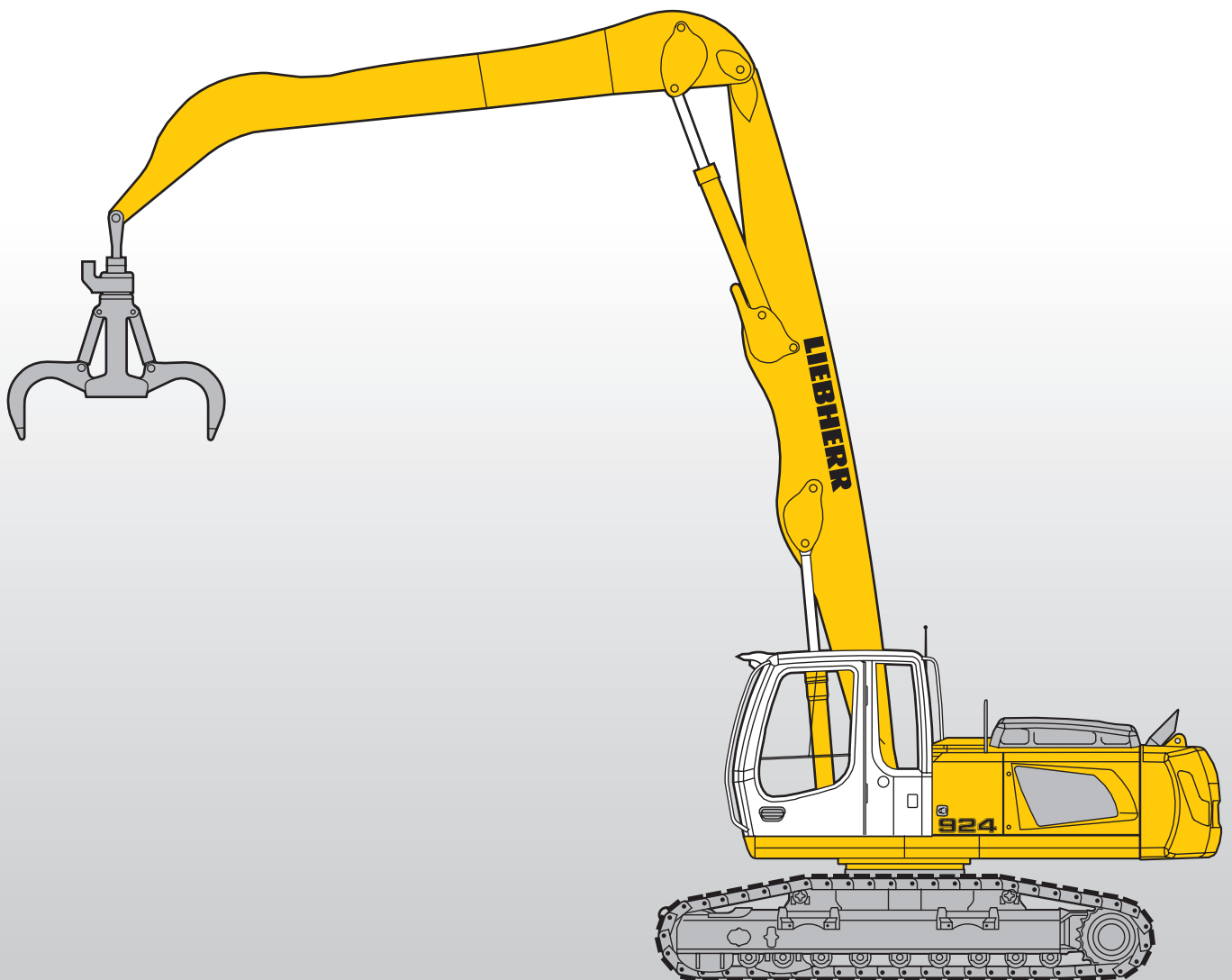


Machine for Industrial Applications

R 924 C
Litronic®

Operating Weight: 26,200 – 32,400 kg
Engine Output: 130 kW / 177 HP



LIEBHERR

Technical Data



Engine

Rating per ISO 9249	130 kW (177 HP) at 1800 RPM
Model	Liebherr D 934 S
Type	4 cylinder in-line
Bore/Stroke	122/136 mm
Displacement	6,36 l
Engine operation	4-stroke diesel unit pump system turbo-charged after-cooled and fuel cooled reduced emissions
Cooling	water-cooled and integrated motor oil cooler
Air cleaner	dry-type air cleaner with pre-cleaner, primary and safety elements
Fuel tank	380 l
Electrical system	
Voltage	24 V
Batteries	2 x 135 Ah/12 V
Starter	24 V/6,6 kW
Alternator	three phase current 28 V/80 A
Engine idling	sensor controlled



Hydraulic System

Hydraulic pump	LSC control system (Liebherr-Synchron-Comfort), regulation with Liebherr variable flow swash plate double pump
Max. flow	2 x 214 l/min.
Max. pressure	350 bar
Pump regulation	electro-hydraulic with electronic engine speed sensing regulation, pressure compensation, flow com-pensation, automatic oil flow optimizer, swing circuit with priority and torque control
Hydraulic tank	290 l
Hydraulic system	max. 500 l
Hydraulic oil filter	1 full flow filter (20 µm) in return line with integrated fine filter area (5 µm)
Hydraulic oil cooler	compact cooler, consisting of a water cooler, sandwiched with hydraulic oil cooler, fuel cooler and after-cooler cores and hydrostatically driven fan
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 sensi-tive movements
Super-Finish	adjustable working speed for precision work
RPM adjustment	stepless adjustment of engine output via the rpm at each selected mode
Liebherr Tool Control	ten preadjustable pump flows and pressures for add on tools



Hydraulic Controls

Power distribution	via control valve with integrated safety valves, simultaneous and independent operation of travel drive, swing drive and work attachment
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	swash plate motor with integrated control valve and torque control
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	74,0 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 over-heating, 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) = 72 dB(A)
2000/14/EC	L_{WA} (surround noise) = 103 dB(A)



Undercarriage

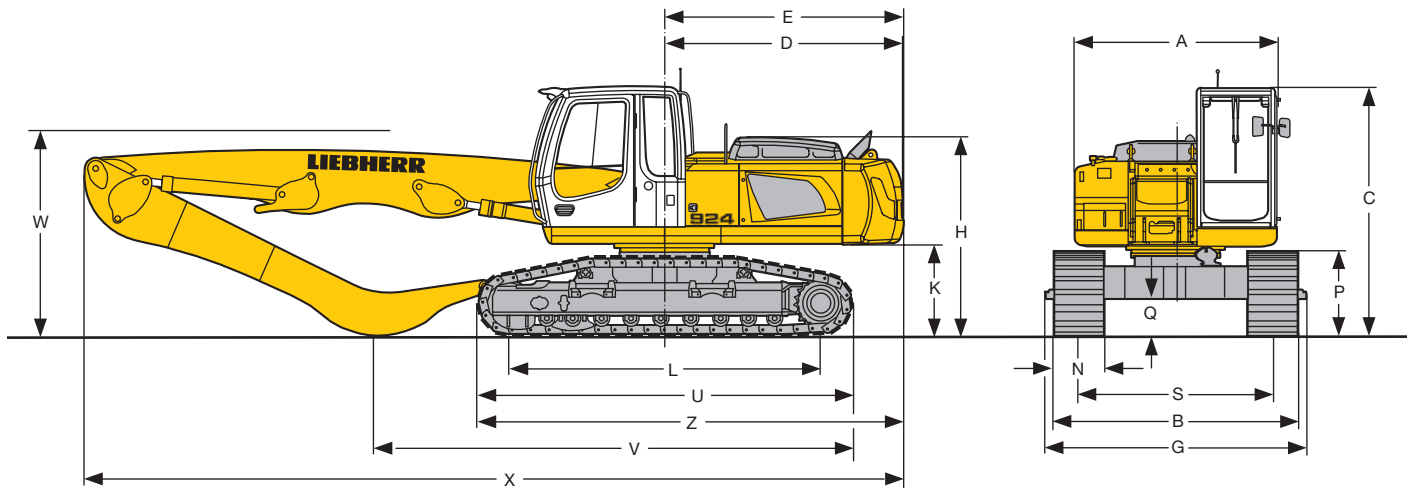
Versions	HD-SL heavy duty, wide gauge EW special duty, extra wide gauge
Drive	Liebherr swash plate motors with integrated brake valves on both sides
Transmission	Liebherr planetary reduction gears
Travel speed	low range –3,1 km/h high range –5,2 km/h
Drawbar pull max.	264 kN
Track components	B 60, maintenance-free
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	high-strength steel plates at highlystressed 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

Dimensions

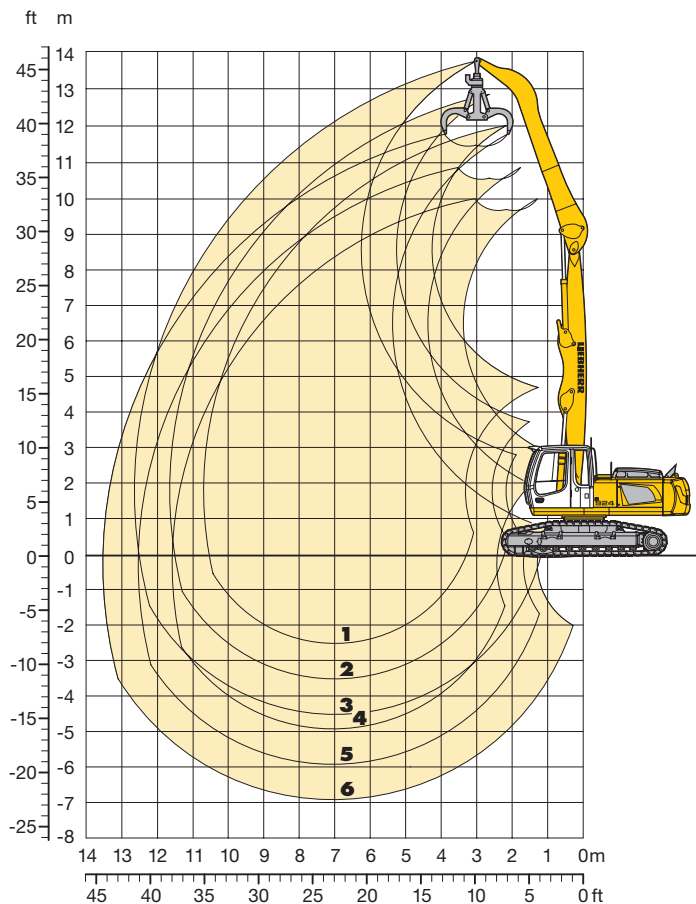


	HD-SL	mm	EW	mm
A		2500		2500
C		3070		3130
D		2920		2920
E		2940		2940
H		2425		2485
K		1100		1160
L		3830		3850
P		995		1015
Q		470		470
S		2400		3400
U		4635		4720
N	600	750	600	750
B	3000	3150	4000	4150
G	3160	3160	4195	4195
Z		5250		5280

		Length of Industrial Stick	Industrial-Type Straight Boom 6,80 m
		m	mm
V HD-SL	4,00	6800	
	5,00	5900	
	6,00	5250	
V EW	4,00	6800	
	5,00	5900	
	6,00	5100	
W HD-SL	4,00	2200	
	5,00	2450	
	6,00	3300	
W EW	4,00	2250	
	5,00	2450	
	6,00	3200	
X	4,00	10100	
	5,00	10100	
	6,00	10000	

Industrial Attachment

with Industrial-Type Straight Boom 6,80 m



Attachment Envelope

- 1** with industrial stick 4,00 m
- 2** with industrial stick 5,00 m
- 3** with industrial stick 6,00 m
- 4** with grapple model 70 C on industrial stick 4,00 m
- 5** with grapple model 70 C on industrial stick 5,00 m
- 6** with grapple model 70 C on industrial stick 6,00 m

Operating Weight and Ground Pressure

Operating weight includes basic machine with industrial straight boom 6,80 m, industrial stick 5,00 m and grapple model 70 C with semi-closed tines 0,80 m³ (1705 kg).

Undercarriage	HD-SL		EW	
	600	750	600	750
Pad width	mm			
Weight	kg	27300	27750	29600 30100
Ground pressure	kg/cm ²	0,55	0,45	0,59 0,48

Lift Capacities

with Industrial-Type Straight Boom 6,80 m

Industrial Stick 4,00 m

↑ m	Under-carriage	3,0 m		4,5 m		6,0 m		7,5 m		9,0 m		10,5 m		12,0 m		m		
13,5	HD-SL EW																	
12,0	HD-SL EW															10,4*	10,4*	2,73
10,5	HD-SL EW			10,1*	10,1*	7,0	7,2*									6,9	6,9*	6,08
9,0	HD-SL EW			10,4*	10,4*	7,3	8,6*	5,0	7,2*							4,6	6,0*	7,84
7,5	HD-SL EW			10,3*	10,3*	8,6*	8,6*	7,4*	7,4*							6,0*	6,0*	
6,0	HD-SL EW			10,5*	10,5*	7,2	8,6*	5,1	7,4*	3,7	5,6*					3,7	5,6*	9,00
4,5	HD-SL EW	18,1*	18,1*	10,3	12,2*	6,7	9,4*	4,8	7,5	3,6	5,6					5,6*	5,6*	9,80
3,0	HD-SL EW	18,2*	18,2*	12,3*	12,3*	9,4*	9,4*	7,4	7,6*	5,6	6,1					3,2	5,0	9,80
1,5	HD-SL EW			9,4	13,2*	6,3	9,8*	4,6	7,2	3,5	5,5	2,8	4,4			4,9	5,4	10,32
0	HD-SL EW			13,2*	13,2*	9,8*	9,8*	7,2	7,7*	5,5	6,0	4,4	4,8			2,9	4,5	10,32
-1,5	HD-SL EW			8,7	10,1*	5,9	9,7*	4,4	7,0	3,4	5,4	2,8	4,3			4,5	5,0	10,60
-3,0	HD-SL EW			9,9*	9,9*	9,6	9,7*	6,9	7,6*	5,4	5,9	4,3	4,6*			2,7	4,3	10,66
	HD-SL EW			7,9*	7,9*	5,7	9,0*	4,2	6,8	3,3	5,3					4,3	4,4*	10,66
	HD-SL EW			7,9*	7,9*	8,9*	8,9*	6,8	7,0*	5,3	5,5*					2,7	3,8*	10,50
	HD-SL EW			8,3	8,8*	5,6	7,5*	4,2	6,0*	3,3	4,5*					3,8*	3,8*	10,50
	HD-SL EW			8,9*	8,9*	7,5*	7,5*	6,0*	6,0*	4,5*	4,5*					3,1	3,9*	9,58
	HD-SL EW															3,9*	3,9*	9,58

Industrial Stick 5,00 m

↑ m	Under-carriage	3,0 m		4,5 m		6,0 m		7,5 m		9,0 m		10,5 m		12,0 m		m		
13,5	HD-SL EW																	
12,0	HD-SL EW			8,1*	8,1*											6,3*	6,3*	5,51
10,5	HD-SL EW					7,4	7,9*	5,1	5,7*							6,2*	6,2*	5,51
9,0	HD-SL EW					8,0*	8,0*	5,8*	5,8*							4,8	5,1*	7,71
7,5	HD-SL EW					7,6	7,9*	5,2	6,9*	3,8	5,1*					5,1*	5,1*	7,71
6,0	HD-SL EW					7,9*	7,9*	6,9*	6,9*	5,2*	5,2*					3,7	4,6*	9,15
4,5	HD-SL EW					7,5	7,9*	5,2	6,9*	3,9	5,9					4,6*	4,6*	9,15
3,0	HD-SL EW					8,0*	8,0*	6,9*	6,9*	5,9	6,1*					3,1	4,3*	10,17
1,5	HD-SL EW					7,3	8,3*	5,1	7,1*	3,8	5,8	2,9	4,5			4,3*	4,3*	10,17
0	HD-SL EW			9,9*	9,9*	8,3*	8,3*	7,1*	7,1*	5,8	6,2*	4,5	4,9			2,7	4,2*	10,88
-1,5	HD-SL EW			10,9	11,2*	7,0	8,8*	4,9	7,3*	3,7	5,7	2,9	4,5			4,2*	4,2*	10,88
-3,0	HD-SL EW	9,7*	9,7*	11,2*	11,2*	8,9*	8,9*	7,3*	7,3*	5,7	6,2	4,5	4,9			2,5	3,9	11,35
	HD-SL EW	19,1*	19,1*	12,5*	12,5*	9,4*	9,4*	7,3	7,6*	5,6	6,1	4,4	4,8			3,9	4,2*	11,35
	HD-SL EW	19,3*	19,3*	12,5*	12,5*	9,4*	9,4*	7,3	7,6*	5,6	6,1	4,4	4,8			2,4	3,8	11,60
	HD-SL EW	2,6*	2,6*	9,0	13,2*	6,1	9,7*	4,4	7,1	3,4	5,4	2,7	4,3			3,8	4,1	11,60
	HD-SL EW	2,5*	2,5*	13,2*	13,2*	9,7*	9,7*	7,0	7,6*	5,4	5,9	4,3	4,7			2,3	3,7	11,65
	HD-SL EW	2,8*	2,8*	8,4	9,7*	5,7	9,4*	4,2	6,9	3,3	5,3	2,7	4,3			3,7	3,9*	11,65
	HD-SL EW	2,8*	2,8*	9,6*	9,6*	9,4	9,4*	6,8	7,3*	5,3	5,8	4,3	4,6*			2,4	3,5*	11,51
	HD-SL EW			8,2	8,8*	5,5	8,4*	4,1	6,6*	3,2	5,2	2,6	3,8*			3,5*	3,5*	11,51
	HD-SL EW			8,8*	8,8*	8,4*	8,4*	6,6*	6,6*	5,2*	5,2*	3,8*	3,8*			2,5	3,3*	10,96
	HD-SL EW					5,5	6,8*	4,1	5,4*	3,2	4,1*					3,3*	3,3*	10,96
	HD-SL EW					6,7*	6,7*	5,4*	5,4*							3,2	4,0*	9,07

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 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 *). 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 6,80 m

Industrial Stick 6,00 m

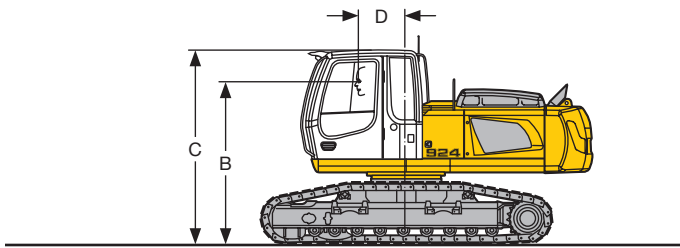
↑ m	Under-carriage	3,0 m		4,5 m		6,0 m		7,5 m		9,0 m		10,5 m		12,0 m		m		
13,5	HD-SL			6,5*	6,5*											6,3*	6,3*	4,59
	EW			6,6*	6,6*											6,2*	6,2*	
12,0	HD-SL					6,6*	6,6*									4,6*	4,6*	7,41
	EW					6,7*	6,7*									4,6*	4,6*	
10,5	HD-SL					7,3*	7,3*	5,4	6,4*	3,9	4,4*					3,7	4,0*	9,15
	EW					7,3*	7,3*	6,4*	6,4*	4,5*	4,5*					4,0*	4,0*	
9,0	HD-SL							5,5	6,4*	4,0	5,8*					3,0	3,7*	10,39
	EW							6,4*	6,4*	5,8*	5,8*					3,7*	3,7*	
7,5	HD-SL							5,4	6,4*	4,0	5,8*	3,0	4,7			2,6	3,5*	11,29
	EW							6,4*	6,4*	5,8*	5,8*	4,6	5,1			3,5*	3,5*	
6,0	HD-SL					7,5*	7,5*	5,3	6,6*	3,9	5,8*	3,0	4,6			2,3	3,4*	11,94
	EW					7,5*	7,5*	6,6*	6,6*	5,8*	5,8*	4,6	5,0			3,4*	3,4*	
4,5	HD-SL					7,3	8,1*	5,1	6,9*	3,8	5,8	2,9	4,6	2,3	3,6	2,2	3,4*	12,37
	EW					8,1*	8,1*	6,9*	6,9*	5,8	6,0*	4,5	5,0	3,7	4,0	3,4*	3,4*	
3,0	HD-SL	8,5*	8,5*	10,6	11,4*	6,8	8,8*	4,8	7,2*	3,6	5,7	2,8	4,4	2,3	3,6	2,1	3,3	12,60
	EW	9,0*	9,0*	11,4*	11,4*	8,9*	8,9*	7,2*	7,2*	5,6	6,1*	4,4	4,9	3,6	3,9	3,3	3,4*	
1,5	HD-SL	8,1*	8,1*	9,5	12,7*	6,2	9,4*	4,5	7,2	3,5	5,5	2,7	4,3	2,2	3,5	2,0	3,3	12,65
	EW	7,4*	7,4*	12,7*	12,7*	9,4*	9,4*	7,1	7,5*	5,4	6,0	4,3	4,7	3,6	3,9	3,3	3,5*	
0	HD-SL	3,5*	3,5*	8,6	13,0*	5,8	9,5*	4,3	6,9	3,3	5,3	2,6	4,2	2,2	3,5	2,0	3,2*	12,51
	EW	3,5*	3,5*	12,9*	12,9*	9,5	9,5*	6,8	7,4*	5,3	5,8	4,2	4,6	3,5	3,7*	3,2*	3,2*	
-1,5	HD-SL	4,0*	4,0*	8,1	9,6*	5,5	9,0*	4,1	6,7	3,2	5,2	2,6	4,2	2,1	3,0*	2,1	2,8*	12,16
	EW	4,0*	4,0*	9,6*	9,6*	9,0*	9,0*	6,6	7,0*	5,1	5,6*	4,2	4,4*	3,0*	3,0*	2,8*	2,8*	
-3,0	HD-SL			8,0	9,3*	5,3	7,8*	4,0	6,2*	3,1	4,8*	2,5	3,5*			2,4	3,2*	10,90
	EW			9,3*	9,3*	7,8*	7,8*	6,1*	6,1*	4,8*	4,8*	3,5*	3,5*			3,2*	3,2*	

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 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 *). 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.

Choice of Cab Elevation and Cab Protection

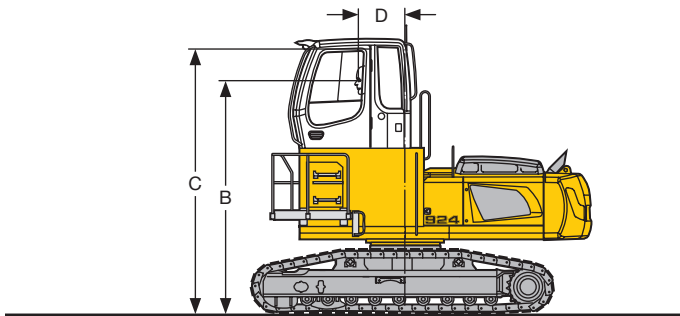


Rigid Cab without Elevation

	HD-SL	EW
B	2575 mm	2635 mm
C	3070 mm	3130 mm
D	740 mm	740 mm

Weight includes basic machine and pad width 600 mm
21300 kg

23600 kg

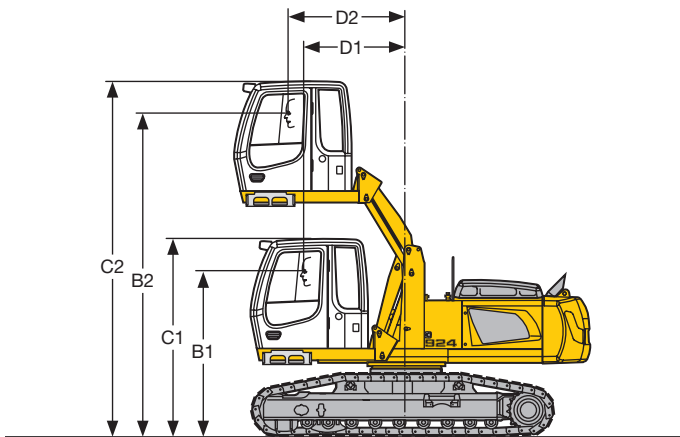


Rigid Cab Elevation

	HD-SL		EW	
Elevation	1200 mm	2000 mm	1200 mm	2000 mm
B	3765 mm	4565 mm	3825 mm	4625 mm
C	4260 mm	5060 mm	4320 mm	5120 mm
D	900 mm	900 mm	900 mm	900 mm

Weight includes basic machine and pad width 600 mm
22300 kg 22500 kg

24600 kg 24800 kg



Hydraulic Cab Elevation

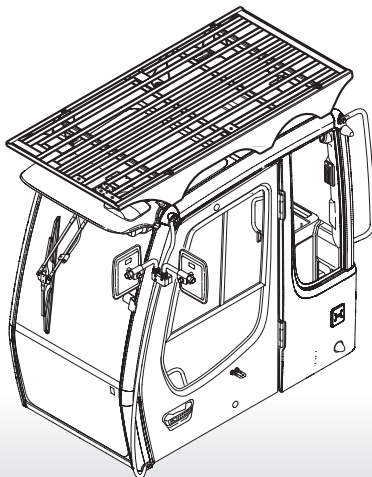
	HD-SL	EW
B1	2560 mm	2620 mm
B2	5060 mm	5120 mm
C1	3065 mm	3125 mm
C2	5565 mm	5625 mm
D1	1600 mm	1600 mm
D2	1840 mm	1840 mm

Weight includes basic machine and pad width 600 mm
23300 kg

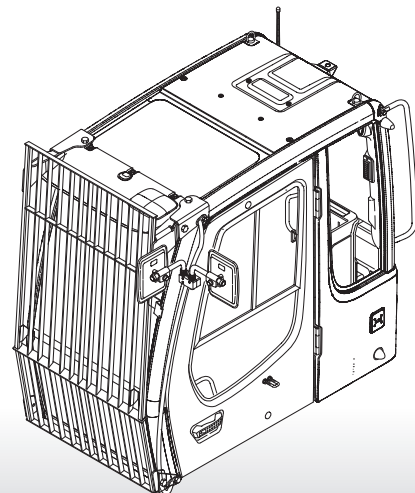
25600 kg

The parallelogram cab raiser allows the operator to choose his eye level between dimensions B1 and B2.

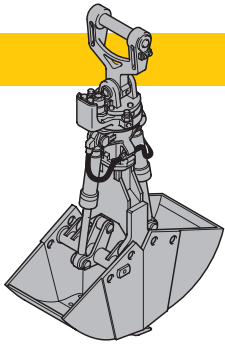
FOPS Guard



Front Guard



Variety of Tools

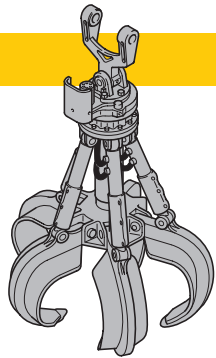


Shells for Loose Material

Clamshell Model 20 B

Shells for loose material with cutting edge (without teeth)

Cutting width of shells	mm	1000	1200	1600
Capacity	m ³	1,30	1,50	2,00
For loose material, specific weight up to	t/m ³	1,5	1,5	1,5
Weight	kg	1355	1415	1550



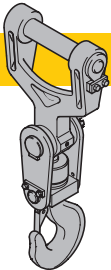
Multiple Tine Grapples

open tines

semi-closed tines

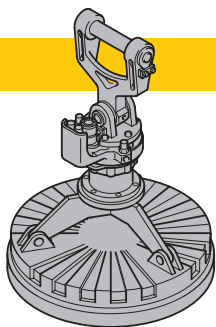
closed tines

Grapple Model 69 (4 tines)	Capacity	m ³	0,80	1,10	0,80	1,10	0,80	1,10
	Weight	kg	1345	1395	1535	1640	1900	2060
Grapple Model 70 C (5 tines)	Capacity	m ³	0,80	1,10	0,80	1,10	0,80	1,10
	Weight	kg	1485	1590	1705	1860	1950	1995



Crane Hook with Suspension

Max. load	t	12,5
Height with suspension	mm	930
Weight	kg	96



Magnet Devices/Lifting Magnets

Generator	kW	13	13
Electromagnets with Suspension			
Power	kW	4,5	6
Dia of magnet	mm	1050	1200
Height with suspension	mm	1100	1100
Weight	kg	750	1190

For further information see color brochure "Add-on tools for material-handling technology". To operate a magnet the installation of a generator is required; please contact your Liebherr dealer or the factory for further information.

Equipment



Undercarriage

	S	O
Two-stage travel motors	•	
Lifetime lubricated track rollers	•	
Idler protection	•	
Track guide at each track frame	•	
Tracks sealed and greased	•	
Track guides at sprocket and in center		•
Conversion kit – track B 60 to D 6 C		•
Reinforced base-plate center-piece		•
Sprocket with dirt ejector		•



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	•	
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	•	
LSC control system (Liebherr-Synchron-Comfort)	•	
Filter with integrated fine filter area (5 µm)	•	
Pressure test ports	•	
Additional hydraulic circuits		•
Bio-degradable hydr. oil		•
Filter for secondary circuit		•
Liebherr Tool Control		•



Engine

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



Operator's Cab

	S	O
Load bearing sectional profile structure, covered with deep-drawn panels		•
Roof, right window and windshield armored		•
All tinted windows		•
Right window made of one piece (without post)		•
Door with sliding window		•
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		•
Sun visor		•
Auxiliary heating		•
Two additional flood lights		•
Wiper for lower window		•
Roof window wiper		•
Bullet proof window (fixed installation – can not be opened)		•
FOPS Protection		•
Air pressure operator seat with heating and head-rest		•
Electronic drive away lock		•
Beacon		•
Extinguisher		•



Attachment

	S	O
Flood lights	•	
Hydr. lines for clam operation in stick	•	
Sealed pivots	•	
Liebherr semi-automatic central lubrication system	•	
Safety check valves on hoist cylinder	•	
Safety check valves on stick cylinder	•	
Hose quick connection	•	
Cylinders with shock absorber	•	
Safety lift hook		•
Liebherr line of clams		•
Liebherr fully-automatic central lubrication system		•
Customized colors		•
Overload warning device		•

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.

Liebherr-France SAS

2, avenue Joseph Rey, B.P. 90287, F-68005 Colmar Cedex

☎ +33 389 21 30 30, Fax +33 389 21 37 93

www.liebherr.com, E-Mail: info.lfr@liebherr.com