoted in tons (t) on the backhoe bucket's load hook, and may be swung 360° on firm and even ground. Values quoted in brackets apply to the undercarriage when in longitudinal position. Capacities are valid for 600 mm wide triple grouser pads. Indicated loads are based on ISO 10567 standard and do not exceed 75 % of tipping or 87 % of hydraulic capacity (indicated via #). Maximum load for the backhoe bucket's lifting eye is 27 t. Without bucket (2.00 m³), the lift capacities will increase by 2,250 kg, without bucket cylinder, link and lever they increase by an additional 750 kg. Lifting capacity of the excavator is limited by machine stability, hydraulic capacity and maximum permissible load of the load hook.

According to European Standard, EN 474-5: In the European Union excavators have to be equipped with an overload warning device, a load diagram and automatic check valves on the hoist cylinders, when they are used for lifting operations which require the use of lifting accessories.

Backhoe Attachment

with Gooseneck Boom 8.00 m



Digging Envelope

| | | 1 | 2 | 3 |
|----------------------------|----|-------|-------|-------|
| Stick lengths | m | 2.35 | 2.90 | 3.80 |
| Max. digging depth | m | 6.20 | 6.75 | 7.65 |
| Max. reach at ground level | m | 12.40 | 12.95 | 13.80 |
| Max. dump height | m | 10.10 | 10.60 | 11.35 |
| Max. teeth height | m | 13.80 | 14.30 | 15.05 |
| Digging force ISO | kN | 248 | 217 | 181 |
| | t | 25.8 | 22.1 | 18.6 |
| Breakout force ISO | kN | 313 | 313 | 313 |
| | t | 31.9 | 31.9 | 31.9 |

Breakout force max. ISO

345 kN/35.2 t

Operating Weight and Ground Pressure

Operating weight includes basic machine with gooseneck boom 8.00 m, stick 2.90 m and bucket 2.00 m³.

| Undercarriage | | HD | | |
|-----------------|--------------------|--------|--------|--------|
| Pad width | mm | 500 | 600 | 750 |
| Weight | kg | 50,100 | 50,600 | 51,900 |
| Ground pressure | kg/cm ² | 1.06 | 0.89 | 0.73 |

Optional: heavy counterweight

(Heavy counterweight increases the operating weight by 2,000 kg and ground pressure by 0.04 kg/cm²)

Buckets

| | | | | | | |
|--|------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| Cutting width | mm | 1,300 ¹⁾ | 1,350 ²⁾ | 1,500 ¹⁾ | 1,550 ²⁾ | 1,700 ¹⁾ |
| Capacity ISO 7451 | m ³ | 1.65 | 1.65 | 2.00 | 2.00 | 2.35 |
| Weight | kg | 2,100 | 2,500 | 2,250 | 2,800 | 2,500 |
| Suitable for material up to a specific weight of | | | | | | |
| with stick 2.35 m | t/m ³ | 2.20 | 2.20 | 1.80 | 1.80 | 1.50 |
| with stick 2.90 m | t/m ³ | 2.20 | 1.80 | 1.80 | 1.50 | 1.20 |
| with stick 3.80 m | t/m ³ | 1.80 | 1.50 | 1.50 | 1.20 | – |

¹⁾ Medium-duty bucket with Liebherr teeth size 25 (appropriate for materials up to classification 5, according to VOB, Section C, DIN 18300)

²⁾ Heavy-duty rock bucket with Esco teeth size 61 (appropriate for materials above classification 6, according to VOB, Section C, DIN 18300)

Lift Capacities

with Gooseneck Boom 8.00 m

Stick 2.35 m

| Height (m) | Under- carriage | Radius of load from centerline of machine (m) | | | | | | | |
|---------------|--------------------|---|---------------|---------------|--------------|------------|------------|------|------|
| | | 3.0 | 4.5 | 6.0 | 7.5 | 9.0 | 10.5 | 12.0 | 13.5 |
| 12.0 | HD | | | | | | | | |
| 10.5 | HD | | | 10.5# (10.5#) | | | | | |
| 9.0 | HD | | | 11.9# (11.9#) | 9.7 (10.1#) | | | | |
| 7.5 | HD | | | 12.6# (12.6#) | 9.4 (10.4#) | 6.5 (8.9#) | | | |
| 6.0 | HD | | 19.0# (19.0#) | 12.9 (13.7#) | 8.7 (10.9#) | 6.2 (8.1#) | 4.4 (6.0#) | | |
| 4.5 | HD | | | 11.3 (15.0#) | 8.0 (11.5#) | 5.8 (9.4#) | 4.2 (7.4) | | |
| 3.0 | HD | | | 10.0 (15.7#) | 7.2 (11.9#) | 5.4 (9.3) | 4.0 (7.2) | | |
| 1.5 | HD | | | 9.2 (15.3#) | 6.7 (11.9#) | 5.0 (9.0) | 3.8 (7.0) | | |
| 0 | HD | | | 9.0 (14.1#) | 6.4 (11.3#) | 4.8 (8.7) | 3.7 (6.8) | | |
| - 1.5 | HD | | 12.0# (12.0#) | 9.1 (12.3#) | 6.3 (10.2#) | 4.7 (8.2#) | 3.7 (6.1#) | | |
| - 3.0 | HD | | 9.8# (9.8#) | 9.3 (9.9#) | 6.5 (8.4#) | 4.9 (6.6#) | | | |
| - 4.5 | HD | | | 6.7# (6.7#) | 5.7# (5.7#) | | | | |
| - 6.0 | HD | | | | | | | | |
| - 7.5 | HD | | | | | | | | |
| - 9.0 | HD | | | | | | | | |
| - 10.5 | HD | | | | | | | | |

Stick 2.90 m

| Height (m) | Under- carriage | Radius of load from centerline of machine (m) | | | | | | | |
|---------------|--------------------|---|---------------|---------------|--------------|-------------|-------------|------|------|
| | | 3.0 | 4.5 | 6.0 | 7.5 | 9.0 | 10.5 | 12.0 | 13.5 |
| 12.0 | HD | | | 6.8# (6.8#) | | | | | |
| 10.5 | HD | | | | 7.5# (7.5#) | | | | |
| 9.0 | HD | | | | 9.3# (9.3#) | 6.7 (7.0#) | | | |
| 7.5 | HD | | | 10.8# (10.8#) | 9.5 (9.8#) | 6.6 (8.5#) | 4.2# (4.2#) | | |
| 6.0 | HD | 28.4# (28.4#) | 17.6# (17.6#) | 13.0# (13.0#) | 8.9 (10.4#) | 6.3 (8.8#) | 4.4 (7.6#) | | |
| 4.5 | HD | | 18.2 (18.6#) | 11.8 (14.4#) | 8.1 (11.1#) | 5.8 (9.1#) | 4.2 (7.4) | | |
| 3.0 | HD | | | 10.3 (15.4#) | 7.4 (11.7#) | 5.4 (9.3#) | 4.0 (7.1) | | |
| 1.5 | HD | | | 9.4 (15.5#) | 6.7 (11.8#) | 5.0 (8.9) | 3.7 (6.9) | | |
| 0 | HD | | 6.6# (6.6#) | 9.0 (14.7#) | 6.4 (11.5#) | 4.7 (8.6) | 3.6 (6.7) | | |
| - 1.5 | HD | | 12.0# (12.0#) | 8.9 (13.1#) | 6.2 (10.6#) | 4.6 (8.4#) | 3.5 (6.5#) | | |
| - 3.0 | HD | | 12.2# (12.2#) | 9.1 (11.0#) | 6.3 (9.0#) | 4.7 (7.1#) | 3.7 (4.9#) | | |
| - 4.5 | HD | | 8.5# (8.5#) | 8.1# (8.1#) | 6.5 (6.7#) | 4.9# (4.9#) | | | |
| - 6.0 | HD | | | | | | | | |
| - 7.5 | HD | | | | | | | | |
| - 9.0 | HD | | | | | | | | |
| - 10.5 | HD | | | | | | | | |

Stick 3.80 m

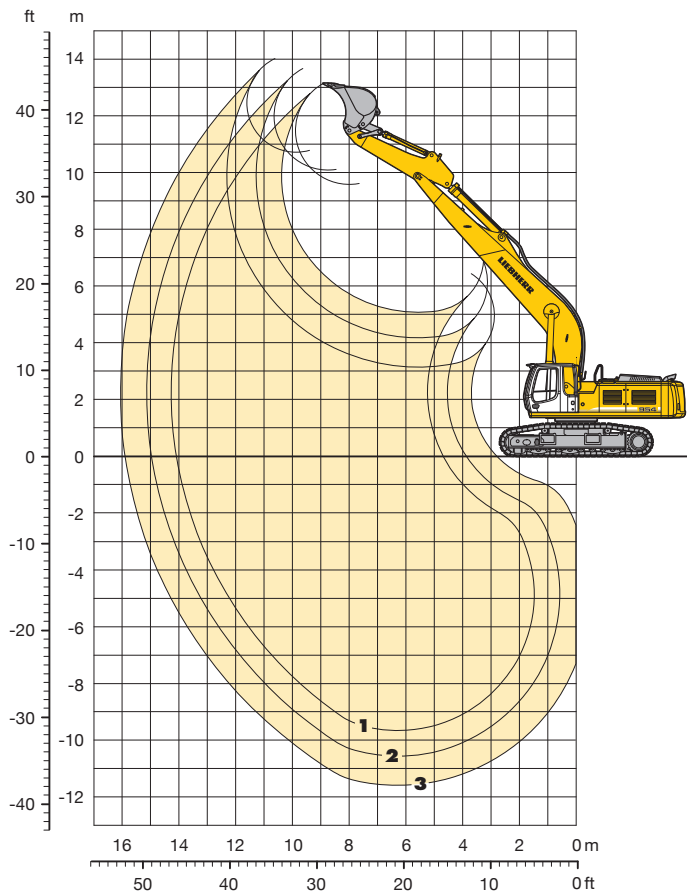
| Height (m) | Under- carriage | Radius of load from centerline of machine (m) | | | | | | | |
|---------------|--------------------|---|---------------|--------------|--------------|-------------|-------------|------------|------|
| | | 3.0 | 4.5 | 6.0 | 7.5 | 9.0 | 10.5 | 12.0 | 13.5 |
| 12.0 | HD | | | | 5.0# (5.0#) | | | | |
| 10.5 | HD | | | | 6.6# (6.6#) | 4.9# (4.9#) | | | |
| 9.0 | HD | | | | 6.9# (6.9#) | 6.4# (6.4#) | 3.7# (3.7#) | | |
| 7.5 | HD | | | | 7.5# (7.5#) | 6.8 (7.3#) | 4.7 (5.9#) | | |
| 6.0 | HD | | | 9.2# (9.2#) | 9.1# (9.1#) | 6.4 (8.1#) | 4.5 (7.0#) | 3.1 (3.4#) | |
| 4.5 | HD | | 18.7# (18.7#) | 12.5 (13.3#) | 8.5 (10.4#) | 6.0 (8.5#) | 4.3 (7.2#) | 3.0 (5.2#) | |
| 3.0 | HD | | 11.7# (11.7#) | 11.0 (14.7#) | 7.6 (11.1#) | 5.5 (8.9#) | 4.0 (7.2) | 2.9 (5.5) | |
| 1.5 | HD | | 6.6# (6.6#) | 9.8 (15.4#) | 6.9 (11.6#) | 5.0 (9.0) | 3.7 (6.9) | 2.7 (5.3) | |
| 0 | HD | | 7.9# (7.9#) | 9.1 (15.2#) | 6.4 (11.6#) | 4.7 (8.6) | 3.5 (6.6) | 2.6 (5.2) | |
| - 1.5 | HD | 5.9# (5.9#) | 11.0# (11.0#) | 8.8 (14.2#) | 6.1 (11.0#) | 4.5 (8.4) | 3.4 (6.5) | 2.6 (4.9#) | |
| - 3.0 | HD | 10.0# (10.0#) | 14.7 (15.2#) | 8.8 (12.5#) | 6.1 (9.9#) | 4.4 (7.8#) | 3.4 (5.9#) | | |
| - 4.5 | HD | | 11.9# (11.9#) | 9.1 (10.0#) | 6.2 (8.0#) | 4.5 (6.2#) | 3.5 (4.1#) | | |
| - 6.0 | HD | | | 6.6# (6.6#) | 5.3# (5.3#) | 3.4# (3.4#) | | | |
| - 7.5 | HD | | | | | | | | |
| - 9.0 | HD | | | | | | | | |
| - 10.5 | HD | | | | | | | | |

The load values are quoted in tons (t) on the backhoe bucket's load hook, and may be swung 360° on firm and even ground. Values quoted in brackets apply to the undercarriage when in longitudinal position. Capacities are valid for 600 mm wide triple grouser pads. Indicated loads are based on ISO 10567 standard and do not exceed 75 % of tipping or 87 % of hydraulic capacity (indicated via #). Maximum load for the backhoe bucket's lifting eye is 27 t. Without bucket (2.00 m³), the lift capacities will increase by 2,250 kg, without bucket cylinder, link and lever they increase by an additional 750 kg. Lifting capacity of the excavator is limited by machine stability, hydraulic capacity and maximum permissible load of the load hook.

According to European Standard, EN 474-5: In the European Union excavators have to be equipped with an overload warning device, a load diagram and automatic check valves on the hoist cylinders, when they are used for lifting operations which require the use of lifting accessories.

Backhoe Attachment

with Gooseneck Boom 9.20 m and Heavy Counterweight



Digging Envelope

| | | 1 | 2 | 3* |
|----------------------------|----|-------|-------|-------|
| Stick lengths | m | 2.90 | 3.80 | 5.00 |
| Max. digging depth | m | 9.65 | 10.55 | 11.60 |
| Max. reach at ground level | m | 14.10 | 14.95 | 15.90 |
| Max. dump height | m | 9.60 | 10.10 | 10.70 |
| Max. teeth height | m | 13.15 | 13.65 | 14.00 |
| Digging force ISO | kN | 217 | 181 | 150 |
| | t | 22.1 | 18.6 | 15.3 |
| Breakout force ISO | kN | 313 | 313 | 236 |
| | t | 31.9 | 31.9 | 24.1 |

* with bucket R 944 C

Operating Weight and Ground Pressure

Operating weight includes basic machine with heavy counterweight, gooseneck boom 9.20 m, stick 3.80 m and bucket 1.65 m³.

| Undercarriage | | HD | | |
|-----------------|--------------------|--------|--------|--------|
| Pad width | mm | 500 | 600 | 750 |
| Weight | kg | 52,300 | 52,800 | 54,100 |
| Ground pressure | kg/cm ² | 1.10 | 0.93 | 0.76 |

Buckets

| | | | | | | | | |
|--|------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| Cutting width | mm | 1,300 ¹⁾ | 1,500 ¹⁾ | 1,700 ¹⁾ | 1,200 ²⁾ | 1,350 ²⁾ | 1,500 ²⁾ | 1,650 ²⁾ |
| Capacity ISO 7451 | m ³ | 1.65 | 2.00 | 2.35 | 1.25 | 1.50 | 1.75 | 2.00 |
| Weight | kg | 2,100 | 2,250 | 2,500 | 1,350 | 1,450 | 1,550 | 1,675 |
| Suitable for material up to a specific weight of | | | | | | | | |
| with stick 2.90 m | t/m ³ | 1.80 | 1.50 | 1.20 | – | – | – | – |
| with stick 3.80 m | t/m ³ | 1.80 | 1.20 | – | – | – | – | – |
| with stick 5.00 m | t/m ³ | – | – | – | 2.20 | 1.80 | 1.80 | 1.50 |

¹⁾ Medium-duty bucket with Liebherr teeth size 25 (appropriate for materials up to classification 5, according to VOB, Section C, DIN 18300)

²⁾ Medium-duty bucket from R 944 C **Litronic** with teeth size 20

Lift Capacities

with Gooseneck Boom 9.20 m and Heavy Counterweight

Stick 2.90 m

| Height (m) | Under- carriage | Radius of load from centerline of machine (m) | | | | | | | |
|---------------|--------------------|---|---------------|---------------|--------------|-------------|-------------|------------|------|
| | | 3.0 | 4.5 | 6.0 | 7.5 | 9.0 | 10.5 | 12.0 | 13.5 |
| 12.0 | HD | | | | | | | | |
| 10.5 | HD | | | | | | | | |
| 9.0 | HD | | | | | | 4.9# (4.9#) | | |
| 7.5 | HD | | | | | 5.4# (5.4#) | 5.0# (5.0#) | | |
| 6.0 | HD | | | 9.2# (9.2#) | 7.1# (7.1#) | 6.0# (6.0#) | 5.2 (5.3#) | 3.8 (4.9#) | |
| 4.5 | HD | | | 11.5# (11.5#) | 8.3# (8.3#) | 6.5 (6.6#) | 4.9 (5.7#) | 3.7 (5.1#) | |
| 3.0 | HD | | | 7.6# (7.6#) | 7.8 (9.4#) | 5.9 (7.3#) | 4.5 (6.1#) | 3.5 (5.3#) | |
| 1.5 | HD | | | 6.5# (6.5#) | 7.2 (10.2#) | 5.5 (7.9#) | 4.2 (6.5#) | 3.3 (5.6#) | |
| 0 | HD | | | 9.6 (9.9#) | 6.8 (10.6#) | 5.2 (8.3#) | 4.0 (6.8#) | 3.1 (5.8#) | |
| - 1.5 | HD | | | 9.7 (13.9#) | 6.7 (10.7#) | 5.0 (8.5#) | 3.9 (6.9#) | 3.1 (5.8#) | |
| - 3.0 | HD | 9.5# (9.5#) | 12.5# (12.5#) | 9.8 (13.3#) | 6.8 (10.5#) | 5.0 (8.4#) | 3.9 (6.8#) | | |
| - 4.5 | HD | 14.6# (14.6#) | 15.5# (15.5#) | 10.1 (12.4#) | 6.9 (9.9#) | 5.1 (8.0#) | 4.0 (6.4#) | | |
| - 6.0 | HD | 17.3# (17.3#) | 13.7# (13.7#) | 10.6 (11.0#) | 7.3 (8.9#) | 5.4 (7.0#) | | | |
| - 7.5 | HD | | 10.9# (10.9#) | 8.8# (8.8#) | 6.9# (6.9#) | | | | |
| - 9.0 | HD | | | | | | | | |
| - 10.5 | HD | | | | | | | | |

Stick 3.80 m

| Height (m) | Under- carriage | Radius of load from centerline of machine (m) | | | | | | | |
|---------------|--------------------|---|---------------|---------------|--------------|-------------|-------------|------------|------------|
| | | 3.0 | 4.5 | 6.0 | 7.5 | 9.0 | 10.5 | 12.0 | 13.5 |
| 12.0 | HD | | | | | | | | |
| 10.5 | HD | | | | | | 4.1# (4.1#) | | |
| 9.0 | HD | | | | | | 4.1# (4.1#) | | |
| 7.5 | HD | | | | | | 4.3# (4.3#) | 4.1 (4.1#) | |
| 6.0 | HD | | | | | 5.2# (5.2#) | 4.6# (4.6#) | 3.9 (4.3#) | |
| 4.5 | HD | | | 9.8# (9.8#) | 7.3# (7.3#) | 5.9# (5.9#) | 5.0 (5.1#) | 3.7 (4.5#) | 2.7 (3.2#) |
| 3.0 | HD | | | 11.2 (12.0#) | 8.2 (8.5#) | 6.1 (6.7#) | 4.6 (5.6#) | 3.5 (4.9#) | 2.6 (4.3#) |
| 1.5 | HD | | | 10.1 (11.2#) | 7.4 (9.5#) | 5.6 (7.4#) | 4.2 (6.0#) | 3.2 (5.2#) | 2.4 (4.6#) |
| 0 | HD | | | 9.6 (11.4#) | 6.9 (10.2#) | 5.2 (7.9#) | 4.0 (6.4#) | 3.0 (5.4#) | 2.3 (4.0#) |
| - 1.5 | HD | | 6.9# (6.9#) | 9.5 (13.8#) | 6.6 (10.5#) | 4.9 (8.2#) | 3.8 (6.7#) | 2.9 (5.6#) | |
| - 3.0 | HD | 7.7# (7.7#) | 10.7# (10.7#) | 9.5 (13.8#) | 6.6 (10.5#) | 4.8 (8.3#) | 3.7 (6.7#) | 2.9 (5.5#) | |
| - 4.5 | HD | 11.4# (11.4#) | 14.9# (14.9#) | 9.7 (13.1#) | 6.7 (10.2#) | 4.9 (8.1#) | 3.7 (6.5#) | | |
| - 6.0 | HD | 15.5# (15.5#) | 15.6# (15.6#) | 10.1 (12.0#) | 6.9 (9.4#) | 5.1 (7.5#) | 3.9 (5.9#) | | |
| - 7.5 | HD | 17.8# (17.8#) | 13.2# (13.2#) | 10.3# (10.3#) | 7.3 (8.1#) | 5.4 (6.2#) | | | |
| - 9.0 | HD | | 9.5# (9.5#) | 7.4# (7.4#) | 5.4# (5.4#) | | | | |
| - 10.5 | HD | | | | | | | | |

Stick 5.00 m

| Height (m) | Under- carriage | Radius of load from centerline of machine (m) | | | | | | | |
|---------------|--------------------|---|---------------|---------------|--------------|-------------|-------------|-------------|-------------|
| | | 3.0 | 4.5 | 6.0 | 7.5 | 9.0 | 10.5 | 12.0 | 13.5 |
| 12.0 | HD | | | | | | | | |
| 10.5 | HD | | | | | | | 2.8# (2.8#) | |
| 9.0 | HD | | | | | | | 4.0# (4.0#) | |
| 7.5 | HD | | | | | | | 4.1# (4.1#) | 3.0# (3.0#) |
| 6.0 | HD | | | | | | 4.7# (4.7#) | 4.4# (4.4#) | 3.6 (4.2#) |
| 4.5 | HD | | | | | 5.9# (5.9#) | 5.2# (5.2#) | 4.5 (4.7#) | 3.4 (4.4#) |
| 3.0 | HD | | 7.1# (7.1#) | 11.2# (11.2#) | 8.4# (8.4#) | 6.8# (6.8#) | 5.4 (5.8#) | 4.2 (5.1#) | 3.3 (4.7#) |
| 1.5 | HD | | 4.5# (4.5#) | 11.7 (13.1#) | 8.6 (9.6#) | 6.5 (7.6#) | 5.0 (6.3#) | 3.9 (5.5#) | 3.1 (4.9#) |
| 0 | HD | | 5.5# (5.5#) | 10.8 (14.0#) | 7.9 (10.5#) | 6.0 (8.3#) | 4.7 (6.8#) | 3.7 (5.8#) | 2.9 (5.1#) |
| - 1.5 | HD | 4.4# (4.4#) | 7.5# (7.5#) | 10.4 (14.4#) | 7.5 (11.1#) | 5.7 (8.8#) | 4.5 (7.2#) | 3.5 (6.1#) | 2.8 (5.2) |
| - 3.0 | HD | 7.1# (7.1#) | 10.1# (10.1#) | 10.3 (15.0#) | 7.3 (11.4#) | 5.5 (9.0#) | 4.3 (7.4#) | 3.4 (6.2) | 2.8 (5.1#) |
| - 4.5 | HD | 9.9# (9.9#) | 13.1# (13.1#) | 10.3 (14.6#) | 7.3 (11.3#) | 5.5 (9.0#) | 4.3 (7.4#) | 3.4 (6.1#) | |
| - 6.0 | HD | 12.9# (12.9#) | 16.8# (16.8#) | 10.6 (13.8#) | 7.4 (10.8#) | 5.5 (8.7#) | 4.3 (7.1#) | 3.6 (5.7#) | |
| - 7.5 | HD | 16.6# (16.6#) | 16.5# (16.5#) | 10.9 (12.5#) | 7.6 (9.9#) | 5.7 (7.9#) | 4.6 (6.2#) | | |
| - 9.0 | HD | 18.9# (18.9#) | 13.5# (13.5#) | 10.4# (10.4#) | 8.1 (8.2#) | 6.2 (6.2#) | | | |
| - 10.5 | HD | | | 6.8# (6.8#) | | | | | |

The load values are quoted in tons (t) on the backhoe bucket's load hook, and may be swung 360° on firm and even ground. Values quoted in brackets apply to the undercarriage when in longitudinal position. Capacities are valid for 600 mm wide triple grouser pads. Indicated loads are based on ISO 10567 standard and do not exceed 75 % of tipping or 87 % of hydraulic capacity (indicated via #). Maximum load for the backhoe bucket's lifting eye is 27 t/20 t*. Without bucket (1.65 m³/1.50 m³*), the lift capacities will increase by 2,100 kg/1,450 kg*, without bucket cylinder, link and lever they increase by an additional 750 kg/600 kg*. Lifting capacity of the excavator is limited by machine stability, hydraulic capacity and maximum permissible load of the load hook.

According to European Standard, EN 474-5: In the European Union excavators have to be equipped with an overload warning device, a load diagram and automatic check valves on the hoist cylinders, when they are used for lifting operations which require the use of lifting accessories.

* Just for stick 5.00 m

Lift Capacities

with Gooseneck Boom 6.70 m and Heavy Counterweight

Stick 2.35 m

| Height (m) | Under-carriage | Radius of load from centerline of machine (m) | | | | | | | |
|------------|----------------|---|---------------|---------------|--------------|-------------|------|------|------|
| | | 3.0 | 4.5 | 6.0 | 7.5 | 9.0 | 10.5 | 12.0 | 13.5 |
| 12.0 | HD | | | | | | | | |
| 10.5 | HD | | | | | | | | |
| 9.0 | HD | | | | | | | | |
| 7.5 | HD | | | | 8.1# (8.1#) | | | | |
| 6.0 | HD | | | | 8.6# (8.6#) | | | | |
| 4.5 | HD | | 15.6# (15.6#) | 11.5# (11.5#) | 9.6# (9.6#) | 7.4 (8.6#) | | | |
| 3.0 | HD | | 20.4# (20.4#) | 13.7 (13.7#) | 9.6 (10.8#) | 7.1 (9.2#) | | | |
| 1.5 | HD | | 19.4# (19.4#) | 12.7 (15.5#) | 9.1 (11.8#) | 6.8 (9.7#) | | | |
| 0 | HD | | 19.0 (22.0#) | 12.2 (16.5#) | 8.7 (12.5#) | 6.5 (10.1#) | | | |
| - 1.5 | HD | 17.2# (17.2#) | 19.1 (22.7#) | 12.0 (16.5#) | 8.5 (12.6#) | | | | |
| - 3.0 | HD | 24.6# (24.6#) | 19.4 (20.9#) | 12.1 (15.6#) | 8.6 (11.9#) | | | | |
| - 4.5 | HD | 24.2# (24.2#) | 17.7# (17.7#) | 12.6 (13.2#) | | | | | |
| - 6.0 | HD | | 11.5# (11.5#) | | | | | | |
| - 7.5 | HD | | | | | | | | |
| - 9.0 | HD | | | | | | | | |
| - 10.5 | HD | | | | | | | | |

Stick 2.90 m

| Height (m) | Under-carriage | Radius of load from centerline of machine (m) | | | | | | | |
|------------|----------------|---|---------------|---------------|--------------|-------------|------|------|------|
| | | 3.0 | 4.5 | 6.0 | 7.5 | 9.0 | 10.5 | 12.0 | 13.5 |
| 12.0 | HD | | | | | | | | |
| 10.5 | HD | | | | | | | | |
| 9.0 | HD | | | | | | | | |
| 7.5 | HD | | | | | | | | |
| 6.0 | HD | | | | 7.8# (7.8#) | 6.4# (6.4#) | | | |
| 4.5 | HD | | | 10.4# (10.4#) | 8.8# (8.8#) | 7.4 (7.9#) | | | |
| 3.0 | HD | | 18.5# (18.5#) | 12.8# (12.8#) | 9.7 (10.1#) | 7.1 (8.6#) | | | |
| 1.5 | HD | | 19.9 (22.1#) | 12.9 (14.8#) | 9.1 (11.3#) | 6.7 (9.3#) | | | |
| 0 | HD | 9.4# (9.4#) | 19.1 (22.0#) | 12.2 (16.1#) | 8.7 (12.2#) | 6.5 (9.8#) | | | |
| - 1.5 | HD | 15.0# (15.0#) | 18.9 (23.2#) | 11.9 (16.5#) | 8.4 (12.5#) | 6.3 (9.9#) | | | |
| - 3.0 | HD | 21.1# (21.1#) | 19.1 (21.8#) | 11.9 (15.9#) | 8.4 (12.1#) | | | | |
| - 4.5 | HD | 27.5# (27.5#) | 19.2# (19.2#) | 12.2 (14.2#) | 8.7 (10.5#) | | | | |
| - 6.0 | HD | 19.9# (19.9#) | 14.3# (14.3#) | | | | | | |
| - 7.5 | HD | | | | | | | | |
| - 9.0 | HD | | | | | | | | |
| - 10.5 | HD | | | | | | | | |

Stick 3.80 m

| Height (m) | Under-carriage | Radius of load from centerline of machine (m) | | | | | | | |
|------------|----------------|---|---------------|---------------|--------------|-------------|-------------|------|------|
| | | 3.0 | 4.5 | 6.0 | 7.5 | 9.0 | 10.5 | 12.0 | 13.5 |
| 12.0 | HD | | | | | | | | |
| 10.5 | HD | | | | | | | | |
| 9.0 | HD | | | | | | | | |
| 7.5 | HD | | | | | 4.8# (4.8#) | | | |
| 6.0 | HD | | | | | 6.2# (6.2#) | 2.1# (2.1#) | | |
| 4.5 | HD | | | | 7.5# (7.5#) | 6.9# (6.9#) | 4.2# (4.2#) | | |
| 3.0 | HD | 18.6# (18.6#) | 15.3# (15.3#) | 11.0# (11.0#) | 8.9# (8.9#) | 7.2 (7.7#) | 5.3 (5.6#) | | |
| 1.5 | HD | 7.5# (7.5#) | 19.9# (19.9#) | 13.3 (13.4#) | 9.3 (10.3#) | 6.8 (8.5#) | 5.0 (6.4#) | | |
| 0 | HD | 9.3# (9.3#) | 19.5 (22.5#) | 12.4 (15.2#) | 8.7 (11.5#) | 6.4 (9.2#) | 4.8 (6.2#) | | |
| - 1.5 | HD | 12.9# (12.9#) | 18.9 (23.3#) | 11.9 (16.2#) | 8.4 (12.2#) | 6.2 (9.7#) | 3.6# (3.6#) | | |
| - 3.0 | HD | 17.2# (17.2#) | 18.9 (22.8#) | 11.7 (16.2#) | 8.2 (12.2#) | 6.1 (9.6#) | | | |
| - 4.5 | HD | 22.7# (22.7#) | 19.1 (21.1#) | 11.8 (15.2#) | 8.3 (11.5#) | | | | |
| - 6.0 | HD | 25.9# (25.9#) | 17.6# (17.6#) | 12.2 (12.8#) | | | | | |
| - 7.5 | HD | | 10.8# (10.8#) | | | | | | |
| - 9.0 | HD | | | | | | | | |
| - 10.5 | HD | | | | | | | | |

The load values are quoted in tons (t) on the backhoe bucket's load hook, and may be swung 360° on firm and even ground. Values quoted in brackets apply to the undercarriage when in longitudinal position. Capacities are valid for 600 mm wide triple grouser pads. Indicated loads are based on ISO 10567 standard and do not exceed 75 % of tipping or 87 % of hydraulic capacity (indicated via #). Maximum load for the backhoe bucket's lifting eye is 27 t. Without bucket (2.35 m³), the lift capacities will increase by 2,500 kg, without bucket cylinder, link and lever they increase by an additional 750 kg. Lifting capacity of the excavator is limited by machine stability, hydraulic capacity and maximum permissible load of the load hook.

According to European Standard, EN 474-5: In the European Union excavators have to be equipped with an overload warning device, a load diagram and automatic check valves on the hoist cylinders, when they are used for lifting operations which require the use of lifting accessories.

Lift Capacities

with Gooseneck Boom 7.60 m and Heavy Counterweight

Stick 2.35 m

| Height (m) | Under- carriage | Radius of load from centerline of machine (m) | | | | | | | |
|---------------|--------------------|---|---------------|---------------|--------------|-------------|------------|------|------|
| | | 3.0 | 4.5 | 6.0 | 7.5 | 9.0 | 10.5 | 12.0 | 13.5 |
| 12.0 | HD | | | | | | | | |
| 10.5 | HD | | | | | | | | |
| 9.0 | HD | | | | | | | | |
| 7.5 | HD | | | | 7.9# (7.9#) | 6.6# (6.6#) | | | |
| 6.0 | HD | | | | 8.6# (8.6#) | 7.5 (7.7#) | | | |
| 4.5 | HD | | 18.4# (18.4#) | 12.3# (12.3#) | 9.7# (9.7#) | 7.2 (8.2#) | | | |
| 3.0 | HD | | | 12.6 (14.3#) | 9.1 (10.8#) | 6.8 (8.8#) | 5.1 (7.3#) | | |
| 1.5 | HD | | | 11.7 (15.5#) | 8.5 (11.6#) | 6.4 (9.4#) | 4.9 (7.9#) | | |
| 0 | HD | | 10.9# (10.9#) | 11.3 (15.9#) | 8.2 (12.1#) | 6.2 (8.7#) | | | |
| - 1.5 | HD | 11.5# (11.5#) | 18.2 (18.2#) | 11.3 (15.6#) | 8.0 (12.1#) | 6.1 (9.6#) | | | |
| - 3.0 | HD | 18.7# (18.7#) | 18.5 (18.7#) | 11.4 (14.6#) | 8.1 (11.4#) | 6.2 (8.9#) | | | |
| - 4.5 | HD | 20.4# (20.4#) | 16.2# (16.2#) | 11.8 (12.7#) | 8.4 (9.9#) | | | | |
| - 6.0 | HD | | 12.0# (12.0#) | 9.3# (9.3#) | | | | | |
| - 7.5 | HD | | | | | | | | |
| - 9.0 | HD | | | | | | | | |
| - 10.5 | HD | | | | | | | | |

Stick 2.90 m

| Height (m) | Under- carriage | Radius of load from centerline of machine (m) | | | | | | | |
|---------------|--------------------|---|---------------|---------------|--------------|-------------|-------------|------|------|
| | | 3.0 | 4.5 | 6.0 | 7.5 | 9.0 | 10.5 | 12.0 | 13.5 |
| 12.0 | HD | | | | | | | | |
| 10.5 | HD | | | | | | | | |
| 9.0 | HD | | | | | | | | |
| 7.5 | HD | | | | | 6.7# (6.7#) | | | |
| 6.0 | HD | | | | 7.9# (7.9#) | 7.1# (7.1#) | 4.3# (4.3#) | | |
| 4.5 | HD | | 16.1# (16.1#) | 11.3# (11.3#) | 9.0# (9.0#) | 7.2 (7.7#) | 5.3 (6.9#) | | |
| 3.0 | HD | | 11.2# (11.2#) | 12.9 (13.4#) | 9.2 (10.2#) | 6.8 (8.4#) | 5.1 (7.3#) | | |
| 1.5 | HD | | 8.4# (8.4#) | 11.9 (15.0#) | 8.6 (11.2#) | 6.4 (9.0#) | 4.9 (7.6#) | | |
| 0 | HD | | 11.8# (11.8#) | 11.4 (15.7#) | 8.1 (11.8#) | 6.1 (9.4#) | 4.7 (7.8#) | | |
| - 1.5 | HD | 10.3# (10.3#) | 16.8# (16.8#) | 11.2 (15.7#) | 7.9 (12.0#) | 6.0 (9.5#) | 4.7 (7.1#) | | |
| - 3.0 | HD | 15.9# (15.9#) | 18.2 (19.9#) | 11.2 (15.0#) | 7.9 (11.6#) | 6.0 (9.1#) | | | |
| - 4.5 | HD | 21.9# (21.9#) | 17.6# (17.6#) | 11.5 (13.5#) | 8.1 (10.4#) | | | | |
| - 6.0 | HD | 18.2# (18.2#) | 13.9# (13.9#) | 10.7# (10.7#) | | | | | |
| - 7.5 | HD | | | | | | | | |
| - 9.0 | HD | | | | | | | | |
| - 10.5 | HD | | | | | | | | |

Stick 3.80 m

| Height (m) | Under- carriage | Radius of load from centerline of machine (m) | | | | | | | |
|---------------|--------------------|---|---------------|---------------|--------------|-------------|-------------|-------------|------|
| | | 3.0 | 4.5 | 6.0 | 7.5 | 9.0 | 10.5 | 12.0 | 13.5 |
| 12.0 | HD | | | | | | | | |
| 10.5 | HD | | | | | | | | |
| 9.0 | HD | | | | | | | | |
| 7.5 | HD | | | | | 5.7# (5.7#) | 4.0# (4.0#) | | |
| 6.0 | HD | | | | | 6.2# (6.2#) | 5.6 (5.8#) | | |
| 4.5 | HD | | | | 7.9# (7.9#) | 6.8# (6.8#) | 5.4 (6.2#) | | |
| 3.0 | HD | | 17.7# (17.7#) | 11.9# (11.9#) | 9.2# (9.2#) | 6.9 (7.6#) | 5.1 (6.6#) | 3.3# (3.3#) | |
| 1.5 | HD | | 13.0# (13.0#) | 12.3 (13.9#) | 8.7 (10.4#) | 6.5 (8.4#) | 4.9 (7.1#) | 3.6# (3.6#) | |
| 0 | HD | 4.9# (4.9#) | 12.6# (12.6#) | 11.5 (15.2#) | 8.2 (11.3#) | 6.1 (9.0#) | 4.6 (7.4#) | | |
| - 1.5 | HD | 8.8# (8.8#) | 15.3# (15.3#) | 11.1 (15.6#) | 7.9 (11.8#) | 5.8 (9.3#) | 4.5 (7.6#) | | |
| - 3.0 | HD | 12.8# (12.8#) | 17.9 (19.5#) | 11.0 (15.4#) | 7.7 (11.7#) | 5.8 (9.2#) | 4.5 (7.3#) | | |
| - 4.5 | HD | 17.4# (17.4#) | 18.2 (19.4#) | 11.2 (14.4#) | 7.8 (11.1#) | 5.8 (8.6#) | | | |
| - 6.0 | HD | 23.1# (23.1#) | 16.6# (16.6#) | 11.5 (12.5#) | 8.1 (9.5#) | | | | |
| - 7.5 | HD | | 11.9# (11.9#) | 8.8# (8.8#) | | | | | |
| - 9.0 | HD | | | | | | | | |
| - 10.5 | HD | | | | | | | | |

The load values are quoted in tons (t) on the backhoe bucket's load hook, and may be swung 360° on firm and even ground. Values quoted in brackets apply to the undercarriage when in longitudinal position. Capacities are valid for 600 mm wide triple grouser pads. Indicated loads are based on ISO 10567 standard and do not exceed 75 % of tipping or 87 % of hydraulic capacity (indicated via #). Maximum load for the backhoe bucket's lifting eye is 27 t. Without bucket (2.00 m³), the lift capacities will increase by 2,250 kg, without bucket cylinder, link and lever they increase by an additional 750 kg. Lifting capacity of the excavator is limited by machine stability, hydraulic capacity and maximum permissible load of the load hook.

According to European Standard, EN 474-5: In the European Union excavators have to be equipped with an overload warning device, a load diagram and automatic check valves on the hoist cylinders, when they are used for lifting operations which require the use of lifting accessories.

Lift Capacities

with Gooseneck Boom 8.00 m and Heavy Counterweight

Stick 2.35 m

| Height (m) | Under- carriage | Radius of load from centerline of machine (m) | | | | | | | |
|---------------|--------------------|---|---------------|---------------|---------------|------------|------------|------|------|
| | | 3.0 | 4.5 | 6.0 | 7.5 | 9.0 | 10.5 | 12.0 | 13.5 |
| 12.0 | HD | | | | | | | | |
| 10.5 | HD | | | 10.5# (10.5#) | | | | | |
| 9.0 | HD | | | 11.9# (11.9#) | 10.1# (10.1#) | | | | |
| 7.5 | HD | | | 12.6# (12.6#) | 10.4# (10.4#) | 7.4 (8.9#) | | | |
| 6.0 | HD | | 19.0# (19.0#) | 13.7# (13.7#) | 10.0 (10.9#) | 7.2 (8.1#) | 5.2 (6.0#) | | |
| 4.5 | HD | | | 13.0 (15.0#) | 9.2 (11.5#) | 6.7 (9.4#) | 5.0 (7.9#) | | |
| 3.0 | HD | | | 11.6 (15.7#) | 8.5 (11.9#) | 6.3 (9.6#) | 4.8 (7.9#) | | |
| 1.5 | HD | | | 10.9 (15.3#) | 7.9 (11.9#) | 6.0 (9.5#) | 4.6 (7.7#) | | |
| 0 | HD | | | 10.6 (14.1#) | 7.6 (11.3#) | 5.8 (9.1#) | 4.5 (7.2#) | | |
| - 1.5 | HD | | 12.0# (12.0#) | 10.7 (12.3#) | 7.5 (10.2#) | 5.7 (8.2#) | 4.5 (6.1#) | | |
| - 3.0 | HD | | 9.8# (9.8#) | 9.9# (9.9#) | 7.7 (8.4#) | 5.8 (6.6#) | | | |
| - 4.5 | HD | | | 6.7# (6.7#) | 5.7# (5.7#) | | | | |
| - 6.0 | HD | | | | | | | | |
| - 7.5 | HD | | | | | | | | |
| - 9.0 | HD | | | | | | | | |
| - 10.5 | HD | | | | | | | | |

Stick 2.90 m

| Height (m) | Under- carriage | Radius of load from centerline of machine (m) | | | | | | | |
|---------------|--------------------|---|---------------|---------------|--------------|-------------|-------------|------|------|
| | | 3.0 | 4.5 | 6.0 | 7.5 | 9.0 | 10.5 | 12.0 | 13.5 |
| 12.0 | HD | | | 6.8# (6.8#) | | | | | |
| 10.5 | HD | | | | 7.5# (7.5#) | | | | |
| 9.0 | HD | | | | 9.3# (9.3#) | 7.0# (7.0#) | | | |
| 7.5 | HD | | | 10.8# (10.8#) | 9.8# (9.8#) | 7.5 (8.5#) | 4.2# (4.2#) | | |
| 6.0 | HD | 28.4# (28.4#) | 17.6# (17.6#) | 13.0# (13.0#) | 10.1 (10.4#) | 7.2 (8.8#) | 5.2 (7.6#) | | |
| 4.5 | HD | | 18.6# (18.6#) | 13.4 (14.4#) | 9.3 (11.1#) | 6.8 (9.1#) | 5.0 (7.7#) | | |
| 3.0 | HD | | | 12.0 (15.4#) | 8.6 (11.7#) | 6.3 (9.3#) | 4.8 (7.7#) | | |
| 1.5 | HD | | | 11.0 (15.5#) | 8.0 (11.8#) | 6.0 (9.4#) | 4.6 (7.6#) | | |
| 0 | HD | | 6.6# (6.6#) | 10.6 (14.7#) | 7.6 (11.5#) | 5.7 (9.1#) | 4.4 (7.3#) | | |
| - 1.5 | HD | | 12.0# (12.0#) | 10.6 (13.1#) | 7.4 (10.6#) | 5.6 (8.4#) | 4.3 (6.5#) | | |
| - 3.0 | HD | | 12.2# (12.2#) | 10.7 (11.0#) | 7.5 (9.0#) | 5.6 (7.1#) | 4.5 (4.9#) | | |
| - 4.5 | HD | | 8.5# (8.5#) | 8.1# (8.1#) | 6.7# (6.7#) | 4.9# (4.9#) | | | |
| - 6.0 | HD | | | | | | | | |
| - 7.5 | HD | | | | | | | | |
| - 9.0 | HD | | | | | | | | |
| - 10.5 | HD | | | | | | | | |

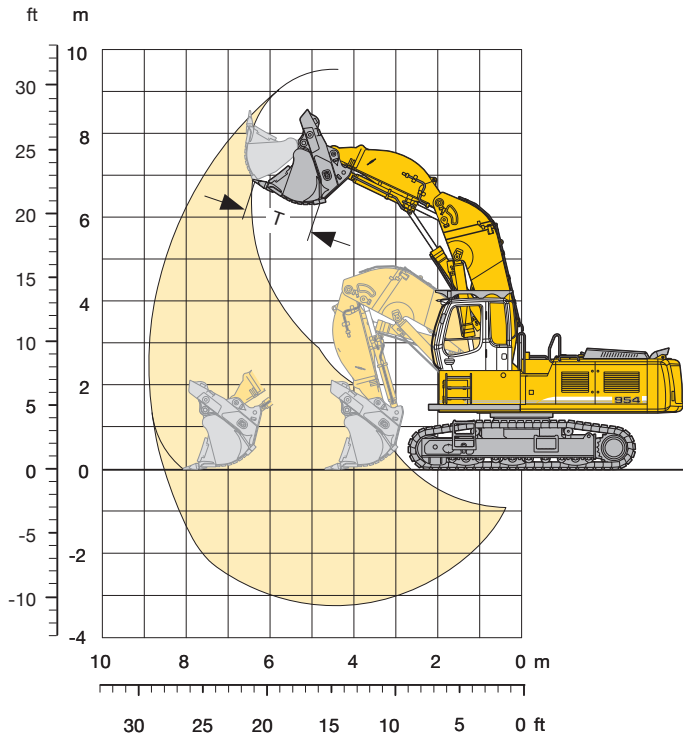
Stick 3.80 m

| Height (m) | Under- carriage | Radius of load from centerline of machine (m) | | | | | | | |
|---------------|--------------------|---|---------------|---------------|--------------|-------------|-------------|-------------|------|
| | | 3.0 | 4.5 | 6.0 | 7.5 | 9.0 | 10.5 | 12.0 | 13.5 |
| 12.0 | HD | | | | 5.0# (5.0#) | | | | |
| 10.5 | HD | | | | 6.6# (6.6#) | 4.9# (4.9#) | | | |
| 9.0 | HD | | | | 6.9# (6.9#) | 6.4# (6.4#) | 3.7# (3.7#) | | |
| 7.5 | HD | | | | 7.5# (7.5#) | 7.3# (7.3#) | 5.5 (5.9#) | | |
| 6.0 | HD | | | 9.2# (9.2#) | 9.1# (9.1#) | 7.4 (8.1#) | 5.4 (7.0#) | 3.4# (3.4#) | |
| 4.5 | HD | | 18.7# (18.7#) | 13.3# (13.3#) | 9.7 (10.4#) | 6.9 (8.5#) | 5.1 (7.2#) | 3.7 (5.2#) | |
| 3.0 | HD | | 11.7# (11.7#) | 12.6 (14.7#) | 8.8 (11.1#) | 6.5 (8.9#) | 4.8 (7.4#) | 3.6 (6.2#) | |
| 1.5 | HD | | 6.6# (6.6#) | 11.4 (15.4#) | 8.1 (11.6#) | 6.0 (9.2#) | 4.5 (7.5#) | 3.4 (6.1#) | |
| 0 | HD | | 7.9# (7.9#) | 10.7 (15.2#) | 7.6 (11.6#) | 5.7 (9.1#) | 4.3 (7.3#) | 3.3 (5.8#) | |
| - 1.5 | HD | 5.9# (5.9#) | 11.0# (11.0#) | 10.5 (14.2#) | 7.3 (11.0#) | 5.4 (8.7#) | 4.2 (6.9#) | 3.3 (4.9#) | |
| - 3.0 | HD | 10.0# (10.0#) | 15.2# (15.2#) | 10.5 (12.5#) | 7.3 (9.9#) | 5.4 (7.8#) | 4.2 (5.9#) | | |
| - 4.5 | HD | | 11.9# (11.9#) | 10.0# (10.0#) | 7.4 (8.0#) | 5.5 (6.2#) | 4.1# (4.1#) | | |
| - 6.0 | HD | | | 6.6# (6.6#) | 5.3# (5.3#) | 3.4# (3.4#) | | | |
| - 7.5 | HD | | | | | | | | |
| - 9.0 | HD | | | | | | | | |
| - 10.5 | HD | | | | | | | | |

The load values are quoted in tons (t) on the backhoe bucket's load hook, and may be swung 360° on firm and even ground. Values quoted in brackets apply to the undercarriage when in longitudinal position. Capacities are valid for 600 mm wide triple grouser pads. Indicated loads are based on ISO 10567 standard and do not exceed 75 % of tipping or 87 % of hydraulic capacity (indicated via #). Maximum load for the backhoe bucket's lifting eye is 27 t. Without bucket (2.00 m³), the lift capacities will increase by 2,250 kg, without bucket cylinder, link and lever they increase by an additional 750 kg. Lifting capacity of the excavator is limited by machine stability, hydraulic capacity and maximum permissible load of the load hook.

According to European Standard, EN 474-5: In the European Union excavators have to be equipped with an overload warning device, a load diagram and automatic check valves on the hoist cylinders, when they are used for lifting operations which require the use of lifting accessories.

Shovel Attachment



Digging Envelope

| | |
|----------------------------------|---------------|
| Max. reach at ground level | 8.50 m |
| Max. dump height | 6.30 m |
| Max. crowd length | 3.38 m |
| Bucket opening width T | 1,640 mm |
| Max. crowd force | 435 kN/44.3 t |
| Max. crowd force at ground level | 275 kN/28.0 t |
| Max. breakout force | 355 kN/36.2 t |

Operating Weight and Ground Pressure

Operating weight includes basic machine with cab elevation, shovel attachment and bottom dump bucket 3.10 m³, level II.

| Undercarriage | | HD | |
|-----------------|--------------------|--------|--------|
| Pad width | mm | 500 | 600 |
| Weight | kg | 54,000 | 54,500 |
| Ground pressure | kg/cm ² | 1.14 | 0.96 |

Bottom Dump Bucket

| | | | | | | |
|---|----------------|-------|-------|-------|-------|-------|
| Cutting width SAE | mm | 1,850 | 1,850 | 2,150 | 2,150 | 2,150 |
| Capacity SAE | m ³ | 2.50 | 2.50 | 3.10 | 3.10 | 3.10 |
| Weight | kg | 4,800 | 5,150 | 5,000 | 5,600 | 5,900 |
| Suitable for material up to a specific weight of t/m ³ | | 2.20 | 2.20 | 1.80 | 1.80 | 1.80 |
| Wear kit level | | II | III | I | II | III |

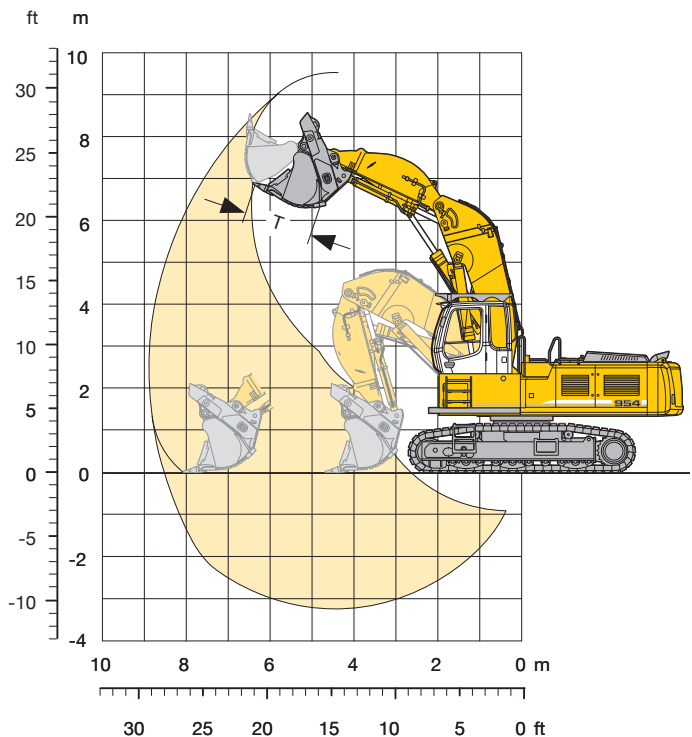
Level I: For non-abrasive materials, such as limestone without flint inclusion, shot material or easily breakable rock, i.e., deteriorated rock, soft limestone, shale, etc.

Level II: For pre-blasted heavy rock, or deteriorated, cracked material (classification 3 to 4, accord. to DIN 18300).

Level III: For highly-abrasive materials such as rock with a high silica content, sandstone etc.

Shovel Attachment

Super Mass Excavation



Digging Envelope

| | |
|----------------------------------|---------------|
| Max. reach at ground level | 8.50 m |
| Max. dump height | 6.30 m |
| Max. crowd length | 3.38 m |
| Max. crowd length | 1,640 mm |
| Max. crowd force | 435 kN/44.3 t |
| Max. crowd force at ground level | 275 kN/28.0 t |
| Max. breakout force | 355 kN/36.2 t |

Operating Weight and Ground Pressure

Operating weight includes basic machine with heavy counterweight, cab elevation, shovel attachment and bottom dump bucket 3.50 m³, level II.

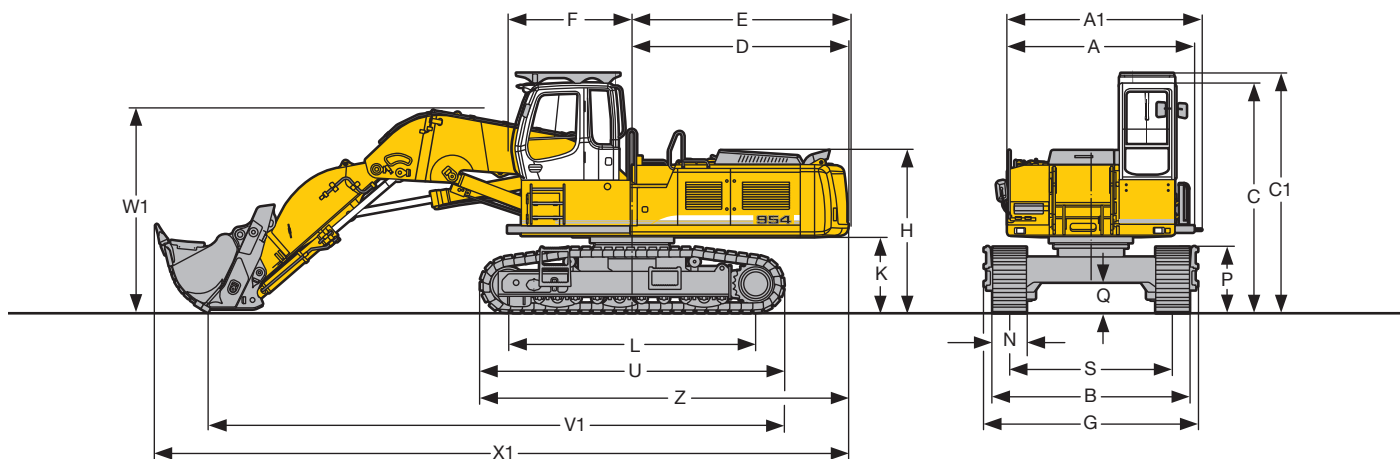
| Undercarriage | S-HD | |
|-----------------|--------------------|---------------|
| Pad width | mm | 500 600 |
| Weight | kg | 61,400 62,100 |
| Ground pressure | kg/cm ² | 1.32 1.11 |

Bottom Dump Bucket

| | | | |
|---|----------------|-------|-------|
| Cutting width SAE | mm | 2,450 | 2,450 |
| Capacity SAE | m ³ | 3.50 | 3.50 |
| Weight | kg | 6,300 | 6,650 |
| Suitable for material up to a specific weight of t/m ³ | | 1.80 | 1.80 |
| Wear kit level | | II | III |

- Level I: For non-abrasive materials, such as limestone without flint inclusion, shot material or easily breakable rock, i.e., deteriorated rock, soft limestone, shale, etc.
- Level II: For pre-blasted heavy rock, or deteriorated, cracked material (classification 3 to 4, accord. to DIN 18300).
- Level III: For highly-abrasive materials such as rock with a high silica content, sandstone etc.

Dimensions

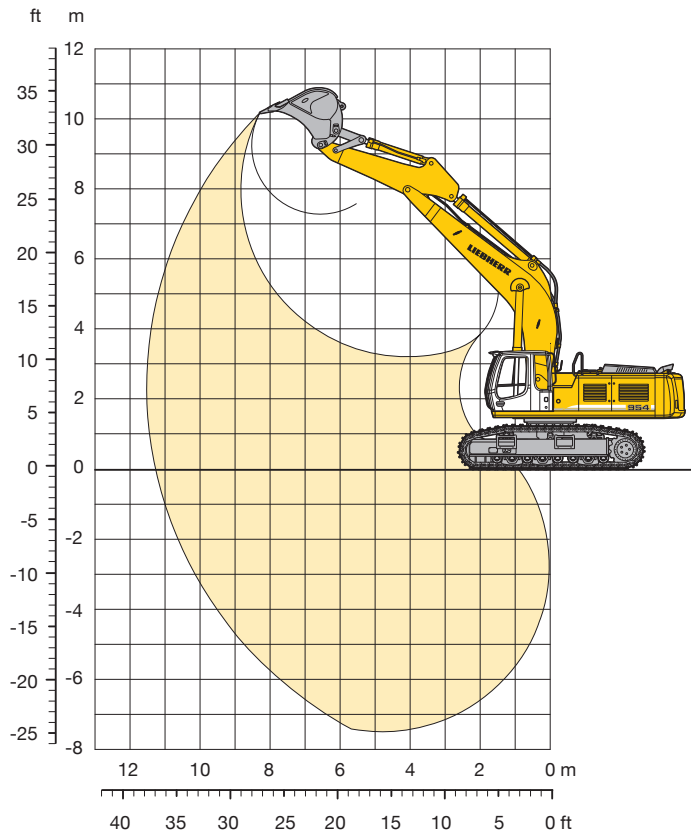


| | HD | mm | S-HD | mm |
|----|----|-------|------|-------|
| A | | 3,325 | | 3,325 |
| A1 | | 3,460 | | 3,460 |
| C | | 4,090 | | 4,200 |
| C1 | | 4,265 | | 4,375 |
| D | | 3,850 | | 3,850 |
| E | | 3,850 | | 3,850 |
| F | | 2,200 | | 2,200 |
| H | | 2,900 | | 3,010 |
| K | | 1,350 | | 1,460 |
| L | | 4,400 | | 4,282 |
| P | | 1,170 | | 1,290 |

| | HD | | | mm | S-HD | | | mm |
|----|-------|-------|-------|--------|-------|-------|-------|--------|
| Q | | | | 543 | | | | 605 |
| S | | | | 2,900 | | | | 2,900 |
| U | | | | 5,378 | | | | 5,345 |
| Z | | | | 6,600 | | | | 6,495 |
| N | 500 | 600 | 750 | | 500 | 600 | 750 | |
| B | 3,524 | 3,524 | 3,650 | | 3,626 | 3,626 | 3,650 | |
| G | 3,720 | 3,720 | 3,720 | | 3,820 | 3,820 | 3,820 | |
| V1 | | | | 10,250 | | | | 10,200 |
| W1 | | | | 3,650 | | | | 3,700 |
| X1 | | | | 12,350 | | | | 12,350 |

Backhoe Attachment

Super Mass Excavation with Gooseneck Boom 6.70 m SME
and Heavy Counterweight



Digging Envelope

| | | |
|----------------------------|-----|-------|
| Stick lengths | m | 2.80 |
| | SME | |
| Max. digging depth | m | 7.50 |
| Max. reach at ground level | m | 11.25 |
| Max. dump height | m | 7.30 |
| Max. teeth height | m | 10.15 |
| Digging force ISO | kN | 287 |
| | t | 29.3 |
| Breakout force ISO | kN | 346 |
| | t | 35.3 |

Operating Weight and Ground Pressure

Operating weight includes basic machine with heavy counterweight, gooseneck boom SME 6.70 m, stick SME 2.80 m and bucket HD 3.25 m³.

| Undercarriage | | S-HD | | |
|-----------------|--------------------|--------|--------|--------|
| Pad width | mm | 500 | 600 | 750 |
| Weight | kg | 58,800 | 59,500 | 60,400 |
| Ground pressure | kg/cm ² | 1.26 | 1.07 | 0.87 |

Buckets

| | | HD | | HD-V |
|--|------------------|---------------------|---------------------|---------------------|
| Cutting width SAE | mm | 2,100 ¹⁾ | 2,250 ¹⁾ | 1,950 ²⁾ |
| Capacity ISO 7451 | m ³ | 3.25 | 3.50 | 3.00 |
| Weight | kg | 3,550 | 3,800 | 4,100 |
| Suitable for material up to a specific weight of | t/m ³ | 1.80 | 1.65 | 1.80 |

¹⁾ Heavy duty rock bucket with teeth size V 61 SD (appropriate for material above classification 6, according to VOB, section C DIN 18300)

²⁾ HD-V rock bucket with teeth size V 61 SD (appropriate for material above classification 6, according to VOB, section C DIN 18300)

Lift Capacities

Super Mass Excavation with Gooseneck Boom 6.70 m SME and Heavy Counterweight

Stick 2.80 m SME

| Height (m) | Under-carriage | Radius of load from centerline of machine (m) | | | | | | | |
|---------------|----------------|---|---------------|---------------|--------------|-------------|------|------|------|
| | | 3.0 | 4.5 | 6.0 | 7.5 | 9.0 | 10.5 | 12.0 | 13.5 |
| 12.0 | S-HD | | | | | | | | |
| 10.5 | S-HD | | | | | | | | |
| 9.0 | S-HD | | | | | | | | |
| 7.5 | S-HD | | | | | | | | |
| 6.0 | S-HD | | | | 6.6# (6.6#) | 6.2# (6.2#) | | | |
| 4.5 | S-HD | 22.2# (22.2#) | | 9.2# (9.2#) | 7.5# (7.5#) | 6.6# (6.6#) | | | |
| 3.0 | S-HD | | 16.8# (16.8#) | 11.2# (11.2#) | 8.6# (8.6#) | 6.7 (7.2#) | | | |
| 1.5 | S-HD | | 19.6 (19.6#) | 12.5 (12.9#) | 8.7 (9.6#) | 6.3 (7.8#) | | | |
| 0 | S-HD | 13.7# (13.7#) | 18.8 (20.5#) | 11.8 (13.9#) | 8.2 (10.3#) | 6.0 (8.1#) | | | |
| - 1.5 | S-HD | 21.5# (21.5#) | 18.7 (20.1#) | 11.5 (14.1#) | 8.0 (10.5#) | 5.9 (8.1#) | | | |
| - 3.0 | S-HD | 27.4# (27.4#) | 18.6# (18.6#) | 11.6 (13.4#) | 8.0 (10.0#) | | | | |
| - 4.5 | S-HD | 22.7# (22.7#) | 15.8# (15.8#) | 11.5# (11.5#) | | | | | |
| - 6.0 | S-HD | | 10.7# (10.7#) | | | | | | |
| - 7.5 | S-HD | | | | | | | | |
| - 9.0 | S-HD | | | | | | | | |
| - 10.5 | S-HD | | | | | | | | |

The load values are quoted in tons (t) on the backhoe bucket's load hook, and may be swung 360° on firm and even ground. Values quoted in brackets apply to the undercarriage when in longitudinal position. Capacities are valid for 600 mm wide, double-grouser pads. Indicated loads are based on ISO 10567 standard and do not exceed 75 % of tipping or 87 % of hydraulic capacity (indicated via #). Maximum load for the backhoe bucket's lifting eye is 27 t. Without bucket HD (3.25 m³), the lift capacities will increase by 3,550 kg, without bucket cylinder, link and lever they increase by an additional 930 kg. Lifting capacity of the excavator is limited by machine stability, hydraulic capacity and maximum permissible load of the load hook.

According to European Standard, EN 474-5 in the European Union: Excavators must be equipped with an overload warning device, a load diagram and automatic check valves on the hoist cylinders when they are used for lifting operations which require the use of lifting accessories.

Equipment



Undercarriage

| | |
|-----------------------------------|---|
| Two-stage travel motors | • |
| Three track guide per track | • |
| Lifetime lubricated track rollers | • |
| Tracks sealed and greased | • |
| Idler protection | • |
| Pads 600 mm | • |
| Pads 500 mm | + |
| Pads 750 mm | + |
| Different undercarriage versions | + |
| Four track guide | + |
| Streng. bottom sheet center part | + |
| Reinforced cover | + |



Uppercarriage

| | |
|------------------------------------|---|
| Lockable tool box | • |
| Handrails, non slip surfaces | • |
| Tool kit | • |
| Maintenance-free swing brake lock | • |
| Maintenance-free HD-batteries | • |
| Main switch for electric circuit | • |
| Sound insulation | • |
| Electric fuel tank filler pump | + |
| Foot pedal swing positioning brake | + |
| Customized colors | + |
| Heavy Counterweight | + |



Hydraulics

| | |
|--|---|
| Electronic pump regulation | • |
| Stepless work mode selector | • |
| Pressure storage for controlled lowering of attachments with engine turned off | • |
| Filter with integrated fine filter area (5 µm) | • |
| Pressure test ports | • |
| Leakage filter | • |
| Liebherr Tool Control | • |
| Hydraulic tank shut-off valve | • |
| Pressure compensation | • |
| Additional hydraulic circuits | • |
| Bio-degradable hydr. oil | + |
| Filter for secondary circuit | + |



Engine

| | |
|---|---|
| After-cooled | • |
| Unit pump system | • |
| Turbo charger | • |
| Dry-type air cleaner w/pre-cleaner, main and safety element | • |
| Air filter with automatic dust ejector | • |
| Two hydrostatic fans | • |
| Sensor controlled engine idling | • |
| Fuel water separator | • |
| Conform with standard level IIIA/Tier 3 | • |
| Engine cold starting aid | + |



Operator's Cab

| | |
|--|---|
| Load bearing sectional profile structure, covered with deep-drawn panels | • |
| Roof hatch | • |
| All tinted windows | • |
| Right window made of one piece (without post) | • |
| Door with sliding window | • |
| Rain hood over front window opening | • |
| Wiper/washert | • |
| Emergency exit rear window | • |
| Sun roller blind | • |
| Seat and consoles independently adjustable (6-way adjustable seat) | • |
| Storage tray | • |
| Closed storage space | • |
| Cloth hook | • |
| Removable customized foot mat | • |
| Dome light | • |
| Cigarette lighter and ashtray | • |
| Seat belt | • |
| Mechanical hour meters, readable from outside the cab | • |
| Displays for engine operating condition | • |
| Automatic air conditioning with defroster | • |
| Preparation for radio installation | • |
| Removable handles for travel pedals | • |
| Stereo radio | + |
| Electric cool box | + |
| Sun visor | + |
| Auxiliary heating | + |
| Additional flood lights (front/back) | + |
| Wiper for lower window | + |
| Roof window wiper | + |
| Bullet proof window (fixed installation – can not be opened) | + |
| FOPS Protection | + |
| Air pressure operator seat with heating and head-rest | + |
| Electronic drive away lock | + |
| Beacon | + |
| Extinguisher | + |



Attachment

| | |
|---|---|
| Semi-automatic central lubrication system (except link and tilt geometry) | • |
| Cylinders with shock absorbers | • |
| ReGeneration plus | • |
| SAE split flanges on all high pressure lines | • |
| Work light on boom | • |
| Sealed pivots/O-ring sealant between bucket and stick | • |
| 27 t lifting hook on quick change coupler | • |
| 27 t lifting hook on bucket | + |
| Automatic central lubrication system (except link and tilt geometry) | + |
| Central lubrication for lever with protection cover | + |
| Bucket kinematics sealed up completely | + |
| Overload warning device | + |
| Hydr. or mechanical quick change coupler | + |
| Likufix | + |
| Piston rod protection | + |
| Hydraulic lines for additional tools | + |
| Quick disconnect hose couplers for additional tools | + |
| Liebherr line of buckets | + |
| Special application buckets | + |
| Customized colors | + |

• = Standard, + = Option

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

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