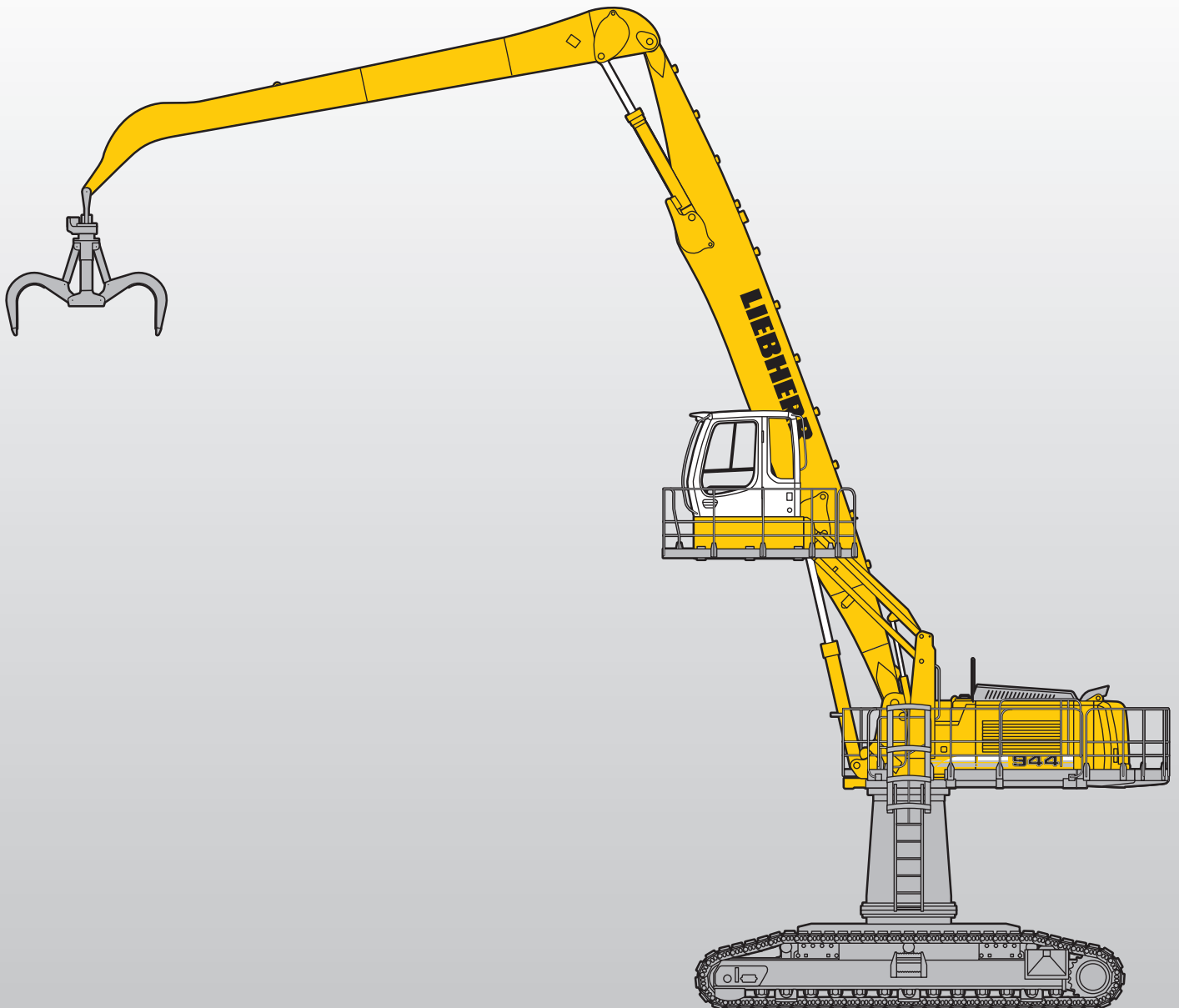


Machine for Industrial Applications **R 944 C**

Litronic® High Rise

Operating Weight: 71,600 – 73,700 kg
Engine Output: 190 kW/258 HP
Electric Motor Output: 200 kW/272 HP



LIEBHERR

Technical Data



Engine

Rating per ISO 9249	190 kW (258 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	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	370 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
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 (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
Joysticks	integrated into adjustable seat consoles
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

Version HR	
Drive	Liebherr swash plate motors with integrated brake valves on both sides
Transmission	Liebherr planetary reduction gears
Travel speed	low range – 3.0 km/h high range – 3.8 km/h
Drawbar pull max.	320 kN
Track components	D 7 G, maintenance-free
Track rollers/Carrier rollers	13/3
Tracks	sealed and greased
Track pads	flat pad
Digging locks	wet multi-discs (spring applied, pressure released)
Brake valves	integrated into travel motor



Attachment

Type	high-strength steel plates at highly-stressed points for the toughest requirements. Complex and stable mountings of attachment and cylinders. Unrivalled strength, even at high loads
Hydraulic cylinders	Liebherr cylinders with special seal system. Shock absorption
Pivots	sealed, low maintenance
Lubrication	Liebherr semi-automatic central lubrication system
VarioLiftPlus	variable boom mounting positions for optimized lift capacities

Version with Electric Motor



Electric Motor

Motor	asynchronous three-phase, cage rotor enclosed in cast iron envelope, special Liebherr design
Power rating (as per CEI 34-1)	200 kW (272 HP) at 1,485 RPM
Rated voltage	400 V – 50 Hz*
Number of poles	4
Design type	horizontal axle B35 axle height 315 mm painting: RAL 7031
Standard degree of protection	IP55 – steel flange FF600
Insulation	class F, thermal loading: Class B, ambient temperature 40 °C
Starter star/delta	
Heat protection for windings	
Heat protection for bearings	
Anti-condensation heating system resistors	



Electric System

The 400 V electrical cabinet provides a degree of protection to IP55. This houses the following components:

- Main motorised isolator, controlled from the cab
- Star/delta starter for motor
- Outlets for supplying auxiliary elements: heating, climate control
- Various heat protection devices
- Resistors for controlling the temperature of the cabinet
- Booster pump integrated in the cabinet: Cabinet air filtered (option)
- Transformers – rectifier for 24 V control circuit
- Motor protection attachment
- Auxiliary batteries: 2 x 135 Ah/12 V: secured functions: lighting for excavator/attachment position (option)



Hydraulic System

Hydraulic pump for attachment and travel drive	two Liebherr variable flow, swash plate pumps
Max. flow	2 x 305 l/min.
Max. pressure	350 bar
Pump regulation	electro-hydraulic with electronic engine speed sensing regulation, pressure 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	370 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	radiator equipped with hydrostatic drive fan for cooling the hydraulic oil and climate control condenser
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 hydraulic 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 – 7.9 RPM stepless
Swing torque	119 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	integrated into adjustable seat consoles
Monitoring	menu driven digital display of current operating conditions. Automatic monitoring, display, warning (audible and visual signal) and saving of machine malfunction data, such as overheating of windings, motor bearings, or low hydraulic oil level
Heating system	standard air conditioning, combined cooler/heater, additional dust filter in fresh air/recirculated



Undercarriage

Version HR	
Drive	Liebherr hydraulic motor with integrated brake valves on both sides
Transmission	Liebherr planetary reduction gears
Travel speed	low range – 3.0 km/h high range – 3.8 km/h
Drawbar pull max.	320 kN
Track components	D 7 G, maintenance-free
Track rollers/Carrier rollers	13/3
Tracks	sealed and greased
Track pads	flat pad
Digging locks	wet multi-discs (spring applied, pressure released)
Brake valves	integrated into travel motor

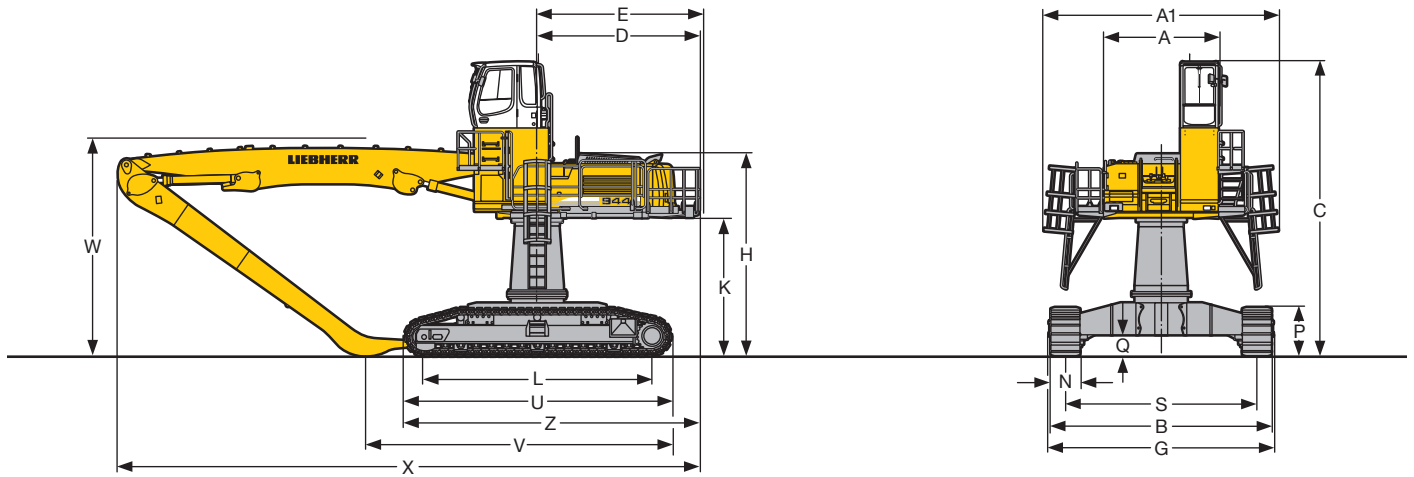


Attachment

Type	high-strength steel plates at highly-stressed points for the toughest requirements. Complex and stable mountings of attachment and cylinders. Unrivalled strength, even at high loads
Hydraulic cylinders	Liebherr cylinders with special seal system. Shock absorption
Pivots	sealed, low maintenance
Lubrication	Liebherr semi-automatic central lubrication system
VarioLiftPlus	variable boom mounting positions for optimized lift capacities

* Other voltages and frequencies possible on request.

Dimensions



	mm
A	6,150
A1	3,050
C with Rigid Cab Elevation 2 m	7,700
C* with Rigid Cab Elevation 2 m	8,160
C with Hydraulic Cab Elevation Parallelogram + Intermediate Piece 0,5 m	6,170
C* with Hydraulic Cab Elevation Parallelogram + Intermediate Piece 0,5 m	6,630
D	4,250
E	4,350
F	4,100
H with Rigid Cab Elevation 2 m	5,300
H* with Rigid Cab Elevation 2 m	5,760
H with Hydraulic Cab Elevation Parallelogram + Intermediate Piece 0,5 m	6,170
H* with Hydraulic Cab Elevation Parallelogram + Intermediate Piece 0,5 m	6,630
K	3,600
K*	4,060
L	6,000
P	1,280
Q	555
S	5,000
U	7,000
Z	7,750
N	750
B	5,830
G	5,860

Industrial-Type Straight Boom 9.50 m and Industrial Stick					
	m	7.30	7.30*	8.80	8.80*
V	mm	8,850	8,350	7,000	7,300
W	mm	5,700	6,160	5,700	6,160
X	mm	14,300	14,300	14,300	14,300

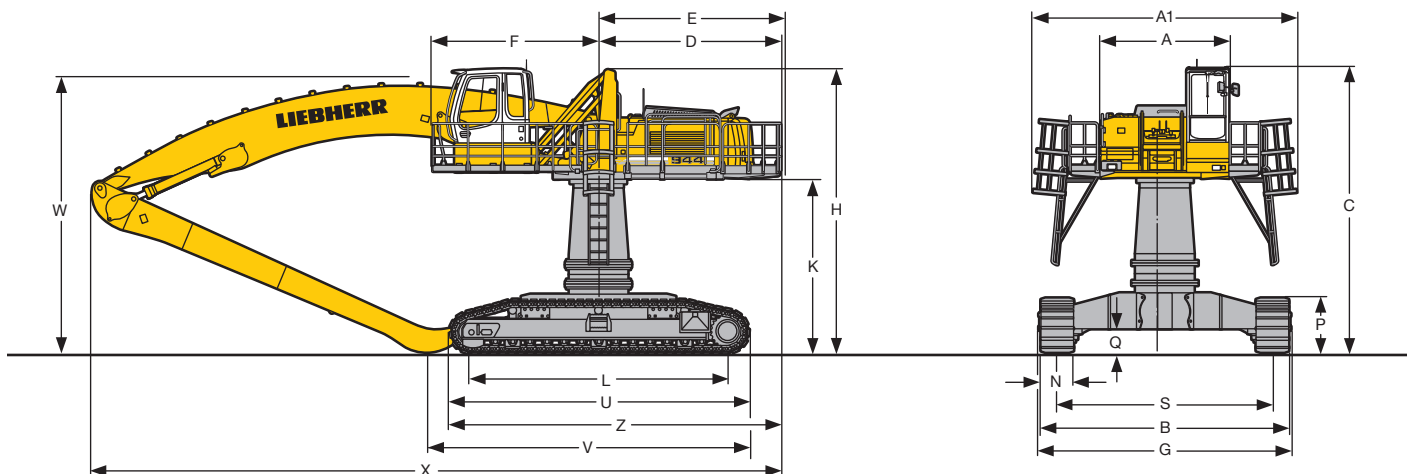
Industrial-Type Straight Boom 10.50 m and Industrial Stick					
	m	8.80	8.80*	9.50	9.50*
V	mm	8,000	8,300	7,150	7,400
W	mm	5,700	6,160	5,700	6,160
X	mm	15,250	15,250	15,250	15,250

Industrial-Type Straight Boom 11.50 m and Industrial Stick					
	m	9.50	9.50*	12.00	12.00*
V	mm	8,150	8,450	**	**
W	mm	5,700	6,160	5,700	6,160
X	mm	16,250	16,250	16,250	16,250

Industrial-Type Gooseneck Boom 11.50 m and Industrial Stick					
	m	9.50	9.50*	12.00	12.00*
V	mm	7,400	7,500	**	**
W	mm	5,950	6,400	5,950	6,400
X	mm	16,100	16,100	16,100	16,100

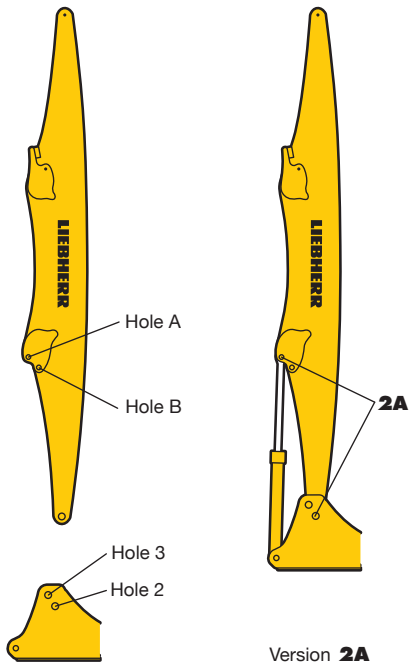
** = without Stick

E = Tail radius
* = with Elevation



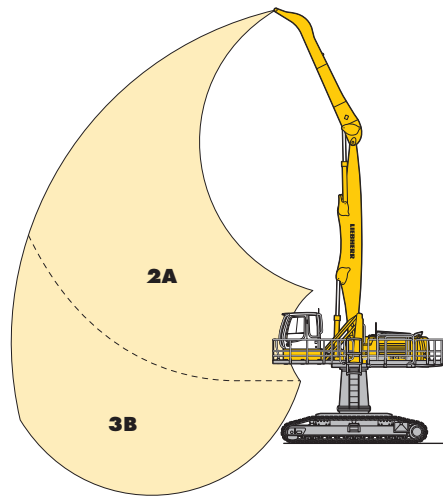
VarioLiftPlus

Variable Boom Mounting Positions for Optimized Lift Capacities



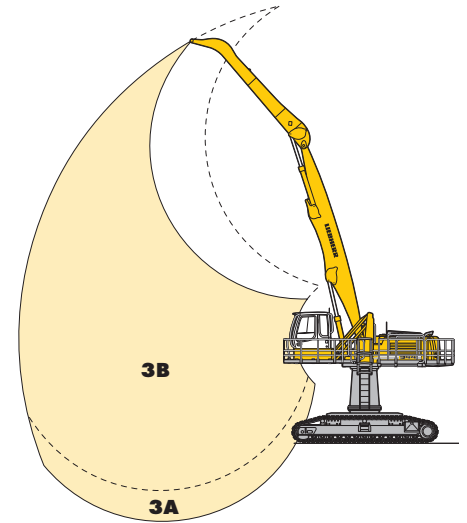
Version **2A**

with **the same** working range

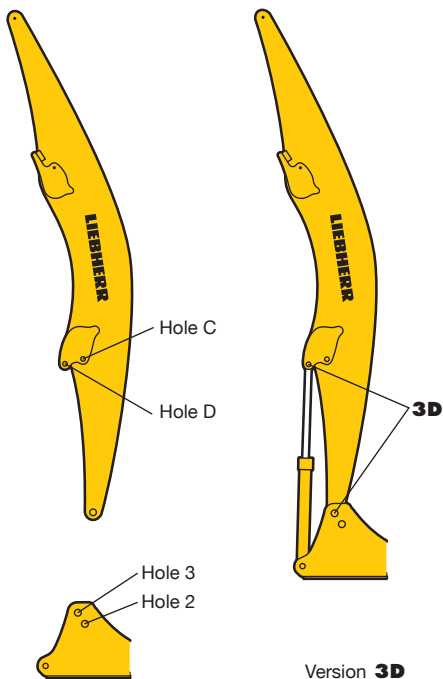


Kinematic variant 2A:
Increased lift capacities above ground level
Kinematic variant 3B:
Increased lift capacities below ground level
and when working at large outreach

with a **different** working range

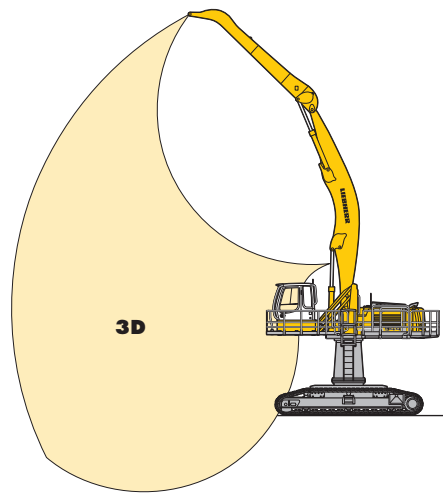


Kinematic variant 3A:
Altered range curve with additional reach
depth, e.g. for unloading from ships

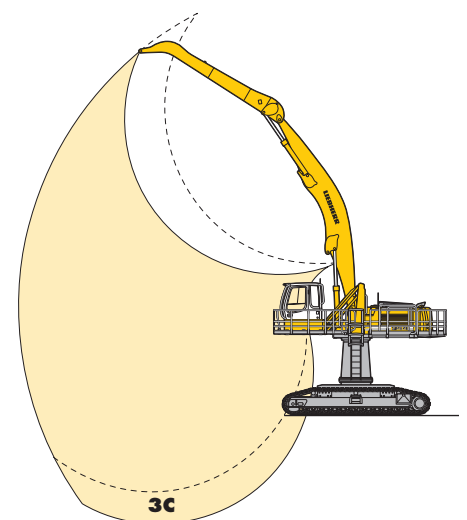


Version **3D**

with a **different** working range



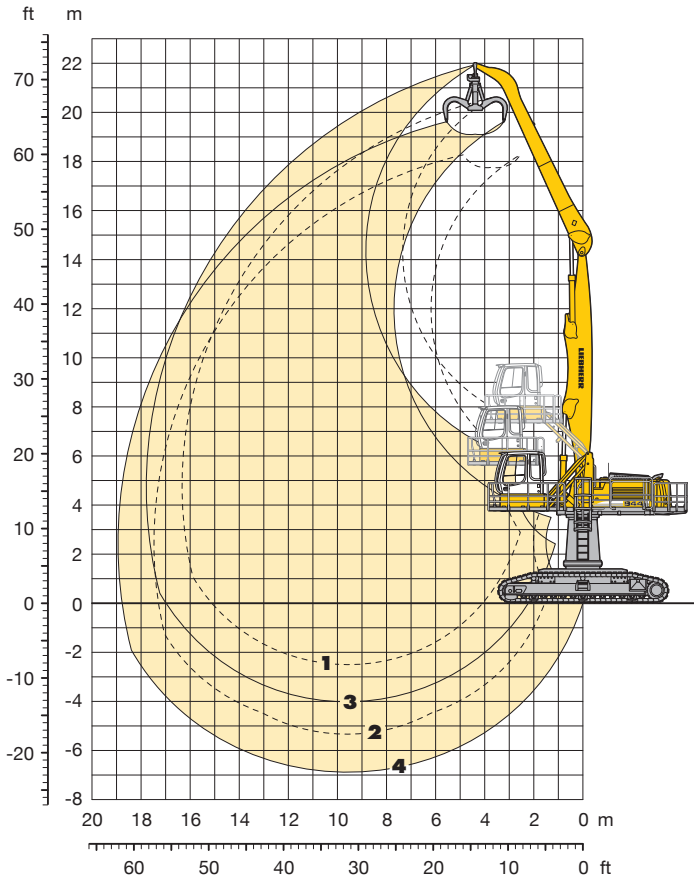
Kinematic variant 3D:
Increased lift capacities below ground level
and when working at large outreach



Kinematic variant 3C:
Altered range curve with additional reach
depth, e.g. for unloading from ships

Industrial Attachment

with Industrial-Type Straight Boom 9.50 m



Attachment Envelope

Kinematic variant 2A

- 1** with industrial stick 7.30 m
- 2** with industrial stick 8.80 m
- 3** with industrial stick 7.30 m and grapple model 70 C
- 4** with industrial stick 8.80 m and grapple model 70 C

Operating Weight and Ground Pressure

Operating weight includes basic machine with hydraulic cab elevation parallelogram + intermediate piece 0.5 m, counterweight 11.0 t, industrial-type straight boom 9.50 m, industrial stick 7.30 m and grapple model 70 C with 5 semi-closed tines 1.10 m³.

Undercarriage	HR
Pad width	mm 750
Weight	kg 71,600
Ground pressure	kg/cm ² 0.80

Operating weight includes basic machine with hydraulic cab elevation parallelogram + intermediate piece 0.5 m, counterweight 11.0 t, industrial-type straight boom 9.50 m, industrial stick 8.80 m and grapple model 70 C with 5 semi-closed tines 1.10 m³.

Undercarriage	HR
Pad width	mm 750
Weight	kg 71,900
Ground pressure	kg/cm ² 0.80

Lift Capacities

with Industrial-Type Straight Boom 9.50 m

Industrial Stick 7.30 m (Variant 2A)

Height m	Under- carriage	4.5 m		6.0 m		7.5 m		9.0 m		10.5 m		12.0 m		13.5 m		15.0 m		16.5 m		18.0 m		19.5 m		21.0 m		22.5 m		m	
25.5	HR																												
24.0	HR																												
22.5	HR																												
21.0	HR																												
19.5	HR				11.6*	11.6*																					10.0*	10.0*	6.91
18.0	HR						11.5*	11.5*	9.3*	9.3*																	8.3*	8.3*	9.50
16.5	HR						12.4*	12.4*	11.2*	11.2*	9.2*	9.2*															7.4*	7.4*	11.31
15.0	HR						12.9*	12.9*	11.5*	11.5*	10.3*	10.3*	8.7*	8.7*													6.9*	6.9*	12.69
13.5	HR						13.0*	13.0*	11.5*	11.5*	10.3*	10.3*	9.3*	9.3*	7.5*	7.5*											6.6*	6.6*	13.78
12.0	HR						13.2*	13.2*	11.6*	11.6*	10.3*	10.3*	9.3*	9.3*	8.3*	8.3*											6.4*	6.4*	14.62
10.5	HR						13.6*	13.6*	11.8*	11.8*	10.4*	10.4*	9.3*	9.3*	8.3*	8.3*	7.3*	7.3*									6.4*	6.4*	15.28
9.0	HR																										6.3*	6.3*	15.76
7.5	HR					15.4*	15.4*	14.2*	14.2*	12.2*	12.2*	10.6*	10.6*	9.4*	9.4*	8.3*	8.3*	7.3*	7.3*								6.2*	6.2*	16.09
6.0	HR					17.9*	17.9*	18.2*	18.2*	14.8*	14.8*	12.5*	12.5*	10.8*	10.8*	9.4*	9.4*	8.3*	8.3*	7.2*	7.2*						5.8*	5.8*	16.27
4.5	HR					26.0*	26.0*	19.3*	19.3*	15.4*	15.4*	12.8*	12.8*	10.9*	10.9*	9.4*	9.4*	8.2*	8.2*	7.0*	7.0*						5.4*	5.4*	16.31
3.0	HR					9.7*	9.7*	19.8*	19.8*	15.6*	15.6*	12.8*	12.8*	10.8*	10.8*	9.3*	9.3*	8.0*	8.0*	6.7*	6.7*						4.9*	4.9*	16.22
1.5	HR					6.3*	6.3*	19.3*	19.3*	15.3*	15.3*	12.6*	12.6*	10.6*	10.6*	9.0*	9.0*	7.6*	7.6*	6.3*	6.3*						4.3*	4.3*	15.98
0	HR					6.5*	6.5*	14.3*	14.3*	14.5*	14.5*	12.0*	12.0*	10.0*	10.0*	8.4*	8.4*	7.0*	7.0*	5.6*	5.6*						4.4*	4.4*	15.11
-1.5	HR					7.7*	7.7*	13.6*	13.6*	13.0*	13.0*	10.9*	10.9*	9.1*	9.1*	7.6*	7.6*	6.2*	6.2*	4.5*	4.5*						5.1*	5.1*	13.31
-3.0	HR																												
-4.5	HR																												
-6.0	HR																												
-7.5	HR																												
-9.0	HR																												

Industrial Stick 8.80 m (Variant 2A)

Height m	Under- carriage	4.5 m		6.0 m		7.5 m		9.0 m		10.5 m		12.0 m		13.5 m		15.0 m		16.5 m		18.0 m		19.5 m		21.0 m		22.5 m		m	
25.5	HR																												
24.0	HR																												
22.5	HR																												
21.0	HR																												
19.5	HR																										8.6*	8.6*	7.15
18.0	HR																										7.0*	7.0*	9.90
16.5	HR																										6.2*	6.2*	11.85
15.0	HR																										5.7*	5.7*	13.34
13.5	HR																										5.4*	5.4*	14.53
12.0	HR																										5.2*	5.2*	15.48
10.5	HR																										5.1*	5.1*	16.24
9.0	HR																										5.0*	5.0*	16.83
7.5	HR																										5.0*	5.0*	17.27
6.0	HR																										5.0*	5.0*	17.57
4.5	HR																										5.1*	5.1*	17.74
3.0	HR																										4.7*	4.7*	17.78
1.5	HR																										4.4*	4.4*	17.69
0	HR																										3.9*	3.9*	17.47
-1.5	HR																										3.6*	3.6*	16.98
-3.0	HR																										3.9*	3.9*	15.76
-4.5	HR																										4.6*	4.6*	13.70
-6.0	HR																												
-7.5	HR																												
-9.0	HR																												

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

The lift capacities are stated in metric tonnes (t) on the lifting gear's stick tip, and can be lifted 360° on firm, level supporting surface. Capacities are valid for 750 mm track flat pads. Indicated loads are based on ISO 10567 standard and do not exceed 75 % of tipping or 87 % of hydraulic capacity (indicated via *). 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.

Industrial Attachment

with Industrial-Type Straight Boom 9.50 m

Attachment Envelope

Kinematic variants 3A/3B

- 1** with industrial stick 7.30 m (3B)
- 2** with industrial stick 7.30 m and grapple model 70 C (3B)
- 3** with industrial stick 7.30 m (3A)
- 4** with industrial stick 7.30 m and grapple model 70 C (3A)

Operating Weight and Ground Pressure

Operating weight includes basic machine with hydraulic cab elevation parallelogram + intermediate piece 0.5 m, counterweight 11.0 t, industrial-type straight boom 9.50 m, industrial stick 7.30 m and grapple model 70 C with 5 semi-closed tines 1.10 m³.

Undercarriage	HR
Pad width	mm 750
Weight	kg 71,600
Ground pressure	kg/cm ² 0.80

Attachment Envelope

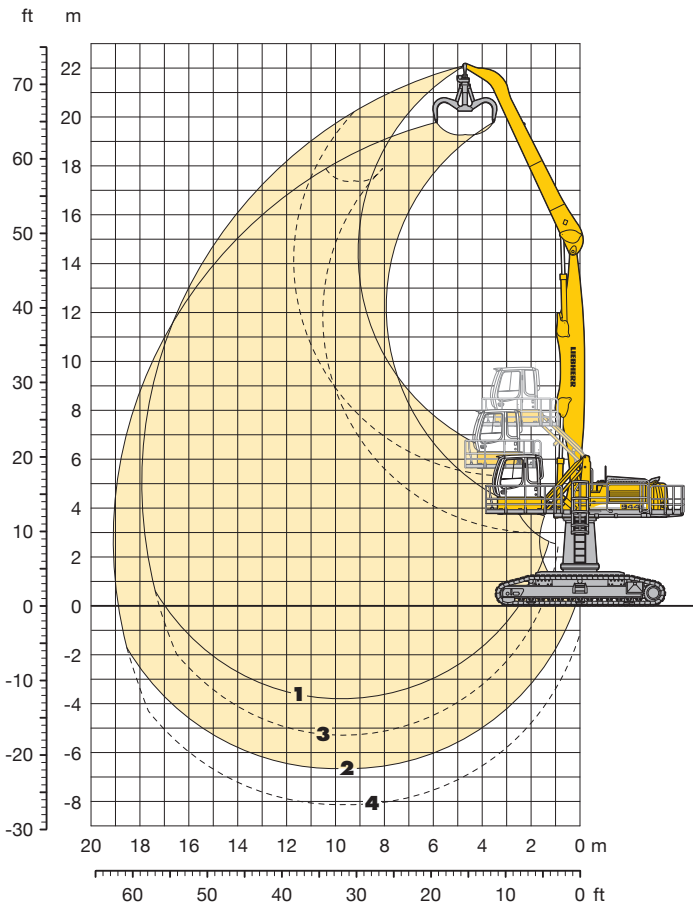
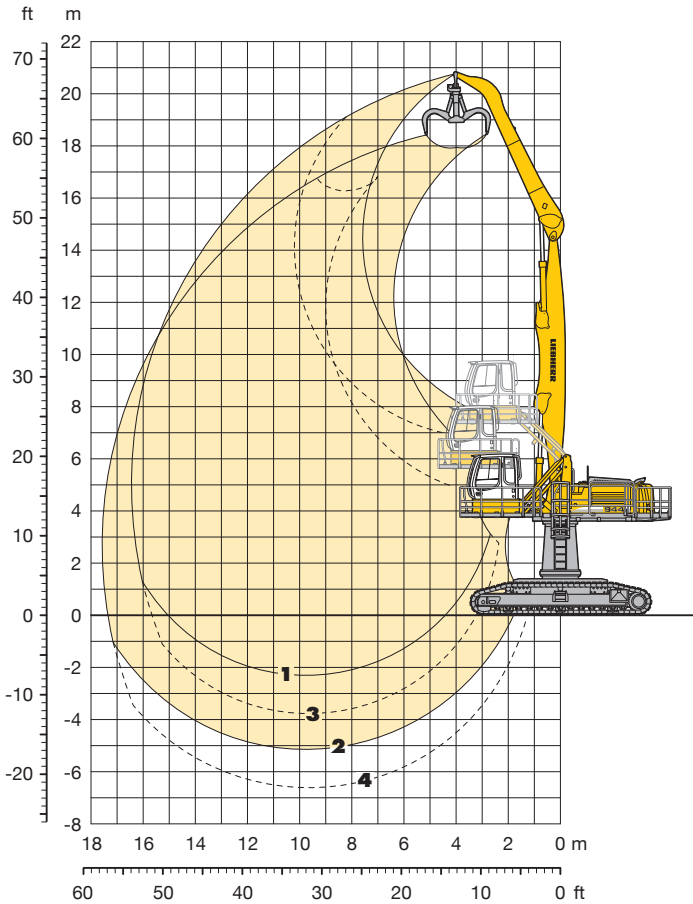
Kinematic variants 3A/3B

- 1** with industrial stick 8.80 m (3B)
- 2** with industrial stick 8.80 m and grapple model 70 C (3B)
- 3** with industrial stick 8.80 m (3A)
- 4** with industrial stick 8.80 m and grapple model 70 C (3A)

Operating Weight and Ground Pressure

Operating weight includes basic machine with hydraulic cab elevation parallelogram + intermediate piece 0.5 m, counterweight 11.0 t, industrial-type straight boom 9.50 m, industrial stick 8.80 m and grapple model 70 C with 5 semi-closed tines 1.10 m³.

Undercarriage	HR
Pad width	mm 750
Weight	kg 71,900
Ground pressure	kg/cm ² 0.80



Lift Capacities

with Industrial-Type Straight Boom 9.50 m

Industrial Stick 7.30 m (Variant 3A)

Height m	Under-carriage	4.5 m		6.0 m		7.5 m		9.0 m		10.5 m		12.0 m		13.5 m		15.0 m		16.5 m		18.0 m		19.5 m		21.0 m		22.5 m		m		
25.5	HR																													
24.0	HR																													
22.5	HR																													
21.0	HR																													
19.5	HR																													
18.0	HR																													
16.5	HR									9.7*	9.7*																8.1*	8.1*	9.93	
15.0	HR									9.5*	9.5*	8.9*	8.9*														7.3*	7.3*	11.67	
13.5	HR									9.4*	9.4*	8.8*	8.8*	8.2*	8.2*												6.6*	6.6*	14.05	
12.0	HR									9.6*	9.6*	8.9*	8.9*	8.3*	8.3*												6.4*	6.4*	14.87	
10.5	HR									9.8*	9.8*	9.0*	9.0*	8.3*	8.3*	7.8*	7.8*										6.4*	6.4*	15.49	
9.0	HR							11.4*	11.4*	10.2*	10.2*	9.2*	9.2*	8.5*	8.5*	7.8*	7.8*										6.3*	6.3*	15.95	
7.5	HR			17.0*	17.0*	14.0*	14.0*	12.0*	12.0*	10.6*	10.6*	9.5*	9.5*	8.6*	8.6*	7.8*	7.8*										6.4*	6.4*	16.26	
6.0	HR	25.8*	25.8*	19.0*	19.0*	15.2*	15.2*	12.7*	12.7*	11.0*	11.0*	9.7*	9.7*	8.7*	8.7*	7.9*	7.9*										6.5*	6.5*	16.43	
4.5	HR	7.5*	7.5*	20.5*	20.5*	16.1*	16.1*	13.3*	13.3*	11.4*	11.4*	9.9*	9.9*	8.8*	8.8*	7.8*	7.8*										6.7*	6.7*	16.45	
3.0	HR	5.6*	5.6*	16.2*	16.2*	16.6*	16.6*	13.7*	13.7*	11.6*	11.6*	10.0*	10.0*	8.8*	8.8*	7.7*	7.7*										6.6*	6.6*	16.33	
1.5	HR	6.2*	6.2*	13.0*	13.0*	16.7*	16.7*	13.7*	13.7*	11.6*	11.6*	9.9*	9.9*	8.6*	8.6*	7.4*	7.4*										6.3*	6.3*	16.08	
0	HR	7.5*	7.5*	12.9*	12.9*	16.1*	16.1*	13.3*	13.3*	11.3*	11.3*	9.6*	9.6*	8.2*	8.2*	6.8*	6.8*										6.0*	6.0*	15.67	
-1.5	HR	9.0*	9.0*	13.8*	13.8*	15.0*	15.0*	12.5*	12.5*	10.6*	10.6*	8.9*	8.9*	7.5*	7.5*												5.8*	5.8*	14.92	
-3.0	HR					13.2*	13.2*	11.2*	11.2*	9.4*	9.4*	7.8*	7.8*														6.9*	6.9*	12.90	
-4.5	HR																													
-6.0	HR																													
-7.5	HR																													
-9.0	HR																													

Industrial Stick 8.80 m (Variant 3A)

Height m	Under-carriage	4.5 m		6.0 m		7.5 m		9.0 m		10.5 m		12.0 m		13.5 m		15.0 m		16.5 m		18.0 m		19.5 m		21.0 m		22.5 m		m			
25.5	HR																														
24.0	HR																														
22.5	HR																														
21.0	HR																														
19.5	HR																														
18.0	HR											6.6*	6.6*															6.9*	6.9*	10.35	
16.5	HR											8.2*	8.2*	6.1*	6.1*												6.1*	6.1*	12.22		
15.0	HR											8.0*	8.0*	7.6*	7.6*												5.7*	5.7*	13.67		
13.5	HR											8.0*	8.0*	7.6*	7.6*	6.8*	6.8*										5.4*	5.4*	14.82		
12.0	HR											8.0*	8.0*	7.6*	7.6*	7.2*	7.2*										5.2*	5.2*	15.74		
10.5	HR											8.2*	8.2*	7.7*	7.7*	7.2*	7.2*	6.5*	6.5*								5.1*	5.1*	16.47		
9.0	HR									9.2*	9.2*	8.5*	8.5*	7.9*	7.9*	7.3*	7.3*	6.8*	6.8*								5.0*	5.0*	17.04		
7.5	HR							10.9*	10.9*	9.7*	9.7*	8.8*	8.8*	8.0*	8.0*	7.4*	7.4*	6.8*	6.8*								5.0*	5.0*	17.46		
6.0	HR					13.6*	13.6*	11.7*	11.7*	10.2*	10.2*	9.1*	9.1*	8.3*	8.3*	7.5*	7.5*	6.8*	6.8*								5.1*	5.1*	17.89		
4.5	HR	25.4*	25.4*	18.6*	18.6*	14.8*	14.8*	12.4*	12.4*	10.7*	10.7*	9.4*	9.4*	8.4*	8.4*	7.6*	7.6*	6.8*	6.8*								5.2*	5.2*	17.92		
3.0	HR	9.2*	9.2*	20.2*	20.2*	15.8*	15.8*	13.0*	13.0*	11.1*	11.1*	9.7*	9.7*	8.5*	8.5*	7.6*	7.6*	6.7*	6.7*								5.4*	5.4*	17.81		
1.5	HR	7.2*	7.2*	17.5*	17.5*	16.3*	16.3*	13.4*	13.4*	11.3*	11.3*	9.8*	9.8*	8.5*	8.5*	7.5*	7.5*	6.5*	6.5*								5.6*	5.6*	17.57		
0	HR	7.4*	7.4*	14.1*	14.1*	16.3*	16.3*	13.4*	13.4*	11.3*	11.3*	9.7*	9.7*	8.4*	8.4*	7.3*	7.3*	6.1*	6.1*								5.4*	5.4*	17.20		
-1.5	HR	8.3*	8.3*	13.6*	13.6*	15.8*	15.8*	13.0*	13.0*	11.0*	11.0*	9.4*	9.4*	8.0*	8.0*	6.8*	6.8*	5.3*	5.3*								5.1*	5.1*	16.69		
-3.0	HR	9.4*	9.4*	14.1*	14.1*	14.7*	14.7*	12.2*	12.2*	10.3*	10.3*	8.7*	8.7*	7.3*	7.3*	5.9*	5.9*										5.3*	5.3*	15.53		
-4.5	HR					12.9*	12.9*	10.9*	10.9*	9.1*	9.1*	7.6*	7.6*														6.4*	6.4*	13.24		
-6.0	HR																														
-7.5	HR																														
-9.0	HR																														

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

The lift capacities are stated in metric tonnes (t) on the lifting gear's stick tip, and can be lifted 360° on firm, level supporting surface. Capacities are valid for 750 mm track flat pads. Indicated loads are based on ISO 10567 standard and do not exceed 75 % of tipping or 87 % of hydraulic capacity (indicated via *). 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 Industrial-Type Straight Boom 9.50 m

Industrial Stick 7.30 m (Variant 3B)

↑ m	Under-carriage	4.5 m		6.0 m		7.5 m		9.0 m		10.5 m		12.0 m		13.5 m		15.0 m		16.5 m		18.0 m		19.5 m		21.0 m		22.5 m		m					
25.5	HR																																
24.0	HR																																
22.5	HR																																
21.0	HR																																
19.5	HR				12.1*	12.1*																						9.6*	9.6*	7.49			
18.0	HR						11.0*	11.0*	10.0*	10.0*																		8.1*	8.1*	9.93			
16.5	HR						10.3*	10.3*	9.6*	9.6*	9.1*	9.1*																7.3*	7.3*	11.67			
15.0	HR								9.4*	9.4*	8.8*	8.8*	8.4*	8.4*															6.9*	6.9*	13.00		
13.5	HR								9.3*	9.3*	8.8*	8.8*	8.3*	8.3*	7.9*	7.9*													6.6*	6.6*	14.05		
12.0	HR						10.4*	10.4*	9.6*	9.6*	8.9*	8.9*	8.3*	8.3*	7.9*	7.9*													6.4*	6.4*	14.47		
10.5	HR							11.0*	11.0*	10.0*	10.0*	9.2*	9.2*	8.5*	8.5*	7.9*	7.9*	7.5*	7.5*											6.4*	6.4*	15.89	
9.0	HR						13.8*	13.8*	11.9*	11.9*	10.6*	10.6*	9.5*	9.5*	8.7*	8.7*	8.1*	8.1*	7.5*	7.5*										6.3*	6.3*	15.95	
7.5	HR	19.4*	19.4*	15.8*	15.8*	13.1*	13.1*	11.3*	11.3*	10.0*	10.0*	9.0*	9.0*	8.3*	8.3*	7.6*	7.6*													6.4*	6.4*	16.26	
6.0	HR	24.3*	24.3*	17.9*	17.9*	14.3*	14.3*	12.1*	12.1*	10.5*	10.5*	9.4*	9.4*	8.5*	8.5*	7.7*	7.7*													6.5*	6.5*	16.43	
4.5	HR	7.5*	7.5*	19.7*	19.7*	15.4*	15.4*	12.8*	12.8*	11.0*	11.0*	9.6*	9.6*	8.6*	8.6*	7.8*	7.8*													6.7*	6.7*	16.45	
3.0	HR	5.6*	5.6*	16.2*	16.2*	16.2*	16.2*	13.3*	13.3*	11.3*	11.3*	9.8*	9.8*	8.7*	8.7*	7.7*	7.7*													6.8*	6.8*	16.33	
1.5	HR	6.2*	6.2*	13.0*	13.0*	16.5*	16.5*	13.6*	13.6*	11.5*	11.5*	9.9*	9.9*	8.7*	8.7*	7.6*	7.6*													6.7*	6.7*	16.08	
0	HR	7.5*	7.5*	12.9*	12.9*	16.4*	16.4*	13.5*	13.5*	11.4*	11.4*	9.8*	9.8*	8.4*	8.4*	7.2*	7.2*													7.1*	7.1*	15.06	
-1.5	HR					15.7*	15.7*	13.0*	13.0*	11.0*	11.0*	9.4*	9.4*																	8.3*	8.3*	13.07	
-3.0	HR																																
-4.5	HR																																
-6.0	HR																																
-7.5	HR																																
-9.0	HR																																

Industrial Stick 8.80 m (Variant 3B)

↑ m	Under-carriage	4.5 m		6.0 m		7.5 m		9.0 m		10.5 m		12.0 m		13.5 m		15.0 m		16.5 m		18.0 m		19.5 m		21.0 m		22.5 m		m					
25.5	HR																																
24.0	HR																																
22.5	HR																																
21.0	HR						8.7*	8.7*																				8.3*	8.3*	7.75			
19.5	HR								8.8*	8.8*																			6.9*	6.9*	10.35		
18.0	HR							8.7*	8.7*	8.3*	8.3*	6.6*	6.6*															6.1*	6.1*	12.22			
16.5	HR							8.3*	8.3*	7.9*	7.9*	7.6*	7.6*	6.1*	6.1*													5.7*	5.7*	13.67			
15.0	HR								7.7*	7.7*	7.4*	7.4*	7.2*	7.2*														5.4*	5.4*	14.82			
13.5	HR								7.7*	7.7*	7.4*	7.4*	7.1*	7.1*	6.8*	6.8*												5.2*	5.2*	15.74			
12.0	HR								8.3*	8.3*	7.9*	7.9*	7.5*	7.5*	7.1*	7.1*	6.8*	6.8*										5.1*	5.1*	16.47			
10.5	HR								8.7*	8.7*	8.1*	8.1*	7.7*	7.7*	7.2*	7.2*	6.9*	6.9*	6.5*	6.5*								5.0*	5.0*	17.04			
9.0	HR						10.2*	10.2*	9.3*	9.3*	8.6*	8.6*	7.9*	7.9*	7.4*	7.4*	7.0*	7.0*	6.6*	6.6*								5.0*	5.0*	17.46			
7.5	HR							11.7*	11.7*	11.4*	11.4*	10.1*	10.1*	9.1*	9.1*	8.3*	8.3*	7.6*	7.6*	7.1*	7.1*	6.6*	6.6*					5.0*	5.0*	17.74			
6.0	HR	14.8*	14.8*	15.3*	15.3*	12.7*	12.7*	10.9*	10.9*	9.6*	9.6*	8.7*	8.7*	7.9*	7.9*	7.2*	7.2*	6.7*	6.7*									5.1*	5.1*	17.89			
4.5	HR	23.9*	23.9*	17.5*	17.5*	14.0*	14.0*	11.7*	11.7*	10.2*	10.2*	9.0*	9.0*	8.1*	8.1*	7.4*	7.4*	6.7*	6.7*									5.2*	5.2*	17.92			
3.0	HR	9.2*	9.2*	19.3*	19.3*	15.1*	15.1*	12.5*	12.5*	10.7*	10.7*	9.3*	9.3*	8.3*	8.3*	7.5*	7.5*	6.7*	6.7*									5.4*	5.4*	17.81			
1.5	HR	7.2*	7.2*	17.5*	17.5*	15.9*	15.9*	13.0*	13.0*	11.0*	11.0*	9.6*	9.6*	8.4*	8.4*	7.5*	7.5*	6.6*	6.6*									5.7*	5.7*	17.57			
0	HR	7.4*	7.4*	14.1*	14.1*	16.2*	16.2*	13.2*	13.2*	11.2*	11.2*	9.6*	9.6*	8.4*	8.4*	7.4*	7.4*	6.4*	6.4*									6.0*	6.0*	16.98			
-1.5	HR						8.3*	8.3*	13.6*	13.6*	16.0*	16.0*	13.2*	13.2*	11.1*	11.1*	9.5*	9.5*	8.2*	8.2*	7.1*	7.1*						6.6*	6.6*	15.67			
-3.0	HR								15.3*	15.3*	12.7*	12.7*	10.7*	10.7*	9.1*	9.1*													7.8*	7.8*	13.41		
-4.5	HR																																
-6.0	HR																																
-7.5	HR																																
-9.0	HR																																

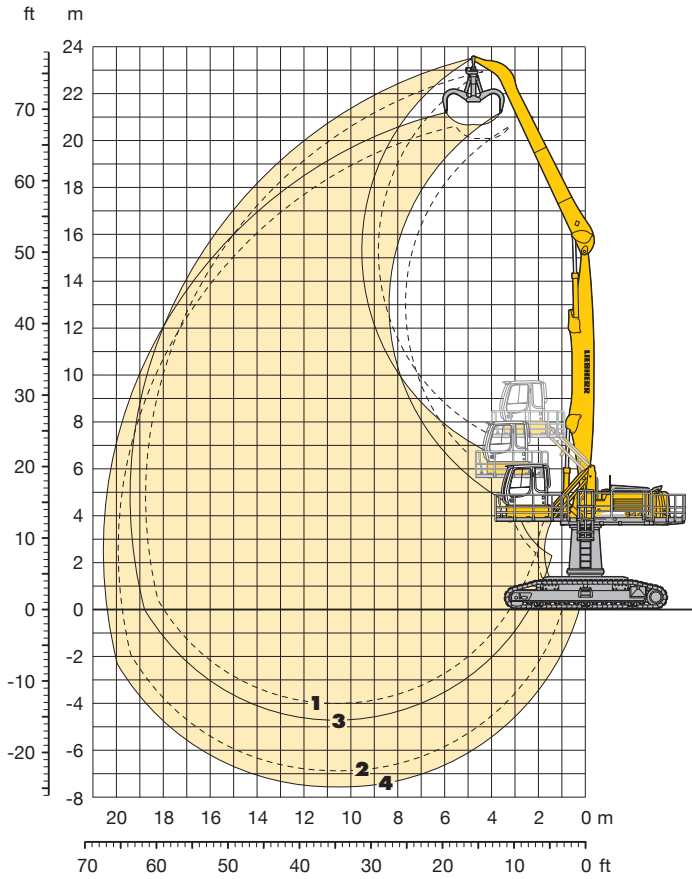
↑ Height Can be slewed through 360° In longitudinal position of undercarriage Max. reach * Limited by hydr. capacity

The lift capacities are stated in metric tonnes (t) on the lifting gear's stick tip, and can be lifted 360° on firm, level supporting surface. Capacities are valid for 750 mm track flat pads. Indicated loads are based on ISO 10567 standard and do not exceed 75% of tipping or 87% of hydraulic capacity (indicated via *). 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.

Industrial Attachment

with Industrial-Type Straight Boom 10.50 m



Attachment Envelope

Kinematic variant 2A

- 1** with industrial stick 8.80 m
- 2** with industrial stick 9.50 m
- 3** with industrial stick 8.80 m and grapple model 70 C
- 4** with industrial stick 9.50 m and grapple model 70 C

Operating Weight and Ground Pressure

Operating weight includes basic machine with hydraulic cab elevation parallelogram + intermediate piece 0.5 m, counterweight 11.0 t, industrial-type straight boom 10.50 m, industrial stick 8.80 m and grapple model 70 C with 5 semi-closed tines 1.10 m³.

Undercarriage		HR
Pad width	mm	750
Weight	kg	72,300
Ground pressure	kg/cm ²	0.80


Operating weight includes basic machine with hydraulic cab elevation parallelogram + intermediate piece 0.5 m, counterweight 11.0 t, industrial-type straight boom 10.50 m, industrial stick 9.50 m and grapple model 70 C with 5 semi-closed tines 1.10 m³.

Undercarriage		HR
Pad width	mm	750
Weight	kg	72,500
Ground pressure	kg/cm ²	0.81


Lift Capacities

with Industrial-Type Straight Boom 10.50 m

Industrial Stick 8.80 m (Variant 2A)

↑ m	Under-carriage	4.5 m		6.0 m		7.5 m		9.0 m		10.5 m		12.0 m		13.5 m		15.0 m		16.5 m		18.0 m		19.5 m		21.0 m		22.5 m															
																												t	t	m											
25.5	HR																																								
24.0	HR																																								
22.5	HR																																								
21.0	HR																																								
19.5	HR																																	9.7*	9.7*	5.93					
18.0	HR																																		6.5*	6.5*	11.56				
16.5	HR																																			5.9*	5.9*	13.26			
15.0	HR																																				5.6*	5.6*	14.61		
13.5	HR																																				5.3*	5.3*	15.71		
12.0	HR																																					5.2*	5.2*	16.59	
10.5	HR																																					5.1*	5.1*	17.30	
9.0	HR																																					5.0*	5.0*	17.86	
7.5	HR																																					5.0*	5.0*	18.27	
6.0	HR																																					5.2*	5.2*	18.55	
4.5	HR																																					4.7*	4.7*	18.75	
3.0	HR																																					4.4*	4.4*	18.75	
1.5	HR																																					4.9*	4.9*	18.67	
0	HR																																					4.7*	4.7*	18.46	
-1.5	HR																																					5.4*	5.4*	17.98	
-3.0	HR																																					6.4*	6.4*	16.76	
-4.5	HR																																						6.4*	6.4*	14.70
-6.0	HR																																								
-7.5	HR																																								
-9.0	HR																																								

Industrial Stick 9.50 m (Variant 2A)

↑ m	Under-carriage	4.5 m		6.0 m		7.5 m		9.0 m		10.5 m		12.0 m		13.5 m		15.0 m		16.5 m		18.0 m		19.5 m		21.0 m		22.5 m														
																														t	t	m								
25.5	HR																																							
24.0	HR																																							
22.5	HR																																							
21.0	HR																																							
19.5	HR																																							
18.0	HR																																							
16.5	HR																																							
15.0	HR																																							
13.5	HR																																							
12.0	HR																																							
10.5	HR																																							
9.0	HR																																							
7.5	HR																																							
6.0	HR																																							
4.5	HR																																							
3.0	HR																																							
1.5	HR																																							
0	HR																																							
-1.5	HR																																							
-3.0	HR																																							
-4.5	HR																																							
-6.0	HR																																							
-7.5	HR																																							
-9.0	HR																																							

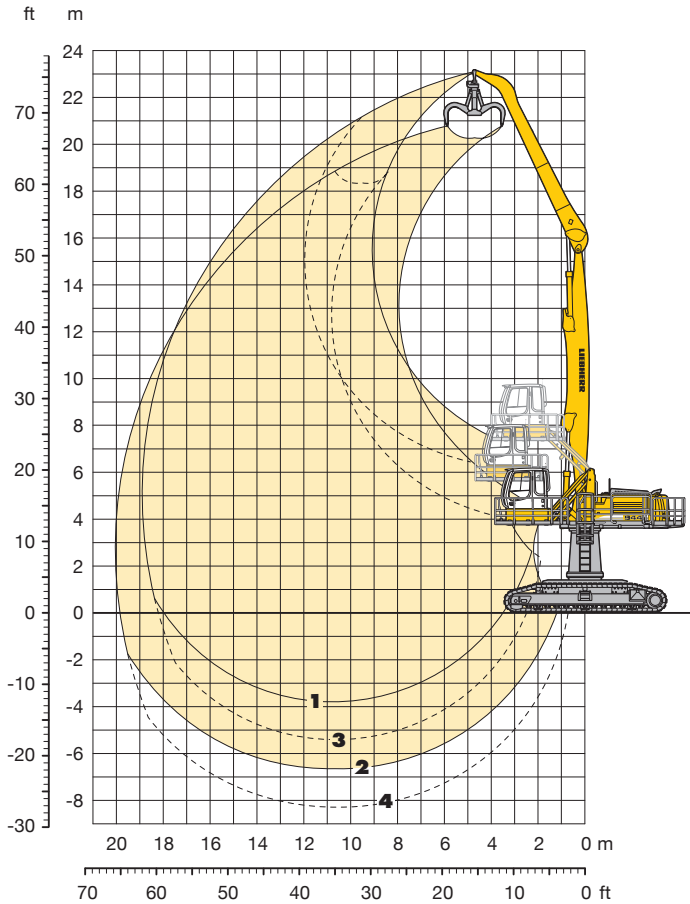
 Height  Can be slewed through 360°  In longitudinal position of undercarriage  Max. reach * Limited by hydr. capacity

The lift capacities are stated in metric tonnes (t) on the lifting gear's stick tip, and can be lifted 360° on firm, level supporting surface. Capacities are valid for 750 mm track flat pads. Indicated loads are based on ISO 10567 standard and do not exceed 75% of tipping or 87% of hydraulic capacity (indicated via *). 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.

Industrial Attachment

with Industrial-Type Straight Boom 10.50 m



Attachment Envelope

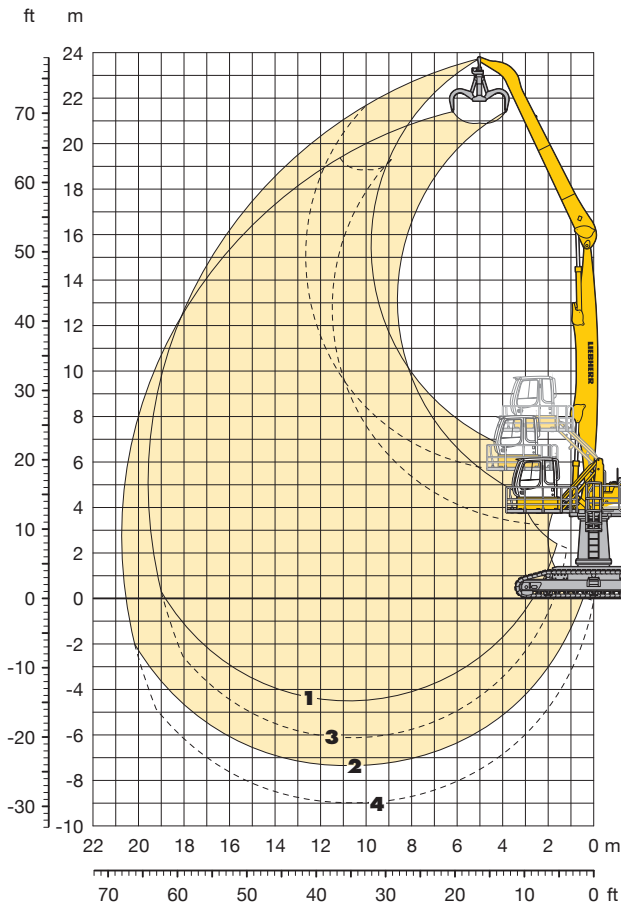
Kinematic variants 3A/3B

- 1** with industrial stick 8.80 m (3B)
- 2** with industrial stick 8.80 m and grapple model 70 C (3B)
- 3** with industrial stick 8.80 m (3A)
- 4** with industrial stick 8.80 m and grapple model 70 C (3A)

Operating Weight and Ground Pressure

Operating weight includes basic machine with hydraulic cab elevation parallelogram + intermediate piece 0.5 m, counterweight 11.0 t, industrial-type straight boom 10.50 m, industrial stick 8.80 m and grapple model 70 C with 5 semi-closed tines 1.10 m³.

Undercarriage	HR
Pad width	mm 750
Weight	kg 72,300
Ground pressure	kg/cm ² 0.80



Attachment Envelope

Kinematic variants 3A/3B

- 1** with industrial stick 9.50 m (3B)
- 2** with industrial stick 9.50 m and grapple model 70 C (3B)
- 3** with industrial stick 9.50 m (3A)
- 4** with industrial stick 9.50 m and grapple model 70 C (3A)

Operating Weight and Ground Pressure


Operating weight includes basic machine with hydraulic cab elevation parallelogram + intermediate piece 0.5 m, counterweight 11.0 t, industrial-type straight boom 10.50 m, industrial stick 9.50 m and grapple model 70 C with 5 semi-closed tines 1.10 m³.

Undercarriage	HR
Pad width	mm 750
Weight	kg 72,500
Ground pressure	kg/cm ² 0.81


Lift Capacities




with Industrial-Type Straight Boom 10.50 m

Industrial Stick 8.80 m (Variant 3A)

↓ m	Under-carriage	4.5 m		6.0 m		7.5 m		9.0 m		10.5 m		12.0 m		13.5 m		15.0 m		16.5 m		18.0 m		19.5 m		21.0 m		22.5 m					
		HR	HR	HR	HR	HR	HR	HR	HR	HR	HR	HR	HR	HR	HR	HR	HR	HR	HR	HR	HR	HR	HR	HR	HR	HR	HR	HR	HR	m	
25.5	HR																														
24.0	HR																														
22.5	HR																														
21.0	HR																												7.3*	7.3*	9.82
19.5	HR																												6.4*	6.4*	11.96
18.0	HR												7.9*	7.9*	6.1*	6.1*													5.9*	5.9*	13.61
16.5	HR												7.7*	7.7*	7.3*	7.3*													5.5*	5.5*	14.92
15.0	HR												7.7*	7.7*	7.2*	7.2*													5.3*	5.3*	15.98
13.5	HR												7.7*	7.7*	7.2*	7.2*													5.1*	5.1*	16.84
12.0	HR												7.8*	7.8*	7.3*	7.3*													5.0*	5.0*	17.53
10.5	HR												8.0*	8.0*	7.4*	7.4*													5.0*	5.0*	18.06
9.0	HR												8.3*	8.3*	7.5*	7.5*													5.0*	5.0*	18.46
7.5	HR												9.2*	9.2*	8.3*	8.3*													5.1*	5.1*	18.72
6.0	HR												10.9*	10.9*	9.6*	9.6*													5.1*	5.1*	18.87
4.5	HR												23.4*	23.4*	17.3*	17.3*													5.1*	5.1*	18.87
3.0	HR												7.1*	7.1*	18.9*	18.9*													5.3*	5.3*	18.89
1.5	HR												4.3*	4.3*	13.0*	13.0*													5.1*	5.1*	18.79
0	HR												4.5*	4.5*	9.7*	9.7*													4.9*	4.9*	18.56
-1.5	HR												5.3*	5.3*	9.2*	9.2*													4.7*	4.7*	18.21
-3.0	HR												6.4*	6.4*	9.7*	9.7*													4.4*	4.4*	17.73
-4.5	HR												10.6*	10.6*	13.5*	13.5*													4.5*	4.5*	16.69
-6.0	HR												11.8*	11.8*	10.1*	10.1*													5.3*	5.3*	14.55
-7.5	HR																														
-9.0	HR																														

Industrial Stick 9.50 m (Variant 3A)

↓ m	Under-carriage	4.5 m		6.0 m		7.5 m		9.0 m		10.5 m		12.0 m		13.5 m		15.0 m		16.5 m		18.0 m		19.5 m		21.0 m		22.5 m							
		HR	HR	HR	HR	HR	HR	HR	HR	HR	HR	HR	HR	HR	HR	HR	HR	HR	HR	HR	HR	HR	HR	HR	HR	HR	HR	HR	HR	m			
25.5	HR																																
24.0	HR																																
22.5	HR																																
21.0	HR																														6.3*	6.3*	11.09
19.5	HR												7.1*	7.1*															5.6*	5.6*	13.02		
18.0	HR														6.8*	6.8*													5.2*	5.2*	14.55		
16.5	HR														6.9*	6.9*													4.9*	4.9*	15.78		
15.0	HR														6.9*	6.9*													4.7*	4.7*	16.79		
13.5	HR														6.9*	6.9*													4.6*	4.6*	17.60		
12.0	HR														7.0*	7.0*													4.5*	4.5*	18.26		
10.5	HR														6.5*	6.5*													4.5*	4.5*	18.78		
9.0	HR														7.7*	7.7*													4.5*	4.5*	19.16		
7.5	HR														8.8*	8.8*													4.5*	4.5*	19.41		
6.0	HR														10.4*	10.4*													4.6*	4.6*	19.55		
4.5	HR														16.0*	16.0*													4.7*	4.7*	19.57		
3.0	HR														5.5*	5.5*													4.8*	4.8*	19.47		
1.5	HR														4.8*	4.8*													4.6*	4.6*	19.26		
0	HR														5.3*	5.3*													4.4*	4.4*	18.92		
-1.5	HR														6.2*	6.2*													4.2*	4.2*	18.45		
-3.0	HR														7.1*	7.1*													4.1*	4.1*	17.66		
-4.5	HR														10.3*	10.3*													4.6*	4.6*	15.93		
-6.0	HR														11.2*	11.2*													6.3*	6.3*	12.18		
-7.5	HR														12.5*	12.5*																	
-9.0	HR														7.7*	7.7*																	

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

The lift capacities are stated in metric tonnes (t) on the lifting gear's stick tip, and can be lifted 360° on firm, level supporting surface. Capacities are valid for 750 mm track flat pads. Indicated loads are based on ISO 10567 standard and do not exceed 75% of tipping or 87% of hydraulic capacity (indicated via *). 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 Industrial-Type Straight Boom 10.50 m

Industrial Stick 8.80 m (Variant 3B)

m	Under-carriage	4.5 m		6.0 m		7.5 m		9.0 m		10.5 m		12.0 m		13.5 m		15.0 m		16.5 m		18.0 m		19.5 m		21.0 m		22.5 m		m			
25.5	HR																														
24.0	HR																														
22.5	HR				10.2*	10.2*																									
21.0	HR							10.0*	10.0*	8.5*	8.5*																9.2*	9.2*	6.68		
19.5	HR									8.7*	8.7*	8.1*	8.1*																9.2*	7.3*	9.82
18.0	HR									8.3*	8.3*	7.8*	7.8*	7.3*	7.3*	6.1*	6.1*												6.4*	6.4*	11.96
16.5	HR											7.6*	7.6*	7.1*	7.1*	6.8*	6.8*												5.5*	5.5*	14.92
15.0	HR											7.5*	7.5*	7.1*	7.1*	6.7*	6.7*	6.4*	6.4*										5.3*	5.3*	15.98
13.5	HR													8.2*	8.2*	7.6*	7.6*	7.1*	7.1*	6.7*	6.7*	6.4*	6.4*	6.0*	6.0*				5.1*	5.1*	16.84
12.0	HR													8.5*	8.5*	7.8*	7.8*	7.2*	7.2*	6.8*	6.8*	6.4*	6.4*	6.1*	6.1*				5.0*	5.0*	17.53
10.5	HR													8.9*	8.9*	8.1*	8.1*	7.5*	7.5*	6.9*	6.9*	6.5*	6.5*	6.1*	6.1*			5.2*	5.2*	18.06	
9.0	HR							10.8*	10.8*	9.5*	9.5*	8.5*	8.5*	7.7*	7.7*	7.1*	7.1*	6.6*	6.6*	6.1*	6.1*	5.7*	5.7*					5.0*	5.0*	18.46	
7.5	HR	11.0*	11.0*	14.2*	14.2*	11.8*	11.8*	10.2*	10.2*	9.0*	9.0*	8.0*	8.0*	7.3*	7.3*	6.7*	6.7*	6.2*	6.2*	5.8*	5.8*							5.1*	5.1*	18.72	
6.0	HR	21.8*	21.8*	16.2*	16.2*	13.0*	13.0*	10.9*	10.9*	9.4*	9.4*	8.4*	8.4*	7.5*	7.5*	6.9*	6.9*	6.3*	6.3*	5.8*	5.8*							5.1*	5.1*	18.87	
4.5	HR	7.1*	7.1*	17.9*	17.9*	14.0*	14.0*	11.6*	11.6*	9.9*	9.9*	8.7*	8.7*	7.7*	7.7*	7.0*	7.0*	6.4*	6.4*	5.8*	5.8*							5.3*	5.3*	18.89	
3.0	HR	4.3*	4.3*	13.0*	13.0*	14.8*	14.8*	12.1*	12.1*	10.3*	10.3*	8.9*	8.9*	7.9*	7.9*	7.1*	7.1*	6.4*	6.4*	5.7*	5.7*							5.3*	5.3*	18.79	
1.5	HR	4.5*	4.5*	9.7*	9.7*	15.3*	15.3*	12.5*	12.5*	10.5*	10.5*	9.1*	9.1*	8.0*	8.0*	7.1*	7.1*	6.3*	6.3*	5.5*	5.5*							5.2*	5.2*	18.56	
0	HR	5.3*	5.3*	9.2*	9.2*	15.3*	15.3*	12.6*	12.6*	10.6*	10.6*	9.1*	9.1*	8.0*	8.0*	7.0*	7.0*	6.2*	6.2*									5.2*	5.2*	17.98	
-1.5	HR			9.7*	9.7*	15.0*	15.0*	12.4*	12.4*	10.4*	10.4*	9.0*	9.0*	7.8*	7.8*	6.8*	6.8*	5.8*	5.8*									5.7*	5.7*	16.67	
-3.0	HR					14.2*	14.2*	11.8*	11.8*	10.0*	10.0*	8.6*	8.6*	7.4*	7.4*													6.8*	6.8*	14.41	
-4.5	HR																														
-6.0	HR																														
-7.5	HR																														
-9.0	HR																														

Industrial Stick 9.50 m (Variant 3B)

m	Under-carriage	4.5 m		6.0 m		7.5 m		9.0 m		10.5 m		12.0 m		13.5 m		15.0 m		16.5 m		18.0 m		19.5 m		21.0 m		22.5 m		m		
25.5	HR																													
24.0	HR																													
22.5	HR							8.8*	8.8*																					
21.0	HR									8.7*	8.7*	7.2*	7.2*																	
19.5	HR									8.2*	8.2*	7.6*	7.6*	7.1*	7.1*															
18.0	HR											7.3*	7.3*	6.9*	6.9*	6.6*	6.6*													
16.5	HR											7.1*	7.1*	6.7*	6.7*	6.4*	6.4*	6.2*	6.2*											
15.0	HR											7.1*	7.1*	6.7*	6.7*	6.4*	6.4*	6.1*	6.1*	5.3*	5.3*									
13.5	HR											7.2*	7.2*	6.7*	6.7*	6.4*	6.4*	6.1*	6.1*	5.8*	5.8*									
12.0	HR											7.4*	7.4*	6.9*	6.9*	6.5*	6.5*	6.1*	6.1*	5.8*	5.8*	5.2*	5.2*							
10.5	HR									8.4*	8.4*	7.7*	7.7*	7.1*	7.1*	6.6*	6.6*	6.2*	6.2*	5.8*	5.8*	5.5*	5.5*							
9.0	HR							10.0*	10.0*	8.9*	8.9*	8.1*	8.1*	7.4*	7.4*	6.8*	6.8*	6.3*	6.3*	5.9*	5.9*	5.5*	5.5*							
7.5	HR			10.7*	10.7*	11.1*	11.1*	9.6*	9.6*	8.5*	8.5*	7.7*	7.7*	7.0*	7.0*	6.5*	6.5*	6.0*	6.0*	5.6*	5.6*									
6.0	HR	16.4*	16.4*	15.1*	15.1*	12.2*	12.2*	10.4*	10.4*	9.0*	9.0*	8.0*	8.0*	7.3*	7.3*	6.6*	6.6*	6.1*	6.1*	5.6*	5.6*	4.8*	4.8*							
4.5	HR	16.0*	16.0*	17.0*	17.0*	13.4*	13.4*	11.1*	11.1*	9.5*	9.5*	8.4*	8.4*	7.5*	7.5*	6.8*	6.8*	6.2*	6.2*	5.6*	5.6*	5.0*	5.0*							
3.0	HR	5.5*	5.5*	18.4*	18.4*	14.3*	14.3*	11.7*	11.7*	10.0*	10.0*	8.7*	8.7*	7.7*	7.7*	6.9*	6.9*	6.2*	6.2*	5.6*	5.6*									
1.5	HR	4.8*	4.8*	11.1*	11.1*	14.9*	14.9*	12.2*	12.2*	10.3*	10.3*	8.9*	8.9*	7.8*	7.8*	7.0*	7.0*	6.2*	6.2*	5.5*	5.5*									
0	HR	5.3*	5.3*	9.7*	9.7*	15.1*	15.1*	12.4*	12.4*	10.4*	10.4*	9.0*	9.0*	7.8*	7.8*	6.9*	6.9*	6.1*	6.1*	5.4*	5.4*									
-1.5	HR	6.2*	6.2*	9.7*	9.7*	15.0*	15.0*	12.3*	12.3*	10.4*	10.4*	8.9*	8.9*	7.8*	7.8*	6.8*	6.8*	5.9*	5.9*											
-3.0	HR			10.3*	10.3*	14.4*	14.4*	11.9*	11.9*	10.1*	10.1*	8.6*	8.6*	7.5*	7.5*	6.5*	6.5*													
-4.5	HR																													
-6.0	HR																													
-7.5	HR																													
-9.0	HR																													

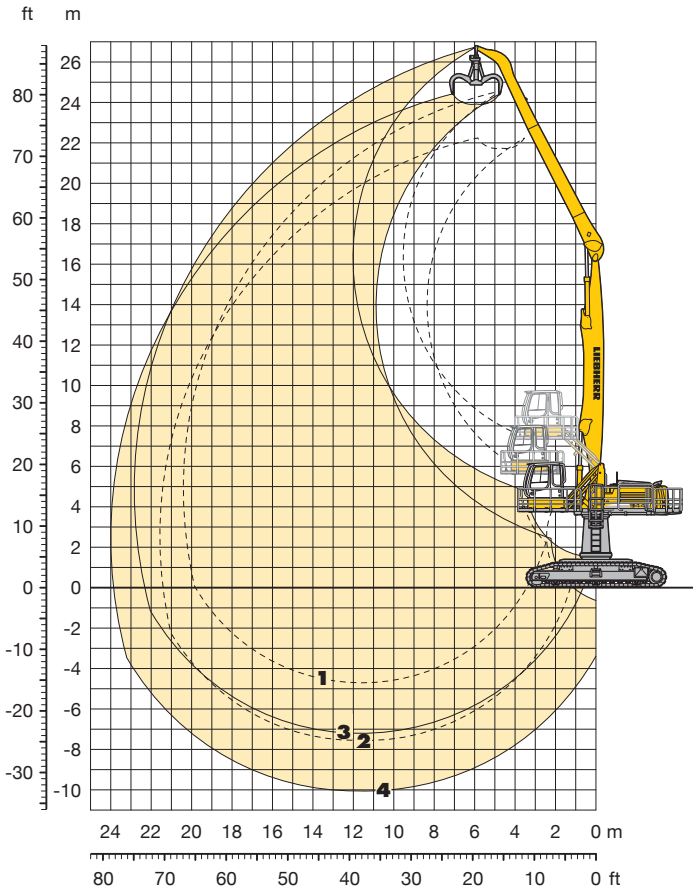
↑ Height Can be slewed through 360° In longitudinal position of undercarriage Max. reach * Limited by hydr. capacity

The lift capacities are stated in metric tonnes (t) on the lifting gear's stick tip, and can be lifted 360° on firm, level supporting surface. Capacities are valid for 750 mm track flat pads. Indicated loads are based on ISO 10567 standard and do not exceed 75% of tipping or 87% of hydraulic capacity (indicated via *). 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.

Industrial Attachment

with Industrial-Type Straight Boom 11.50 m



Attachment Envelope

Kinematic variant 2A

- 1** with industrial stick 9.50 m
- 2** with industrial stick 12.00 m
- 3** with industrial stick 9.50 m and grapple model 70 C
- 4** with industrial stick 12.00 m and grapple model 70 C

Operating Weight and Ground Pressure

Operating weight includes basic machine with hydraulic cab elevation parallelogram + intermediate piece 0.5 m, counterweight 11.0 t, industrial-type straight boom 11.50 m, industrial stick 9.50 m and grapple model 70 C with 5 semi-closed tines 0.80 m³.

Undercarriage	HR
Pad width	mm 750
Weight	kg 72,800
Ground pressure	kg/cm ² 0.81

Operating weight includes basic machine with hydraulic cab elevation parallelogram + intermediate piece 0.5 m, counterweight 11.0 t, industrial-type straight boom 11.50 m, industrial stick 12.00 m and grapple model 70 C with 5 semi-closed tines 0.80 m³.

Undercarriage	HR
Pad width	mm 750
Weight	kg 73,500
Ground pressure	kg/cm ² 0.82

Lift Capacities

with Industrial-Type Straight Boom 11.50 m

Industrial Stick 9.50 m (Variant 2A)

m	Under-carriage	4.5 m		6.0 m		7.5 m		9.0 m		10.5 m		12.0 m		13.5 m		15.0 m		16.5 m		18.0 m		19.5 m		21.0 m		22.5 m		m		
25.5	HR																													
24.0	HR																													
22.5	HR																													
21.0	HR																													
19.5	HR																													
18.0	HR																													
16.5	HR																													
15.0	HR																													
13.5	HR																													
12.0	HR																													
10.5	HR																													
9.0	HR																													
7.5	HR																													
6.0	HR																													
4.5	HR																													
3.0	HR																													
1.5	HR																													
0	HR																													
-1.5	HR																													
-3.0	HR																													
-4.5	HR																													
-6.0	HR																													
-7.5	HR																													
-9.0	HR																													

Industrial Stick 12.00 m (Variant 2A)

m	Under-carriage	4.5 m		6.0 m		7.5 m		9.0 m		10.5 m		12.0 m		13.5 m		15.0 m		16.5 m		18.0 m		19.5 m		21.0 m		22.5 m		m		
25.5	HR																													
24.0	HR																													
22.5	HR																													
21.0	HR																													
19.5	HR																													
18.0	HR																													
16.5	HR																													
15.0	HR																													
13.5	HR																													
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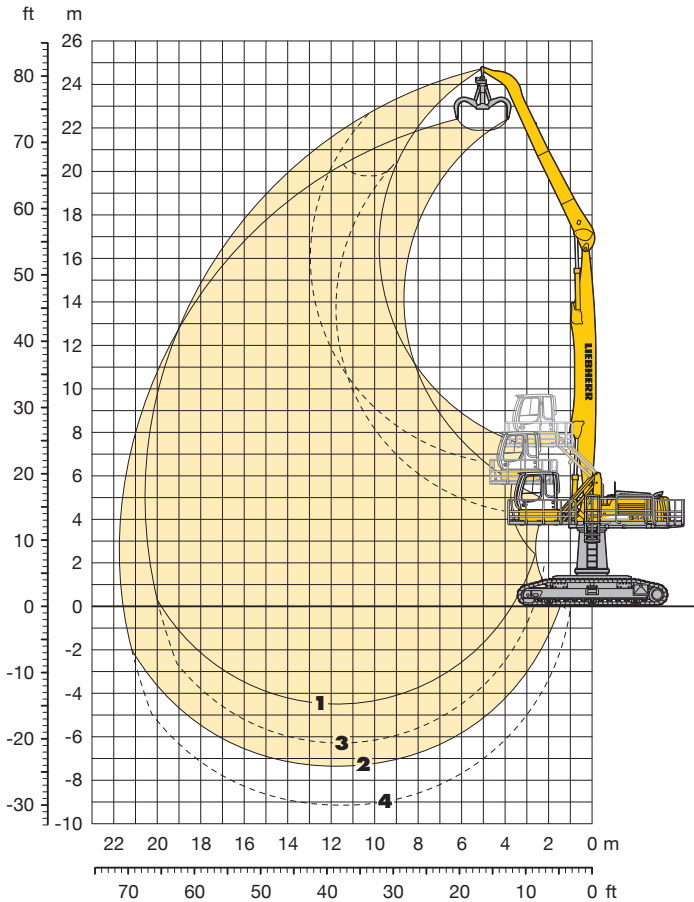
Height Can be slewed through 360° In longitudinal position of undercarriage Max. reach * Limited by hydr. capacity

The lift capacities are stated in metric tonnes (t) on the lifting gear's stick tip, and can be lifted 360° on firm, level supporting surface. Capacities are valid for 750 mm track flat pads. Indicated loads are based on ISO 10567 standard and do not exceed 75 % of tipping or 87 % of hydraulic capacity (indicated via *). 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.

Industrial Attachment

with Industrial-Type Straight Boom 11.50 m



Attachment Envelope

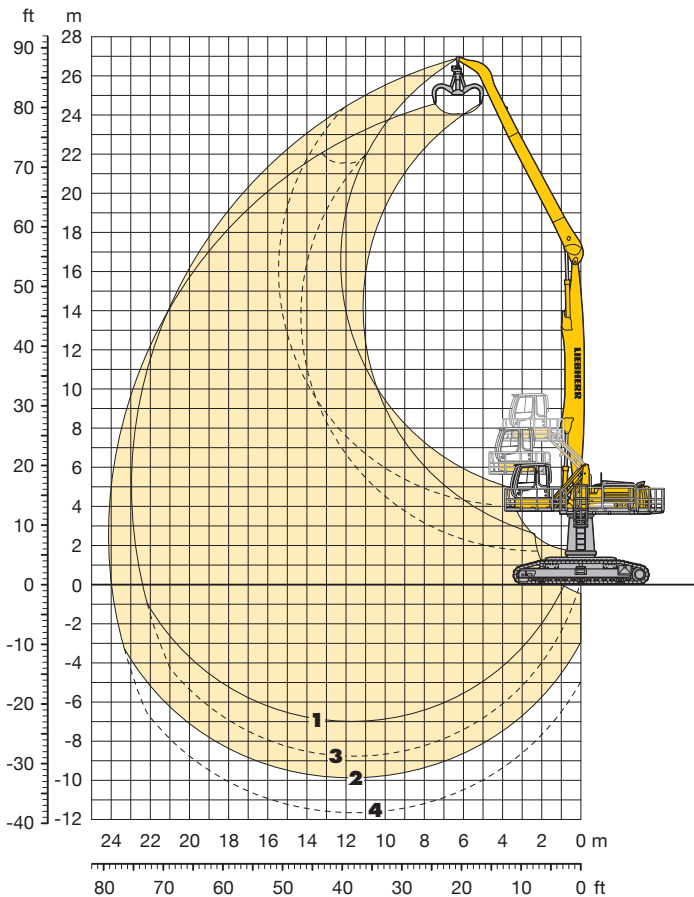
Kinematic variants 3A/3B

- 1** with industrial stick 9.50 m (3B)
- 2** with industrial stick 9.50 m and grapple model 70 C (3B)
- 3** with industrial stick 9.50 m (3A)
- 4** with industrial stick 9.50 m and grapple model 70 C (3A)

Operating Weight and Ground Pressure

Operating weight includes basic machine with hydraulic cab elevation parallelogram + intermediate piece 0.5 m, counterweight 11.0 t, industrial-type straight boom 11.50 m, industrial stick 9.50 m and grapple model 70 C with 5 semi-closed tines 0.80 m³.

Undercarriage	HR
Pad width	mm 750
Weight	kg 72,800
Ground pressure	kg/cm ² 0.81



Attachment Envelope

Kinematic variants 3A/3B

- 1** with industrial stick 12.00 m (3B)
- 2** with industrial stick 12.00 m and grapple model 70 C (3B)
- 3** with industrial stick 12.00 m (3A)
- 4** with industrial stick 12.00 m and grapple model 70 C (3A)

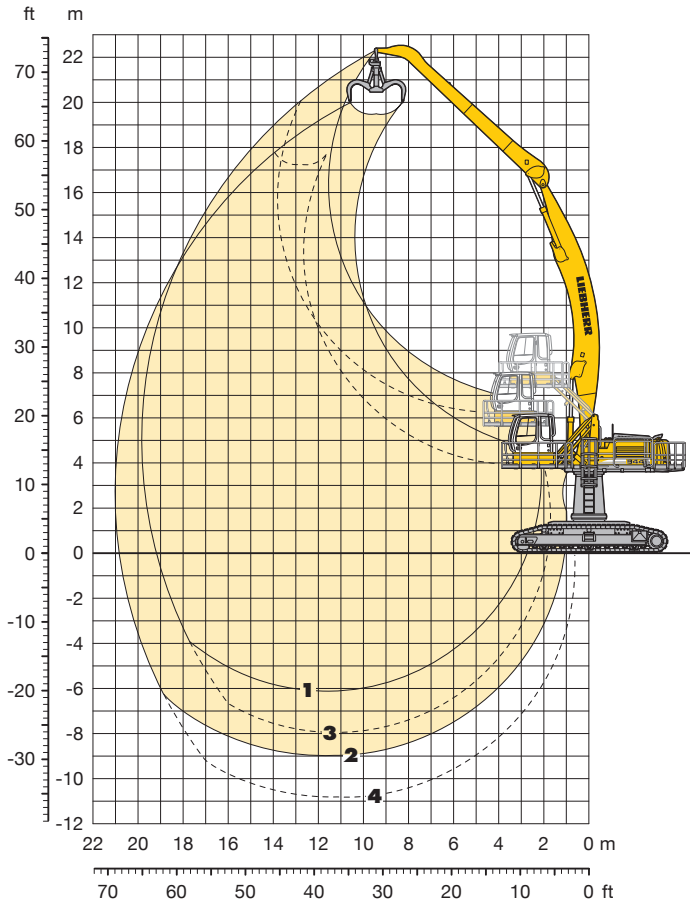
Operating Weight and Ground Pressure

Operating weight includes basic machine with hydraulic cab elevation parallelogram + intermediate piece 0.5 m, counterweight 11.0 t, industrial-type straight boom 11.50 m, industrial stick 12.00 m and grapple model 70 C with 5 semi-closed tines 0.80 m³.

Undercarriage	HR
Pad width	mm 750
Weight	kg 73,500
Ground pressure	kg/cm ² 0.82

Industrial Attachment

with Industrial-Type Gooseneck Boom 11.50 m



Attachment Envelope

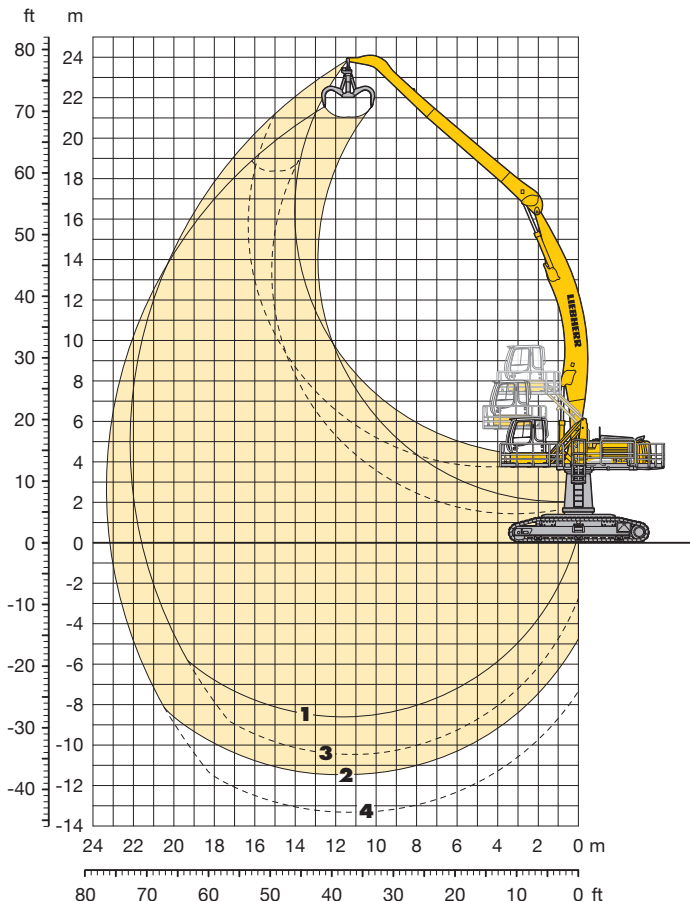
Kinematic variants 3C/3D

- 1** with industrial stick 9.50 m (3D)
- 2** with industrial stick 9.50 m and grapple model 70 C (3D)
- 3** with industrial stick 9.50 m (3C)
- 4** with industrial stick 9.50 m and grapple model 70 C (3C)

Operating Weight and Ground Pressure

Operating weight includes basic machine with hydraulic cab elevation parallelogram + intermediate piece 0.5 m, counterweight 11.0 t, industrial-type gooseneck boom 11.50 m, industrial stick 9.50 m and grapple model 70 C with 5 semi-closed tines 0.80 m³.

Undercarriage	HR
Pad width	mm 750
Weight	kg 73,000
Ground pressure	kg/cm ² 0.81



Attachment Envelope

Kinematic variants 3C/3D

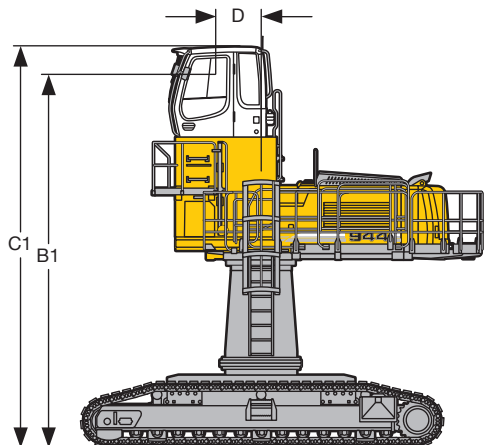
- 1** with industrial stick 12.00 m (3D)
- 2** with industrial stick 12.00 m and grapple model 70 C (3D)
- 3** with industrial stick 12.00 m (3C)
- 4** with industrial stick 12.00 m and grapple model 70 C (3C)

Operating Weight and Ground Pressure

Operating weight includes basic machine with hydraulic cab elevation parallelogram + intermediate piece 0.5 m, counterweight 11.0 t, industrial-type gooseneck boom 11.50 m, industrial stick 12.00 m and grapple model 70 C with 5 semi-closed tines 0.80 m³.

Undercarriage	HR
Pad width	mm 750
Weight	kg 73,700
Ground pressure	kg/cm ² 0.82

Choice of Cab Elevation and Cab Protection

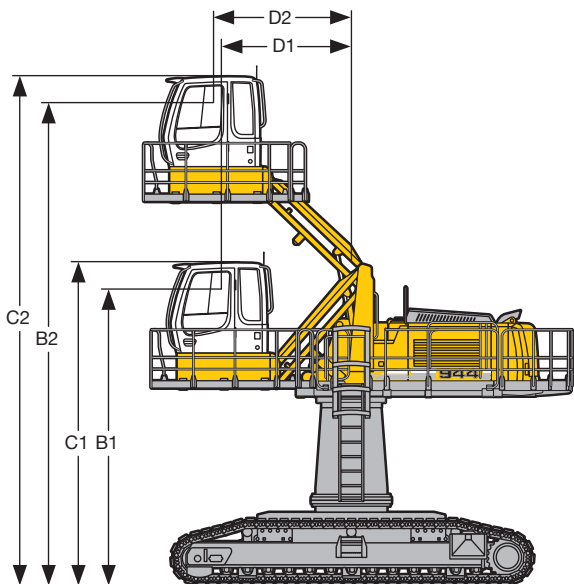


Rigid Cab Elevation

Height	1,200 mm	2,000 mm
B	6,380 mm	7,180 mm
C	6,890 mm	7,690 mm
D	880 mm	880 mm

Decreased weight with Rigid Cab Elevation 1,200 mm in relation to Hydraulic Cab Elevation Parallelogram + Intermediate Piece 0.5 m: 1,800 kg

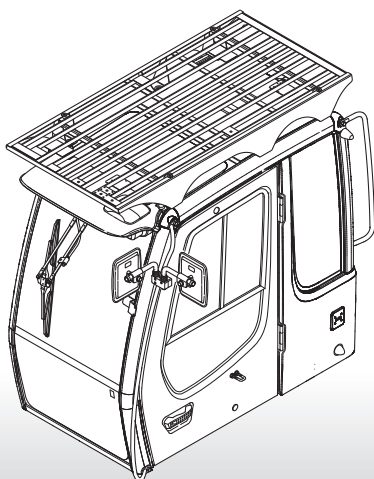
Decreased weight with Rigid Cab Elevation 2,000 mm in relation to Hydraulic Cab Elevation Parallelogram + Intermediate Piece 0.5 m: 1,600 kg



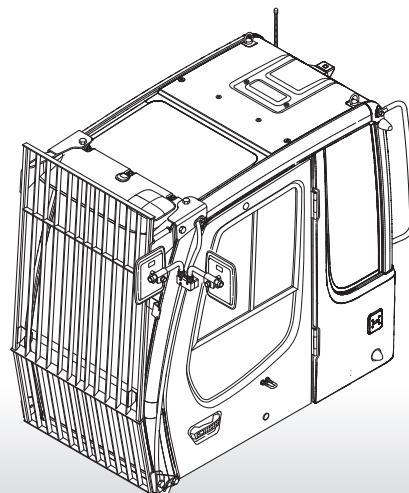
Hydraulic Cab Elevation Parallelogram + Intermediate Piece 0.5 m

B1	5,680 mm
B2	9,265 mm
C1	6,180 mm
C2	9,765 mm
D1	2,500 mm
D2	2,650 mm

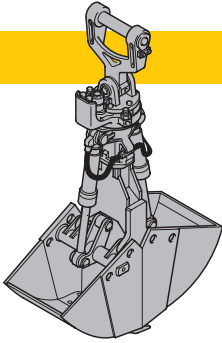
FOPS Guard



Front Guard



Variety of Tools

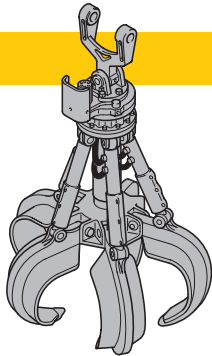


Shells for Loose Material

Clamshell Model 20 B

Shells for loose material with cutting edge (without teeth)

Cutting width of shells	mm	1,000	1,200	1,600	2,000
Capacity	m ³	1.30	1.50	2.00	2.50
Total weight	kg	1,355	1,415	1,550	1,820



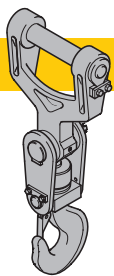
Multiple Tine Grapples

			open tines		semi-closed tines		closed tines	
Grapple Model 64	Capacity	m ³	0.60	–	0.60	–	0.60	–
(4 tines)	Weight	kg	1,130	–	1,330	–	1,520	–
Grapple Model 65	Capacity	m ³	0.60	–	0.60	–	0.60	–
(5 tines)	Weight	kg	1,230	–	1,415	–	1,520	–
Grapple Model 69	Capacity	m ³	0.80	1.10	0.80	1.10	0.80	1.10
(4 tines)	Weight	kg	1,345	1,395	1,535	1,640	1,900	2,060
Grapple Model 70 C	Capacity	m ³	0.80	1.10	0.80	1.10	0.80	1.10
(5 tines)	Weight	kg	1,485	1,590	1,705	1,860	1,950	1,995



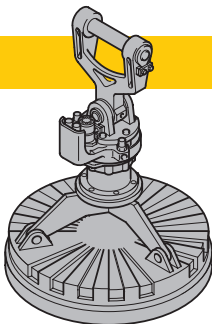
Wood Grapple Model 20 B

Surface area	m ²	1.50	1.70	2.10
Weight	kg	1,725	1,775	1,950



Crane Hook with Suspension

Max. load	t	12.5
Total weight	kg	96



Electro Magnets with Suspension

Magnet information on request

Equipment



Undercarriage

Three track guide per track	•
Lifetime lubricated track rollers	•
Tracks sealed and greased	•
Idler protection	•
Two-stage travel motors	•



Uppercarriage

Wide walkways and handrails	•
Maintenance-free swing brake lock	•
Handrails, Non slip surfaces	•
Main switch for electric circuit	•
Engine hood with lift help	•
Pedal controlled positioning swing brake	•
Sound insulation	•
Maintenance-free HD-batteries	•
Lockable tool box	•
Tool kit	•
Electric fuel tank filler pump	+
Reversible radiator fan	+
Customized colors	+



Hydraulics

Hydraulic tank shut-off valve	•
Pressure compensation	•
Hook up for pressure checks	•
Pressure storage for controlled lowering of attachments with engine turned off	•
Filter with integrated fine filter area (5 µm)	•
Electronic pump regulation	•
Stepless mode system (ECO)	•
Four different power modes adjustable	•
Extra hydr. control for hydr. swivel	+
Hydraulic drive for generator	+
Full flow micro filtration	+
Bio degradable hydraulic oil	+



Electric Version

Junction box with active protection	•
Cable routing on side	•
Voltage other than 400 V	+
Frequency of 60 Hz	+
Cable reel	+



Operator's Cab

Storage tray	•
Displays for engine operating condition	•
Mechanical hour meters, readable from outside the cab	•
Roof hatch	•
Removable handles for travel pedals	•
6-way adjustable seat	•
Seat and consoles independently adjustable	•
Removable customized foot mat	•
Dome light	•
Cab heater with defroster	•
Cloth hook	•
Air conditioning	•
Rain hood over front window opening	•
All tinted windows	•
Door with sliding window	•
Sun roller blind	•
Wiper/washer	•
Cigarette lighter and ashtray	•
Airpressure operator seat with heating and head-rest	+
Extinguisher	+
Electric cool box	+
Bullet proof window (fixed installation – can not be opened)	+
Stereo radio	+
Preparation for radio installation	+
Beacon	+
Auxiliary heating	+
Electronic drive away lock	+
Additional flood lights	+



Attachment

Flood lights	•
Hydr. lines for clam operation in stick	•
Sealed pivots	•
Liebherr semi-automatic central lubrication system	•
Safety check valves on hoist cylinder, regenerative	•
Safety check valves on stick cylinder, regenerative	•
Hose quick connection	•
Cylinders with shock absorber	•
Adapter 1.20 m	+
Hydraulic or manual quick change tool adapter	+
Industrial-type gooseneck sticks with remote hydraulic pin puller	+
Safety lift hook	+
Liebherr line of clams	+
Liebherr fully-automatic central lubrication system	+
Customized colors	+
Overload warning device	+

• = 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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