

Technical Description Hydraulic Excavator

R 944 C
Litronic®

Operating Weight 38,2 - 41,5 t
Engine Output 190 kW (258 HP)
Bucket Capacity 1,00 - 2,50 m³



LIEBHERR

Technical Data



Engine

| | |
|---------------------|----------------------------------------------------------------------------------------------|
| Rating per ISO 9249 | 90 kW (258 HP) at 1800 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 | 660 l |
| Standard | sensor controlled engine idling |
| Electrical system | |
| Voltage | 24 V |
| Batteries | 2 x 170 Ah/12 V |
| Starter | 24 V/6,6 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 303 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 | 205 l/min. |
| Max. pressure | 400 bar |
| Hydraulic tank | 460 l |
| Hydraulic system | 710 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, for hydraulic fluid with hydrostatically controlled fan drive |
| 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 |
| R.P.M. adjustment | stepless adjustment of engine output via the r.p.m. at each selected mode |
| Liebherr Tool Control | ten preadjustable pump flows and pressures for add on tools (option) |



Hydraulic Controls

| | |
|----------------------|--------------------------------------------------------------------------------|
| Power distribution | via monoblock control valve 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 |
| Transmission | Liebherr compact planetary reduction gear |
| Swing ring | Liebherr, sealed single race ball bearing swing ring, internal teeth |
| Swing speed | 0–8 RPM stepless |
| Swing torque | 125 kNm |
| Holding brake | wet multi-disc (spring applied, pressure released) |
| Option | pedal controlled positioning brake |



Operator's Cab

| | |
|-----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Cab | built from deep drawn components, resiliently mounted, sound insulated, tinted windows, front window stores overhead, door with sliding window |
| Operator's seat | shock absorbing suspension, adjustable to operator's weight, 6-way adjustable seat integrated into adjustable seat consoles |
| Joysticks | |
| Monitoring | menu driven query of current operating conditions via the LCD display. Automatic monitoring, display, warning (acoustical and optical signal) and saving machine malfunction data, for example, engine overheating, low engine oil pressure or low hydraulic oil level |
| Heating system | standard air conditioning, combined cooler/heater, additional dust filter in fresh air/recirculated |
| Noise emission | |
| ISO 6396 | L_{pA} (inside cab) = 75 dB(A) |
| 2000/14/EC | L_{WA} (surround noise) = 105 dB(A) |



Undercarriage

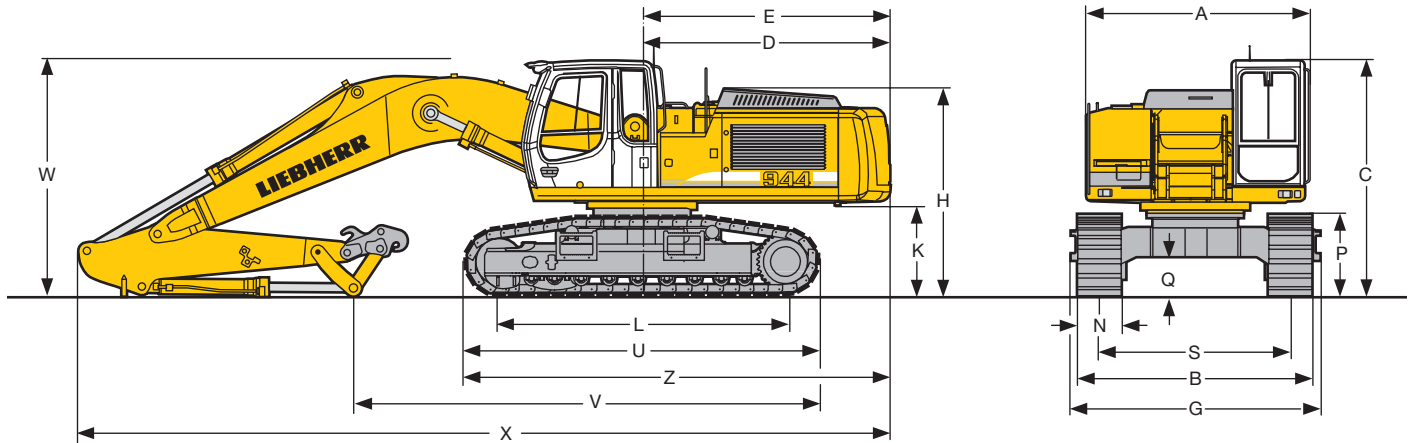
| | |
|-------------------------------|------------------------------------------------------------------------|
| Versions | HD-S heavy duty, narrow gauge HD-SL heavy duty, wide gauge |
| Drive | Liebherr swash plate motors with integrated brake valves on both sides |
| Transmission | Liebherr planetary reduction gears |
| Travel speed | low range –3,2 km/h high range –5,0 km/h |
| Drawbar pull max. | 336 kN |
| Track components | D 7, maintenance-free |
| Track rollers/Carrier rollers | 9/2 |
| Tracks | sealed and greased |
| Track pads | triple grouser |
| Digging locks | wet multi-discs (spring applied, pressure released) |
| Brake valves | integrated into travel motor |



Attachment

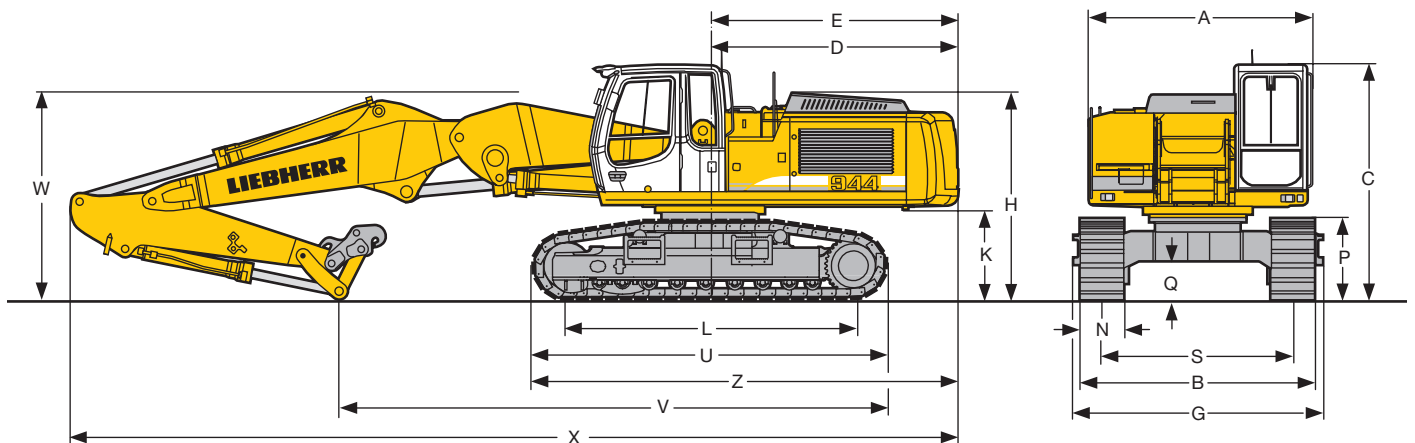
| | |
|-----------------------|---------------------------------------------------------------------------------------------------------------------|
| Type | combination of resistant steel plates and cast steel components |
| Hydraulic cylinders | Liebherr cylinders with special seal-system, shock absorbed |
| Pivots | sealed, low maintenance |
| Lubrication | semi-automatic central lubrication system (excepting the connector bracket and shifting lever for the digging tool) |
| Hydraulic connections | pipes and hoses equipped with SAE split-flange connections |
| Bucket | standard equipped with 18 t lifting eye |

Dimensions



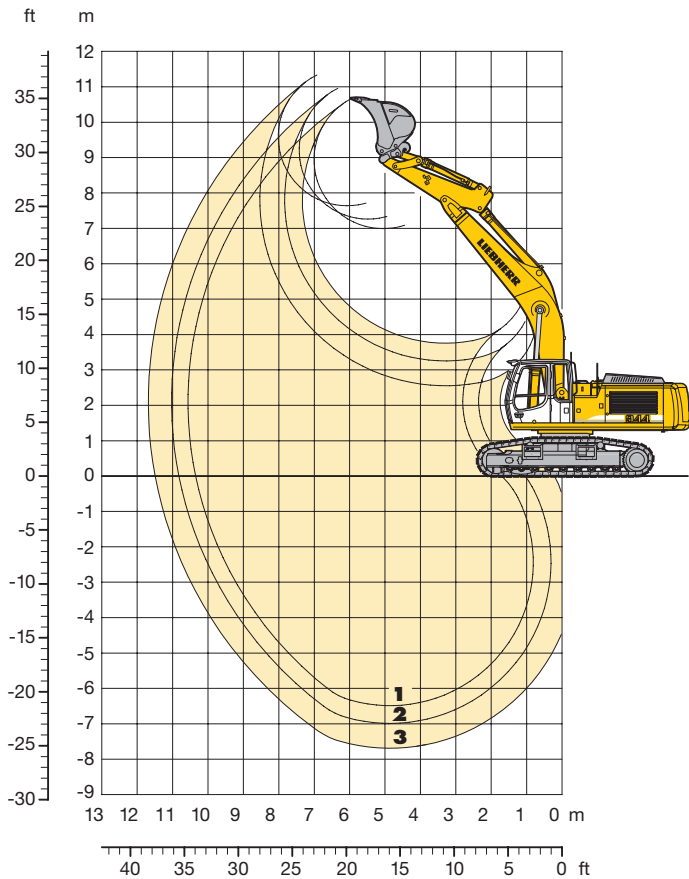
| | HD-S | | HD-SL | | mm | mm |
|---|------|------|-------|--|------|------|
| A | | | | | 3060 | 3060 |
| C | | | | | 3220 | 3220 |
| D | | | | | 3390 | 3390 |
| E | | | | | 3390 | 3390 |
| H | | | | | 2830 | 2830 |
| K | | | | | 1450 | 1450 |
| L | | | | | 4000 | 4000 |
| P | | | | | 1120 | 1120 |
| Q | | | | | 537 | 537 |
| U | | | | | 4915 | 4915 |
| S | | | | | 2400 | 2600 |
| N | 500 | 600 | 750 | | 500 | 600 |
| B | 3000 | 3000 | 3150 | | 3200 | 3200 |
| G | 3195 | 3195 | 3195 | | 3395 | 3395 |
| Z | | | | | 5840 | 5840 |

| | Stick Length | Gooseneck Boom 6,45 m | Hydraulically Adjustable Boom 4,30 m | Straight Gooseneck Boom 6,80 m |
|---|--------------|--------------------------|-----------------------------------------|-----------------------------------|
| | m | mm | mm | mm |
| V | 2,10 | 6900 | 8000 | 7350 |
| | 2,60 | 6400 | 7550 | 6950 |
| | 3,30 | 5800 | 7000 | 6400 |
| W | 2,10 | 3250 | 2750 | 3000 |
| | 2,60 | 3250 | 2850 | 2900 |
| | 3,30 | 3300 | 3050 | 3100 |
| X | 2,10 | 11250 | 12300 | 11650 |
| | 2,60 | 11100 | 12200 | 11600 |
| | 3,30 | 11150 | 12250 | 11650 |



Backhoe Attachment

with Gooseneck Boom 6,45 m



Digging Envelope with Quick Change Adapter

| | | 1 | 2 | 3 |
|----------------------------|---|-------|-------|-------|
| Stick length | m | 2,10 | 2,60 | 3,30 |
| Max. digging depth | m | 6,50 | 7,00 | 7,70 |
| Max. reach at ground level | m | 10,35 | 10,85 | 11,50 |
| Max. dump height | m | 7,00 | 7,25 | 7,65 |
| Max. teeth height | m | 10,65 | 10,95 | 11,30 |

Digging Forces with Quick Change Adapter

| | | 1 | 2 | 3 |
|--------------------|----|------|------|------|
| Digging force ISO | kN | 211 | 187 | 161 |
| | t | 21,5 | 19,1 | 16,4 |
| Breakout force ISO | kN | 206 | 206 | 206 |
| | t | 21,0 | 21,0 | 21,0 |

without Quick Change Adapter

| | | | | |
|--------------------|----|------|------|------|
| Digging force ISO | kN | 224 | 197 | 168 |
| | t | 22,8 | 20,1 | 17,1 |
| Breakout force ISO | kN | 236 | 236 | 236 |
| | t | 24,1 | 24,1 | 24,1 |

Max. breakout force with ripper bucket 300 kN (30,6 t)

Operating Weight and Ground Pressure

Operating weight includes basic machine with gooseneck boom 6,45 m, stick 2,60 m, quick change adapter 66 and bucket 1,75 m³.

| Undercarriage | | HD-S | | | HD-SL | | |
|-----------------|--------------------|-------|-------|-------|-------|-------|-------|
| Pad width | mm | 500 | 600 | 750 | 500 | 600 | 750 |
| Weight | kg | 38160 | 38570 | 39180 | 38310 | 38720 | 39330 |
| Ground pressure | kg/cm ² | 0,88 | 0,74 | 0,60 | 0,89 | 0,75 | 0,61 |

Optional: heavy duty counterweight
(Heavy duty counterweight increases the operating weight by 1300 kg and ground pressure by 0,03 kg/cm²)

Buckets

| | | without Quick Change Adapter | | | | | | | with Quick Change Adapter | | | | | | |
|---------------------------------------------------------------|------------------------|------------------------------|------|------|------|------|------|------|---------------------------|------|------|------|------|--|--|
| | | 1200 | 1350 | 1500 | 1650 | 1650 | 1800 | 1050 | 1200 | 1350 | 1500 | 1650 | 1650 | | |
| Cutting width | mm | 1200 | 1350 | 1500 | 1650 | 1650 | 1800 | 1050 | 1200 | 1350 | 1500 | 1650 | 1650 | | |
| Capacity ISO 7451 | m ³ | 1,25 | 1,50 | 1,75 | 2,00 | 2,25 | 2,50 | 1,00 | 1,25 | 1,50 | 1,75 | 2,00 | 2,25 | | |
| Max. possible material weight | HD-S t/m ³ | 1,8 | 1,8 | 1,8 | 1,8 | 1,8 | 1,5 | 1,8 | 1,8 | 1,8 | 1,8 | 1,8 | 1,5 | | |
| | HD-SL t/m ³ | 1,8 | 1,8 | 1,8 | 1,8 | 1,8 | 1,8 | 1,8 | 1,8 | 1,8 | 1,8 | 1,8 | 1,8 | | |
| Weight of STD-bucket with Liebherr teeth Z 20 | kg | 1460 | 1540 | 1670 | 1780 | 1850 | – | 1330 | 1410 | 1490 | 1620 | 1730 | – | | |
| Weight of HD-bucket with Liebherr teeth Z 20 ¹⁾ | kg | 1450 | 1560 | 1630 | 1790 | 1900 | – | 1300 | 1390 | 1500 | 1570 | 1730 | – | | |
| Max. stick length for machine stability per ISO 10567: | | | | | | | | | | | | | | | |
| HD-S undercarriage | m | 3,30 | 3,30 | 3,30 | 2,60 | 2,10 | 2,10 | 3,30 | 3,30 | 3,30 | 2,60 | 2,10 | 2,10 | | |
| HD-SL undercarriage | m | 3,30 | 3,30 | 3,30 | 3,30 | 2,60 | 2,10 | 3,30 | 3,30 | 3,30 | 3,30 | 2,60 | 2,10 | | |

¹⁾ For applications over surface class 6, according to VOB, part C, DIN 18300

Lift Capacities

with Gooseneck Boom 6,45 m

Stick 2,10 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 | HD-S | | | | | | |
| | HD-SL | | | | | | |
| 10,5 | HD-S | | | | | | |
| | HD-SL | | | | | | |
| 9,0 | HD-S | | | | | | |
| | HD-SL | | | | | | |
| 7,5 | HD-S | | | 9,4# (9,4#) | | | |
| | HD-SL | | | 9,4# (9,4#) | | | |
| 6,0 | HD-S | | | 9,9 (9,9#) | 6,9 (8,9#) | | |
| | HD-SL | | | 9,9# (9,9#) | 7,5 (8,9#) | | |
| 4,5 | HD-S | | 14,3 (14,5#) | 9,3 (11,0#) | 6,6 (9,2#) | | |
| | HD-SL | | 14,5# (14,5#) | 10,1 (11,0#) | 7,2 (9,2#) | | |
| 3,0 | HD-S | | 12,8 (17,2#) | 8,7 (12,2#) | 6,3 (9,8#) | | |
| | HD-SL | | 14,1 (17,2#) | 9,5 (12,2#) | 6,9 (9,8#) | | |
| 1,5 | HD-S | | 12,0 (16,7#) | 8,2 (12,9#) | 6,0 (10,2#) | | |
| | HD-SL | | 13,4 (16,7#) | 9,0 (12,9#) | 6,6 (10,2#) | | |
| 0 | HD-S | | 11,9 (17,2#) | 7,9 (13,0#) | 5,9 (10,0) | | |
| | HD-SL | | 13,2 (17,2#) | 8,7 (13,0#) | 6,4 (10,0) | | |
| -1,5 | HD-S | 16,2# (16,2#) | 12,0 (15,7#) | 7,9 (12,2#) | 5,8 (9,5#) | | |
| | HD-SL | 16,2# (16,2#) | 13,3 (15,7#) | 8,7 (12,2#) | 6,4 (9,5#) | | |
| -3,0 | HD-S | 15,5# (15,5#) | 12,2 (13,2#) | 8,0 (10,4#) | | | |
| | HD-SL | 15,5# (15,5#) | 13,2# (13,2#) | 8,8 (10,4#) | | | |
| -4,5 | HD-S | | 9,2# (9,2#) | | | | |
| | HD-SL | | 9,2# (9,2#) | | | | |
| -6,0 | HD-S | | | | | | |
| | HD-SL | | | | | | |

Stick 2,60 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 | HD-S | | | | | | |
| | HD-SL | | | | | | |
| 10,5 | HD-S | | | | | | |
| | HD-SL | | | | | | |
| 9,0 | HD-S | | | | | | |
| | HD-SL | | | | | | |
| 7,5 | HD-S | | | | 6,6# (6,6#) | | |
| | HD-SL | | | | 6,6# (6,6#) | | |
| 6,0 | HD-S | | | 9,2# (9,2#) | 7,0 (8,3#) | | |
| | HD-SL | | | 9,2# (9,2#) | 7,6 (8,3#) | | |
| 4,5 | HD-S | 21,2# (21,2#) | 13,3# (13,3#) | 9,5 (10,3#) | 6,7 (8,8#) | 4,9 (6,3#) | |
| | HD-SL | 21,2# (21,2#) | 13,3# (13,3#) | 10,3 (10,3#) | 7,3 (8,8#) | 5,4 (6,3#) | |
| 3,0 | HD-S | | 13,2 (16,2#) | 8,8 (11,6#) | 6,3 (9,4#) | 4,8 (7,9) | |
| | HD-SL | | 14,5 (16,2#) | 9,6 (11,6#) | 6,9 (9,4#) | 5,2 (7,9) | |
| 1,5 | HD-S | | 12,2 (17,7#) | 8,2 (12,6#) | 6,0 (9,9#) | 4,6 (7,7) | |
| | HD-SL | | 13,5 (17,7#) | 9,0 (12,6#) | 6,6 (9,9#) | 5,1 (7,8) | |
| 0 | HD-S | 6,7# (6,7#) | 11,8 (17,6#) | 7,9 (12,9#) | 5,8 (9,9) | 4,5 (7,6) | |
| | HD-SL | 6,7# (6,7#) | 13,1 (17,6#) | 8,7 (12,9#) | 6,4 (10,0) | 5,0 (7,7) | |
| -1,5 | HD-S | 14,6# (14,6#) | 11,8 (16,4#) | 7,8 (12,4#) | 5,7 (9,7#) | | |
| | HD-SL | 14,6# (14,6#) | 13,1 (16,4#) | 8,6 (12,4#) | 6,3 (9,7#) | | |
| -3,0 | HD-S | 18,2# (18,2#) | 12,0 (14,3#) | 7,8 (11,1#) | 5,8 (8,4#) | | |
| | HD-SL | 18,2# (18,2#) | 13,3 (14,3#) | 8,6 (11,1#) | 6,4 (8,4#) | | |
| -4,5 | HD-S | 13,1# (13,1#) | 10,8# (10,8#) | 8,1 (8,2#) | | | |
| | HD-SL | 13,1# (13,1#) | 10,8# (10,8#) | 8,2# (8,2#) | | | |
| -6,0 | HD-S | | | | | | |
| | HD-SL | | | | | | |

Stick 3,30 m

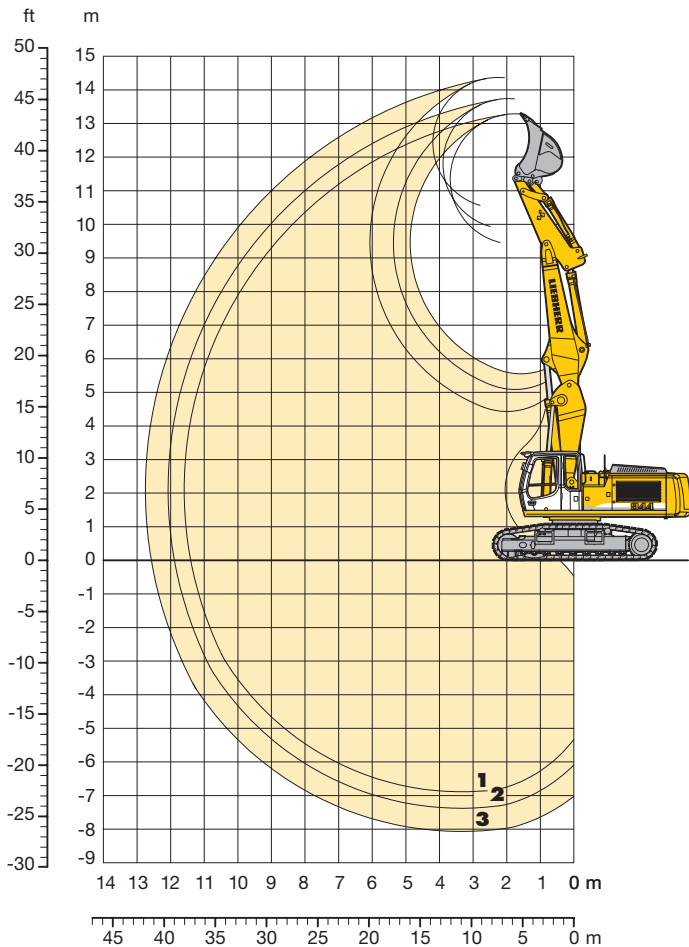
| Height (m) | Under-carriage | Radius of load from centerline of machine (m) | | | | | |
|------------|----------------|-----------------------------------------------|---------------|--------------|--------------|------------|------|
| | | 3,0 | 4,5 | 6,0 | 7,5 | 9,0 | 10,5 |
| 12,0 | HD-S | | | | | | |
| | HD-SL | | | | | | |
| 10,5 | HD-S | | | | | | |
| | HD-SL | | | | | | |
| 9,0 | HD-S | | | | | | |
| | HD-SL | | | | | | |
| 7,5 | HD-S | | | | 7,2 (7,3#) | | |
| | HD-SL | | | | 7,3# (7,3#) | | |
| 6,0 | HD-S | | | | 7,1 (7,5#) | 5,1 (5,7#) | |
| | HD-SL | | | | 7,5# (7,5#) | 5,5 (5,7#) | |
| 4,5 | HD-S | | | 9,4# (9,4#) | 6,8 (8,1#) | 5,0 (7,3#) | |
| | HD-SL | | | 9,4# (9,4#) | 7,3 (8,1#) | 5,4 (7,3#) | |
| 3,0 | HD-S | 8,3# (8,3#) | 13,6 (14,7#) | 8,9 (10,8#) | 6,4 (8,8#) | 4,8 (7,6#) | |
| | HD-SL | 8,3# (8,3#) | 14,7# (14,7#) | 9,8 (10,8#) | 7,0 (8,8#) | 5,2 (7,6#) | |
| 1,5 | HD-S | 4,6# (4,6#) | 12,4 (17,0#) | 8,3 (12,0#) | 6,0 (9,5#) | 4,6 (7,7) | |
| | HD-SL | 4,6# (4,6#) | 13,7 (17,0#) | 9,1 (12,0#) | 6,6 (9,5#) | 5,0 (7,7) | |
| 0 | HD-S | 8,5# (8,5#) | 11,8 (17,6#) | 7,8 (12,7#) | 5,7 (9,9) | 4,4 (7,5) | |
| | HD-SL | 8,5# (8,5#) | 13,1 (17,6#) | 8,6 (12,7#) | 6,3 (9,9#) | 4,8 (7,5) | |
| -1,5 | HD-S | 13,2# (13,2#) | 11,6 (17,0#) | 7,6 (12,6#) | 5,6 (9,7) | 4,3 (7,4) | |
| | HD-SL | 13,2# (13,2#) | 12,9 (17,0#) | 8,4 (12,6#) | 6,1 (9,7) | 4,8 (7,5) | |
| -3,0 | HD-S | 18,7# (18,7#) | 11,6 (15,4#) | 7,6 (11,6#) | 5,6 (9,0#) | | |
| | HD-SL | 18,7# (18,7#) | 13,0 (15,4#) | 8,4 (11,6#) | 6,1 (9,0#) | | |
| -4,5 | HD-S | 16,6# (16,6#) | 11,9 (12,6#) | 7,8 (9,6#) | | | |
| | HD-SL | 16,6# (16,6#) | 12,6# (12,6#) | 8,6 (9,6#) | | | |
| -6,0 | HD-S | | 7,7# (7,7#) | | | | |
| | HD-SL | | 7,7# (7,7#) | | | | |

The lift capacities on the load hook of the Liebherr quick change adapter 66 without attachment are stated in metric tonnes (t), and can be lifted 360° on firm, level supporting surface. Values quoted in brackets are valid for 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 quick change adapter's load hook is 18 t. Without quick change adapter the lift capacities will increase by 430 kg, without bucket cylinder, link and lever they increase by an additional 570 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 Hydr. Adjustable Boom 4,30 m



Digging Envelope with Quick Change Adapter

| | | 1 | 2 | 3 |
|----------------------------|---|-------|-------|-------|
| Stick length | m | 2,10 | 2,60 | 3,30 |
| Max. digging depth | m | 6,90 | 7,40 | 8,10 |
| Max. reach at ground level | m | 11,40 | 11,90 | 12,60 |
| Max. dump height | m | 9,45 | 9,95 | 10,55 |
| Max. teeth height | m | 13,30 | 13,75 | 14,40 |

Digging Forces with Quick Change Adapter

| | | 1 | 2 | 3 |
|--------------------|----|------|------|------|
| Digging force ISO | kN | 211 | 187 | 161 |
| | t | 21,5 | 19,1 | 16,4 |
| Breakout force ISO | kN | 206 | 206 | 206 |
| | t | 21,0 | 21,0 | 21,0 |

without Quick Change Adapter

| | | | | |
|--------------------|----|------|------|------|
| Digging force ISO | kN | 224 | 197 | 168 |
| | t | 22,8 | 20,1 | 17,1 |
| Breakout force ISO | kN | 236 | 236 | 236 |
| | t | 24,1 | 24,1 | 24,1 |

Max. breakout force with ripper bucket 300 kN (30,6 t)

Operating Weight and Ground Pressure

Operating weight includes basic machine with hydraulically adjustable boom 4,30 m, stick 2,60 m, quick change adapter 66 and bucket 1,25 m³.

| Undercarriage | HD-S | | | HD-SL | | | |
|-----------------|--------------------|-------|-------|-------|-------|-------|-------|
| | 500 | 600 | 750 | 500 | 600 | 750 | |
| Pad width | mm | 500 | 600 | 750 | 500 | 600 | 750 |
| Weight | kg | 40370 | 40780 | 41390 | 40520 | 40930 | 41540 |
| Ground pressure | kg/cm ² | 0,94 | 0,79 | 0,64 | 0,94 | 0,79 | 0,64 |

Optional: heavy duty counterweight
(Heavy duty counterweight increases the operating weight by 1300 kg and ground pressure by 0,03 kg/cm²)

Buckets

| | | without Quick Change Adapter | | | | | | with Quick Change Adapter | | | | | | |
|-------------------------------------------------------------------|----------------|------------------------------|------|------|------|------|------|---------------------------|------|------|------|------|------|-----|
| | | 1200 | 1350 | 1500 | 1650 | 1650 | 1800 | 1050 | 1200 | 1350 | 1500 | 1650 | 1650 | |
| Cutting width | mm | 1200 | 1350 | 1500 | 1650 | 1650 | 1800 | 1050 | 1200 | 1350 | 1500 | 1650 | 1650 | |
| Capacity ISO 7451 | m ³ | 1,25 | 1,50 | 1,75 | 2,00 | 2,25 | 2,50 | 1,00 | 1,25 | 1,50 | 1,75 | 2,00 | 2,25 | |
| Max. possible material weight | HD-S | t/m ³ | 1,8 | 1,8 | 1,8 | 1,5 | 1,2 | – | 1,8 | 1,8 | 1,8 | 1,5 | 1,2 | – |
| | HD-SL | t/m ³ | 1,8 | 1,8 | 1,8 | 1,8 | 1,5 | 1,2 | 1,8 | 1,8 | 1,8 | 1,8 | 1,5 | 1,2 |
| Bucket weight of STD-bucket with Liebherr teeth Z 20 | kg | – | 1460 | 1540 | 1670 | 1780 | 1850 | – | 1330 | 1410 | 1490 | 1620 | 1730 | |
| Bucket weight of HD-bucket with Liebherr teeth Z 20 ¹⁾ | kg | 1450 | 1560 | 1630 | 1790 | 1900 | – | 1300 | 1390 | 1500 | 1570 | 1730 | – | |
| Max. stick length for machine stability per ISO 10567: | | | | | | | | | | | | | | |
| HD-S undercarriage | m | 3,30 | 2,60 | 2,10 | 2,10 | 2,10 | – | 3,30 | 2,60 | 2,10 | 2,10 | 2,10 | – | |
| HD-SL undercarriage | m | 3,30 | 3,30 | 2,60 | 2,10 | 2,10 | 2,10 | 3,30 | 3,30 | 2,60 | 2,10 | 2,10 | 2,10 | |

¹⁾ For applications over surface class 6, according to VOB, part C, DIN 18300

Lift Capacities

with Hydr. Adjustable Boom 4,30 m

Stick 2,10 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 | HD-S | | | | | | |
| | HD-SL | | | | | | |
| 10,5 | HD-S | | 12,3# (12,3#) | | | | |
| | HD-SL | | 12,3# (12,3#) | | | | |
| 9,0 | HD-S | | 14,0# (14,0#) | 10,3 (12,0#) | | | |
| | HD-SL | | 14,0# (14,0#) | 11,1 (12,0#) | | | |
| 7,5 | HD-S | 14,9# (14,9#) | 15,7# (15,7#) | 10,3 (12,0#) | 6,9 (9,8#) | | |
| | HD-SL | 14,9# (14,9#) | 15,7# (15,7#) | 11,0 (12,0#) | 7,5 (9,8#) | | |
| 6,0 | HD-S | 24,3# (24,3#) | 14,9 (16,6#) | 10,0 (12,3#) | 7,1 (9,8#) | 4,7 (7,9) | |
| | HD-SL | 24,3# (24,3#) | 15,9 (16,6#) | 10,6# (12,3#) | 7,7 (9,8#) | 5,1 (7,9) | |
| 4,5 | HD-S | | 14,2# (16,8#) | 9,8 (12,5#) | 7,0 (9,7#) | 4,7 (7,8) | |
| | HD-SL | | 15,1 (16,8#) | 10,4# (12,5#) | 7,6 (9,7#) | 5,1 (7,8#) | |
| 3,0 | HD-S | | 14,0 (16,6#) | 9,4 (12,2#) | 6,7 (9,5#) | 4,5 (7,8) | |
| | HD-SL | | 14,8 (16,6#) | 10,2# (12,2#) | 7,3 (9,5#) | 5,0 (7,8) | |
| 1,5 | HD-S | | 12,8 (16,9#) | 8,7 (12,2#) | 6,3 (9,5#) | 4,4 (7,6) | |
| | HD-SL | | 14,1 (16,9#) | 9,5 (12,2#) | 6,9 (9,5#) | 4,8 (7,6) | |
| 0 | HD-S | 16,5# (16,5#) | 12,0 (17,1#) | 8,1 (12,3#) | 5,9 (9,7#) | 4,2 (7,1#) | |
| | HD-SL | 16,5# (16,5#) | 13,4 (17,1#) | 8,9 (12,3#) | 6,5 (9,7#) | 4,6 (7,1#) | |
| -1,5 | HD-S | 22,9 (24,9#) | 11,7 (17,0#) | 7,8 (12,5#) | 5,6 (9,2#) | 4,0 (4,8#) | |
| | HD-SL | 24,9# (24,9#) | 13,1 (17,0#) | 8,7 (12,5#) | 6,1 (9,2#) | 4,5 (4,8#) | |
| -3,0 | HD-S | 22,5# (22,5#) | 11,8 (15,7#) | 7,7 (11,1#) | 5,4 (6,4#) | | |
| | HD-SL | 22,5# (22,5#) | 13,1 (15,7#) | 8,5 (11,1#) | 5,9 (6,4#) | | |
| -4,5 | HD-S | 17,6# (17,6#) | 10,9# (10,9#) | 5,5# (5,5#) | | | |
| | HD-SL | 17,6# (17,6#) | 10,9# (10,9#) | 5,5# (5,5#) | | | |
| -6,0 | HD-S | | | | | | |
| | HD-SL | | | | | | |

Stick 2,60 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 | HD-S | | | | | | |
| | HD-SL | | | | | | |
| 10,5 | HD-S | | 11,4# (11,4#) | 8,0# (8,0#) | | | |
| | HD-SL | | 11,4# (11,4#) | 8,0# (8,0#) | | | |
| 9,0 | HD-S | | 11,3# (11,3#) | 10,5 (11,3#) | | 6,9 (8,6#) | |
| | HD-SL | | 11,3# (11,3#) | 11,2 (11,3#) | | 7,5 (8,6#) | |
| 7,5 | HD-S | | 12,4# (12,4#) | 10,3# (11,7#) | | 7,2 (9,5#) | |
| | HD-SL | | 12,4# (12,4#) | 11,0# (11,7#) | | 7,8 (9,5#) | |
| 6,0 | HD-S | 24,7# (24,7#) | 15,1 (16,1#) | 10,0 (12,0#) | | 7,3 (9,6#) | 4,9 (7,9#) |
| | HD-SL | 24,7# (24,7#) | 16,1# (16,1#) | 10,6 (12,0#) | | 7,8 (9,6#) | 5,3 (7,9#) |
| 4,5 | HD-S | 21,7# (21,7#) | 14,3 (17,0#) | 9,7 (12,3#) | | 7,2 (9,6#) | 4,8 (7,8#) |
| | HD-SL | 21,7# (21,7#) | 15,2# (17,0#) | 10,3# (12,3#) | | 7,7 (9,6#) | 5,3 (7,8) |
| 3,0 | HD-S | 17,2# (17,2#) | 13,9 (16,5#) | 9,5# (12,2#) | | 6,8 (9,5#) | 4,7 (7,7#) |
| | HD-SL | 17,2# (17,2#) | 14,8 (16,5#) | 10,1 (12,2#) | | 7,4 (9,5#) | 5,2 (7,7#) |
| 1,5 | HD-S | | 13,1 (16,7#) | 8,8 (12,0#) | | 6,3 (9,4#) | 4,5 (7,7) |
| | HD-SL | | 14,5 (16,7#) | 9,6 (12,0#) | | 6,9 (9,4#) | 4,9 (7,7#) |
| 0 | HD-S | 16,2# (16,2#) | 12,1 (16,9#) | 8,2 (12,1#) | | 6,0 (9,5#) | 4,2 (7,4) |
| | HD-SL | 16,2# (16,2#) | 13,5 (16,9#) | 9,0 (12,1#) | | 6,5 (9,5#) | 4,7 (7,5) |
| -1,5 | HD-S | 22,2# (22,2#) | 11,7 (17,0#) | 7,8 (12,4#) | | 5,7 (9,6#) | 4,0 (6,4#) |
| | HD-SL | 22,2# (22,2#) | 13,1 (17,0#) | 8,6 (12,4#) | | 6,2 (9,6#) | 4,5 (6,4#) |
| -3,0 | HD-S | 22,8 (23,9#) | 11,6 (16,2#) | 7,7 (11,9#) | | 5,4 (8,0#) | 2,2# (2,2#) |
| | HD-SL | 23,9# (23,9#) | 13,0 (16,2#) | 8,5 (11,9#) | | 5,9 (8,0#) | 2,2# (2,2#) |
| -4,5 | HD-S | 19,9# (19,9#) | 11,9 (13,8#) | 7,5 (8,0#) | | | |
| | HD-SL | 19,9# (19,9#) | 13,3 (13,8#) | 8,0# (8,0#) | | | |
| -6,0 | HD-S | | | | | | |
| | HD-SL | | | | | | |

Stick 3,30 m

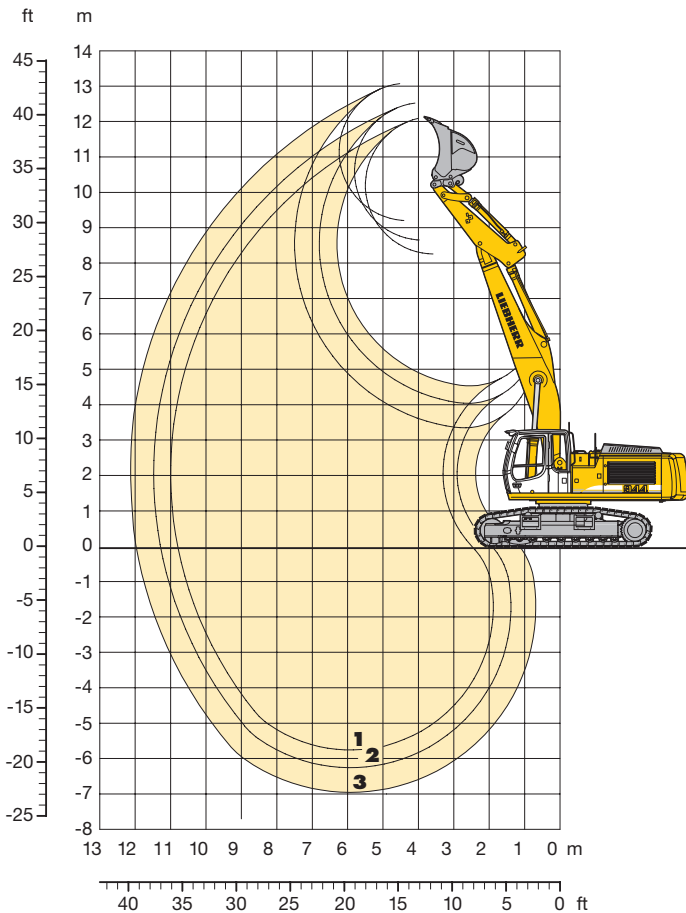
| Height (m) | Under-carriage | Radius of load from centerline of machine (m) | | | | | |
|------------|----------------|-----------------------------------------------|---------------|---------------|-------------|------------|-------------|
| | | 3,0 | 4,5 | 6,0 | 7,5 | 9,0 | 10,5 |
| 12,0 | HD-S | | 8,2# (8,2#) | | | | |
| | HD-SL | | 8,2# (8,2#) | | | | |
| 10,5 | HD-S | | 9,3# (9,3#) | 8,7# (8,7#) | | | |
| | HD-SL | | 9,3# (9,3#) | 8,7# (8,7#) | | | |
| 9,0 | HD-S | | 9,0# (9,0#) | | 7,2 (8,5#) | | |
| | HD-SL | | 9,0# (9,0#) | | 7,8# (8,5#) | | |
| 7,5 | HD-S | | 8,7# (8,7#) | 9,7# (9,7#) | 7,4# (9,2#) | 5,1 (7,7#) | |
| | HD-SL | | 8,7# (8,7#) | 9,7# (9,7#) | 7,9 (9,2#) | 5,5 (7,7#) | |
| 6,0 | HD-S | 10,3# (10,3#) | 11,7# (11,7#) | 10,1 (11,5#) | 7,3 (9,3#) | 5,2 (7,7#) | |
| | HD-SL | 10,3# (10,3#) | 11,7# (11,7#) | 10,7 (11,5#) | 7,7 (9,3#) | 5,6 (7,7#) | |
| 4,5 | HD-S | 23,0# (23,0#) | 14,4# (16,5#) | 9,7 (12,0#) | 7,1# (9,4#) | 5,1 (7,7#) | 3,4 (6,0) |
| | HD-SL | 23,0# (23,0#) | 15,4# (16,5#) | 10,3# (12,0#) | 7,6 (9,4#) | 5,5 (7,7#) | 3,8 (6,0) |
| 3,0 | HD-S | 21,2# (21,2#) | 13,9# (16,6#) | 9,4# (12,1#) | 6,9 (9,4#) | 4,9 (7,5#) | 3,3 (5,9) |
| | HD-SL | 21,2# (21,2#) | 14,7# (16,6#) | 10,0 (12,1#) | 7,4 (9,4#) | 5,4 (7,5#) | 3,7 (5,9) |
| 1,5 | HD-S | 16,0# (16,0#) | 13,6 (16,4#) | 9,0 (11,9#) | 6,4 (9,2#) | 4,6 (7,5#) | 3,2 (5,8) |
| | HD-SL | 16,0# (16,0#) | 14,5 (16,4#) | 9,8 (11,9#) | 7,0 (9,2#) | 5,1 (7,5#) | 3,6 (5,8) |
| 0 | HD-S | 16,2# (16,2#) | 12,4 (16,5#) | 8,2 (11,9#) | 6,0 (9,2#) | 4,3 (7,6#) | 3,1 (5,4#) |
| | HD-SL | 16,2# (16,2#) | 13,7 (16,5#) | 9,1 (11,9#) | 6,6 (9,2#) | 4,8 (7,6#) | 3,4 (5,4#) |
| -1,5 | HD-S | 19,9# (19,9#) | 11,7 (16,8#) | 7,8 (12,1#) | 5,6 (9,4#) | 4,0 (7,2) | 3,0 (3,1#) |
| | HD-SL | 19,9# (19,9#) | 13,0 (16,8#) | 8,6 (12,1#) | 6,2 (9,4#) | 4,5 (7,2#) | 3,1# (3,1#) |
| -3,0 | HD-S | 22,4 (25,0#) | 11,4 (16,6#) | 7,5 (12,1#) | 5,4 (9,0#) | 3,9 (5,5#) | |
| | HD-SL | 25,0# (25,0#) | 12,8 (16,6#) | 8,3 (12,1#) | 6,0 (9,0#) | 4,3 (5,5#) | |
| -4,5 | HD-S | 22,3# (22,3#) | 11,5 (15,0#) | 7,4 (10,4#) | 5,2 (6,0#) | | |
| | HD-SL | 22,3# (22,3#) | 12,9 (15,0#) | 8,2 (10,4#) | 5,7 (6,0#) | | |
| -6,0 | HD-S | 16,1# (16,1#) | 9,0# (9,0#) | 3,7# (3,7#) | | | |
| | HD-SL | 16,1# (16,1#) | 9,0# (9,0#) | 3,7# (3,7#) | | | |

The lift capacities on the load hook of the Liebherr quick change adapter 66 without attachment are stated in metric tonnes (t), and can be lifted 360° on firm, level supporting surface. Values quoted in brackets are valid for the undercarriage when in longitudinal position. Capacities are valid for 600 mm wide triple grouser pads with adjusting cylinder in optimal position. 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 quick change adapter's load hook is 18 t. Without quick change adapter the lift capacities will increase by 430 kg, without bucket cylinder, link and lever they increase by an additional 570 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 Straight Gooseneck Boom 6,80 m



Digging Envelope with Quick Change Adapter

| | | 1 | 2 | 3 |
|----------------------------|---|-------|-------|-------|
| Stick length | m | 2,10 | 2,60 | 3,30 |
| Max. digging depth | m | 5,70 | 6,20 | 6,90 |
| Max. reach at ground level | m | 10,80 | 11,30 | 12,00 |
| Max. dump height | m | 8,30 | 8,70 | 9,25 |
| Max. teeth height | m | 12,15 | 12,55 | 13,10 |

Digging Forces with Quick Change Adapter

| | | 1 | 2 | 3 |
|--------------------|----|------|------|------|
| Digging force ISO | kN | 211 | 187 | 161 |
| | t | 21,5 | 19,1 | 16,4 |
| Breakout force ISO | kN | 206 | 206 | 206 |
| | t | 21,0 | 21,0 | 21,0 |

without Quick Change Adapter

| | | | | |
|--------------------|----|------|------|------|
| Digging force ISO | kN | 224 | 197 | 168 |
| | t | 22,8 | 20,1 | 17,1 |
| Breakout force ISO | kN | 236 | 236 | 236 |
| | t | 24,1 | 24,1 | 24,1 |

Max. breakout force with ripper bucket 300 kN (30,6 t)

Operating Weight and Ground Pressure

Operating weight includes basic machine with straight gooseneck boom 6,80 m, stick 2,60 m, quick change adapter 66 and bucket 1,50 m³.

| Undercarriage | HD-S | | | HD-SL | | | |
|-----------------|--------------------|-------|-------|-------|-------|-------|-------|
| | 500 | 600 | 750 | 500 | 600 | 750 | |
| Pad width | mm | 500 | 600 | 750 | 500 | 600 | 750 |
| Weight | kg | 38150 | 38560 | 39170 | 38300 | 38710 | 39320 |
| Ground pressure | kg/cm ² | 0,88 | 0,74 | 0,60 | 0,89 | 0,75 | 0,61 |

Optional: heavy duty counterweight
(Heavy duty counterweight increases the operating weight by 1300 kg and ground pressure by 0,03 kg/cm²)

Buckets

| | | without Quick Change Adapter | | | | | | with Quick Change Adapter | | | | | | |
|-------------------------------------------------------------------|----------------|------------------------------|------|------|------|------|------|---------------------------|------|------|------|------|------|-----|
| | | 1200 | 1350 | 1500 | 1650 | 1650 | 1800 | 1050 | 1200 | 1350 | 1500 | 1650 | 1650 | |
| Cutting width | mm | 1200 | 1350 | 1500 | 1650 | 1650 | 1800 | 1050 | 1200 | 1350 | 1500 | 1650 | 1650 | |
| Capacity ISO 7451 | m ³ | 1,25 | 1,50 | 1,75 | 2,00 | 2,25 | 2,50 | 1,00 | 1,25 | 1,50 | 1,75 | 2,00 | 2,25 | |
| Max. possible material weight | HD-S | t/m ³ | 1,8 | 1,8 | 1,8 | 1,8 | 1,5 | 1,2 | 1,8 | 1,8 | 1,8 | 1,8 | 1,5 | 1,2 |
| | HD-SL | t/m ³ | 1,8 | 1,8 | 1,8 | 1,8 | 1,8 | 1,5 | 1,8 | 1,8 | 1,8 | 1,8 | 1,8 | 1,5 |
| Bucket weight of STD-bucket with Liebherr teeth Z 20 | kg | – | 1460 | 1540 | 1670 | 1780 | 1850 | – | 1330 | 1410 | 1490 | 1620 | 1730 | |
| Bucket weight of HD-bucket with Liebherr teeth Z 20 ¹⁾ | kg | 1450 | 1560 | 1630 | 1790 | 1900 | – | 1300 | 1390 | 1500 | 1570 | 1730 | – | |
| Max. stick length for machine stability per ISO 10567: | | | | | | | | | | | | | | |
| HD-S undercarriage | m | 3,30 | 3,30 | 2,60 | 2,10 | 2,10 | 2,10 | 3,30 | 3,30 | 2,60 | 2,10 | 2,10 | 2,10 | |
| HD-SL undercarriage | m | 3,30 | 3,30 | 3,30 | 2,60 | 2,10 | 2,10 | 3,30 | 3,30 | 3,30 | 2,60 | 2,10 | 2,10 | |

¹⁾ For applications over surface class 6, according to VOB, part C, DIN 18300

Lift Capacities

with Straight Gooseneck Boom 6,80 m

Stick 2,10 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 | HD-S | | | | | | |
| | HD-SL | | | | | | |
| 10,5 | HD-S | | | | | | |
| | HD-SL | | | | | | |
| 9,0 | HD-S | | | 9,8# (9,8#) | | | |
| | HD-SL | | | 9,8# (9,8#) | | | |
| 7,5 | HD-S | | | 10,0 (10,9#) | 6,8 (8,5#) | | |
| | HD-SL | | | 10,8 (10,9#) | 7,4 (8,5#) | | |
| 6,0 | HD-S | 21,2# (21,2#) | 14,5# (14,5#) | 9,6 (11,4#) | 6,7 (9,6#) | | |
| | HD-SL | 21,2# (21,2#) | 14,5# (14,5#) | 10,4 (11,4#) | 7,3 (9,6#) | | |
| 4,5 | HD-S | | 13,5 (16,7#) | 9,0 (12,2#) | 6,4 (9,9#) | 4,8 (7,9) | |
| | HD-SL | | 14,9 (16,7#) | 9,8 (12,2#) | 7,0 (9,9#) | 5,3 (8,0) | |
| 3,0 | HD-S | | | 8,3 (12,9#) | 6,1 (10,2#) | 4,7 (7,8) | |
| | HD-SL | | | 9,1 (12,9#) | 6,7 (10,2#) | 5,1 (7,8) | |
| 1,5 | HD-S | | | 7,9 (12,9#) | 5,8 (10,0) | 4,5 (7,7) | |
| | HD-SL | | | 8,7 (12,9#) | 6,4 (10,0) | 5,0 (7,7) | |
| 0 | HD-S | | 11,7 (13,2#) | 7,7 (12,1#) | 5,7 (9,6#) | 4,5 (7,4#) | |
| | HD-SL | | 13,0 (13,2#) | 8,5 (12,1#) | 6,3 (9,6#) | 4,9 (7,4#) | |
| -1,5 | HD-S | | 11,8 (12,0#) | 7,7 (10,5#) | 5,7 (8,3#) | | |
| | HD-SL | | 12,0# (12,0#) | 8,5 (10,5#) | 6,3 (8,3#) | | |
| -3,0 | HD-S | | 8,8# (8,8#) | 7,9 (7,9#) | 5,9 (5,9#) | | |
| | HD-SL | | 8,8# (8,8#) | 7,9# (7,9#) | 5,9# (5,9#) | | |
| -4,5 | HD-S | | | | | | |
| | HD-SL | | | | | | |
| -6,0 | HD-S | | | | | | |
| | HD-SL | | | | | | |

Stick 2,60 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 | HD-S | | | | | | |
| | HD-SL | | | | | | |
| 10,5 | HD-S | | | | | | |
| | HD-SL | | | | | | |
| 9,0 | HD-S | | | | 10,2 (10,3#) | | |
| | HD-SL | | | | 10,3# (10,3#) | | |
| 7,5 | HD-S | | | | 10,2 (10,3#) | 7,0 (9,1#) | |
| | HD-SL | | | | 10,3# (10,3#) | 7,5 (9,1#) | |
| 6,0 | HD-S | | | | 13,6# (13,6#) | 9,7 (10,9#) | 6,8 (9,2#) |
| | HD-SL | | | | 13,6# (13,6#) | 10,6 (10,9#) | 7,4 (9,2#) |
| 4,5 | HD-S | | | | 14,0 (15,8#) | 9,1 (11,8#) | 6,5 (9,6#) |
| | HD-SL | | | | 15,4 (15,8#) | 9,9 (11,8#) | 7,0 (9,6#) |
| 3,0 | HD-S | | | | 12,5 (17,6#) | 8,4 (12,6#) | 6,1 (9,9#) |
| | HD-SL | | | | 13,8 (17,6#) | 9,2 (12,6#) | 6,7 (9,9#) |
| 1,5 | HD-S | | | | 11,5# (11,5#) | 7,9 (12,9#) | 5,8 (9,9) |
| | HD-SL | | | | 11,5# (11,5#) | 8,7 (12,9#) | 6,4 (10,0) |
| 0 | HD-S | | | | 11,5 (14,3#) | 7,6 (12,4#) | 5,6 (9,7#) |
| | HD-SL | | | | 12,8 (14,3#) | 8,4 (12,4#) | 6,2 (9,7#) |
| -1,5 | HD-S | | | | 10,5# (10,5#) | 11,6 (13,5#) | 7,6 (11,0#) |
| | HD-SL | | | | 10,5# (10,5#) | 12,9 (13,5#) | 8,4 (11,0#) |
| -3,0 | HD-S | | | | 10,4# (10,4#) | 7,7 (8,8#) | 5,7 (6,8#) |
| | HD-SL | | | | 10,4# (10,4#) | 8,5 (8,8#) | 6,2 (6,8#) |
| -4,5 | HD-S | | | | | 5,4# (5,4#) | |
| | HD-SL | | | | | 5,4# (5,4#) | |
| -6,0 | HD-S | | | | | | |
| | HD-SL | | | | | | |

Stick 3,30 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 | HD-S | | | | | | |
| | HD-SL | | | | | | |
| 10,5 | HD-S | | | 6,9# (6,9#) | | | |
| | HD-SL | | | 6,9# (6,9#) | | | |
| 9,0 | HD-S | | | | 6,9# (6,9#) | | |
| | HD-SL | | | | 6,9# (6,9#) | | |
| 7,5 | HD-S | | | 9,0# (9,0#) | 7,1 (8,4#) | 5,0# (5,0#) | |
| | HD-SL | | | 9,0# (9,0#) | 7,7 (8,4#) | 5,0# (5,0#) | |
| 6,0 | HD-S | | | 9,9 (10,0#) | 6,9 (8,6#) | 5,0 (7,7#) | |
| | HD-SL | | | 10,0# (10,0#) | 7,5 (8,6#) | 5,4 (7,7#) | |
| 4,5 | HD-S | 22,2# (22,2#) | 14,4# (14,4#) | 9,3 (11,0#) | 6,5 (9,1#) | 4,8 (7,8#) | |
| | HD-SL | 22,2# (22,2#) | 14,4# (14,4#) | 10,1 (11,0#) | 7,1 (9,1#) | 5,3 (7,8#) | |
| 3,0 | HD-S | | 12,9 (16,7#) | 8,6 (12,1#) | 6,1 (9,6#) | 4,6 (7,7) | 3,5 (4,9#) |
| | HD-SL | | 14,3 (16,7#) | 9,4 (12,1#) | 6,7 (9,6#) | 5,0 (7,8) | 3,9 (4,9#) |
| 1,5 | HD-S | | 11,8 (16,3#) | 7,9 (12,7#) | 5,8 (9,9#) | 4,4 (7,5) | 3,5 (5,4#) |
| | HD-SL | | 13,1 (16,3#) | 8,7 (12,7#) | 6,3 (9,9#) | 4,8 (7,6) | 3,8 (5,4#) |
| 0 | HD-S | 4,7# (4,7#) | 11,4 (15,4#) | 7,5 (12,5#) | 5,5 (9,6) | 4,3 (7,4) | |
| | HD-SL | 4,7# (4,7#) | 12,7 (15,4#) | 8,3 (12,5#) | 6,1 (9,7) | 4,7 (7,4) | |
| -1,5 | HD-S | 9,7# (9,7#) | 11,3 (14,9#) | 7,4 (11,6#) | 5,4 (9,1#) | 4,2 (7,1#) | |
| | HD-SL | 9,7# (9,7#) | 12,6 (14,9#) | 8,2 (11,6#) | 6,0 (9,1#) | 4,6 (7,1#) | |
| -3,0 | HD-S | 13,9# (13,9#) | 11,4 (12,2#) | 7,4 (9,8#) | 5,4 (7,7#) | 4,3 (5,4#) | |
| | HD-SL | 13,9# (13,9#) | 12,2# (12,2#) | 8,2 (9,8#) | 6,0 (7,7#) | 4,7 (5,4#) | |
| -4,5 | HD-S | | 8,4# (8,4#) | 7,0# (7,0#) | 5,1# (5,1#) | | |
| | HD-SL | | 8,4# (8,4#) | 7,0# (7,0#) | 5,1# (5,1#) | | |
| -6,0 | HD-S | | | | | | |
| | HD-SL | | | | | | |

The lift capacities on the load hook of the Liebherr quick change adapter 66 without attachment are stated in metric tonnes (t), and can be lifted 360° on firm, level supporting surface. Values quoted in brackets are valid for 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 quick change adapter's load hook is 18 t. Without quick change adapter the lift capacities will increase by 430 kg, without bucket cylinder, link and lever they increase by an additional 570 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 6,45 m and Heavy Counterweight

Stick 2,10 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 | HD-S | | | | | | |
| | HD-SL | | | | | | |
| 10,5 | HD-S | | | | | | |
| | HD-SL | | | | | | |
| 9,0 | HD-S | | | | | | |
| | HD-SL | | | | | | |
| 7,5 | HD-S | | | 9,4# (9,4#) | | | |
| | HD-SL | | | 9,4# (9,4#) | | | |
| 6,0 | HD-S | | | 9,9# (9,9#) | 7,7 (8,9#) | | |
| | HD-SL | | | 9,9# (9,9#) | 8,3 (8,9#) | | |
| 4,5 | HD-S | | 14,5# (14,5#) | 10,3 (11,0#) | 7,4 (9,2#) | | |
| | HD-SL | | 14,5# (14,5#) | 11,0# (11,0#) | 8,0 (9,2#) | | |
| 3,0 | HD-S | | 14,3 (17,2#) | 9,7 (12,2#) | 7,1 (9,8#) | | |
| | HD-SL | | 15,7 (17,2#) | 10,6 (12,2#) | 7,7 (9,8#) | | |
| 1,5 | HD-S | | 13,5 (16,7#) | 9,2 (12,9#) | 6,8 (10,2#) | | |
| | HD-SL | | 14,9 (16,7#) | 10,0 (12,9#) | 7,4 (10,2#) | | |
| 0 | HD-S | | 13,4 (17,2#) | 8,9 (13,0#) | 6,7 (10,1#) | | |
| | HD-SL | | 14,8 (17,2#) | 9,8 (13,0#) | 7,2 (10,1#) | | |
| -1,5 | HD-S | 16,2# (16,2#) | 13,5 (15,7#) | 8,9 (12,2#) | 6,6 (9,5#) | | |
| | HD-SL | 16,2# (16,2#) | 14,9 (15,7#) | 9,7 (12,2#) | 7,2 (9,5#) | | |
| -3,0 | HD-S | 15,5# (15,5#) | 13,2# (13,2#) | 9,0 (10,4#) | | | |
| | HD-SL | 15,5# (15,5#) | 13,2# (13,2#) | 9,9 (10,4#) | | | |
| -4,5 | HD-S | | 9,2# (9,2#) | | | | |
| | HD-SL | | 9,2# (9,2#) | | | | |
| -6,0 | HD-S | | | | | | |
| | HD-SL | | | | | | |

Stick 2,60 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 | HD-S | | | | | | |
| | HD-SL | | | | | | |
| 10,5 | HD-S | | | | | | |
| | HD-SL | | | | | | |
| 9,0 | HD-S | | | | | | |
| | HD-SL | | | | | | |
| 7,5 | HD-S | | | | | 6,6# (6,6#) | |
| | HD-SL | | | | | 6,6# (6,6#) | |
| 6,0 | HD-S | | | 9,2# (9,2#) | 7,7 (8,3#) | | |
| | HD-SL | | | 9,2# (9,2#) | 8,3# (8,3#) | | |
| 4,5 | HD-S | 21,2# (21,2#) | 13,3# (13,3#) | 10,3# (10,3#) | 7,5 (8,8#) | 5,6 (6,3#) | |
| | HD-SL | 21,2# (21,2#) | 13,3# (13,3#) | 10,3# (10,3#) | 8,1 (8,8#) | 6,0 (6,3#) | |
| 3,0 | HD-S | | 14,7 (16,2#) | 9,8 (11,6#) | 7,1 (9,4#) | 5,4 (8,1#) | |
| | HD-SL | | 16,1 (16,2#) | 10,7 (11,6#) | 7,7 (9,4#) | 5,9 (8,1#) | |
| 1,5 | HD-S | | 13,7 (17,7#) | 9,2 (12,6#) | 6,8 (9,9#) | 5,2 (8,2#) | |
| | HD-SL | | 15,1 (17,7#) | 10,1 (12,6#) | 7,4 (9,9#) | 5,7 (8,2#) | |
| 0 | HD-S | 6,7# (6,7#) | 13,3 (17,6#) | 8,9 (12,9#) | 6,6 (10,1#) | 5,1 (8,1#) | |
| | HD-SL | 6,7# (6,7#) | 14,7 (17,6#) | 9,7 (12,9#) | 7,2 (10,1#) | 5,6 (8,1#) | |
| -1,5 | HD-S | 14,6# (14,6#) | 13,3 (16,4#) | 8,8 (12,4#) | 6,5 (9,7#) | | |
| | HD-SL | 14,6# (14,6#) | 14,7 (16,4#) | 9,6 (12,4#) | 7,1 (9,7#) | | |
| -3,0 | HD-S | 18,2# (18,2#) | 13,5 (14,3#) | 8,9 (11,1#) | 6,6 (8,4#) | | |
| | HD-SL | 18,2# (18,2#) | 14,3# (14,3#) | 9,7 (11,1#) | 7,2 (8,4#) | | |
| -4,5 | HD-S | 13,1# (13,1#) | 10,8# (10,8#) | 8,2# (8,2#) | | | |
| | HD-SL | 13,1# (13,1#) | 10,8# (10,8#) | 8,2# (8,2#) | | | |
| -6,0 | HD-S | | | | | | |
| | HD-SL | | | | | | |

Stick 3,30 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 | HD-S | | | | | | |
| | HD-SL | | | | | | |
| 10,5 | HD-S | | | | | | |
| | HD-SL | | | | | | |
| 9,0 | HD-S | | | | | | |
| | HD-SL | | | | | | |
| 7,5 | HD-S | | | | 7,3# (7,3#) | | |
| | HD-SL | | | | 7,3# (7,3#) | | |
| 6,0 | HD-S | | | | 7,5# (7,5#) | 5,7# (5,7#) | |
| | HD-SL | | | | 7,5# (7,5#) | 5,7# (5,7#) | |
| 4,5 | HD-S | | | 9,4# (9,4#) | 7,5 (8,1#) | 5,6 (7,3#) | |
| | HD-SL | | | 9,4# (9,4#) | 8,1# (8,1#) | 6,1 (7,3#) | |
| 3,0 | HD-S | 8,3# (8,3#) | 14,7# (14,7#) | 10,0 (10,8#) | 7,1 (8,8#) | 5,4 (7,6#) | |
| | HD-SL | 8,3# (8,3#) | 14,7# (14,7#) | 10,8 (10,8#) | 7,8 (8,8#) | 5,9 (7,6#) | |
| 1,5 | HD-S | 4,6# (4,6#) | 13,9 (17,0#) | 9,3 (12,0#) | 6,8 (9,5#) | 5,2 (7,9#) | |
| | HD-SL | 4,6# (4,6#) | 15,3 (17,0#) | 10,2 (12,0#) | 7,4 (9,5#) | 5,6 (7,9#) | |
| 0 | HD-S | 8,5# (8,5#) | 13,3 (17,6#) | 8,9 (12,7#) | 6,5 (9,9#) | 5,0 (8,0#) | |
| | HD-SL | 8,5# (8,5#) | 14,7 (17,6#) | 9,7 (12,7#) | 7,1 (9,9#) | 5,5 (8,0#) | |
| -1,5 | HD-S | 13,2# (13,2#) | 13,1 (17,0#) | 8,6 (12,6#) | 6,4 (9,8#) | 5,0 (7,7#) | |
| | HD-SL | 13,2# (13,2#) | 14,5 (17,0#) | 9,5 (12,6#) | 6,9 (9,8#) | 5,4 (7,7#) | |
| -3,0 | HD-S | 18,7# (18,7#) | 13,1 (15,4#) | 8,6 (11,6#) | 6,3 (9,0#) | | |
| | HD-SL | 18,7# (18,7#) | 14,5 (15,4#) | 9,5 (11,6#) | 6,9 (9,0#) | | |
| -4,5 | HD-S | 16,6# (16,6#) | 12,6# (12,6#) | 8,8 (9,6#) | | | |
| | HD-SL | 16,6# (16,6#) | 12,6# (12,6#) | 9,6# (9,6#) | | | |
| -6,0 | HD-S | | 7,7# (7,7#) | | | | |
| | HD-SL | | 7,7# (7,7#) | | | | |

The lift capacities on the load hook of the Liebherr quick change adapter 66 without attachment are stated in metric tonnes (t), and can be lifted 360° on firm, level supporting surface. Values quoted in brackets are valid for 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 quick change adapter's load hook is 18 t. Without quick change adapter the lift capacities will increase by 430 kg, without bucket cylinder, link and lever they increase by an additional 570 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 Hydr. Adjustable Boom 4,30 m and Heavy Counterweight

Stick 2,10 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 | HD-S | | | | | | |
| | HD-SL | | | | | | |
| 10,5 | HD-S | | 12,3# (12,3#) | | | | |
| | HD-SL | | 12,3# (12,3#) | | | | |
| 9,0 | HD-S | | 14,0# (14,0#) | 11,2# (12,0#) | | | |
| | HD-SL | | 14,0# (14,0#) | 12,0# (12,0#) | | | |
| 7,5 | HD-S | 14,9# (14,9#) | 15,7# (15,7#) | 11,0# (12,0#) | 7,7 (9,8#) | | |
| | HD-SL | 14,9# (14,9#) | 15,7# (15,7#) | 11,8 (12,0#) | 8,4 (9,8#) | | |
| 6,0 | HD-S | 24,3# (24,3#) | 16,0 (16,6#) | 10,8 (12,3#) | 7,9 (9,8#) | 5,3 (7,9#) | |
| | HD-SL | 24,3# (24,3#) | 16,6# (16,6#) | 11,4 (12,3#) | 8,4 (9,8#) | 5,8 (7,9#) | |
| 4,5 | HD-S | | 15,2 (16,8#) | 10,4 (12,5#) | 7,8 (9,7#) | 5,3 (7,9#) | |
| | HD-SL | | 16,0 (16,8#) | 11,0# (12,5#) | 8,3 (9,7#) | 5,8 (7,9#) | |
| 3,0 | HD-S | | 14,9 (16,6#) | 10,3 (12,2#) | 7,5 (9,5#) | 5,1 (7,8#) | |
| | HD-SL | | 15,8# (16,6#) | 10,8# (12,2#) | 8,1 (9,5#) | 5,6 (7,8#) | |
| 1,5 | HD-S | | 14,3 (16,9#) | 9,7 (12,2#) | 7,1 (9,5#) | 5,0 (7,7#) | |
| | HD-SL | | 15,7 (16,9#) | 10,6 (12,2#) | 7,7 (9,5#) | 5,5 (7,7#) | |
| 0 | HD-S | 16,5# (16,5#) | 13,5 (17,1#) | 9,1 (12,3#) | 6,7 (9,7#) | 4,8 (7,1#) | |
| | HD-SL | 16,5# (16,5#) | 15,0 (17,1#) | 10,0 (12,3#) | 7,3 (9,7#) | 5,2 (7,1#) | |
| -1,5 | HD-S | 24,9# (24,9#) | 13,2 (17,0#) | 8,9 (12,5#) | 6,3 (9,2#) | 4,7 (4,8#) | |
| | HD-SL | 24,9# (24,9#) | 14,7 (17,0#) | 9,7 (12,5#) | 6,9 (9,2#) | 4,8# (4,8#) | |
| -3,0 | HD-S | 22,5# (22,5#) | 13,3 (15,7#) | 8,7 (11,1#) | 6,1 (6,4#) | | |
| | HD-SL | 22,5# (22,5#) | 14,7 (15,7#) | 9,6 (11,1#) | 6,4# (6,4#) | | |
| -4,5 | HD-S | 17,6# (17,6#) | 10,9# (10,9#) | 5,5# (5,5#) | | | |
| | HD-SL | 17,6# (17,6#) | 10,9# (10,9#) | 5,5# (5,5#) | | | |
| -6,0 | HD-S | | | | | | |
| | HD-SL | | | | | | |

Stick 2,60 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 | HD-S | | | | | | |
| | HD-SL | | | | | | |
| 10,5 | HD-S | | 11,4# (11,4#) | 8,0# (8,0#) | | | |
| | HD-SL | | 11,4# (11,4#) | 8,0# (8,0#) | | | |
| 9,0 | HD-S | | 11,3# (11,3#) | 11,3 (11,3#) | 7,6 (8,6#) | | |
| | HD-SL | | 11,3# (11,3#) | 11,3# (11,3#) | 8,2 (8,6#) | | |
| 7,5 | HD-S | | 12,4# (12,4#) | 11,1 (11,7#) | 8,0 (9,5#) | | |
| | HD-SL | | 12,4# (12,4#) | 11,7# (11,7#) | 8,5 (9,5#) | | |
| 6,0 | HD-S | 24,7# (24,7#) | 16,1# (16,1#) | 10,8 (12,0#) | 7,9 (9,6#) | 5,5 (7,9#) | |
| | HD-SL | 24,7# (24,7#) | 16,1# (16,1#) | 11,5 (12,0#) | 8,4 (9,6#) | 6,0 (7,9#) | |
| 4,5 | HD-S | 21,7# (21,7#) | 15,3 (17,0#) | 10,4 (12,3#) | 7,8 (9,6#) | 5,5 (7,8#) | |
| | HD-SL | 21,7# (21,7#) | 16,2 (17,0#) | 11,0 (12,3#) | 8,2 (9,6#) | 6,0 (7,8#) | |
| 3,0 | HD-S | 17,2# (17,2#) | 14,9# (16,5#) | 10,2 (12,2#) | 7,5 (9,5#) | 5,3 (7,7#) | |
| | HD-SL | 17,2# (17,2#) | 15,7 (16,5#) | 10,8 (12,2#) | 8,1 (9,5#) | 5,8 (7,7#) | |
| 1,5 | HD-S | | 14,6 (16,7#) | 9,8 (12,0#) | 7,1 (9,4#) | 5,1 (7,7#) | |
| | HD-SL | | 15,6# (16,7#) | 10,7 (12,0#) | 7,7 (9,4#) | 5,6 (7,7#) | |
| 0 | HD-S | 16,2# (16,2#) | 13,7 (16,9#) | 9,2 (12,1#) | 6,7 (9,5#) | 4,8 (7,5#) | |
| | HD-SL | 16,2# (16,2#) | 15,1 (16,9#) | 10,1 (12,1#) | 7,4 (9,5#) | 5,3 (7,5#) | |
| -1,5 | HD-S | 22,2# (22,2#) | 13,2 (17,0#) | 8,8 (12,4#) | 6,4 (9,6#) | 4,6 (6,4#) | |
| | HD-SL | 22,2# (22,2#) | 14,6 (17,0#) | 9,7 (12,4#) | 7,0 (9,6#) | 5,1 (6,4#) | |
| -3,0 | HD-S | 23,9# (23,9#) | 13,1 (16,2#) | 8,7 (11,9#) | 6,1 (8,0#) | 2,2# (2,2#) | |
| | HD-SL | 23,9# (23,9#) | 14,6 (16,2#) | 9,6 (11,9#) | 6,7 (8,0#) | 2,2# (2,2#) | |
| -4,5 | HD-S | 19,9# (19,9#) | 13,4 (13,8#) | 8,0# (8,0#) | | | |
| | HD-SL | 19,9# (19,9#) | 13,8# (13,8#) | 8,0# (8,0#) | | | |
| -6,0 | HD-S | | | | | | |
| | HD-SL | | | | | | |

Stick 3,30 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 | HD-S | | 8,2# (8,2#) | | | | |
| | HD-SL | | 8,2# (8,2#) | | | | |
| 10,5 | HD-S | | 9,3# (9,3#) | 8,7# (8,7#) | | | |
| | HD-SL | | 9,3# (9,3#) | 8,7# (8,7#) | | | |
| 9,0 | HD-S | | 9,0# (9,0#) | 7,9 (8,5#) | | | |
| | HD-SL | | 9,0# (9,0#) | 8,5 (8,5#) | | | |
| 7,5 | HD-S | | 8,7# (8,7#) | 9,7# (9,7#) | 8,0 (9,2#) | 5,7 (7,7#) | |
| | HD-SL | | 8,7# (8,7#) | 9,7# (9,7#) | 8,5 (9,2#) | 6,1 (7,7#) | |
| 6,0 | HD-S | 10,3# (10,3#) | 11,7# (11,7#) | 10,9 (11,5#) | 7,8# (9,3#) | 5,8 (7,7#) | |
| | HD-SL | 10,3# (10,3#) | 11,7# (11,7#) | 11,5# (11,5#) | 8,3# (9,3#) | 6,2 (7,7#) | |
| 4,5 | HD-S | 23,0# (23,0#) | 15,4 (16,5#) | 10,4 (12,0#) | 7,7 (9,4#) | 5,7 (7,7#) | 4,0 (6,3#) |
| | HD-SL | 23,0# (23,0#) | 16,5# (16,5#) | 11,0 (12,0#) | 8,1# (9,4#) | 6,2 (7,7#) | 4,3 (6,3#) |
| 3,0 | HD-S | 21,2# (21,2#) | 14,7 (16,6#) | 10,1 (12,1#) | 7,5 (9,4#) | 5,5 (7,5#) | 3,9 (6,2#) |
| | HD-SL | 21,2# (21,2#) | 15,6# (16,6#) | 10,7 (12,1#) | 8,0# (9,4#) | 6,0 (7,5#) | 4,2 (6,2#) |
| 1,5 | HD-S | 16,0# (16,0#) | 14,6 (16,4#) | 10,0 (11,9#) | 7,2 (9,2#) | 5,3 (7,5#) | 3,7 (6,0#) |
| | HD-SL | 16,0# (16,0#) | 15,4# (16,4#) | 10,5# (11,9#) | 7,8 (9,2#) | 5,7 (7,5#) | 4,1 (6,0#) |
| 0 | HD-S | 16,2# (16,2#) | 13,9 (16,5#) | 9,3 (11,9#) | 6,7 (9,2#) | 5,0 (7,6#) | 3,6 (5,4#) |
| | HD-SL | 16,2# (16,2#) | 15,3 (16,5#) | 10,2 (11,9#) | 7,4 (9,2#) | 5,4 (7,6#) | 4,0 (5,4#) |
| -1,5 | HD-S | 19,9# (19,9#) | 13,2 (16,8#) | 8,8 (12,1#) | 6,4 (9,4#) | 4,7 (7,2#) | 3,1# (3,1#) |
| | HD-SL | 19,9# (19,9#) | 14,6 (16,8#) | 9,7 (12,1#) | 7,0 (9,4#) | 5,1 (7,2#) | 3,1# (3,1#) |
| -3,0 | HD-S | 25,0# (25,0#) | 12,9 (16,6#) | 8,5 (12,1#) | 6,2 (9,0#) | 4,5 (5,5#) | |
| | HD-SL | 25,0# (25,0#) | 14,4 (16,6#) | 9,4 (12,1#) | 6,8 (9,0#) | 5,0 (5,5#) | |
| -4,5 | HD-S | 22,3# (22,3#) | 13,0 (15,0#) | 8,4 (10,4#) | 5,9 (6,0#) | | |
| | HD-SL | 22,3# (22,3#) | 14,5 (15,0#) | 9,3 (10,4#) | 6,0# (6,0#) | | |
| -6,0 | HD-S | 16,1# (16,1#) | 9,0# (9,0#) | 3,7# (3,7#) | | | |
| | HD-SL | 16,1# (16,1#) | 9,0# (9,0#) | 3,7# (3,7#) | | | |

The lift capacities on the load hook of the Liebherr quick change adapter 66 without attachment are stated in metric tonnes (t), and can be lifted 360° on firm, level supporting surface. Values quoted in brackets are valid for the undercarriage when in longitudinal position. Capacities are valid for 600 mm wide triple grouser pads with adjusting cylinder in optimal position. 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 quick change adapter's load hook is 18 t. Without quick change adapter the lift capacities will increase by 430 kg, without bucket cylinder, link and lever they increase by an additional 570 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 Straight Gooseneck Boom 6,80 m and Heavy Counterweight

Stick 2,10 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 | HD-S | | | | | | |
| | HD-SL | | | | | | |
| 10,5 | HD-S | | | | | | |
| | HD-SL | | | | | | |
| 9,0 | HD-S | | | 9,8# (9,8#) | | | |
| | HD-SL | | | 9,8# (9,8#) | | | |
| 7,5 | HD-S | | | 10,9# (10,9#) | 7,6 (8,5#) | | |
| | HD-SL | | | 10,9# (10,9#) | 8,2 (8,5#) | | |
| 6,0 | HD-S | 21,2# (21,2#) | 14,5# (14,5#) | 10,6 (11,4#) | 7,5 (9,6#) | | |
| | HD-SL | 21,2# (21,2#) | 14,5# (14,5#) | 11,4# (11,4#) | 8,1 (9,6#) | | |
| 4,5 | HD-S | | 15,0 (16,7#) | 10,0 (12,2#) | 7,2 (9,9#) | 5,4 (8,1#) | |
| | HD-SL | | 16,5 (16,7#) | 10,9 (12,2#) | 7,8 (9,9#) | | |
| 3,0 | HD-S | | | 9,3 (12,9#) | 6,9 (10,2#) | 5,3 (8,3#) | |
| | HD-SL | | | 10,2 (12,9#) | 7,5 (10,2#) | 5,8 (8,3#) | |
| 1,5 | HD-S | | | 8,9 (12,9#) | 6,6 (10,1#) | 5,2 (8,1#) | |
| | HD-SL | | | 9,7 (12,9#) | 7,2 (10,1#) | 5,6 (8,1#) | |
| 0 | HD-S | | 13,2 (13,2#) | 8,7 (12,1#) | 6,5 (9,6#) | 5,1 (7,4#) | |
| | HD-SL | | 13,2# (13,2#) | 9,5 (12,1#) | 7,1 (9,6#) | 5,6 (7,4#) | |
| -1,5 | HD-S | | 12,0# (12,0#) | 8,7 (10,5#) | 6,5 (8,3#) | | |
| | HD-SL | | 12,0# (12,0#) | 9,5 (10,5#) | 7,1 (8,3#) | | |
| -3,0 | HD-S | | 8,8# (8,8#) | 7,9# (7,9#) | 5,9# (5,9#) | | |
| | HD-SL | | 8,8# (8,8#) | 7,9# (7,9#) | 5,9# (5,9#) | | |
| -4,5 | HD-S | | | | | | |
| | HD-SL | | | | | | |
| -6,0 | HD-S | | | | | | |
| | HD-SL | | | | | | |

Stick 2,60 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 | HD-S | | | | | | |
| | HD-SL | | | | | | |
| 10,5 | HD-S | | | | | | |
| | HD-SL | | | | | | |
| 9,0 | HD-S | | | 10,3# (10,3#) | | | |
| | HD-SL | | | 10,3# (10,3#) | | | |
| 7,5 | HD-S | | | 10,3# (10,3#) | 7,7 (9,1#) | | |
| | HD-SL | | | 10,3# (10,3#) | 8,3 (9,1#) | | |
| 6,0 | HD-S | | 13,6# (13,6#) | 10,8 (10,9#) | 7,6 (9,2#) | 5,6 (6,5#) | |
| | HD-SL | | 13,6# (13,6#) | 10,9# (10,9#) | 8,2 (9,2#) | 6,0 (6,5#) | |
| 4,5 | HD-S | | 15,5 (15,8#) | 10,1 (11,8#) | 7,2 (9,6#) | 5,4 (8,2#) | |
| | HD-SL | | 15,8# (15,8#) | 11,0 (11,8#) | 7,9 (9,6#) | 5,9 (8,2#) | |
| 3,0 | HD-S | | 14,0 (17,6#) | 9,4 (12,6#) | 6,9 (9,9#) | 5,3 (8,2#) | |
| | HD-SL | | 15,4 (17,6#) | 10,3 (12,6#) | 7,5 (9,9#) | 5,7 (8,2#) | |
| 1,5 | HD-S | | 11,5# (11,5#) | 8,9 (12,9#) | 6,6 (10,1#) | 5,1 (8,1#) | |
| | HD-SL | | 11,5# (11,5#) | 9,8 (12,9#) | 7,2 (10,1#) | 5,6 (8,1#) | |
| 0 | HD-S | | 13,0 (14,3#) | 8,6 (12,4#) | 6,4 (9,7#) | 5,0 (7,6#) | |
| | HD-SL | | 14,3# (14,3#) | 9,5 (12,4#) | 7,0 (9,7#) | 5,5 (7,6#) | |
| -1,5 | HD-S | 10,5# (10,5#) | 13,1 (13,5#) | 8,6 (11,0#) | 6,3 (8,7#) | 5,0 (6,5#) | |
| | HD-SL | 10,5# (10,5#) | 13,5# (13,5#) | 9,4 (11,0#) | 6,9 (8,7#) | 5,5 (6,5#) | |
| -3,0 | HD-S | | 10,4# (10,4#) | 8,7 (8,8#) | 6,4 (6,8#) | | |
| | HD-SL | | 10,4# (10,4#) | 8,8# (8,8#) | 6,8# (6,8#) | | |
| -4,5 | HD-S | | | 5,4# (5,4#) | | | |
| | HD-SL | | | 5,4# (5,4#) | | | |
| -6,0 | HD-S | | | | | | |
| | HD-SL | | | | | | |

Stick 3,30 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 | HD-S | | | | | | |
| | HD-SL | | | | | | |
| 10,5 | HD-S | | | 6,9# (6,9#) | | | |
| | HD-SL | | | 6,9# (6,9#) | | | |
| 9,0 | HD-S | | | | 6,9# (6,9#) | | |
| | HD-SL | | | | 6,9# (6,9#) | | |
| 7,5 | HD-S | | | 9,0# (9,0#) | 7,9 (8,4#) | 5,0# (5,0#) | |
| | HD-SL | | | 9,0# (9,0#) | 8,4# (8,4#) | 5,0# (5,0#) | |
| 6,0 | HD-S | | | 10,0# (10,0#) | 7,6 (8,6#) | 5,6 (7,7#) | |
| | HD-SL | | | 10,0# (10,0#) | 8,3 (8,6#) | 6,1 (7,7#) | |
| 4,5 | HD-S | 22,2# (22,2#) | 14,4# (14,4#) | 10,3 (11,0#) | 7,3 (9,1#) | 5,4 (7,8#) | |
| | HD-SL | 22,2# (22,2#) | 14,4# (14,4#) | 11,0# (11,0#) | 7,9 (9,1#) | 5,9 (7,8#) | |
| 3,0 | HD-S | | 14,4 (16,7#) | 9,6 (12,1#) | 6,9 (9,6#) | 5,2 (8,0#) | 4,1 (4,9#) |
| | HD-SL | | 15,9 (16,7#) | 10,4 (12,1#) | 7,5 (9,6#) | 5,7 (8,0#) | 4,4 (4,9#) |
| 1,5 | HD-S | | 13,3 (16,3#) | 9,0 (12,7#) | 6,6 (9,9#) | 5,0 (8,0#) | 4,0 (5,4#) |
| | HD-SL | | 14,7 (16,3#) | 9,8 (12,7#) | 7,2 (9,9#) | 5,5 (8,0#) | 4,4 (5,4#) |
| 0 | HD-S | 4,7# (4,7#) | 12,9 (15,4#) | 8,6 (12,5#) | 6,3 (9,7#) | 4,9 (7,8#) | |
| | HD-SL | 4,7# (4,7#) | 14,2 (15,4#) | 9,4 (12,5#) | 6,9 (9,7#) | 5,3 (7,8#) | |
| -1,5 | HD-S | 9,7# (9,7#) | 12,8 (14,9#) | 8,4 (11,6#) | 6,2 (9,1#) | 4,8 (7,1#) | |
| | HD-SL | 9,7# (9,7#) | 14,2 (14,9#) | 9,2 (11,6#) | 6,8 (9,1#) | 5,3 (7,1#) | |
| -3,0 | HD-S | 13,9# (13,9#) | 12,2# (12,2#) | 8,5 (9,8#) | 6,2 (7,7#) | 4,9 (5,4#) | |
| | HD-SL | 13,9# (13,9#) | 12,2# (12,2#) | 9,3 (9,8#) | 6,8 (7,7#) | 5,4 (5,4#) | |
| -4,5 | HD-S | | 8,4# (8,4#) | 7,0# (7,0#) | 5,1# (5,1#) | | |
| | HD-SL | | 8,4# (8,4#) | 7,0# (7,0#) | 5,1# (5,1#) | | |
| -6,0 | HD-S | | | | | | |
| | HD-SL | | | | | | |

The lift capacities on the load hook of the Liebherr quick change adapter 66 without attachment are stated in metric tonnes (t), and can be lifted 360° on firm, level supporting surface. Values quoted in brackets are valid for 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 quick change adapter's load hook is 18 t. Without quick change adapter the lift capacities will increase by 430 kg, without bucket cylinder, link and lever they increase by an additional 570 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.

Equipment



Undercarriage

S O

| | | |
|-----------------------------------------------------------------|---|---|
| Two-speed travel | • | |
| Track guides on idler end | • | |
| Life time lubricated track rollers | • | |
| Travel drive completely integrated into the undercarriage frame | • | |
| Tracks sealed and greased | • | |
| Track guides at sprocket and in center | | • |
| Sprocket with dirt ejector | | • |
| Reinforced base-plate center-piece | | • |
| Conversion kit – Track D 7 to D 7 G | | • |



Uppercarriage

S O

| | | |
|------------------------------------|---|---|
| Engine hood with lift help | • | |
| 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 | | • |
| Extended tool kit | | • |
| Customized colors | | • |



Hydraulics

S O

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



Engine

S O

| | | |
|-------------------------------------------------------------|---|---|
| Unit pump system | • | |
| Turbo charger | • | |
| Dry-type air cleaner w/pre-cleaner, main and safety element | • | |
| Sensor controlled engine idling | • | |
| Engine cold starting aid | | • |



Operator's Cab

S O

| | | |
|--------------------------------------------------------------------|---|---|
| Roof hatch | • | |
| All tinted windows | • | |
| Right window made of one piece (without post) | • | |
| Rain hood over front window opening | • | |
| Wiper/washer | • | |
| 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 | • | |
| Inside rear mirror | • | |
| 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 | • | |
| Stereo radio | | • |
| Electric cool box | | • |
| Auxiliary heating | | • |
| Additional flood lights | | • |
| 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

S O

| | | |
|--------------------------------------------------------------------------------------|---|---|
| Cylinders with shock absorbers | • | |
| Sealed pivots/O-ring sealant between bucket and stick | • | |
| Lubrication semi automatic for attachment and swing ring | • | |
| SAE split flanges on all high pressure lines | • | |
| 18 t lifting eye on buckets | • | |
| Work light on boom | • | |
| Safety check valves for hoist cylinder | • | |
| Overload warning device | | • |
| Hydr. or mechanical quick change coupler | | • |
| Liebherr line of clams and grapples | | • |
| Quick disconnect hose couplers | | • |
| Special application buckets | | • |
| Hydr. lines, on stick, for clam operation and two-way selector valve for bucket/clam | | • |
| Bucket link holder f'/clam application | | • |
| Customized colors | | • |

S = Standard, O = 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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